PHASE I ENVIRONMENTAL SITE ASSESSMENT

Endangered Habitats Conservancy
HANSON WINDSOR GRAVEL PONDS
10249 Eastside Road
Windsor, Sonoma County, California 95492

October 22, 2012

EEI Project No. END-71435

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PHASE I ENVIRONMENTAL SITE ASSESSMENT

Prepared for:

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Subject Property Location:

Hanson Windsor Gravel Ponds
10249 Eastside Road
APN 0553-080-047
Windsor, Sonoma County, California 95492

Prepared under the direction of:



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EEI Project No. END-71435

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GENERAL SITE INFORMATION

Project Information: Endangered Habitats Conservancy – Hansen Windsor Gravel Ponds

EEI Project Number: END-71435

Site Information:
10246 Eastside Road
APN 0553-080-047
Windsor, Sonoma County, California 95492

Site Access Contact: Mr. Michael Beck, 619-846-3003

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Inspection Date: August 1, 2012
Report Date: October 22, 2012

Client Information:
Mr. Michael Beck
Endangered Habitats Conservancy
615 La Cresta Blvd.
Crest, CA 92021

Site Assessor:
Bernard Sentianin, PG #5530, REA I #03477
Principal Geologist

EP Certification:
I declare that, to the best of my professional knowledge and belief, I meet the definition of Environmental Professional as defined in 40 CFR 312.10 (**Resume, Appendix A**).



_____
Bernard A. Sentianin – Principal Geologist

AAI Certification:
We have the specific qualifications based on education, training, and experience to assess a property of the nature, history, and setting of the subject property. We have developed and performed the all appropriate inquiries in conformance with the standards and practices set forth in 40 CFR Part 312.



_____
Bernard A. Sentianin – Principal Geologist

1.0 INTRODUCTION

1.1 Purpose

The purpose of this Phase I Environmental Site Assessment (ESA) was to assess the possible presence of *recognized environmental conditions* at the property identified as the Hanson Windsor Gravel Ponds, located at 10246 Eastside Road, in the City of Windsor, Sonoma County, California (**Figure 1**). *Recognized environmental conditions* include those property uses that may indicate the presence or likely presence of an existing, historical, or threatened release of any hazardous substances or petroleum products into structures, soil, and/or groundwater beneath the property. The term *recognized environmental conditions* is not intended to include *de minimis* conditions that generally do not present a material risk of harm to public health or the environment and that would not be subject to enforcement actions by a regulatory agency.

This ESA was performed in general conformance with the American Society for Testing and Materials (ASTM) *Standard Practice for Environmental Site Assessments: Phase I Environmental Site Assessment Process*, Designation E1527-05.

1.2 Scope of Services

The following scope of services was conducted by EEI:

- A review of readily available documents which included topographic, geologic, and hydrogeologic conditions associated with the subject site.
- A review of readily available maps, aerial photographs, and other documents relative to historical subject site usage and development.
- A review of previous environmental reports and regulatory file information pertaining to both existing and historic site conditions.
- A review of readily available federal, state, county, and city documents and database files concerning hazardous material storage, generation and disposal, active and inactive landfills, existing environmental concerns, and associated permits related to the subject property and/or immediately adjacent sites.
- A site reconnaissance to ascertain current conditions on the subject property.
- Interviews with person(s) knowledgeable of the subject property.
- The preparation of this report which presents our findings, conclusions, and recommendations.

1.3 Reliance

This Phase I ESA has been prepared for the sole use of Endangered Habitats Conservancy (EHC) and the California State Coastal Conservancy (CSCC). This assessment should not be relied upon by other parties without the express written consent of EEI, EHC, and CSCC. Any use or reliance upon this assessment by a party other than those previously listed, therefore, shall be solely at the risk of such third party and without legal recourse against EEI, its employees, officers, or directors, regardless of whether the action in which recovery of damages is brought or based upon contract, tort, statute or otherwise.

This assessment should not be interpreted as a statistical evaluation of the subject property, but rather is intended to provide a preliminary indication of onsite impacts from previous subject property usage and/or the release of hazardous materials. If no significant indicators of the presence of hazardous materials and/or petroleum contamination are encountered during this search, this does not preclude their presence. The findings in this report are based upon a review of published geologic and hydrogeologic information. Information (both documentary and oral) provided by Endangered Habitats Conservancy, the City of Windsor, Sonoma County, Track Info Services (i.e., environmental records search), various state and federal agencies, and EEI's field observations. Some of these data are subject to change over time. Some of these data are based on information not currently observable or measurable, but recorded by documents or orally reported by individuals.

2.0 PHYSIOGRAPHIC SETTING

2.1 Site Description

The subject property consists of 357.16-acres of a privately-owned property located along the Russian River, west of Windsor, in Sonoma County, California (**Site Map, Figure 2)**. The irregular-shaped property is known as the "Windsor Hanson Gravel Ponds" and includes ten (10) Assessor Parcel Numbers (APN) 066-290-49, -50, and -52; 066-300-011, -27, and -49; 110-110-015 and -016; and 110-120-020 and -021 **(Preliminary Title Report/Assessors Information, Appendix B)**. The property includes a main residence on the northeast portion and is identified with the address of 10246 Eastside Road (APNs 110-110-016 and 066-300-049). Additional addresses associated with the subject property include: 9029 Eastside Road (APN 066-290-049); 9651 Eastside Road (APN 066-300-027); and 10251 Eastside Road (APN 066-300-011). According to the Sonoma County Planning Department, the subject property is zoned within the Land Intensive Agriculture (LIA) District.

Based on historical records such as aerial photographs, topographic maps, and interviews, the subject property was utilized for agriculture from at least 1950. Beginning in the 1960s, an aggregate mining facility began operation on portions of the subject property. A former processing and sorting plant, as well as four ponds were utilized during the mining operations and are identified as the Richardson pond, Piombo pond, Mariani pond, and Vimark pond. In 2005 the gravel plant was demolished and all mining equipment was removed; however, the four ponds currently remain on the subject property.

2.2 Topography

The topography in the vicinity of the subject property is typical of the Coast Ranges of Northern California, with long, northwest-southeast trending ridges and valleys dominating surface relief. Regionally, the property is located within the Russian River watershed. The headwaters of the Russian River are located at the northernmost boundary of the watershed, approximately 16 miles north of Ukiah. In the vicinity of the property, the mountains of the Coast Range reach peak elevations of 1,000 to 3,000 feet above mean sea level (MSL), with slopes commonly reaching 30 percent. The elevation of the subject property ranges from approximately 58 feet above mean sea level (amsl) on the southern portions to approximately 98 feet amsl at the northeastern portion (1927 North American Datum). The topographic gradient on the subject property ranges from approximately 0.01 to 0.1 to the southwest. Surface waters from the subject property mainly drain into the Russian River, which is located adjacent to the western property margin.

2.3 Regional and Local Geology

The subject property is located within the Coast Range Geomorphic Province. A geologically complex region, much of the Coast Range Province is composed of marine sedimentary deposits and volcanic and metamorphic rocks that form northwest trending mountain ridges and valleys, running more or less parallel to the San Andreas Fault Zone. Bedrock geology in this region consists primarily of the Franciscan Complex and, to a lesser extent, the Great Valley Complex that originated as ancient sea floor sediments. Quaternary (10,000 to 1.8 million years before present) marine terrace deposits are present along portions of the coastal bluffs. Surface deposits in and along the edges of river channels such as the Russian River typically consist of Quaternary alluvial and terrace deposits (USGS, 2002).

The Northern California region contains a number of active, potentially active, and inactive faults, and is considered a region of high seismic activity. The major active faults located within 20 miles of the subject property include the San Andreas (approximately 20 miles southwest), Rodgers Creek (Healdsburg-Rodgers Creek-Hayward. approximately 4 miles northeast), and Maacama faults (approximately 8 miles northeast) (Jennings, 1994).

Soil in the vicinity of the site is identified by the United States Department of Agriculture - Soil Conservation Service as a mix of sandy loam of the Yolo and Cortina Soil Series, at 0 to 5 percent slopes, and Alluvial land and Riverwash along the western margin which borders the Russian River (USDA, 2012). The Yolo series are on nearly level to moderately sloping alluvial fans. T he soils formed in fine-loamy alluvium derived from sedimentary formations. These soils are well-drained; have slow to medium runoff, and moderate permeability. The Cortina series consists of very deep, somewhat excessively drained soils on alluvial fans and floodplains. These soils formed in gravelly alluvium from mixed rock sources. These soils are somewhat excessively drained, have negligible to low runoff, and rapid permeability.

2.4 Regional and Local Hydrogeology

The subject property is located within the Santa Rosa Plain Groundwater Basin, which covers an area of approximately 80,000 acres and is home to approximately half of the population of Sonoma County, including the Cities of Santa Rosa, Rohnert Park, Cotati, Sebastopol, Town of Windsor, and unincorporated areas of Sonoma County. The groundwater basin is bounded on the northwest by the middle reach of the Russian River floodplain and by the upland hills of western Sonoma County on the remaining western boundary. The southern end of the Santa Rosa Plain is marked by a series of low hills just south of Cotati, which form a drainage divide that separates the Santa Rosa Plain from the Petaluma Valley. The Santa Rosa Plain is bounded to the east by the Sonoma Mountains south of Santa Rosa and the Mayacamas Mountains north of Santa Rosa (SCWA, 2011).

Groundwater within the Santa Rosa Plain is generally present under unconfined conditions, except locally in the vicinity of clay or silt horizons where conditions may be semi-confined or confined. In the Santa Rosa Plain, significant natural recharge locations are stream channels located along the eastern portions of the basin and outcrops of permeable sedimentary units along the southwestern margin of the basin. Clay-rich sediments cover portions of the central southern Santa Rosa Plain, and extend northward along the Laguna de Santa Rosa, impeding water infiltration.

In general, groundwater levels in shallow aquifers fluctuate seasonally with rainfall and are largely stable over time. In contrast, groundwater level trends for deeper water wells show a combination of trends over time. Some wells show overall stability, some show overall declining trends and some show historical declining trends followed by recent increases in groundwater levels. In the vicinity of the subject property, groundwater levels typically fluctuate with seasonal flow within the adjacent Russian River and can range from near surface (flood events) to over 30 feet below ground surface (dry season).

During EEI's reconnaissance, a historical water well, was observed on the subject property along the east side of Piombo Pond Levee Road. According to Mr. Darrell Henson, caretaker of the property and former Hanson Aggregates employee, this was the last remaining well on the subject property, and was previously used as a general water supply well. Mr. Henson provided no specific information regarding well construction or depths, though it should be noted that groundwater is present at between 20 and 30 feet below the ground surface, based on observable water levels in the nearby ponds. No other water supply wells were identified on the subject property.

EEI reviewed the California Department of Water Resources, Water Data Library website (WDL, 2012) for additional information pertaining to groundwater and water supply wells on or close to the subject property. According to the website, one water supply well is located within the immediate vicinity of the subject property (within a one-mile radius). Data indicated depth to groundwater at the well (No. 08N09W15B001M), was reported at 127.5 bgs, and last measured in 1993.

Immediately to the north of the subject property, the Town of Windsor Water Division operates and maintains five large riverbank wells pumping Russian River underflow. These wells are reportedly drilled to depths ranging from 88 to 102 feet, and are the primary source of water for the Town of Windsor (Town of Windsor - Water Master Plan Update, March 2011). Water levels in these wells is largely dependent upon seasonal fluctuations in the Russian River, but was reportedly between 25-30 feet below ground surface during the preparation of this report.

2.5 Hydrologic Flood Plain Information

EEI reviewed the FEMA (Federal Emergency Management Agency) web site to determine if the site lies within a Flood Hazard Zone as designated by FEMA. According to FIRM Number FM06097C0561E, Panel 561 of 1150 (effective date December 2008), the majority of the subject property is located within zone AE, which FEMA defines as areas that have a 1% probability of flooding every year (also known as the "100-year floodplain"), and where predicted flood water elevations above mean sea level have been established. The very northeast portions of the subject property are located in zone X, which FEMA defines as an area of minimal flood hazard, usually depicted on FIRMs as above the 500-year flood level. Copies of the FIRM maps are included in **Appendix B**.

3.0 SITE BACKGROUND

3.1 Site Ownership

Information regarding site ownership was provided by a Preliminary Title report (PTR) prepared for the subject property by Chicago Title Company, and dated February 16, 2011. The current owner of the subject property is listed as Hanson Aggregates, Mid-Pacific, Inc., a Delaware Corporation, formerly known as Kaiser Sand and Gravel Company, a Delaware corporation. A copy of the PTR is included in **Appendix B**.

3.2 Site History

EEI reviewed readily available information sources to evaluate historic land use in and around the subject property. These information sources include Sanborn Maps, aerial photographs, United States Geological Survey (USGS) maps, the City of Windsor Building Department. The following is a summary of sources reviewed.

3.2.1 Sanborn Maps

EEI researched available Sanborn Fire Insurance Maps of the subject site at the Los Angeles Public Library. Sanborn Maps provide detailed information on site structures, uses, and occupancies and were typically utilized by insurance companies to evaluate potential fire risk. Based on EEI's review of Sanborn Map books spanning from 1915 to 1970, no Sanborn Fire Insurance Maps are available for the area surrounding the subject property, indicating little to no commercial development.

3.2.2 Historical Aerial and Map Review

Aerial photographs and historical topographical maps, provided by Track Info Services, LLC were reviewed to identify historical land development and any surface conditions which may have impacted the subject property (**Appendix C**). Aerial photographs from 1953 to 1998 were reviewed by EEI. In addition, a 2012 photo, obtained from GoogleEarth, is included in **Figure 2**. USGS Topographic Maps dating from 1920 to 2012 were also reviewed. **Table 1** summarizes the results of the historic aerial photograph and map review.

TABLE 1
Summary of Historical Use Review

Year	Source and Scale	Comments
1920	Topographic Map 1:62,500	The 1944 map shows the property as being agricultural land along the east side of the Russian River. Eastside Road, Westside Road, and Windsor River Road were present in the site vicinity. Surrounding area also appeared as agricultural land with rural development throughout.
1940	Topographic Map 1:62,500	No significant changes were noted on the subject property from the 1920 map.
1950	Aerial Photograph 1:1,005	The subject property appeared occupied with agricultural land and orchards. Surrounding properties appeared with a mix of agricultural land, and rural development mainly along Eastside Road.
1955	Topographic Map 1:24,000	No significant changes were from the 1940 map. Orchards were shown in the surrounding area in all directions.
1965	Aerial Photograph 1:1,005	No significant changes were noted on the subject property from the 1950 photograph, with the exception of pond present in the area of the current Richardson Pond.
1974	Aerial Photograph 1:1,005	The Richardson Pond area appeared with additional ponds. An area of cleared land was present on the northwestern portion of the property. No significant changes were noted on the adjacent and surrounding property.
1980	Topographic Map 1:24,000	The 1981 map indicates that three "borrow pits" were located on portions of the subject property, in the area of Richardson, Piombo and Mariani Ponds. Adjacent and surrounding area appeared with orchards, agricultural and rural development.
1987	Aerial Photograph 1:1,005	Richardson Pond was present in its current configuration. Area on the northwest portion of the property appeared with road, ponds, and cleared areas. Remaining portions of the subject property appeared as agricultural land.
1993	Topographic Map 1:24,000	The 1993 Map showed Richardson Pond in its current location. An area marked with a mining symbol was present on the northern portion near the current Piombo Pond. Adjacent and surrounding area appeared with a mix of orchards, agricultural land and rural development.
1998	Aerial Photograph 1:1,005	The subject property appeared mostly in its current configuration. Richardson, Piombo, Mariani Ponds are present. Vimark Pond on the southern portion appeared smaller than its current configuration.
2012	Aerial Photograph Google Earth	The subject property appears in its current configuration, with Richardson Pond shown on the map.

3.2.3 City/County Directories

Directory listings associated with the subject property addresses was obtained from Track Info Services/FirstSearch®, an environmental information/database retrieval service. The subject property address 10249 Eastside Avenue was not listed in directories from 1972 through 2012. According to the information reviewed, no gas stations, cleaners, automotive shops, and other occupants of potential environmental concern were located on the subject property, subject street, and within the vicinity of the target address.

A summary of the listings associated with the subject property address is summarized below in **Table 2**. Information for the target addresses (in bold) as well as the next lowest address on the same side of the street (left column) and next highest address on the same side of the street (right column). A copy of the City Directory Report is provided in **Appendix C**.

TABLE 2
Summary of City Directory Search
10249 Eastside Road, Windsor, California

North Adjacent Addresses	Subject Addresses	South Adjacent Addresses
2012		
No listing	**10249 Eastside Road** **The directory does not list the address**	No listing
2006		
9228 Eastside Road John & Peggy, Fritschen	**10249 Eastside Road** **The directory does not list the address**	The directory does not list a higher address for this street
1997		
9228 Eastside Road John & Peggy, Fritschen 8536 Eastside Road Mark; Valri, Sandeen	**10249 Eastside Road** **The directory does not list the address**	The directory does not list a higher address for this street
1992		
7821 Eastside Road Kaiser Sand and Gravel (7821 is the only address listed for the street)	**10249 Eastside Road** **The directory does not list the address**	The directory does not list a higher address for this street
1987		
No listing	**10249 Eastside Road** **The directory does not list Eastside Road**	No listing
1977		
9624 Eastside Road No listing	**10249 Eastside Road** **The directory does not list the address (the street has four listings without address numbers)**	The directory does not list a higher address for this street
1972		
9624 Eastside Road Dean/Louie Brice	**10249 Eastside Road** **The directory does not list the address**	The directory does not list a higher address for this street
End Of Search due to: A) earlier directory or street listing not found*; B) listing out of range, listings re-numbered, or no numeric listings*		

3.2.4 Sonoma County Permit and Resource Management Department

EEI contacted the Sonoma County Permit and Resource Management Department to review any existing permit files related to the subject property. Several permit files were identified for the subject property. A summary of the permit history associated with the subject property address is summarized below in **Table 3**.

TABLE 3
Summary of Permit History
10249 Eastside Road, Windsor, California

Number	Date	Status	Type	Description
DRN06-0006	3/13/2006	Expired	AB-DRN	Concrete Levee Weir at Russian River
DEM05-0295	9/22/2005	Expired	AB-DEM	Demolition- Dismantle Gravel Plant
SEP05-0916	9/22/2005	Expired	B-SEP	Tank Destruct
B-152450	2/16/1999	Expired	AB-GRD	YDS. Bank Repair along Russian River – 5,500 C.U. Yards
UPE97-0145/ ZCE97-0039	1/2/1998	Done	C-USE/C-ZCE	ZC/UP for Kaiser Master Terrace Mining Plan. Request by Kaiser Sand and Gravel Company for a Zone Change to add Mineral Resource (MR) overlay zoning as necessary, and a use permit for a Master Terrace Mining and Reclamation Plan on the Mariani Pit (APN 066-300-049), the Piombo Pit (APN 066-300-011), the Vimark Pit (APN 066-290- 048), the McLaughlin Pit (APN 066-230-047), and the Wilson Pit and old Plant site (APN 066-230-079), located at 10249 Eastside Road, Healdsburg, Supervisorial District 4.
PLP97-0096	12/31/1997	Done	C-CPP	
PLP94-0793	10/14/1997	Dropped	C-CPP	Reclamation Plan Piombo Panhandle. Request for a Reclamation Plan for approval of a Panhandle portion of Piombo Parcel which has vested mining rights located on 14.1 acres.
B-139551	10/30/1996	Expired	B-BLD	Legalize Manufactured Coach/Office
B-139552	10/30/1996	Expired	B-BLD	Legalize cargo containers for motor control center.
B-139223	10/10/1996	Expired	A-BLD	Addendum to B-137434 Elect.
B-139194	10/9/1996	Expired	A-BLD	Install miscellaneous electrical equipment.
SEP96-1013	8/9/1996	Finaled	B-SEP	New septic system for office routed to slash August 9, 1996; rerouted to slash file August 21, 1996; Eng Ltr Rec September 5, 1996; Routed to slash routed to hard file September 10, 1996.
SEV96-0284	3/21/1996	Archived	SITE-W/S	Site review routed to slash March 22, 1996; Routed to hard file March 26, 1996.
SEV96-0285	3/21/1996	Complete	SITE-W/S	Perc Test Routed to slash March 22, 1996; Perc Info Rec June 10, 1996; Routed to Slash Routed to Hard File June 25, 1996.
WEL92-0072	3/18/1992	Issued	OLD-WSEP	Well - Class I 2 Monitoring wells, log rec, routed to Ron Addis for sign off 1/22/96

3.3 Regulatory Database Search

EEI reviewed known electronic database listings for possible hazardous waste generating establishments in the vicinity of the subject property, as well as on sites in the area with known environmental concerns. Facilities were identified by county, state, or federal agencies that generate, store, or dispose of hazardous materials. The majority of information in this section was obtained from FirstSearch®, an environmental information/database retrieval service. A copy of the FirstSearch® report is provided in **Appendix D**, along with a description of the individual databases. The subject property was not listed on any of the databases researched.

For discussion purposes, the term "non-geocoded" is applied to sites that either have non-existent or incomplete addresses. EEI attempted to locate these sites, based on our knowledge of the site area, and the description provided in the records search. These sites were either found to have dual listings, and/or situated at a sufficient distance from the subject property to not represent a recognized environmental conditions. Reported distances are from the overall subject property boundary. Below is a list of databases that were reviewed in the preparation of this report.

3.3.1 Federal Databases

National Priority List (NPL) – No listings were reported within a one-mile radius of the subject property.

NPL Delisted – No listings were reported within a one-half mile radius of the subject property.

Comprehensive Environmental Response, Compensation, and Liability Information System (CERCLIS) – No listings were reported within a one-half mile radius of the subject property.

CERCLIS (NFRAP) Archive – No listings were reported within a one-half mile radius of the subject property.

RCRA Corrective Action Sites (COR) – No listings were reported within a one-mile radius of the subject property.

RCRA TSD Facility List (RCRA-D) – No listings were reported within a one-half mile radius of the subject property.

RCRA Generators (RCRA-G) – No listings were reported within a one mile radius of the subject property.

RCRA No Longer Regulated (NLR) – No listings were reported within a one-eighth mile radius of the subject property.

Federal Brownfield – No listings were reported within a one-quarter mile radius of the subject property.

Emergency Response Notification System (ERNS) – No listings were reported within a one-eighth mile radius of the subject property.

The subject property was not identified on any of the above referenced databases researched.

3.3.2 State and Regional Sources

Tribal Lands –One non-geocoded listing was reported: **Bureau of Indian Affairs Contact 1** (location unknown). Tribal lands listings are generally not locations or releases, but placeholders used to contact the local Bureau of Indian Affairs representative for information on tribal lands in the area.

State/Tribal Sites – No listings were reported within a one-mile radius of the subject property.

State Spills 90 – No listings were reported within a one-eighth mile radius of the subject property.

State/Tribal Solid Waste Landfill (SWL) Sites – No listings were reported within a one-half mile radius of the subject property.

State/Tribal California State Leaking Underground Storage Tanks (LUST) – Four listings were reported within one half mile of the subject property. EEI reviewed the on-line database GeoTracker, which provides records on LUSTs, maintained by the SWRCB, for more information regarding these cases.

Jeff Waugh (9228 Eastside Road, approximately 900 feet [0.19 miles] east), reported a gasoline release in 1991, and the case remains open. According to GeoTracker, in 1991, a 550 gallon UST was removed from the site and numerous holes were observed in the tank. Elevated concentrations of TPHg were detected at 6.5 feet in the center of the tank pit excavation. A water sample collected from 7.5 feet in the tank pit was did not detect any chemicals of concern. A work plan to install monitoring wells was approved by Sonoma County in a letter dated May 29, 1992. No work has been conducted since that time, and in 1997 the County reported that the property was in foreclosure. Based on the nature of the release (i.e., limited in extent), no further investigation appears to be warranted.

Caplan's Vineyard (8500 Eastside Road – approximately 0.95 miles southeast), reported a diesel and gasoline release in 1993, which reportedly impacted the soil only. The case was closed in February 2000 by the Sonoma County. No other information was provided on GeoTracker. Based on the nature of the release (i.e., soil only), location (i.e. greater than one-half mile) and the fact that regulatory closure has been granted, no further investigation appears to be warranted.

SYAR Industries, Inc. (8585/9000 Eastside Road – approximately one mile south), reported a diesel fuel release in 1990. The case was closed in April 1992 by the Sonoma County. No other information was provided on GeoTracker. Based on the location (i.e., greater than one-half mile) and the fact that regulatory closure has been granted, no further investigation appears to be warranted.

Kaiser Sand & Gravel Windsor (7821 Eastside Road – approximately 2.0 miles south), reported a gasoline release, which reportedly impacted the soil only. The case was closed in December 1991 by the Sonoma County. No other information was provided on GeoTracker. Based on the location (i.e., greater than one-half mile) and the fact that regulatory closure has been granted, no further investigation appears to be warranted.

State/Tribal Permitted Underground Storage Tanks (UST)/Above Ground Storage Tanks (AST) – Three listings were reported within one-quarter mile of the subject site. The listings included: **Vino Farms, Inc.** (10651 Eastside Road – approximately 0.50 miles northeast); **Caplan's Vineyard** (8500 Eastside Road – approximately 0.95 miles southeast); and **SYAR Industries, Inc.** (9000 Eastside Road – approximately one mile south). The presence of an operating permit is not necessarily considered a concern, unless a spill/leak has been reported at the site as well. **Caplan's Vineyard** (8500 Eastside Road) and **SYAR Industries, Inc.** (9000 Eastside Road) were identified as closed release cases with the SWRCB. Based on a review of the case file information provided by Geotracker, the relative distance, and the fact that regulatory closure has been granted, the releases at these related sites are not considered a concern at this time.

State/Tribal IC/EC – No listings was reported within a one-quarter mile radius of the subject property.

State/Tribal Voluntary Cleanup Program Properties (VCP) – No listings were reported within a one-quarter mile radius of the subject property.

State/Tribal Brownfield – No listings were reported within a one-half mile radius of the subject property.

State Wells – No listings were reported within a one-half mile radius of the subject property.

Wetlands – No listings were reported within a one-half mile radius of the subject property.

USGS Soils – Three listings indicating soil data at unknown locations were reported. The USGS Soils Database contains information regarding soil characteristics such as water capacity, percent clay, organic material, permeability, thickness of layers, hydrological characteristics, and quality of drainage, surface, slope, liquid limit, and the annual frequency of flooding.

NPDES – No listings were reported within a one-quarter mile radius of the subject property.

PADS – No listings were reported within a one-quarter mile radius of the subject property.

Releases – No listings were reported within a one-quarter mile radius of the subject property.

Federal Other – No listings were reported within a one-quarter mile radius of the subject property.

State Permits – No listings were reported within a one-eighth mile radius of the subject property.

State Other – No listings were reported within a one-quarter mile radius of the subject property.

Oil & Gas Wells – No listings were reported within a one-quarter mile radius of the subject property.

Federal IC/EC– No listings were reported within a one-quarter mile radius of the subject property.

Dry Cleaners – No listings were reported within a one-quarter mile radius of the subject property.

Hazardous Waste Manifest – One listing was reported within a one-quarter mile radius of the subject property: **Caplan's Vineyard** (8500 Eastside Road – approximately 0.95 miles southeast). Hazardous waste permits are not generally rationale for environmental concern, unless a facility has a dual listing, such as a reported release. The aforementioned site was reported closed release site and is discussed above in the LUST database.

The subject property was not identified on any state or regional databases researched.

3.4 Regulatory Agency Review

3.4.1 Sonoma County Environmental Health Division Local Oversight Program

EEI contacted the Sonoma County Environmental Health Division (EH) Local Oversight Program (LOP) to determine the presence of any Underground Storage Tank (UST) Operating Permits, and/or Leaking Underground Fuel Tank (LUFT) files for the subject property and/or any adjacent sites. According to Sonoma County personnel, the LOP is authorized to regulate underground storage tank releases by the State Water Resources Control Board (SWRCB), and information regarding sites in the Sonoma County program is available online from the SWRCB GeoTracker online database. EEI reviewed the SWRCB GeoTracker online database for additional information (see next section below).

3.4.2 State Water Resources Control Board

EEI reviewed the Spills, Leaks, Investigations, and Cleanup (SLIC) and LUST Lists, published online on the Geotracker website by the State Water Resources Control Board (SWRCB, 2012), to determine whether the site or any nearby property was listed as having a LUST, non-underground tank-related spill, leak, or other environmental concern. No listings were identified on the GeoTracker database for the subject property or any adjacent property. Several nearby sites were listed as LUST cases, and are discussed above under the LUST database in Section 3.3.2. EEI did not request file reviews for sites previously identified as LUST sites, as information contained in the Geotracker online files contained sufficient information, in our opinion, for the purposes of this Phase I ESA.

3.4.3 Department of Toxic Substances Control

EEI reviewed the online database EnviroStor (2012), which provides records on LUSTs, SLICs, Priority cleanup sites and states sites, which is maintained by the Department of Toxic Substances Control (DTSC). Neither the subject property nor adjacent property was listed on any of the other databases researched.

3.4.4 Review of Division of Oil, Gas and Geothermal Resources Files

Oil and gas wells were not observed on the subject property during our subject property reconnaissance. A review of the California Division of Oil, Gas, and Geothermal Resources Website for oil and gas fields in California and Alaska (CDOGGR, 2012) indicated no petroleum exploration or production has occurred on or immediately adjacent to the subject property (identified as within Township 08N, Range 09W, Sections 09, 10, 15, and 16).

3.4.5 National Pipeline Mapping System

EEI reviewed the National Pipeline Mapping System (NPMS, 2012) public viewer website for gas transmission pipelines and hazardous liquid trunk lines on or close to the subject property. According to the information reviewed, no pipelines are located on or in close proximity to the subject property.

3.5 Interview with Current Property Owner

EEI contacted the subject property representative, Mr. Terry Marshall, with Lehigh Hanson, for information regarding the subject property. Information provided by Mr. Marshall is summarized below. No indications of environmental concern were noted by the property owner representative.

3.5.1 Past or Present Uses Indicating Environmental Concern

Mr. Marshall indicated that the property is currently used as open space and wildlife habitat. He also indicated that the property was formerly utilized for sand and gravel mining. Mr. Marshall noted that no current employee with his company has any history/knowledge of any environmental concerns related to the property.

3.5.2 Environmental Liens or Governmental Notification

Mr. Marshall stated that he is not aware of any environmental liens or governmental notification relating to past or recurrent violations of environmental laws with respect to the property or any facility located on the property.

3.5.3 Presence of Hazardous Substances or Environmental Violations

Mr. Marshall stated that he is not aware of the past or current existence of hazardous substances or petroleum products or environmental violations with respect to the subject property or any structures located on the property.

3.5.4 Previous Assessments

Mr. Marshall stated that he has no knowledge of any environmental site assessment or cleanup reports prepared for the subject property that indicated the presence of hazardous substances or petroleum products on, or contamination of, the property, or that recommended further assessment of the property.

3.5.5 Legal Proceedings

Mr. Marshall stated that he has no knowledge of any past, threatened, or pending lawsuits or administrative proceedings concerning a release or threatened release of any hazardous substance or petroleum products involving the property by any owner or occupant of the property.

3.6 User Provided Information

Per ASTM Practice E1527-05, EEI provided a Phase I ESA User Specific Questionnaire to the "user" (the entity on whose behalf the Phase I ESA is being conducted), Mr. Michael Beck with Endangered Habitats Conservancy (**Appendix E**). A summary of the user specific information provided is documented below.

3.6.1 Environmental Liens or Activity and Use Limitations

Mr. Beck stated that he is not aware of any environmental liens or limitations on the subject property. Mr. Beck provided EEI with a copy of the most recent Preliminary Title report (PTR) prepared for the subject property by Chicago Title Company, and dated February 16, 2011. A review of the PTR confirmed the absence of any environmental liens or limitations on the subject property.

3.6.2 Specialized Knowledge

Mr. Beck stated that he has no specialized knowledge or experience related to the property or nearby properties (i.e., knowledge of the chemicals or processes used with a type of business).

3.6.3 Valuation Reduction for Environmental Issues

Mr. Beck responded that the purchase price being paid for the subject property reasonably reflects the fair market value of the property.

3.6.4 Presence or Likely Presence of Contamination

Mr. Beck stated that he was not aware of any environmental issues related to the subject property.

3.6.5 Other

Mr. Beck stated that property transfer in this case is an exchange to facilitate habitat restoration. Mr. Beck noted that the project will be implemented using public funds; and therefore, a Phase I ESA is required. Mr. Beck also stated that he is not aware of any previous assessments that have been conducted on subject property.

3.7 Other Environmental Issues

3.7.1 Asbestos-Containing Materials

Asbestos, a natural fiber used in the manufacturing of a number of different building materials, has been identified as a human carcinogen. Most friable (i.e., easily broken or crushed) Asbestos-Containing Materials (ACM) were banned in building materials by 1978. By 1989, most major manufacturers had voluntarily removed non-friable ACM (i.e., flooring, roofing, and mastics/sealants) from the market. These materials, however, were not banned completely.

In October 1995, the Federal Occupational Safety and Health Administration (OSHA) redefined the manner by which building materials are classified in regards to asbestos and the also the way these materials are to be handled. Under this ruling, “thermal system insulation and sprayed-on or troweled on or otherwise applied surfacing materials” applied before 1980 are considered presumed Asbestos-Containing Materials (PACM). Other building materials such as “floor or ceiling tiles, siding, roofing, transite panels” (i.e., non-friable) are also considered PACM unless tested.

An ACM survey was not conducted at the subject property as part of this Phase I ESA. The subject property currently consists of vacant land. Based on this information, the presence of Asbestos-Containing Materials is not considered likely

3.7.2 Lead-Based Paint

Lead-Based Paint (LBP) is identified by OSHA, the Environmental Protection Agency (EPA) and the Department Housing and Urban Development Department (HUD) as being a potential health risk to humans, particularly children, based upon its effects to the central nervous system, kidneys, and bloodstream. The risk of lead-based paint has been classified by HUD based upon the age and condition of the painted surface. This classification includes the following:

- maximum risk is from paint applied before 1950;
- a severe risk is present from paint applied before 1960;
- a moderate risk is present from paint applied before 1970;
- a slight risk is present from paint applied before 1977; and
- paint applied after 1977 is not expected to contain lead.

The subject property currently consists of vacant land. Based on this information, the presence of Lead-Based Paint is not considered likely.

3.7.3 Radon

Radon is a radioactive gas which has been identified as a human carcinogen. Radon gas is typically associated with fine-grained rock and soil, and results from the radioactive decay of radium. The U.S. EPA recommends that homeowners in areas with radon screening levels greater than 4 Picocuries per liter (pCi/L) conduct mitigation of radon gas to reduce exposure.

Sections 307 and 309 of the Indoor Radon Abatement Act of 1988 (IRAA) directed the U.S. EPA to list and identify areas of the U.S. with the potential for elevated indoor radon levels. U.S. EPA's Map of Radon Zones (EPA-402-R-93-071) assigns each of the 3,141 counties in the US to one of three zones based on radon potential:

- Zone 1 counties have a predicted average indoor radon screening level greater than 4 pCi/L.
- Zone 2 counties have a predicted average indoor radon screening level between 2 and 4 pCi/L.
- Zone 3 counties have a predicted average indoor radon screening level less than 2 pCi/L.

Based on such factors as indoor radon measurements; geology; aerial radioactivity; and soil permeability, the USEPA has identified Sonoma County as Zone 3 (i.e., low potential for radon gas). Based on this information, EEI does not consider radon as a significant environmental concern at this time.

4.0 SITE RECONNAISSANCE

4.1 Purpose

The purpose of our site reconnaissance was to physically observe the subject site, site structures, and adjoining properties for conditions indicating an existing release, past release, or threatened release of any hazardous substances or petroleum products into structures on the subject site, or into soil and/or groundwater beneath the subject property. This would include any evidence of contamination, distressed vegetation, petroleum-hydrocarbon surface staining, waste drums, USTs, ASTs, illegal dumping, or improper waste storage/handling. Detailed information pertaining to our site reconnaissance is provided in the text below.

4.2 Subject Site

On July 20, 2012, and again on July 30, 2012, EEI personnel conducted a site reconnaissance of the subject property, visually observing accessible areas and adjacent properties. EEI was accompanied during the site reconnaissance on July 20, 2012, by Mr. Darrell Henson, caretaker of the property and former Hanson Aggregates employee at the facility going back to the early 1990s. The purpose of the site reconnaissance was to visually and physically observe the site for conditions indicating an existing release, past release, or threatened release of any hazardous substances or petroleum products onto the site, or into soil and/or groundwater beneath the site. This would include any evidence of contamination, distressed vegetation, petroleum-hydrocarbon staining, waste drums, illegal dumping, or improper waste storage/handling. The Photographic Log (**Appendix F**) documents the site reconnaissance, which is summarized in **Table 4**.

The subject property is located along the eastern bank of an approximately 0.6-mile segment of the Russian River. The property is situated just west of Eastside Road, and south of Fontana Road, near the Town of Windsor, and encompasses over 350 acres on 10 parcels.

The property includes four large groundwater-fed ponds - former sand and gravel mining sites - surrounded by a mix of riparian habitat, upland areas, and active agricultural properties (i.e., vineyards). The four ponds include over 200 acres of open water, and are named after the former property owner/mining leases in each case. These include, from north to south, the Mariani, Piombo, Richardson, and Vimark Ponds. Each pond is surrounded by series of unpaved levee roads, with Vimark Pond (i.e., the southernmost) including a concrete spillway along its southwestern bank. Access to the property is from gated entrances along Eastside Road, the principal entrance being at Fontana Road on the northern margin (former entrance to the sand and gravel mining/processing plant). An unnamed access road enters the property from the east at the approximately mid-point, just north of Richardson Pond.

The project area is moderately vegetated with native and non-native riparian species near the Russian River and along the banks of the ponds. The vegetation prevented physical access to some portions of the property, specifically along the western margin, near the Russian River. However, the majority of the property, particularly the central and eastern areas, was observable from the levee roads and from a number of vantage points from within and near the Ponds. Adjacent areas were visible from unpaved roads within the nearby vineyards to the north, east, and south.

Evidence of the former sand and gravel mining operations was visible in several graded or developed areas near the ponds. The largest of these is in the northwest corner of the property, where a large, gravel-paved pad served as the location for the former processing and sorting plant. Evidence of crushed rock, sorted gravels. and silt debris was observed throughout this area, and to the south along the northern margin of Piombo Pond and the northwest margin of Mariani Pond. No mining equipment, scrap, or debris was observed in this area. A smaller gravel pad were noted along the northeastern bank of the Richardson Pond, and contained a water pumping plant, with at least two large, diesel-powered water pumps. An empty, approximately 150-gallon-capacity above-ground diesel storage tank was noted along the levee road nearby. There was no evidence of spillage or leakage observed. Finally small pads were observed along the southeastern back of the Richardson Pond, as well as the northeastern shore of the Vimark Pond. These areas did not appear to have any associated equipment or facilities, but served as access areas to the ponds.

A water well was observed along the eastern levee road of Piombo Pond. The well appeared to be in disrepair/disuse, and no electrical power connection was observed. According to Mr. Henson, this was the last remaining well on the Hanson Property, and was previously used as a general water supply well. Mr. Henson had no specific information regarding well construction or depths, though it should be noted that groundwater is present at between 20 and 30 feet below the ground surface, based on observable water levels in the nearby ponds.

EEI personnel physically walked or drove the majority of the accessible levee roads, as well as several unmarked trails and vegetated areas. No evidence of contamination, distressed vegetation, petroleum-hydrocarbon staining, waste drums, illegal dumping, or improper waste storage/handling was noted within the project area.

4.3 Adjacent Properties

EEI conducted a visual and auto reconnaissance of the adjoining properties (to the extent practical) to evaluate the potential for offsite impacts that may affect the subject property. These would include evidence of chemical storage or usage, surface staining or leakage, distressed vegetation, or evidence of illegal dumping.

Adjacent properties include developed vineyards to the north, east, and south. The Russian River bounds the property to the west. No evidence of environmental concerns was noted on any of the adjoining properties during the site reconnaissance.

TABLE 4
Summary of Site Reconnaissance

ITEM	CONCERNS	COMMENTS
General Housekeeping	No	No concerns noted.
Surface Spills	No	None observed.
Railroad Spurs	No	None observed.
Stained Soil/pavement	No	None observed, except for small patch in storage yard.
Surface Impoundments	No	Former sand and gravel mining operations was visible near the ponds and in the northwest corner of the property, where a large, gravel-paved pad served as the location for the former processing and sorting plant. Evidence of crushed rock, sorted gravels. and silt debris were observed throughout this area, and to the south along the northern margin of Piombo Pond and the northwest margin of Mariani Pond
Fill Materials	No	None observed.
Holding Ponds	No	Four large groundwater-fed ponds are located on the subject property.
Visible Signs of Contamination	No	None observed.
Wetlands	No	None observed.
Surface Water Drainage	No	Generally to the south.
Pits/ponds/lagoons	No	Four large groundwater-fed ponds - former sand and gravel mining sites.
AGT's/UST's	No	An empty, approximately 150-gallon-capacity above-ground diesel storage tank was noted along the levee road near Richardson Pond.
Electrical Substations	No	None observed
Distressed Vegetation	No	None observed.
Areas of Dumping	No	None observed.
Power Line Transformers	No	None observed on site.

TABLE 4
Summary of Site Reconnaissance

ITEM	CONCERNS	COMMENTS
Solid Waste Disposal	No	None observed.
Waste scrap storage	No	None observed.
Water supply/wells	No	A water pumping plant, with at least two large, diesel-powered water pumps was observed along the northeastern bank of Richardson Pond. A water well (not in use) was observed along the eastern levee road of Piombo Pond.
Chemical use/storage	No	None observed.

5.0 FINDINGS AND OPINIONS

Based on the information obtained in this ESA, EEI has the following findings and opinions:

- Known or suspected REC's – No known or suspected REC's have been revealed during the preparation of this ESA.

- Historical REC's – No known or suspected Historical REC's have been revealed during the preparation of this ESA.

- *De Minimis* Conditions – An empty above-ground diesel storage tank is present along the levee road near Richardson Pond. No evidence of spillage or leakage was observed; therefore, further investigation is not warranted.

6.0 DATA GAPS AND DEVIATIONS FROM ASTM PRACTICES

Section 3.2.20 (ASTM 1527-05) defines a data gap as "a lack or inability to obtain information required by the practice despite good faith efforts of the environmental professional to gather such information."

6.1 Historical Data Gaps

Based on the information obtained during the course of this investigation, no historical data gaps were encountered.

6.2 Regulatory Data Gaps

No regulatory data gaps were identified during research efforts.

6.3 Onsite Data Gaps

No onsite data gaps were identified during research efforts.

6.4 Deviations from ASTM Practices

Section 12.10 (ASTM 1527-05), states that all deletions and deviations from this practice shall be listed individually and in detail, including client imposed constraints, and all additions should be listed. To wit, EEI believes that there are no exceptions to, or deletions from, the ASTM Designation E1527-05 Guidelines.

7.0 CONCLUSIONS

We have performed a Phase I Environmental Site Assessment (ESA) in conformance with the scope and limitations of ASTM Designation E1527-05 for the subject property identified as the Hanson Windsor Gravel Ponds, located at 10246 Eastside Road, in the City of Windsor, Sonoma County, California. Any exceptions to, or deletions from, this practice are described in Section 6.4 of this report. This Phase I ESA has revealed **no evidence** of *recognized environmental conditions* in connection with the property.

8.0 REFERENCES

California Division of Oil, Gas, and Geothermal Resources (CDOGGR) website, Oil and Gas Maps District 4, (http://www.consrv.ca.gov), accessed September 2012.

Department of Toxic Substances (DTSC), Website (http://www.envirostor.dtsc.ca.gov/public/), EnviroStor database, accessed September 2012.

Federal Emergency Management Agency (FEMA) website, www.fema.gov, accessed September 2012.

Jennings, C. W., Fault Activity Map of California and Adjacent Areas, California Division of Mines and Geology Data Map No. 6, 1:750,000, 1994.

Martin Carpenter Associates, Reclamation Plan For Quarry Products, Inc., Windsor Quarry, Sonoma County, California, June 1981.

Master Reclamation Specifications, Kaiser Sand and Gravel, September 12, 2006.

North Coast Regional Water Quality Control Board, 1995, Water Quality Control Plan for the North Coast Region: California State Water Resources Control Board Publication, dated May 2011.

Sonoma County Permit and Resource Management Department, Negative Declaration, Kaiser Master Reclamation Plan, 7821, 9245, 9651 Eastside Road, Healdsburg, APN 066-023-079, 047, 080, 069/066-290-001/066-300-024/110-210-011, 010, May 17, 1996.

Sonoma County, Resolution Adopting a Mitigated Negative Declaration and Approving a Revised Master Reclamation Plan for the Existing Terrace Gravel Pits: Benoist, Wilson, Mclaughlin and Richardson/Argonaut, and for the Existing Kaiser Gravel Processing Plant Site, on Approximately 506 Acres Located at 7821, 9245, 9651 Eastside Road, Windsor, California, Resolution No. 96-0969, July 16, 1996.

Sonoma County Water Agency (SCWA), 2011, Groundwater Primer for the Santa Rosa Plain.

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United States Department of Agriculture (USDA), Resource Conservation Service, Web Soil Survey website, http://websoilsurvey.nrcs.usda.gov/app/HomePage.htm, accessed September 2012.

United States Geological Survey (USGS), Blake, M. C., Graymer, R. W., and Stamski, R. E., Geologic Map and Map Database of Western Sonoma, Northernmost Marin, and Southernmost Mendocino Counties, California, USGS Miscellaneous Field Studies MF 2402, 2002.

Zitney and Associates, Mining and Reclamation Plan-Cross Sections, Exhibit 1F, Mariani Site, Kaiser Sand and Gravel Company, 10249 Eastside Road, Healdsburg, California 95448, October 5, 1998.

Zitney and Associates, Reclamation Plan, Exhibit 1G, Mariani Site, Kaiser Sand and Gravel Company, 10249 Eastside Road, Healdsburg, California 95448, October 4, 1998.

Zitney and Associates, Plant Relocation, Reclamation Plan, Exhibit 4, Lake Piombo, Kaiser Sand and Gravel Company, 10249 Eastside Road, Healdsburg, California 95448, undated.

Zitney and Associates, Mining Plan/Grading, Exhibit 2E, Vimark Site, Kaiser Sand and Gravel Company, 9029 Eastside Road, Healdsburg, California 95448, October 4, 1998 (Revision October 9, 1998).

Zitney and Associates, Mining and Reclamation Plan-Cross Sections, Exhibit 2F, Vimark Site, Kaiser Sand and Gravel Company, 9029 Eastside Road, Healdsburg, California 95448, October 4, 1998 (Revision October 9, 1998).

FIGURES



Source: USGS 7.5' Topographic Map, Healdsburg, CA, 2012

N

Approximate Scale: 1" = 2,200'

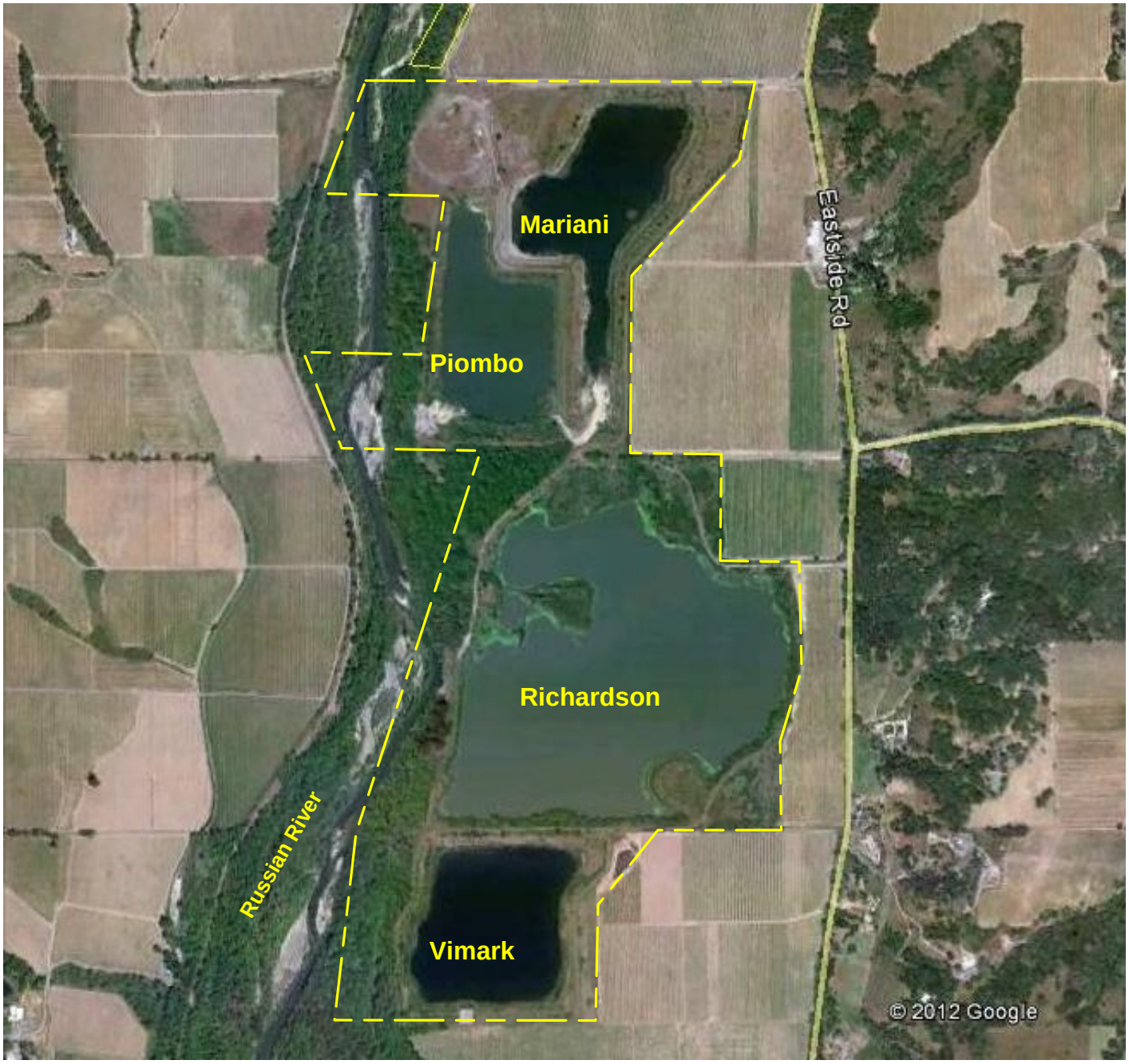
0 1320 FT 2200 FT 4400 FT

Note: All locations are approximate

SITE LOCATION MAP
HANSON WINDSOR GRAVEL PONDS
10246 Eastside Road
Windsor, California
EEI Project No. END-71435

EEI

FIGURE 1



Source: GoogleEarth, 2012

N

Approximate Scale: 1" = 1,100'

0 660 FT 1100 FT 2200 FT

Note: All locations are approximate

AERIAL SITE MAP
HANSON WINDSOR GRAVEL PONDS
10246 Eastside Road
Windsor, California 95492
EEI Project No. END-71435

EEI

FIGURE 2

APPENDIX A
RESUME OF ENVIRONMENTAL PROFESSIONAL

BERNARD A. SENTIANIN, CPG, RG, REA

PRINCIPAL GEOLOGIST

SUMMARY

As Principal Geologist of EEI since 1997, Mr. Sentianin provides consulting and technical services as a project manager, expert witness, and senior geologist for investigation and cleanup efforts at sites impacted by Petroleum Hydrocarbons, heavy metals, pesticides, and chlorinated solvents. As a remediation specialist, he has hands on experience designing, installing, and managing large scale projects involving above ground and in-situ bioremediation, soil vapor extraction, sparging, and groundwater extraction/treatment. He has over 22 years of environmental project management experience, and 25 years professional geologic experience. Mr. Sentianin has extensive experience in planning, implementing and evaluating Phase I and Phase II environmental assessments in commercial real estate transactions following ASTM E1527-05, E1903-97 (-02), E2600-10, and 40 CFR Part 312 (AAI).

EDUCATION

1985 Bachelor of Science, Geology, California State University, Bakersfield
1989 Master of Science, Geological Sciences, San Diego State University

REGISTRATIONS/CERTIFICATIONS

Registered Environmental Assessor I No. 3477, State of California.
Professional Geologist No. 5530, State of California.
Certified Professional Geologist No. 9059, American Institute of Professional Geologists
OSHA 40-Hour HAZWOPER Training and 8-Hour Refreshers

WORK HISTORY

1991 TO 1997 Senior Geologist, Senior Project Manager

PW ENVIRONMENTAL

Established in-house engineering and consulting services for mid-sized environmental contractor. Established regulatory, vendor, and client contacts. Initiated policies governing technical report content and format and instituted in-house training program for new technical staff. Selected prioritized and procured required support equipment. Actively managed Phase I and Phase II investigation and remediation projects. Reviewed assessment data, prepared feasibility studies, and evaluated remedial alternatives while preparing Remedial Action Plans (RAP) for fuel, heavy metal, and solvent-impacted sites. Prepared health-based risk assessment on large cleanup site adjacent to health care facility. Permitted, implemented, and successfully completed the first in-situ groundwater bioremediation system in Ventura County. Reviewed and implemented numerous Phase I and Phase II environmental site assessments throughout Central and Southern California.

1989 TO 1991 STAFF/Project Geologist
NACHANT ENVIRONMENTAL, INC.
Planned, implemented, and managed environmental site investigations and remediation projects following appropriate regulatory and professional guidelines. Prepared and reviewed project cost proposals, correspondence, regulatory permits, assessment and investigation reports, and remedial action plans.

1987 TO 1989 TEACHING ASSISTANT
SAN DIEGO STATE UNIVERSITY – DEPARTMENT OF GEOLOGICAL SCIENCES AND DEPARTMENT OF ENGINEERING

REPRESENTATIVE PROJECTS

Globe Mills, Sacramento CA - Conducted Phase I and Phase II environmental site assessment, evaluated environmental concerns for adaptive reuse project on behalf of Sacramento Housing and Redevelopment Agency. Managed and coordinated site cleanup, obtaining regulatory closure from the Sacramento County Environmental Management Division.

K Street Corridor – Sacramento, CA. Evaluated and conducted Phase I environmental site assessments on a multi-block area of downtown Sacramento, as well as a number of individual properties in other areas within the K Street Corridor, on behalf of the City of Sacramento Downtown Development Group.

Southside Garden and Fremont Mews, Sacramento, CA – Conducted Phase I/Phase II environmental site assessments and evaluated environmental concerns on three community garden projects on behalf of the Capitol Area Development Authority. Coordinated regulatory oversight with Sacramento County Environmental Management Division and the State Office of Environmental Health Hazard Assessment. Prepared an SAP and facilitated compliance with a Brownfield Grant from EPA Region 9. Prepared and evaluated RFP's from cleanup contractors and provided remediation oversight and management. Prepared closure documentation and obtained regulatory concurrence for both the Southside Garden and Fremont Mews projects.

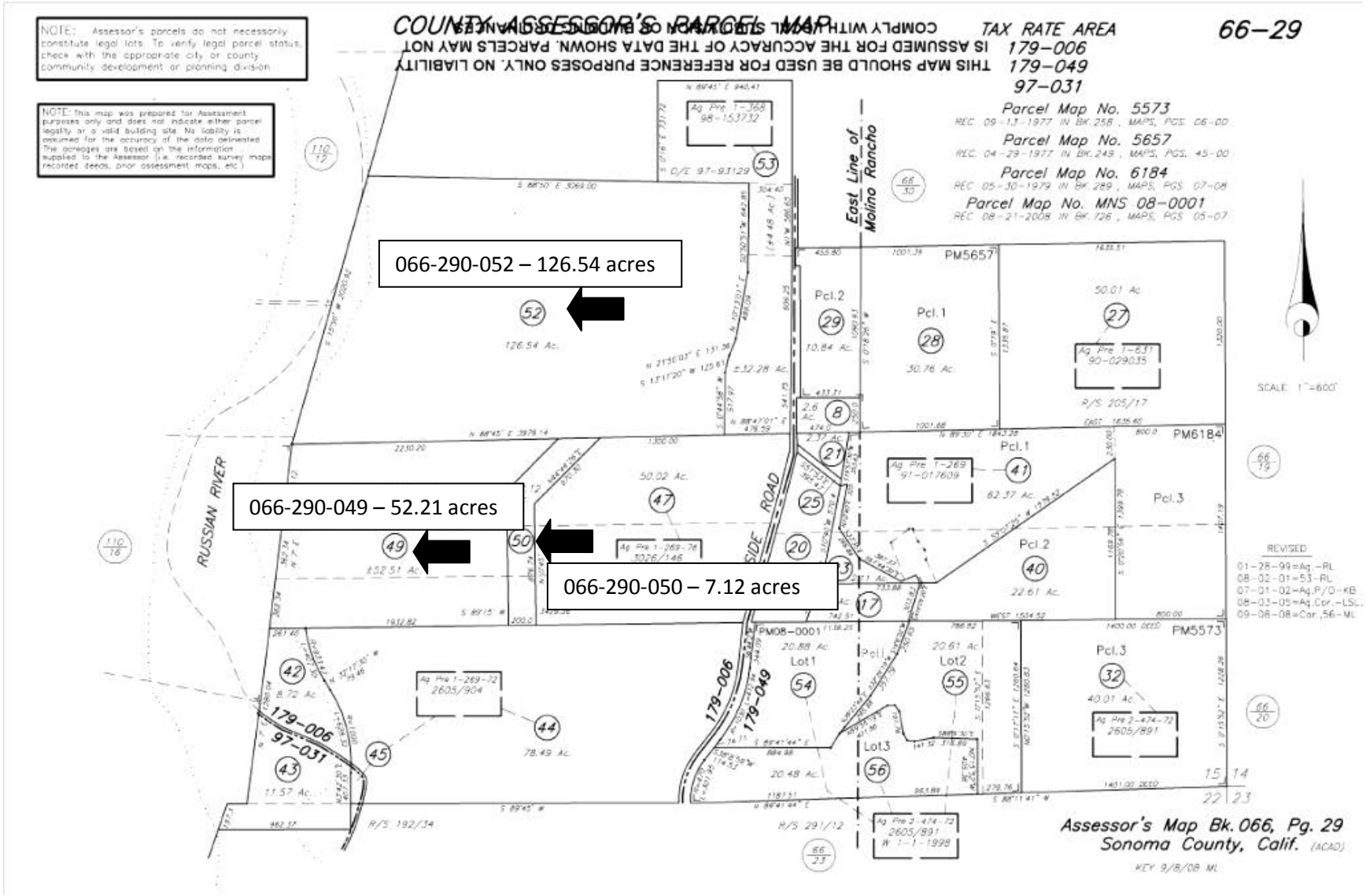
Electronics Manufacturing Facility/Fueling Depot, Santa Monica, CA. Performed soil and groundwater investigation, feasibility testing and evaluation of fuel hydrocarbon and chlorinated solvent plumes. Prepared RAP with design criteria for soil vapor extraction. After approval of RAP by State regulators, implemented and successfully completed remediation at site, obtaining closure.

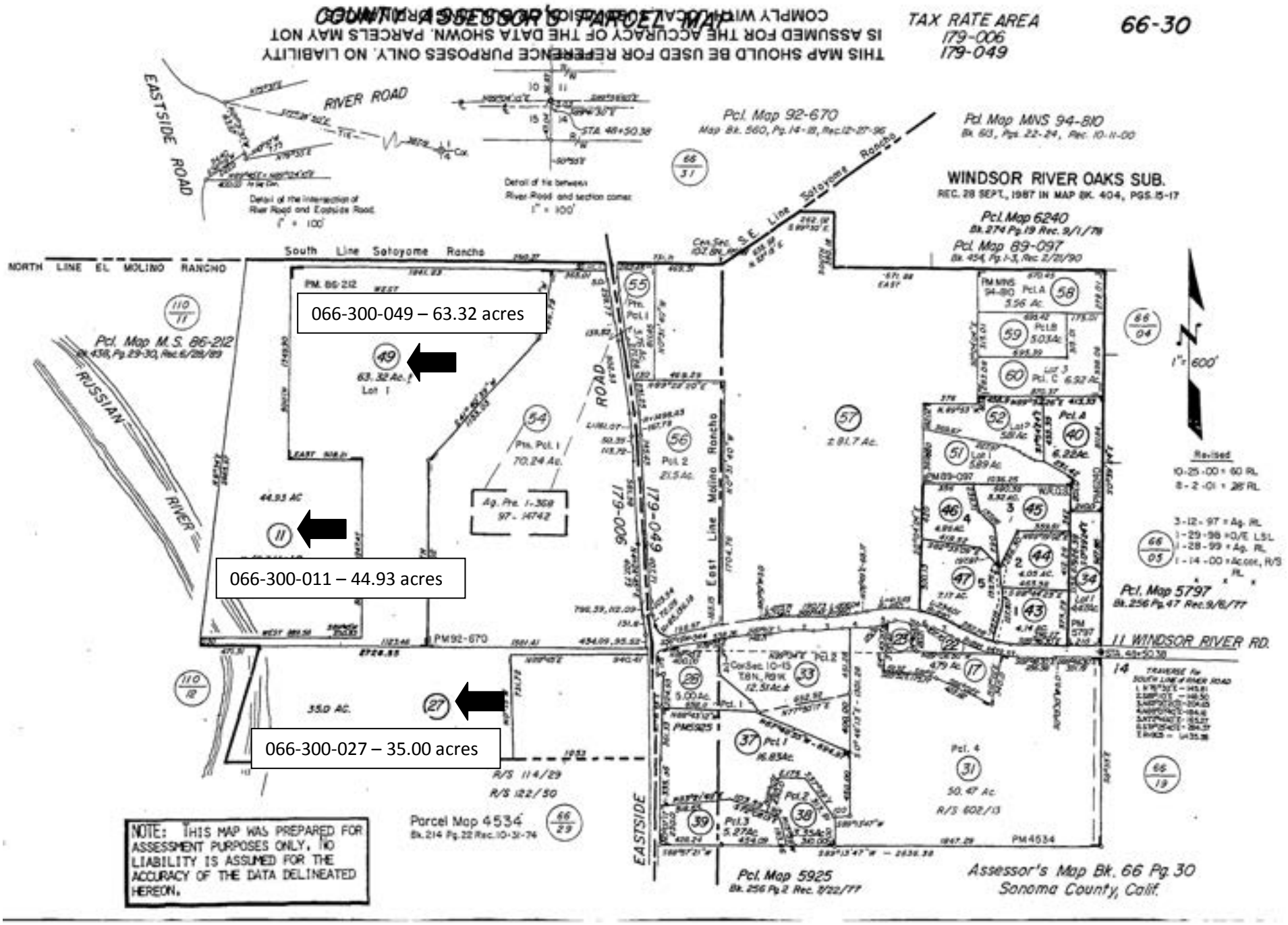
Former Aerospace Facility, Santa Ana, CA. Evaluated existing Phase I and Phase II assessments. Performed soil, soil vapor, and groundwater investigations of chlorinated solvent plumes at multiple locations on site. Modeled and evaluated potential plume source areas. Initiated site specific sampling protocol for chlorinated solvents. Negotiated with lead regulatory agency regarding regional contamination issues and site closure requirements.

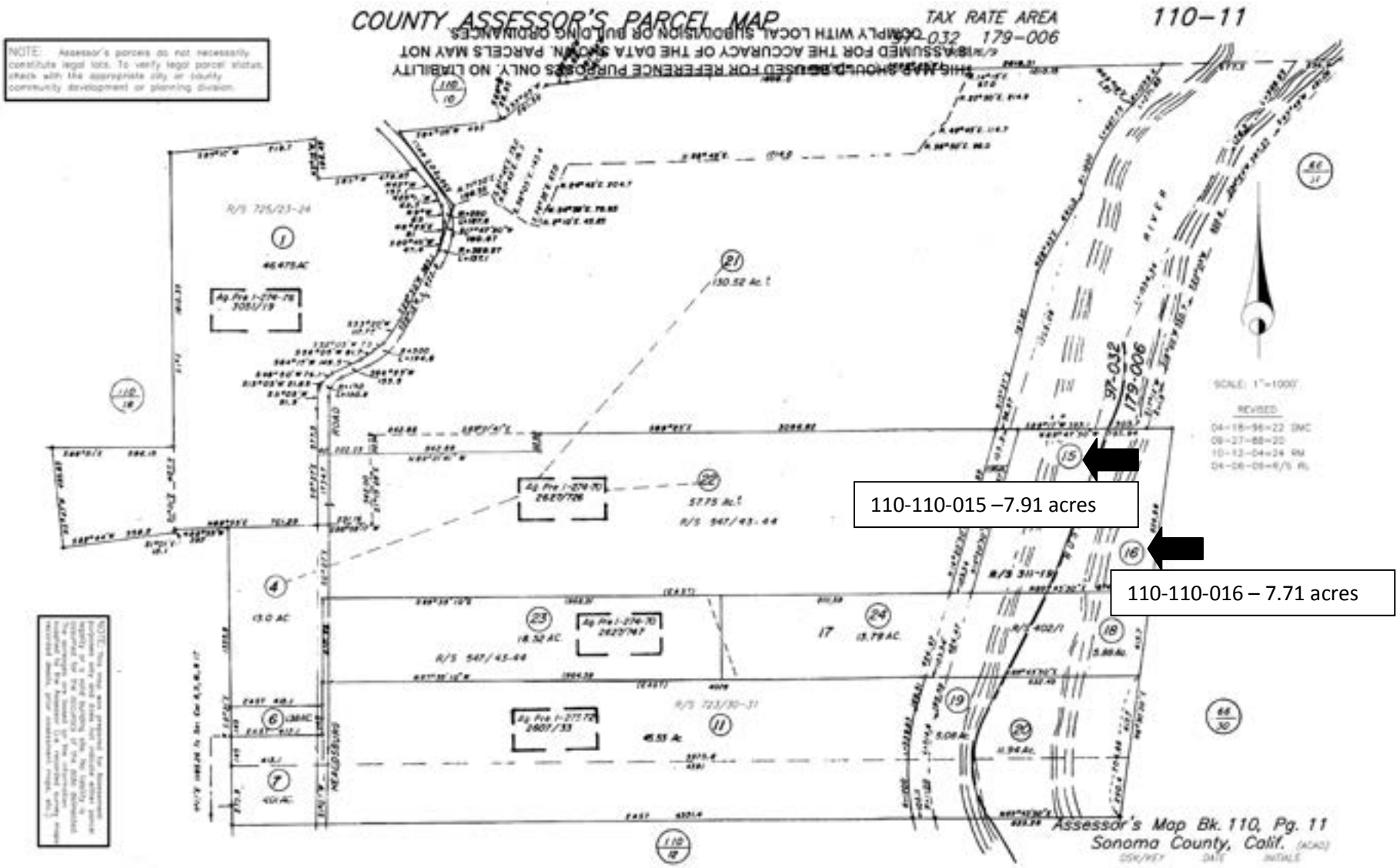
Major Land Owner/Developer, San Juan Capistrano, CA. Conducted Phase I and Phase II environmental site assessments at multiple sites in southern Orange County. Evaluated potential environmental concerns related to sand & gravel operations, fueling facilities, ordinance testing facilities, aerospace engineering labs, vehicle maintenance and repair facilities, agricultural operations, and illicit dump sites.

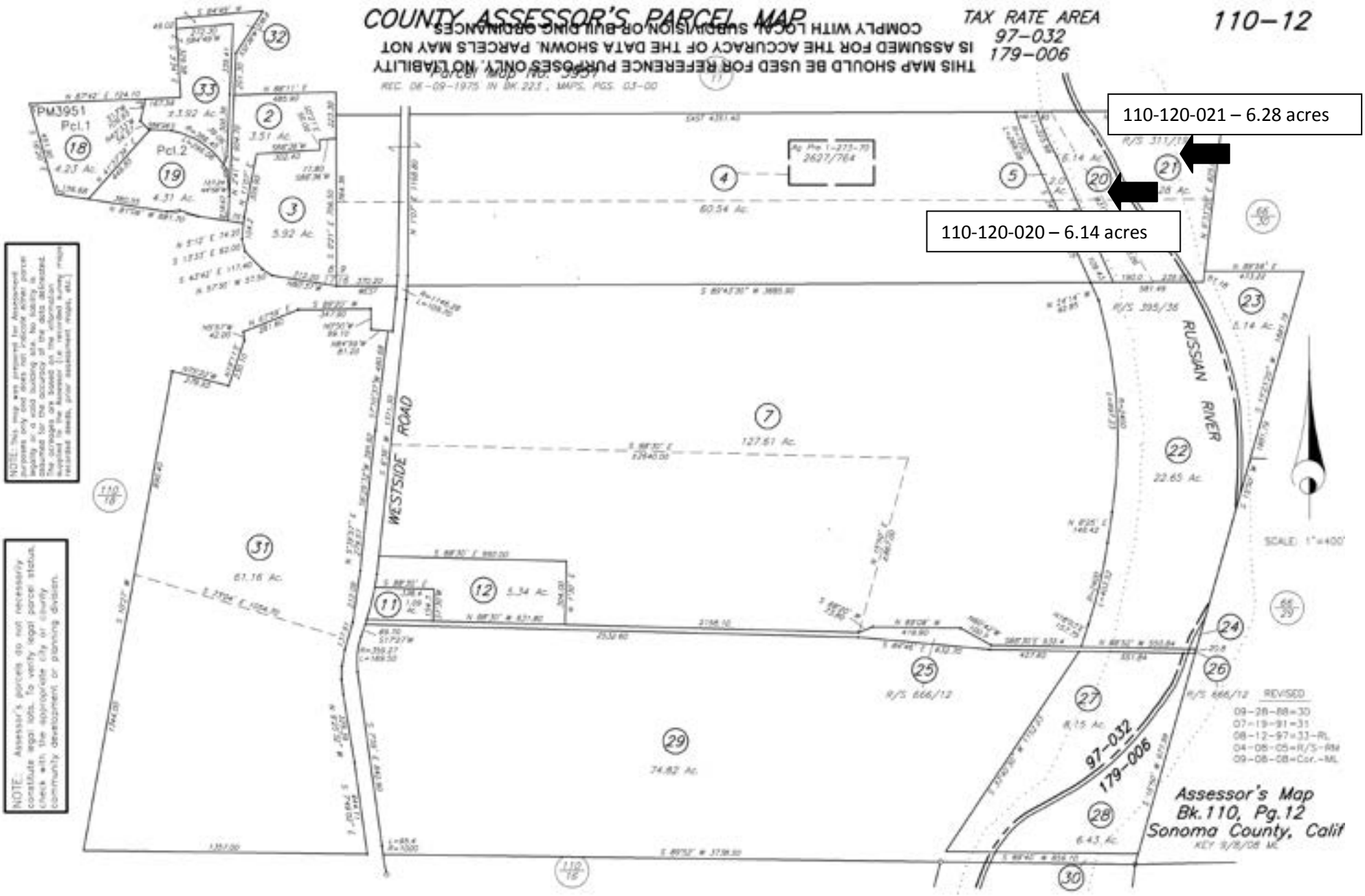
Major Fast Food Restaurant Chain, Multiple Locations, CA. Conducted Phase I and Phase II environmental site assessments at multiple sites throughout California. Evaluated potential environmental concerns related to historic property uses and potential effects on site operations.

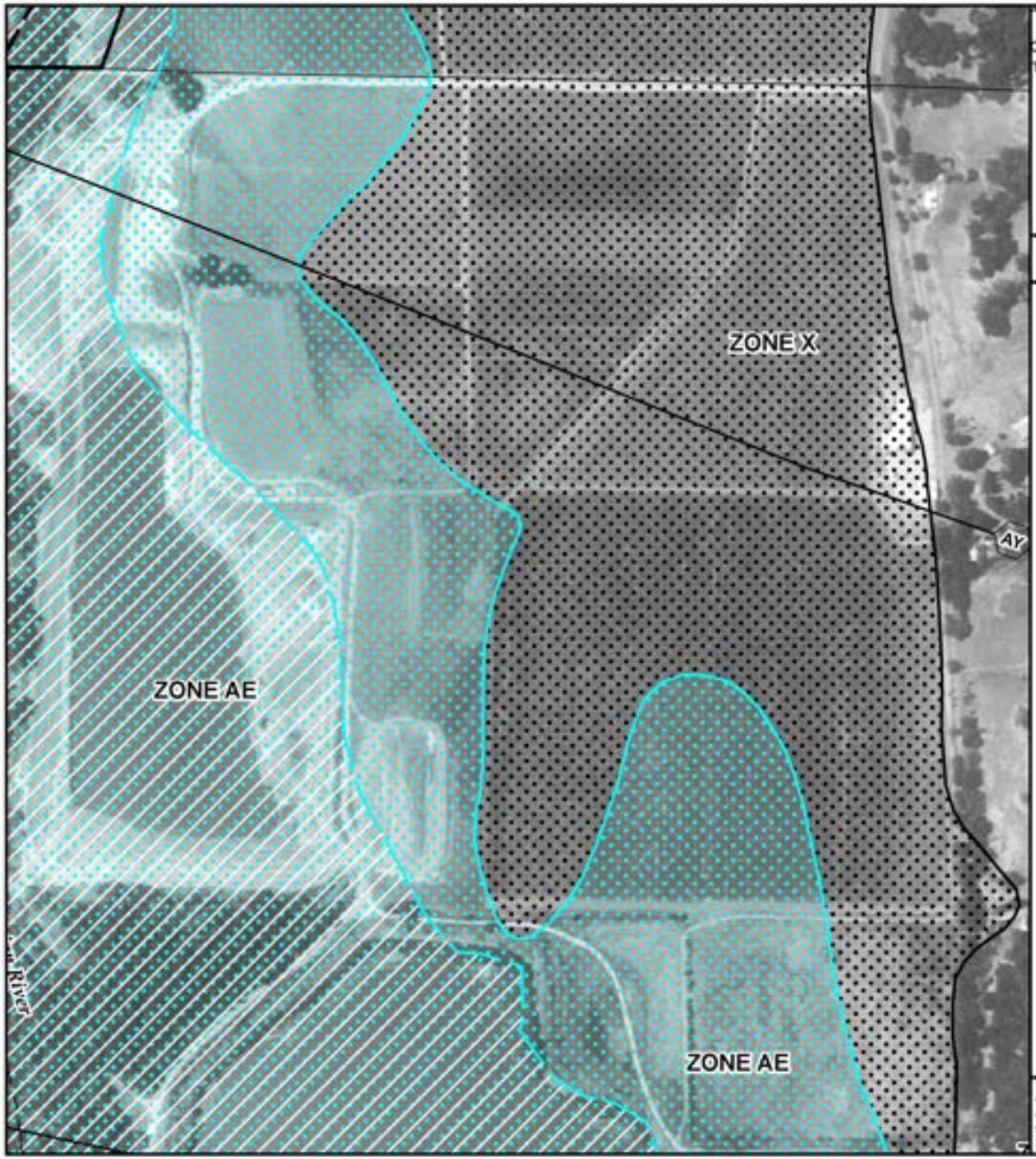
APPENDIX B
SONOMA COUNTY ASSESSOR'S PARCEL INFORMATION/FLOOD INSURANCE RATE MAPS/PRELIMINARY TITLE REPORT


COUNTY ASSESSOR'S PARCEL MAP
66–29
TAX RATE AREA
179–006
179–049
97–031
Parcel Map No. 5573
Parcel Map No. 5657
Parcel Map No. 6184
Parcel Map No. MNS 08–0001
NOTE: Assessor's parcels do not necessarily constitute legal lots. To verify legal parcel status, check with the appropriate city or county community development or planning division.
NOTE: This map was prepared for Assessment purposes only and does not indicate either parcel legality or a valid building site. No liability is assumed for the accuracy of the data delineated. The acreages are based on the information supplied to the Assessor (i.e. recorded survey maps, recorded deeds, prior assessment maps, etc.)
066-290-052 – 126.54 acres
066-290-049 – 52.21 acres
066-290-050 – 7.12 acres
East Line of Molino Rancho
RUSSIAN RIVER
ROAD
PM5657
PM6184
PM08–0001
PM5573
SCALE 1"=600'
REVISED
Assessor's Map Bk. 066, Pg. 29
Sonoma County, Calif. (ACAD)


COUNTY ASSESSOR'S PARCEL MAP
THIS MAP SHOULD BE USED FOR REFERENCE PURPOSES ONLY. NO LIABILITY IS ASSUMED FOR THE ACCURACY OF THE DATA SHOWN. PARCELS MAY NOT COMPLY WITH LOCAL SUBDIVISION REGULATIONS
TAX RATE AREA
179-006
179-049
66-30
EASTSIDE ROAD
RIVER ROAD
Detail of the intersection of River Road and Eastside Road
1" = 100'
Detail of tie between River Road and section corner
1" = 100'
Pcl. Map 92-670
Map Bk. 560, Pg. 14-18, Rec. 12-27-96
Pcl. Map MNS 94-810
Bk. 60, Pgs. 22-24, Rec. 10-11-00
WINDSOR RIVER OAKS SUB.
REC. 28 SEPT., 1987 IN MAP BK. 404, PGS. 15-17
Pcl. Map 6240
Bk. 274 Pg. 19 Rec. 9/1/78
Pcl. Map 89-097
Bk. 454, Pg. 1-3, Rec. 2/21/90
Sotoyome Rancho
South Line Sotoyome Rancho
NORTH LINE EL MOLINO RANCHO
Pcl. Map M.S. 86-212
Bk. 438, Pg. 29-30, Rec. 6/28/89
RUSSIAN RIVER
PM. 86-212
066-300-049 – 63.32 acres
063.32 Ac.
Lot 1
066-300-011 – 44.93 acres
44.93 AC
066-300-027 – 35.00 acres
35.0 AC.
PM92-670
Pcl. Map 5797
Bk. 256 Pg. 47 Rec. 9/6/77
11 WINDSOR RIVER RD.
Parcel Map 4534
Bk. 214 Pg. 22 Rec. 10-31-74
PM4534
Pcl. Map 5925
Bk. 256 Pg. 2 Rec. 9/22/77
EASTSIDE
R/S 114/29
R/S 122/50
R/S 602/13
50.47 Ac.
Pcl. 4
Pcl. 3
5.27 Ac.
Pcl. 2
16.85 Ac.
Pcl. 1
5.00 Ac.
12.51 Ac.±
Cor. Sec. 10-15 T.6N., R.9W.
Ag. Pre. 1-358
97-14742
70.24 Ac.
Pcl. 2
21.5 Ac.
± 81.7 Ac.
East Line Molino Rancho
ROAD
179-049
900
Revised
10-25-00 = 60 RL
8-2-01 = 28 RL
3-12-97 = Ag. RL
1-29-98 = O/E LSL
1-28-99 = Ag. RL
1-14-00 = Access, R/S RL
1" = 600'
NOTE: THIS MAP WAS PREPARED FOR ASSESSMENT PURPOSES ONLY. NO LIABILITY IS ASSUMED FOR THE ACCURACY OF THE DATA DELINEATED HEREON.
Assessor's Map Bk. 66 Pg. 30
Sonoma County, Calif.


COUNTY ASSESSOR'S PARCEL MAP
TAX RATE AREA
110-11
032 179-006
NOTE: Assessor's parcels do not necessarily constitute legal lots. To verify legal parcel status, check with the appropriate city or county community development or planning division.
110-110-015 –7.91 acres
110-110-016 – 7.71 acres
Assessor's Map Bk. 110, Pg. 11
Sonoma County, Calif.


COUNTY ASSESSOR'S PARCEL MAP
TAX RATE AREA
97-032
179-006
110-12
110-120-021 – 6.28 acres
110-120-020 – 6.14 acres
WESTSIDE ROAD
RUSSIAN RIVER
SCALE: 1"=400'
Assessor's Map
Bk.110, Pg.12
Sonoma County, Calif



d insurance is available in this community, contact your Ins
nal Flood Insurance Program at 1-800-638-6620.

METERS
150 0 150 300

NFIP

NATIONAL FLOOD INSURANCE PROGRAM

PANEL 0561E

FIRM

FLOOD INSURANCE RATE MAP

SONOMA COUNTY, CALIFORNIA
AND INCORPORATED AREAS

PANEL 561 OF 1150

(SEE MAP INDEX FOR FIRM PANEL LAYOUT)

CONTAINS:

COMMUNITY	NUMBER	PANEL	SUFFIX
SONOMA COUNTY	060375	0561	E
WINDSOR, TOWN OF	060761	0561	E

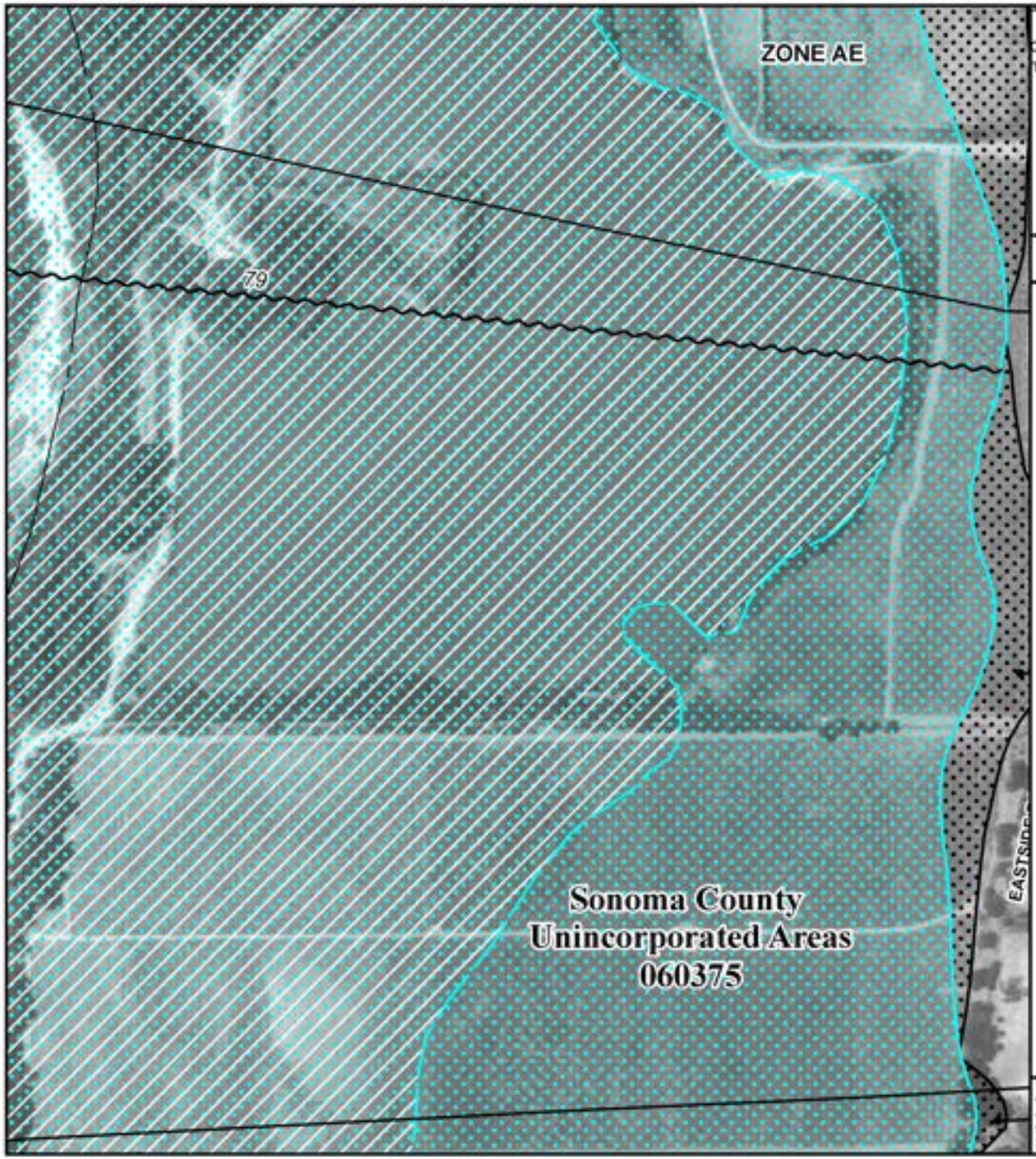
Notice to User: The **Map Number** shown below should be used when placing map orders; the **Community Number** shown above should be used on insurance applications for the subject community.

MAP NUMBER
06097C0561E

EFFECTIVE DATE
DECEMBER 2, 2008

Federal Emergency Management Agency

This is an official copy of a portion of the above referenced flood map. It was extracted using F-MIT On-Line. This map does not reflect changes or amendments which may have been made subsequent to the date on the title block. For the latest product information about National Flood Insurance Program flood maps check the FEMA Flood Map Store at www.msc.fema.gov



d insurance is available in this community, contact your Ins
nal Flood Insurance Program at 1-800-638-6620.

METERS
150 0 150 300

NFIP

NATIONAL FLOOD INSURANCE PROGRAM

PANEL 0561E

FIRM

FLOOD INSURANCE RATE MAP

SONOMA COUNTY, CALIFORNIA
AND INCORPORATED AREAS

PANEL 561 OF 1150

(SEE MAP INDEX FOR FIRM PANEL LAYOUT)

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COMMUNITY	NUMBER	PANEL	SUFFIX
SONOMA COUNTY	060375	0561	E
WINDSOR, TOWN OF	060761	0561	E

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CHICAGO TITLE COMPANY

PRELIMINARY REPORT

In response to the application for a policy of title insurance referenced herein, ***Chicago Title Company*** *hereby reports that it is prepared to issue, or cause to be issued, as of the date hereof, a policy or policies of title insurance describing the land and the estate or interest therein hereinafter set forth, insuring against loss which may be sustained by reason of any defect, lien or encumbrance not shown or referred to as an exception herein or not excluded from coverage pursuant to the printed Schedules, Conditions and Stipulations or Conditions of said policy forms.*

The printed Exceptions and Exclusions from the coverage and Limitations on Covered Risks of said policy or policies are set forth in Attachment One. The policy to be issued may contain an arbitration clause. When the Amount of Insurance is less than that set forth in the arbitration clause, all arbitrable matters shall be arbitrated at the option of either the Company or the Insured as the exclusive remedy of the parties. Limitations on Covered Risks applicable to the CLTA and ALTA Homeowner's Policies of Title Insurance which establish a Deductible Amount and a Maximum Dollar Limit of Liability for certain coverages are also set forth in Attachment One. Copies of the policy forms should be read. They are available from the office which issued this report.

This report (and any supplements or amendments hereto) is issued solely for the purpose of facilitating the issuance of a policy of title insurance and no liability is assumed hereby. If it is desired that liability be assumed prior to the issuance of a policy of title insurance, a Binder or Commitment should be requested.

The policy(s) of title insurance to be issued hereunder will be policy(s) of Chicago Title Insurance Company, a Nebraska corporation.

Please read the exceptions shown or referred to herein and the exceptions and exclusions set forth in Attachment One of this report carefully. The exceptions and exclusions are meant to provide you with notice of matters which are not covered under the terms of the title insurance policy and should be carefully considered.

It is important to note that this preliminary report is not a written representation as to the condition of title and may not list all liens, defects and encumbrances affecting title to the land.

Countersigned

Chicago Title Company

BY _____ President

ATTEST _____ Secretary

Visit Us on our Website: www.ctic.com

Chicago Title Company

ISSUING OFFICE: 3075 Prospect Park Drive, Suite 130 • Rancho Cordova, CA 95670
916 853-7600 • FAX 916 638-1285

PRELIMINARY REPORT

Amended

Title Officer: Dave L. Pryor

Title No.: 10-**495107061**-C-DP
Locate No.: CACTI7728-7728-2510-0495107061

Escrow No.: NBU 81001457

TO: Chicago Title Insurance Company-NBU
700 S. Flower Street # 800
Los Angeles, CA 90017

ATTN: Mark E. Raskin
YOUR REFERENCE: NBU 81001457

PROPERTY ADDRESS: APN Nos. 066-290-049, 050, 052, 110-120-020, 021, 066-300-011, 027, 049, 110-110-015, 016, Healdsburg, California

EFFECTIVE DATE: February 16, 2011, 07:30 A.M.

The form of policy or policies of title insurance contemplated by this report is:

CLTA Standard Coverage Policy - 1990

1. THE ESTATE OR INTEREST IN THE LAND HEREINAFTER DESCRIBED OR REFERRED TO COVERED BY THIS REPORT IS:

   A Fee as to Tract 1, Tract 2, Parcels 1, 2 & 3 of Tract 3, Tract 4 and Tract 5 and an Easement as to Parcel 4 of Tract 3

2. TITLE TO SAID ESTATE OR INTEREST AT THE DATE HEREOF IS VESTED IN:

   Hanson Aggregates Mid-Pacific, Inc., a Delaware Corporation, formerly known as Kaiser Sand & Gravel Company, a Delaware corporation

3. THE LAND REFERRED TO IN THIS REPORT IS DESCRIBED AS FOLLOWS:

   SEE EXHIBIT "A" ATTACHED HERETO AND MADE A PART HEREOF

YD\YD 09/20/2010

LEGAL DESCRIPTION

EXHIBIT "A"

THE LAND REFERRED TO HEREIN BELOW IS SITUATED IN THE COUNTY OF SONOMA, STATE OF CALIFORNIA, AND IS DESCRIBED AS FOLLOWS:

Tract 1:

A portion of the Southeast quarter of Section 9, and the Southwest quarter of Section 10, Township 8 North, Range 9 West, as said Sections are extended into the El Molino Rancho, said portion being more particularly described as follows:

Beginning at a 3/4" iron pipe marking the Northwest corner of the Calhoun Ranch, as described in the Decree of Distribution recorded in Book 480 of Official Records, at Page 432, Serial No. B-10416, said point bears West 3317.20 feet from an iron pipe set in concrete marking the center of Section 10, Township 8 North, Range 9 West; thence East 2547.24 feet to a point in the center of the East Side Road, a County Road; thence along the center of said road, South 50.00 feet; thence leaving said road, West 2239.92 feet; thence South 1350.00 feet; thence East 508.21 feet; thence South 1247.47 feet to a point which is 50.00 feet North of the South line of the herebefore described Calhoun Ranch and herein designated as "Point A"; thence along a line, parallel to and 50.00 feet therefrom of the South line of the said Calhoun Ranch, South 89 degrees 45' West, 230.83 feet; thence West 889.58 feet to the West line of said Calhoun Ranch, an agreed line as described in Book "H" of Bonds and Agreements at Page 118, and herein designated as "Point B"; thence along the agreed line, North 6 degrees 34' East, 2665.97 feet to the point of beginning.

Excepting therefrom, that portion described in Deed to the County of Sonoma, a Political Subdivision of the State of California, described in Deed dated November 27, 1957 and recorded December 20, 1957, in Book 1562 of Official Records Page 412, Serial No. F-30965.

Also excepting therefrom any portion within the bed of the Russian River in its last Natural State.

APN: 66-300-11

Tract 2:

Parcel One:

That portion of the Sotoyome Rancho commencing at the Southwest corner of Section 9, Township 8 North, Range 9 West, M.D.B. & M.; as said Section is projected into said Sotoyome Rancho thence North on the Section Line 381.48 feet to the point of beginning; thence continuing North on the Section Line 381.48 feet; thence East and Parallel with the South Line of Section 9, a distance of 4351.4 feet more or less, to the Westerly line of the J. W. Calhoun Farm; thence South 7 degrees 15' West, along a line agreed upon by J. W. Calhoun, et al., recorded October 23, 1896 in Book H of Bonds and Agreements at Page 118, Sonoma County Records, a distance of 412.50 feet; thence West and parallel with the South line of Section 9, a distance of 4349.4 feet, more or less, to the point of beginning.

Excepting therefrom any portion lying Westerly of the Easterly line of the Lands of Basalt Rock Company, Inc., as contained in the Deed Recorded June 24, 1957 in Book 1528 of Official Records at Page 588, Serial No. F-16635, Sonoma County Records.

Also excepting therefrom any portion within the bed of the Russian River in its last Natural State.

Parcel Two:

That portion of the Sotoyome Rancho beginning at the Southwest corner of Section 9, Township 8 North, Range 9 West, M.D.B. & M. as said Section is projected into said Sotoyome Rancho and thence running North along the Westerly line of Section 9, a distance of 381.48 feet; thence Easterly and parallel with the South Line of Section 9, a distance of 4349.40 feet, more or less, to the West Line of the J. W. Calhoun Farm; thence South 7 degrees 15' West along a line agreed upon by J. W. Calhoun, et al., recorded October 23, 1896 in Book H of Bonds and Agreements at Page 118, Sonoma County Records, a distance of 412.50 feet to the

South line of Section 9; thence Westerly along said South Line a distance of 4268.22 feet, more or less, to the point of beginning.

Excepting therefrom any portion lying Westerly of the Easterly Line of the Lands of Basalt Rock Company, Inc., as contained in the Deed recorded June 24, 1957 in Book 1528 of Official Records at Page 588, Serial No. F-16635, Sonoma County Records.

Also excepting therefrom any portion within the bed of the Russian River in its last Natural State.

APN: 110-120-20 & 21

Tract 3:

Parcel One:

Commencing at the Southwest corner of the Northwest quarter of the Northeast quarter of Section 15, Township 8 North, Range 9 West, M.D.M. & M., as said Section is projected into the El Molino Rancho on the East boundary line of the Rancho El Molino; thence South 88 degrees 50' West, 471.24 chains to an iron pin driven in the center of the County Road leading from Healdsburg to Guerneville, the place of beginning; thence North 1 degree West, along the center of said road, 8.89 chains to an iron pin driven in the ground; thence South 88 degrees 50' West, 46.50 chains, more or less, to a point in the boundary line established by the Deed and Agreement dated October 15, 1919 and made and entered into by and between E. D. Thompson, W. M. Richardson and Emily B. Hopkins, and recorded in Book 376, of Deeds, Page 449, Sonoma County Records, which said point is South 15 degrees 50' West, 12.53 chains from the Northerly end of the boundary line so established; thence along said line and its extension South 15 degrees 50' West, 30.62 chains, more or less, to a point in the South line of the Northeast quarter of Section 16, Township 8 North, Range 9 West; thence North 88 degrees 45' East, along said line, 60.29 chains to the center of Section 15 of said Township and Range; thence East 40.00 chains, more or less, to the Southeast corner of the Northeast quarter of said Section 15; thence North 20.00 chains, more or less, to the Southeast corner of the Northeast quarter of the Northeast quarter of Section 15; thence West along the South line of the North half of the Northeast quarter of Section 15, 47.14 chains to the point of beginning.

Being the same premises described in Deed from T. Boone Miller and Jessie L. Miller to Walter M. Richardson, dated November 17, 1913 and recorded in Book 316 of Deeds, Page 353, Sonoma County Records, and in the Deed from E. D. Thompson to W. M. Richardson, dated May 13, 1919 and recorded in Book 368 of Deeds, Page 398, Sonoma County Records, with the Westerly boundaries of the respective tract so conveyed by said Deeds, amended to conform with the Deed and Agreement between E. D. Thompson, W. M. Richardson and Emily Hopkins, hereinabove referred to.

Also excepting therefrom all of the portion thereof which lies East of the center line of the County Road (Eastside Road) leading from Healdsburg, California to Guerneville, California, as said County Road exists as of October 29, 1971.

Also excepting therefrom any portion lying within the parcel described in the deed to the County of Sonoma, recorded October 30, 1974, in Book 2908 OR, Page 685.

Excepting therefrom that portion described in the Deed records May 8, 1998, under Document No. 19980049700, Official Records of Sonoma County, California.

Also excepting therefrom, that portion within the bed of the Russian River in its last Natural State.

APN: 66-290-52

Parcel Two:

That portion of the El Molino Rancho and also a portion of the lands of Argonaut Constructors, as shown on that Record of Survey filed in Book 114 of Maps, at Page 29, Sonoma County Records, and being more particularly described as follows:

Commencing at a 2 inch iron pipe found at the one-quarter section corner common to Sections 10 and 15, Township 8 North, Range 9 West, M.D.B. & M., as said Section are projected into the El Molino Rancho; thence from said point of commencement and along the North line of E. D. Thompson, as referred to in that Document recorded in Book 376 of Deeds, Page 449, Sonoma County Records, South 89 degrees 45' West,

448.05 feet to a 3/4 inch iron pipe and the true point of beginning of the parcel of land to be herein described.

Thence from said point of beginning and continuing along said North line of E. d. Thompson, South 89 degrees 45" West, 2728.55 feet to a 3/4 inch iron pipe; thence leaving said line and along the Agreement line as described in that Document recorded in Book 376 of Deeds, Page 449, Sonoma County Records, South 15 degrees 50' West 825.95 feet to a 3/4 inch iron pipe; thence leaving said agreement line and along the North line of that parcel as described in that Document recorded in Book 559 of Official Records, at Page 496, Sonoma County Records, North 89 degrees 07' 39" East, 2016.00 feet to a 3/4 inch iron pipe; thence leaving said line, North 0 degrees 15' West, 731.72 feet to a 3/4 inch iron pipe; thence North 89 degrees 45' East, 940.41 feet to a 3/4 inch iron pipe set in Eastside Road; thence North 1 degree 16' 23" East, 40.41 feet to the point of beginning of the hereinabove described parcel of land.

Basis of Bearing. North Line E. D. Thompson recorded in Book 376 of Deeds, at Page 449, Sonoma County Records.

Excepting therefrom any portion within the bed of the Russian River in its last Natural State.

APN: 066-300-27

Parcel Three:

That portion of the lands of Vimark, Inc., as said lands are described by Deed recorded in Book 2525, Official Records, Page 181, Sonoma County Records, said portion being more particularly described as follows:

All said lands of Vimark lying Westerly of the following described line:

Commencing at the center of Section 15, T8N., R9W., M.D.B.&M. and running thence South 88° 45' 00" West, 492.36 feet, more or less, to the centerline of Eastside Road; thence continuing South 88° 45' 00" West, along the North line of Vimark 1,300 feet to the true point of beginning; thence South 44° 44' 26" West, 670.30 feet; thence South 0° 45' 00" East, 876.74 feet to the South line of Vimark and the terminus of said line.

Excepting therefrom any portion within the bed of the Russian River in its last Natural State.

Parcel Four:

A 30.00 foot wide easement for ingress, egress and utilities described as follows:

Being a 30.00 foot wide strip of land the Northerly edge of which is coincident with the Northerly line of said land of Vimark, Inc. Starting from the center of Eastside Road and running thence South 88° 45' West, along the North line of Vimark 1,300 feet to the Northeast corner of the above parcel. The Southerly line of said easement is to be extended to intersect the East line of the above parcel.

APN: 066-290-49 & 50

Tract 4:

The land herein referred to is situated in the State of California, County of Sonoma, and is described as follows:

Beginning at a 3/4 inch iron pipe monument, distant West 3,317.00 feet from a 3/4 inch iron pipe in concrete marking the center of Section 10, Township 8 North, Range 9 West, M.D.B. & M., according to the Official Plat thereof; thence from said point of beginning, South 6 degrees 34' West, along the Agreement Line recorded in Book H of Bonds and Agreement at Page 118, Sonoma County Records, 820.96 feet to the Northeasterly corner of the lands of Basalt Rock Company, Inc., as recorded in Book 2080 of Official Records at Page 350, Sonoma County Records; thence along the Northerly lines of said Lands of Basalt Rock Company, Inc., South 89 degrees 36' 08" West, 876.23 feet to the Southeasterly corner of Parcel 2 of the Lands of Basalt Rock Company, Inc., as recorded in Book 1528 of Official Records, at Page 588, Sonoma County Records; thence along the Easterly line of said Lands of Basalt Rock Company, Inc., North 14 degrees 19' 36" East, 848.03 feet to the Northerly line of the Lands of Harvey C. Frost; thence along said Northerly line, East 760.25 feet to the point of beginning.

Excepting therefrom any portion within the bed of the Russian River in its last Natural State.

APN: 110-110-15 & 16

Tract 5:

The land herein referred to is situated in the State of California, County of Sonoma, and is described as follows:

Lot 1, as shown on that certain Parcel Map No. M. S. 86-212 filed in the Office of the County Recorder of Sonoma County on June 28, 1989 in Book 438 of Maps at Pages 29 and 30, Sonoma County Records.

Excepting therefrom any portion within the bed of the Russian River in its last Natural State.

APN: 66-300-49

AT THE DATE HEREOF, ITEMS TO BE CONSIDERED AND EXCEPTIONS TO COVERAGE IN ADDITION TO THE PRINTED EXCEPTIONS AND EXCLUSIONS IN SAID POLICY FORM WOULD BE AS FOLLOWS:

1. The requirement that evidence of the name change or merger between Hansen Aggregates Mid-Pacific, Inc., a Delaware Corporation and Kaiser Sand & Gravel Company, a Delaware corporation be recorded in Sonoma County prior to issuing any title policy.

The Following Matters Affect Tract 1:

2. **Property taxes**, which are a lien not yet due and payable, including any assessments collected with taxes to be levied for the fiscal year 2011-2012.

3. **The lien of supplemental taxes**, if any, assessed pursuant to the provisions of Chapter 3.5 (Commencing with Section 75) of the Revenue and Taxation code of the State of California.

4. The fact that the research shows that the El Molina Rancho and the Sotoyomo Rancho, each meandered the Russian River. Nothing was found divesting the State of California of its interest in the natural bed of the river. A boundary settlement agreement with the State of California will be required to establish title and location of the natural bed of the Russian River.

5. **Any adverse claim** based upon the assertion that:

a. Said land or any part thereof is now or at any time has been below the highest of the high watermarks of the Russian River, in the event the boundary of said river has been artificially raised or is now or at any time has been below the high watermark, if said river is in its natural state.

b. Some portion of said land has been created by artificial means or has accreted to such portion so created.

c. Some portion of said land has been brought within the boundaries thereof by an avulsive movement of the Russian River, or has been formed by accretion to any such portion.

6. **Rights and easements** for navigation and fishery which may exist over that portion of said land lying beneath the waters of Russian River.

7. **Any rights** in favor of the public which may exist on said land if said land or portions thereof are or were at any time used by the public.

8. **Matters** contained in that certain document entitled "Boundary Line Agreement" dated None shown, executed by and between J.W. Calhoun, A. L. Warner, J.E. Warner and M.V. Frost recorded October 23, 1896, Book H of Bond and Agreements, Page 118, of Official Records.

Reference is hereby made to said document for full particulars.

9. **Easement(s)** for the purpose(s) shown below and rights incidental thereto as granted in a document.

Granted to:	Sonoma Ranch Company, a partnership
Purpose:	General road
Recorded:	January 24, 1956, Book 1410, Page 13, of Official Records
Affects:	Northerly 50 feet

10. **Matters** contained in that certain document entitled "Agreement" dated None shown, executed by and between Hein Bros., Basalt Rock Company, a corporation and Sonoma Ranch Company, a partnership recorded January 24, 1956, Book 1410, Page 20, of Official Records.

Reference is hereby made to said document for full particulars.

11. Effect of that certain Record of Survey Map, filed September 10, 1980 in Book 311 of Maps at Page 19, Records of Sonoma County County, California. Said Record of Survey conflicts with the Record legal description of the herein described land. Said Record of Survey discloses possible conflicts with neighboring parcels.

12. **An unrecorded lease** with certain terms, covenants, conditions and provisions set forth therein as disclosed by the document

Entitled:	Memorandum of Lease
Lessor:	Hein Bros. Basalt Rock Company, Inc., a California corporation
Lessee:	Quarry Products, Inc., a California corporation
Recorded:	January 28, 1983, Instrument No. 83005548, of Official Records

The present ownership of the leasehold created by said lease and other matters affecting the interest of the lessee are not shown herein.

Said lease was modified by an instrument recorded July 11, 1983, under Document No. 83044631 of Official Records of Sonoma County, California.

13. **Easement(s)** for the purpose(s) shown below and rights incidental thereto as granted in a document.

Granted to:	The Windsor Water District, a political subdivision of the State of California
Purpose:	Waterlines, sewerlines, underground water line, roadway
Recorded:	May 1, 1985, Instrument No. 85026867, of Official Records
Affects:	15 foot wide pipe line and 25 foot wide roadway in the Northerly portion

14. **Easement(s)** for the purpose(s) shown below and rights incidental thereto as granted in a document.

Granted to:	Pacific Gas and Electric Company, a California corporation
Purpose:	Underground conduits and pole lines
Recorded:	April 2, 1986, Instrument No. 86022375, of Official Records
Affects:	The Northerly portion

15. An easement for an existing pole line as disclosed by the Deed to PG & E recorded April 2, 1986, as Document #86022375, Official Records.

The Following Matters Affects Tract 2:

16. **Property taxes**, which are a lien not yet due and payable, including any assessments collected with taxes to be levied for the fiscal year 2011-2012.

17. **The lien of supplemental taxes**, if any, assessed pursuant to the provisions of Chapter 3.5 (Commencing with Section 75) of the Revenue and Taxation code of the State of California.

18. The fact that research shows that the El Molina Rancho and the Sotoyomo Rancho, each meandered the Russian River. Nothing was found divesting the State of California of its interest in the natural bed of the river. A boundary settlement agreement with the State of California will be required to establish the title and location of the natural bed of the Russian River.

19. **Any adverse claim** based upon the assertion that:

a. Said land or any part thereof is now or at any time has been below the highest of the high watermarks of the Russian River, in the event the boundary of said river has been artificially raised or is now or at any time has been below the high watermark, if said river is in its natural state.

b. Some portion of said land has been created by artificial means or has accreted to such portion so created.

c. Some portion of said land has been brought within the boundaries thereof by an avulsive movement of the Russian River, or has been formed by accretion to any such portion.

20. **Rights and easements** for navigation and fishery which may exist over that portion of said land lying beneath the waters of Russian River.

21. **Any rights** in favor of the public which may exist on said land if said land or portions thereof are or were at any time used by the public.

22. **Matters** contained in that certain document entitled "Agreement" dated None shown, executed by and between J.W. Calhoun, A.L. Warner, J.E. Warner and M.V. Frost recorded October 23, 1896, Book H of Bonds and Agreements, Page 118, of Official Records.

Reference is hereby made to said document for full particulars.

23. Effect of that certain Record of Survey Map, filed September 10, 1980 in Book 311 of Maps at Page 19, Records of Sonoma County, California. Said Record of Survey conflicts with the Record of legal description of the herein described land. Said Record of Survey discloses possible conflicts with neighboring parcels.

The Following Matters Affect Tract 3:

24. **Property taxes**, which are a lien not yet due and payable, including any assessments collected with taxes to be levied for the fiscal year 2011-2012.

25. **The lien of supplemental taxes**, if any, assessed pursuant to the provisions of Chapter 3.5 (Commencing with Section 75) of the Revenue and Taxation code of the State of California.

26. The fact that research shows that the El Molina Rancho and the Sotoyomo Rancho, each meandered the Russian River. Nothing was found divesting the State of California of its interest in the natural bed of the river. A boundary settlement agreement with the State of California will be required to establish the title and location of the natural bed of the Russian River.

27. **Any adverse claim** based upon the assertion that:

a. Said land or any part thereof is now or at any time has been below the highest of the high watermarks of the Russian River, in the event the boundary of said river has been artificially raised or is now or at any time has been below the high watermark, if said river is in its natural state.

b. Some portion of said land has been created by artificial means or has accreted to such portion so created.

c. Some portion of said land has been brought within the boundaries thereof by an avulsive movement of the Russian River, or has been formed by accretion to any such portion.

28. **Rights and easements** for navigation and fishery which may exist over that portion of said land lying beneath the waters of Russian River.

29. **Any rights** in favor of the public which may exist on said land if said land or portions thereof are or were at any time used by the public.

30. **Rights of the public** as to any portion of the land lying within the area commonly known as Eastside Road.

31. **Easement(s)** for the purpose(s) shown below and rights incidental thereto as reserved in a document;

Reserved by:	Ellen M. Quinan, et al.
Purpose:	Reserves for well & pipelines
Recorded:	March 26, 1956, Book 1426, Page 237, of Official Records

32. **Covenants and restrictions** imposed by a Land Conservation Contract executed pursuant to Section 51200 et seq. California Government Code.

Dated:	October 23, 1975
Executed by:	Vimark, Inc. ,and The County of Sonoma
Recorded:	December 8, 1975, Book 3026, Page 146, of Official Records

Said contract is subject to the following:

The effect of a document captioned "Resolution of the Board of Supervisors of the County of Sonoma to Phase-Out Williamson Act Contract "

Recorded: December 22, 1992, Instrument No. 1992-0159802, of Official Records

33. **Matters** contained in that certain document entitled "Agreement" dated None shown, executed by and between Kaiser Industries Corporation, Sand and Gravel Division, a Nevada corporation and Warren P. Richardson and Camille Gertrude Richardson, husband and wife recorded November 1, 1971, Instrument No. M-38787, Book 2577, Page 617, of Official Records.

Reference is hereby made to said document for full particulars.

The effect of of a "Supplemental Agreement", executed by and between Kaiser Industries Corporation, Sand and Gravel Division, a Nevada corporation and Warren P. Richardson and Camille Gertrude Richardson, husband and wife and recorded November 1, 1971 in Book 2577 of Official Records, Page 627, Serial No. M-38788, Sonoma County Records.

34. INTENTIONALLY DELETED

35. **Easement(s)** for the purpose(s) shown below and rights incidental thereto as granted in a document.

Granted to:	Pacific Telephone and Telegraph Company, a Corporation
Purpose:	For line of poles
Recorded:	December 13, 1975, Book 3164, Page 51, of Official Records

36. Any rights, interests or claims which may exists or arise by reason of the following facts shown by a Record of Survey, recorded in Book 114 of Maps, at Page 29, and in Record of Survey, recorded in Book 122 of Maps, at Page 50:

a) An encroachment onto said land of a fence along the Northerly boundary.
b) An encroachment of a fence onto the lands lying Northerly of said land.

37. **Easement(s)** for the purpose(s) shown below and rights incidental thereto as reserved in a document;

Reserved by:	Thomas N. Jordan, Jr.
Purpose:	Agricultural purposes
Recorded:	November 14, 1989, Instrument No. 89108840, of Official Records
Affects:	The Easterly 100 feet

38. **An unrecorded lease** with certain terms, covenants, conditions and provisions set forth therein as disclosed by the document

Entitled:	Memorandum of Agricultrual Lease with Option to Purchase
Lessor:	Kaiser Sand & Gravel Company, a Delaware corporation
Lessee:	Thomas N. Jordan Jr., a married man dealing with his separate property
Recorded:	November 14, 1989, Instrument No. 89108839, of Official Records

The present ownership of the leasehold created by said lease and other matters affecting the interest of the lessee are not shown herein.

39. **Covenants and restrictions** imposed by a Land Conservation Contract executed pursuant to Section 51200 et seq. California Government Code.

Dated:	None shown
Executed by:	Kaiser Sand and Gravel
Recorded:	December 13, 1995, Instrument No. 1995-0105792, of Official Records

40. **Covenants and restrictions** imposed by a Land Conservation Contract executed pursuant to Section 51200 et seq. California Government Code.

Dated:	None shown
Executed by:	Kaiser Sand & Gravel Company
Recorded:	February 22, 1996, Instrument No. 1996-0015013, of Official Records

41. Terms, Conditions, Provisions as set forth in the Deed executed by Sonoma Title Guaranty Company, a corporation to Vimark, Inc., a California corporation, recorded August 31, 1990, Instrument No. 1990-0088098, Official Records.

42. Terms and provisions of the Resolution of the Board of Supervisors, County of Sonoma, State of California, Approving a Request for Phase-Out of Williamson Act Contract No. 3026/146, recorded December 22, 1992, Instrument No. 1992-0159802, Official Records.

43. **A covenant and agreement** entitled "Deed and Agreement Conveying an Open Space Easement and Assigning Development Rights"

Executed by:	Kaiser Sand & Gravel Company
In favor of:	The County of Sonoma
Recorded:	October 13, 1997, Instrument No. 1997-0093129, of Official Records

Reference is hereby made to said document for full particulars.

44. **A covenant and agreement** entitled "Deed and Agreement Conveying an Open Space Easement and Assigning Development Rights"

Executed by:	Kaiser Sand and Gravel Company
In favor of:	The County of Sonoma
Recorded:	October 13, 1997, Instrument No. 1997-0093130, of Official Records

Reference is hereby made to said document for full particulars.

45. Terms, Conditions and Provisions as set forth in the Agreement Rescinding Existing Type I Land Conservation Contract and Simultaneously entering into a New Type I Land Conservation Contract entered into by and between Kaiser Sand & Gravel Company, a corporation and the County of Sonoma, a political subdivision of the State of California, recorded December 22, 1998, Instrument No. 1998-0153732, Official Records.

46. Resolution of the Board of Supervisors, County of Sonoma, State of California, Granting the Request by Kaiser Sand and Gravel Company to amend and Agricultural Preserve and Authorizing the Chairman of the Board of Supervisors to Sign an Amended Type I Williamson Act Contract, recorded June 10, 1998, Instrument No. 1998-0064156, Official Records.

47. **Easement(s)** for the purpose(s) shown below and rights incidental thereto as granted in a document.

Granted to:	FRE 452, LLC, a California limited liability company
Purpose:	Agricultural access
Recorded:	August 29, 2008, Instrument No. 2008079182, of Official Records
Affects:	A portion of premises

Reference is made to said document for full particulars.

48. **Easement(s)** for the purpose(s) shown below and rights incidental thereto as granted in a document.

Granted to:	FRE 452, LLC, a California limited liability company
Purpose:	Water source with a pump, irrigation and utility lines
Recorded:	August 29, 2008, Instrument No. 2008079184, of Official Records
Affects:	A portion of the premises

Reference is made to said document for full particulars.

The Following Matters Affect Tract 4:

49. **Property taxes**, which are a lien not yet due and payable, including any assessments collected with taxes to be levied for the fiscal year 2011-2012.

50. **The lien of supplemental taxes**, if any, assessed pursuant to the provisions of Chapter 3.5 (Commencing with Section 75) of the Revenue and Taxation code of the State of California.

51. The fact that research shows that the El Molina Rancho and the Sotoyomo Rancho, each meandered the Russian River. Nothing was found divesting the State of California of its interest in the natural bed of the river. A boundary settlement agreement with the State of California will be required to establish the title and location of the natural bed of the Russian River.

52. **Any adverse claim** based upon the assertion that:

a. Said land or any part thereof is now or at any time has been below the highest of the high watermarks of the Russian River, in the event the boundary of said river has been artificially raised or is now or at any time has been below the high watermark, if said river is in its natural state.

b. Some portion of said land has been created by artificial means or has accreted to such portion so created.

c. Some portion of said land has been brought within the boundaries thereof by an avulsive movement of the Russian River, or has been formed by accretion to any such portion.

53. **Rights and easements** for navigation and fishery which may exist over that portion of said land lying beneath the waters of Russian River.

54. **Any rights** in favor of the public which may exist on said land if said land or portions thereof are or were at any time used by the public.

55. **Matters** contained in that certain document entitled "Boundary Line Agreement" dated None shown, executed by and between J.W. Calhoun, A.L. Warner and J.E. Warner and M.V. Frost recorded October 23, 1896, Book H of Bonds and Agreements, Page 118, of Official Records.

Reference is hereby made to said document for full particulars.

56. Effect of that certain Record of Survey Map, filed September 10, 1980 in Book 311 of Maps at Page 19, Records of Sonoma County, California. Said Record of Survey conflicts with the record legal description of the herein described land. Said Record of Survey discloses possible conflicts with neighboring parcels.

57. **Easement(s)** for the purpose(s) shown below and rights incidental thereto as granted in a document.

Granted to:	Pacific Gas and Electric Company, a California corporation
Purpose:	Underground conduits and pole lines
Recorded:	April 2, 1986, Instrument No. 86-22375, of Official Records
Affects:	As described therein

The Following Matters Affects Tract 5

58. **Property taxes**, which are a lien not yet due and payable, including any assessments collected with taxes to be levied for the fiscal year 2011-2012.

59. **Property taxes**, including any personal property taxes and any assessments collected with taxes, for the fiscal year 2010-2011, Assessor's Parcel Number 066-300-049-000.

Code Area Number:	179-006
1st Installment:	$16,167.49 Delinquent and Penalty $1,616.74
2nd Installment:	$16,167.49 Open
Land:	$2,753,908.00
Improvements:	$0.00
Exemption:	$0.00
Personal Property:	$0.00

60. **The lien of supplemental taxes**, if any, assessed pursuant to the provisions of Chapter 3.5 (Commencing with Section 75) of the Revenue and Taxation code of the State of California.

61. The fact that research shows that the El Molina Rancho and the Sotoyomo Rancho, each meandered the Russian River. Nothing was found divesting the State of California of its interest in the natural bed of the river. A boundary settlement agreement with the State of California will be required to establish the title and location of the natural bed of the Russian River.

62. **Any adverse claim** based upon the assertion that:

a. Said land or any part thereof is now or at any time has been below the highest of the high watermarks of the Russian River, in the event the boundary of said river has been artificially raised or is now or at any time has been below the high watermark, if said river is in its natural state.

b. Some portion of said land has been created by artificial means or has accreted to such portion so created.

c. Some portion of said land has been brought within the boundaries thereof by an avulsive movement of the Russian River, or has been formed by accretion to any such portion.

63. **Rights and easements** for navigation and fishery which may exist over that portion of said land lying beneath the waters of Russian River.

64. **Any rights** in favor of the public which may exist on said land if said land or portions thereof are or were at any time used by the public.

65. **Matters** contained in that certain document entitled "Boundary Line Agreement" dated October 22, 1896, executed by and between J.W. Calhoun, et al. recorded October 23, 1896, Book H of Bonds and Agreements, Page 118, of Official Records.

Reference is hereby made to said document for full particulars.

66. **Easement(s)** for the purpose(s) shown below and rights incidental thereto as granted in a document.

Granted to:	County of Sonoma
Purpose:	Sixty Foot County Road
Recorded:	March 5, 1870, Book 29, Page 167, of Official Records

67. Terms, Conditions and Provisions as contained in Deed from Sonoma County Land Title Company, a corporation to Sonoma Ranch Company, a partnership, dated January 5, 1956, Recorded January 24, 1956 in Book 1410 of Official Records, Page 8, Sonoma County Records.

68. INTENTIONALLY DELETED

69. **Covenants and restrictions** imposed by a Land Conservation Contract executed pursuant to Section 51200 et seq. California Government Code.

Dated:	None shown
Executed by:	Mariani Majority Partnership, Paul Andrew Mariani, Jr., Mary Frances Mariani, Mathilda Marie Sousa, Trustee, Winifred Pauline Thiltgen, Trustee, Mathilda Marie Sousa, individually, George Sousa, Marian Sousa, Ciabattari
Recorded:	February 27, 1976, Book 3052, Page 130, of Official Records

70. **Easement(s)** for the purpose(s) shown below and rights incidental thereto as granted in a document.

Granted to:	Pacific Telephone and Telegraph Company, a Corporation
Purpose:	Line of poles
Recorded:	December 13, 1975, Book 3164, Page 51, of Official Records

71. Terms, Conditions and Provisions of Resolution by the Board of Supervisors of the County of Sonoma creating Agricultural PreserveType A-2; Certified copy being recorded March 3, 1977 in Book 3196, Page 523, Official Records.

72. **Matters** contained in that certain document entitled "Agreement" dated None shown, executed by and between Mariani Bros., a partnership and Kaiser Sand and Gravel Company, a California corporation recorded December 30, 1985, Instrument No. 85087691, of Official Records.

Reference is hereby made to said document for full particulars.

73. **Matters** contained in that certain document entitled "Agreement for Covenants Running with the Land" dated None shown, executed by and between Mam Property Ltd., a California limited parnership, Richard M. Mariani, a married man and Mariani Bros., a California general partnership recorded March 9, 1989, Instrument No. 89020519, of Official Records.

Reference is hereby made to said document for full particulars.

The Following Matters Affects All Tracts

74. **Matters** contained in that certain document entitled "Memorandum of Option" dated July 14, 2010, executed by and between Hanson Aggregated Mid-Pacific, Inc., a Delaware corporation, and Endangered Habitats Conservancy, a California nonprofit public benefit corporation recorded November 24, 2010, Instrument No. 2010-106872, of Official Records.

Reference is hereby made to said document for full particulars.

75. **Any facts, rights, interests or claims,** which are not shown by the public records but which could be ascertained by an inspection of the land or which may be asserted by persons in possession thereof.

76. **Easements, liens or encumbrances,** or claims thereof, which are not shown by the public records.

77. **Discrepancies, conflicts in boundary lines, shortage in area, encroachments,** or any other facts which a correct survey would disclose and which are not shown by the public records.

78. **(a) Unpatented mining claims;** (b) reservations or exceptions in patents or in Acts authorizing the issuance thereof; (c) water rights, claims or title to water, whether or not the matters excepted under (a), (b) or (c) are shown in the public records.

END OF ITEMS

Note 1. Property taxes for the fiscal year shown below are PAID. For proration purposes the amounts are:

Tax Identification No.:	066-300-011-000
Fiscal Year:	2010 - 2011
1st Installment:	$2,650.05
2nd Installment:	$2,650.05
Land:	$401,945.00
Improvements:	$5,087.00
Code Area:	179-006

Affects: Tract 1

Note 2. Property taxes for the fiscal year shown below are PAID. For proration purposes the amounts are:

Tax Identification No.:	110-120-020-000
Fiscal Year:	2010 - 2011
1st Installment:	$369.77
2nd Installment:	$369.77
Land:	$30,527.00
Code Area:	097-032

Note 3. Property taxes for the fiscal year shown below are PAID. For proration purposes the amounts are:

Tax Identification No.:	110-120-021-000
Fiscal Year:	2010 - 2011
1st Installment:	$261.16
2nd Installment:	$261.16
Land:	$30,527.00
Code Area:	179-006

Affects: Tract 2

Note 4. Property taxes for the fiscal year shown below are PAID. For proration purposes the amounts are:

Tax Identification No.:	066-290-052-000
Fiscal Year:	2010 - 2011
1st Installment:	$1,319.43
2nd Installment:	$1,319.43
Land:	$203,516.00
Code Area:	179-006

Affects: Tract Three Parcel One

Note 5. Property taxes for the fiscal year shown below are PAID. For proration purposes the amounts are:

Tax Identification No.:	0066-300-027-000
Fiscal Year:	2010 - 2011
1st Installment:	$3,039.22
2nd Installment:	$3,039.22
Land:	$510,000.00
Code Area:	179-006

Affects: Tract Three Parcel Two

Note 6. Property taxes for the fiscal year shown below are PAID. For proration purposes the amounts are:

Tax Identification No.:	066-290-049-000
Fiscal Year:	2010 - 2011
1st Installment:	$2,341.19
2nd Installment:	$2,341.19
Land:	$392,348.00
Code Area:	179-006

Note 7. Property taxes for the fiscal year shown below are PAID. For proration purposes the amounts are:

Tax Identification No.:	066-290-050-000
Fiscal Year:	2010 - 2011
1st Installment:	$3,313.49
2nd Installment:	$3,313.49
Land:	$432,879.00
Improvements:	$108,677.00
Personal Property:	$18,112.00 (Improvement Fixed)

Affects: Tract 3 Parcel Three and Four

Note 8. Property taxes for the fiscal year shown below are PAID. For proration purposes the amounts are:

Tax Identification No.:	110-110-015-000
Fiscal Year:	2010 - 2011
1st Installment:	$429.28
2nd Installment:	$429.28
Land:	$40,703.00
Code Area:	097-032

Note 9. Property taxes for the fiscal year shown below are PAID. For proration purposes the amounts are:

Tax Identification No.:	110-110-016-000
Fiscal Year:	2010 - 2011
1st Installment:	$319.62
2nd Installment:	$319.62
Land:	$40,703.00
Code Area:	179-006

Affects: Tract 4

Note 10. ***** IMPORTANT RECORDING NOTE *****

Please send all original documents for recording to the following office:

Fidelity National Title Company
500 Bicentennial Way, #200
Santa Rosa, California 95403
Attn: Jay Jordan
Telephone: (707) 544-1771
Facsimile : (707) 781-7399

Please direct all other title communication and copies of documents, including recording release instructions, policy write up instructions, lenders instructions and settlement statements, to the Title Only Department at the following address:

FNTG Sacramento Title Group
3075 Prospect Park Drive, Suite 130
Rancho Cordova, California 95670
Attention: Dave Pryor
Telephone: (916) 853-7625
Facsimile : (916) 638-1365

Note 11. If a county recorder, title insurance company, escrow company, real estate broker, real estate agent or association provides a copy of a declaration, governing document or deed to any person, California law requires that the document provided shall include a statement regarding any unlawful restrictions. Said statement is to be in at least 14-point bold face type and may be stamped on the first page of any document provided or included as a cover page attached to the requested document. Should a party to this transaction request a copy of any document reported herein that fits this category, the statement is to be included in the manner described.

Note 12. Please contact Escrow Office for Wire Instructions.

Note 13. Any documents being executed in conjunction with this transaction must be signed in the presence of an authorized Company employee, an authorized employee of an agent, an authorized employee of the insured lender, or by using Bancserv or other approved third-party service. If the above requirements cannot be met, please call the company at the number provided in this report.

END OF NOTES

ATTACHMENT ONE

AMERICAN LAND TITLE ASSOCIATION
RESIDENTIAL TITLE INSURANCE POLICY (6-1-87) EXCLUSIONS

In addition to the Exceptions in Schedule B, you are not insured against loss, costs, attorneys' fees, and expenses resulting from:

1. Governmental police power, and the existence or violation of any law or government regulation. This includes building and zoning ordinances and also laws and regulations concerning:
   - land use
   - improvements on the land
   - land division
   - environmental protection

   This exclusion does not apply to violations or the enforcement of these matters which appear in the public records at policy date.
   This exclusion does not limit the zoning coverage described in Items 12 and 13 of Covered Title Risks.
2. The right to take the land by condemning it, unless:
   - a notice of exercising the right appears in the public records on the Policy Date
   - the taking happened prior to the Policy Date and is binding on you if you bought the land without knowledge of the taking
3. Title Risks:
   - that are created, allowed, or agreed to by you
   - that are known to you, but not to us, on the Policy Date- unless they appeared in the public records
   - that result in no loss to you
   - that first affect your title after the Policy Date - this does not limit the labor and material lien coverage in Item 8 of Covered Title Risks
4. Failure to pay value for your title.
5. Lack of a right:
   - to any land outside the area specifically described and referred to in Item 3 of Schedule A
     or
   - in streets, alleys, or waterways that touch your land

   This exclusion does not limit the access coverage in Item 5 of Covered Title Risks.

In addition to the Exclusions, you are not insured against loss, costs, attorneys' fees, and the expenses resulting from:

1. Any rights, interests, or claims of parties in possession of the land not shown by the public records.
2. Any easements or liens not shown by the public records. This does not limit the lien coverage in Item 8 of Covered Title Risks.
3. Any facts about the land which a correct survey would disclose and which are not shown by the public records. This does not limit the forced removal coverage in Item 12 of Covered Title Risks.
4. Any water rights or claims or title to water in or under the land, whether or not shown by the public records.

ATTACHMENT ONE
(CONTINUED)

CALIFORNIA LAND TITLE ASSOCIATION STANDARD COVERAGE POLICY - 1990
EXCLUSIONS FROM COVERAGE

The following matters are expressly excluded from the coverage of this policy and the Company will not pay loss or damage, costs, attorneys' fees or expenses which arise by reason of:

1. (a) Any law, ordinance or governmental regulation (including but not limited to building and zoning laws, ordinances, or regulations) restricting, regulating, prohibiting or relating (i) the occupancy, use, or enjoyment of the land; (ii) the character, dimensions or location of any improvement now or hereafter erected on the land; (iii) a separation in ownership or a change in the dimensions or area of the land or any parcel of which the land is or was a part; or (iv) environmental protection, or the effect of any violation of these laws, ordinances or governmental regulations, except to the extent that a notice of the enforcement thereof or a notice of a defect, lien or encumbrance resulting from a violation or alleged violation affecting the land has been recorded in the public records at Date of Policy.
   (b) Any governmental police power not excluded by (a) above, except to the extent that a notice of the exercise thereof or a notice of a defect, lien or encumbrance resulting from a violation or alleged violation affecting the land has been recorded in the public records at Date of Policy.
2. Rights of eminent domain unless notice of the exercise thereof has been recorded in the public records at Date of Policy, but not excluding from coverage any taking which has occurred prior to Date of Policy which would be binding on the rights of a purchaser for value without knowledge.
3. Defects, liens, encumbrances, adverse claims, or other matters:
   (a) whether or not recorded in the public records at Date of Policy, but created, suffered, assumed or agreed to by the insured claimant;
   (b) not known to the Company, not recorded in the public records at Date of Policy, but known to the insured claimant and not disclosed in writing to the Company by the insured claimant prior to the date the insured claimant became an insured under this policy;
   (c) resulting in no loss or damage to the insured claimant;
   (d) attaching or created subsequent to Date of Policy; or
   (e) resulting in loss or damage which would not have been sustained if the insured claimant had paid value for the insured mortgage or for the estate or interest insured by this policy.
4. Unenforceability of the lien of the insured mortgage because of the inability or failure of the insured at Date of Policy, or the inability or failure of any subsequent owner of the indebtedness, to comply with the applicable doing business laws of the state in which the land is situated.
5. Invalidity or unenforceability of the lien of the insured mortgage, or claim thereof, which arises out of the transaction evidenced by the insured mortgage and is based upon usury or any consumer credit protection or truth in lending law.
6. Any claim, which arises out of the transaction vesting in the insured the estate or interest insured by this policy or the transaction creating the interest of the insured lender, by reason of the operation of federal bankruptcy, state insolvency or similar creditors' rights laws.

SCHEDULE B, PART I
EXCEPTIONS FROM COVERAGE

This policy does not insure against loss or damage (and the Company will not pay costs, attorneys' fees or expenses) which arise by reason of:

PART I

1. Taxes or assessments which are not shown as existing liens by the records of any taxing authority that levies taxes or assessments on real property or by the public records. Proceedings by a public agency which may result in taxes or assessments, or notices of such proceedings, whether or not shown by the records of such agency or by the public records.
2. Any facts, rights, interests or claims which are not shown by the public records but which could be ascertained by an inspection of the land or which may be asserted by persons in possession thereof.
3. Easements, liens or encumbrances, or claims thereof, not shown by the public records.
4. Discrepancies, conflicts in boundary lines, shortage in area, encroachments, or any other facts which a correct survey would disclose, and which are not shown by the public records.
5. (a) Unpatented mining claims; (b) reservations or exceptions in patents or in Acts authorizing the issuance thereof; (c) water rights, claims or title to water, whether or not the matters excepted under (a), (b), or (c) are shown by the public records.
6. Any lien or right to a lien for services, labor or material not shown by the public records.

ATTACHMENT ONE
(CONTINUED)

FORMERLY AMERICAN LAND TITLE ASSOCIATION LOAN POLICY (10-17-92)
WITH A.L.T.A. ENDORSEMENT-FORM 1 COVERAGE
EXCLUSIONS FROM COVERAGE

The following matters are expressly excluded from the coverage of this policy and the Company will not pay loss or damage, costs, attorneys' fees or expenses which arise by reason of:

1. (a) Any law, ordinance or governmental regulation (including but not limited to building and zoning laws, ordinances, or regulations) restricting, regulating, prohibiting or relating to (i) the occupancy, use, or enjoyment of the land; (ii) the character, dimensions or location of any improvement now or hereafter erected on the land; (iii) a separation in ownership or a change in the dimensions or area of the land or any parcel of which the land is or was a part; or (iv) environmental protection, or the effect of any violation of these laws, ordinances or governmental regulations, except to the extent that a notice of the enforcement thereof or a notice of a defect, lien or encumbrance resulting from a violation or alleged violation affecting the land has been recorded in the public records at Date of Policy.
   (b) Any governmental police power not excluded by (a) above, except to the extent that a notice of the exercise thereof or a notice of a defect, lien or encumbrance resulting from a violation or alleged violation affecting the land has been recorded in the public records at Date of Policy.
2. Rights of eminent domain unless notice of the exercise thereof has been recorded in the public records at Date of Policy, but not excluding from coverage any taking which has occurred prior to Date of Policy which would be binding on the rights of a purchaser for value without knowledge.
3. Defects, liens, encumbrances, adverse claims, or other matters:
   (a) created, suffered, assumed or agreed to by the insured claimant;
   (b) not known to the Company, not recorded in the public records at Date of Policy, but known to the insured claimant and not disclosed in writing to the Company by the insured claimant prior to the date the insured claimant became an insured under this policy;
   (c) resulting in no loss or damage to the insured claimant;
   (d) attaching or created subsequent to Date of Policy (except to the extent that this policy insures the priority of the lien of the insured mortgage over any statutory lien for services, labor or material or to the extent insurance is afforded herein as to assessments for street improvements under construction or completed at Date of Policy); or
   (e) resulting in loss or damage which would not have been sustained if the insured claimant had paid value for the insured mortgage.
4. Unenforceability of the lien of the insured mortgage because of the inability or failure of the insured at Date of Policy, or the inability or failure of any subsequent owner of the indebtedness, to comply with applicable doing business laws of the state in which the land is situated.
5. Invalidity or unenforceability of the lien of the insured mortgage, or claim thereof, which arises out of the transaction evidenced by the insured mortgage and is based upon usury or any consumer credit protection or truth in lending law.
6. Any statutory lien for services, labor or materials (or the claim of priority of any statutory lien for services, labor or materials over the lien of the insured mortgage) arising from an improvement or work related to the land which is contracted for and commenced subsequent to Date of Policy and is not financed in whole or in part by proceeds of the indebtedness secured by the insured mortgage which at Date of Policy the insured has advanced or is obligated to advance.
7. Any claim, which arises out of the transaction creating the interest of the mortgagee insured by this policy, by reason of the operation of federal bankruptcy, state insolvency, or similar creditors' rights laws, that is based on:
   (i) the transaction creating the interest of the insured mortgagee being deemed a fraudulent conveyance or fraudulent transfer; or
   (ii) the subordination of the interest of the insured mortgagee as a result of the application of the doctrine of equitable subordination; or
   (iii) the transaction creating the interest of the insured mortgagee being deemed a preferential transfer except where the preferential transfer results from the failure:
      (a) to timely record the instrument of transfer; or
      (b) of such recordation to impart notice to a purchaser for value or a judgement or lien creditor.

The above policy form may be issued to afford either Standard Coverage or Extended Coverage.
In addition to the above Exclusions from Coverage, the Exceptions from Coverage in a Standard Coverage policy will also include the following Exceptions from Coverage:

EXCEPTIONS FROM COVERAGE

This policy does not insure against loss or damage (and the Company will not pay costs, attorneys' fees or expenses) which arise by reason of:

1. Taxes or assessments which are not shown as existing liens by the records of any taxing authority that levies taxes or assessments on real property or by the public records. Proceedings by a public agency which may result in taxes or assessments, or notices of such proceedings, whether or not shown by the records of such agency or by the public records.
2. Any facts, rights, interests or claims which are not shown by the public records but which could be ascertained by an inspection of the land or which may be asserted by persons in possession thereof.
3. Easements, liens or encumbrances, or claims thereof, not shown by the public records.
4. Discrepancies, conflicts in boundary lines, shortage in area, encroachments, or any other facts which a correct survey would disclose, and which are not shown by the public records.
5. (a) Unpatented mining claims; (b) reservations or exceptions in patents or in Acts authorizing the issuance thereof; (c) water rights, claims or title to water, whether or not the matters excepted under (a), (b) or (c) are shown by the public records.
6. Any lien or right to a lien for services, labor or material not shown by the public records.

ATTACHMENT ONE
(CONTINUED)

2006 AMERICAN LAND TITLE ASSOCIATION LOAN POLICY (06-17-06)
EXCLUSIONS FROM COVERAGE

The following matters are expressly excluded from the coverage of this policy, and the Company will not pay loss or damage, costs, attorneys' fees, or expenses that arise by reason of:

1. (a) Any law, ordinance, permit, or governmental regulation (including those relating to building and zoning) restricting, regulating, prohibiting, or relating to
   (i) the occupancy, use, or enjoyment of the Land;
   (ii) the character, dimensions, or location of any improvement erected on the Land;
   (iii) the subdivision of land; or
   (iv) environmental protection;
   or the effect of any violation of these laws, ordinances, or governmental regulations. This Exclusion 1(a) does not modify or limit the coverage provided under Covered Risk 5.
   (b) Any governmental police power. This Exclusion 1(b) does not modify or limit the coverage provided under Covered Risk 6.
2. Rights of eminent domain. This Exclusion does not modify or limit the coverage provided under Covered Risk 7 or 8.
3. Defects, liens, encumbrances, adverse claims, or other matters
   (a) created, suffered, assumed, or agreed to by the Insured Claimant;
   (b) not Known to the Company, not recorded in the Public Records at Date of Policy, but Known to the Insured Claimant and not disclosed in writing to the Company by the Insured Claimant prior to the date the Insured Claimant became an Insured under this policy;
   (c) resulting in no loss or damage to the Insured Claimant;
   (d) attaching or created subsequent to Date of Policy (however, this does not modify or limit the coverage provided under Covered Risk 11, 13, or 14); or
   (e) resulting in loss or damage that would not have been sustained if the Insured Claimant had paid value for the Insured Mortgage.
4. Unenforceability of the lien of the Insured Mortgage because of the inability or failure of an Insured to comply with applicable doing-business laws of the state where the Land is situated.
5. Invalidity or unenforceability in whole or in part of the lien of the Insured Mortgage that arises out of the transaction evidenced by the Insured Mortgage and is based upon usury or any consumer credit protection or truth-in-lending law.
6. Any claim, by reason of the operation of federal bankruptcy, state insolvency, or similar creditors' rights laws, that the transaction creating the lien of the Insured Mortgage, is
   (a) a fraudulent conveyance or fraudulent transfer, or
   (b) a preferential transfer for any reason not stated in Covered Risk 13(b) of this policy.
7. Any lien on the Title for real estate taxes or assessments imposed by governmental authority and created or attaching between Date of Policy and the date of recording of the Insured Mortgage in the Public Records. This Exclusion does not modify or limit the coverage provided under Covered Risk 11(b).

The above policy form may be issued to afford either Standard Coverage or Extended Coverage.
In addition to the above Exclusions from Coverage, the Exceptions from Coverage in a Standard Coverage policy will also include the following Exceptions from Coverage:

EXCEPTIONS FROM COVERAGE

This policy does not insure against loss or damage (and the Company will not pay costs, attorneys' fees or expenses) that arise by reason of:

1. (a) Taxes or assessments that are not shown as existing liens by the records of any taxing authority that levies taxes or assessments on real property or by the Public Records; (b) proceedings by a public agency that may result in taxes or assessments, or notices of such proceedings, whether or not shown by the records of such agency or by the Public Records.
2. Any facts, rights, interests, or claims that are not shown by the Public Records but that could be ascertained by an inspection of the Land or that may be asserted by persons in possession of the Land.
3. Easements, liens or encumbrances, or claims thereof, not shown by the Public Records.
4. Any encroachment, encumbrance, violation, variation, or adverse circumstance affecting the Title that would be disclosed by an accurate and complete land survey of the Land and not shown by the Public Records.
5. (a) Unpatented mining claims; (b) reservations or exceptions in patents or in Acts authorizing the issuance thereof; (c) water rights, claims or title to water, whether or not the matters excepted under (a), (b), or (c) are shown by the Public Records.
6. Any lien or right to a lien for services, labor or material not shown by the Public Records.

ATTACHMENT ONE
(CONTINUED)

FORMERLY AMERICAN LAND TITLE ASSOCIATION OWNER'S POLICY (10-17-92)
EXCLUSIONS FROM COVERAGE

The following matters are expressly excluded from the coverage of this policy and the Company will not pay loss or damage, costs, attorneys' fees or expenses which arise by reason of:

1. (a) Any law, ordinance or governmental regulation (including but not limited to building and zoning laws, ordinances, or regulations) restricting, regulating, prohibiting or relating to (i) the occupancy, use, or enjoyment of the land; (ii) the character, dimensions or location of any improvement now or hereafter erected on the land; (iii) a separation in ownership or a change in the dimensions or area of the land or any parcel of which the land is or was a part; or (iv) environmental protection, or the effect of any violation of these laws, ordinances or governmental regulations, except to the extent that a notice of the enforcement thereof or a notice of a defect, lien or encumbrance resulting from a violation or alleged violation affecting the land has been recorded in the public records at Date of Policy.
   (b) Any governmental police power not excluded by (a) above, except to the extent that a notice of the exercise thereof or a notice of a defect, lien or encumbrance resulting from a violation or alleged violation affecting the land has been recorded in the public records at Date of Policy.
2. Rights of eminent domain unless notice of the exercise thereof has been recorded in the public records at Date of Policy, but not excluding from coverage any taking which has occurred prior to Date of Policy which would be binding on the rights of a purchaser for value without knowledge.
3. Defects, liens, encumbrances, adverse claims, or other matters:
   (a) created, suffered, assumed or agreed to by the insured claimant;
   (b) not known to the Company, not recorded in the public records at Date of Policy, but known to the insured claimant and not disclosed in writing to the Company by the insured claimant prior to the date the insured claimant became an insured under this policy;
   (c) resulting in no loss or damage to the insured claimant;
   (d) attaching or created subsequent to Date of Policy, or
   (e) resulting in loss or damage which would not have been sustained if the insured claimant had paid value for the estate or interest insured by this policy.
4. Any claim, which arises out of the transaction vesting in the insured the estate or interest insured by this policy, by reason of the operation of federal bankruptcy, state insolvency, or similar creditors' rights laws, that is based on:
   (i) the transaction creating the estate or interest insured by this policy being deemed a fraudulent conveyance or fraudulent transfer; or
   (ii) the transaction creating the estate or interest insured by this policy being deemed a preferential transfer except where the preferential transfer results from the failure:
      (a) to timely record the instrument of transfer; or
      (b) of such recordation to impart notice to a purchaser for value or a judgement or lien creditor.

The above policy form may be issued to afford either Standard Coverage or Extended Coverage.
In addition to the above Exclusions from Coverage, the Exceptions from Coverage in a Standard Coverage policy will also include the following Exceptions from Coverage:

EXCEPTIONS FROM COVERAGE

This policy does not insure against loss or damage (and the Company will not pay costs, attorneys' fees or expenses) which arise by reason of:

1. Taxes or assessments which are not shown as existing liens by the records of any taxing authority that levies taxes or assessments on real property or by the public records. Proceedings by a public agency which may result in taxes or assessments, or notices of such proceedings, whether or not shown by the records of such agency or by the public records.
2. Any facts, rights, interests or claims which are not shown by the public records but which could be ascertained by an inspection of the land or which may be asserted by persons in possession thereof.
3. Easements, liens or encumbrances, or claims thereof, not shown by the public records.
4. Discrepancies, conflicts in boundary lines, shortage in area, encroachments, or any other facts which a correct survey would disclose, and which are not shown by the public records.
5. (a) Unpatented mining claims; (b) reservations or exceptions in patents or in Acts authorizing the issuance thereof; (c) water rights, claims or title to water, whether or not the matters excepted under (a), (b) or (c) are shown by the public records.
6. Any lien or right to a lien for services, labor or material not shown by the public records.

ATTACHMENT ONE
(CONTINUED)

2006 AMERICAN LAND TITLE ASSOCIATION OWNER'S POLICY (06-17-06)
EXCLUSIONS FROM COVERAGE

The following matters are expressly excluded from the coverage of this policy, and the Company will not pay loss or damage, costs, attorneys' fees, or expenses that arise by reason of:

1. (a) Any law, ordinance, permit, or governmental regulation (including those relating to building and zoning) restricting, regulating, prohibiting, or relating to
   (i) the occupancy, use, or enjoyment of the Land;
   (ii) the character, dimensions, or location of any improvement erected on the Land;
   (iii) the subdivision of land; or
   (iv) environmental protection;
   or the effect of any violation of these laws, ordinances, or governmental regulations. This Exclusion 1(a) does not modify or limit the coverage provided under Covered Risk 5.
   (b) Any governmental police power. This Exclusion 1(b) does not modify or limit the coverage provided under Covered Risk 6.
2. Rights of eminent domain. This Exclusion does not modify or limit the coverage provided under Covered Risk 7 or 8.
3. Defects, liens, encumbrances, adverse claims, or other matters (a) created, suffered, assumed, or agreed to by the Insured Claimant;
   (b) not Known to the Company, not recorded in the Public Records at Date of Policy, but Known to the Insured Claimant and not disclosed in writing to the Company by the Insured Claimant prior to the date the Insured Claimant became an Insured under this policy;
   (c) resulting in no loss or damage to the Insured Claimant;
   (d) attaching or created subsequent to Date of Policy (however, this does not modify or limit the coverage provided under Covered Risk 9 and 10); or
   (e) resulting in loss or damage that would not have been sustained if the Insured Claimant had paid value for the Title.
4. Any claim, by reason of the operation of federal bankruptcy, state insolvency, or similar creditors' rights laws, that the transaction vesting the Title as shown in Schedule A, is
   (a) a fraudulent conveyance or fraudulent transfer; or
   (b) a preferential transfer for any reason not stated in Covered Risk 9 of this policy.
5. Any lien on the Title for real estate taxes or assessments imposed by governmental authority and created or attaching between Date of Policy and the date of recording of the deed or other instrument of transfer in the Public Records that vests Title as shown in Schedule A.

The above policy form may be issued to afford either Standard Coverage or Extended Coverage.
In addition to the above Exclusions from Coverage, the Exceptions from Coverage in a Standard Coverage policy will also include the following Exceptions from Coverage:

EXCEPTIONS FROM COVERAGE

This policy does not insure against loss or damage (and the Company will not pay costs, attorneys' fees or expenses) that arise by reason of:

1. (a) Taxes or assessments that are not shown as existing liens by the records of any taxing authority that levies taxes or assessments on real property or by the Public Records; (b) proceedings by a public agency that may result in taxes or assessments, or notices of such proceedings, whether or not shown by the records of such agency or by the Public Records.
2. Any facts, rights, interests, or claims that are not shown by the Public Records but that could be ascertained by an inspection of the Land or that may be asserted by persons in possession of the Land.
3. Easements, liens or encumbrances, or claims thereof, not shown by the Public Records.
4. Any encroachment, encumbrance, violation, variation, or adverse circumstance affecting the Title that would be disclosed by an accurate and complete land survey of the Land and not shown by the Public Records.
5. (a) Unpatented mining claims; (b) reservations or exceptions in patents or in Acts authorizing the issuance thereof; (c) water rights, claims or title to water, whether or not the matters excepted under (a), (b), or (c) are shown by the Public Records.
6. Any lien or right to a lien for services, labor or material not shown by the Public Records.

ATTACHMENT ONE
(CONTINUED)

CLTA HOMEOWNER'S POLICY OF TITLE INSURANCE (10-22-03)
ALTA HOMEOWNER'S POLICY OF TITLE INSURANCE (10-22-03)
EXCLUSIONS

In addition to the Exceptions in Schedule B, You are not insured against loss, costs, attorneys' fees, and expenses resulting from:

1. Governmental police power, and the existence or violation of any law or government regulation. This includes ordinances, laws and regulations concerning:
   a. building
   b. zoning
   c. Land use
   d. improvements on Land
   e. Land division
   f. environmental protection

   This Exclusion does not apply to violations or the enforcement of these matters if notice of the violation or enforcement appears in the Public Records at the Policy Date.
   This Exclusion does not limit the coverage described in Covered Risk 14, 15, 16, 17 or 24.
2. The failure of Your existing structures, or any part of them, to be constructed in accordance with applicable building codes. This Exclusion does not apply to violations of building codes if notice of the violation appears in the Public Records at the Policy Date.
3. The right to take the Land by condemning it, unless:
   a. notice of exercising the right appears in the Public Records at the Policy Date; or
   b. the taking happened before the Policy Date and is binding on You if You bought the Land without Knowing of the taking.
4. Risks:
   a. that are created, allowed, or agreed to by You, whether or not they appear in the Public Records;
   b. that are Known to You at the Policy Date, but not to Us, unless they appear in the Public Records at the Policy Date;
   c. that result in no loss to You; or
   d. that first occur after the Policy Date - this does not limit the coverage described in Covered Risk 7, 8.d, 22, 23, 24 or 25.
5. Failure to pay value for Your Title.
6. Lack of a right:
   a. to any Land outside the area specifically described and referred to in paragraph 3 of Schedule A; and
   b. in streets, alleys, or waterways that touch the Land.

   This Exclusion does not limit the coverage described in Covered Risk 11 or 18.

LIMITATIONS ON COVERED RISKS

Your insurance for the following Covered Risks is limited on the Owner's Coverage Statement as follows:

- For Covered Risk 14, 15, 16 and 18, Your Deductible Amount and Our Maximum Dollar Limit of Liability shown in Schedule A.

The deductible amounts and maximum dollar limits shown on Schedule A are as follows:

	Your Deductible Amount	Our Maximum Dollar Limit of Liability
Covered Risk 14:	1.00% of Policy Amount or $ 2,500.00 (whichever is less)	$ 10,000.00
Covered Risk 15:	1.00% of Policy Amount or $ 5,000.00 (whichever is less)	$ 25,000.00
Covered Risk 16:	1.00% of Policy Amount or $ 5,000.00 (whichever is less)	$ 25,000.00
Covered Risk 18:	1.00% of Policy Amount or $ 2,500.00 (whichever is less)	$ 5,000.00

ATTACHMENT ONE
(CONTINUED)

CLTA HOMEOWNER'S POLICY OF TITLE INSURANCE (02-03-10)
ALTA HOMEOWNER'S POLICY OF TITLE INSURANCE (02-03-10)
EXCLUSIONS

In addition to the Exceptions in Schedule B, You are not insured against loss, costs, attorneys' fees, and expenses resulting from:

1. Governmental police power, and the existence or violation of those portions of any law or government regulation concerning:
   a. building;
   b. zoning;
   c. land use;
   d. improvements on the Land;
   e. land division; and
   f. environmental protection.

   This Exclusion does not limit the coverage described in Covered Risk 8.a., 14, 15, 16, 18, 19, 20, 23 or 27.
2. The failure of Your existing structures, or any part of them, to be constructed in accordance with applicable building codes. This Exclusion does not limit the coverage described in Covered Risk 14 or 15.
3. The right to take the Land by condemning it. This Exclusion does not limit the coverage described in Covered Risk 17.
4. Risks:
   a. that are created, allowed, or agreed to by You, whether or not they are recorded in the Public Records;
   b. that are Known to You at the Policy Date, but not to Us, unless they are recorded in the Public Records at the Policy Date;
   c. that result in no loss to You; or
   d. that first occur after the Policy Date - this does not limit the coverage described in Covered Risk 7, 8.e., 25, 26, 27 or 28.
5. Failure to pay value for Your Title.
6. Lack of a right:
   a. to any land outside the area specifically described and referred to in paragraph 3 of Schedule A; and
   b. in streets, alleys, or waterways that touch the Land.

   This Exclusion does not limit the coverage described in Covered Risk 11 or 21.
7. The transfer of the Title to You is invalid as a preferential transfer or as a fraudulent transfer or conveyance under federal bankruptcy, state insolvency, or similar creditors' rights laws.

LIMITATIONS ON COVERED RISKS

Your insurance for the following Covered Risks is limited on the Owner's Coverage Statement as follows:

- For Covered Risk 16, 18, 19 and 21, Your Deductible Amount and Our Maximum Dollar Limit of Liability shown in Schedule A.

The deductible amounts and maximum dollar limits shown on Schedule A are as follows:

	Your Deductible Amount	Our Maximum Dollar Limit of Liability
Covered Risk 16:	1.00% of Policy Amount Shown in Schedule A or $ 2,500.00 (whichever is less)	$ 10,000.00
Covered Risk 18:	1.00% of Policy Amount Shown in Schedule A or $ 5,000.00 (whichever is less)	$ 25,000.00
Covered Risk 19:	1.00% of Policy Amount Shown in Schedule A or $ 5,000.00 (whichever is less)	$ 25,000.00
Covered Risk 21:	1.00% of Policy Amount Shown in Schedule A or $ 2,500.00 (whichever is less)	$ 5,000.00

ATTACHMENT ONE
(CONTINUED)

ALTA EXPANDED COVERAGE RESIDENTIAL LOAN POLICY (10/13/01)
EXCLUSIONS FROM COVERAGE

The following matters are expressly excluded from the coverage of this policy and the Company will not pay loss or damage, costs, attorneys' fees or expenses which arise by reason of:

1. (a) Any law, ordinance or governmental regulation (including but not limited to zoning laws, ordinances, or regulations) restricting, regulating, prohibiting or relating to (i) the occupancy, use, or enjoyment of the Land; (ii) the character, dimensions or location of any improvements now or hereafter erected on the Land; (iii) a separation in ownership or a change in the dimensions or areas of the Land or any parcel of which the Land is or was a part; or (iv) environmental protection, or the effect of any violation of these laws, ordinances or governmental regulations, except to the extent that a notice of the enforcement thereof or a notice of a defect, lien or encumbrance resulting from a violation or alleged violation affecting the Land has been recorded in the Public Records at Date of Policy. This exclusion does not limit the coverage provided under Covered Risks 12, 13, 14, and 16 of this policy.
   (b) Any governmental police power not excluded by (a) above, except to the extent that a notice of the exercise thereof or a notice of a defect, lien or encumbrance resulting from a violation or alleged violation affecting the Land has been recorded in the Public Records at Date of Policy. This exclusion does not limit the coverage provided under Covered Risks 12, 13, 14, and 16 of this policy.
2. Rights of eminent domain unless notice of the exercise thereof has been recorded in the Public Records at Date of Policy, but not excluding from coverage any taking which has occurred prior to Date of Policy which would be binding on the rights of a purchaser for value without Knowledge.
3. Defects, liens, encumbrances, adverse claims or other matters:
   (a) created, suffered, assumed or agreed to by the Insured Claimant;
   (b) not Known to the Company, not recorded in the Public Records at Date of Policy, but Known to the Insured Claimant and not disclosed in writing to the Company by the Insured Claimant prior to the date the Insured Claimant became an Insured under this policy;
   (c) resulting in no loss damage to the Insured Claimant;
   (d) attaching or created subsequent to Date of Policy (this paragraph does not limit the coverage provided under Covered Risks 8, 16, 18, 19, 20, 21, 22, 23, 24, 25 and 26); or
   (e) resulting in loss or damage which would not have been sustained if the Insured Claimant had paid value for the Insured Mortgage.
4. Unenforceability of the lien of the Insured Mortgage because of the inability or failure of the Insured at Date of Policy, or the inability or failure of any subsequent owner of the indebtedness, to comply with applicable doing business laws of the state in which the Land is situated.
5. Invalidity or unenforceability of the lien of the Insured Mortgage, or claim thereof, which arises out of the transaction evidenced by the Insured Mortgage and is based upon usury, except as provided in Covered Risk 27, or any consumer credit protection or truth in lending law.
6. Real property taxes or assessments of any governmental authority which become a lien on the Land subsequent to Date of Policy. This exclusion does not limit the coverage provided under Covered Risks 7, 8(e) and 26.
7. Any claim of invalidity, unenforceability or lack of priority of the lien of the Insured Mortgage as to advances or modifications made after the Insured has Knowledge that the vestee shown in Schedule A is no longer the owner of the estate or interest covered by this policy. This exclusion does not limit the coverage provided in Covered Risk 8.
8. Lack of priority of the lien of the Insured Mortgage as to each and every advance made after Date of Policy, and all interest charged thereon, over liens, encumbrances and other matters affecting the title, the existence of which are Known to the Insured at:
   (a) The time of the advance; or
   (b) The time a modification is made to the terms of the Insured Mortgage which changes the rate of interest charged, if the rate of interest is greater as a result of the modification than it would have been before the modification. This exclusion does not limit the coverage provided in Covered Risk 8.
9. The failure of the residential structure, or any portion thereof to have been constructed before, on or after Date of Policy in accordance with applicable building codes. This exclusion does not apply to violations of building codes if notice of the violation appears in the Public Records at Date of Policy.

ATTACHMENT ONE
(CONTINUED)

ALTA EXPANDED COVERAGE RESIDENTIAL LOAN POLICY (02/03/10)
EXCLUSIONS FROM COVERAGE

The following matters are expressly excluded from the coverage of this policy and the Company will not pay loss or damage, costs, attorneys' fees or expenses which arise by reason of:

1. (a) Any law, ordinance, permit, or governmental regulation (including those relating to building and zoning) restricting, regulating, prohibiting, or relating to
   (i) the occupancy, use, or enjoyment of the Land;
   (ii) the character, dimensions, or location of any improvement erected on the Land;
   (iii) the subdivision of land; or
   (iv) environmental protection;
   or the effect of any violation of these laws, ordinances, or governmental regulations. This Exclusion 1(a) does not modify or limit the coverage provided under Covered Risk 5, 6, 13(c), 13(d), 14 or 16.
   (b) Any governmental police power. This Exclusion 1(b) does not modify or limit the coverage provided under Covered Risk 5, 6, 13(c), 13(d), 14 or 16.
2. Rights of eminent domain. This Exclusion does not modify or limit the coverage provided under Covered Risk 7 or 8.
3. Defects, liens, encumbrances, adverse claims, or other matters
   (a) created, suffered, assumed, or agreed to by the Insured Claimant;
   (b) not Known to the Company, not recorded in the Public Records at Date of Policy, but Known to the Insured Claimant and not disclosed in writing to the Company by the Insured Claimant prior to the date the Insured Claimant became an Insured under this policy;
   (c) resulting in no loss or damage to the Insured Claimant;
   (d) attaching or created subsequent to Date of Policy (however, this does not modify or limit the coverage provided under Covered Risk 11, 16, 17, 18, 19, 20, 21, 22, 23, 24, 27 or 28); or
   (e) resulting in loss or damage that would not have been sustained if the Insured Claimant had paid value for the Insured Mortgage.
4. Unenforceability of the lien of the Insured Mortgage because of the inability or failure of an Insured to comply with applicable doing-business laws of the state where the Land is situated.
5. Invalidity or unenforceability in whole or in part of the lien of the Insured Mortgage that arises out of the transaction evidenced by the Insured Mortgage and is based upon usury, or any consumer credit protection or truth-in-lending law. This Exclusion does not modify or limit the coverage provided in Covered Risk 26.
6. Any claim of invalidity, unenforceability or lack of priority of the lien of the Insured Mortgage as to Advances or modifications made after the Insured has Knowledge that the vestee shown in Schedule A is no longer the owner of the estate or interest covered by this policy. This Exclusion does not modify or limit the coverage provided in Covered Risk 11.
7. Any lien on the Title for real estate taxes or assessments imposed by governmental authority and created or attaching subsequent to Date of Policy. This Exclusion does not modify or limit the coverage provided in Covered Risk 11(b) or 25.
8. The failure of the residential structure, or any portion of it, to have been constructed before, on or after Date of Policy in accordance with applicable building codes. This Exclusion does not modify or limit the coverage provided in Covered Risk 5 or 6.
9. Any claim, by reason of the operation of federal bankruptcy, state insolvency, or similar creditors' rights laws, that the transaction creating the lien of the Insured Mortgage, is
   (a) a fraudulent conveyance or fraudulent transfer, or
   (b) a preferential transfer for any reason not stated in Covered Risk 27(b) of this policy.

Effective Date: 5/1/2008

Fidelity National Financial, Inc.
Privacy Statement

Fidelity National Financial, Inc. and its subsidiaries ("FNF") respect the privacy and security of your non-public personal information ("Personal Information") and protecting your Personal Information is one of our top priorities. This Privacy Statement explains FNF's privacy practices, including how we use the Personal Information we receive from you and from other specified sources, and to whom it may be disclosed. FNF follows the privacy practices described in this Privacy Statement and, depending on the business performed, FNF companies may share information as described herein.

Personal Information Collected

We may collect Personal Information about you from the following sources:

- Information we receive from you on applications or other forms, such as your name, address, social security number, tax identification number, asset information, and income information;
- Information we receive from you through our Internet websites, such as your name, address, email address, Internet Protocol address, the website links you used to get to our websites, and your activity while using or reviewing our websites;
- Information about your transactions with or services performed by us, our affiliates, or others, such as information concerning your policy, premiums, payment history, information about your home or other real property, information from lenders and other third parties involved in such transaction, account balances, and credit card information; and
- Information we receive from consumer or other reporting agencies and publicly recorded documents.

Disclosure of Personal Information

We may provide your Personal Information (excluding information we receive from consumer or other credit reporting agencies) to various individuals and companies, as permitted by law, without obtaining your prior authorization. Such laws do not allow consumers to restrict these disclosures. Disclosures may include, without limitation, the following:

- To insurance agents, brokers, representatives, support organizations, or others to provide you with services you have requested, and to enable us to detect or prevent criminal activity, fraud, material misrepresentation, or nondisclosure in connection with an insurance transaction;
- To third-party contractors or service providers for the purpose of determining your eligibility for an insurance benefit or payment and/or providing you with services you have requested;
- To an insurance regulatory authority, or a law enforcement or other governmental authority, in a civil action, in connection with a subpoena or a governmental investigation;
- To companies that perform marketing services on our behalf or to other financial institutions with which we have joint marketing agreements and/or
- To lenders, lien holders, judgment creditors, or other parties claiming an encumbrance or an interest in title whose claim or interest must be determined, settled, paid or released prior to a title or escrow closing.

We may also disclose your Personal Information to others when we believe, in good faith, that such disclosure is reasonably necessary to comply with the law or to protect the safety of our customers, employees, or property and/or to comply with a judicial proceeding, court order or legal process.

Effective Date: 5/1/2008

Disclosure to Affiliated Companies - We are permitted by law to share your name, address and facts about your transaction with other FNF companies, such as insurance companies, agents, and other real estate service providers to provide you with services you have requested, for marketing or product development research, or to market products or services to you. We do not, however, disclose information we collect from consumer or credit reporting agencies with our affiliates or others without your consent, in conformity with applicable law, unless such disclosure is otherwise permitted by law.

Disclosure to Nonaffiliated Third Parties - We do not disclose Personal Information about our customers or former customers to nonaffiliated third parties, except as outlined herein or as otherwise permitted by law.

Confidentiality and Security of Personal Information

We restrict access to Personal Information about you to those employees who need to know that information to provide products or services to you. We maintain physical, electronic, and procedural safeguards that comply with federal regulations to guard Personal Information.

Access To Personal Information/
Requests for Correction, Amendment, or Deletion of Personal Information

As required by applicable law, we will afford you the right to access your Personal Information, under certain circumstances to find out to whom your Personal Information has been disclosed, and request correction or deletion of your Personal Information. However, FNF's current policy is to maintain customers' Personal Information for no less than your state's required record retention requirements for the purpose of handling future coverage claims.

For your protection, all requests made under this section must be in writing and must include your notarized signature to establish your identity. Where permitted by law, we may charge a reasonable fee to cover the costs incurred in responding to such requests. Please send requests to:

Chief Privacy Officer
Fidelity National Financial, Inc.
601 Riverside Avenue
Jacksonville, FL 32204

Changes to this Privacy Statement

This Privacy Statement may be amended from time to time consistent with applicable privacy laws. When we amend this Privacy Statement, we will post a notice of such changes on our website. The effective date of this Privacy Statement, as stated above, indicates the last time this Privacy Statement was revised or materially changed.

Notice of Available Discounts

Pursuant to Section 2355.3 in Title 10 of the California Code of Regulations Fidelity National Financial, Inc. and its subsidiaries ("FNF") must deliver a notice of each discount available under our current rate filing along with the delivery of escrow instructions, a preliminary report or commitment. Please be aware that the provision of this notice does not constitute a waiver of the consumer's right to be charged the filed rate. As such, your transaction may not qualify for the below discounts.

You are encouraged to discuss the applicability of one or more of the below discounts with a Company representative. These discounts are generally described below; consult the rate manual for a full description of the terms, conditions and requirements for such discount. These discounts only apply to transactions involving services rendered by the FNF Family of Companies. This notice only applies to transactions involving property improved with a one-to-four family residential dwelling.

FNF Underwritten Title Company
CTC – Chicago Title Company

FNF Underwriter
CTIC – Chicago Title Insurance Company

Available Discounts

CREDIT FOR PRELIMINARY REPORTS AND/OR COMMITMENTS ON SUBSEQUENT POLICIES (CTIC)

Where no major change in the title has occurred since the issuance of the original report or commitment, the order may be reopened within 12 or 36 months and all or a portion of the charge previously paid for the report or commitment may be credited on a subsequent policy charge.

FEE REDUCTION SETTLEMENT PROGRAM (CTC and CTIC)

Eligible customers shall receive a $20.00 reduction in their title and/or escrow fees charged by the Company for each eligible transaction in accordance with the terms of the Final Judgments entered in *The People of the State of California et al. v. Fidelity National Title Insurance Company et al.,* Sacramento Superior Court Case No. 99AS02793, and related cases.

DISASTER LOANS (CTIC)

The charge for a Lender's Policy (Standard or Extended coverage) covering the financing or refinancing by an owner of record, within 24 months of the date of a declaration of a disaster area by the government of the United States or the State of California on any land located in said area, which was partially or totally destroyed in the disaster, will be 50% of the appropriate title insurance rate.

CHURCHES OR CHARITABLE NON-PROFIT ORGANIZATIONS (CTIC)

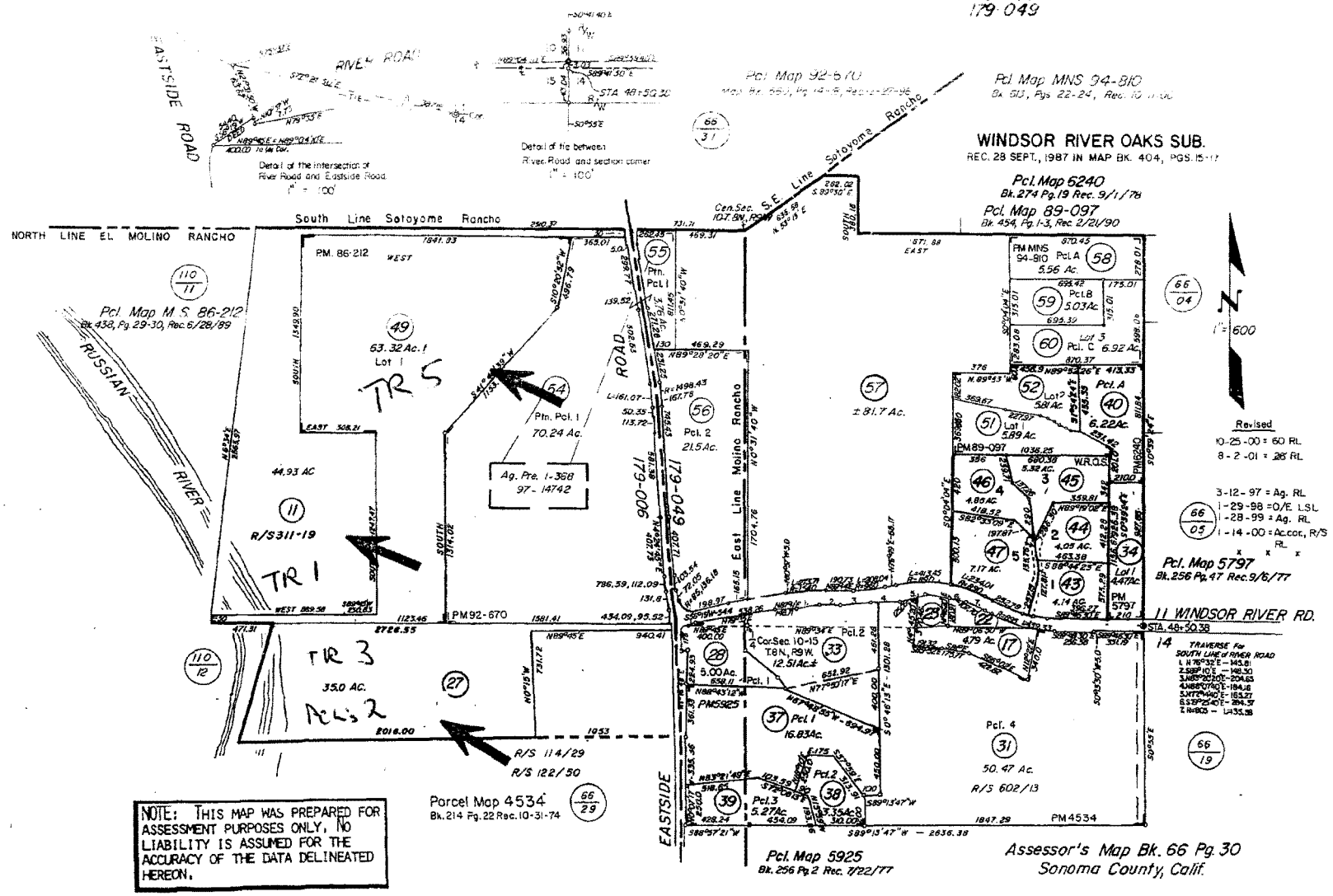
On properties used as a church or for charitable purposes within the scope of the normal activities of such entities, provided said charge is normally the church's obligation the charge for an owner's policy shall be 50% or 70% of the appropriate title insurance rate, depending on the type of coverage selected. The charge for a lender's policy shall be 32% or 50% of the appropriate title insurance rate, depending on the type of coverage selected.

Description: Sonoma,CA Assessor Map 66.30 Page: 1 of 1
Order: son Comment:

COUNTY ASSESSOR'S PARCEL MAP

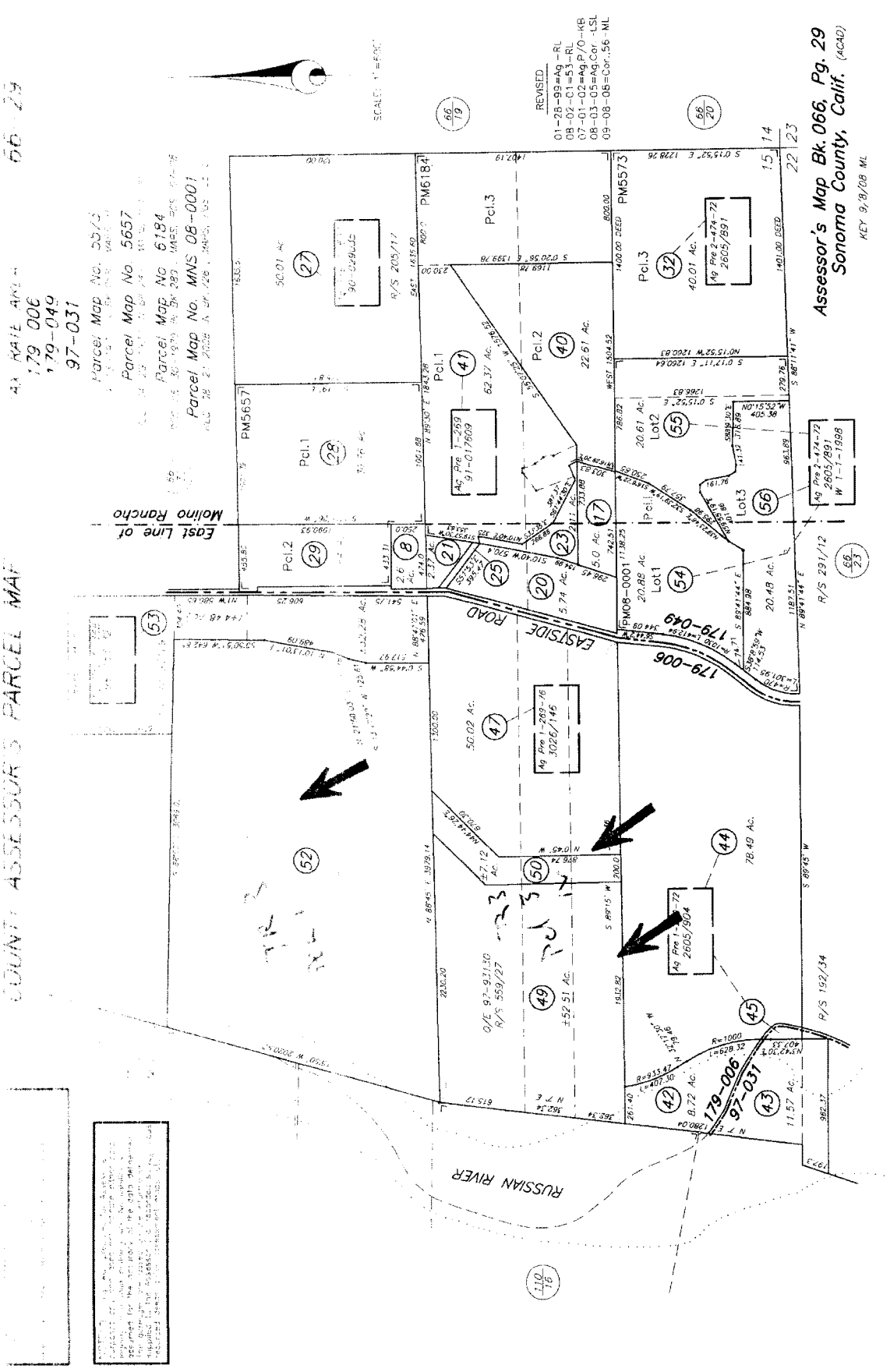
66 30

179-006
179-049

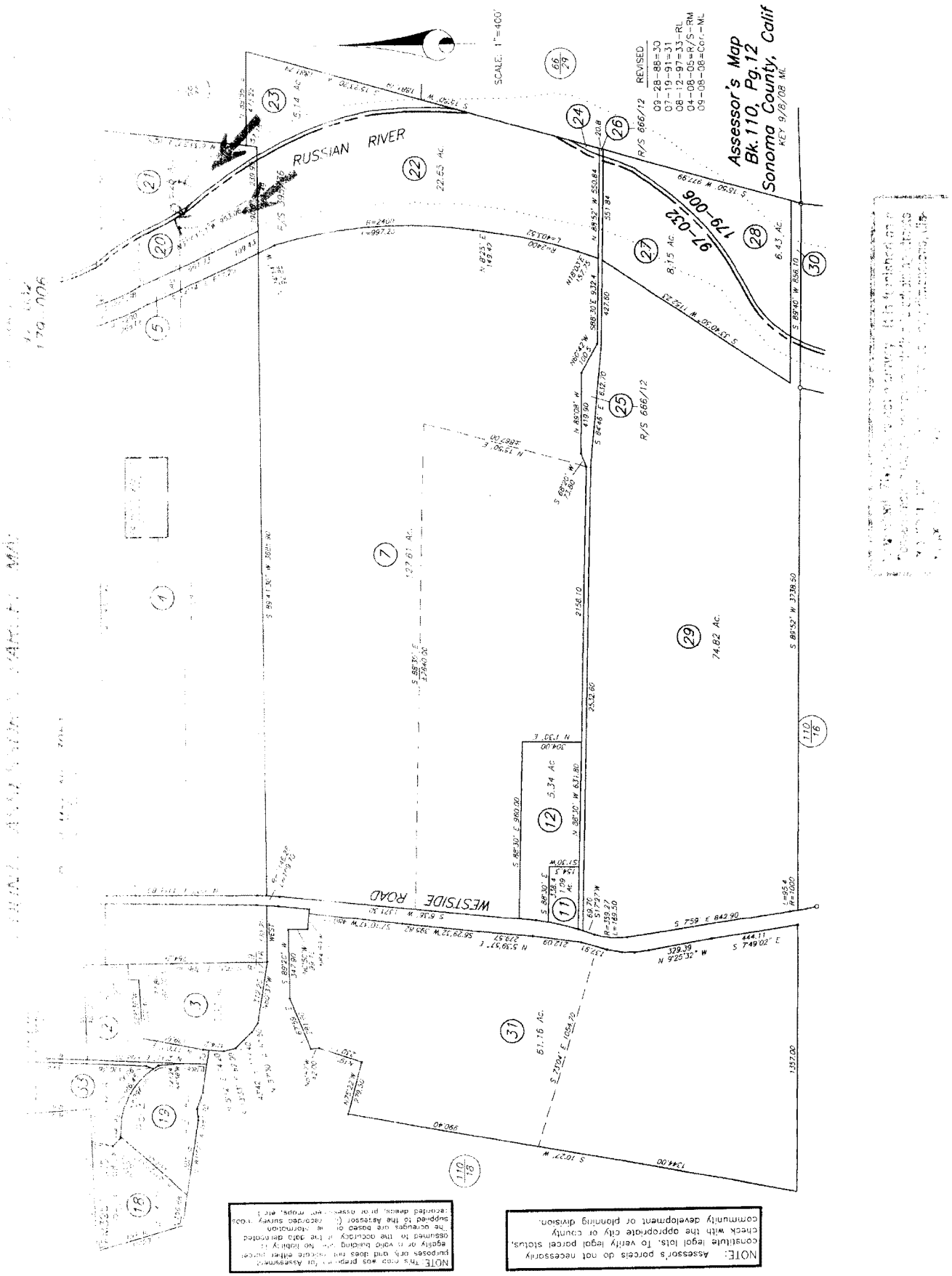


NOTE: THIS MAP WAS PREPARED FOR ASSESSMENT PURPOSES ONLY. NO LIABILITY IS ASSUMED FOR THE ACCURACY OF THE DATA DELINEATED HEREON.

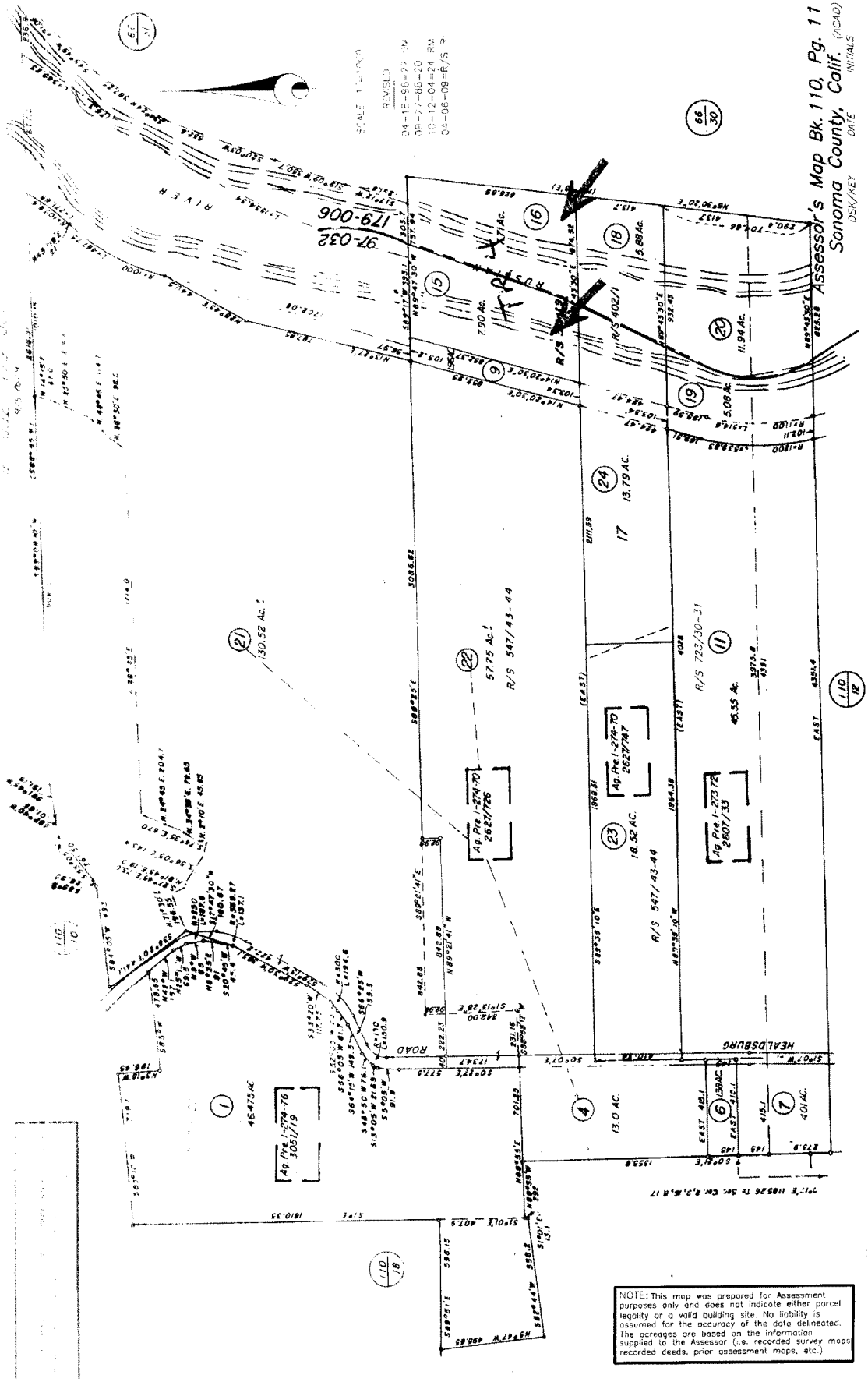
Assessor's Note: This plat is not a survey. It is intended as a convenience to locate and identify parcels for assessment purposes only. Dimensions are not to be used to determine boundary locations.



Description: Sonoma,CA Assessor Map 66.29 Page: 1 of 1
Order: son Comment:

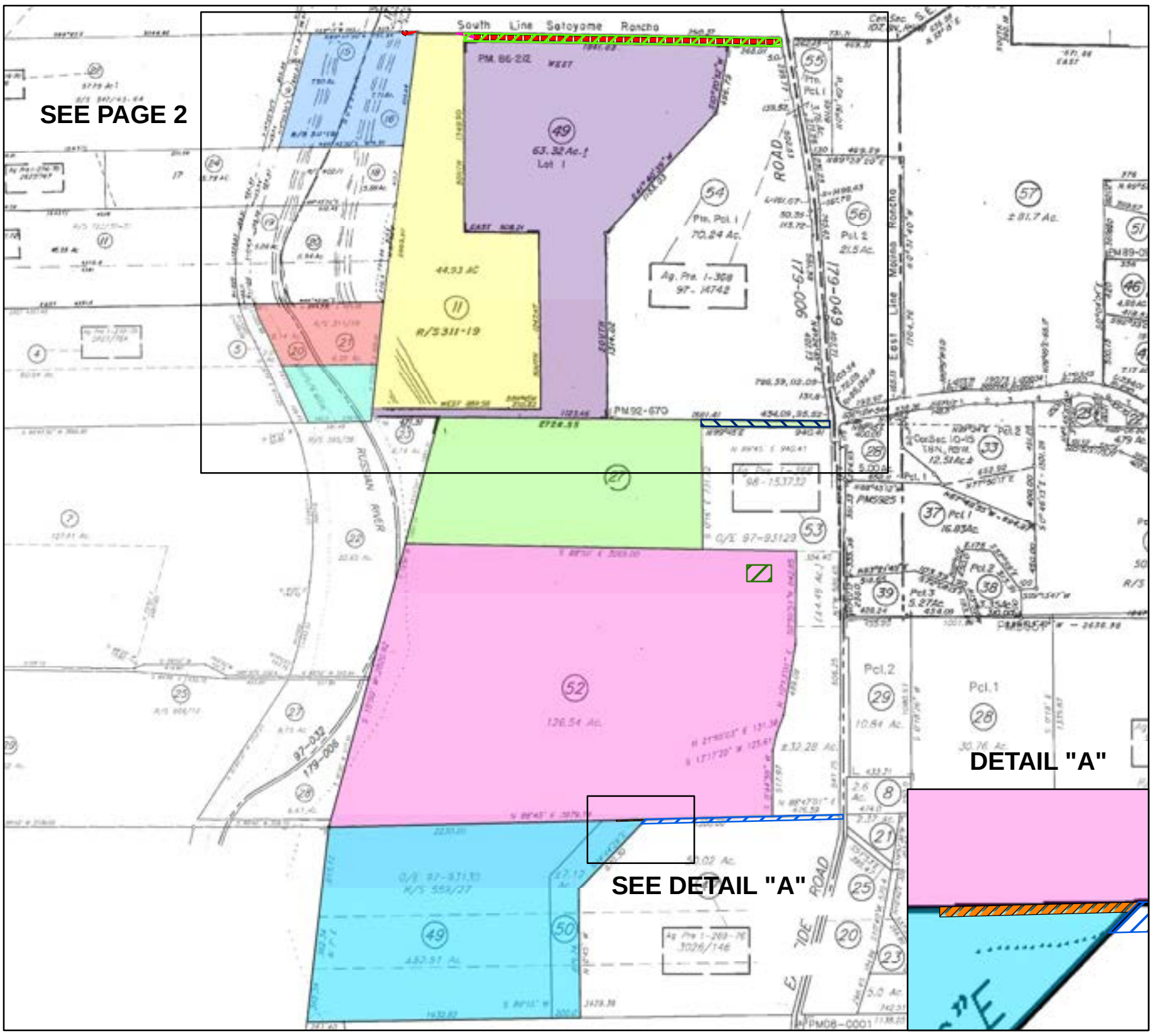


Description: Sonoma,CA Assessor Map 110.12 Page: 1 of 1
Order No.: Comment:



Description: Sonoma,CA Assessor Map 110.11 Page: 1 of 1
Order Comment:

Scale 1 inch = 824.10 feet



Legend

- Tract 1 - Property In Question, Fee
- Tract 2 - Parcel One - Property In Question, Fee
- Tract 2 - Parcel Two - Property In Question, Fee
- Tract 3 - Parcel One - Property In Question, Fee
- Tract 3 - Parcel Two - Property In Question, Fee
- Tract 3 - Parcel Three - Property In Question, Fee
- Tract 3 - Parcel Four - Easement
- Tract 4 - Property In Question, Fee
- Tract 5 - Property In Question, Fee
- Item No. 9 - Easement for General Road
  In 01/24/1956 Bk1410 Pg13 of Official Records
  Affects said portion as described in the document
- Item No. 14 - Easement for Underground Conduits & Pole Lines In 04/02/1986
  Inst # 86022375 of Official Records
  Affects said portion as described in the document
- Item No. 15 - Easement for Existing Pole Lines
  In 04/02/1986 Inst # 86022375 of Official Records
  Affects said portion as described in the document
  (Centerline of Undisclosed Width Strip)
- Item No. 31 - Easement for Reserves for Well & Pipelines In 03/26/1956
  Bk1426 Pg237 of Official Records
  Affects said portion as described in the document
- Item No. 35 - Easement for Line of Poles
  In 12/13/1975 Bk3164 Pg51 of Official Records
  Said easement is not specifically delineated and is not plottable
- Item No. 47 - Easement for Agriclutural Access
  In 08/29/2008 Inst # 2008079182 of Official Records
  Affects said portion as described in the document
- Item No. 48 - Easement for Water Source, Irrigation & Utility Lines In 08/29/2008
  Inst # 2008079184 of Official Records
  Affects said portion as described in the document
- Item No. 57 - Easement for Underground Conduits & Pole Lines In 04/02/1986
  Inst # 86-22375 of Official Records
  Affects said portion as described in the document

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3075 Prospect Park Drive, Suite 130
Rancho Cordova, CA 95670
(916) 853-7600 FAX (916) 638-1285

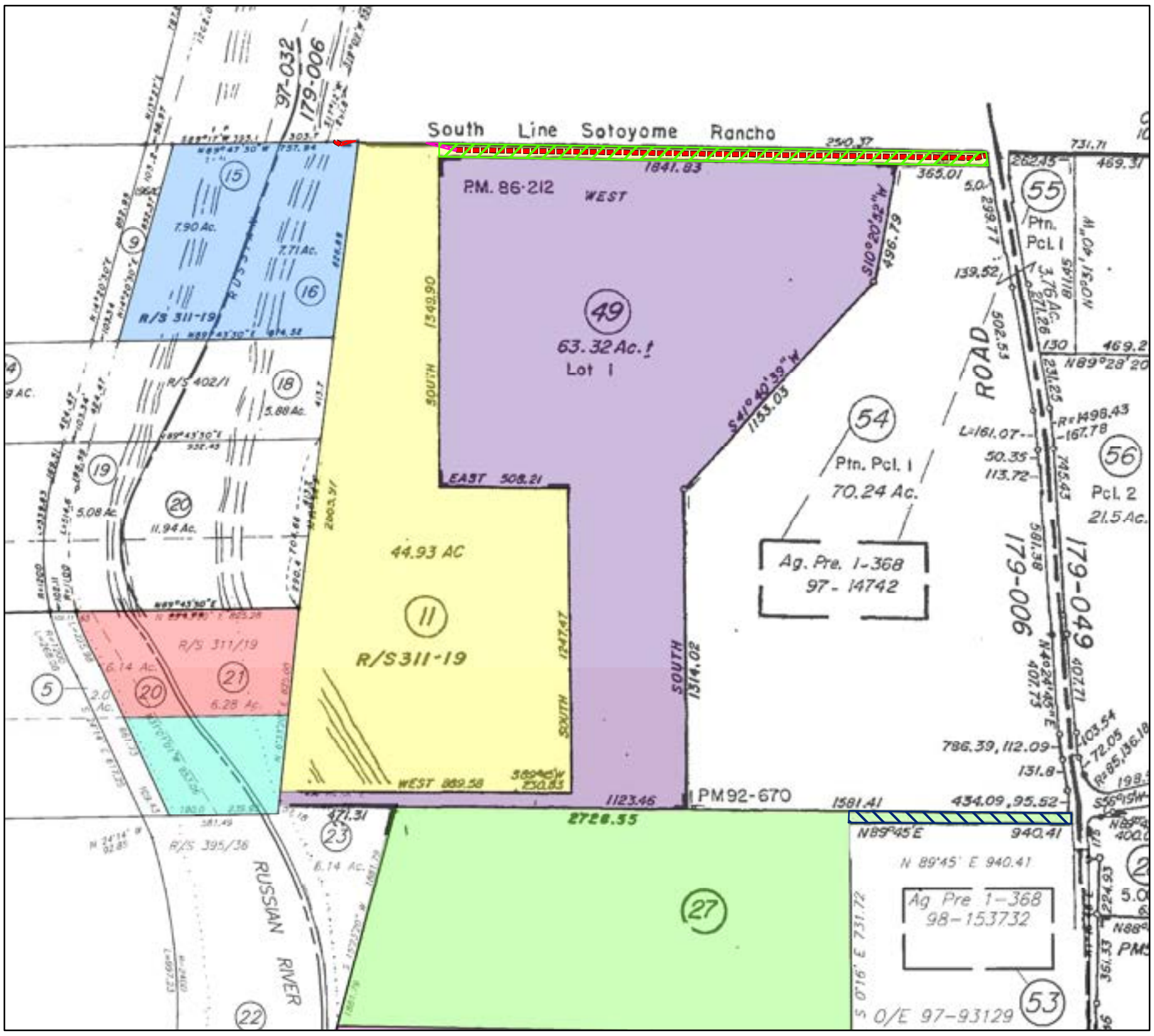
Title Order No. : 495107061, Preliminary Report dated February 16, 2011	**Drawing Date : 02/28/2011 - FNFI**
Reference : NBU 81001457	**Assessor's Parcel No. : 66-300-11, 27, 49, 110-120-20, 21, 66-290-49, 50, 52, 110-110-15 & 16**
Property : APN Nos. 066-290-049, 050, 052, 110-120-020, 021, 066-300-011, 027, 049, 110-110-015, 016, Healdsburg, California	**Data :**

Any discrepancies, conflicts in boundary lines, shortage in area, encroachments, or any other facts which a correct survey would disclose and are not shown by the public records. This plat is for your aid in locating your land with reference to streets and other parcels. While this plat is believed to be correct, the Company assumes no liability for any reason of reliance thereon.

Plat Showing : Portions of Land situated in the County of Sonoma, State of California.

Archieve #

Scale 1 inch = 476.74 feet



Legend

- Tract 1 - Property In Question, Fee
- Tract 2 - Parcel One - Property In Question, Fee
- Tract 2 - Parcel Two - Property In Question, Fee
- Tract 3 - Parcel One - Property In Question, Fee
- Tract 3 - Parcel Two - Property In Question, Fee
- Tract 3 - Parcel Three - Property In Question, Fee
- Tract 3 - Parcel Four - Easement
- Tract 4 - Property In Question, Fee
- Tract 5 - Property In Question, Fee
- Item No. 9 - Easement for General Road
  In 01/24/1956 Bk1410 Pg13 of Official Records
  Affects said portion as described in the document
- Item No. 14 - Easement for Underground Conduits & Pole Lines In 04/02/1986
  Inst # 86022375 of Official Records
  Affects said portion as described in the document
- Item No. 15 - Easement for Existing Pole Lines
  In 04/02/1986 Inst # 86022375 of Official Records
  Affects said portion as described in the document
  (Centerline of Undisclosed Width Strip)
- Item No. 31 - Easement for Reserves for Well & Pipelines In 03/26/1956
  Bk1426 Pg237 of Official Records
  Affects said portion as described in the document
- Item No. 35 - Easement for Line of Poles
  In 12/13/1975 Bk3164 Pg51 of Official Records
  Said easement is not specifically delineated and is not plottable
- Item No. 47 - Easement for Agriclutural Access
  In 08/29/2008 Inst # 2008079182 of Official Records
  Affects said portion as described in the document
- Item No. 48 - Easement for Water Source, Irrigation & Utility Lines In 08/29/2008
  Inst # 2008079184 of Official Records
  Affects said portion as described in the document
- Item No. 57 - Easement for Underground Conduits & Pole Lines In 04/02/1986
  Inst # 86-22375 of Official Records
  Affects said portion as described in the document

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3075 Prospect Park Drive, Suite 130
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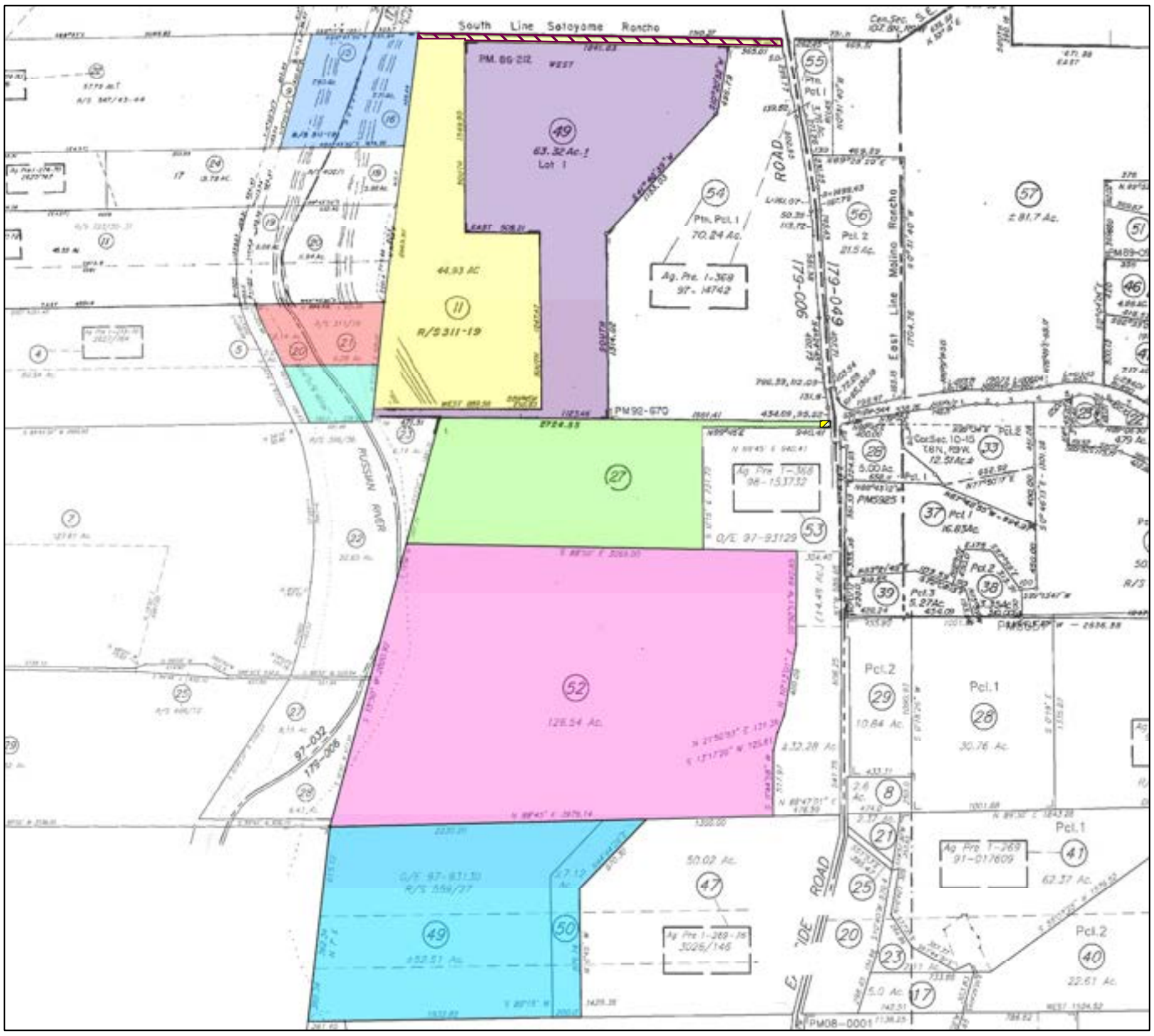
Title Order No. : 495107061, Preliminary Report dated February 16, 2011	**Drawing Date : 02/28/2011 - FNFI**
Reference : NBU 81001457	**Assessor's Parcel No. : 66-300-11, 27, 49, 110-120-20, 21, 66-290-49, 50, 52, 110-110-15 & 16**
Property : APN Nos. 066-290-049, 050, 052, 110-120-020, 021, 066-300-011, 027, 049, 110-110-015, 016, Healdsburg, California	**Data :**

Any discrepancies, conflicts in boundary lines, shortage in area, encroachments, or any other facts which a correct survey would disclose and are not shown by the public records. This plat is for your aid in locating your land with reference to streets and other parcels. While this plat is believed to be correct, the Company assumes no liability for any reason of reliance thereon.

Plat Showing : Portions of Land situated in the County of Sonoma, State of California.

Archieve #

Scale 1 inch = 476.74 feet



Legend

- Tract 1 - Property In Question, Fee
- Tract 2 - Parcel One - Property In Question, Fee
- Tract 2 - Parcel Two - Property In Question, Fee
- Tract 3 - Parcel One - Property In Question, Fee
- Tract 3 - Parcel Two - Property In Question, Fee
- Tract 3 - Parcel Three - Property In Question, Fee
- Tract 4 - Property In Question, Fee
- Tract 5 - Property In Question, Fee
- Item No. 13 - Easement for Waterlines, Sewer Lines & Roadway In 05/01/1985 Inst # 85026867 of Official Records Affects said portion as described in the document
- Item No. 37 - Easement for Agricultural Purposes In 11/14/1989 Inst # 89108840 of Official Records Affects said portion as described in the document
- Item No. 66 - Easement for County Road In 03/05/1870 Bk29 Pg167 of Official Records Said easement is not specifically delineated and is not plottable
- Item No. 70 - Easement for Line of Poles In 12/13/1975 Bk3164 Pg51 of Official Records Said easement is not specifically delineated and is not plottable

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Any discrepancies, conflicts in boundary lines, shortage in area, encroachments, or any other facts which a correct survey would disclose and are not shown by the public records. This plat is for your aid in locating your land with reference to streets and other parcels. While this plat is believed to be correct, the Company assumes no liability for any reason of reliance thereon.

Plat Showing : Portions of Land situated in the County of Sonoma, State of California.

Archieve #

APPENDIX C
HISTORICAL AERAIL PHOTOGRAPHS/TOPOGRAPHIC MAPS/CITY DIRECTORY REPORT



Historical Aerial Photo

1998

10249 EASTSIDE RD

WINDSOR, CA 95492

FIRSTSEARCH

N

W E

S

1 inch equals 1,005 feet

Target Site: 38.545872, -122.853825 Job Number: END-71435

(NAPP-3C_10527-190)



Historical Aerial Photo

1987

10249 EASTSIDE RD

WINDSOR, CA 95492

FIRSTSEARCH

N

W E

S

1 inch equals 1,005 feet

Target Site: 38.545872, -122.853825 Job Number: END-71435

(NAPP_513-81)



Historical Aerial Photo

1974

10249 EASTSIDE RD

WINDSOR, CA 95492

FIRSTSEARCH

N

W E

S

1 inch equals 1,005 feet

Target Site: 38.545872, -122.853825 Job Number: END-71435

(EARTH EXPLORER)



Historical Aerial Photo

1965

10249 EASTSIDE RD

WINDSOR, CA 95492

FIRSTSEARCH

N
W E
S

1 inch equals 1,005 feet

Target Site: 38.545872, -122.853825 Job Number: END-71435

(CAS-65-130_43-74 AND 43-75)



Historical Aerial Photo

1953

10249 EASTSIDE RD

WINDSOR, CA 95492

FIRSTSEARCH

N

W E

S

1 inch equals 1,005 feet

Target Site: 38.545872, -122.853825 Job Number: END-71435

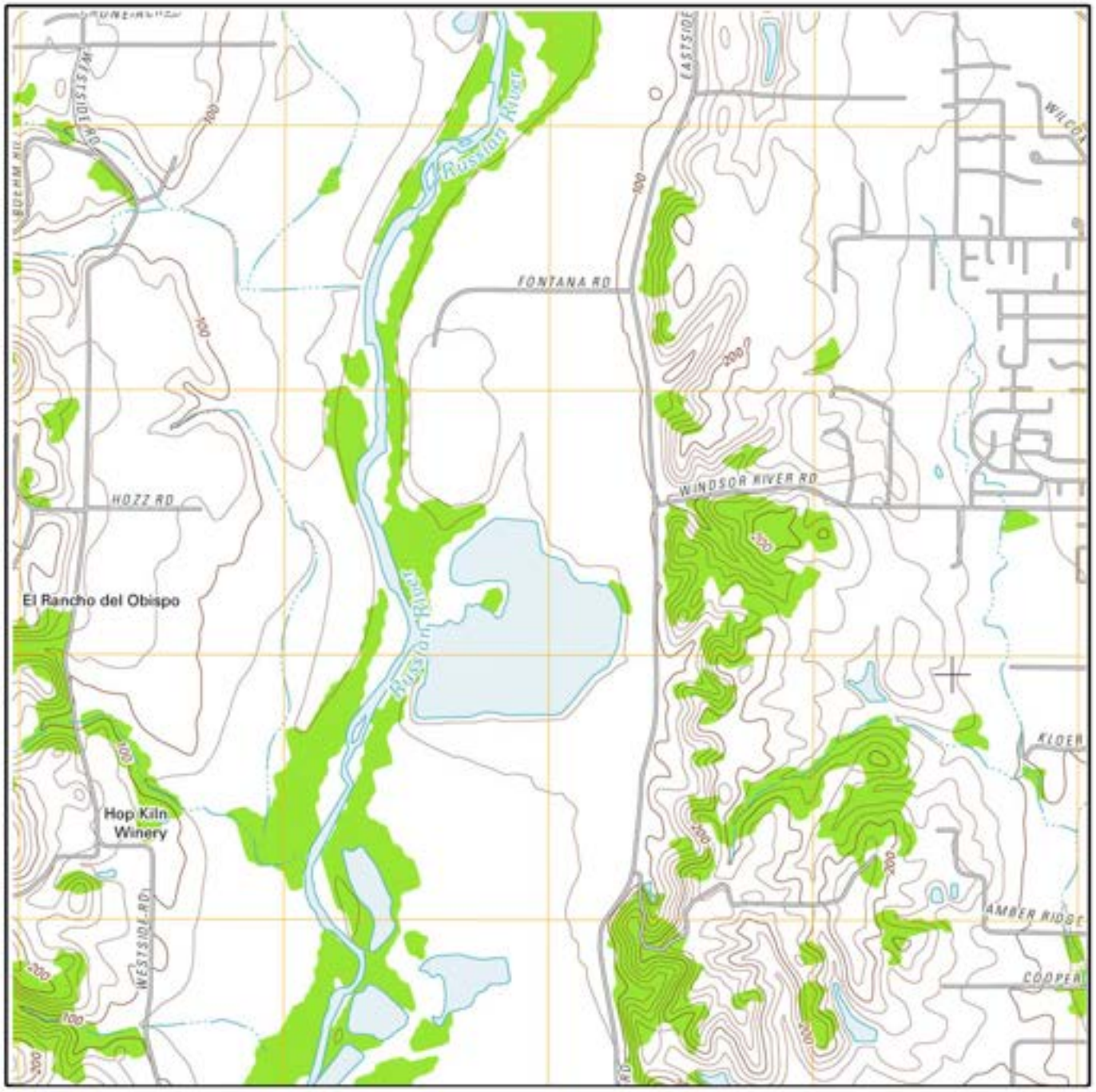
(CSH-1953_4K-22)

FIRSTSEARCH

Historical Topographic Map

Quad Name: Healdsburg, CA
Year: 2012 Original Map Scale: 1:24,000

10249 Eastside Rd, Windsor, CA 95492



Job Number: END-71435
Target Site: 38.545872, -122.853825

0 miles 0.5 1

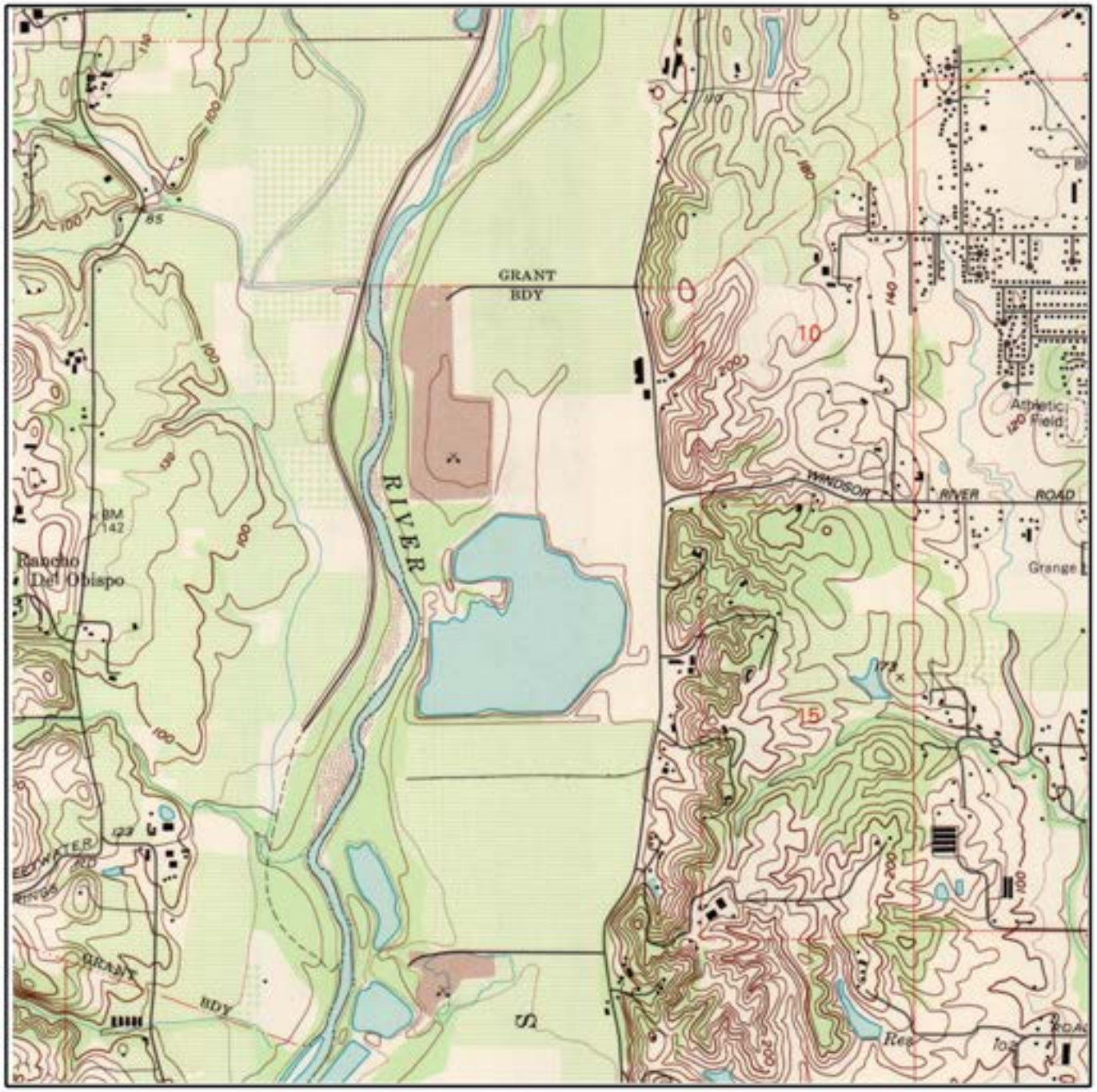
Building
Topo Contour
Depression
Quarry or Open Pit Mine
Railroad
Tanks
Primary Highway
Trail

FIRSTSEARCH

Historical Topographic Map

Quad Name: Healdsburg, CA
Year: 1993 Original Map Scale: 1:24,000

10249 Eastside Rd, Windsor, CA 95492



Job Number: END-71435
Target Site: 38.545872, -122.853825

0 miles 0.5 1

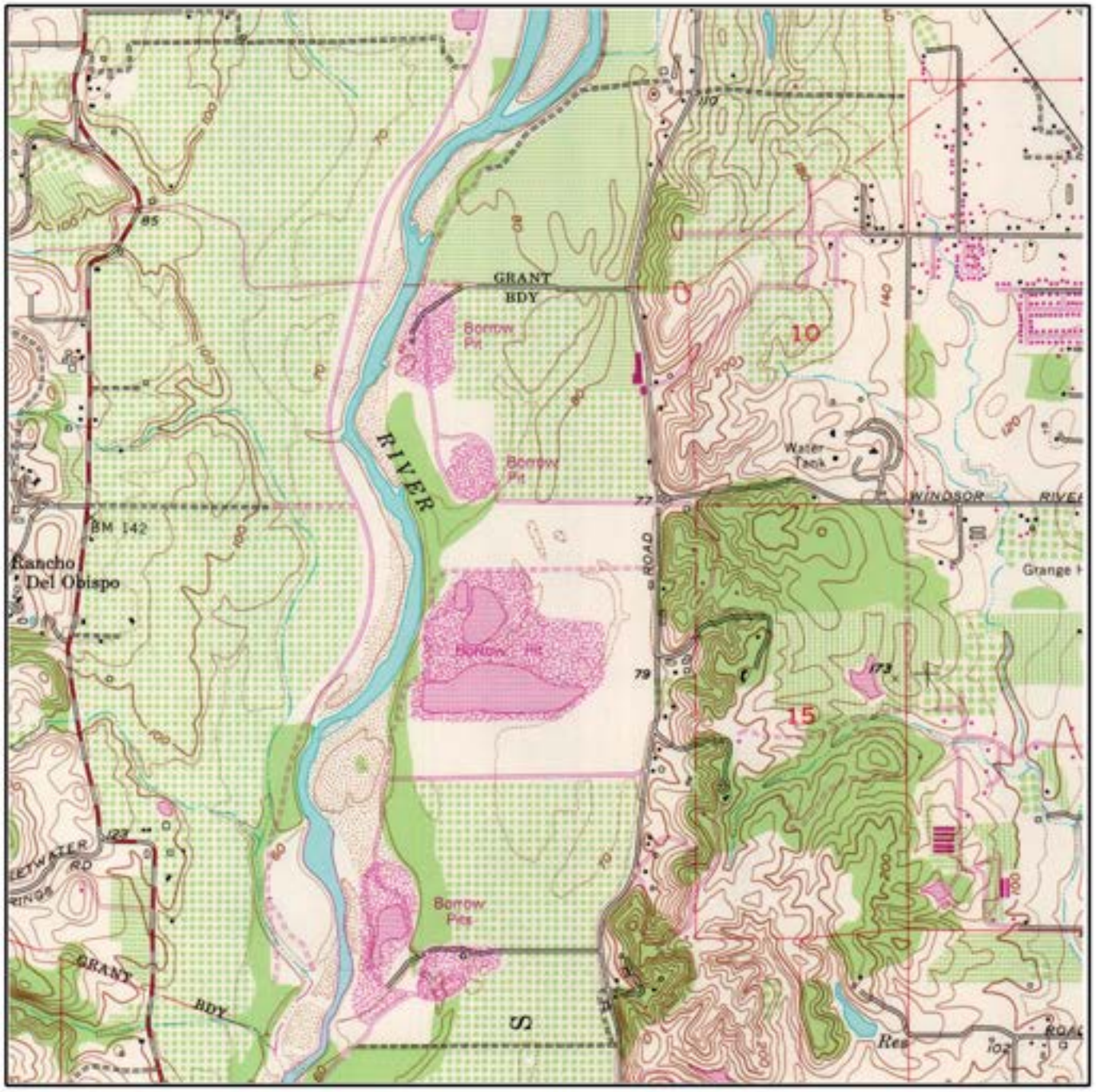
Building
Topo Contour
Depression
Quarry or Open Pit Mine
Railroad
Tanks
Primary Highway
Trail

FIRSTSEARCH

Historical Topographic Map

Quad Name: Healdsburg, CA
Year: 1980 Original Map Scale: 1:24,000

10249 Eastside Rd, Windsor, CA 95492



Job Number: END-71435
Target Site: 38.545872, -122.853825

0 miles 0.5 1

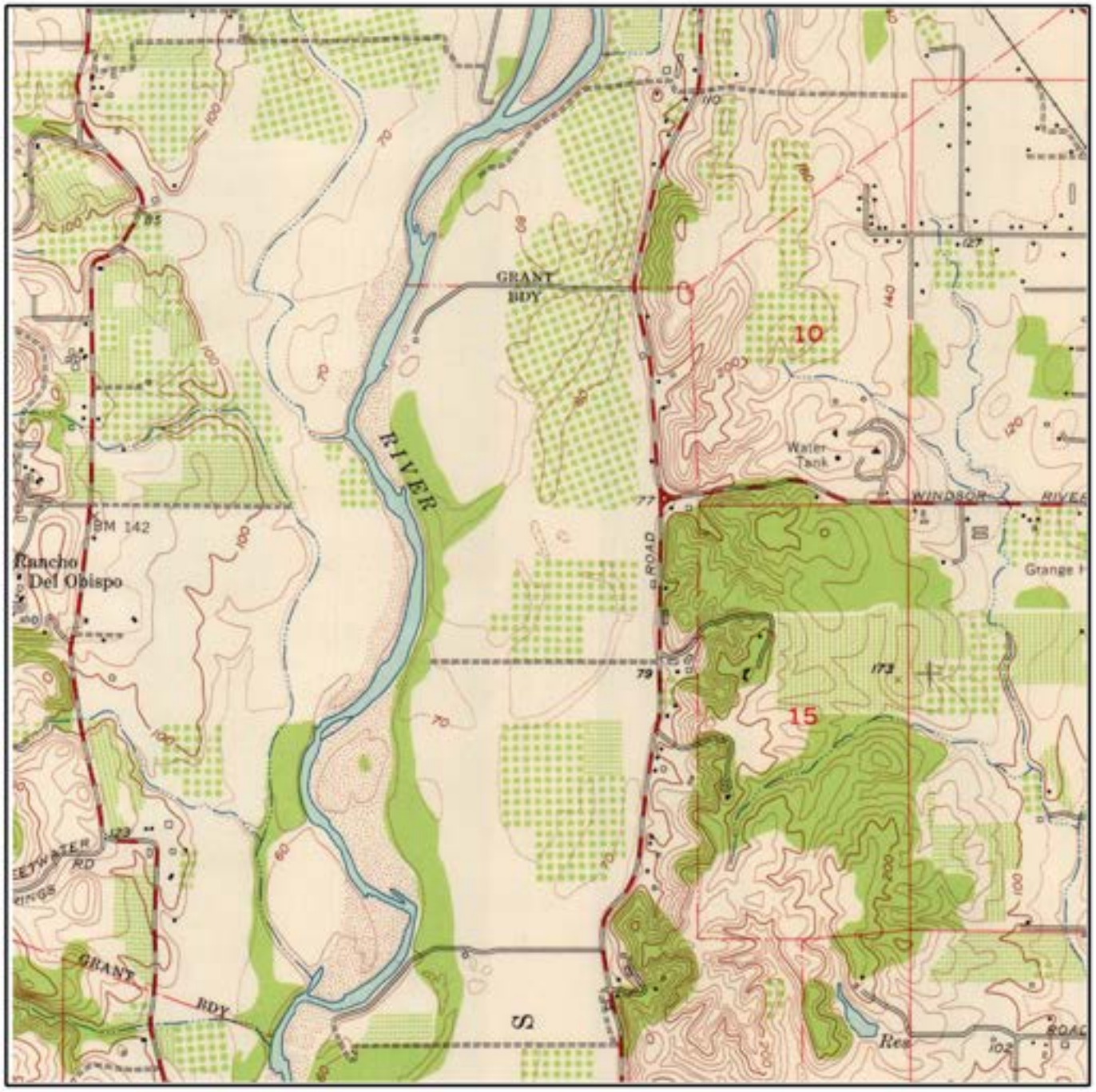
Building
Topo Contour
Depression
Quarry or Open Pit Mine
Railroad
Tanks
Primary Highway
Trail

FIRSTSEARCH

Historical Topographic Map

Quad Name: Healdsburg, CA
Year: 1955 Original Map Scale: 1:24,000

10249 Eastside Rd, Windsor, CA 95492



Job Number: END-71435
Target Site: 38.545872, -122.853825

0 miles 0.5 1

Building
Topo Contour
Depression
Quarry or Open Pit Mine
Railroad
Tanks
Primary Highway
Trail

FIRSTSEARCH

Historical Topographic Map

Quad Name: Healdsburg, CA
Year: 1940 Original Map Scale: 1:62,500

10249 Eastside Rd, Windsor, CA 95492



Job Number: END-71435
Target Site: 38.545872, -122.853825

0 miles 0.5 1

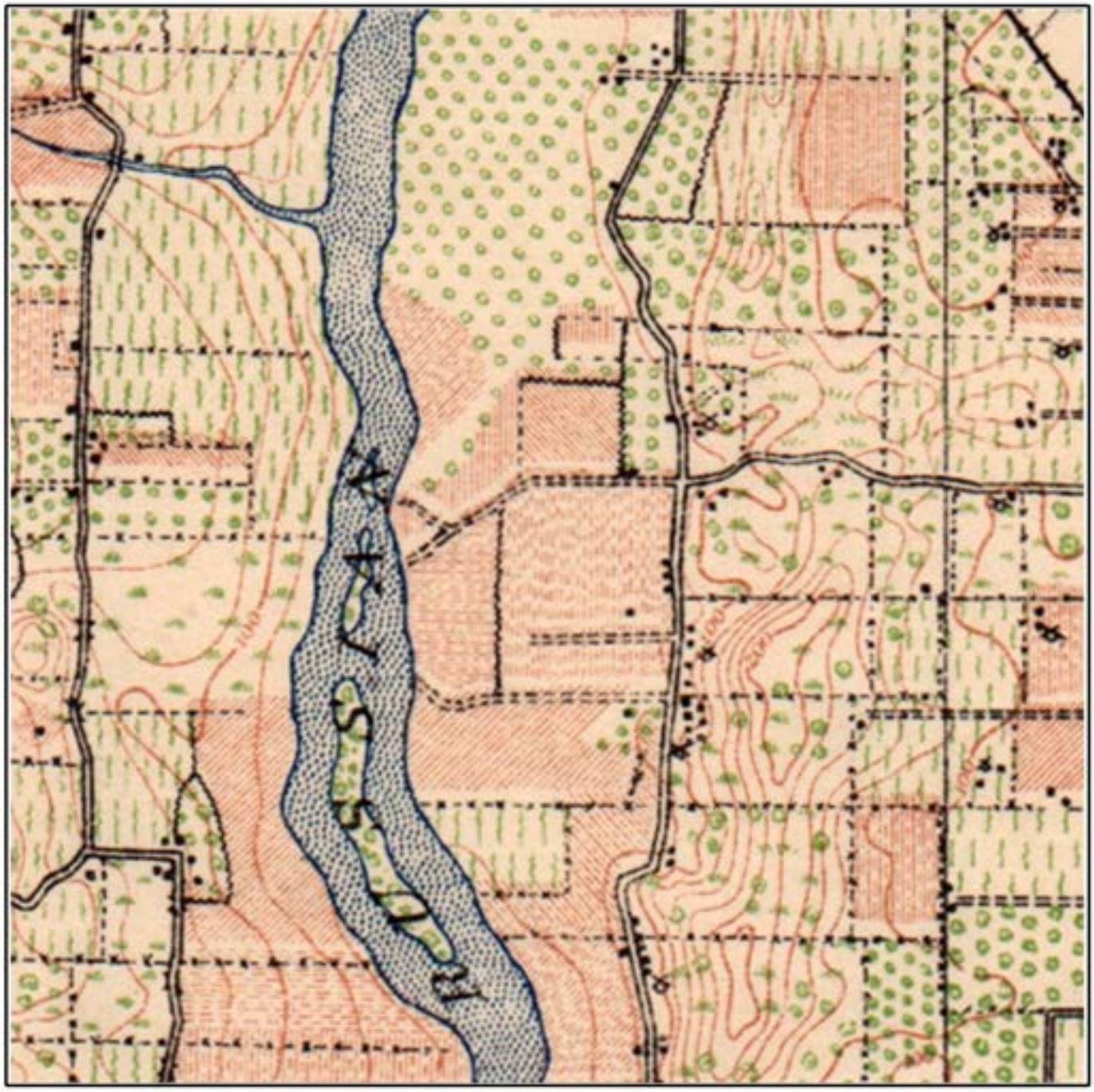
Building
Topo Contour
Depression
Quarry or Open Pit Mine
Railroad
Tanks
Primary Highway
Trail

FIRSTSEARCH

Historical Topographic Map

Quad Name: Healdsburg, CA
Year: 1920 Original Map Scale: 1:62,500

10249 Eastside Rd, Windsor, CA 95492



Job Number: END-71435
Target Site: 38.545872, -122.853825

0 miles 0.5 1

Building
Topo Contour
Depression
Quarry or Open Pit Mine
Railroad
Tanks
Primary Highway
Trail

CITY DIRECTORY REPORT

Prepared For:
Bernie Sentianin, EEI

Client Job No/Name: END-71435

FirstSearch Log No: 74789

Subject Property: 10249 Eastside Rd, Windsor, CA 95492

July 27, 2012

DISCLAIMER
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2012 Reference USA		
	10249 Eastside Rd The directory does not list Eastside Rd.	
2006 Select Phone: Pacific Region		
9228 Eastside Rd Fritschen John & Peggy	**10249 Eastside Rd** The directory does not list the address.	The directory does not list a higher address for this street.
1997 Haines: Marin, Sonoma, p. 114		
8536 Eastside Rd Sandeen Mark; Valri	**10249 Eastside Rd** The directory does not list the address.	The directory does not list a higher address for this street.
1992 Haines: Marin, Sonoma and North Bay City and Suburban, p. 149		
7821 Eastside Rd Kaiser Sand & Gravel (7821 is the only address listed for the street.)	**10249 Eastside Rd** The directory does not list the address.	The directory does not list a higher address for this street.
1987 Haines: Marin, Sonoma and North Bay City and Suburban, p. 140		
	10249 Eastside Rd The directory does not list Eastside Rd.	
1977 Haines: Marin, Sonoma and North Bay City and Suburban, p. 203		
9624 Eastside Rd XXXX	**10249 Eastside Rd** The directory does not list the address. *The street has 4 listings without address numbers.*	The directory does not list a higher address for this street.
1972 Haines: Marin, Sonoma City and Suburban, p. 185		
9624 Eastside Rd Brice Dean/Louie	**10249 Eastside Rd** The directory does not list the address.	The directory does not list a higher address for this street.
No further search results found.		

FirstSearch Environmental Information - City Directory Report

Addresses of Potential Concern: A summary of gas stations, cleaners, automotive shops, and other address occupants of potential environmental concern located on the subject street, within the vicinity of the target address. The addresses listed are included in the body of the report.
No Addresses of Potential Concern identified within the vicinity of the Target Address.

Notes:

- The Subject Property is in bold.
- The listing to the left and right of the subject property represents the closest address found in the directories searched to the subject property, and on the same side of the street. They may or may not be adjacent properties.
- Occupant names and statements such as “Vacant, “No Info” and “Under constr” are listed in this report verbatim to the original listing in the relevant city directory. Any listing with an “XXXX” is verbatim and signifies the publisher did not receive any information for that address.
- Listings of occupant's names in directories occasionally contain multiple acronyms describing the property name, type or description. The enclosed City Directory Report lists the name once per address and does not decode any acronyms.
- A forward slash between names indicates multiple companies are listed under same main company listing.

APPENDIX D
ENVIRONMENTAL RECORDS SEARCH

FIRSTSEARCH

ENVIRONMENTAL FIRSTSEARCH REPORT

TARGET PROPERTY:

WINDSOR HANSON GRAVEL PON

10249 EASTSIDE RD

WINDSOR, CA 95492

JOB NUMBER: END-71435

PREPARED FOR:

EEI

2195 Faraday Ave., Suite K
Carlsbad, CA 92008
July 23, 2012

Environmental FirstSearch
Search Summary Report

Target Site: 10249 EASTSIDE RD
WINDSOR, CA 95492

FirstSearch Summary

Database	Sel	Updated	Radius	Site	1/8	1/4	1/2	1/2>	ZIP	TOTALS
NPL	Y	05-09-12	1.00	0	0	0	0	0	0	0
NPL Delisted	Y	05-09-12	0.50	0	0	0	0	-	0	0
CERCLIS	Y	04-30-12	0.50	0	0	0	0	-	0	0
NFRAP	Y	04-30-12	0.50	0	0	0	0	-	0	0
RCRA COR ACT	Y	05-09-12	1.00	0	0	0	0	0	0	0
RCRA TSD	Y	05-09-12	0.50	0	0	0	0	-	0	0
RCRA GEN	Y	05-09-12	0.25	0	0	0	-	-	0	0
RCRA NLR	Y	05-09-12	0.12	0	0	-	-	-	0	0
Federal Brownfield	Y	05-01-12	0.25	0	0	0	-	-	0	0
ERNS	Y	07-05-12	0.12	0	0	-	-	-	0	0
Tribal Lands	Y	12-15-08	1.00	0	0	0	0	0	1	1
State/Tribal Sites	Y	02-08-12	1.00	0	0	0	0	0	0	0
State Spills 90	Y	06-06-12	0.12	0	0	-	-	-	0	0
State/Tribal SWL	Y	07-09-12	0.50	0	0	0	0	-	0	0
State/Tribal LUST	Y	06-06-12	0.50	0	2	1	1	-	0	4
State/Tribal UST/AST	Y	06-01-12	0.25	0	2	1	-	-	0	3
State/Tribal EC	Y	NA	0.25	0	0	0	-	-	0	0
State/Tribal IC	Y	07-11-12	0.25	0	0	0	-	-	0	0
State/Tribal VCP	Y	02-08-12	0.50	0	0	0	0	-	0	0
State/Tribal Brownfields	Y	NA	0.50	0	0	0	0	-	0	0
State Wells	Y	NA	0.50	0	0	0	0	-	0	0
Wetlands	Y	08-15-08	0.50	0	0	0	0	-	0	0
USGS Soils	Y	03-18-97	0.25	3	0	0	-	-	0	3
NPDES	Y	05-22-12	0.25	0	0	0	-	-	0	0
PADS	Y	10-21-11	0.25	0	0	0	-	-	0	0
Releases	Y	07-05-12	0.25	0	0	0	-	-	0	0
Federal Other	Y	01-01-10	0.25	0	0	0	-	-	0	0
State Permits	Y	06-06-12	0.12	0	0	-	-	-	0	0

Notice of Disclaimer

Due to the limitations, constraints, and inaccuracies and incompleteness of government information and computer mapping data currently available to FirstSearch Technology Corp., certain conventions have been utilized in preparing the locations of all federal, state and local agency sites residing in FirstSearch Technology Corp.'s databases. All EPA NPL and state landfill sites are depicted by a rectangle approximating their location and size. The boundaries of the rectangles represent the eastern and western most longitudes; the northern and southern most latitudes. As such, the mapped areas may exceed the actual areas and do not represent the actual boundaries of these properties. All other sites are depicted by a point representing their approximate address location and make no attempt to represent the actual areas of the associated property. Actual boundaries and locations of individual properties can be found in the files residing at the agency responsible for such information.

Waiver of Liability

Although FirstSearch Technology Corp. uses its best efforts to research the actual location of each site, FirstSearch Technology Corp. does not and can not warrant the accuracy of these sites with regard to exact location and size. All authorized users of FirstSearch Technology Corp.'s services proceeding are signifying an understanding of FirstSeaarch Technology Corp.'s searching and mapping conventions, and agree to waive any and all liability claims associated with search and map results showing incomplete and or inaccurate site locations.

- Continued on next page -

Environmental FirstSearch
Search Summary Report

Target Site: 10249 EASTSIDE RD
WINDSOR, CA 95492

FirstSearch Summary

Database	Sel	Updated	Radius	Site	1/8	1/4	1/2	1/2>	ZIP	TOTALS
State Other	Y	02-08-12	0.25	0	0	0	-	-	0	0
Oil & Gas Wells	Y	01-08-01	0.25	0	0	0	-	-	0	0
Federal IC/EC	Y	06-13-12	0.25	0	0	0	-	-	0	0
Dry Cleaners	Y	NA	0.25	0	0	0	-	-	0	0
HW Manifest	Y	08-02-10	0.12	0	1	-	-	-	0	1
-TOTALS-				3	5	2	1	0	1	12

Notice of Disclaimer

Due to the limitations, constraints, and inaccuracies and incompleteness of government information and computer mapping data currently available to FirstSearch Technology Corp., certain conventions have been utilized in preparing the locations of all federal, state and local agency sites residing in FirstSearch Technology Corp.'s databases. All EPA NPL and state landfill sites are depicted by a rectangle approximating their location and size. The boundaries of the rectangles represent the eastern and western most longitudes; the northern and southern most latitudes. As such, the mapped areas may exceed the actual areas and do not represent the actual boundaries of these properties. All other sites are depicted by a point representing their approximate address location and make no attempt to represent the actual areas of the associated property. Actual boundaries and locations of individual properties can be found in the files residing at the agency responsible for such information.

Waiver of Liability

Although FirstSearch Technology Corp. uses its best efforts to research the actual location of each site, FirstSearch Technology Corp. does not and can not warrant the accuracy of these sites with regard to exact location and size. All authorized users of FirstSearch Technology Corp.'s services proceeding are signifying an understanding of FirstSeaarch Technology Corp.'s searching and mapping conventions, and agree to waive any and all liability claims associated with search and map results showing incomplete and or inaccurate site locations.

Environmental FirstSearch
Site Information Report

Request Date:	07-23-12	**Search Type:**	AREA
Requestor Name:	Bernie Sentianin		0.609 sq mile(s)
Standard:	ASTM-05	**Job Number:**	END-71435
		Filtered Report	

Target Site: 10249 EASTSIDE RD
WINDSOR, CA 95492

Demographics

Sites:	12	**Non-Geocoded:**	1	**Population:**	NA
Radon:	NA				
Fire Insurance Map Coverage:	No				

Site Location

	Degrees (Decimal)	Degrees (Min/Sec)		UTMs
Longitude:	-122.853825	-122:51:14	**Easting:**	512738.392
Latitude:	38.545872	38:32:45	**Northing:**	4266186.65
Elevation:	48		**Zone:**	10

Comment

Comment:

Additional Requests/Services

Adjacent ZIP Codes:

ZIP Code	City Name	ST	Dist/Dir	Sel

Services:

	Requested?	Date
Fire Insurance Maps	No	
Aerial Photographs	Yes	07-23-12
Historical Topos	Yes	07-23-12
City Directories	Yes	07-23-12
Title Search	No	
Municipal Reports	No	
Liens	No	
Historic Map Works	No	
Online Topos	No	

Environmental FirstSearch
Target Site Summary Report

Target Property: 10249 EASTSIDE RD
WINDSOR, CA 95492

JOB: END-71435

TOTAL: 12 **GEOCODED:** 11 **NON GEOCODED:** 1 **SELECTED:** 0

Map ID	DB Type	Site Name/ID/Status	Address	Dist/Dir	ElevDiff	Page No.
1	SOILS	USGS-DIGITAL DATA SERIES-11 DDS-USGS-2419/	 CA	0.00 --	N/A	1
1	SOILS	USSOILS DATA CASO-18-1584/STATSGO	UNKNOWN CA	0.00 --	N/A	2
1	SOILS	USSOILS DATA CASO-18-1522/STATSGO	UNKNOWN CA	0.00 --	N/A	3

Environmental FirstSearch
Sites Summary Report

Target Property: 10249 EASTSIDE RD
WINDSOR, CA 95492

JOB: END-71435

TOTAL: 12 **GEOCODED:** 11 **NON GEOCODED:** 1 **SELECTED:** 0

Map ID	DB Type	Site Name/ID/Status	Address	Dist/Dir	ElevDiff	Page No.
1	SOILS	USGS-DIGITAL DATA SERIES-11 DDS-USGS-2419/	 CA	0.00 --	N/A	1
1	SOILS	USSOILS DATA CASO-18-1584/STATSGO	UNKNOWN CA	0.00 --	N/A	2
1	SOILS	USSOILS DATA CASO-18-1522/STATSGO	UNKNOWN CA	0.00 --	N/A	3
2	UST	SYAR INDUSTRIS, INC TISID-STATE10285/INACTIVE	9000 EASTSIDE RD HEALDSBURG CA 94558	0.06 SE	+ 36	4
3	LUST	SYAR INDUSTRIES - DOYLE T0609700253/COMPLETED - CASE CLOSED	8585 EASTSIDE RD HEALDSBURG CA 95448	0.06 SE	+ 35	5
4	UST	CALPLANS RIVER VINEYARD SONOMACO2791/PERMIT NUMBER:2791	8500 EASTSIDE RD HEALDSBURG CA 95448	0.07 SE	+ 35	6
4	LUST	CALPLANS VINEYARD T0609700401/COMPLETED - CASE CLOSED	8500 EASTSIDE RD HEALDSBURG CA 95448	0.07 SE	+ 35	7
4	HWMANIFE	CALPLANS RIVER VINEYARD CAL000281777/ACTIVE	8500 EASTSIDE RD HEALDSBURG CA 95448	0.07 SE	+ 35	8
5	LUST	WAUGH JEFF T0609700334/OPEN - SITE ASSESSMENT	9228 EASTSIDE RD HEALDSBURG CA 95448	0.19 NE	+ 47	9
6	UST	VINO FARMS INC SONOMACO178/PERMIT NUMBER:178	10651 EASTSIDE RD HEALDSBURG CA 95448	0.23 NW	+ 38	10
7	LUST	KAISER SAND & GRAVEL WINDSOR T0609700054/COMPLETED - CASE CLOSED	7821 EASTSIDE RD WINDSOR CA 95492	0.28 SE	+ 30	12

Environmental FirstSearch
Sites Summary Report

Target Property: 10249 EASTSIDE RD
WINDSOR, CA 95492

JOB: END-71435

TOTAL: 12 **GEOCODED:** 11 **NON GEOCODED:** 1 **SELECTED:** 0

Map ID	DB Type	Site Name/ID/Status	Address	Dist/Dir	ElevDiff	Page No.
	TRIBALLA	BUREAU OF INDIAN AFFAIRS CONTACT I BIA-95492/	UNKNOWN CA 95492	NON GC	N/A	N/A

Environmental FirstSearch
Site Detail Report

Target Property: 10249 EASTSIDE RD
WINDSOR, CA 95492

JOB: END-71435

SOILS

SEARCH ID: 8 **DIST/DIR:** 0.00 -- **ELEVATION:** **MAP ID:** 1

NAME: USGS-DIGITAL DATA SERIES-11
ADDRESS:
CA
CONTACT:
SOURCE: FEMA

REV: 1/9/99
ID1: DDS-USGS-2419
ID2:
STATUS:
PHONE:

SITE INFORMATION

AREA:0.0310553
PERIMETER:0.880611
ROCK DESCRIPTION:Quaternary
METAMORPHOSIS:No Metamorphism
STRATIGRAPHIC ORDER: 4 - Stratigraphic order from youngest (1) to oldest (162)

Environmental FirstSearch
Site Detail Report

Target Property: 10249 EASTSIDE RD
WINDSOR, CA 95492

JOB: END-71435

SOILS

SEARCH ID: 9 **DIST/DIR:** 0.00 -- **ELEVATION:** **MAP ID:** 1

NAME: USSOILS DATA
ADDRESS: UNKNOWN
CA

CONTACT:
SOURCE:

REV: 3/18/97
ID1: CASO-18-1584
ID2: CA219
STATUS: STATSGO
PHONE:

SITE INFORMATION

The National Resource Conservation Service recommends that the data not be used to describe soil characteristics for regions smaller than a multi-county area.

WATER CAPACITY (INCHES PER INCH):0.11
PERCENT CLAY (PERCENT < 2mm):28
K FACTOR:0.28
ORGANIC MATERIAL (PERCENT BY WEIGHT):0.4
SOIL PERMEABILITY (INCHES PER HOUR):0.79
CUMULATIVE LAYER THICKNESS (INCHES):62.3
HYDROLOGIC CHARACTERISTICS:3.1
SOIL DRAINAGE:4
SUFACE SLOPE (PERCENT):2.6
LIQUID LIMIT (PERCENT MOISTURE BY WEIGHT):35.9
HYDRIC COMPONENT SHARE (1=ALL COMPONENTS):0.2
ANNUAL FLOOD FREQUENCY:3.4

LEGEND

HYDROLOGIC CHARACTERISTICS:1 = HIGH INFILTRATION
2 = MODERATE INFILTRATION
3 = SLOW INFILTRATION
4 = VERY SLOW INFILTRATION

SOIL DRAINAGE:1 = EXCESS
2 = MODERATE EXCESS
3 = WELL
4 = MODERATELY WELL
5 = MODERATELY POOR
6 = POOR
7 = VERY POOR

ANNUAL FLOOD FREQUENCY:1 = GREATER THAN 50 PERCENT
2 = 5 TO 50 PERCENT
3 = 0 TO 5 PERCENT
4 = NONE

Environmental FirstSearch
Site Detail Report

Target Property: 10249 EASTSIDE RD
WINDSOR, CA 95492

JOB: END-71435

SOILS

SEARCH ID: 10 **DIST/DIR:** 0.00 -- **ELEVATION:** **MAP ID:** 1

NAME: USSOILS DATA
ADDRESS: UNKNOWN
CA

CONTACT:
SOURCE:

REV: 3/18/97
ID1: CASO-18-1522
ID2: CA221
STATUS: STATSGO
PHONE:

SITE INFORMATION

The National Resource Conservation Service recommends that the data not be used to describe soil characteristics for regions smaller than a multi-county area.

WATER CAPACITY (INCHES PER INCH):0.13
PERCENT CLAY (PERCENT < 2mm):21.7
K FACTOR:0.33
ORGANIC MATERIAL (PERCENT BY WEIGHT):0.5
SOIL PERMEABILITY (INCHES PER HOUR):2.81
CUMULATIVE LAYER THICKNESS (INCHES):65.2
HYDROLOGIC CHARACTERISTICS:2.2
SOIL DRAINAGE:2.8
SUFACE SLOPE (PERCENT):2
LIQUID LIMIT (PERCENT MOISTURE BY WEIGHT):30.4
HYDRIC COMPONENT SHARE (1=ALL COMPONENTS):0
ANNUAL FLOOD FREQUENCY:3.1

LEGEND

HYDROLOGIC CHARACTERISTICS:1 = HIGH INFILTRATION
2 = MODERATE INFILTRATION
3 = SLOW INFILTRATION
4 = VERY SLOW INFILTRATION

SOIL DRAINAGE:1 = EXCESS
2 = MODERATE EXCESS
3 = WELL
4 = MODERATELY WELL
5 = MODERATELY POOR
6 = POOR
7 = VERY POOR

ANNUAL FLOOD FREQUENCY:1 = GREATER THAN 50 PERCENT
2 = 5 TO 50 PERCENT
3 = 0 TO 5 PERCENT
4 = NONE

Environmental FirstSearch
Site Detail Report

Target Property: 10249 EASTSIDE RD
WINDSOR, CA 95492

JOB: END-71435

UST

SEARCH ID: 2 **DIST/DIR:** 0.06 SE **ELEVATION:** 84 **MAP ID:** 2

NAME: SYAR INDUSTRIS, INC
ADDRESS: 9000 EASTSIDE RD
HEALDSBURG CA 94558
SONOMA
CONTACT:
SOURCE:

REV: 01/01/94
ID1: TISID-STATE10285
ID2:
STATUS: INACTIVE
PHONE:

UST HISTORICAL DATA
This site was listed in the FIDS Zip Code List as a UST site. The Office of Hazardous Data Management produced the FIDS list. The FIDS list is an index of names & locations of sites recorded in various California State environmental agency databases. It is sorted by zip code and as an index, details regarding the sites were never included.
The UST information included in FIDS as provided by the Office of Hazardous Data Management was originally collected from the SWEEPS database. The SWEEPS database recorded Underground Storage Tanks and was maintained by the State Water Resources Control Board (SWRCB). That agency no longer maintains the SWEEPS database and last updated it in 1994. The last release of that 1994 database was in 1997.
Oversight of Underground Storage Tanks within California is now conducted by Certified Unified Program Agencies referred to as CUPA s. There are approximately 102 CUPA s and Local Oversight Programs (LOP s) in the State of California. Most are city or county government agencies. As of 1998, all sites or facilities with underground storage tanks were required by Federal mandate to obtain certification by designated UST oversight agencies (in this case, CUPA s) that the UST/s at their location were upgraded or removed in adherence with the 1998 RCRA standards.
Information from the FIDS/SWEEPS lists were included in this report search to help identify where underground storage tanks may have existed that were not recorded in CUPA databases or lists collected by us. This may occur if a tank was removed prior to development of recent CUPA UST lists or never registered with a CUPA.

Environmental FirstSearch
Site Detail Report

Target Property: 10249 EASTSIDE RD
WINDSOR, CA 95492

JOB: END-71435

LUST

SEARCH ID: 6 **DIST/DIR:** 0.06 SE **ELEVATION:** 83 **MAP ID:** 3

NAME: SYAR INDUSTRIES - DOYLE
ADDRESS: 8585 EASTSIDE RD
HEALDSBURG CA 95448
SONOMA
CONTACT:
SOURCE: CA SWRCB

REV: 06/06/12
ID1: T0609700253
ID2:
STATUS: COMPLETED - CASE CLOSED
PHONE:

RELEASE DATA FROM THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD LUSTIS DATABASE
Please note that some data previously provided by the State Water Resources Control Board in the LUSTIS database is not currently being provided by the agency in the most recent edition. Incidents that occurred after the year 2000 may not have much information. Field headers with blank information following after should be interpreted as unreported by the agency.

LEAD AGENCY: SONOMA COUNTY LOP
REGIONAL BOARD CASE NUMBER: 1TSO347
LOCAL AGENCY: SONOMA COUNTY LOP
LOCAL CASE NUMBER: 00001447

CASE TYPE: LUST Cleanup Site
POTENTIAL CONTAMINANTS OF CONCERN: Diesel
POTENTIAL MEDIA AFFECTED: Aquifer used for drinking water supply
STATUS: Completed - Case Closed
STATUS DATE: 1992-04-07 00:00:00
SITE HISTORY (blank if not reported):

ACTION TYPE (blank if not reported): Other
DATE (blank if not reported): 1950-01-01 00:00:00
ACTION (blank if not reported): Leak Reported

ACTION TYPE (blank if not reported): Other
DATE (blank if not reported): 1950-01-01 00:00:00
ACTION (blank if not reported): Leak Discovery

Environmental FirstSearch
Site Detail Report

Target Property: 10249 EASTSIDE RD
WINDSOR, CA 95492

JOB: END-71435

UST

SEARCH ID: 1 **DIST/DIR:** 0.07 SE **ELEVATION:** 83 **MAP ID:** 4

NAME: CALPLANS RIVER VINEYARD
ADDRESS: 8500 EASTSIDE RD
HEALDSBURG CA 95448
SONOMA
CONTACT:
SOURCE:

REV: 08/11/2000
ID1: SONOMACO2791
ID2:
STATUS: PERMIT NUMBER:2791
PHONE:

INFORMATION FROM THE SONOMA COUNTY UST LIST
Tank Number: 1
Tank Contents A:
Tank Contents B:
Tank Contents C: regular unleaded
Tank Contents D:
Tank Capacity: 1000
Tank Upgrade Certificate Number:
Lead Agency: 6
Operator Name: JOHN RAUCK
Operator Phone: (415)-453-3195
Piping Leak Detection Mechanical: 0
Piping Leak Detection Line Tightness: 0
Piping Leak Detection Continuous_Interstitial: 0
Piping Leak Detection Electronic: 0
Piping Leak Detection Auto Pump: 0
Piping Leak Detection Other: 0

INFORMATION FROM THE SONOMA COUNTY UST LIST
Tank Number: 2
Tank Contents A:
Tank Contents B:
Tank Contents C: diesel
Tank Contents D:
Tank Capacity: 1000
Tank Upgrade Certificate Number:
Lead Agency: 6
Operator Name: JOHN RAUCK
Operator Phone: (415)-453-3195
Piping Leak Detection Mechanical: 0
Piping Leak Detection Line Tightness: 0
Piping Leak Detection Continuous_Interstitial: 0
Piping Leak Detection Electronic: 0
Piping Leak Detection Auto Pump: 0
Piping Leak Detection Other: 0

Environmental FirstSearch
Site Detail Report

Target Property: 10249 EASTSIDE RD
WINDSOR, CA 95492

JOB: END-71435

LUST

SEARCH ID: 4 **DIST/DIR:** 0.07 SE **ELEVATION:** 83 **MAP ID:** 4

NAME: CALPLANS VINEYARD
ADDRESS: 8500 EASTSIDE RD
HEALDSBURG CA 95448
SONOMA
CONTACT:
SOURCE: CA SWRCB

REV: 06/06/12
ID1: T0609700401
ID2:
STATUS: COMPLETED - CASE CLOSED
PHONE:

RELEASE DATA FROM THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD LUSTIS DATABASE
Please note that some data previously provided by the State Water Resources Control Board in the LUSTIS database is not currently being provided by the agency in the most recent edition. Incidents that occurred after the year 2000 may not have much information. Field headers with blank information following after should be interpreted as unreported by the agency.

LEAD AGENCY: SONOMA COUNTY LOP
REGIONAL BOARD CASE NUMBER: 1TSO569
LOCAL AGENCY: SONOMA COUNTY LOP
LOCAL CASE NUMBER: 00016249

CASE TYPE: LUST Cleanup Site
POTENTIAL CONTAMINANTS OF CONCERN: Diesel, Gasoline
POTENTIAL MEDIA AFFECTED: Soil
STATUS: Completed - Case Closed
STATUS DATE: 2000-02-02 00:00:00
SITE HISTORY (blank if not reported):

ACTION TYPE (blank if not reported): Other
DATE (blank if not reported): 1950-01-01 00:00:00
ACTION (blank if not reported): Leak Reported

ACTION TYPE (blank if not reported): Other
DATE (blank if not reported): 1950-01-01 00:00:00
ACTION (blank if not reported): Leak Discovery

ACTION TYPE (blank if not reported): REMEDIATION
DATE (blank if not reported): 1950-01-01 00:00:00
ACTION (blank if not reported): Excavation

Environmental FirstSearch
Site Detail Report

Target Property: 10249 EASTSIDE RD
WINDSOR, CA 95492

JOB: END-71435

HWMANIFEST

SEARCH ID: 11 **DIST/DIR:** 0.07 SE **ELEVATION:** 83 **MAP ID:** 4

NAME: CALPLANS RIVER VINEYARD
ADDRESS: 8500 EASTSIDE RD
HEALDSBURG CA 95448
SONOMA
CONTACT:
SOURCE: CA DTSC

REV: 02/19/10
ID1: CAL000281777
ID2:
STATUS: ACTIVE
PHONE:

DETAILS NOT AVAILABLE

Environmental FirstSearch
Site Detail Report

Target Property: 10249 EASTSIDE RD
WINDSOR, CA 95492

JOB: END-71435

LUST

SEARCH ID: 7 **DIST/DIR:** 0.19 NE **ELEVATION:** 95 **MAP ID:** 5

NAME: WAUGH JEFF
ADDRESS: 9228 EASTSIDE RD
HEALDSBURG CA 95448
SONOMA
CONTACT:
SOURCE: CA SWRCB

REV: 06/06/12
ID1: T0609700334
ID2:
STATUS: OPEN - SITE ASSESSMENT
PHONE:

RELEASE DATA FROM THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD LUSTIS DATABASE
Please note that some data previously provided by the State Water Resources Control Board in the LUSTIS database is not currently being provided by the agency in the most recent edition. Incidents that occurred after the year 2000 may not have much information. Field headers with blank information following after should be interpreted as unreported by the agency.

LEAD AGENCY: NORTH COAST RWQCB (REGION 1)
REGIONAL BOARD CASE NUMBER: 1TSO471
LOCAL AGENCY: HEALDSBURG/SEBASTAPOL, CITY OF
LOCAL CASE NUMBER:

CASE TYPE: LUST Cleanup Site
POTENTIAL CONTAMINANTS OF CONCERN: Gasoline
POTENTIAL MEDIA AFFECTED: Aquifer used for drinking water supply
STATUS: Open - Site Assessment
STATUS DATE: 2011-08-29 00:00:00
SITE HISTORY (blank if not reported): On August 27, 1991 a 550 gallon UST was removed from the site numerous holes were observed in the tank. Elvated conctrations of TPHg was detected at 6.5 feet in the center of the tank pit excavation. A water sample collected from 7.5 feet in the tank pit was did not detect any chemicals of concern. Workplan to install monioting wells approved in a letter dated May 29, 1992. No work has been conducted since that time. In 1997 we were informed that the propoerty was in forclosure.

ACTION TYPE (blank if not reported): ENFORCEMENT
DATE (blank if not reported): 2009-03-03 00:00:00
ACTION (blank if not reported): File review

ACTION TYPE (blank if not reported): ENFORCEMENT
DATE (blank if not reported): 1991-09-12 00:00:00
ACTION (blank if not reported): * Historical Enforcement

ACTION TYPE (blank if not reported): Other
DATE (blank if not reported): 1950-01-01 00:00:00
ACTION (blank if not reported): Leak Discovery

ACTION TYPE (blank if not reported): Other
DATE (blank if not reported): 1950-01-01 00:00:00
ACTION (blank if not reported): Leak Stopped

ACTION TYPE (blank if not reported): Other
DATE (blank if not reported): 1950-01-01 00:00:00
ACTION (blank if not reported): Leak Reported

Target Property: 10249 EASTSIDE RD
WINDSOR, CA 95492

JOB: END-71435

UST

SEARCH ID: 3 **DIST/DIR:** 0.23 NW **ELEVATION:** 86 **MAP ID:** 6

NAME: VINO FARMS INC
ADDRESS: 10651 EASTSIDE RD
HEALDSBURG CA 95448
SONOMA
CONTACT:
SOURCE:

REV: 08/11/2000
ID1: SONOMACO178
ID2:
STATUS: PERMIT NUMBER:178
PHONE:

INFORMATION FROM THE SONOMA COUNTY UST LIST
Tank Number: 1
Tank Contents A: motor vehicle fuel
Tank Contents B: product
Tank Contents C: regular unleaded
Tank Contents D:
Tank Capacity: 10000
Tank Upgrade Certificate Number: 14174
Lead Agency: Department of Emergency Services
Operator Name: LEDBETTER FARMS
Operator Phone: 2093346975
Piping Leak Detection Mechanical: -1
Piping Leak Detection Line Tightness: -1
Piping Leak Detection Continuous_Interstitial: 0
Piping Leak Detection Electronic: 0
Piping Leak Detection Auto Pump: 0
Piping Leak Detection Other: 0

INFORMATION FROM THE SONOMA COUNTY UST LIST
Tank Number: 2
Tank Contents A: motor vehicle fuel
Tank Contents B: product
Tank Contents C: diesel
Tank Contents D:
Tank Capacity: 10120
Tank Upgrade Certificate Number: 14174
Lead Agency: Department of Emergency Services
Operator Name: LEDBETTER FARMS
Operator Phone: 2093346975
Piping Leak Detection Mechanical: -1
Piping Leak Detection Line Tightness: -1
Piping Leak Detection Continuous_Interstitial: 0
Piping Leak Detection Electronic: 0
Piping Leak Detection Auto Pump: 0
Piping Leak Detection Other: 0

INFORMATION FROM THE SONOMA COUNTY UST LIST
Tank Number: 3
Tank Contents A: motor vehicle fuel
Tank Contents B: product
Tank Contents C: regular unleaded
Tank Contents D:
Tank Capacity: 5000
Tank Upgrade Certificate Number: 14174
Lead Agency: Department of Emergency Services
Operator Name: LEDBETTER FARMS
Operator Phone: 2093346975

- Continued on next page -

Environmental FirstSearch
Site Detail Report

Target Property: 10249 EASTSIDE RD
WINDSOR, CA 95492

JOB: END-71435

UST

SEARCH ID: 3 **DIST/DIR:** 0.23 NW **ELEVATION:** 86 **MAP ID:** 6

NAME: VINO FARMS INC
ADDRESS: 10651 EASTSIDE RD
HEALDSBURG CA 95448
SONOMA
CONTACT:
SOURCE:

REV: 08/11/2000
ID1: SONOMACO178
ID2:
STATUS: PERMIT NUMBER:178
PHONE:

Piping Leak Detection Mechanical: -1
Piping Leak Detection Line Tightness: 0
Piping Leak Detection Continuous_Interstitial: -1
Piping Leak Detection Electronic: 0
Piping Leak Detection Auto Pump: -1
Piping Leak Detection Other: 0

INFORMATION FROM THE SONOMA COUNTY UST LIST
Tank Number: 4
Tank Contents A: motor vehicle fuel
Tank Contents B: product
Tank Contents C: diesel
Tank Contents D:
Tank Capacity: 10000
Tank Upgrade Certificate Number: 14174
Lead Agency: Department of Emergency Services
Operator Name: LEDBETTER FARMS
Operator Phone: 2093346975
Piping Leak Detection Mechanical: -1
Piping Leak Detection Line Tightness: 0
Piping Leak Detection Continuous_Interstitial: -1
Piping Leak Detection Electronic: 0
Piping Leak Detection Auto Pump: -1

Environmental FirstSearch
Site Detail Report

Target Property: 10249 EASTSIDE RD
WINDSOR, CA 95492

JOB: END-71435

LUST

SEARCH ID: 5 **DIST/DIR:** 0.28 SE **ELEVATION:** 78 **MAP ID:** 7

NAME: KAISER SAND & GRAVEL WINDSOR
ADDRESS: 7821 EASTSIDE RD
WINDSOR CA 95492
SONOMA
CONTACT:
SOURCE: CA SWRCB

REV: 06/06/12
ID1: T0609700054
ID2:
STATUS: COMPLETED - CASE CLOSED
PHONE:

RELEASE DATA FROM THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD LUSTIS DATABASE
Please note that some data previously provided by the State Water Resources Control Board in the LUSTIS database is not currently being provided by the agency in the most recent edition. Incidents that occurred after the year 2000 may not have much information. Field headers with blank information following after should be interpreted as unreported by the agency.

LEAD AGENCY: NORTH COAST RWQCB (REGION 1)
REGIONAL BOARD CASE NUMBER: 1TSO080
LOCAL AGENCY: SONOMA COUNTY
LOCAL CASE NUMBER:

CASE TYPE: LUST Cleanup Site
POTENTIAL CONTAMINANTS OF CONCERN: Gasoline
POTENTIAL MEDIA AFFECTED: Soil
STATUS: Completed - Case Closed
STATUS DATE: 1991-12-02 00:00:00
SITE HISTORY (blank if not reported):

ACTION TYPE (blank if not reported): ENFORCEMENT
DATE (blank if not reported): 1991-12-02 00:00:00
ACTION (blank if not reported): * Historical Enforcement

ACTION TYPE (blank if not reported): Other
DATE (blank if not reported): 1950-01-01 00:00:00
ACTION (blank if not reported): Leak Discovery

ACTION TYPE (blank if not reported): Other
DATE (blank if not reported): 1950-01-01 00:00:00
ACTION (blank if not reported): Leak Reported

ACTION TYPE (blank if not reported): Other
DATE (blank if not reported): 1950-01-01 00:00:00
ACTION (blank if not reported): Leak Stopped

Environmental FirstSearch Descriptions

NPL: EPA NATIONAL PRIORITY LIST - The National Priorities List is a list of the worst hazardous waste sites that have been identified by Superfund. Sites are only put on the list after they have been scored using the Hazard Ranking System (HRS), and have been subjected to public comment. Any site on the NPL is eligible for cleanup using Superfund Trust money. A Superfund site is any land in the United States that has been contaminated by hazardous waste and identified by the Environmental Protection Agency (EPA) as a candidate for cleanup because it poses a risk to human health and/or the environment.FINAL - Currently on the Final NPLPROPOSED - Proposed for NPL

NPL DELISTED: EPA NATIONAL PRIORITY LIST Subset - Database of delisted NPL sites. The National Oil and Hazardous Substances Pollution Contingency Plan (NCP) establishes the criteria that the EPA uses to delete sites from the NPL. In accordance with 40 CFR 300.425.(e), sites may be deleted from the NPL where no further response is appropriate.DELISTED - Deleted from the Final NPL

CERCLIS: EPA COMPREHENSIVE ENVIRONMENTAL RESPONSE COMPENSATION AND LIABILITY INFORMATION SYSTEM (CERCLIS)- CERCLIS is a database of potential and confirmed hazardous waste sites at which the EPA Superfund program has some involvement. It contains sites that are either proposed to be or are on the National Priorities List (NPL) as well as sites that are in the screening and assessment phase for possible inclusion on the NPL.PART OF NPL- Site is part of NPL siteDELETED - Deleted from the Final NPLFINAL - Currently on the Final NPLNOT PROPOSED - Not on the NPLNOT VALID - Not Valid Site or IncidentPROPOSED - Proposed for NPLREMOVED - Removed from Proposed NPLSCAN PLAN - Pre-proposal SiteWITHDRAWN - Withdrawn

NFRAP: EPA COMPREHENSIVE ENVIRONMENTAL RESPONSE COMPENSATION AND LIABILITY INFORMATION SYSTEM ARCHIVED SITES - database of Archive designated CERCLA sites that, to the best of EPA's knowledge, assessment has been completed and has determined no further steps will be taken to list this site on the National Priorities List (NPL). This decision does not necessarily mean that there is no hazard associated with a given site; it only means that, based upon available information, the location is not judged to be a potential NPL site.NFRAP – No Further Remedial Action PlanP - Site is part of NPL siteD - Deleted from the Final NPLF - Currently on the Final NPLN - Not on the NPLO - Not Valid Site or IncidentP - Proposed for NPLR - Removed from Proposed NPLS - Pre-proposal SiteW – Withdrawn

RCRA COR ACT: EPA RESOURCE CONSERVATION AND RECOVERY INFORMATION SYSTEM SITES - Database of hazardous waste information contained in the Resource Conservation and Recovery Act Information (RCRAInfo), a national program management and inventory system about hazardous waste handlers. In general, all generators, transporters, treaters, storers, and disposers of hazardous waste are required to provide information about their activities to state environmental agencies. These agencies, in turn pass on the information to regional and national EPA offices. This regulation is governed by the Resource Conservation and Recovery Act (RCRA), as amended by the Hazardous and Solid Waste Amendments of 1984.RCRAInfo facilities that have reported violations and subject to corrective actions.

RCRA TSD: EPA RESOURCE CONSERVATION AND RECOVERY INFORMATION SYSTEM TREATMENT, STORAGE, and DISPOSAL FACILITIES. - Database of hazardous waste information contained in the Resource Conservation and Recovery Act Information (RCRAInfo), a national program management and inventory system about hazardous waste handlers. In general, all generators, transporters, treaters, storers, and disposers of hazardous waste are required to provide information about their activities to state environmental agencies. These agencies, in turn pass on the information to regional and national EPA offices. This regulation is governed by the Resource Conservation and Recovery Act (RCRA), as amended by the Hazardous and Solid Waste Amendments of 1984.Facilities that treat, store, dispose, or incinerate hazardous waste.

RCRA GEN: EPA/MA DEP/CT DEP RESOURCE CONSERVATION AND RECOVERY INFORMATION SYSTEM

GENERATORS - Database of hazardous waste information contained in the Resource Conservation and Recovery Act Information (RCRAInfo), a national program management and inventory system about hazardous waste handlers. In general, all generators, transporters, treaters, storers, and disposers of hazardous waste are required to provide information about their activities to state environmental agencies. These agencies, in turn pass on the information to regional and national EPA offices. This regulation is governed by the Resource Conservation and Recovery Act (RCRA), as amended by the Hazardous and Solid Waste Amendments of 1984.Facilities that generate or transport hazardous waste or meet other RCRA requirements.LGN - Large Quantity GeneratorsSGN - Small Quantity GeneratorsVGN – Conditionally Exempt Generator.Included are RAATS (RCRA Administrative Action Tracking System) and CMEL (Compliance Monitoring & Enforcement List) facilities. CONNECTICUT HAZARDOUS WASTE MANIFEST – Database of all shipments of hazardous waste within, into or from Connecticut. The data includes date of shipment, transporter and TSD info, and material shipped and quantity. This data is appended to the details of existing generator records. MASSACHUSETTES HAZARDOUS WASTE GENERATOR – database of generators that are regulated under the MA DEP. VQN-MA = generates less than 220 pounds or 27 gallons per month of hazardous waste or waste oil.SQN-MA = generates 220 to 2,200 pounds or 27 to 270 gallons per month of waste oil.LQG-MA = generates greater than 2,200 lbs of hazardous waste or waste oil per month.

RCRA NLR: EPA RESOURCE CONSERVATION AND RECOVERY INFORMATION SYSTEM SITES - Database of hazardous waste information contained in the Resource Conservation and Recovery Act Information (RCRAInfo), a national program management and inventory system about hazardous waste handlers. In general, all generators, transporters, treaters, storers, and disposers of hazardous waste are required to provide information about their activities to state environmental agencies. These agencies, in turn pass on the information to regional and national EPA offices. This regulation is governed by the Resource Conservation and Recovery Act (RCRA), as amended by the Hazardous and Solid Waste Amendments of 1984.not currently classified by the EPA but are still included in the RCRAInfo database. Reasons for non classification: Failure to report in a timely matter. No longer in business. No longer in business at the listed address. No longer generating hazardous waste materials in quantities which require reporting.

Fed Brownfield: EPA BROWNFIELD MANAGEMENT SYSTEM (BMS) - database designed to assist EPA in collecting, tracking, and updating information, as well as reporting on the major activities and accomplishments of the various Brownfield grant Programs./n CLEANUPS IN MY COMMUNITY (subset) - Sites, facilities and properties that have been contaminated by hazardous materials and are being, or have been, cleaned up under EPA's brownfield's program.

ERNS: EPA/NRC EMERGENCY RESPONSE NOTIFICATION SYSTEM (ERNS) - Database of incidents reported to the National Response Center. These incidents include chemical spills, accidents involving chemicals (such as fires or explosions), oil spills, transportation accidents that involve oil or chemicals, releases of radioactive materials, sightings of oil sheens on bodies of water, terrorist incidents involving chemicals, incidents where illegally dumped chemicals have been found, and drills intended to prepare responders to handle these kinds of incidents. Data since January 2001 has been received from the National Response System database as the EPA no longer maintains this data.

Tribal Lands: DOI/BIA INDIAN LANDS OF THE UNITED STATES - Database of areas with boundaries established by treaty, statute, and (or) executive or court order, recognized by the Federal Government as territory in which American Indian tribes have primary governmental authority. The Indian Lands of the United States map layer shows areas of 640 acres or more, administered by the Bureau of Indian Affairs. Included are Federally-administered lands within a reservation which may or may not be considered part of the reservation.BUREAU OF INDIAN AFFIARS CONTACT - Regional contact information for the Bureau of Indian Affairs offices.

State/Tribal Sites: CA EPA SMBRPD / CAL SITES- The California Department of Toxic Substances Control (DTSC) has developed an electronic database system called Envirostor with information about sites that are known to be contaminated with hazardous substances as well as information on uncharacterized properties where further studies may reveal problems. The Site Mitigation and Brownfields Reuse Program Database (SMBRPD), formerly known as CalSites, is

used primarily by DTSC's staff as an informational tool to evaluate and track activities at properties that may have been affected by the release of hazardous substances. The SMBRPD displays information in six categories, two of which are found in ST. The categories listed under ST are: 1. State Response Sites. 2. School Property Evaluation Program Properties (SCH) Please Note: Our reports list the above sites as DB Type (STATE). Other categories found in the SMBRPD are listed in our reports in the DB Types OT and VC. Each Category contains information on properties based upon the type of work taking place at the site. State Response Sites contains only known and potential hazardous substance release sites considered as posing the greatest threat to the public. School sites included in ST will be found within the SMBRPD's School Property Evaluation Program. CORTESE LIST-Pursuant to Government Code Section 65962.5, the Hazardous Waste and Substances Sites List has been compiled by Cal/EPA, Hazardous Materials Data Management Program to provide information about the location of hazardous materials release sites. Cortese List sites that fall under DTSC's guidelines for State Response sites are included in our reports in the ST category as are qualifying sites from the Annual Work Plan (formerly Bond Expenditure Plan) and the historic ASPIS databases.

State Spills 90: CA EPA SLIC REGIONS 1 - 9- The California Regional Water Quality Control Boards maintain report of sites that have records of spills, leaks, investigation, and cleanups.

State/Tribal SWL: CA IWMB/SWRCB/COUNTY SWIS SOLID WASTE INFORMATION SYSTEM-The California Integrated Waste Management Board maintains a database on solid waste facilities, operations, and disposal sites throughout the state of California. The types of facilities found in this database include landfills, transfer stations, material recovery facilities, composting sites, transformation facilities, waste tire sites, and closed disposal sites. For more information on individual sites call the number listed in the source field.. Please Note: This database contains poor site location information for many sites in our reports; therefore, it may not be possible to locate or plot some sites in our reports. WMUDS-The State Water Resources Control Board maintained the Waste Management Unit Database System (WMUDS). It is no longer updated. It tracked management units for several regulatory programs related to waste management and its potential impact on groundwater. Two of these programs (SWAT & TPCA) are no longer on-going regulatory programs as described below. Chapter 15 (SC15) is still an on-going regulatory program and information is updated periodically but not to the WMUDS database. The WMUDS System contains information from the following agency databases: Facility, Waste Management Unit (WMU), Waste Discharger System (WDS), SWAT, Chapter 15, TPCA, RCRA, Inspections, Violations, and Enforcement's. Note: This database contains poor site location information for many sites in our reports; therefore, it may not be possible to locate or plot some sites in reports. ORANGE COUNTY LANDFILLS LIST- A list maintained by the Orange County Health Department.

State/Tribal LUST: CA SWRCB/COUNTY LUSTIS- The State Water Resources Control Board maintains a database of sites with confirmed or unconfirmed leaking underground storage tanks. Information for this database is collected from the states regional boards quarterly and integrated with this database. SAN DIEGO COUNTY LEAKING TANKS- The San Diego County Department of Environmental Health maintains a database of sites with confirmed or unconfirmed leaking underground storage tanks within its HE17/58 database. For more information on a specific file call the HazMat Duty Specialist at phone number listed in the source information field.

State/Tribal UST/AST: CA EPA/COUNTY/CITY ABOVEGROUND STORAGE TANKS LISTING-The Above Ground Petroleum Storage Act became State Law effective January 1, 1990. In general, the law requires owners or operators of AST's with petroleum products to file a storage statement and pay a fee by July 1, 1990 and every two years thereafter, take specific action to prevent spills, and in certain instances implement a groundwater monitoring program. This law does not apply to that portion of a tank facility associated with the production oil and regulated by the State Division of Oil and Gas of the Dept. of Conservation. SWEEPS / FIDS STATE REGISTERED UNDEGROUND STORAGE TANKS- Until 1994 the State Water Resources Control Board maintained a database of registered underground storage tanks statewide referred to as the SWEEPS System. The SWEEPS UST information was integrated with the CAL EPA's Facility Index System database (FIDS) which is a master index of information from numerous California agency environmental databases. That was last updated in 1994. We have included the UST information from the FIDS database in our reports for historical

purposes to help our clients identify where tanks may possibly have existed. For more information on specific sites from individual paper files archived at the State Water Resources Control Board call the number listed with the source information. INDIAN LANDS UNDERGROUND STORAGE TANKS LIST- A listing of underground storage tanks currently on Indian Lands under federal jurisdiction. California Indian Land USTS are administered by US EPA Region 9.CUPA DATABASES & SOURCES- Definition of a CUPA: A Certified Unified Program Agency (CUPA) is a local agency that has been certified by the CAL EPA to implement six state environmental programs within the local agency's jurisdiction. These can be a county, city, or JPA (Joint Powers Authority). This program was established under the amendments to the California Health and Safety Code made by SB 1082 in 1994. A Participating Agency (PA) is a local agency that has been designated by the local CUPA to administer one or more Unified Programs within their jurisdiction on behalf of the CUPA. A Designated Agency (DA) is an agency that has not been certified by the CUPA but is the responsible local agency that would implement the six unified programs until they are certified. Please Note: We collect and maintains information regarding Underground Storage Tanks from the majority of the CUPAS and Participating Agencies in the State of California. These agencies typically do not maintain nor release such information on a uniform or consistent schedule; therefore, currency of the data may vary. Please look at the details on a specific site with a UST record in the First Search Report to determine the actual currency date of the record as provided by the relevant agency. Numerous efforts are made on a regular basis to obtain updated records.

State/Tribal IC: CA EPA DEED-RESTRICTED SITES LISTING- The California EPA's Department of Toxic Substances Control Board maintains a list of deed-restricted sites, properties where the DTSC has placed limits or requirements on the future use of the property due to varying levels of cleanup possible, practical or necessary at the site.

State/Tribal VCP: CA EPA SMBRPD / CAL SITES- The California Department of Toxic Substances Control (DTSC) has developed an electronic database system called Envirostor with information about sites that are known to be contaminated with hazardous substances as well as information on uncharacterized properties where further studies may reveal problems. The Site Mitigation and Brownfields Reuse Program Database (SMBRPD), formerly known as CalSites, is used primarily by DTSC's staff as an informational tool to evaluate and track activities at properties that may have been affected by the release of hazardous substances. The Voluntary Cleanup Program (VCP) category contains only those properties undergoing voluntary investigation and/or cleanup and which are listed in the Voluntary Cleanup Program.Please Note: Our reports list the above sites as DB Type VC.

Wetlands: US FWS NATIONAL WETLANDS INVENTORY (NWI) - database of information on the characteristics, extent, and status of the Nation's wetlands and deepwater habitats. This data is available for select areas of the United States.

USGS Soils: USGS/NRCS NATIONAL SOILS DATABASE - Database comprised of the State Soil Geographic (STATSGO) data for the conterminous United States, Soil Survey Geographic (SSURGO) and Digital Data Series Bedrock data. These databases contain information regarding soil characteristics such as water capacity, percent clay, organic material, permeability, thickness of layers, hydrological characteristics, quality of drainage, surface, slope, liquid limit, and the annual frequency of flooding.

NPDES: EPA THE NATIONAL POLLUTION DISCHARGE ELIMINATION SYSTEM - Database of permitted facilities receiving and discharging effluents to and from a natural source where treatment of the effluent is monitored.

PADS: EPA DATABASE OF PCB HANDLERS - Database of PolyChlorinatedBiPhenol generators, transporters, storers and/or disposers that are required to register with the EPA. This database indicates the type of handler and registration number. Also included is the PCB Transformer Registration Database.

Federal Other: EPA SECTION SEVEN TRACKING SYSTEM (SSTS) – database of registration and production data for facilities which manufacture pesticides.VAPOR INTRUSION DATABASE – database that records the migration of volatile chemicals from the subsurface into overlying buildings. Volatile chemicals in contaminated soil or groundwater can emit

vapors that may migrate through soil and into indoor air spaces.

State Permits: CA EPA/COUNTY SAN DIEGO COUNTY HE17 PERMITS- The HE17/58 database tracks establishments issued permits and the status of their permits in relation to compliance with federal, state, and local regulations that the County oversees. It tracks if a site is a hazardous waste generator, TSD, gas station, has underground tanks, violations, or unauthorized releases. For more information on a specific file call the HazMat Duty Specialist at the phone number listed in the source information field. SAN BERNARDINO COUNTY HAZARDOUS MATERIALS PERMITS- Handlers and Generators Permit Information Maintained by the Hazardous Materials Division.

State Other: CA EPA/COUNTY SMBRPD / CAL SITES- The California Department of Toxic Substances Control (DTSC) has developed an electronic database system called Envirostor with information about sites that are known to be contaminated with hazardous substances as well as information on uncharacterized properties where further studies may reveal problems. The Site Mitigation and Brownfields Reuse Program Database (SMBRPD), formerly known as CalSites, is used primarily by DTSC's staff as an informational tool to evaluate and track activities at properties that may have been affected by the release of hazardous substances. The SMBRPD displays information in six categories, two of which are found in ST. The categories listed under OT are: 1. Unconfirmed Properties Referred to Another Local or State Agency (REF) 2. Properties where a No Further Action Determination has been made (NFA) Please Note: Our reports list the above sites as DB Type (OTHER). Other categories found in the SMBRPD are listed in our reports in the DB Types ST and VC.LA COUNTY SITE MITIGATION COMPLAINT CONTROL LOG- The County of Los Angeles Public Health Investigation Compliant Control Log. ORANGE COUNTY INDUSTRIAL SITE CLEANUPS- List maintained by the Orange County Environmental Health Agency. RIVERSIDE COUNTY WASTE GENERATORS-A list of facilities in Riverside County which generate hazardous waste. SACRAMENTO COUNTY MASTER HAZMAT LIST-Master list of facilities within Sacramento County with potentially hazardous materials. SACRAMENTO COUNTY TOXIC SITE CLEANUPS-A list of sites where unauthorized releases of potentially hazardous materials have occurred.

Federal IC / EC: EPA FEDERAL ENGINEERING AND INSTITUTIONAL CONTROLS- Superfund sites that have either an engineering or an institutional control. The data includes the control and the media contaminated. RESOURCE CONSERVATION AND RECOVERY INFORMATION SYSTEM SITES (RCRA) – RCRA site the have institutional controls.

State/Tribal HW: CA EPA DEPARTMENT OF TOXIC SUBSTANCES CONTROL HAZARDOUS WASTE MANIFEST INVENTORY-Records maintained by the CA DTSC of Hazardous Waste Manifests used to track and document the transport of hazardous waste from a generator's site to the site of its final disposition.

Environmental FirstSearch Database Sources

NPL: EPA Environmental Protection Agency

Updated quarterly

NPL DELISTED: EPA Environmental Protection Agency

Updated quarterly

CERCLIS: EPA Environmental Protection Agency

Updated quarterly

NFRAP: EPA Environmental Protection Agency.

Updated quarterly

RCRA COR ACT: EPA Environmental Protection Agency.

Updated quarterly

RCRA TSD: EPA Environmental Protection Agency.

Updated quarterly

RCRA GEN: EPA/MA DEP/CT DEP Environmental Protection Agency, Massachusetts Department of Environmental Protection, Connecticut Department of Environmental Protection

Updated quarterly

RCRA NLR: EPA Environmental Protection Agency

Updated quarterly

Fed Brownfield: EPA Environmental Protection Agency

Updated quarterly

ERNS: EPA/NRC Environmental Protection AgencyNational Response Center.

Updated annually

Tribal Lands: DOI/BIA United States Department of the InteriorBureau of Indian Affairs

Updated annually

State/Tribal Sites: CA EPA The CAL EPA, Depart. Of Toxic Substances Control Phone: (916) 323-3400 For Cortese List information contact The CAL EPA, Department of Toxic Substances Control at (916) 445-6532

Updated quarterly/when available

State Spills 90: CA EPA The California State Water Resources Control Board For phone number listings of departments within each region visit their web sites at: http://www.swrcb.ca.gov/regions.html

Updated when available

State/Tribal SWL: CA IWMB/SWRCB/COUNTY The California Integrated Waste Management Board
Phone:(916) 255-2331
The State Water Resources Control Board
Phone:(916) 227-4365
Orange County Health Department
Phone:(714) 834-3536

Updated quarterly/when available

State/Tribal LUST: CA SWRCB/COUNTY The California State Water Resources Control Board Phone:(916) 227-4416 San Diego County Department of Environmental Health Phone:(619) 338-2242

Updated quarterly/when available

State/Tribal UST/AST: CA EPA/COUNTY/CITY The State Water Resources Control Board
Phone:(916) 227-4364
CAL EPA Department of Toxic Substances Control
Phone:(916)227-4404
US EPA Region 9 Underground Storage Tank Program
Phone: (415) 972-3372
ALAMEDA COUNTY CUPAS:
* County of Alameda Department of Environmental Health
* Cities of Berkeley, Fremont, Hayward, Livermore / Pleasanton, Newark, Oakland, San Leandro, Union
ALPINE COUNTY CUPA:
* Health Department (Only updated by agency sporadically)
AMADOR COUNTY CUPA:
* County of Amador Environmental Health Department
BUTTE COUNTY CUPA
* County of Butte Environmental Health Division (Only updated by agency biannually)
CALAVERAS COUNTY CUPA:
* County of Calaveras Environmental Health Department
COLUSA COUNTY CUPA:
* Environmental Health Dept.
CONTRA COSTA COUNTY CUPA:
* Hazardous Materials Program
DEL NORTE COUNTY CUPA:
* Department of Health and Social Services
EL DORADO COUNTY CUPAS:
* County of El Dorado Environmental Health - Solid Waste Div (Only updated by agency annually)

* County of El Dorado EMD Tahoe Division (Only updated by agency annually)
FRESNO COUNTY CUPA:
* Haz. Mat and Solid Waste Programs
GLENN COUNTY CUPA:
* Air Pollution Control District
HUMBOLDT COUNTY CUPA:
* Environmental Health Division
IMPERIAL COUNTY CUPA:
* Department of Planning and Building
INYO COUNTY CUPA:
* Environmental Health Department
KERN COUNTY CUPA:
* County of Kern Environmental Health Department
* City of Bakersfield Fire Department
KINGS COUNTY CUPA:
* Environmental Health Services
LAKE COUNTY CUPA:
* Division of Environmental Health
LASSEN COUNTY CUPA:
* Department of Agriculture
LOS ANGELES COUNTY CUPAS:
* County of Los Angeles Fire Department CUPA Data as maintained by the Los Angeles County Department of Public Works
* County of Los Angeles Environmental Programs Division
* Cities of Burbank, El Segundo, Glendale, Long Beach/Signal Hill, Los Angeles,Pasadena, Santa Fe Springs, Santa Monica, Torrance, Vernon
MADERA COUNTY CUPA:
* Environmental Health Department
MARIN COUNTY CUPA:
* County of Marin Office of Waste Management
* City of San Rafael Fire Department
MARIPOSA COUNTY CUPA:
* Health Department
MENDOCINO COUNTY CUPA:
* Environmental Health Department
MERCED COUNTY CUPA:
* Division of Environmental Health
MODOC COUNTY CUPA:
* Department of Agriculture
MONO COUNTY CUPA:
* Health Department
MONTEREY COUNTY CUPA:
* Environmental Health Division
NAPA COUNTY CUPA:
* Hazardous Materials Section
NEVADA COUNTY CUPA:
* Environmental Health Department
ORANGE COUNTY CUPAS:
* County of Orange Environmental Health Department

* Cities of Anaheim, Fullerton, Orange, Santa Ana
* County of Orange Environmental Health Department
PLACER COUNTY CUPAS:
* County of Placer Division of Environmental Health Field Office
* Tahoe City
* City of Roseville Roseville Fire Department
PLUMAS COUNTY CUPA:
* Environmental Health Department
RIVERSIDE COUNTY CUPA:
* Environmental Health Department
SACRAMENTO COUNTY CUPA:
* County Environmental Mgmt Dept, Haz. Mat. Div.
SAN BENITO COUNTY CUPA:
* City of Hollister Environmental Service Department
SAN BERNARDINO COUNTY CUPAS:
* County of San Bernardino Fire Department, Haz. Mat. Div.
* City of Hesperia Hesperia Fire Prevention Department
*City of Victorville Victorville Fire Department
SAN DIEGO COUNTY CUPA:
* The San Diego County Dept. of Environmental Health HE 17/58
SAN FRANCISCO COUNTY CUPA:
* Department of Public Health
SAN JOAQUIN COUNTY CUPA:
* Environmental Health Division
SAN LUIS OBISPO COUNTY CUPAS:
* County of San Luis Obispo Environmental Health Division
* City of San Luis Obispo City Fire Department
SAN MATEO COUNTY CUPA:
* Environmental Health Department
SANTA BARBARA COUNTY CUPA:
* County Fire Dept Protective Services Division
SANTA CLARA COUNTY CUPAS:
* County of Santa Clara Hazardous Materials Compliance Division
* Santa Clara County Central Fire Protection District (Covers Campbell, Cupertino, Los Gatos, & Morgan Hill)
* Cities of Gilroy, Milpitas, Mountain View, Palo Alto, San Jose Fire, Santa Clara, Sunnyvale
SANTA CRUZ COUNTY CUPA:
* Environmental Health Department
SHASTA COUNTY CUPA:
* Environmental Health Department
SIERRA COUNTY CUPA:
* Health Department
SISKIYOU COUNTY CUPA:
* Environmental Health Department
SONOMA COUNTY CUPAS:
* County of Sonoma Department Of Environmental Health
* Cities of Healdsburg / Sebastopol, Petaluma, Santa Rosa
STANISLAUS COUNTY CUPA:
* Department of Environmental Resources Haz. Mat. Division
SUTTER COUNTY CUPA:

* Department of Agriculture
TEHAMA COUNTY CUPA:
* Department of Environmental Health
TRINITY COUNTY CUPA:
* Department of Health
TULARE COUNTY CUPA:
* Environmental Health Department
TUOLUMNE COUNTY CUPA:
* Environmental Health
VENTURA COUNTY CUPAS:
* County of Ventura Environmental Health Division
* Cities of Oxnard, Ventura
YOLO COUNTY CUPA:
* Environmental Health Department
YUBA COUNTY CUPA:
* Yuba County of Emergency Services

Updated quarterly/annually/when available

State/Tribal IC: CA EPA The California EPA Department of Toxic Substances Control.Phone:(916) 255-3745

Updated Updated quarterly/annually/when available

State/Tribal VCP: CA EPA The California EPA Department of Toxic Substances Control.Phone:(916) 255-3745

Updated Updated quarterly/annually/when available

Wetlands: US FWS U.S. Fish and Wildlife Service

Updated when available

USGS Soils: USGS/NRCS United States Geographical SurveyNational Resources Conservation Services

Updated annually

NPDES: EPA Environmental Protection Agency

Updated quarterly

PADS: EPA Environmental Protection Agency

Updated quarterly

Federal Other: EPA Environmental Protection Agency

Updated quarterly

State Permits: CA EPA/COUNTY The San Diego County Depart. Of Environmental Health Phone:(619) 338-2211 San Bernardino County Fire Department Phone:(909) 387-3080

Updated quarterly/when available

State Other: CA EPA/COUNTY The CAL EPA, Depart. Of Toxic Substances Control Phone: (916) 323-3400 The Los Angeles County Hazardous Materials Division Phone: (323) 890-7806 Orange County Environmental Health Agency Phone: (714) 834-3536 Riverside County Department of Environmental Health, Hazardous Materials Management Division Phone:(951) 358-5055 Sacramento County Environmental Management Department Phone: (916) 875-8550

Updated quarterly/when available

Federal IC / EC: EPA Environmental Protection Agency

Updated quarterly

State/Tribal HW: CA EPA CAL EPA, Department of Toxic Substances Control Phone:(916) 255-087

Updated annually/when available

Environmental FirstSearch
Street Name Report for Streets within .25 Mile(s) of Target Property

Target Property: 10249 EASTSIDE RD
WINDSOR, CA 95492

JOB: END-71435

Street Name	Dist/Dir	Street Name	Dist/Dir
1st St	0.16 NE		
EASTSIDE RD	0.00--		
Fontana Rd	0.00--		
Richardson Rd	0.00--		

FIRSTSEARCH

HISTORICAL FIRE INSURANCE MAPS

NO MAPS AVAILABLE

07-23-12
END-71435
10249 EASTSIDE RD
WINDSOR, CA 95492

A search of FirstSearch Technology Corporation's proprietary database of historical fire insurance map availability confirmed that there are NO MAPS AVAILABLE for the Subject Location as shown above.

FirstSearch Technology Corporation's proprietary database of historical fire insurance map availability represents abstracted information from the Sanborn® Map Company obtained through online access to the U.S. Library of Congress via local libraries.

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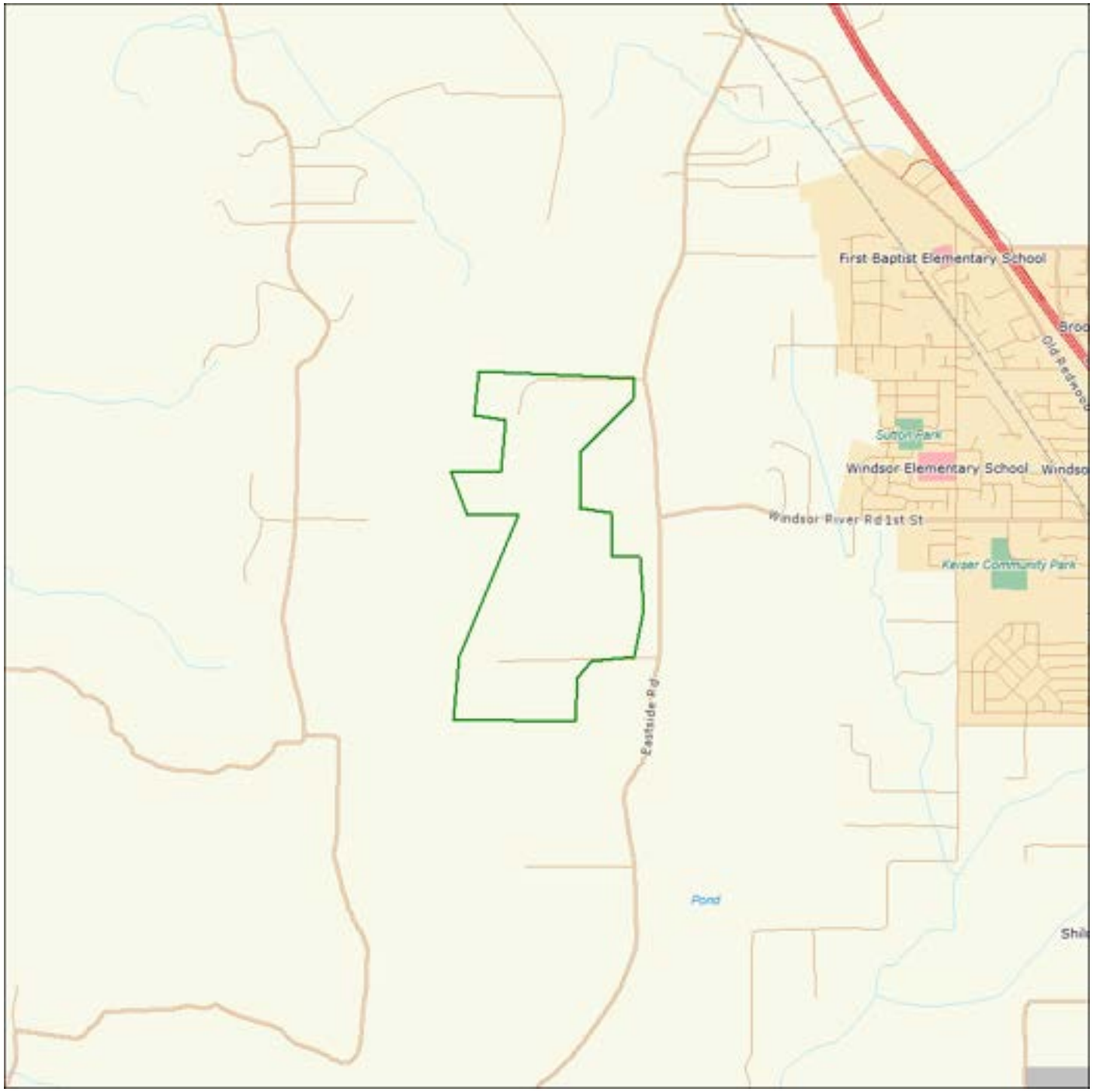
Environmental FirstSearch

1 Mile Radius from Area

ASTM Map: NPL, RCRACOR, STATE Sites

FIRSTSEARCH

10249 EASTSIDE RD, WINDSOR, CA 95492



Source: Tele Atlas

Area Polygon .....

Identified Site, Multiple Sites, Receptor .....

NPL, DELNPL, Brownfield, Solid Waste Landfill (SWL), Hazardous Waste

Triballand.....

Black Rings Represent 1/4 Mile Radius; Red Ring Represents 500 ft. Radius

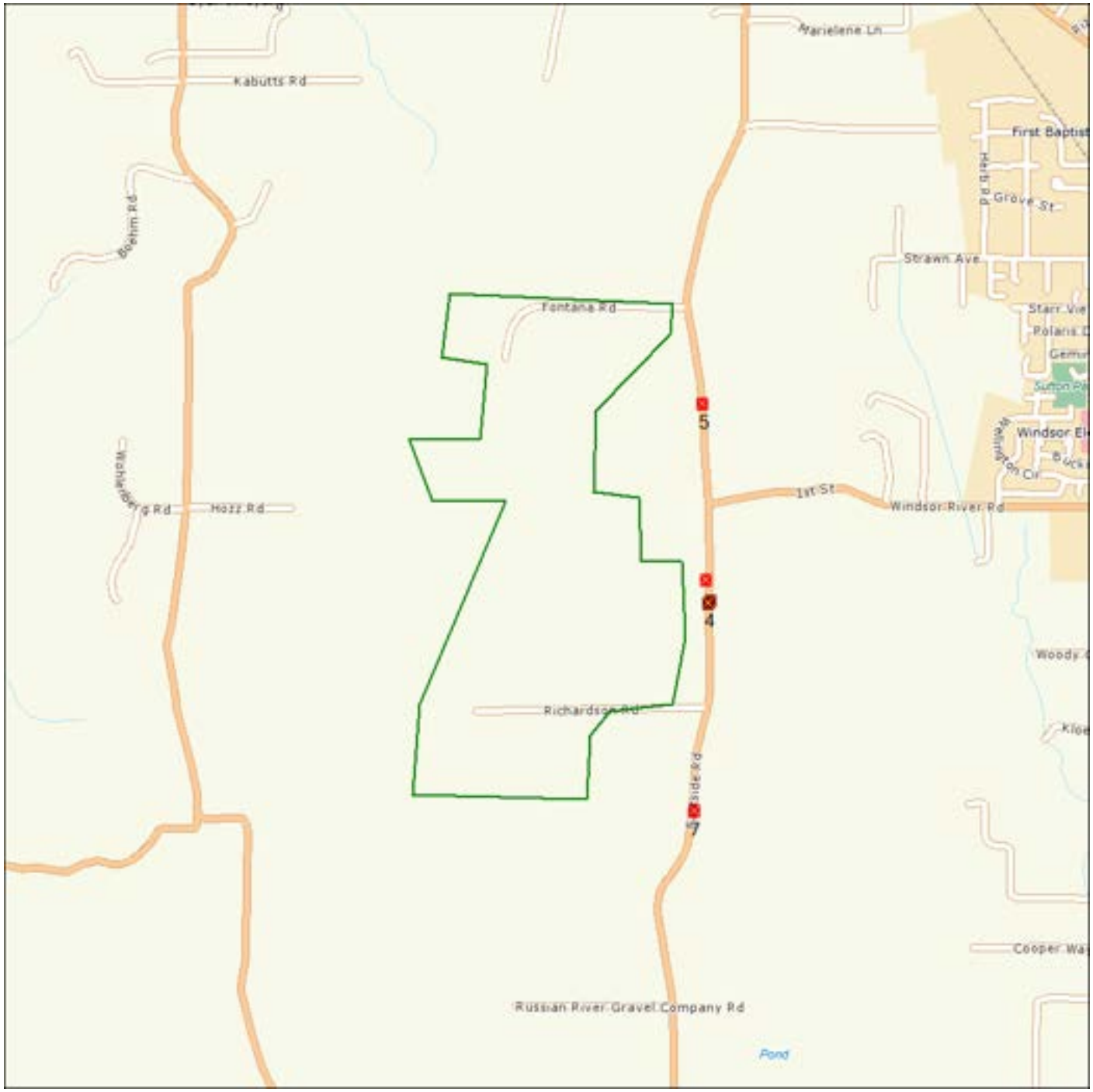
Environmental FirstSearch

.5 Mile Radius from Area

ASTM Map: CERCLIS, RCRATSD, LUST, SWL

FIRSTSEARCH

10249 EASTSIDE RD, WINDSOR, CA 95492



Source: Tele Atlas

Area Polygon .....

Identified Site, Multiple Sites, Receptor .....

NPL, DELNPL, Brownfield, Solid Waste Landfill (SWL), Hazardous Waste

Triballand.....

Black Rings Represent 1/4 Mile Radius; Red Ring Represents 500 ft. Radius

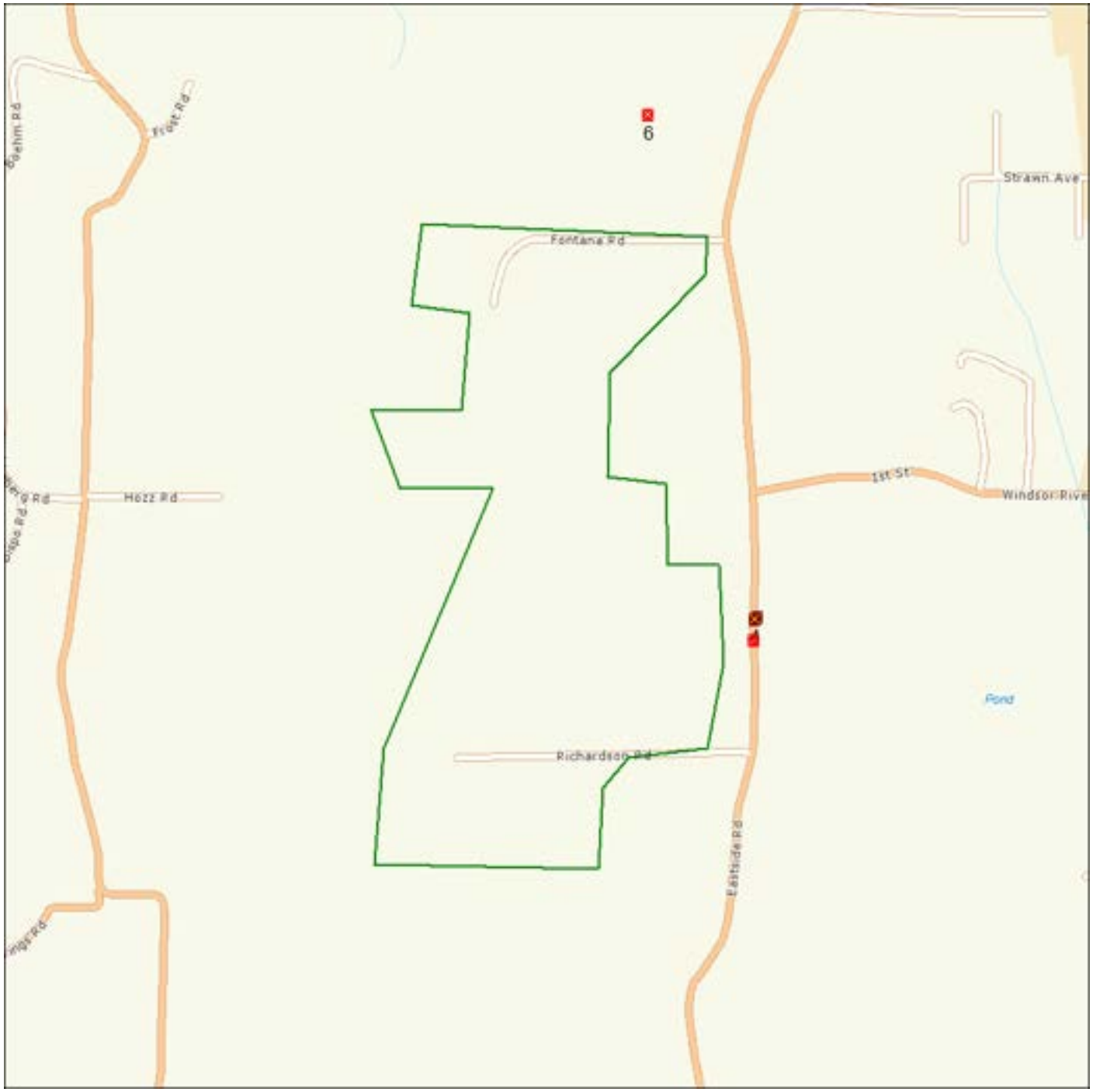
Environmental FirstSearch

.25 Mile Radius from Area

ASTM Map: RCRAGEN, ERNS, UST, FED IC/EC, METH LABS

FIRSTSEARCH

10249 EASTSIDE RD, WINDSOR, CA 95492



Source: Tele Atlas

Area Polygon .....

Identified Site, Multiple Sites, Receptor .....

NPL, DELNPL, Brownfield, Solid Waste Landfill (SWL), Hazardous Waste

Triballand.....

Black Rings Represent 1/4 Mile Radius; Red Ring Represents 500 ft. Radius

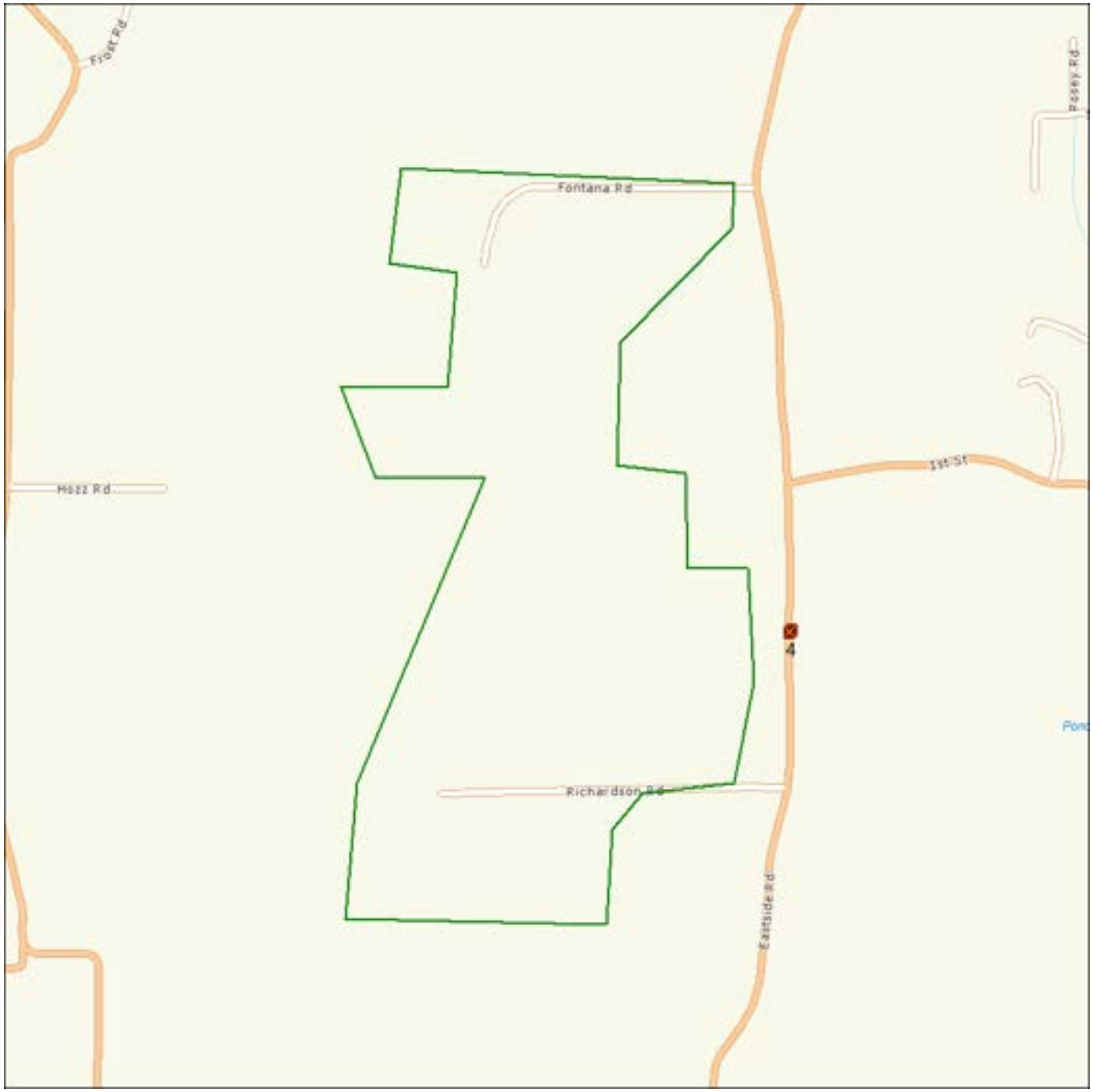
Environmental FirstSearch

.12 Mile Radius from Area

Non-ASTM Map: HW Manifest

FIRSTSEARCH

10249 EASTSIDE RD, WINDSOR, CA 95492



Source: Tele Atlas

Area Polygon .....

Identified Site, Multiple Sites, Receptor .....

NPL, DELNPL, Brownfield, Solid Waste Landfill (SWL), Hazardous Waste

Triballand.....

National Historic Sites and Landmark Sites .....

Black Rings Represent 1/4 Mile Radius; Red Ring Represents 500 ft. Radius

APPENDIX E
USER PROVIDED INFORMATION

Project Name: Windsor Hanson Gravel Ponds - EEI Job No. END-71435

Project Address: 10246 Eastside Road, Windsor, CA

USER SPECIFIC QUESTIONNAIRE

In order to comply with the ASTM E1527-05 Standard, EEI requests that the *user (i.e., the entity that orders the Phase I ESA)* provide the following information (if available). Your answers will be incorporated into the final Phase I ESA under the section "User-supplied Information." These questions have been incorporated into the new standard in order to ascertain the User's level of knowledge concerning any known environmental concerns or problems. Please complete these questions to the best of your knowledge and return to EEI as soon as possible.

(1.) Environmental cleanup liens that are filed or recorded against the site (40 CFR 312.25).
Are you aware of any environmental cleanup liens against the *property* that are filed or recorded under federal, tribal, state or local law? (A copy of a recent Title Search may assist in this determination).

No

(2.) Activity and land use limitations that are in place on the site or that have been filed or recorded in a registry (40 CFR 312.26).
Are you aware of any Activity and/or Land Use Limitations (AUL's), such as *engineering controls*, land use restrictions or *institutional controls* that are in place at the site and/or have been filed or recorded in a registry under federal, tribal, state or local law? (A copy of a recent Title Search may assist in this determination).

No

(3.) Specialized knowledge or experience of the person seeking to qualify for the Landowner Liability Protections (LLP - 40 CFR 312.28).
As the *user* of this *ESA* do you have any specialized knowledge or experience related to the *property* or nearby properties? For example, are you involved in the same line of business as the current or former *occupants* of the *property* or an adjoining *property* so that you would have specialized knowledge of the chemicals and processes used by this type of business? (self-explanatory)

No

(4.) Relationship of the purchase price to the fair market value of the *property* if it were not contaminated (40 CFR 312.29).
Does the purchase price being paid for this *property* reasonably reflect the fair market value of the *property*? If you conclude that there is a difference, have you considered whether the lower purchase price is because contamination is known or believed to be present at the *property*?

Yes. Fair market appraised value @ $1.5 million

(5.) Commonly known or *reasonably ascertainable* information about the *property* (40 CFR 312.30).
Are you aware of commonly known or *reasonably ascertainable* information about the *property* that would help the *environmental professional* to identify conditions indicative of releases or threatened releases? For example, as *user*,

(a.) Do you know the past uses of the *property*?

Yes

(b.) Do you know of specific chemicals that are present or once were present at the *property*?

No

(c.) Do you know of spills or other chemical releases that have taken place at the *property*?

No

(d.) Do you know of any environmental cleanups that have taken place at the *property*?

No

(6.) The degree of obviousness of the presence of likely presence of contamination at the *property*, and the ability to detect the contamination by appropriate investigation (40 CFR 312.31).
As the *user* of this *ESA*, based on your knowledge and experience related to the *property* are there any *obvious* indicators that point to the presence or likely presence of contamination at the *property*?

No

In addition, certain information should be collected, if available, and provided to the *environmental professional* selected to conduct the Phase I. This information is intended to assist the *environmental professional* but is not necessarily required to qualify for one of the *LLPs*. The information includes:
(a) the reason why the Phase I is required,

The project will be implemented using public funds. A Phase I environmental assessment is required

(b) the type of *property* and type of *property* transaction, for example, sale, purchase, exchange, etc.,

The property transfer is in exchange to facilitate habitat restoration

(c) the complete and correct address for the *property* (a map or other documentation showing *property* location and boundaries is helpful).

10246 Eastside Rd. Windsor, CA

(d) the scope of services desired for the Phase I (including whether any parties to the *property* transaction may have a required standard scope of services on whether any considerations beyond the requirements of Practice E 1527 are to be considered).

Scope is conducted in conformance with ASTM E1527-05

(e) identification of all parties who will rely on the Phase I *report*,

Sonoma County PRMD, NMFS, ACOE, Endangered Habitats Conservancy

(f) identification of the site contact and how the contact can be reached,

Michael Beck 619-846-3003
beckehl@cox.net

(g) any special terms and conditions which must be agreed upon by the *environmental professional*, and

No

(h) any other knowledge or experience with the *property* that may be pertinent to the *environmental professional* (for example, copies of any available prior *environmental site assessment reports*, documents, correspondence, etc., concerning the *property* and its environmental condition).

No

Preparer:

Name: MICHAEL BECK

Address: 615 LA Cresta Blvd. Crest, CA 92021

Signature: Michael Beck

Date: 8/14/12

APPENDIX F
PHOTOGRAPHIC LOG



Photograph 1 – View of the main (northern) entrance into the subject property. View is westerly from Eastside Road.



Photograph 2 – Northerly view across Vimark Pond.

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Photograph 3 – View south across Richardson Pond and a pump station.



Photograph 4 – South view along the eastern property margin.



Photograph 5 – South view from the subject property towards the adjacent vineyard.



Photograph 6 – View of the southern entrance into the subject property. View is to the west from Eastside Road.



Photograph 7 – Easterly view across Mariani Pond.



Photograph 8 – Easterly view across Richardson Pond from the Russian River Levee.



Photograph 9 – Easterly view along the northern property margin towards Eastside Road.



Photograph 10 – East view across the subject property towards the adjacent vineyard.



Photograph 11 – Westerly view across Piombo Pond.



Photograph 12 – West view towards the adjacent Windsor Water Works pumping facility.



Photograph 13 – View of historic water well located along the east side of the Piombo Pond levee road.



Photograph 14 – View of the portable diesel tank (empty) located along the north side of Richardson Pond.

EEI
Geotechnical & Environmental Solutions

August 31, 2012

Michael Beck
Endangered Habitats Conservancy
615 La CrestaBoulevard
Crest, California 92021

SUBJECT: Results of Screening Sediment and Water Sampling
357.16-Acre Hanson Aggregates Property
Windsor Hanson Gravel Ponds
Windsor, Sonoma County, California
EEI Proposal No. END-71435

Dear Mr. Beck:

At the request of Endangered Habitats Conservancy (EHC), EEI has prepared the following report to provide the results of our Screening Sediment and Water Sampling services for the above-referenced property. The scope of services described herein was funded by the State Coastal Conservancy and as such, the agency is entitled to the same benefits from the report as EHC. This reports includes a brief project site background, scope of services performed, a summary of findings, and EEI's conclusions.

BRIEF PROJECT SITE BACKGROUND

The subject property consists of 357.16-acres of a privately-owned property located along the Russian River, west of Windsor, in Sonoma County, California. The property is known as the "Windsor Hanson Gravel Ponds" and includes Assessor Parcel Numbers (APN) 066-290-49, -50, and -53; 066-200-011, -27, and -49; 110-120-015 and 110-110-016; and 110-120-020 and 110-120-021. Based on the information provided by the Client, portions of the subject property had been utilized as an aggregate mining facility.

As part of the due diligence process, and given the historic agricultural and mining use of the surrounding properties (and after discussions with NOAA), EEI proposed to conduct screening sediment and water sampling at the subject property to assess possible impacts. The sampling was to be coordinated with site consultant Affiliated Researchers, LLC (Affiliated), who was contracted separately by the Client. This report summarizes the results of the sampling activities performed.

SOIL AND SEDIMENT SAMPLING

On July 30 and 31, and August 1, 2012, EEI mobilized to the subject property to conduct soil and sediment sampling in the vicinity of the former plant operations area, various spoils areas, and within the four ponds on the subject property. Sampling was conducted to evaluate potential impacts from historic mining and agriculture activities on and adjacent to the property. **Figure 1** depicts the locations of samples collected during this investigation, which included: two grab samples in the former plant operations area, located in the northwest corner of the property; one grab sample each from spoils areas/berms adjacent to the Piombo, Richardson, and Vimark Ponds; and a total of nine vibracore sediment samples from the bottom of the ponds, including two each from the Mariana, Piombo, and Vimark Ponds, and three from the Richardson Pond.

Grab soil samples were collected, at depths ranging from 0.5 to 2 feet below ground surface, in laboratory-supplied 4-ounce glass jars and sealed with Teflon-lined plastic lids. Vibracore sediment samples were collected by Affiliated using 3-inch diameter polycarbonate core tubes, lowered through the center of a 20-foot pontoon to the bottom of the respective pond. After sample retreival, the core tubes were cut to length and sealed with plastic caps. After collection, both grab and core samples were appropriately labeled and placed in a chilled cooler, pending delivery to a California-certified laboratory under chain-of-custody (COC) documentation. A total of 14 soil/sediment samples were collected and submitted for laboratory analysis during this phase of investigation.

Soils encountered during this investigation consisted of relatively fine-grained silty to gravelly-sands, in the case of the spoils/berm areas, and fine-grained sandy-silts to silts in the case of the pond-bottom sediments. Pond sediments typically exhibited a higher proportion of organic debris and discoloration due to iron reduction. No physical evidence of contamination (i.e., visible staining or a noticeable odor) was observed in any of the sample locations.

Soil Laboratory Analysis Program and Summary of Results

Soil and sediment samples were submitted to Sunstar Laboratories, Inc., in Lake Forest, California, for analysis of Organochlorine Pesticides (EPA 8081), Organophosphorous Pesticides (EPA 8141), Title 22 Metals (EPA 6010B/7400), Polycyclic Aromatic Hydrocarbons (PAH, EPA 8270 SIM), and Total Extractable Petroleum Hydrocarbons (EPA 8015M).

- No concentrations of Total Extractable Petroleum Hydrocarbons (TPH) were detected above the laboratory reporting limit (i.e., “non-detect”) in any of the soil samples analyzed, except for 17 milligrams per kilogram (mg/kg) in Vibracore sample #22, collected from Vimark.

- DDE and DDT were reported in several of the soil samples collected. The concentrations of DDE ranged from 0.005 mg/kg (Piombo Pit #1 and Vibracore #2) to 0.036 mg/kg in Vibracore #22. The concentrations of DDT ranged from 0.006 mg/kg (Piombo Pit #1 and Vibracore #22) to 0.008 mg/kg in Richardson #5.

- No other concentrations of Organochlorine Pesticides were detected above the laboratory reporting limit (i.e., “non-detect”) in any of the soil samples analyzed.

- No concentrations of Organophosphorous Pesticides were detected above the laboratory reporting limit (i.e., “non-detect”) in any of the soil samples analyzed.

- No concentrations of Polycyclic Aromatic Hydrocarbons were detected above the laboratory reporting limit (i.e., “non-detect”) in any of the water samples analyzed.

- Concentrations of a number of Total Metals were detected above the laboratory reporting limit (i.e., "non-detect") in all of the soil samples analyzed. The reported metals were consistent in all of the samples, and included Barium, Chromium, Cobalt, Copper, Lead, Mercury, Nickel, Vanadium, and Zinc. Given the consistency of the reported concentrations between the various sample locations, it is likely that these represent the naturally-occurring or "background" mineral assemblages in the local sediment. For reference, the reported concentrations of Total Barium ranged from 82 to 260 mg/kg, Total Chromium from 45 to 76 mg/kg, Total Cobalt from 11 to 20 mg/kg, Total Copper from 15 to 30 mg/kg, Total Lead from 4.4 to 7.7 mg/kg, Total Mercury from 0.11 to 0.57 mg/kg, Total Nickel from 86 to 150 mg/kg, Total Vanadium from 26 to 39 mg/kg, and Total Zinc from 39 to 56 mg/kg.

WATER SAMPLING

On August 1, 2012, EEI mobilized to the subject property to conduct water sampling in the four ponds on the subject property. **Figure 1** depicts the locations of samples collected during this investigation, which included: one grab sample each from the Marana, Piombo, Richardson, and Vimark Ponds, collected at depths ranging from 3 to 5 feet above the bottom of the water column, as measured using sonar bathymetry.

In the case of the Vimark and Richardson Ponds, grab water samples were collected during Vibracore sediment sampling, by decanting water trapped at the top of the 3-inch diameter polycarbonate tubes after core retrieval. In the case of the Mariana and Piombo Ponds, the samples were collected using a Van Dorn bottle, lowered by cable from the side of a small skiff. In either case, the water collected was either decanted or poured directly into appropriate containers, labeled, and placed in a chilled cooler, pending delivery to a California-certified laboratory under chain-of-custody (COC) documentation. A total of four water samples were collected and submitted for laboratory analysis during this phase of investigation.

Water Laboratory Analysis Program and Summary of Results

Water samples were submitted to Weck Laboratories, Inc., in Industry, California, for analysis of Organochlorine Pesticides (EPA 8081), Organophosphate Pesticides (EPA 8141), CAM-17 Metals (i.e., includes total arsenic, lead, mercury, etc., by EPA 6010B/7400), Methyl Mercury (EPA 1630), Total Extractable Petroleum Hydrocarbons (EPA 8015M), and Volatile Organic Compounds (EPA 8260).

- No concentrations of Total Extractable Petroleum Hydrocarbons (TPH) were detected above the laboratory reporting limit (i.e., "non-detect") in any of the water samples analyzed.

- No concentrations of Volatile Organic Compounds were detected above the laboratory reporting limit (i.e., "non-detect") in any of the water samples analyzed.

- No concentrations of Organochlorine Pesticides were detected above the laboratory reporting limit (i.e., "non-detect") in any of the water samples analyzed.

- No concentrations of Organophosphorous Pesticides were detected above the laboratory reporting limit (i.e., "non-detect") in any of the water samples analyzed.

- Detectable concentrations of Methyl Mercury were reported in all of the water samples analyzed. The concentrations ranged from 0.0002 micrograms per liter (µg/l) (Vimark) to 0.0153 µg/l (Mariana).

- Concentrations of Arsenic were detected in the water samples collected from Richardson (15 µg/l), Mariana (20 µg/l), and Vimark (36 µg/l).

- Concentrations of Barium were detected in the water samples collected from Richardson (53 µg/l), Mariana (100 µg/l), Piombo (87 µg/l), and Vimark (120 µg/l).

- Concentrations of Nickel were detected in the water sample collected from Piombo (12 µg/l).

- No other concentrations of Total Metals were detected above the laboratory reporting limit (i.e., "non-detect") in any of the water samples analyzed.

- The concentrations of Total Nitrogen were reported as non-detect in samples collected from Vimark and Richardson, 1.3 µg/l in Mariana, and 0.44 µg/l in Piombo.

- The concentrations of Total Phosphorous were reported as 12 µg/l in Vimark and Richardson, 110µg/l in Piombo, and 230 µg/l in Mariana.

- The concentrations of Chlorophyll-A were reported as non-detect in Vimark and Piombo, 13 µg/l in Richardson, and 17 µg/l in Mariana

DISCUSSION OF FINDINGS

Reported soil and sediment concentrations were compared to California Human Health Screening Levels (CHHSLs) for Soil – Residential Land Use Only values (Cal-EPA, 2005). The CHHSLs are concentrations of 18 hazardous chemicals that are used to estimate and compare reported concentrations in soil or soil gas to risk to human health. In the case of water samples, or where CHHSL values were not available, California Regional Water Quality Control Board (CRWQCB) – San Francisco Bay Region, Environmental Screening Levels (ESLs) for either Shallow Soil (Residential), or Groundwater (Potential Drinking Water Resource) was used (CRWQCB, 2008). The ESLs are concentrations of chemicals of concern commonly found during soil and groundwater investigations, which can be used to estimate and compare reported concentrations to risk to human health and the environment. Normally, the use of ESL in evaluating water samples is preferred over California Maximum Contaminant Levels (MCL's), as the ESL calculations are generally more conservative by one or more orders of magnitude.

The following potential chemicals of concern were detected above the laboratory reporting limit and have CHHSL or ESL lookup values for either soil or groundwater: TPH (soil), Arsenic (water) , Barium (soil and water), Mercury (soil), Methyl Mercury (water), Nickel (soil and water), DDE (soil), and DDT (soil). None of the reported concentrations in soil exceeded the respective residential CHHSL/ESL screening levels. For water samples, the only reported concentrations exceeding their respective ESL screening levels (there are no CHHSL values for water), were the following:

- Methyl Mercury was reported above the residential (i.e., potential drinking water source) ESL value of 0.003 µg/l in water samples collected from Piombo (0.0079 µg/l) and Mariana (0.0153 µg/l). The residential ESL is identical to the Surface Water ESL for Freshwater Aquatic Habitats.

- Arsenic was reported at the residential ESL value of 36 µg/l in the water sample collected from Vimark (36 µg/l). The reported value is above the Surface Water ESL for Freshwater Aquatic Habitats of 0.14 µg/l.

- Nickel was reported above the residential ESL value of 8.2 µg/l in the water sample collected from Piombo (12 µg/l). The reported value is below the Freshwater Aquatic Habitat ESL of 52 µg/l.

LIMITATIONS

Findings provided herein have been derived in accordance with current standards of practice, and no warranty is expressed or implied. Standards of practice are subject to change with time. This report has been prepared for the sole use of Endangered Habitats Conservancy (Client). Site conditions, land use (both on-site and off-site), or other factors may change as a result of manmade influences, and additional work may be required with the passage of time.

This evaluation should not be relied upon by other parties without the express written consent of EEI or the Client; therefore, any use or reliance upon this environmental evaluation by a party other than the Client, shall be solely at the risk of such third party and without legal recourse against EEI, its employees, officers, or directors, regardless of whether the action in which recovery of damages is brought or based upon contract, tort, statue, or otherwise. The Client has the responsibility to see that all parties to the project, including the designer, contractor, subcontractor, and building official, etc. are aware of this report in its complete form. This report contains information which may be used in the preparation of contract specifications; however, the report is not designed as a specification document, and may not contain sufficient information for use without additional assessment. EEI assumes no responsibility or liability for work or testing performed by others. In addition, this report may be subject to review by the controlling authorities.

Sincerely,

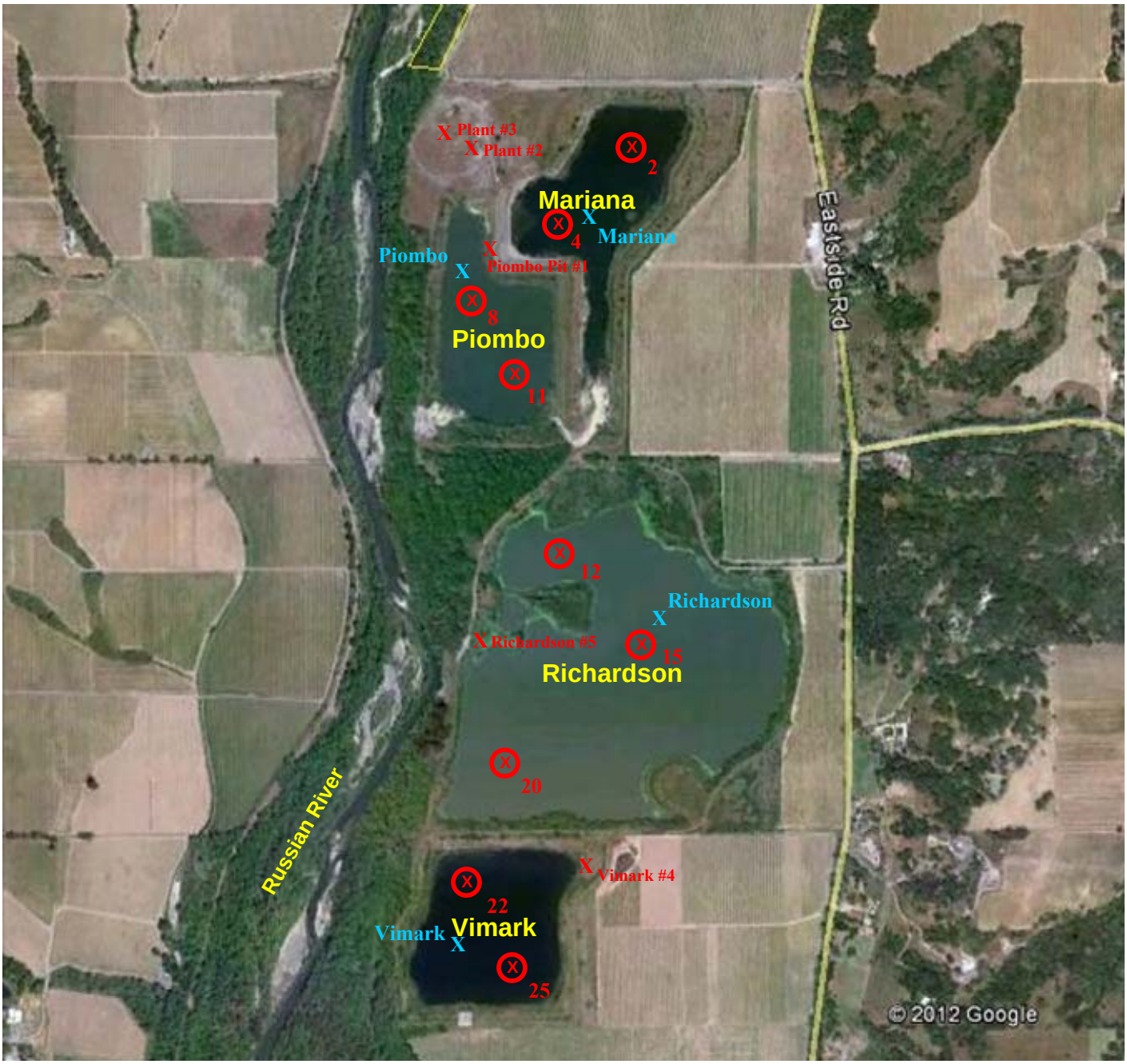
EEI



Bernard A. Sentianin, PG
Principal Geologist

Attachments:

Figure 1 – Sample Location Map
Table 1 – Analytical Results of Soil Samples
Table 2- Analytical Results of Water Samples
Laboratory Analysis Results and Chain-of-Custody Documentation



Source: GoogleEarth, 2012

X Soil Sample Location

X Vibracore Sample Location

X Water Sample Location

N

Approximate Scale: 1" = 1,100'

0 660 FT 1100 FT 2200 FT

Note: All locations are approximate

AERIAL SITE MAP
HANSON WINDSOR GRAVEL PONDS
10246 Eastside Road
Windsor, California
EEI Project No. END-71435

EEI Geotechnical & Environmental Solutions

FIGURE 1

TABLE 1
Analytical Results of Soil and Sediment Samples
Report in milligrams per kilogram (mg/kg)

Sample ID	Date	Location	Chemical of Concern				
			TPH	Title 22 Metals	Organochlorine Pesticides	Organo Phosphorous Pesticides	Polycyclic Aromatic Hydrocarbons
PIOMBO PIT #1	7/30/12	NE Bank	ND	Hg-0.18*	DDE-0.005 DDT-0.006*	ND	ND
VIBRACORE #2	7/30/12	Mariana	ND	Hg-0.31*	DDE-0.005 DDT-0.007*	ND	ND
VIBRACORE #4	7/30/12	Mariana	ND	Hg-0.53*	DDE-0.007*	ND	ND
PLANT #2	7/30/12	E Side	ND	Hg-0.16*	DDE-0.006 DDT-0.007*	ND	ND
PLANT #3	7/30/12	W Side	ND	Hg-0.57*	DDT-0.007*	ND	ND
VIBRACORE #8	7/30/12	Piombo	ND	Hg-0.2*	ND	ND	ND
VIBRACORE #11	7/30/12	Piombo	ND	Hg-0.3*	DDE-0.005*	ND	ND
VIMARK #4	7/31/12	NE Bank	ND	Hg-0.55*	DDE-0.023 DDT-0.007*	ND	ND
RICHARDSON #5	7/31/12	W Bank	ND	Hg-0.11*	DDE-0.011 DDT-0.008*	ND	ND
VIBRACORE #12	7/31/12	Richardson	ND	Hg-0.19*	DDE-0.017 DDT-0.006*	ND	ND
VIBRACORE #15	7/31/12	Richardson	ND	Hg-0.14*	ND	ND	ND
VIBRACORE #20	7/31/12	Richardson	ND	Hg-0.16*	ND	ND	ND
VIBRACORE #22	7/31/12	Vimark	17	Hg-0.24*	DDE-0.036 DDT-0.007*	ND	ND
VIBRACORE #25	7/31/12	Vimark	ND	Hg-0.2*	ND	ND	ND
Method Detection Limits			10	0.001-0.005	0.005-0.2	0.005-0.01	0.005-0.01
Applicable Action or Screening Level			**83[1]**	**Hg - 18[2]**	**DDE - 1.6[2]** **DDT – 1.6[2]**	**NA**	**NA**

ND – Not detected above method detection limit

NA – Not Applicable (i.e., either no detection or no applicable standard)

TPH – Total Petroleum Hydrocarbons

*- Unless listed, all other analytes reporting either no detection or at levels normally considered naturally-occurring or “background”

1 = Environmental Screening Level - Shallow Soil in Residential Scenario (ESL; San Francisco Regional Water Quality Control Board, 2008)

2 = California Human Health Screening Level (CHHSL; Department of Toxic Substance Control, 2005)

TABLE 2
Analytical Results of Water Samples
Report in micrograms per liter (ug/l)

Sample ID	Date	Location	Chemical of Concern							
			TPH	**Metals**	**Methyl Mercury**	**VOC**	**Organo chlorine Pesticides**	**Organo Phosphorous Pesticides**	**Total Nitrogen/ Phosphorous**	**Chlorophyll -A**
VIMARK	7/31/12	24	ND	As-36 Ba-120*	0.0002	ND	ND	ND	ND/12	ND
RICHARDSON	7/31/12	15	ND	As-15 Ba-53*	0.0009	ND	ND	ND	ND/12	13
MARIANA	7/31/12	4	ND	As-20 Ba-110*	0.0153	ND	ND	ND	1.3/230	17
PIOMBO	7/31/12	8	ND	Ba-87 Ni-12*	0.0079	ND	ND	ND	0.44/110	ND
Method Detection Limits			100-500	5-50	0.00002	1.0-5	0.05-0.5	0.1-0.25	0.2/10	10
Applicable Action or Screening Level			**NA**	**As – 36[1] Ba – 1,000[1] Ni – 8.2[1]**	**0.003[1]**	**NA**	**NA**	**NA**	**NA**	**NA**

ND – Not detected above method detection limit

NA – Not Applicable (i.e., either no detection or no applicable standard)

TPH – Total Petroleum Hydrocarbons (EPA 8015), VOC – Volatile Organic Compounds (EPA 8260)

*- Unless listed, all other analytes reporting no detection

1 = Environmental Screening Level – Potential Drinking Water Source (ESL; San Francisco Regional Water Quality Control Board, 2008)

SunStar Laboratories, Inc.
PROVIDING QUALITY ANALYTICAL SERVICES NATIONWIDE

25712 Commercentre Drive
Lake Forest, California 92630
949.297.5020 Phone
949.297.5027 Fax

08 August 2012

Bernie Sentianin
EEI -- Carlsbad
2195 Faraday Ave., Ste K
Carlsbad, CA 92008

RE: Hanson Windsor Gravel Ponds

Enclosed are the results of analyses for samples received by the laboratory on 08/01/12 09:40. If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Daniel Chavez
Project Manager

SunStar Laboratories, Inc.
PROVIDING QUALITY ANALYTICAL SERVICES NATIONWIDE

25712 Commercentre Drive
Lake Forest, California 92630
949.297.5020 Phone
949.297.5027 Fax

EEI -- Carlsbad	Project: Hanson Windsor Gravel Ponds	
2195 Faraday Ave., Ste K	Project Number: END-71435	**Reported:**
Carlsbad CA, 92008	Project Manager: Bernie Sentianin	08/08/12 15:57

ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
PIOMBO PIT #1	T121300-01	Soil	07/30/12 11:18	08/01/12 09:40
VIBRACORE #2	T121300-02	Soil	07/30/12 12:40	08/01/12 09:40
VIBRACORE #4	T121300-03	Soil	07/30/12 12:52	08/01/12 09:40
PLANT #2	T121300-04	Soil	07/30/12 14:48	08/01/12 09:40
PLANT #3	T121300-05	Soil	07/30/12 15:00	08/01/12 09:40
VIBRACORE #8	T121300-06	Soil	07/31/12 10:25	08/01/12 09:40
VIBRACORE #11	T121300-07	Soil	07/31/12 11:03	08/01/12 09:40

SunStar Laboratories, Inc.

Daniel J Chavez

Daniel Chavez, Project Manager

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

SunStar Laboratories, Inc.
Providing Quality Analytical Services Nationwide

25712 Commercentre Drive
Lake Forest, California 92630
949.297.5020 Phone
949.297.5027 Fax

EEI -- Carlsbad	Project: Hanson Windsor Gravel Ponds	
2195 Faraday Ave., Ste K	Project Number: END-71435	**Reported:**
Carlsbad CA, 92008	Project Manager: Bernie Sentianin	08/08/12 15:57

PIOMBO PIT #1

T121300-01 (Soil)

SunStar Laboratories, Inc.

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Extractable Petroleum Hydrocarbons by 8015C									
C6-C12 (GRO)	ND	10	mg/kg	1	2080106	08/01/12	08/02/12	EPA 8015C	
C13-C28 (DRO)	ND	10	"	"	"	"	"	"	
C29-C40 (MORO)	ND	10	"	"	"	"	"	"	
Surrogate: p-Terphenyl		*65.8 %*	*65-135*		"	"	"	"	
Metals by EPA 6010B									
Antimony	ND	3.0	mg/kg	1	2080107	08/01/12	08/02/12	EPA 6010B	
Silver	ND	2.0	"	"	"	"	"	"	
Arsenic	ND	5.0	"	"	"	"	"	"	
Barium	**82**	1.0	"	"	"	"	"	"	
Beryllium	ND	1.0	"	"	"	"	"	"	
Cadmium	ND	2.0	"	"	"	"	"	"	
Chromium	**45**	2.0	"	"	"	"	"	"	
Cobalt	**11**	2.0	"	"	"	"	"	"	
Copper	**15**	1.0	"	"	"	"	"	"	
Lead	ND	3.0	"	"	"	"	"	"	
Molybdenum	ND	3.0	"	"	"	"	"	"	
Nickel	**85**	2.0	"	"	"	"	"	"	
Selenium	ND	5.0	"	"	"	"	"	"	
Thallium	ND	2.0	"	"	"	"	"	"	
Vanadium	**26**	5.0	"	"	"	"	"	"	
Zinc	**39**	1.0	"	"	"	"	"	"	
Cold Vapor Extraction EPA 7470/7471									
Mercury	**0.18**	0.10	mg/kg	1	2080108	08/01/12	08/06/12	EPA 7471A Soil	

SunStar Laboratories, Inc.

Daniel J Chavez

Daniel Chavez, Project Manager

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Providing Quality Analytical Services Nationwide

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EEI -- Carlsbad	Project: Hanson Windsor Gravel Ponds	
2195 Faraday Ave., Ste K	Project Number: END-71435	**Reported:**
Carlsbad CA, 92008	Project Manager: Bernie Sentianin	08/08/12 15:57

PIOMBO PIT #1

T121300-01 (Soil)

SunStar Laboratories, Inc.

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Organochlorine Pesticides by EPA Method 8081A									
alpha-BHC	ND	5.0	ug/kg	1	2080105	08/01/12	08/06/12	EPA 8081A	
gamma-BHC (Lindane)	ND	5.0	"	"	"	"	"	"	
beta-BHC	ND	5.0	"	"	"	"	"	"	
delta-BHC	ND	5.0	"	"	"	"	"	"	
Heptachlor	ND	5.0	"	"	"	"	"	"	
Aldrin	ND	5.0	"	"	"	"	"	"	
Heptachlor epoxide	ND	5.0	"	"	"	"	"	"	
gamma-Chlordane	ND	5.0	"	"	"	"	"	"	
alpha-Chlordane	ND	5.0	"	"	"	"	"	"	
Endosulfan I	ND	5.0	"	"	"	"	"	"	
4,4´-DDE	**5.1**	5.0	"	"	"	"	"	"	
Dieldrin	ND	5.0	"	"	"	"	"	"	
Endrin	ND	5.0	"	"	"	"	"	"	
4,4´-DDD	ND	5.0	"	"	"	"	"	"	
Endosulfan II	ND	5.0	"	"	"	"	"	"	
4,4´-DDT	**6.4**	5.0	"	"	"	"	"	"	
Endrin aldehyde	ND	5.0	"	"	"	"	"	"	
Endosulfan sulfate	ND	5.0	"	"	"	"	"	"	
Methoxychlor	ND	10	"	"	"	"	"	"	
Endrin ketone	ND	5.0	"	"	"	"	"	"	
Toxaphene	ND	200	"	"	"	"	"	"	
Surrogate: Tetrachloro-meta-xylene		*63.2 %*	*35-140*		"	"	"	"	
Organophosphorus Pesticides by EPA Method 8141A									
Dichlorvos	ND	5.0	ug/kg	1	2080114	08/01/12	08/06/12	8141a	
Mevinphos	ND	5.0	"	"	"	"	"	"	
Demeton-s	ND	10	"	"	"	"	"	"	
Ethoprophos	ND	5.0	"	"	"	"	"	"	
Phorate	ND	10	"	"	"	"	"	"	
Naled	ND	5.0	"	"	"	"	"	"	
Sulfotep	ND	10	"	"	"	"	"	"	
Diazinon	ND	5.0	"	"	"	"	"	"	
Disulfoton	ND	5.0	"	"	"	"	"	"	

SunStar Laboratories, Inc.

Daniel J Chávez

Daniel Chavez, Project Manager

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EEI -- Carlsbad	Project: Hanson Windsor Gravel Ponds	
2195 Faraday Ave., Ste K	Project Number: END-71435	**Reported:**
Carlsbad CA, 92008	Project Manager: Bernie Sentianin	08/08/12 15:57

PIOMBO PIT #1

T121300-01 (Soil)

SunStar Laboratories, Inc.

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Organophosphorus Pesticides by EPA Method 8141A									
Demeton-o	ND	10	ug/kg	1	2080114	08/01/12	08/06/12	8141a	
Dimethoate	ND	5.0	"	"	"	"	"	"	
Ronnel	ND	10	"	"	"	"	"	"	
Merphos	ND	10	"	"	"	"	"	"	
Chlorpyrifos	ND	5.0	"	"	"	"	"	"	
Fenthion	ND	5.0	"	"	"	"	"	"	
Trichloronate	ND	5.0	"	"	"	"	"	"	
Methyl parathion	ND	5.0	"	"	"	"	"	"	
Malathion	ND	10	"	"	"	"	"	"	
Tokuthion (Prothiofos)	ND	5.0	"	"	"	"	"	"	
Parathion	ND	5.0	"	"	"	"	"	"	
Stirophos (Tetrachlorvinphos)	ND	5.0	"	"	"	"	"	"	
Bolstar	ND	5.0	"	"	"	"	"	"	
Fensulfothion	ND	5.0	"	"	"	"	"	"	
EPN	ND	5.0	"	"	"	"	"	"	
Azinphos methyl	ND	10	"	"	"	"	"	"	
Coumaphos	ND	5.0	"	"	"	"	"	"	
Surrogate: Tributylphosphate		*92.4 %*		*40-125*	"	"	"	"	
Polynuclear Aromatic Compounds by GC/MS with Selected Ion Monitoring									
Acenaphthene	ND	10	ug/kg	1	2080113	08/01/12	08/07/12	EPA 8270C SIM	
Acenaphthylene	ND	5.0	"	"	"	"	"	"	
Anthracene	ND	5.0	"	"	"	"	"	"	
Benzo (a) anthracene	ND	5.0	"	"	"	"	"	"	
Benzo (b) fluoranthene	ND	10	"	"	"	"	"	"	
Benzo (k) fluoranthene	ND	10	"	"	"	"	"	"	
Benzo (g,h,i) perylene	ND	5.0	"	"	"	"	"	"	
Benzo (a) pyrene	ND	10	"	"	"	"	"	"	
Chrysene	ND	5.0	"	"	"	"	"	"	
Dibenz (a,h) anthracene	ND	5.0	"	"	"	"	"	"	
Fluoranthene	ND	5.0	"	"	"	"	"	"	
Fluorene	ND	10	"	"	"	"	"	"	

SunStar Laboratories, Inc.

Daniel J Chavez

Daniel Chavez, Project Manager

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2195 Faraday Ave., Ste K	Project Number: END-71435	**Reported:**
Carlsbad CA, 92008	Project Manager: Bernie Sentianin	08/08/12 15:57

PIOMBO PIT #1

T121300-01 (Soil)

SunStar Laboratories, Inc.

Polynuclear Aromatic Compounds by GC/MS with Selected Ion Monitoring

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Indeno (1,2,3-cd) pyrene	ND	5.0	ug/kg	1	2080113	08/01/12	08/07/12	EPA 8270C SIM	
Naphthalene	ND	5.0	"	"	"	"	"	"	
Phenanthrene	ND	5.0	"	"	"	"	"	"	
Pyrene	ND	10	"	"	"	"	"	"	
Surrogate: Terphenyl-dl4		*95.9 %*		*18-137*	"	"	"	"	

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2195 Faraday Ave., Ste K	Project Number: END-71435	**Reported:**
Carlsbad CA, 92008	Project Manager: Bernie Sentianin	08/08/12 15:57

VIBRACORE #2

T121300-02 (Soil)

SunStar Laboratories, Inc.

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Extractable Petroleum Hydrocarbons by 8015C									
C6-C12 (GRO)	ND	10	mg/kg	1	2080106	08/01/12	08/02/12	EPA 8015C	
C13-C28 (DRO)	ND	10	"	"	"	"	"	"	
C29-C40 (MORO)	ND	10	"	"	"	"	"	"	
Surrogate: p-Terphenyl		*65.1 %*	*65-135*		"	"	"	"	
Metals by EPA 6010B									
Antimony	ND	3.0	mg/kg	1	2080107	08/01/12	08/02/12	EPA 6010B	
Silver	ND	2.0	"	"	"	"	"	"	
Arsenic	ND	5.0	"	"	"	"	"	"	
Barium	**260**	1.0	"	"	"	"	"	"	
Beryllium	ND	1.0	"	"	"	"	08/02/12	"	
Cadmium	ND	2.0	"	"	"	"	08/02/12	"	
Chromium	**53**	2.0	"	"	"	"	"	"	
Cobalt	**20**	2.0	"	"	"	"	"	"	
Copper	**27**	1.0	"	"	"	"	"	"	
Lead	ND	3.0	"	"	"	"	"	"	
Molybdenum	ND	3.0	"	"	"	"	"	"	
Nickel	**140**	2.0	"	"	"	"	"	"	
Selenium	ND	5.0	"	"	"	"	"	"	
Thallium	ND	2.0	"	"	"	"	"	"	
Vanadium	**31**	5.0	"	"	"	"	"	"	
Zinc	**43**	1.0	"	"	"	"	"	"	
Cold Vapor Extraction EPA 7470/7471									
Mercury	**0.31**	0.10	mg/kg	1	2080108	08/01/12	08/06/12	EPA 7471A Soil	

SunStar Laboratories, Inc.

Daniel J Chavez

Daniel Chavez, Project Manager

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Carlsbad CA, 92008	Project Manager: Bernie Sentianin	08/08/12 15:57

VIBRACORE #2

T121300-02 (Soil)

SunStar Laboratories, Inc.

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Organochlorine Pesticides by EPA Method 8081A									
alpha-BHC	ND	5.0	ug/kg	1	2080105	08/01/12	08/06/12	EPA 8081A	
gamma-BHC (Lindane)	ND	5.0	"	"	"	"	"	"	
beta-BHC	ND	5.0	"	"	"	"	"	"	
delta-BHC	ND	5.0	"	"	"	"	"	"	
Heptachlor	ND	5.0	"	"	"	"	"	"	
Aldrin	ND	5.0	"	"	"	"	"	"	
Heptachlor epoxide	ND	5.0	"	"	"	"	"	"	
gamma-Chlordane	ND	5.0	"	"	"	"	"	"	
alpha-Chlordane	ND	5.0	"	"	"	"	"	"	
Endosulfan I	ND	5.0	"	"	"	"	"	"	
4,4´-DDE	**5.0**	5.0	"	"	"	"	"	"	
Dieldrin	ND	5.0	"	"	"	"	"	"	
Endrin	ND	5.0	"	"	"	"	"	"	
4,4´-DDD	ND	5.0	"	"	"	"	"	"	
Endosulfan II	ND	5.0	"	"	"	"	"	"	
4,4´-DDT	**7.8**	5.0	"	"	"	"	"	"	
Endrin aldehyde	ND	5.0	"	"	"	"	"	"	
Endosulfan sulfate	ND	5.0	"	"	"	"	"	"	
Methoxychlor	ND	10	"	"	"	"	"	"	
Endrin ketone	ND	5.0	"	"	"	"	"	"	
Toxaphene	ND	200	"	"	"	"	"	"	
Surrogate: Tetrachloro-meta-xylene		*89.9 %*	*35-140*		"	"	"	"	
Organophosphorus Pesticides by EPA Method 8141A									
Dichlorvos	ND	5.0	ug/kg	1	2080114	08/01/12	08/06/12	8141a	
Mevinphos	ND	5.0	"	"	"	"	"	"	
Demeton-s	ND	10	"	"	"	"	"	"	
Ethoprophos	ND	5.0	"	"	"	"	"	"	
Phorate	ND	10	"	"	"	"	"	"	
Naled	ND	5.0	"	"	"	"	"	"	
Sulfotep	ND	10	"	"	"	"	"	"	
Diazinon	ND	5.0	"	"	"	"	"	"	
Disulfoton	ND	5.0	"	"	"	"	"	"	

SunStar Laboratories, Inc.

Daniel J Chávez

Daniel Chavez, Project Manager

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2195 Faraday Ave., Ste K	Project Number: END-71435	**Reported:**
Carlsbad CA, 92008	Project Manager: Bernie Sentianin	08/08/12 15:57

VIBRACORE #2

T121300-02 (Soil)

SunStar Laboratories, Inc.

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Organophosphorus Pesticides by EPA Method 8141A									
Demeton-o	ND	10	ug/kg	1	2080114	08/01/12	08/06/12	8141a	
Dimethoate	ND	5.0	"	"	"	"	"	"	
Ronnel	ND	10	"	"	"	"	"	"	
Merphos	ND	10	"	"	"	"	"	"	
Chlorpyrifos	ND	5.0	"	"	"	"	"	"	
Fenthion	ND	5.0	"	"	"	"	"	"	
Trichloronate	ND	5.0	"	"	"	"	"	"	
Methyl parathion	ND	5.0	"	"	"	"	"	"	
Malathion	ND	10	"	"	"	"	"	"	
Tokuthion (Prothiofos)	ND	5.0	"	"	"	"	"	"	
Parathion	ND	5.0	"	"	"	"	"	"	
Stirophos (Tetrachlorvinphos)	ND	5.0	"	"	"	"	"	"	
Bolstar	ND	5.0	"	"	"	"	"	"	
Fensulfothion	ND	5.0	"	"	"	"	"	"	
EPN	ND	5.0	"	"	"	"	"	"	
Azinphos methyl	ND	10	"	"	"	"	"	"	
Coumaphos	ND	5.0	"	"	"	"	"	"	
Surrogate: Tributylphosphate		*106 %*	*40-125*		"	"	"	"	
Polynuclear Aromatic Compounds by GC/MS with Selected Ion Monitoring									
Acenaphthene	ND	10	ug/kg	1	2080113	08/01/12	08/07/12	EPA 8270C SIM	
Acenaphthylene	ND	5.0	"	"	"	"	"	"	
Anthracene	ND	5.0	"	"	"	"	"	"	
Benzo (a) anthracene	ND	5.0	"	"	"	"	"	"	
Benzo (b) fluoranthene	ND	10	"	"	"	"	"	"	
Benzo (k) fluoranthene	ND	10	"	"	"	"	"	"	
Benzo (g,h,i) perylene	ND	5.0	"	"	"	"	"	"	
Benzo (a) pyrene	ND	10	"	"	"	"	"	"	
Chrysene	ND	5.0	"	"	"	"	"	"	
Dibenz (a,h) anthracene	ND	5.0	"	"	"	"	"	"	
Fluoranthene	ND	5.0	"	"	"	"	"	"	
Fluorene	ND	10	"	"	"	"	"	"	

SunStar Laboratories, Inc.

Daniel J Chavez

Daniel Chavez, Project Manager

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EEI -- Carlsbad	Project: Hanson Windsor Gravel Ponds	
2195 Faraday Ave., Ste K	Project Number: END-71435	**Reported:**
Carlsbad CA, 92008	Project Manager: Bernie Sentianin	08/08/12 15:57

VIBRACORE #2

T121300-02 (Soil)

SunStar Laboratories, Inc.

Polynuclear Aromatic Compounds by GC/MS with Selected Ion Monitoring

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Indeno (1,2,3-cd) pyrene	ND	5.0	ug/kg	1	2080113	08/01/12	08/07/12	EPA 8270C SIM	
Naphthalene	ND	5.0	"	"	"	"	"	"	
Phenanthrene	ND	5.0	"	"	"	"	"	"	
Pyrene	ND	10	"	"	"	"	"	"	
Surrogate: Terphenyl-dl4		*98.4 %*		*18-137*	"	"	"	"	

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2195 Faraday Ave., Ste K	Project Number: END-71435	**Reported:**
Carlsbad CA, 92008	Project Manager: Bernie Sentianin	08/08/12 15:57

VIBRACORE #4

T121300-03 (Soil)

SunStar Laboratories, Inc.

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Extractable Petroleum Hydrocarbons by 8015C									
C6-C12 (GRO)	ND	10	mg/kg	1	2080106	08/01/12	08/02/12	EPA 8015C	
C13-C28 (DRO)	ND	10	"	"	"	"	"	"	
C29-C40 (MORO)	ND	10	"	"	"	"	"	"	
Surrogate: p-Terphenyl		*65.7 %*	*65-135*		"	"	"	"	
Metals by EPA 6010B									
Antimony	ND	3.0	mg/kg	1	2080107	08/01/12	08/02/12	EPA 6010B	
Silver	ND	2.0	"	"	"	"	"	"	
Arsenic	ND	5.0	"	"	"	"	"	"	
Barium	**160**	1.0	"	"	"	"	"	"	
Beryllium	ND	1.0	"	"	"	"	"	"	
Cadmium	ND	2.0	"	"	"	"	"	"	
Chromium	**60**	2.0	"	"	"	"	"	"	
Cobalt	**17**	2.0	"	"	"	"	"	"	
Copper	**30**	1.0	"	"	"	"	"	"	
Lead	ND	3.0	"	"	"	"	"	"	
Molybdenum	ND	3.0	"	"	"	"	"	"	
Nickel	**130**	2.0	"	"	"	"	"	"	
Selenium	ND	5.0	"	"	"	"	"	"	
Thallium	ND	2.0	"	"	"	"	"	"	
Vanadium	**34**	5.0	"	"	"	"	"	"	
Zinc	**47**	1.0	"	"	"	"	"	"	
Cold Vapor Extraction EPA 7470/7471									
Mercury	**0.53**	0.10	mg/kg	1	2080108	08/01/12	08/06/12	EPA 7471A Soil	

SunStar Laboratories, Inc.

Daniel Chavez, Project Manager

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2195 Faraday Ave., Ste K	Project Number: END-71435	**Reported:**
Carlsbad CA, 92008	Project Manager: Bernie Sentianin	08/08/12 15:57

VIBRACORE #4

T121300-03 (Soil)

SunStar Laboratories, Inc.

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Organochlorine Pesticides by EPA Method 8081A									
alpha-BHC	ND	5.0	ug/kg	1	2080105	08/01/12	08/06/12	EPA 8081A	
gamma-BHC (Lindane)	ND	5.0	"	"	"	"	"	"	
beta-BHC	ND	5.0	"	"	"	"	"	"	
delta-BHC	ND	5.0	"	"	"	"	"	"	
Heptachlor	ND	5.0	"	"	"	"	"	"	
Aldrin	ND	5.0	"	"	"	"	"	"	
Heptachlor epoxide	ND	5.0	"	"	"	"	"	"	
gamma-Chlordane	ND	5.0	"	"	"	"	"	"	
alpha-Chlordane	ND	5.0	"	"	"	"	"	"	
Endosulfan I	ND	5.0	"	"	"	"	"	"	
4,4´-DDE	**7.4**	5.0	"	"	"	"	"	"	
Dieldrin	ND	5.0	"	"	"	"	"	"	
Endrin	ND	5.0	"	"	"	"	"	"	
4,4´-DDD	ND	5.0	"	"	"	"	"	"	
Endosulfan II	ND	5.0	"	"	"	"	"	"	
4,4´-DDT	ND	5.0	"	"	"	"	"	"	
Endrin aldehyde	ND	5.0	"	"	"	"	"	"	
Endosulfan sulfate	ND	5.0	"	"	"	"	"	"	
Methoxychlor	ND	10	"	"	"	"	"	"	
Endrin ketone	ND	5.0	"	"	"	"	"	"	
Toxaphene	ND	200	"	"	"	"	"	"	
Surrogate: Tetrachloro-meta-xylene		*78.9 %*	*35-140*		"	"	"	"	
Organophosphorus Pesticides by EPA Method 8141A									
Dichlorvos	ND	5.0	ug/kg	1	2080114	08/01/12	08/06/12	8141a	
Mevinphos	ND	5.0	"	"	"	"	"	"	
Demeton-s	ND	10	"	"	"	"	"	"	
Ethoprophos	ND	5.0	"	"	"	"	"	"	
Phorate	ND	10	"	"	"	"	"	"	
Naled	ND	5.0	"	"	"	"	"	"	
Sulfotep	ND	10	"	"	"	"	"	"	
Diazinon	ND	5.0	"	"	"	"	"	"	

SunStar Laboratories, Inc.

Daniel Chavez, Project Manager

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EEI -- Carlsbad	Project: Hanson Windsor Gravel Ponds	
2195 Faraday Ave., Ste K	Project Number: END-71435	**Reported:**
Carlsbad CA, 92008	Project Manager: Bernie Sentianin	08/08/12 15:57

VIBRACORE #4

T121300-03 (Soil)

SunStar Laboratories, Inc.

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Organophosphorus Pesticides by EPA Method 8141A									
Disulfoton	ND	5.0	ug/kg	1	2080114	08/01/12	08/06/12	8141a	
Demeton-o	ND	10	"	"	"	"	"	"	
Dimethoate	ND	5.0	"	"	"	"	"	"	
Ronnel	ND	10	"	"	"	"	"	"	
Merphos	ND	10	"	"	"	"	"	"	
Chlorpyrifos	ND	5.0	"	"	"	"	"	"	
Fenthion	ND	5.0	"	"	"	"	"	"	
Trichloronate	ND	5.0	"	"	"	"	"	"	
Methyl parathion	ND	5.0	"	"	"	"	"	"	
Malathion	ND	10	"	"	"	"	"	"	
Tokuthion (Prothiofos)	ND	5.0	"	"	"	"	"	"	
Parathion	ND	5.0	"	"	"	"	"	"	
Stirophos (Tetrachlorvinphos)	ND	5.0	"	"	"	"	"	"	
Bolstar	ND	5.0	"	"	"	"	"	"	
Fensulfothion	ND	5.0	"	"	"	"	"	"	
EPN	ND	5.0	"	"	"	"	"	"	
Azinphos methyl	ND	10	"	"	"	"	"	"	
Coumaphos	ND	5.0	"	"	"	"	"	"	
Surrogate: Tributylphosphate		*122 %*	*40-125*		"	"	"	"	
Polynuclear Aromatic Compounds by GC/MS with Selected Ion Monitoring									
Acenaphthene	ND	10	ug/kg	1	2080113	08/01/12	08/07/12	EPA 8270C SIM	
Acenaphthylene	ND	5.0	"	"	"	"	"	"	
Anthracene	ND	5.0	"	"	"	"	"	"	
Benzo (a) anthracene	ND	5.0	"	"	"	"	"	"	
Benzo (b) fluoranthene	ND	10	"	"	"	"	"	"	
Benzo (k) fluoranthene	ND	10	"	"	"	"	"	"	
Benzo (g,h,i) perylene	ND	5.0	"	"	"	"	"	"	
Benzo (a) pyrene	ND	10	"	"	"	"	"	"	
Chrysene	ND	5.0	"	"	"	"	"	"	
Dibenz (a,h) anthracene	ND	5.0	"	"	"	"	"	"	
Fluoranthene	ND	5.0	"	"	"	"	"	"	

SunStar Laboratories, Inc.

Daniel J Chavez

Daniel Chavez, Project Manager

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EEI -- Carlsbad	Project: Hanson Windsor Gravel Ponds	
2195 Faraday Ave., Ste K	Project Number: END-71435	**Reported:**
Carlsbad CA, 92008	Project Manager: Bernie Sentianin	08/08/12 15:57

VIBRACORE #4

T121300-03 (Soil)

SunStar Laboratories, Inc.

Polynuclear Aromatic Compounds by GC/MS with Selected Ion Monitoring

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Fluorene	ND	10	ug/kg	1	2080113	08/01/12	08/07/12	EPA 8270C SIM	
Indeno (1,2,3-cd) pyrene	ND	5.0	"	"	"	"	"	"	
Naphthalene	ND	5.0	"	"	"	"	"	"	
Phenanthrene	ND	5.0	"	"	"	"	"	"	
Pyrene	ND	10	"	"	"	"	"	"	
Surrogate: Terphenyl-dl4		*95.9 %*		*18-137*	"	"	"	"	

SunStar Laboratories, Inc.

Daniel J Chavez

Daniel Chavez, Project Manager

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Carlsbad CA, 92008	Project Manager: Bernie Sentianin	08/08/12 15:57

PLANT #2

T121300-04 (Soil)

SunStar Laboratories, Inc.

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Extractable Petroleum Hydrocarbons by 8015C									
C6-C12 (GRO)	ND	10	mg/kg	1	2080106	08/01/12	08/02/12	EPA 8015C	
C13-C28 (DRO)	ND	10	"	"	"	"	"	"	
C29-C40 (MORO)	ND	10	"	"	"	"	"	"	
Surrogate: p-Terphenyl		*65.1 %*	*65-135*		"	"	"	"	
Metals by EPA 6010B									
Antimony	ND	3.0	mg/kg	1	2080107	08/01/12	08/02/12	EPA 6010B	
Silver	ND	2.0	"	"	"	"	"	"	
Arsenic	ND	5.0	"	"	"	"	"	"	
Barium	**95**	1.0	"	"	"	"	"	"	
Beryllium	ND	1.0	"	"	"	"	"	"	
Cadmium	ND	2.0	"	"	"	"	"	"	
Chromium	**60**	2.0	"	"	"	"	"	"	
Cobalt	**13**	2.0	"	"	"	"	"	"	
Copper	**18**	1.0	"	"	"	"	"	"	
Lead	ND	3.0	"	"	"	"	"	"	
Molybdenum	ND	3.0	"	"	"	"	"	"	
Nickel	**100**	2.0	"	"	"	"	"	"	
Selenium	ND	5.0	"	"	"	"	"	"	
Thallium	ND	2.0	"	"	"	"	"	"	
Vanadium	**30**	5.0	"	"	"	"	"	"	
Zinc	**39**	1.0	"	"	"	"	"	"	
Cold Vapor Extraction EPA 7470/7471									
Mercury	**0.16**	0.10	mg/kg	1	2080108	08/01/12	08/06/12	EPA 7471A Soil	

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Carlsbad CA, 92008	Project Manager: Bernie Sentianin	08/08/12 15:57

PLANT #2

T121300-04 (Soil)

SunStar Laboratories, Inc.

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Organochlorine Pesticides by EPA Method 8081A									
alpha-BHC	ND	5.0	ug/kg	1	2080105	08/01/12	08/06/12	EPA 8081A	
gamma-BHC (Lindane)	ND	5.0	"	"	"	"	"	"	
beta-BHC	ND	5.0	"	"	"	"	"	"	
delta-BHC	ND	5.0	"	"	"	"	"	"	
Heptachlor	ND	5.0	"	"	"	"	"	"	
Aldrin	ND	5.0	"	"	"	"	"	"	
Heptachlor epoxide	ND	5.0	"	"	"	"	"	"	
gamma-Chlordane	ND	5.0	"	"	"	"	"	"	
alpha-Chlordane	ND	5.0	"	"	"	"	"	"	
Endosulfan I	ND	5.0	"	"	"	"	"	"	
4,4´-DDE	**6.2**	5.0	"	"	"	"	"	"	
Dieldrin	ND	5.0	"	"	"	"	"	"	
Endrin	ND	5.0	"	"	"	"	"	"	
4,4´-DDD	ND	5.0	"	"	"	"	"	"	
Endosulfan II	ND	5.0	"	"	"	"	"	"	
4,4´-DDT	**7.9**	5.0	"	"	"	"	"	"	
Endrin aldehyde	ND	5.0	"	"	"	"	"	"	
Endosulfan sulfate	ND	5.0	"	"	"	"	"	"	
Methoxychlor	ND	10	"	"	"	"	"	"	
Endrin ketone	ND	5.0	"	"	"	"	"	"	
Toxaphene	ND	200	"	"	"	"	"	"	
Surrogate: Tetrachloro-meta-xylene		*69.2 %*	*35-140*		"	"	"	"	
Organophosphorus Pesticides by EPA Method 8141A									
Dichlorvos	ND	5.0	ug/kg	1	2080114	08/01/12	08/06/12	8141a	
Mevinphos	ND	5.0	"	"	"	"	"	"	
Demeton-s	ND	10	"	"	"	"	"	"	
Ethoprophos	ND	5.0	"	"	"	"	"	"	
Phorate	ND	10	"	"	"	"	"	"	
Naled	ND	5.0	"	"	"	"	"	"	
Sulfotep	ND	10	"	"	"	"	"	"	
Diazinon	ND	5.0	"	"	"	"	"	"	
Disulfoton	ND	5.0	"	"	"	"	"	"	

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Daniel J Chavez

Daniel Chavez, Project Manager

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PLANT #2

T121300-04 (Soil)

SunStar Laboratories, Inc.

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Organophosphorus Pesticides by EPA Method 8141A									
Demeton-o	ND	10	ug/kg	1	2080114	08/01/12	08/06/12	8141a	
Dimethoate	ND	5.0	"	"	"	"	"	"	
Ronnel	ND	10	"	"	"	"	"	"	
Merphos	ND	10	"	"	"	"	"	"	
Chlorpyrifos	ND	5.0	"	"	"	"	"	"	
Fenthion	ND	5.0	"	"	"	"	"	"	
Trichloronate	ND	5.0	"	"	"	"	"	"	
Methyl parathion	ND	5.0	"	"	"	"	"	"	
Malathion	ND	10	"	"	"	"	"	"	
Tokuthion (Prothiofos)	ND	5.0	"	"	"	"	"	"	
Parathion	ND	5.0	"	"	"	"	"	"	
Stirophos (Tetrachlorvinphos)	ND	5.0	"	"	"	"	"	"	
Bolstar	ND	5.0	"	"	"	"	"	"	
Fensulfothion	ND	5.0	"	"	"	"	"	"	
EPN	ND	5.0	"	"	"	"	"	"	
Azinphos methyl	ND	10	"	"	"	"	"	"	
Coumaphos	ND	5.0	"	"	"	"	"	"	
Surrogate: Tributylphosphate		*98.0 %*	*40-125*		"	"	"	"	
Polynuclear Aromatic Compounds by GC/MS with Selected Ion Monitoring									
Acenaphthene	ND	10	ug/kg	1	2080113	08/01/12	08/07/12	EPA 8270C SIM	
Acenaphthylene	ND	5.0	"	"	"	"	"	"	
Anthracene	ND	5.0	"	"	"	"	"	"	
Benzo (a) anthracene	ND	5.0	"	"	"	"	"	"	
Benzo (b) fluoranthene	ND	10	"	"	"	"	"	"	
Benzo (k) fluoranthene	ND	10	"	"	"	"	"	"	
Benzo (g,h,i) perylene	ND	5.0	"	"	"	"	"	"	
Benzo (a) pyrene	ND	10	"	"	"	"	"	"	
Chrysene	ND	5.0	"	"	"	"	"	"	
Dibenz (a,h) anthracene	ND	5.0	"	"	"	"	"	"	
Fluoranthene	ND	5.0	"	"	"	"	"	"	
Fluorene	ND	10	"	"	"	"	"	"	

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Daniel J Chavez

Daniel Chavez, Project Manager

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2195 Faraday Ave., Ste K	Project Number: END-71435	**Reported:**
Carlsbad CA, 92008	Project Manager: Bernie Sentianin	08/08/12 15:57

PLANT #2

T121300-04 (Soil)

SunStar Laboratories, Inc.

Polynuclear Aromatic Compounds by GC/MS with Selected Ion Monitoring

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Indeno (1,2,3-cd) pyrene	ND	5.0	ug/kg	1	2080113	08/01/12	08/07/12	EPA 8270C SIM	
Naphthalene	ND	5.0	"	"	"	"	"	"	
Phenanthrene	ND	5.0	"	"	"	"	"	"	
Pyrene	ND	10	"	"	"	"	"	"	
Surrogate: Terphenyl-dl4		*88.6 %*	*18-137*		"	"	"	"	

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Daniel J Chavez

Daniel Chavez, Project Manager

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Carlsbad CA, 92008	Project Manager: Bernie Sentianin	08/08/12 15:57

PLANT #3

T121300-05 (Soil)

SunStar Laboratories, Inc.

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Extractable Petroleum Hydrocarbons by 8015C									
C6-C12 (GRO)	ND	10	mg/kg	1	2080106	08/01/12	08/02/12	EPA 8015C	
C13-C28 (DRO)	ND	10	"	"	"	"	"	"	
C29-C40 (MORO)	ND	10	"	"	"	"	"	"	
Surrogate: p-Terphenyl		*65.5 %*	*65-135*		"	"	"	"	
Metals by EPA 6010B									
Antimony	ND	3.0	mg/kg	1	2080107	08/01/12	08/02/12	EPA 6010B	
Silver	ND	2.0	"	"	"	"	"	"	
Arsenic	ND	5.0	"	"	"	"	"	"	
Barium	**170**	1.0	"	"	"	"	"	"	
Beryllium	ND	1.0	"	"	"	"	"	"	
Cadmium	ND	2.0	"	"	"	"	"	"	
Chromium	**76**	2.0	"	"	"	"	"	"	
Cobalt	**19**	2.0	"	"	"	"	"	"	
Copper	**28**	1.0	"	"	"	"	"	"	
Lead	ND	3.0	"	"	"	"	"	"	
Molybdenum	ND	3.0	"	"	"	"	"	"	
Nickel	**150**	2.0	"	"	"	"	"	"	
Selenium	ND	5.0	"	"	"	"	"	"	
Thallium	ND	2.0	"	"	"	"	"	"	
Vanadium	**38**	5.0	"	"	"	"	"	"	
Zinc	**56**	1.0	"	"	"	"	"	"	
Cold Vapor Extraction EPA 7470/7471									
Mercury	**0.57**	0.10	mg/kg	1	2080108	08/01/12	08/06/12	EPA 7471A Soil	

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Daniel J Chavez

Daniel Chavez, Project Manager

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Carlsbad CA, 92008	Project Manager: Bernie Sentianin	08/08/12 15:57

PLANT #3

T121300-05 (Soil)

SunStar Laboratories, Inc.

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Organochlorine Pesticides by EPA Method 8081A									
alpha-BHC	ND	5.0	ug/kg	1	2080105	08/01/12	08/06/12	EPA 8081A	
gamma-BHC (Lindane)	ND	5.0	"	"	"	"	"	"	
beta-BHC	ND	5.0	"	"	"	"	"	"	
delta-BHC	ND	5.0	"	"	"	"	"	"	
Heptachlor	ND	5.0	"	"	"	"	"	"	
Aldrin	ND	5.0	"	"	"	"	"	"	
Heptachlor epoxide	ND	5.0	"	"	"	"	"	"	
gamma-Chlordane	ND	5.0	"	"	"	"	"	"	
alpha-Chlordane	ND	5.0	"	"	"	"	"	"	
Endosulfan I	ND	5.0	"	"	"	"	"	"	
4,4´-DDE	ND	5.0	"	"	"	"	"	"	
Dieldrin	ND	5.0	"	"	"	"	"	"	
Endrin	ND	5.0	"	"	"	"	"	"	
4,4´-DDD	ND	5.0	"	"	"	"	"	"	
Endosulfan II	ND	5.0	"	"	"	"	"	"	
4,4´-DDT	**7.2**	5.0	"	"	"	"	"	"	
Endrin aldehyde	ND	5.0	"	"	"	"	"	"	
Endosulfan sulfate	ND	5.0	"	"	"	"	"	"	
Methoxychlor	ND	10	"	"	"	"	"	"	
Endrin ketone	ND	5.0	"	"	"	"	"	"	
Toxaphene	ND	200	"	"	"	"	"	"	
Surrogate: Tetrachloro-meta-xylene		*78.2 %*	*35-140*		"	"	"	"	
Organophosphorus Pesticides by EPA Method 8141A									
Dichlorvos	ND	5.0	ug/kg	1	2080114	08/01/12	08/06/12	8141a	
Mevinphos	ND	5.0	"	"	"	"	"	"	
Demeton-s	ND	10	"	"	"	"	"	"	
Ethoprophos	ND	5.0	"	"	"	"	"	"	
Phorate	ND	10	"	"	"	"	"	"	
Naled	ND	5.0	"	"	"	"	"	"	
Sulfotep	ND	10	"	"	"	"	"	"	
Diazinon	ND	5.0	"	"	"	"	"	"	

SunStar Laboratories, Inc.

Daniel J Chávez

Daniel Chavez, Project Manager

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PLANT #3

T121300-05 (Soil)

SunStar Laboratories, Inc.

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Organophosphorus Pesticides by EPA Method 8141A									
Disulfoton	ND	5.0	ug/kg	1	2080114	08/01/12	08/06/12	8141a	
Demeton-o	ND	10	"	"	"	"	"	"	
Dimethoate	ND	5.0	"	"	"	"	"	"	
Ronnel	ND	10	"	"	"	"	"	"	
Merphos	ND	10	"	"	"	"	"	"	
Chlorpyrifos	ND	5.0	"	"	"	"	"	"	
Fenthion	ND	5.0	"	"	"	"	"	"	
Trichloronate	ND	5.0	"	"	"	"	"	"	
Methyl parathion	ND	5.0	"	"	"	"	"	"	
Malathion	ND	10	"	"	"	"	"	"	
Tokuthion (Prothiofos)	ND	5.0	"	"	"	"	"	"	
Parathion	ND	5.0	"	"	"	"	"	"	
Stirophos (Tetrachlorvinphos)	ND	5.0	"	"	"	"	"	"	
Bolstar	ND	5.0	"	"	"	"	"	"	
Fensulfothion	ND	5.0	"	"	"	"	"	"	
EPN	ND	5.0	"	"	"	"	"	"	
Azinphos methyl	ND	10	"	"	"	"	"	"	
Coumaphos	ND	5.0	"	"	"	"	"	"	
Surrogate: Tributylphosphate		*97.2 %*	*40-125*		"	"	"	"	
Polynuclear Aromatic Compounds by GC/MS with Selected Ion Monitoring									
Acenaphthene	ND	10	ug/kg	1	2080113	08/01/12	08/07/12	EPA 8270C SIM	
Acenaphthylene	ND	5.0	"	"	"	"	"	"	
Anthracene	ND	5.0	"	"	"	"	"	"	
Benzo (a) anthracene	ND	5.0	"	"	"	"	"	"	
Benzo (b) fluoranthene	ND	10	"	"	"	"	"	"	
Benzo (k) fluoranthene	ND	10	"	"	"	"	"	"	
Benzo (g,h,i) perylene	ND	5.0	"	"	"	"	"	"	
Benzo (a) pyrene	ND	10	"	"	"	"	"	"	
Chrysene	ND	5.0	"	"	"	"	"	"	
Dibenz (a,h) anthracene	ND	5.0	"	"	"	"	"	"	
Fluoranthene	ND	5.0	"	"	"	"	"	"	

SunStar Laboratories, Inc.

Daniel J Chavez

Daniel Chavez, Project Manager

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PLANT #3

T121300-05 (Soil)

SunStar Laboratories, Inc.

Polynuclear Aromatic Compounds by GC/MS with Selected Ion Monitoring

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Fluorene	ND	10	ug/kg	1	2080113	08/01/12	08/07/12	EPA 8270C SIM	
Indeno (1,2,3-cd) pyrene	ND	5.0	"	"	"	"	"	"	
Naphthalene	ND	5.0	"	"	"	"	"	"	
Phenanthrene	ND	5.0	"	"	"	"	"	"	
Pyrene	ND	10	"	"	"	"	"	"	
Surrogate: Terphenyl-dl4		*83.0 %*	*18-137*		"	"	"	"	

SunStar Laboratories, Inc.

Daniel J Chavez

Daniel Chavez, Project Manager

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Providing Quality Analytical Services Nationwide

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EEI -- Carlsbad	Project: Hanson Windsor Gravel Ponds	
2195 Faraday Ave., Ste K	Project Number: END-71435	**Reported:**
Carlsbad CA, 92008	Project Manager: Bernie Sentianin	08/08/12 15:57

VIBRACORE #8

T121300-06 (Soil)

SunStar Laboratories, Inc.

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Extractable Petroleum Hydrocarbons by 8015C									
C6-C12 (GRO)	ND	10	mg/kg	1	2080106	08/01/12	08/02/12	EPA 8015C	
C13-C28 (DRO)	ND	10	"	"	"	"	"	"	
C29-C40 (MORO)	ND	10	"	"	"	"	"	"	
Surrogate: p-Terphenyl		*67.2 %*	*65-135*		"	"	"	"	
Metals by EPA 6010B									
Antimony	ND	3.0	mg/kg	1	2080107	08/01/12	08/02/12	EPA 6010B	
Silver	ND	2.0	"	"	"	"	"	"	
Arsenic	ND	5.0	"	"	"	"	"	"	
Barium	**140**	1.0	"	"	"	"	"	"	
Beryllium	ND	1.0	"	"	"	"	08/02/12	"	
Cadmium	ND	2.0	"	"	"	"	08/02/12	"	
Chromium	**64**	2.0	"	"	"	"	"	"	
Cobalt	**16**	2.0	"	"	"	"	"	"	
Copper	**29**	1.0	"	"	"	"	"	"	
Lead	ND	3.0	"	"	"	"	"	"	
Molybdenum	ND	3.0	"	"	"	"	"	"	
Nickel	**130**	2.0	"	"	"	"	"	"	
Selenium	ND	5.0	"	"	"	"	"	"	
Thallium	ND	2.0	"	"	"	"	"	"	
Vanadium	**34**	5.0	"	"	"	"	"	"	
Zinc	**48**	1.0	"	"	"	"	"	"	
Cold Vapor Extraction EPA 7470/7471									
Mercury	**0.20**	0.10	mg/kg	1	2080108	08/01/12	08/06/12	EPA 7471A Soil	

SunStar Laboratories, Inc.

Daniel J Chavez

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VIBRACORE #8

T121300-06 (Soil)

SunStar Laboratories, Inc.

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Organochlorine Pesticides by EPA Method 8081A									
alpha-BHC	ND	5.0	ug/kg	1	2080105	08/01/12	08/06/12	EPA 8081A	
gamma-BHC (Lindane)	ND	5.0	"	"	"	"	"	"	
beta-BHC	ND	5.0	"	"	"	"	"	"	
delta-BHC	ND	5.0	"	"	"	"	"	"	
Heptachlor	ND	5.0	"	"	"	"	"	"	
Aldrin	ND	5.0	"	"	"	"	"	"	
Heptachlor epoxide	ND	5.0	"	"	"	"	"	"	
gamma-Chlordane	ND	5.0	"	"	"	"	"	"	
alpha-Chlordane	ND	5.0	"	"	"	"	"	"	
Endosulfan I	ND	5.0	"	"	"	"	"	"	
4,4´-DDE	ND	5.0	"	"	"	"	"	"	
Dieldrin	ND	5.0	"	"	"	"	"	"	
Endrin	ND	5.0	"	"	"	"	"	"	
4,4´-DDD	ND	5.0	"	"	"	"	"	"	
Endosulfan II	ND	5.0	"	"	"	"	"	"	
4,4´-DDT	ND	5.0	"	"	"	"	"	"	
Endrin aldehyde	ND	5.0	"	"	"	"	"	"	
Endosulfan sulfate	ND	5.0	"	"	"	"	"	"	
Methoxychlor	ND	10	"	"	"	"	"	"	
Endrin ketone	ND	5.0	"	"	"	"	"	"	
Toxaphene	ND	200	"	"	"	"	"	"	
Surrogate: Tetrachloro-meta-xylene		*78.3 %*	*35-140*		"	"	"	"	
Organophosphorus Pesticides by EPA Method 8141A									
Dichlorvos	ND	5.0	ug/kg	1	2080114	08/01/12	08/06/12	8141a	
Mevinphos	ND	5.0	"	"	"	"	"	"	
Demeton-s	ND	10	"	"	"	"	"	"	
Ethoprophos	ND	5.0	"	"	"	"	"	"	
Phorate	ND	10	"	"	"	"	"	"	
Naled	ND	5.0	"	"	"	"	"	"	
Sulfotep	ND	10	"	"	"	"	"	"	
Diazinon	ND	5.0	"	"	"	"	"	"	

SunStar Laboratories, Inc.

Daniel Chavez, Project Manager

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2195 Faraday Ave., Ste K	Project Number: END-71435	**Reported:**
Carlsbad CA, 92008	Project Manager: Bernie Sentianin	08/08/12 15:57

VIBRACORE #8

T121300-06 (Soil)

SunStar Laboratories, Inc.

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Organophosphorus Pesticides by EPA Method 8141A									
Disulfoton	ND	5.0	ug/kg	1	2080114	08/01/12	08/06/12	8141a	
Demeton-o	ND	10	"	"	"	"	"	"	
Dimethoate	ND	5.0	"	"	"	"	"	"	
Ronnel	ND	10	"	"	"	"	"	"	
Merphos	ND	10	"	"	"	"	"	"	
Chlorpyrifos	ND	5.0	"	"	"	"	"	"	
Fenthion	ND	5.0	"	"	"	"	"	"	
Trichloronate	ND	5.0	"	"	"	"	"	"	
Methyl parathion	ND	5.0	"	"	"	"	"	"	
Malathion	ND	10	"	"	"	"	"	"	
Tokuthion (Prothiofos)	ND	5.0	"	"	"	"	"	"	
Parathion	ND	5.0	"	"	"	"	"	"	
Stirophos (Tetrachlorvinphos)	ND	5.0	"	"	"	"	"	"	
Bolstar	ND	5.0	"	"	"	"	"	"	
Fensulfothion	ND	5.0	"	"	"	"	"	"	
EPN	ND	5.0	"	"	"	"	"	"	
Azinphos methyl	ND	10	"	"	"	"	"	"	
Coumaphos	ND	5.0	"	"	"	"	"	"	
Surrogate: Tributylphosphate		*118 %*	*40-125*		"	"	"	"	
Polynuclear Aromatic Compounds by GC/MS with Selected Ion Monitoring									
Acenaphthene	ND	10	ug/kg	1	2080113	08/01/12	08/07/12	EPA 8270C SIM	
Acenaphthylene	ND	5.0	"	"	"	"	"	"	
Anthracene	ND	5.0	"	"	"	"	"	"	
Benzo (a) anthracene	ND	5.0	"	"	"	"	"	"	
Benzo (b) fluoranthene	ND	10	"	"	"	"	"	"	
Benzo (k) fluoranthene	ND	10	"	"	"	"	"	"	
Benzo (g,h,i) perylene	ND	5.0	"	"	"	"	"	"	
Benzo (a) pyrene	ND	10	"	"	"	"	"	"	
Chrysene	ND	5.0	"	"	"	"	"	"	
Dibenz (a,h) anthracene	ND	5.0	"	"	"	"	"	"	
Fluoranthene	ND	5.0	"	"	"	"	"	"	

SunStar Laboratories, Inc.

Daniel J Chavez

Daniel Chavez, Project Manager

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2195 Faraday Ave., Ste K	Project Number: END-71435	**Reported:**
Carlsbad CA, 92008	Project Manager: Bernie Sentianin	08/08/12 15:57

VIBRACORE #8

T121300-06 (Soil)

SunStar Laboratories, Inc.

Polynuclear Aromatic Compounds by GC/MS with Selected Ion Monitoring

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Fluorene	ND	10	ug/kg	1	2080113	08/01/12	08/07/12	EPA 8270C SIM	
Indeno (1,2,3-cd) pyrene	ND	5.0	"	"	"	"	"	"	
Naphthalene	ND	5.0	"	"	"	"	"	"	
Phenanthrene	ND	5.0	"	"	"	"	"	"	
Pyrene	ND	10	"	"	"	"	"	"	
Surrogate: Terphenyl-dl4		*90.7 %*		*18-137*	"	"	"	"	

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VIBRACORE #11

T121300-07 (Soil)

SunStar Laboratories, Inc.

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Extractable Petroleum Hydrocarbons by 8015C									
C6-C12 (GRO)	ND	10	mg/kg	1	2080106	08/01/12	08/02/12	EPA 8015C	
C13-C28 (DRO)	ND	10	"	"	"	"	"	"	
C29-C40 (MORO)	ND	10	"	"	"	"	"	"	
Surrogate: p-Terphenyl		*65.3 %*		*65-135*	"	"	"	"	
Metals by EPA 6010B									
Antimony	ND	3.0	mg/kg	1	2080107	08/01/12	08/02/12	EPA 6010B	
Silver	ND	2.0	"	"	"	"	"	"	
Arsenic	ND	5.0	"	"	"	"	"	"	
Barium	**130**	1.0	"	"	"	"	"	"	
Beryllium	ND	1.0	"	"	"	"	08/02/12	"	
Cadmium	ND	2.0	"	"	"	"	08/02/12	"	
Chromium	**55**	2.0	"	"	"	"	"	"	
Cobalt	**15**	2.0	"	"	"	"	"	"	
Copper	**26**	1.0	"	"	"	"	"	"	
Lead	ND	3.0	"	"	"	"	"	"	
Molybdenum	ND	3.0	"	"	"	"	"	"	
Nickel	**110**	2.0	"	"	"	"	"	"	
Selenium	ND	5.0	"	"	"	"	"	"	
Thallium	ND	2.0	"	"	"	"	"	"	
Vanadium	**29**	5.0	"	"	"	"	"	"	
Zinc	**43**	1.0	"	"	"	"	"	"	
Cold Vapor Extraction EPA 7470/7471									
Mercury	**0.30**	0.10	mg/kg	1	2080108	08/01/12	08/06/12	EPA 7471A Soil	

SunStar Laboratories, Inc.

Daniel J Chavez

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Carlsbad CA, 92008	Project Manager: Bernie Sentianin	08/08/12 15:57

VIBRACORE #11

T121300-07 (Soil)

SunStar Laboratories, Inc.

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Organochlorine Pesticides by EPA Method 8081A									
alpha-BHC	ND	5.0	ug/kg	1	2080105	08/01/12	08/06/12	EPA 8081A	
gamma-BHC (Lindane)	ND	5.0	"	"	"	"	"	"	
beta-BHC	ND	5.0	"	"	"	"	"	"	
delta-BHC	ND	5.0	"	"	"	"	"	"	
Heptachlor	ND	5.0	"	"	"	"	"	"	
Aldrin	ND	5.0	"	"	"	"	"	"	
Heptachlor epoxide	ND	5.0	"	"	"	"	"	"	
gamma-Chlordane	ND	5.0	"	"	"	"	"	"	
alpha-Chlordane	ND	5.0	"	"	"	"	"	"	
Endosulfan I	ND	5.0	"	"	"	"	"	"	
4,4´-DDE	**5.9**	5.0	"	"	"	"	"	"	
Dieldrin	ND	5.0	"	"	"	"	"	"	
Endrin	ND	5.0	"	"	"	"	"	"	
4,4´-DDD	ND	5.0	"	"	"	"	"	"	
Endosulfan II	ND	5.0	"	"	"	"	"	"	
4,4´-DDT	ND	5.0	"	"	"	"	"	"	
Endrin aldehyde	ND	5.0	"	"	"	"	"	"	
Endosulfan sulfate	ND	5.0	"	"	"	"	"	"	
Methoxychlor	ND	10	"	"	"	"	"	"	
Endrin ketone	ND	5.0	"	"	"	"	"	"	
Toxaphene	ND	200	"	"	"	"	"	"	
Surrogate: Tetrachloro-meta-xylene		*91.7 %*	*35-140*		"	"	"	"	
Organophosphorus Pesticides by EPA Method 8141A									
Dichlorvos	ND	5.0	ug/kg	1	2080114	08/01/12	08/06/12	8141a	
Mevinphos	ND	5.0	"	"	"	"	"	"	
Demeton-s	ND	10	"	"	"	"	"	"	
Ethoprophos	ND	5.0	"	"	"	"	"	"	
Phorate	ND	10	"	"	"	"	"	"	
Naled	ND	5.0	"	"	"	"	"	"	
Sulfotep	ND	10	"	"	"	"	"	"	
Diazinon	ND	5.0	"	"	"	"	"	"	

SunStar Laboratories, Inc.

Daniel J Chávez

Daniel Chavez, Project Manager

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Carlsbad CA, 92008	Project Manager: Bernie Sentianin	08/08/12 15:57

VIBRACORE #11

T121300-07 (Soil)

SunStar Laboratories, Inc.

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Organophosphorus Pesticides by EPA Method 8141A									
Disulfoton	ND	5.0	ug/kg	1	2080114	08/01/12	08/06/12	8141a	
Demeton-o	ND	10	"	"	"	"	"	"	
Dimethoate	ND	5.0	"	"	"	"	"	"	
Ronnel	ND	10	"	"	"	"	"	"	
Merphos	ND	10	"	"	"	"	"	"	
Chlorpyrifos	ND	5.0	"	"	"	"	"	"	
Fenthion	ND	5.0	"	"	"	"	"	"	
Trichloronate	ND	5.0	"	"	"	"	"	"	
Methyl parathion	ND	5.0	"	"	"	"	"	"	
Malathion	ND	10	"	"	"	"	"	"	
Tokuthion (Prothiofos)	ND	5.0	"	"	"	"	"	"	
Parathion	ND	5.0	"	"	"	"	"	"	
Stirophos (Tetrachlorvinphos)	ND	5.0	"	"	"	"	"	"	
Bolstar	ND	5.0	"	"	"	"	"	"	
Fensulfothion	ND	5.0	"	"	"	"	"	"	
EPN	ND	5.0	"	"	"	"	"	"	
Azinphos methyl	ND	10	"	"	"	"	"	"	
Coumaphos	ND	5.0	"	"	"	"	"	"	
Surrogate: Tributylphosphate		*105 %*	*40-125*		"	"	"	"	
Polynuclear Aromatic Compounds by GC/MS with Selected Ion Monitoring									
Acenaphthene	ND	10	ug/kg	1	2080113	08/01/12	08/07/12	EPA 8270C SIM	
Acenaphthylene	ND	5.0	"	"	"	"	"	"	
Anthracene	ND	5.0	"	"	"	"	"	"	
Benzo (a) anthracene	ND	5.0	"	"	"	"	"	"	
Benzo (b) fluoranthene	ND	10	"	"	"	"	"	"	
Benzo (k) fluoranthene	ND	10	"	"	"	"	"	"	
Benzo (g,h,i) perylene	ND	5.0	"	"	"	"	"	"	
Benzo (a) pyrene	ND	10	"	"	"	"	"	"	
Chrysene	ND	5.0	"	"	"	"	"	"	
Dibenz (a,h) anthracene	ND	5.0	"	"	"	"	"	"	
Fluoranthene	ND	5.0	"	"	"	"	"	"	

SunStar Laboratories, Inc.

Daniel J Chavez

Daniel Chavez, Project Manager

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Carlsbad CA, 92008	Project Manager: Bernie Sentianin	08/08/12 15:57

VIBRACORE #11

T121300-07 (Soil)

SunStar Laboratories, Inc.

Polynuclear Aromatic Compounds by GC/MS with Selected Ion Monitoring

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Fluorene	ND	10	ug/kg	1	2080113	08/01/12	08/07/12	EPA 8270C SIM	
Indeno (1,2,3-cd) pyrene	ND	5.0	"	"	"	"	"	"	
Naphthalene	ND	5.0	"	"	"	"	"	"	
Phenanthrene	ND	5.0	"	"	"	"	"	"	
Pyrene	ND	10	"	"	"	"	"	"	
Surrogate: Terphenyl-dl4		*83.6 %*		*18-137*	"	"	"	"	

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Extractable Petroleum Hydrocarbons by 8015C - Quality Control

SunStar Laboratories, Inc.

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 2080106 - EPA 3550B GC										
Blank (2080106-BLK1)				Prepared: 08/01/12 Analyzed: 08/02/12						
C6-C12 (GRO)	ND	10	mg/kg							
C13-C28 (DRO)	ND	10	"							
C29-C40 (MORO)	ND	10	"							
Surrogate: p-Terphenyl	*65.1*		*"*	*100*		*65.1*	*65-135*			
LCS (2080106-BS1)				Prepared: 08/01/12 Analyzed: 08/02/12						
C13-C28 (DRO)	440	10	mg/kg	500		88.4	75-125			
Surrogate: p-Terphenyl	*66.1*		*"*	*100*		*66.1*	*65-135*			
Matrix Spike (2080106-MS1)		**Source: T121300-01**		Prepared: 08/01/12 Analyzed: 08/02/12						
C13-C28 (DRO)	410	10	mg/kg	500	ND	82.8	75-125			
Surrogate: p-Terphenyl	*65.2*		*"*	*100*		*65.2*	*65-135*			
Matrix Spike Dup (2080106-MSD1)		**Source: T121300-01**		Prepared: 08/01/12 Analyzed: 08/02/12						
C13-C28 (DRO)	420	10	mg/kg	500	ND	83.0	75-125	0.244	20	
Surrogate: p-Terphenyl	*65.4*		*"*	*100*		*65.4*	*65-135*			

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EEI -- Carlsbad	Project: Hanson Windsor Gravel Ponds	
2195 Faraday Ave., Ste K	Project Number: END-71435	**Reported:**
Carlsbad CA, 92008	Project Manager: Bernie Sentianin	08/08/12 15:57

Metals by EPA 6010B - Quality Control

SunStar Laboratories, Inc.

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 2080107 - EPA 3051										
Blank (2080107-BLK1)				Prepared: 08/01/12 Analyzed: 08/02/12						
Antimony	ND	3.0	mg/kg							
Silver	ND	2.0	"							
Arsenic	ND	5.0	"							
Barium	ND	1.0	"							
Beryllium	ND	1.0	"							
Cadmium	ND	2.0	"							
Chromium	ND	2.0	"							
Cobalt	ND	2.0	"							
Copper	ND	1.0	"							
Lead	ND	3.0	"							
Molybdenum	ND	3.0	"							
Nickel	ND	2.0	"							
Selenium	ND	5.0	"							
Thallium	ND	2.0	"							
Vanadium	ND	5.0	"							
Zinc	ND	1.0	"							
LCS (2080107-BS1)				Prepared: 08/01/12 Analyzed: 08/03/12						
Arsenic	107	5.0	mg/kg	100		107	75-125			
Barium	114	1.0	"	100		114	75-125			
Cadmium	107	2.0	"	100		107	75-125			
Chromium	122	2.0	"	100		122	75-125			
Lead	122	3.0	"	100		122	75-125			
Matrix Spike (2080107-MS1)	**Source: T121300-01**			Prepared: 08/01/12 Analyzed: 08/02/12						
Arsenic	125	5.0	mg/kg	100	ND	125	75-125			
Barium	145	1.0	"	100	81.5	63.3	75-125			QM-05
Cadmium	120	2.0	"	100	ND	120	75-125			
Chromium	135	2.0	"	100	45.2	89.5	75-125			
Lead	117	3.0	"	100	0.157	117	75-125			

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Daniel J Chavez

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Daniel Chavez, Project Manager

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PROVIDING QUALITY ANALYTICAL SERVICES NATIONWIDE

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Lake Forest, California 92630
949.297.5020 Phone
949.297.5027 Fax

EEI -- Carlsbad	Project: Hanson Windsor Gravel Ponds	
2195 Faraday Ave., Ste K	Project Number: END-71435	**Reported:**
Carlsbad CA, 92008	Project Manager: Bernie Sentianin	08/08/12 15:57

Metals by EPA 6010B - Quality Control

SunStar Laboratories, Inc.

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 2080107 - EPA 3051										
Matrix Spike Dup (2080107-MSD1)	**Source: T121300-01**			Prepared: 08/01/12	Analyzed: 08/02/12					
Arsenic	117	5.0	mg/kg	100	ND	117	75-125	6.41	20	
Barium	186	1.0	"	100	81.5	104	75-125	24.8	20	QR-02
Cadmium	114	2.0	"	100	ND	114	75-125	4.84	20	
Chromium	161	2.0	"	100	45.2	115	75-125	17.6	20	
Lead	115	3.0	"	100	0.157	115	75-125	1.83	20	

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EEI -- Carlsbad	Project: Hanson Windsor Gravel Ponds	
2195 Faraday Ave., Ste K	Project Number: END-71435	**Reported:**
Carlsbad CA, 92008	Project Manager: Bernie Sentianin	08/08/12 15:57

Cold Vapor Extraction EPA 7470/7471 - Quality Control

SunStar Laboratories, Inc.

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 2080108 - EPA 7471A Soil										
Blank (2080108-BLK1)				Prepared: 08/01/12 Analyzed: 08/06/12						
Mercury	ND	0.10	mg/kg							
LCS (2080108-BS1)				Prepared: 08/01/12 Analyzed: 08/06/12						
Mercury	0.413	0.10	mg/kg	0.417		99.1	80-120			
Matrix Spike (2080108-MS1)		**Source: T121300-01**		Prepared: 08/01/12 Analyzed: 08/06/12						
Mercury	0.594	0.10	mg/kg	0.417	0.180	99.3	75-125			
Matrix Spike Dup (2080108-MSD1)		**Source: T121300-01**		Prepared: 08/01/12 Analyzed: 08/06/12						
Mercury	0.499	0.10	mg/kg	0.417	0.180	76.5	75-125	17.3	20	

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Daniel Chavez, Project Manager

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EEI -- Carlsbad	Project: Hanson Windsor Gravel Ponds	
2195 Faraday Ave., Ste K	Project Number: END-71435	**Reported:**
Carlsbad CA, 92008	Project Manager: Bernie Sentianin	08/08/12 15:57

Organochlorine Pesticides by EPA Method 8081A - Quality Control

SunStar Laboratories, Inc.

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 2080105 - EPA 3550 ECD/GCMS										
Blank (2080105-BLK1)				Prepared: 08/01/12 Analyzed: 08/06/12						
alpha-BHC	ND	5.0	ug/kg							
gamma-BHC (Lindane)	ND	5.0	"							
beta-BHC	ND	5.0	"							
delta-BHC	ND	5.0	"							
Heptachlor	ND	5.0	"							
Aldrin	ND	5.0	"							
Heptachlor epoxide	ND	5.0	"							
gamma-Chlordane	ND	5.0	"							
alpha-Chlordane	ND	5.0	"							
Endosulfan I	ND	5.0	"							
4,4´-DDE	ND	5.0	"							
Dieldrin	ND	5.0	"							
Endrin	ND	5.0	"							
4,4´-DDD	ND	5.0	"							
Endosulfan II	ND	5.0	"							
4,4´-DDT	ND	5.0	"							
Endrin aldehyde	ND	5.0	"							
Endosulfan sulfate	ND	5.0	"							
Methoxychlor	ND	10	"							
Endrin ketone	ND	5.0	"							
Toxaphene	ND	200	"							
Surrogate: Tetrachloro-meta-xylene	*67.7*		*"*	*100*		*67.7*	*35-140*			
LCS (2080105-BS1)				Prepared: 08/01/12 Analyzed: 08/06/12						
gamma-BHC (Lindane)	123	5.0	ug/kg	200		61.6	40-120			
Heptachlor	145	5.0	"	200		72.5	40-120			
Aldrin	155	5.0	"	200		77.5	40-120			
Dieldrin	157	5.0	"	200		78.7	40-120			
Endrin	158	5.0	"	200		78.8	40-120			
4,4´-DDT	102	5.0	"	200		51.0	33-147			
Surrogate: Tetrachloro-meta-xylene	*56.1*		*"*	*100*		*56.1*	*35-140*			

SunStar Laboratories, Inc.

Daniel J Chávez

Daniel Chavez, Project Manager

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Providing Quality Analytical Services Nationwide

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EEI -- Carlsbad	Project: Hanson Windsor Gravel Ponds	
2195 Faraday Ave., Ste K	Project Number: END-71435	**Reported:**
Carlsbad CA, 92008	Project Manager: Bernie Sentianin	08/08/12 15:57

Organochlorine Pesticides by EPA Method 8081A - Quality Control

SunStar Laboratories, Inc.

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 2080105 - EPA 3550 ECD/GCMS										
Matrix Spike (2080105-MS1)	**Source: T121300-01**			Prepared: 08/01/12	Analyzed: 08/06/12					
gamma-BHC (Lindane)	131	5.0	ug/kg	200	ND	65.6	30-120			
Heptachlor	127	5.0	"	200	ND	63.7	30-120			
Aldrin	171	5.0	"	200	ND	85.6	30-120			
Dieldrin	180	5.0	"	200	ND	90.1	30-120			
Endrin	172	5.0	"	200	ND	86.0	30-120			
4,4´-DDT	79.9	5.0	"	200	6.39	36.8	30-120			
Surrogate: Tetrachloro-meta-xylene	*68.2*		*"*	*100*		*68.2*	*35-140*			
Matrix Spike Dup (2080105-MSD1)	**Source: T121300-01**			Prepared: 08/01/12	Analyzed: 08/06/12					
gamma-BHC (Lindane)	118	5.0	ug/kg	200	ND	58.9	30-120	10.6	30	
Heptachlor	115	5.0	"	200	ND	57.4	30-120	10.4	30	
Aldrin	155	5.0	"	200	ND	77.7	30-120	9.70	30	
Dieldrin	165	5.0	"	200	ND	82.5	30-120	8.78	30	
Endrin	156	5.0	"	200	ND	78.2	30-120	9.52	30	
4,4´-DDT	86.0	5.0	"	200	6.39	39.8	30-120	7.90	30	
Surrogate: Tetrachloro-meta-xylene	*63.0*		*"*	*100*		*63.0*	*35-140*			

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Daniel Chavez, Project Manager

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EEI -- Carlsbad	Project: Hanson Windsor Gravel Ponds	
2195 Faraday Ave., Ste K	Project Number: END-71435	**Reported:**
Carlsbad CA, 92008	Project Manager: Bernie Sentianin	08/08/12 15:57

Organophosphorus Pesticides by EPA Method 8141A - Quality Control

SunStar Laboratories, Inc.

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 2080114 - EPA 3550 ECD/GCMS										
Blank (2080114-BLK1)				Prepared: 08/01/12 Analyzed: 08/06/12						
Dichlorvos	ND	5.0	ug/kg							
Mevinphos	ND	5.0	"							
Demeton-s	ND	10	"							
Ethoprophos	ND	5.0	"							
Phorate	ND	10	"							
Naled	ND	5.0	"							
Sulfotep	ND	10	"							
Diazinon	ND	5.0	"							
Disulfoton	ND	5.0	"							
Demeton-o	ND	10	"							
Dimethoate	ND	5.0	"							
Ronnel	ND	10	"							
Merphos	ND	10	"							
Chlorpyrifos	ND	5.0	"							
Fenthion	ND	5.0	"							
Trichloronate	ND	5.0	"							
Methyl parathion	ND	5.0	"							
Malathion	ND	10	"							
Tokuthion (Prothiofos)	ND	5.0	"							
Parathion	ND	5.0	"							
Stirophos (Tetrachlorvinphos)	ND	5.0	"							
Bolstar	ND	5.0	"							
Fensulfothion	ND	5.0	"							
EPN	ND	5.0	"							
Azinphos methyl	ND	10	"							
Coumaphos	ND	5.0	"							
Surrogate: Tributylphosphate	*11.5*		*"*	*10.0*		*115*	*40-125*			



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EEI -- Carlsbad	Project: Hanson Windsor Gravel Ponds	
2195 Faraday Ave., Ste K	Project Number: END-71435	**Reported:**
Carlsbad CA, 92008	Project Manager: Bernie Sentianin	08/08/12 15:57

Organophosphorus Pesticides by EPA Method 8141A - Quality Control

SunStar Laboratories, Inc.

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 2080114 - EPA 3550 ECD/GCMS										
LCS (2080114-BS1)				Prepared: 08/01/12 Analyzed: 08/06/12						
Diazinon	30.7	5.0	ug/kg	40.0		76.7	60-130			
Chlorpyrifos	31.1	5.0	"	40.0		77.6	60-130			
Methyl parathion	28.8	5.0	"	40.0		72.0	60-130			
Stirophos (Tetrachlorvinphos)	31.9	5.0	"	40.0		79.7	60-130			
Surrogate: Tributylphosphate	*9.50*		*"*	*10.0*		*95.0*	*40-125*			
LCS Dup (2080114-BSD1)				Prepared: 08/01/12 Analyzed: 08/06/12						
Diazinon	26.9	5.0	ug/kg	40.0		67.1	60-130	13.4	20	
Chlorpyrifos	28.0	5.0	"	40.0		69.9	60-130	10.5	20	
Methyl parathion	29.3	5.0	"	40.0		73.3	60-130	1.76	20	
Stirophos (Tetrachlorvinphos)	30.7	5.0	"	40.0		76.7	60-130	3.84	20	
Surrogate: Tributylphosphate	*9.41*		*"*	*10.0*		*94.1*	*40-125*			

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EEI -- Carlsbad	Project: Hanson Windsor Gravel Ponds	
2195 Faraday Ave., Ste K	Project Number: END-71435	**Reported:**
Carlsbad CA, 92008	Project Manager: Bernie Sentianin	08/08/12 15:57

Polynuclear Aromatic Compounds by GC/MS with Selected Ion Monitoring - Quality Control

SunStar Laboratories, Inc.

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 2080113 - EPA 3550 ECD/GCMS										
Blank (2080113-BLK1)				Prepared: 08/01/12 Analyzed: 08/07/12						
Acenaphthene	ND	10	ug/kg							
Acenaphthylene	ND	5.0	"							
Anthracene	ND	5.0	"							
Benzo (a) anthracene	ND	5.0	"							
Benzo (b) fluoranthene	ND	10	"							
Benzo (k) fluoranthene	ND	10	"							
Benzo (g,h,i) perylene	ND	5.0	"							
Benzo (a) pyrene	ND	10	"							
Chrysene	ND	5.0	"							
Dibenz (a,h) anthracene	ND	5.0	"							
Fluoranthene	ND	5.0	"							
Fluorene	ND	10	"							
Indeno (1,2,3-cd) pyrene	ND	5.0	"							
Naphthalene	ND	5.0	"							
Phenanthrene	ND	5.0	"							
Pyrene	ND	10	"							
Surrogate: Terphenyl-dl4	*1670*		*"*	*1670*		*100*	*18-137*			
LCS (2080113-BS1)				Prepared: 08/01/12 Analyzed: 08/07/12						
Acenaphthene	1030	10	ug/kg	1670		61.7	46-118			
Pyrene	1080	10	"	1670		65.0	26-142			
Surrogate: Terphenyl-dl4	*1370*		*"*	*1670*		*82.4*	*18-137*			
LCS Dup (2080113-BSD1)				Prepared: 08/01/12 Analyzed: 08/07/12						
Acenaphthene	1050	10	ug/kg	1670		63.2	46-118	2.34	31	
Pyrene	1260	10	"	1670		75.7	26-142	15.1	31	
Surrogate: Terphenyl-dl4	*1540*		*"*	*1670*		*92.7*	*18-137*			

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Daniel Chavez, Project Manager

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EEI -- Carlsbad	Project:	Hanson Windsor Gravel Ponds	
2195 Faraday Ave., Ste K	Project Number:	END-71435	**Reported:**
Carlsbad CA, 92008	Project Manager:	Bernie Sentianin	08/08/12 15:57

Notes and Definitions

QR-02	The RPD result exceeded the QC control limits; however, both percent recoveries were acceptable. Sample results for the QC batch were accepted based on percent recoveries and completeness of QC data.
QM-05	The spike recovery was outside acceptance limits for the MS and/or MSD due to possible matrix interference. The LCS was within acceptance criteria. The data is acceptable as no negative impact on data is expected.
DET	Analyte DETECTED
ND	Analyte NOT DETECTED at or above the reporting limit
NR	Not Reported
dry	Sample results reported on a dry weight basis
RPD	Relative Percent Difference

SunStar Laboratories, Inc.

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Daniel Chavez, Project Manager

SunStar Laboratories, Inc.
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949-297-5020

Chain of Custody Record

Client: EEI
Address: 2195 FARADAY AV, #K CARLSBAD CA 92008
Phone: 805-987-8728 Fax: 760-431-3748
Project Manager: BETTYLE SEDTMAN

Date: 7/30/12 Page: 1 Of 1
Project Name: HANSON WINDSOR GRAVEL PONDS
Collector: B. SEDTMAN Client Project #: END-7145
Batch #: 7121300 EDF #:

Sample ID	Date Sampled	Time	Sample Type	Container Type	8260	8260 + OXY	8260 BTEX, OXY only	8270 PAH	8021 BTEX	8015M (gasoline)	8015M (diesel)	8015M Ext./Carbon Chain	6010/7000 Title 22 Metals	ORGANOCHLORINE PEST.	ORGANO PHOSPHORUS PEST.			Laboratory ID #	Comments/Preservative	Total # of containers
PIOMBO PIT #1	7/30/12	1118	SOIL	4-oz				X				X	X	X	X			01		1
VIBRACORE #2		1240		LINER				X				X	X	X	X			02		1
VIBRACORE #4		1252		LINER				X				X	X	X	X			03		1
PLANT #2		1440		4-oz				X				X	X	X	X			04		1
PLANT #3		1500		4-oz				X				X	X	X	X			05		1
VIBRACORE #8	8/1/12	1026		4-oz				X				X	X	X	X			06		1
VIBRACORE #11	7/31/12	1103		4-oz				X				X	X	X	X			07		1

Relinquished by: (signature)	Date / Time	Received by: (signature)	Date / Time
Relinquished by: (signature)	Date / Time	Received by: (signature)	Date / Time
GSO	8.1.12 9:40		8.1.12 9:40
Relinquished by: (signature)	Date / Time	Received by: (signature)	Date / Time

Total # of containers
Chain of Custody seals Y/N/NA
Seals intact? Y/N/NA
Received good condition/cold 5.2

Turn around time: 5 DAY (NORMAL)

Notes
STD. TAT
8.1.12

Sample disposal Instructions: Disposal @ $2.00 each ___ Return to client ___ Pickup ___

COC 110040

SunStar Laboratories, Inc.
PROVIDING QUALITY ANALYTICAL SERVICES NATIONWIDE

SAMPLE RECEIVING REVIEW SHEET

BATCH # T121300

Client Name: EEI - CARLSBAD Project: HANSON WINDSOR GRAVEL PONDS

Received by: SUNNY Date/Time Received: 8.1.12 / 9:40

Delivered by : ☐ Client ☐ SunStar Courier ☒ GSO ☐ FedEx ☐ Other _____

Total number of coolers received 1 **Temp criteria = 6°C > 0°C (no frozen containers)**

Temperature: cooler #1 5.4 °C +/- the CF (- 0.2°C) = 5.2 °C corrected temperature

cooler #2 _____ °C +/- the CF (- 0.2°C) = _____ °C corrected temperature

cooler #3 _____ °C +/- the CF (- 0.2°C) = _____ °C corrected temperature

Samples outside temp. but received on ice, w/in 6 hours of final sampling.	☒ Yes	☐ No*	☐ N/A
Custody Seals Intact on Cooler/Sample	☒ Yes	☐ No*	☐ N/A
Sample Containers Intact	☒ Yes	☐ No*	
Sample labels match COC ID's	☒ Yes	☐ No*	
Total number of containers received match COC	☒ Yes	☐ No*	
Proper containers received for analyses requested on COC	☐ Yes	☒ No*	
Proper preservative indicated on COC/containers for analyses requested	☐ Yes	☐ No*	☒ N/A

Complete shipment received in good condition with correct temperatures, containers, labels, volumes preservatives and within method specified holding times. ☐ **Yes** ☒ **No***

* Complete Non-Conformance Receiving Sheet if checked Cooler/Sample Review - Initials and date SL 8.1.12

Comments:

SunStar Laboratories, Inc.
PROVIDING QUALITY ANALYTICAL SERVICES NATIONWIDE

SAMPLE NON-CONFORMANCE SHEET

BATCH # 712300

- **COOLERS**
  - ☐ Not Received (received COC only)
  - ☐ Leaking/Damaged
  - ☐ Other:
- **CUSTODY SEALS**
  - ☐ None
  - ☐ Not Intact
- **TEMPERATURE (SPECS 6 > 0°C)**
  - ☐ Cooler/Sample Temp(s)
  - ☐ Temperature Blank(s)
- **CHAIN OF CUSTODY (COC)**
  - ☐ Not relinquished by client; No date/time relinquished
  - ☐ Incomplete information provide
  - ☐ COC not received – notify PM
- **CONTAINERS**
  - ☐ Leaking ☐ Broken
  - ☐ Extra ☐ Missing
- **LABELS**
  - ☐ Not the same sample ID / info as on the COC
  - ☐ Incomplete Information
  - ☐ Markings/Info illegible
- **SAMPLES**
  - ☐ Samples **NOT RECEIVED** but listed on COC
  - ☐ Samples received but **NOT LISTED** on COC
  - ☐ Logged based on Label Information and not COC
  - ☐ Logged according to Work Plan and not COC
  - ☐ Logged in, **ON HOLD** until further notice
  - ☐ Insufficient quantities for analysis
  - ☐ Improper container used
  - ☐ Mislabeled as to tests, preservatives, etc.
  - ☐ Holding time expired – list sample ID and test
  - ☐ Not preserved/Improper preservative used
  - ☐ Without Labels, no information on containers
  - ☒ Other

COMMENTS:

SOME OF THE CONTAINER TYPES DID NOT MATCH WITH WHAT WAS GIVEN.

Sample fractioning only if broken container compromises other samples or if out of temp reading impacts more than one cooler

Fraction													Preser.
VOA													

H: HCL, S: H2SO4, N: HNO3, V: VOA, SL, Sleeve, E: Encore, T: Terracore, PB: Poly Bottle, CGB: Clear Glass Bottle, AGJ: Amber Glass Jar, AGB: Amber Glass Bottle, n/f/l:HNO3-Lab filtered, n/f:HNO3-Field filtered, znna: Zinc Acetate/Sodium Hydroxide, Na2s2o3: sodium thiosulfate

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09 August 2012

Bernie Sentianin
EEI -- Carlsbad
2195 Faraday Ave., Ste K
Carlsbad, CA 92008

RE: Hanson Windsor Gravel Ponds

Enclosed are the results of analyses for samples received by the laboratory on 08/02/12 10:15. If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Daniel Chavez
Project Manager

SunStar Laboratories, Inc.
PROVIDING QUALITY ANALYTICAL SERVICES NATIONWIDE

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EEI -- Carlsbad	Project: Hanson Windsor Gravel Ponds	
2195 Faraday Ave., Ste K	Project Number: END-71435	**Reported:**
Carlsbad CA, 92008	Project Manager: Bernie Sentianin	08/09/12 16:05

ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
VIMARK #4	T121308-01	Soil	07/31/12 13:00	08/02/12 10:15
RICHARDSON #5	T121308-02	Soil	07/31/12 13:20	08/02/12 10:15
VIBRACORE #12	T121308-03	Soil	07/31/12 15:05	08/02/12 10:15
VIBRACORE #15	T121308-04	Soil	07/31/12 14:40	08/02/12 10:15
VIBRACORE #20	T121308-05	Soil	07/31/12 14:30	08/02/12 10:15
VIBRACORE #22	T121308-06	Soil	08/01/12 08:30	08/02/12 10:15
VIBRACORE #25	T121308-07	Soil	08/01/12 08:55	08/02/12 10:15

SunStar Laboratories, Inc.

Daniel J Chavez

Daniel Chavez, Project Manager

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EEI -- Carlsbad	Project: Hanson Windsor Gravel Ponds	
2195 Faraday Ave., Ste K	Project Number: END-71435	**Reported:**
Carlsbad CA, 92008	Project Manager: Bernie Sentianin	08/09/12 16:05

VIMARK #4

T121308-01 (Soil)

SunStar Laboratories, Inc.

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Extractable Petroleum Hydrocarbons by 8015C									
C6-C12 (GRO)	ND	10	mg/kg	1	2080223	08/02/12	08/07/12	EPA 8015C	
C13-C28 (DRO)	ND	10	"	"	"	"	"	"	
C29-C40 (MORO)	ND	10	"	"	"	"	"	"	
Surrogate: p-Terphenyl		*95.5 %*	*65-135*		"	"	"	"	
Metals by EPA 6010B									
Antimony	ND	3.0	mg/kg	1	2080210	08/02/12	08/03/12	EPA 6010B	
Silver	ND	2.0	"	"	"	"	"	"	
Arsenic	ND	5.0	"	"	"	"	"	"	
Barium	**150**	1.0	"	"	"	"	"	"	
Beryllium	ND	1.0	"	"	"	"	08/03/12	"	
Cadmium	ND	2.0	"	"	"	"	08/03/12	"	
Chromium	**70**	2.0	"	"	"	"	"	"	
Cobalt	**18**	2.0	"	"	"	"	"	"	
Copper	**26**	1.0	"	"	"	"	"	"	
Lead	**6.3**	3.0	"	"	"	"	"	"	
Molybdenum	ND	3.0	"	"	"	"	"	"	
Nickel	**140**	2.0	"	"	"	"	"	"	
Selenium	ND	5.0	"	"	"	"	"	"	
Thallium	ND	2.0	"	"	"	"	"	"	
Vanadium	**38**	5.0	"	"	"	"	"	"	
Zinc	**49**	1.0	"	"	"	"	"	"	
Cold Vapor Extraction EPA 7470/7471									
Mercury	**0.55**	0.10	mg/kg	1	2080211	08/02/12	08/06/12	EPA 7471A Soil	

SunStar Laboratories, Inc.

Daniel J Chavez

Daniel Chavez, Project Manager

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2195 Faraday Ave., Ste K	Project Number: END-71435	**Reported:**
Carlsbad CA, 92008	Project Manager: Bernie Sentianin	08/09/12 16:05

VIMARK #4

T121308-01 (Soil)

SunStar Laboratories, Inc.

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Organochlorine Pesticides by EPA Method 8081A									
alpha-BHC	ND	5.0	ug/kg	1	2080105	08/01/12	08/06/12	EPA 8081A	
gamma-BHC (Lindane)	ND	5.0	"	"	"	"	"	"	
beta-BHC	ND	5.0	"	"	"	"	"	"	
delta-BHC	ND	5.0	"	"	"	"	"	"	
Heptachlor	ND	5.0	"	"	"	"	"	"	
Aldrin	ND	5.0	"	"	"	"	"	"	
Heptachlor epoxide	ND	5.0	"	"	"	"	"	"	
gamma-Chlordane	ND	5.0	"	"	"	"	"	"	
alpha-Chlordane	ND	5.0	"	"	"	"	"	"	
Endosulfan I	ND	5.0	"	"	"	"	"	"	
4,4´-DDE	**23**	5.0	"	"	"	"	"	"	
Dieldrin	ND	5.0	"	"	"	"	"	"	
Endrin	ND	5.0	"	"	"	"	"	"	
4,4´-DDD	ND	5.0	"	"	"	"	"	"	
Endosulfan II	ND	5.0	"	"	"	"	"	"	
4,4´-DDT	**7.3**	5.0	"	"	"	"	"	"	
Endrin aldehyde	ND	5.0	"	"	"	"	"	"	
Endosulfan sulfate	ND	5.0	"	"	"	"	"	"	
Methoxychlor	ND	10	"	"	"	"	"	"	
Endrin ketone	ND	5.0	"	"	"	"	"	"	
Toxaphene	ND	200	"	"	"	"	"	"	
Surrogate: Tetrachloro-meta-xylene		*62.1 %*	*35-140*		"	"	"	"	
Organophosphorus Pesticides by EPA Method 8141A									
Dichlorvos	ND	5.0	ug/kg	1	2080114	08/01/12	08/06/12	8141a	
Mevinphos	ND	5.0	"	"	"	"	"	"	
Demeton-s	ND	10	"	"	"	"	"	"	
Ethoprophos	ND	5.0	"	"	"	"	"	"	
Phorate	ND	10	"	"	"	"	"	"	
Naled	ND	5.0	"	"	"	"	"	"	
Sulfotep	ND	10	"	"	"	"	"	"	
Diazinon	ND	5.0	"	"	"	"	"	"	
Disulfoton	ND	5.0	"	"	"	"	"	"	

SunStar Laboratories, Inc.

Daniel J Chávez

Daniel Chavez, Project Manager

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EEI -- Carlsbad	Project: Hanson Windsor Gravel Ponds	
2195 Faraday Ave., Ste K	Project Number: END-71435	**Reported:**
Carlsbad CA, 92008	Project Manager: Bernie Sentianin	08/09/12 16:05

VIMARK #4

T121308-01 (Soil)

SunStar Laboratories, Inc.

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Organophosphorus Pesticides by EPA Method 8141A									
Demeton-o	ND	10	ug/kg	1	2080114	08/01/12	08/06/12	8141a	
Dimethoate	ND	5.0	"	"	"	"	"	"	
Ronnel	ND	10	"	"	"	"	"	"	
Merphos	ND	10	"	"	"	"	"	"	
Chlorpyrifos	ND	5.0	"	"	"	"	"	"	
Fenthion	ND	5.0	"	"	"	"	"	"	
Trichloronate	ND	5.0	"	"	"	"	"	"	
Methyl parathion	ND	5.0	"	"	"	"	"	"	
Malathion	ND	10	"	"	"	"	"	"	
Tokuthion (Prothiofos)	ND	5.0	"	"	"	"	"	"	
Parathion	ND	5.0	"	"	"	"	"	"	
Stirophos (Tetrachlorvinphos)	ND	5.0	"	"	"	"	"	"	
Bolstar	ND	5.0	"	"	"	"	"	"	
Fensulfothion	ND	5.0	"	"	"	"	"	"	
EPN	ND	5.0	"	"	"	"	"	"	
Azinphos methyl	ND	10	"	"	"	"	"	"	
Coumaphos	ND	5.0	"	"	"	"	"	"	
Surrogate: Tributylphosphate		*107 %*	*40-125*		"	"	"	"	
Polynuclear Aromatic Compounds by GC/MS with Selected Ion Monitoring									
Acenaphthene	ND	10	ug/kg	1	2080113	08/01/12	08/07/12	EPA 8270C SIM	
Acenaphthylene	ND	5.0	"	"	"	"	"	"	
Anthracene	ND	5.0	"	"	"	"	"	"	
Benzo (a) anthracene	ND	5.0	"	"	"	"	"	"	
Benzo (b) fluoranthene	ND	10	"	"	"	"	"	"	
Benzo (k) fluoranthene	ND	10	"	"	"	"	"	"	
Benzo (g,h,i) perylene	ND	5.0	"	"	"	"	"	"	
Benzo (a) pyrene	ND	10	"	"	"	"	"	"	
Chrysene	ND	5.0	"	"	"	"	"	"	
Dibenz (a,h) anthracene	ND	5.0	"	"	"	"	"	"	
Fluoranthene	ND	5.0	"	"	"	"	"	"	
Fluorene	ND	10	"	"	"	"	"	"	

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2195 Faraday Ave., Ste K	Project Number: END-71435	**Reported:**
Carlsbad CA, 92008	Project Manager: Bernie Sentianin	08/09/12 16:05

VIMARK #4

T121308-01 (Soil)

SunStar Laboratories, Inc.

Polynuclear Aromatic Compounds by GC/MS with Selected Ion Monitoring

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Indeno (1,2,3-cd) pyrene	ND	5.0	ug/kg	1	2080113	08/01/12	08/07/12	EPA 8270C SIM	
Naphthalene	ND	5.0	"	"	"	"	"	"	
Phenanthrene	ND	5.0	"	"	"	"	"	"	
Pyrene	ND	10	"	"	"	"	"	"	
Surrogate: Terphenyl-dl4		*69.6 %*	*18-137*		"	"	"	"	

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RICHARDSON #5

T121308-02 (Soil)

SunStar Laboratories, Inc.

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Extractable Petroleum Hydrocarbons by 8015C									
C6-C12 (GRO)	ND	10	mg/kg	1	2080223	08/02/12	08/07/12	EPA 8015C	
C13-C28 (DRO)	ND	10	"	"	"	"	"	"	
C29-C40 (MORO)	ND	10	"	"	"	"	"	"	
Surrogate: p-Terphenyl		*94.0 %*	*65-135*		"	"	"	"	
Metals by EPA 6010B									
Antimony	ND	3.0	mg/kg	1	2080210	08/02/12	08/03/12	EPA 6010B	
Silver	ND	2.0	"	"	"	"	08/03/12	"	
Arsenic	ND	5.0	"	"	"	"	08/03/12	"	
Barium	**100**	1.0	"	"	"	"	"	"	
Beryllium	ND	1.0	"	"	"	"	08/03/12	"	
Cadmium	ND	2.0	"	"	"	"	08/03/12	"	
Chromium	**45**	2.0	"	"	"	"	"	"	
Cobalt	**12**	2.0	"	"	"	"	"	"	
Copper	**20**	1.0	"	"	"	"	08/03/12	"	
Lead	**4.8**	3.0	"	"	"	"	08/03/12	"	
Molybdenum	ND	3.0	"	"	"	"	"	"	
Nickel	**89**	2.0	"	"	"	"	"	"	
Selenium	ND	5.0	"	"	"	"	"	"	
Thallium	ND	2.0	"	"	"	"	"	"	
Vanadium	**29**	5.0	"	"	"	"	"	"	
Zinc	**38**	1.0	"	"	"	"	"	"	
Cold Vapor Extraction EPA 7470/7471									
Mercury	**0.11**	0.10	mg/kg	1	2080211	08/02/12	08/06/12	EPA 7471A Soil	

SunStar Laboratories, Inc.

Daniel Chavez, Project Manager

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2195 Faraday Ave., Ste K	Project Number: END-71435	**Reported:**
Carlsbad CA, 92008	Project Manager: Bernie Sentianin	08/09/12 16:05

RICHARDSON #5

T121308-02 (Soil)

SunStar Laboratories, Inc.

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Organochlorine Pesticides by EPA Method 8081A									
alpha-BHC	ND	5.0	ug/kg	1	2080105	08/01/12	08/06/12	EPA 8081A	
gamma-BHC (Lindane)	ND	5.0	"	"	"	"	"	"	
beta-BHC	ND	5.0	"	"	"	"	"	"	
delta-BHC	ND	5.0	"	"	"	"	"	"	
Heptachlor	ND	5.0	"	"	"	"	"	"	
Aldrin	ND	5.0	"	"	"	"	"	"	
Heptachlor epoxide	ND	5.0	"	"	"	"	"	"	
gamma-Chlordane	ND	5.0	"	"	"	"	"	"	
alpha-Chlordane	ND	5.0	"	"	"	"	"	"	
Endosulfan I	ND	5.0	"	"	"	"	"	"	
4,4´-DDE	**11**	5.0	"	"	"	"	"	"	
Dieldrin	ND	5.0	"	"	"	"	"	"	
Endrin	ND	5.0	"	"	"	"	"	"	
4,4´-DDD	ND	5.0	"	"	"	"	"	"	
Endosulfan II	ND	5.0	"	"	"	"	"	"	
4,4´-DDT	**8.3**	5.0	"	"	"	"	"	"	
Endrin aldehyde	ND	5.0	"	"	"	"	"	"	
Endosulfan sulfate	ND	5.0	"	"	"	"	"	"	
Methoxychlor	ND	10	"	"	"	"	"	"	
Endrin ketone	ND	5.0	"	"	"	"	"	"	
Toxaphene	ND	200	"	"	"	"	"	"	
Surrogate: Tetrachloro-meta-xylene		*78.5 %*	*35-140*		"	"	"	"	
Organophosphorus Pesticides by EPA Method 8141A									
Dichlorvos	ND	5.0	ug/kg	1	2080114	08/01/12	08/06/12	8141a	
Mevinphos	ND	5.0	"	"	"	"	"	"	
Demeton-s	ND	10	"	"	"	"	"	"	
Ethoprophos	ND	5.0	"	"	"	"	"	"	
Phorate	ND	10	"	"	"	"	"	"	
Naled	ND	5.0	"	"	"	"	"	"	
Sulfotep	ND	10	"	"	"	"	"	"	
Diazinon	ND	5.0	"	"	"	"	"	"	
Disulfoton	ND	5.0	"	"	"	"	"	"	

SunStar Laboratories, Inc.

Daniel J Chávez

Daniel Chavez, Project Manager

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Carlsbad CA, 92008	Project Manager: Bernie Sentianin	08/09/12 16:05

RICHARDSON #5

T121308-02 (Soil)

SunStar Laboratories, Inc.

Organophosphorus Pesticides by EPA Method 8141A

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Demeton-o	ND	10	ug/kg	1	2080114	08/01/12	08/06/12	8141a	
Dimethoate	ND	5.0	"	"	"	"	"	"	
Ronnel	ND	10	"	"	"	"	"	"	
Merphos	ND	10	"	"	"	"	"	"	
Chlorpyrifos	ND	5.0	"	"	"	"	"	"	
Fenthion	ND	5.0	"	"	"	"	"	"	
Trichloronate	ND	5.0	"	"	"	"	"	"	
Methyl parathion	ND	5.0	"	"	"	"	"	"	
Malathion	ND	10	"	"	"	"	"	"	
Tokuthion (Prothiofos)	ND	5.0	"	"	"	"	"	"	
Parathion	ND	5.0	"	"	"	"	"	"	
Stirophos (Tetrachlorvinphos)	ND	5.0	"	"	"	"	"	"	
Bolstar	ND	5.0	"	"	"	"	"	"	
Fensulfothion	ND	5.0	"	"	"	"	"	"	
EPN	ND	5.0	"	"	"	"	"	"	
Azinphos methyl	ND	10	"	"	"	"	"	"	
Coumaphos	ND	5.0	"	"	"	"	"	"	
Surrogate: Tributylphosphate		*90.8 %*	*40-125*		"	"	"	"	

Polynuclear Aromatic Compounds by GC/MS with Selected Ion Monitoring

Acenaphthene	ND	10	ug/kg	1	2080113	08/01/12	08/07/12	EPA 8270C SIM	
Acenaphthylene	ND	5.0	"	"	"	"	"	"	
Anthracene	ND	5.0	"	"	"	"	"	"	
Benzo (a) anthracene	ND	5.0	"	"	"	"	"	"	
Benzo (b) fluoranthene	ND	10	"	"	"	"	"	"	
Benzo (k) fluoranthene	ND	10	"	"	"	"	"	"	
Benzo (g,h,i) perylene	ND	5.0	"	"	"	"	"	"	
Benzo (a) pyrene	ND	10	"	"	"	"	"	"	
Chrysene	ND	5.0	"	"	"	"	"	"	
Dibenz (a,h) anthracene	ND	5.0	"	"	"	"	"	"	
Fluoranthene	ND	5.0	"	"	"	"	"	"	
Fluorene	ND	10	"	"	"	"	"	"	

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Daniel J Chavez

Daniel Chavez, Project Manager

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Carlsbad CA, 92008	Project Manager: Bernie Sentianin	08/09/12 16:05

RICHARDSON #5

T121308-02 (Soil)

SunStar Laboratories, Inc.

Polynuclear Aromatic Compounds by GC/MS with Selected Ion Monitoring

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Indeno (1,2,3-cd) pyrene	ND	5.0	ug/kg	1	2080113	08/01/12	08/07/12	EPA 8270C SIM	
Naphthalene	ND	5.0	"	"	"	"	"	"	
Phenanthrene	ND	5.0	"	"	"	"	"	"	
Pyrene	ND	10	"	"	"	"	"	"	
Surrogate: Terphenyl-dl4		*87.7 %*	*18-137*		"	"	"	"	

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VIBRACORE #12

T121308-03 (Soil)

SunStar Laboratories, Inc.

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Extractable Petroleum Hydrocarbons by 8015C									
C6-C12 (GRO)	ND	10	mg/kg	1	2080223	08/02/12	08/07/12	EPA 8015C	
C13-C28 (DRO)	ND	10	"	"	"	"	"	"	
C29-C40 (MORO)	ND	10	"	"	"	"	"	"	
Surrogate: p-Terphenyl		*102 %*	*65-135*		"	"	"	"	
Metals by EPA 6010B									
Antimony	ND	3.0	mg/kg	1	2080210	08/02/12	08/03/12	EPA 6010B	
Silver	ND	2.0	"	"	"	"	"	"	
Arsenic	ND	5.0	"	"	"	"	"	"	
Barium	**180**	1.0	"	"	"	"	"	"	
Beryllium	ND	1.0	"	"	"	"	08/03/12	"	
Cadmium	ND	2.0	"	"	"	"	08/03/12	"	
Chromium	**59**	2.0	"	"	"	"	"	"	
Cobalt	**18**	2.0	"	"	"	"	"	"	
Copper	**26**	1.0	"	"	"	"	"	"	
Lead	**4.4**	3.0	"	"	"	"	"	"	
Molybdenum	ND	3.0	"	"	"	"	"	"	
Nickel	**120**	2.0	"	"	"	"	"	"	
Selenium	ND	5.0	"	"	"	"	"	"	
Thallium	ND	2.0	"	"	"	"	"	"	
Vanadium	**38**	5.0	"	"	"	"	"	"	
Zinc	**44**	1.0	"	"	"	"	"	"	
Cold Vapor Extraction EPA 7470/7471									
Mercury	**0.19**	0.10	mg/kg	1	2080211	08/02/12	08/06/12	EPA 7471A Soil	

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2195 Faraday Ave., Ste K	Project Number: END-71435	**Reported:**
Carlsbad CA, 92008	Project Manager: Bernie Sentianin	08/09/12 16:05

VIBRACORE #12

T121308-03 (Soil)

SunStar Laboratories, Inc.

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Organochlorine Pesticides by EPA Method 8081A									
alpha-BHC	ND	5.0	ug/kg	1	2080105	08/01/12	08/06/12	EPA 8081A	
gamma-BHC (Lindane)	ND	5.0	"	"	"	"	"	"	
beta-BHC	ND	5.0	"	"	"	"	"	"	
delta-BHC	ND	5.0	"	"	"	"	"	"	
Heptachlor	ND	5.0	"	"	"	"	"	"	
Aldrin	ND	5.0	"	"	"	"	"	"	
Heptachlor epoxide	ND	5.0	"	"	"	"	"	"	
gamma-Chlordane	ND	5.0	"	"	"	"	"	"	
alpha-Chlordane	ND	5.0	"	"	"	"	"	"	
Endosulfan I	ND	5.0	"	"	"	"	"	"	
4,4´-DDE	**17**	5.0	"	"	"	"	"	"	
Dieldrin	ND	5.0	"	"	"	"	"	"	
Endrin	ND	5.0	"	"	"	"	"	"	
4,4´-DDD	ND	5.0	"	"	"	"	"	"	
Endosulfan II	ND	5.0	"	"	"	"	"	"	
4,4´-DDT	**6.9**	5.0	"	"	"	"	"	"	
Endrin aldehyde	ND	5.0	"	"	"	"	"	"	
Endosulfan sulfate	ND	5.0	"	"	"	"	"	"	
Methoxychlor	ND	10	"	"	"	"	"	"	
Endrin ketone	ND	5.0	"	"	"	"	"	"	
Toxaphene	ND	200	"	"	"	"	"	"	
Surrogate: Tetrachloro-meta-xylene		*94.9 %*	*35-140*		"	"	"	"	
Organophosphorus Pesticides by EPA Method 8141A									
Dichlorvos	ND	5.0	ug/kg	1	2080114	08/01/12	08/06/12	8141a	
Mevinphos	ND	5.0	"	"	"	"	"	"	
Demeton-s	ND	10	"	"	"	"	"	"	
Ethoprophos	ND	5.0	"	"	"	"	"	"	
Phorate	ND	10	"	"	"	"	"	"	
Naled	ND	5.0	"	"	"	"	"	"	
Sulfotep	ND	10	"	"	"	"	"	"	
Diazinon	ND	5.0	"	"	"	"	"	"	
Disulfoton	ND	5.0	"	"	"	"	"	"	

SunStar Laboratories, Inc.

Daniel J Chávez

Daniel Chavez, Project Manager

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EEI -- Carlsbad	Project: Hanson Windsor Gravel Ponds	
2195 Faraday Ave., Ste K	Project Number: END-71435	**Reported:**
Carlsbad CA, 92008	Project Manager: Bernie Sentianin	08/09/12 16:05

VIBRACORE #12

T121308-03 (Soil)

SunStar Laboratories, Inc.

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Organophosphorus Pesticides by EPA Method 8141A									
Demeton-o	ND	10	ug/kg	1	2080114	08/01/12	08/06/12	8141a	
Dimethoate	ND	5.0	"	"	"	"	"	"	
Ronnel	ND	10	"	"	"	"	"	"	
Merphos	ND	10	"	"	"	"	"	"	
Chlorpyrifos	ND	5.0	"	"	"	"	"	"	
Fenthion	ND	5.0	"	"	"	"	"	"	
Trichloronate	ND	5.0	"	"	"	"	"	"	
Methyl parathion	ND	5.0	"	"	"	"	"	"	
Malathion	ND	10	"	"	"	"	"	"	
Tokuthion (Prothiofos)	ND	5.0	"	"	"	"	"	"	
Parathion	ND	5.0	"	"	"	"	"	"	
Stirophos (Tetrachlorvinphos)	ND	5.0	"	"	"	"	"	"	
Bolstar	ND	5.0	"	"	"	"	"	"	
Fensulfothion	ND	5.0	"	"	"	"	"	"	
EPN	ND	5.0	"	"	"	"	"	"	
Azinphos methyl	ND	10	"	"	"	"	"	"	
Coumaphos	ND	5.0	"	"	"	"	"	"	
Surrogate: Tributylphosphate		*119 %*	*40-125*		"	"	"	"	
Polynuclear Aromatic Compounds by GC/MS with Selected Ion Monitoring									
Acenaphthene	ND	10	ug/kg	1	2080113	08/01/12	08/07/12	EPA 8270C SIM	
Acenaphthylene	ND	5.0	"	"	"	"	"	"	
Anthracene	ND	5.0	"	"	"	"	"	"	
Benzo (a) anthracene	ND	5.0	"	"	"	"	"	"	
Benzo (b) fluoranthene	ND	10	"	"	"	"	"	"	
Benzo (k) fluoranthene	ND	10	"	"	"	"	"	"	
Benzo (g,h,i) perylene	ND	5.0	"	"	"	"	"	"	
Benzo (a) pyrene	ND	10	"	"	"	"	"	"	
Chrysene	ND	5.0	"	"	"	"	"	"	
Dibenz (a,h) anthracene	ND	5.0	"	"	"	"	"	"	
Fluoranthene	ND	5.0	"	"	"	"	"	"	
Fluorene	ND	10	"	"	"	"	"	"	

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Daniel J Chavez

Daniel Chavez, Project Manager

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EEI -- Carlsbad	Project: Hanson Windsor Gravel Ponds	
2195 Faraday Ave., Ste K	Project Number: END-71435	**Reported:**
Carlsbad CA, 92008	Project Manager: Bernie Sentianin	08/09/12 16:05

VIBRACORE #12

T121308-03 (Soil)

SunStar Laboratories, Inc.

Polynuclear Aromatic Compounds by GC/MS with Selected Ion Monitoring

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Indeno (1,2,3-cd) pyrene	ND	5.0	ug/kg	1	2080113	08/01/12	08/07/12	EPA 8270C SIM	
Naphthalene	ND	5.0	"	"	"	"	"	"	
Phenanthrene	ND	5.0	"	"	"	"	"	"	
Pyrene	ND	10	"	"	"	"	"	"	
Surrogate: Terphenyl-dl4		*89.3 %*		*18-137*	"	"	"	"	

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Daniel J Chavez

Daniel Chavez, Project Manager

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Carlsbad CA, 92008	Project Manager: Bernie Sentianin	08/09/12 16:05

VIBRACORE #15

T121308-04 (Soil)

SunStar Laboratories, Inc.

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Extractable Petroleum Hydrocarbons by 8015C									
C6-C12 (GRO)	ND	10	mg/kg	1	2080223	08/02/12	08/08/12	EPA 8015C	
C13-C28 (DRO)	ND	10	"	"	"	"	"	"	
C29-C40 (MORO)	ND	10	"	"	"	"	"	"	
Surrogate: p-Terphenyl		*110 %*	*65-135*		"	"	"	"	
Metals by EPA 6010B									
Antimony	ND	3.0	mg/kg	1	2080210	08/02/12	08/03/12	EPA 6010B	
Silver	ND	2.0	"	"	"	"	"	"	
Arsenic	ND	5.0	"	"	"	"	"	"	
Barium	**160**	1.0	"	"	"	"	"	"	
Beryllium	ND	1.0	"	"	"	"	08/03/12	"	
Cadmium	ND	2.0	"	"	"	"	08/03/12	"	
Chromium	**63**	2.0	"	"	"	"	"	"	
Cobalt	**18**	2.0	"	"	"	"	"	"	
Copper	**27**	1.0	"	"	"	"	"	"	
Lead	**5.8**	3.0	"	"	"	"	"	"	
Molybdenum	ND	3.0	"	"	"	"	"	"	
Nickel	**130**	2.0	"	"	"	"	"	"	
Selenium	ND	5.0	"	"	"	"	"	"	
Thallium	ND	2.0	"	"	"	"	"	"	
Vanadium	**39**	5.0	"	"	"	"	"	"	
Zinc	**47**	1.0	"	"	"	"	"	"	
Cold Vapor Extraction EPA 7470/7471									
Mercury	**0.14**	0.10	mg/kg	1	2080211	08/02/12	08/06/12	EPA 7471A Soil	

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VIBRACORE #15

T121308-04 (Soil)

SunStar Laboratories, Inc.

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Organochlorine Pesticides by EPA Method 8081A									
alpha-BHC	ND	5.0	ug/kg	1	2080105	08/01/12	08/06/12	EPA 8081A	
gamma-BHC (Lindane)	ND	5.0	"	"	"	"	"	"	
beta-BHC	ND	5.0	"	"	"	"	"	"	
delta-BHC	ND	5.0	"	"	"	"	"	"	
Heptachlor	ND	5.0	"	"	"	"	"	"	
Aldrin	ND	5.0	"	"	"	"	"	"	
Heptachlor epoxide	ND	5.0	"	"	"	"	"	"	
gamma-Chlordane	ND	5.0	"	"	"	"	"	"	
alpha-Chlordane	ND	5.0	"	"	"	"	"	"	
Endosulfan I	ND	5.0	"	"	"	"	"	"	
4,4´-DDE	ND	5.0	"	"	"	"	"	"	
Dieldrin	ND	5.0	"	"	"	"	"	"	
Endrin	ND	5.0	"	"	"	"	"	"	
4,4´-DDD	ND	5.0	"	"	"	"	"	"	
Endosulfan II	ND	5.0	"	"	"	"	"	"	
4,4´-DDT	ND	5.0	"	"	"	"	"	"	
Endrin aldehyde	ND	5.0	"	"	"	"	"	"	
Endosulfan sulfate	ND	5.0	"	"	"	"	"	"	
Methoxychlor	ND	10	"	"	"	"	"	"	
Endrin ketone	ND	5.0	"	"	"	"	"	"	
Toxaphene	ND	200	"	"	"	"	"	"	
Surrogate: Tetrachloro-meta-xylene		*96.1 %*	*35-140*		"	"	"	"	
Organophosphorus Pesticides by EPA Method 8141A									
Dichlorvos	ND	5.0	ug/kg	1	2080114	08/01/12	08/06/12	8141a	
Mevinphos	ND	5.0	"	"	"	"	"	"	
Demeton-s	ND	10	"	"	"	"	"	"	
Ethoprophos	ND	5.0	"	"	"	"	"	"	
Phorate	ND	10	"	"	"	"	"	"	
Naled	ND	5.0	"	"	"	"	"	"	
Sulfotep	ND	10	"	"	"	"	"	"	
Diazinon	ND	5.0	"	"	"	"	"	"	

SunStar Laboratories, Inc.

Daniel J Chávez

Daniel Chavez, Project Manager

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VIBRACORE #15

T121308-04 (Soil)

SunStar Laboratories, Inc.

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Organophosphorus Pesticides by EPA Method 8141A									
Disulfoton	ND	5.0	ug/kg	1	2080114	08/01/12	08/06/12	8141a	
Demeton-o	ND	10	"	"	"	"	"	"	
Dimethoate	ND	5.0	"	"	"	"	"	"	
Ronnel	ND	10	"	"	"	"	"	"	
Merphos	ND	10	"	"	"	"	"	"	
Chlorpyrifos	ND	5.0	"	"	"	"	"	"	
Fenthion	ND	5.0	"	"	"	"	"	"	
Trichloronate	ND	5.0	"	"	"	"	"	"	
Methyl parathion	ND	5.0	"	"	"	"	"	"	
Malathion	ND	10	"	"	"	"	"	"	
Tokuthion (Prothiofos)	ND	5.0	"	"	"	"	"	"	
Parathion	ND	5.0	"	"	"	"	"	"	
Stirophos (Tetrachlorvinphos)	ND	5.0	"	"	"	"	"	"	
Bolstar	ND	5.0	"	"	"	"	"	"	
Fensulfothion	ND	5.0	"	"	"	"	"	"	
EPN	ND	5.0	"	"	"	"	"	"	
Azinphos methyl	ND	10	"	"	"	"	"	"	
Coumaphos	ND	5.0	"	"	"	"	"	"	
Surrogate: Tributylphosphate		*97.7 %*		*40-125*	"	"	"	"	
Polynuclear Aromatic Compounds by GC/MS with Selected Ion Monitoring									
Acenaphthene	ND	10	ug/kg	1	2080113	08/01/12	08/07/12	EPA 8270C SIM	
Acenaphthylene	ND	5.0	"	"	"	"	"	"	
Anthracene	ND	5.0	"	"	"	"	"	"	
Benzo (a) anthracene	ND	5.0	"	"	"	"	"	"	
Benzo (b) fluoranthene	ND	10	"	"	"	"	"	"	
Benzo (k) fluoranthene	ND	10	"	"	"	"	"	"	
Benzo (g,h,i) perylene	ND	5.0	"	"	"	"	"	"	
Benzo (a) pyrene	ND	10	"	"	"	"	"	"	
Chrysene	ND	5.0	"	"	"	"	"	"	
Dibenz (a,h) anthracene	ND	5.0	"	"	"	"	"	"	
Fluoranthene	ND	5.0	"	"	"	"	"	"	

SunStar Laboratories, Inc.

Daniel J Chavez

Daniel Chavez, Project Manager

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EEI -- Carlsbad	Project: Hanson Windsor Gravel Ponds	
2195 Faraday Ave., Ste K	Project Number: END-71435	**Reported:**
Carlsbad CA, 92008	Project Manager: Bernie Sentianin	08/09/12 16:05

VIBRACORE #15

T121308-04 (Soil)

SunStar Laboratories, Inc.

Polynuclear Aromatic Compounds by GC/MS with Selected Ion Monitoring

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Fluorene	ND	10	ug/kg	1	2080113	08/01/12	08/07/12	EPA 8270C SIM	
Indeno (1,2,3-cd) pyrene	ND	5.0	"	"	"	"	"	"	
Naphthalene	ND	5.0	"	"	"	"	"	"	
Phenanthrene	ND	5.0	"	"	"	"	"	"	
Pyrene	ND	10	"	"	"	"	"	"	
Surrogate: Terphenyl-dl4		*96.5 %*		*18-137*	"	"	"	"	

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2195 Faraday Ave., Ste K	Project Number: END-71435	**Reported:**
Carlsbad CA, 92008	Project Manager: Bernie Sentianin	08/09/12 16:05

VIBRACORE #20

T121308-05 (Soil)

SunStar Laboratories, Inc.

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Extractable Petroleum Hydrocarbons by 8015C									
C6-C12 (GRO)	ND	10	mg/kg	1	2080223	08/02/12	08/08/12	EPA 8015C	
C13-C28 (DRO)	ND	10	"	"	"	"	"	"	
C29-C40 (MORO)	ND	10	"	"	"	"	"	"	
Surrogate: p-Terphenyl		*113 %*	*65-135*		"	"	"	"	
Metals by EPA 6010B									
Antimony	ND	3.0	mg/kg	1	2080210	08/02/12	08/03/12	EPA 6010B	
Silver	ND	2.0	"	"	"	"	"	"	
Arsenic	ND	5.0	"	"	"	"	"	"	
Barium	**140**	1.0	"	"	"	"	"	"	
Beryllium	ND	1.0	"	"	"	"	08/03/12	"	
Cadmium	ND	2.0	"	"	"	"	08/03/12	"	
Chromium	**56**	2.0	"	"	"	"	"	"	
Cobalt	**14**	2.0	"	"	"	"	"	"	
Copper	**25**	1.0	"	"	"	"	"	"	
Lead	**4.9**	3.0	"	"	"	"	"	"	
Molybdenum	ND	3.0	"	"	"	"	"	"	
Nickel	**110**	2.0	"	"	"	"	"	"	
Selenium	ND	5.0	"	"	"	"	"	"	
Thallium	ND	2.0	"	"	"	"	"	"	
Vanadium	**34**	5.0	"	"	"	"	"	"	
Zinc	**42**	1.0	"	"	"	"	"	"	
Cold Vapor Extraction EPA 7470/7471									
Mercury	**0.16**	0.10	mg/kg	1	2080211	08/02/12	08/06/12	EPA 7471A Soil	

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2195 Faraday Ave., Ste K	Project Number: END-71435	**Reported:**
Carlsbad CA, 92008	Project Manager: Bernie Sentianin	08/09/12 16:05

VIBRACORE #20

T121308-05 (Soil)

SunStar Laboratories, Inc.

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Organochlorine Pesticides by EPA Method 8081A									
alpha-BHC	ND	5.0	ug/kg	1	2080105	08/01/12	08/06/12	EPA 8081A	
gamma-BHC (Lindane)	ND	5.0	"	"	"	"	"	"	
beta-BHC	ND	5.0	"	"	"	"	"	"	
delta-BHC	ND	5.0	"	"	"	"	"	"	
Heptachlor	ND	5.0	"	"	"	"	"	"	
Aldrin	ND	5.0	"	"	"	"	"	"	
Heptachlor epoxide	ND	5.0	"	"	"	"	"	"	
gamma-Chlordane	ND	5.0	"	"	"	"	"	"	
alpha-Chlordane	ND	5.0	"	"	"	"	"	"	
Endosulfan I	ND	5.0	"	"	"	"	"	"	
4,4´-DDE	ND	5.0	"	"	"	"	"	"	
Dieldrin	ND	5.0	"	"	"	"	"	"	
Endrin	ND	5.0	"	"	"	"	"	"	
4,4´-DDD	ND	5.0	"	"	"	"	"	"	
Endosulfan II	ND	5.0	"	"	"	"	"	"	
4,4´-DDT	ND	5.0	"	"	"	"	"	"	
Endrin aldehyde	ND	5.0	"	"	"	"	"	"	
Endosulfan sulfate	ND	5.0	"	"	"	"	"	"	
Methoxychlor	ND	10	"	"	"	"	"	"	
Endrin ketone	ND	5.0	"	"	"	"	"	"	
Toxaphene	ND	200	"	"	"	"	"	"	
Surrogate: Tetrachloro-meta-xylene		*90.2 %*	*35-140*		"	"	"	"	
Organophosphorus Pesticides by EPA Method 8141A									
Dichlorvos	ND	5.0	ug/kg	1	2080114	08/01/12	08/06/12	8141a	
Mevinphos	ND	5.0	"	"	"	"	"	"	
Demeton-s	ND	10	"	"	"	"	"	"	
Ethoprophos	ND	5.0	"	"	"	"	"	"	
Phorate	ND	10	"	"	"	"	"	"	
Naled	ND	5.0	"	"	"	"	"	"	
Sulfotep	ND	10	"	"	"	"	"	"	
Diazinon	ND	5.0	"	"	"	"	"	"	

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Daniel J Chávez

Daniel Chavez, Project Manager

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Carlsbad CA, 92008	Project Manager: Bernie Sentianin	08/09/12 16:05

VIBRACORE #20

T121308-05 (Soil)

SunStar Laboratories, Inc.

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Organophosphorus Pesticides by EPA Method 8141A									
Disulfoton	ND	5.0	ug/kg	1	2080114	08/01/12	08/06/12	8141a	
Demeton-o	ND	10	"	"	"	"	"	"	
Dimethoate	ND	5.0	"	"	"	"	"	"	
Ronnel	ND	10	"	"	"	"	"	"	
Merphos	ND	10	"	"	"	"	"	"	
Chlorpyrifos	ND	5.0	"	"	"	"	"	"	
Fenthion	ND	5.0	"	"	"	"	"	"	
Trichloronate	ND	5.0	"	"	"	"	"	"	
Methyl parathion	ND	5.0	"	"	"	"	"	"	
Malathion	ND	10	"	"	"	"	"	"	
Tokuthion (Prothiofos)	ND	5.0	"	"	"	"	"	"	
Parathion	ND	5.0	"	"	"	"	"	"	
Stirophos (Tetrachlorvinphos)	ND	5.0	"	"	"	"	"	"	
Bolstar	ND	5.0	"	"	"	"	"	"	
Fensulfothion	ND	5.0	"	"	"	"	"	"	
EPN	ND	5.0	"	"	"	"	"	"	
Azinphos methyl	ND	10	"	"	"	"	"	"	
Coumaphos	ND	5.0	"	"	"	"	"	"	
Surrogate: Tributylphosphate		*86.7 %*		*40-125*	"	"	"	"	
Polynuclear Aromatic Compounds by GC/MS with Selected Ion Monitoring									
Acenaphthene	ND	10	ug/kg	1	2080113	08/01/12	08/07/12	EPA 8270C SIM	
Acenaphthylene	ND	5.0	"	"	"	"	"	"	
Anthracene	ND	5.0	"	"	"	"	"	"	
Benzo (a) anthracene	ND	5.0	"	"	"	"	"	"	
Benzo (b) fluoranthene	ND	10	"	"	"	"	"	"	
Benzo (k) fluoranthene	ND	10	"	"	"	"	"	"	
Benzo (g,h,i) perylene	ND	5.0	"	"	"	"	"	"	
Benzo (a) pyrene	ND	10	"	"	"	"	"	"	
Chrysene	ND	5.0	"	"	"	"	"	"	
Dibenz (a,h) anthracene	ND	5.0	"	"	"	"	"	"	
Fluoranthene	ND	5.0	"	"	"	"	"	"	

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Daniel J Chavez

Daniel Chavez, Project Manager

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EEI -- Carlsbad	Project: Hanson Windsor Gravel Ponds	
2195 Faraday Ave., Ste K	Project Number: END-71435	**Reported:**
Carlsbad CA, 92008	Project Manager: Bernie Sentianin	08/09/12 16:05

VIBRACORE #20

T121308-05 (Soil)

SunStar Laboratories, Inc.

Polynuclear Aromatic Compounds by GC/MS with Selected Ion Monitoring

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Fluorene	ND	10	ug/kg	1	2080113	08/01/12	08/07/12	EPA 8270C SIM	
Indeno (1,2,3-cd) pyrene	ND	5.0	"	"	"	"	"	"	
Naphthalene	ND	5.0	"	"	"	"	"	"	
Phenanthrene	ND	5.0	"	"	"	"	"	"	
Pyrene	ND	10	"	"	"	"	"	"	
Surrogate: Terphenyl-dl4		*109 %*		*18-137*	"	"	"	"	

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Daniel J Chavez

Daniel Chavez, Project Manager

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2195 Faraday Ave., Ste K	Project Number: END-71435	**Reported:**
Carlsbad CA, 92008	Project Manager: Bernie Sentianin	08/09/12 16:05

VIBRACORE #22

T121308-06 (Soil)

SunStar Laboratories, Inc.

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Extractable Petroleum Hydrocarbons by 8015C									
C6-C12 (GRO)	ND	10	mg/kg	1	2080223	08/02/12	08/08/12	EPA 8015C	
C13-C28 (DRO)	ND	10	"	"	"	"	"	"	
C29-C40 (MORO)	**17**	10	"	"	"	"	"	"	
Surrogate: p-Terphenyl		*106 %*	*65-135*		"	"	"	"	
Metals by EPA 6010B									
Antimony	ND	3.0	mg/kg	1	2080210	08/02/12	08/03/12	EPA 6010B	
Silver	ND	2.0	"	"	"	"	"	"	
Arsenic	ND	5.0	"	"	"	"	"	"	
Barium	**150**	1.0	"	"	"	"	"	"	
Beryllium	ND	1.0	"	"	"	"	"	"	
Cadmium	ND	2.0	"	"	"	"	"	"	
Chromium	**72**	2.0	"	"	"	"	"	"	
Cobalt	**17**	2.0	"	"	"	"	"	"	
Copper	**30**	1.0	"	"	"	"	"	"	
Lead	**7.7**	3.0	"	"	"	"	"	"	
Molybdenum	ND	3.0	"	"	"	"	"	"	
Nickel	**130**	2.0	"	"	"	"	"	"	
Selenium	ND	5.0	"	"	"	"	"	"	
Thallium	ND	2.0	"	"	"	"	"	"	
Vanadium	**37**	5.0	"	"	"	"	"	"	
Zinc	**49**	1.0	"	"	"	"	"	"	
Cold Vapor Extraction EPA 7470/7471									
Mercury	**0.24**	0.10	mg/kg	1	2080211	08/02/12	08/06/12	EPA 7471A Soil	

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Carlsbad CA, 92008	Project Manager: Bernie Sentianin	08/09/12 16:05

VIBRACORE #22

T121308-06 (Soil)

SunStar Laboratories, Inc.

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Organochlorine Pesticides by EPA Method 8081A									
alpha-BHC	ND	5.0	ug/kg	1	2080105	08/01/12	08/06/12	EPA 8081A	
gamma-BHC (Lindane)	ND	5.0	"	"	"	"	"	"	
beta-BHC	ND	5.0	"	"	"	"	"	"	
delta-BHC	ND	5.0	"	"	"	"	"	"	
Heptachlor	ND	5.0	"	"	"	"	"	"	
Aldrin	ND	5.0	"	"	"	"	"	"	
Heptachlor epoxide	ND	5.0	"	"	"	"	"	"	
gamma-Chlordane	ND	5.0	"	"	"	"	"	"	
alpha-Chlordane	ND	5.0	"	"	"	"	"	"	
Endosulfan I	ND	5.0	"	"	"	"	"	"	
4,4´-DDE	**36**	5.0	"	"	"	"	"	"	
Dieldrin	ND	5.0	"	"	"	"	"	"	
Endrin	ND	5.0	"	"	"	"	"	"	
4,4´-DDD	**7.5**	5.0	"	"	"	"	"	"	
Endosulfan II	ND	5.0	"	"	"	"	"	"	
4,4´-DDT	ND	5.0	"	"	"	"	"	"	
Endrin aldehyde	ND	5.0	"	"	"	"	"	"	
Endosulfan sulfate	ND	5.0	"	"	"	"	"	"	
Methoxychlor	ND	10	"	"	"	"	"	"	
Endrin ketone	ND	5.0	"	"	"	"	"	"	
Toxaphene	ND	200	"	"	"	"	"	"	
Surrogate: Tetrachloro-meta-xylene		*93.9 %*	*35-140*		"	"	"	"	
Organophosphorus Pesticides by EPA Method 8141A									
Dichlorvos	ND	5.0	ug/kg	1	2080114	08/01/12	08/06/12	8141a	
Mevinphos	ND	5.0	"	"	"	"	"	"	
Demeton-s	ND	10	"	"	"	"	"	"	
Ethoprophos	ND	5.0	"	"	"	"	"	"	
Phorate	ND	10	"	"	"	"	"	"	
Naled	ND	5.0	"	"	"	"	"	"	
Sulfotep	ND	10	"	"	"	"	"	"	
Diazinon	ND	5.0	"	"	"	"	"	"	
Disulfoton	ND	5.0	"	"	"	"	"	"	

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Daniel J Chavez

Daniel Chavez, Project Manager

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Carlsbad CA, 92008	Project Manager: Bernie Sentianin	08/09/12 16:05

VIBRACORE #22

T121308-06 (Soil)

SunStar Laboratories, Inc.

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Organophosphorus Pesticides by EPA Method 8141A									
Demeton-o	ND	10	ug/kg	1	2080114	08/01/12	08/06/12	8141a	
Dimethoate	ND	5.0	"	"	"	"	"	"	
Ronnel	ND	10	"	"	"	"	"	"	
Merphos	ND	10	"	"	"	"	"	"	
Chlorpyrifos	ND	5.0	"	"	"	"	"	"	
Fenthion	ND	5.0	"	"	"	"	"	"	
Trichloronate	ND	5.0	"	"	"	"	"	"	
Methyl parathion	ND	5.0	"	"	"	"	"	"	
Malathion	ND	10	"	"	"	"	"	"	
Tokuthion (Prothiofos)	ND	5.0	"	"	"	"	"	"	
Parathion	ND	5.0	"	"	"	"	"	"	
Stirophos (Tetrachlorvinphos)	ND	5.0	"	"	"	"	"	"	
Bolstar	ND	5.0	"	"	"	"	"	"	
Fensulfothion	ND	5.0	"	"	"	"	"	"	
EPN	ND	5.0	"	"	"	"	"	"	
Azinphos methyl	ND	10	"	"	"	"	"	"	
Coumaphos	ND	5.0	"	"	"	"	"	"	
Surrogate: Tributylphosphate		*116 %*	*40-125*		"	"	"	"	
Polynuclear Aromatic Compounds by GC/MS with Selected Ion Monitoring									
Acenaphthene	ND	10	ug/kg	1	2080113	08/01/12	08/07/12	EPA 8270C SIM	
Acenaphthylene	ND	5.0	"	"	"	"	"	"	
Anthracene	ND	5.0	"	"	"	"	"	"	
Benzo (a) anthracene	ND	5.0	"	"	"	"	"	"	
Benzo (b) fluoranthene	ND	10	"	"	"	"	"	"	
Benzo (k) fluoranthene	ND	10	"	"	"	"	"	"	
Benzo (g,h,i) perylene	ND	5.0	"	"	"	"	"	"	
Benzo (a) pyrene	ND	10	"	"	"	"	"	"	
Chrysene	ND	5.0	"	"	"	"	"	"	
Dibenz (a,h) anthracene	ND	5.0	"	"	"	"	"	"	
Fluoranthene	ND	5.0	"	"	"	"	"	"	
Fluorene	ND	10	"	"	"	"	"	"	

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2195 Faraday Ave., Ste K	Project Number: END-71435	**Reported:**
Carlsbad CA, 92008	Project Manager: Bernie Sentianin	08/09/12 16:05

VIBRACORE #22

T121308-06 (Soil)

SunStar Laboratories, Inc.

Polynuclear Aromatic Compounds by GC/MS with Selected Ion Monitoring

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Indeno (1,2,3-cd) pyrene	ND	5.0	ug/kg	1	2080113	08/01/12	08/07/12	EPA 8270C SIM	
Naphthalene	ND	5.0	"	"	"	"	"	"	
Phenanthrene	ND	5.0	"	"	"	"	"	"	
Pyrene	ND	10	"	"	"	"	"	"	
Surrogate: Terphenyl-dl4		*100 %*		*18-137*	"	"	"	"	

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VIBRACORE #25

T121308-07 (Soil)

SunStar Laboratories, Inc.

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Extractable Petroleum Hydrocarbons by 8015C									
C6-C12 (GRO)	ND	10	mg/kg	1	2080223	08/02/12	08/08/12	EPA 8015C	
C13-C28 (DRO)	ND	10	"	"	"	"	"	"	
C29-C40 (MORO)	ND	10	"	"	"	"	"	"	
Surrogate: p-Terphenyl		*113 %*	*65-135*		"	"	"	"	
Metals by EPA 6010B									
Antimony	ND	3.0	mg/kg	1	2080210	08/02/12	08/03/12	EPA 6010B	
Silver	ND	2.0	"	"	"	"	"	"	
Arsenic	**5.1**	5.0	"	"	"	"	"	"	
Barium	**180**	1.0	"	"	"	"	"	"	
Beryllium	ND	1.0	"	"	"	"	"	"	
Cadmium	ND	2.0	"	"	"	"	"	"	
Chromium	**55**	2.0	"	"	"	"	"	"	
Cobalt	**16**	2.0	"	"	"	"	"	"	
Copper	**28**	1.0	"	"	"	"	"	"	
Lead	**4.9**	3.0	"	"	"	"	"	"	
Molybdenum	ND	3.0	"	"	"	"	"	"	
Nickel	**120**	2.0	"	"	"	"	"	"	
Selenium	ND	5.0	"	"	"	"	"	"	
Thallium	ND	2.0	"	"	"	"	"	"	
Vanadium	**34**	5.0	"	"	"	"	"	"	
Zinc	**39**	1.0	"	"	"	"	"	"	
Cold Vapor Extraction EPA 7470/7471									
Mercury	**0.20**	0.10	mg/kg	1	2080211	08/02/12	08/06/12	EPA 7471A Soil	

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VIBRACORE #25

T121308-07 (Soil)

SunStar Laboratories, Inc.

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Organochlorine Pesticides by EPA Method 8081A									
alpha-BHC	ND	5.0	ug/kg	1	2080105	08/01/12	08/06/12	EPA 8081A	
gamma-BHC (Lindane)	ND	5.0	"	"	"	"	"	"	
beta-BHC	ND	5.0	"	"	"	"	"	"	
delta-BHC	ND	5.0	"	"	"	"	"	"	
Heptachlor	ND	5.0	"	"	"	"	"	"	
Aldrin	ND	5.0	"	"	"	"	"	"	
Heptachlor epoxide	ND	5.0	"	"	"	"	"	"	
gamma-Chlordane	ND	5.0	"	"	"	"	"	"	
alpha-Chlordane	ND	5.0	"	"	"	"	"	"	
Endosulfan I	ND	5.0	"	"	"	"	"	"	
4,4´-DDE	ND	5.0	"	"	"	"	"	"	
Dieldrin	ND	5.0	"	"	"	"	"	"	
Endrin	ND	5.0	"	"	"	"	"	"	
4,4´-DDD	ND	5.0	"	"	"	"	"	"	
Endosulfan II	ND	5.0	"	"	"	"	"	"	
4,4´-DDT	ND	5.0	"	"	"	"	"	"	
Endrin aldehyde	ND	5.0	"	"	"	"	"	"	
Endosulfan sulfate	ND	5.0	"	"	"	"	"	"	
Methoxychlor	ND	10	"	"	"	"	"	"	
Endrin ketone	ND	5.0	"	"	"	"	"	"	
Toxaphene	ND	200	"	"	"	"	"	"	
Surrogate: Tetrachloro-meta-xylene		*96.0 %*	*35-140*		"	"	"	"	
Organophosphorus Pesticides by EPA Method 8141A									
Dichlorvos	ND	5.0	ug/kg	1	2080114	08/01/12	08/06/12	8141a	
Mevinphos	ND	5.0	"	"	"	"	"	"	
Demeton-s	ND	10	"	"	"	"	"	"	
Ethoprophos	ND	5.0	"	"	"	"	"	"	
Phorate	ND	10	"	"	"	"	"	"	
Naled	ND	5.0	"	"	"	"	"	"	
Sulfotep	ND	10	"	"	"	"	"	"	
Diazinon	ND	5.0	"	"	"	"	"	"	

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VIBRACORE #25

T121308-07 (Soil)

SunStar Laboratories, Inc.

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Organophosphorus Pesticides by EPA Method 8141A									
Disulfoton	ND	5.0	ug/kg	1	2080114	08/01/12	08/06/12	8141a	
Demeton-o	ND	10	"	"	"	"	"	"	
Dimethoate	ND	5.0	"	"	"	"	"	"	
Ronnel	ND	10	"	"	"	"	"	"	
Merphos	ND	10	"	"	"	"	"	"	
Chlorpyrifos	ND	5.0	"	"	"	"	"	"	
Fenthion	ND	5.0	"	"	"	"	"	"	
Trichloronate	ND	5.0	"	"	"	"	"	"	
Methyl parathion	ND	5.0	"	"	"	"	"	"	
Malathion	ND	10	"	"	"	"	"	"	
Tokuthion (Prothiofos)	ND	5.0	"	"	"	"	"	"	
Parathion	ND	5.0	"	"	"	"	"	"	
Stirophos (Tetrachlorvinphos)	ND	5.0	"	"	"	"	"	"	
Bolstar	ND	5.0	"	"	"	"	"	"	
Fensulfothion	ND	5.0	"	"	"	"	"	"	
EPN	ND	5.0	"	"	"	"	"	"	
Azinphos methyl	ND	10	"	"	"	"	"	"	
Coumaphos	ND	5.0	"	"	"	"	"	"	
Surrogate: Tributylphosphate		*117 %*	*40-125*		"	"	"	"	
Polynuclear Aromatic Compounds by GC/MS with Selected Ion Monitoring									
Acenaphthene	ND	10	ug/kg	1	2080113	08/01/12	08/07/12	EPA 8270C SIM	
Acenaphthylene	ND	5.0	"	"	"	"	"	"	
Anthracene	ND	5.0	"	"	"	"	"	"	
Benzo (a) anthracene	ND	5.0	"	"	"	"	"	"	
Benzo (b) fluoranthene	ND	10	"	"	"	"	"	"	
Benzo (k) fluoranthene	ND	10	"	"	"	"	"	"	
Benzo (g,h,i) perylene	ND	5.0	"	"	"	"	"	"	
Benzo (a) pyrene	ND	10	"	"	"	"	"	"	
Chrysene	ND	5.0	"	"	"	"	"	"	
Dibenz (a,h) anthracene	ND	5.0	"	"	"	"	"	"	
Fluoranthene	ND	5.0	"	"	"	"	"	"	

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VIBRACORE #25

T121308-07 (Soil)

SunStar Laboratories, Inc.

Polynuclear Aromatic Compounds by GC/MS with Selected Ion Monitoring

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Fluorene	ND	10	ug/kg	1	2080113	08/01/12	08/07/12	EPA 8270C SIM	
Indeno (1,2,3-cd) pyrene	ND	5.0	"	"	"	"	"	"	
Naphthalene	ND	5.0	"	"	"	"	"	"	
Phenanthrene	ND	5.0	"	"	"	"	"	"	
Pyrene	ND	10	"	"	"	"	"	"	
Surrogate: Terphenyl-dl4		*86.5 %*		*18-137*	"	"	"	"	

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Daniel J Chavez

Daniel Chavez, Project Manager

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Providing Quality Analytical Services Nationwide

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Lake Forest, California 92630
949.297.5020 Phone
949.297.5027 Fax

EEI -- Carlsbad	Project: Hanson Windsor Gravel Ponds	
2195 Faraday Ave., Ste K	Project Number: END-71435	**Reported:**
Carlsbad CA, 92008	Project Manager: Bernie Sentianin	08/09/12 16:05

Extractable Petroleum Hydrocarbons by 8015C - Quality Control

SunStar Laboratories, Inc.

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 2080223 - EPA 3550B GC										
Blank (2080223-BLK1)				Prepared: 08/02/12 Analyzed: 08/07/12						
C6-C12 (GRO)	ND	10	mg/kg							
C13-C28 (DRO)	ND	10	"							
C29-C40 (MORO)	ND	10	"							
Surrogate: p-Terphenyl	*88.9*		*"*	*100*		*88.9*	*65-135*			
LCS (2080223-BS1)				Prepared: 08/02/12 Analyzed: 08/07/12						
C13-C28 (DRO)	420	10	mg/kg	500		84.6	75-125			
Surrogate: p-Terphenyl	*106*		*"*	*100*		*106*	*65-135*			
Matrix Spike (2080223-MS1)		**Source: T121309-02**		Prepared: 08/02/12 Analyzed: 08/07/12						
C13-C28 (DRO)	450	10	mg/kg	500	ND	90.3	75-125			
Surrogate: p-Terphenyl	*129*		*"*	*100*		*129*	*65-135*			
Matrix Spike Dup (2080223-MSD1)		**Source: T121309-02**		Prepared: 08/02/12 Analyzed: 08/07/12						
C13-C28 (DRO)	460	10	mg/kg	500	ND	91.5	75-125	1.23	20	
Surrogate: p-Terphenyl	*126*		*"*	*100*		*126*	*65-135*			

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EEI -- Carlsbad	Project: Hanson Windsor Gravel Ponds	
2195 Faraday Ave., Ste K	Project Number: END-71435	**Reported:**
Carlsbad CA, 92008	Project Manager: Bernie Sentianin	08/09/12 16:05

Metals by EPA 6010B - Quality Control

SunStar Laboratories, Inc.

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 2080210 - EPA 3051										
Blank (2080210-BLK1)				Prepared: 08/02/12 Analyzed: 08/03/12						
Antimony	ND	3.0	mg/kg							
Silver	ND	2.0	"							
Arsenic	ND	5.0	"							
Barium	ND	1.0	"							
Beryllium	ND	1.0	"							
Cadmium	ND	2.0	"							
Chromium	ND	2.0	"							
Cobalt	ND	2.0	"							
Copper	ND	1.0	"							
Lead	ND	3.0	"							
Molybdenum	ND	3.0	"							
Nickel	ND	2.0	"							
Selenium	ND	5.0	"							
Thallium	ND	2.0	"							
Vanadium	ND	5.0	"							
Zinc	ND	1.0	"							
LCS (2080210-BS1)				Prepared: 08/02/12 Analyzed: 08/03/12						
Arsenic	112	5.0	mg/kg	100		112	75-125			
Barium	112	1.0	"	100		112	75-125			
Cadmium	112	2.0	"	100		112	75-125			
Chromium	114	2.0	"	100		114	75-125			
Lead	116	3.0	"	100		116	75-125			
Matrix Spike (2080210-MS1)	**Source: T121308-01**			Prepared: 08/02/12 Analyzed: 08/03/12						
Arsenic	98.0	5.0	mg/kg	100	2.65	95.4	75-125			
Barium	263	1.0	"	100	153	110	75-125			
Cadmium	101	2.0	"	100	0.204	101	75-125			
Chromium	185	2.0	"	100	70.2	115	75-125			
Lead	112	3.0	"	100	6.29	105	75-125			

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EEI -- Carlsbad	Project: Hanson Windsor Gravel Ponds	
2195 Faraday Ave., Ste K	Project Number: END-71435	**Reported:**
Carlsbad CA, 92008	Project Manager: Bernie Sentianin	08/09/12 16:05

Metals by EPA 6010B - Quality Control

SunStar Laboratories, Inc.

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 2080210 - EPA 3051										
Matrix Spike Dup (2080210-MSD1)	**Source: T121308-01**			Prepared: 08/02/12	Analyzed: 08/03/12					
Arsenic	94.9	5.0	mg/kg	100	2.65	92.3	75-125	3.23	20	
Barium	264	1.0	"	100	153	111	75-125	0.331	20	
Cadmium	99.5	2.0	"	100	0.204	99.3	75-125	1.41	20	
Chromium	189	2.0	"	100	70.2	118	75-125	1.70	20	
Lead	111	3.0	"	100	6.29	105	75-125	0.281	20	

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EEI -- Carlsbad	Project: Hanson Windsor Gravel Ponds	
2195 Faraday Ave., Ste K	Project Number: END-71435	**Reported:**
Carlsbad CA, 92008	Project Manager: Bernie Sentianin	08/09/12 16:05

Cold Vapor Extraction EPA 7470/7471 - Quality Control

SunStar Laboratories, Inc.

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 2080211 - EPA 7471A Soil										
Blank (2080211-BLK1)				Prepared: 08/02/12 Analyzed: 08/06/12						
Mercury	ND	0.10	mg/kg							
LCS (2080211-BS1)				Prepared: 08/02/12 Analyzed: 08/06/12						
Mercury	0.411	0.10	mg/kg	0.417		98.7	80-120			
Matrix Spike (2080211-MS1)	**Source: T121308-01**			Prepared: 08/02/12 Analyzed: 08/06/12						
Mercury	0.640	0.10	mg/kg	0.417	0.549	21.9	75-125			QM-05
Matrix Spike Dup (2080211-MSD1)	**Source: T121308-01**			Prepared: 08/02/12 Analyzed: 08/06/12						
Mercury	0.705	0.10	mg/kg	0.417	0.549	37.5	75-125	9.64	20	QM-05

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EEI -- Carlsbad	Project: Hanson Windsor Gravel Ponds	
2195 Faraday Ave., Ste K	Project Number: END-71435	**Reported:**
Carlsbad CA, 92008	Project Manager: Bernie Sentianin	08/09/12 16:05

Organochlorine Pesticides by EPA Method 8081A - Quality Control

SunStar Laboratories, Inc.

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 2080105 - EPA 3550 ECD/GCMS										
Blank (2080105-BLK1)				Prepared: 08/01/12 Analyzed: 08/06/12						
alpha-BHC	ND	5.0	ug/kg							
gamma-BHC (Lindane)	ND	5.0	"							
beta-BHC	ND	5.0	"							
delta-BHC	ND	5.0	"							
Heptachlor	ND	5.0	"							
Aldrin	ND	5.0	"							
Heptachlor epoxide	ND	5.0	"							
gamma-Chlordane	ND	5.0	"							
alpha-Chlordane	ND	5.0	"							
Endosulfan I	ND	5.0	"							
4,4´-DDE	ND	5.0	"							
Dieldrin	ND	5.0	"							
Endrin	ND	5.0	"							
4,4´-DDD	ND	5.0	"							
Endosulfan II	ND	5.0	"							
4,4´-DDT	ND	5.0	"							
Endrin aldehyde	ND	5.0	"							
Endosulfan sulfate	ND	5.0	"							
Methoxychlor	ND	10	"							
Endrin ketone	ND	5.0	"							
Toxaphene	ND	200	"							
Surrogate: Tetrachloro-meta-xylene	*67.7*		*"*	*100*		*67.7*	*35-140*			
LCS (2080105-BS1)				Prepared: 08/01/12 Analyzed: 08/06/12						
gamma-BHC (Lindane)	123	5.0	ug/kg	200		61.6	40-120			
Heptachlor	145	5.0	"	200		72.5	40-120			
Aldrin	155	5.0	"	200		77.5	40-120			
Dieldrin	157	5.0	"	200		78.7	40-120			
Endrin	158	5.0	"	200		78.8	40-120			
4,4´-DDT	102	5.0	"	200		51.0	33-147			
Surrogate: Tetrachloro-meta-xylene	*56.1*		*"*	*100*		*56.1*	*35-140*			

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EEI -- Carlsbad	Project: Hanson Windsor Gravel Ponds	
2195 Faraday Ave., Ste K	Project Number: END-71435	**Reported:**
Carlsbad CA, 92008	Project Manager: Bernie Sentianin	08/09/12 16:05

Organochlorine Pesticides by EPA Method 8081A - Quality Control

SunStar Laboratories, Inc.

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 2080105 - EPA 3550 ECD/GCMS										
Matrix Spike (2080105-MS1)	**Source: T121300-01**			Prepared: 08/01/12		Analyzed: 08/06/12				
gamma-BHC (Lindane)	131	5.0	ug/kg	200	ND	65.6	30-120			
Heptachlor	127	5.0	"	200	ND	63.7	30-120			
Aldrin	171	5.0	"	200	ND	85.6	30-120			
Dieldrin	180	5.0	"	200	ND	90.1	30-120			
Endrin	172	5.0	"	200	ND	86.0	30-120			
4,4´-DDT	79.9	5.0	"	200	6.39	36.8	30-120			
Surrogate: Tetrachloro-meta-xylene	*68.2*		"	*100*		*68.2*	*35-140*			
Matrix Spike Dup (2080105-MSD1)	**Source: T121300-01**			Prepared: 08/01/12		Analyzed: 08/06/12				
gamma-BHC (Lindane)	118	5.0	ug/kg	200	ND	58.9	30-120	10.6	30	
Heptachlor	115	5.0	"	200	ND	57.4	30-120	10.4	30	
Aldrin	155	5.0	"	200	ND	77.7	30-120	9.70	30	
Dieldrin	165	5.0	"	200	ND	82.5	30-120	8.78	30	
Endrin	156	5.0	"	200	ND	78.2	30-120	9.52	30	
4,4´-DDT	86.0	5.0	"	200	6.39	39.8	30-120	7.90	30	
Surrogate: Tetrachloro-meta-xylene	*63.0*		"	*100*		*63.0*	*35-140*			

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EEI -- Carlsbad	Project: Hanson Windsor Gravel Ponds	
2195 Faraday Ave., Ste K	Project Number: END-71435	**Reported:**
Carlsbad CA, 92008	Project Manager: Bernie Sentianin	08/09/12 16:05

Organophosphorus Pesticides by EPA Method 8141A - Quality Control

SunStar Laboratories, Inc.

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 2080114 - EPA 3550 ECD/GCMS										
Blank (2080114-BLK1)				Prepared: 08/01/12 Analyzed: 08/06/12						
Dichlorvos	ND	5.0	ug/kg							
Mevinphos	ND	5.0	"							
Demeton-s	ND	10	"							
Ethoprophos	ND	5.0	"							
Phorate	ND	10	"							
Naled	ND	5.0	"							
Sulfotep	ND	10	"							
Diazinon	ND	5.0	"							
Disulfoton	ND	5.0	"							
Demeton-o	ND	10	"							
Dimethoate	ND	5.0	"							
Ronnel	ND	10	"							
Merphos	ND	10	"							
Chlorpyrifos	ND	5.0	"							
Fenthion	ND	5.0	"							
Trichloronate	ND	5.0	"							
Methyl parathion	ND	5.0	"							
Malathion	ND	10	"							
Tokuthion (Prothiofos)	ND	5.0	"							
Parathion	ND	5.0	"							
Stirophos (Tetrachlorvinphos)	ND	5.0	"							
Bolstar	ND	5.0	"							
Fensulfothion	ND	5.0	"							
EPN	ND	5.0	"							
Azinphos methyl	ND	10	"							
Coumaphos	ND	5.0	"							
Surrogate: Tributylphosphate	*11.5*		*"*	*10.0*		*115*	*40-125*			

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EEI -- Carlsbad	Project: Hanson Windsor Gravel Ponds	
2195 Faraday Ave., Ste K	Project Number: END-71435	**Reported:**
Carlsbad CA, 92008	Project Manager: Bernie Sentianin	08/09/12 16:05

Organophosphorus Pesticides by EPA Method 8141A - Quality Control

SunStar Laboratories, Inc.

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 2080114 - EPA 3550 ECD/GCMS										
LCS (2080114-BS1)				Prepared: 08/01/12 Analyzed: 08/06/12						
Diazinon	30.7	5.0	ug/kg	40.0		76.7	60-130			
Chlorpyrifos	31.1	5.0	"	40.0		77.6	60-130			
Methyl parathion	28.8	5.0	"	40.0		72.0	60-130			
Stirophos (Tetrachlorvinphos)	31.9	5.0	"	40.0		79.7	60-130			
Surrogate: Tributylphosphate	*9.50*		*"*	*10.0*		*95.0*	*40-125*			
LCS Dup (2080114-BSD1)				Prepared: 08/01/12 Analyzed: 08/06/12						
Diazinon	26.9	5.0	ug/kg	40.0		67.1	60-130	13.4	20	
Chlorpyrifos	28.0	5.0	"	40.0		69.9	60-130	10.5	20	
Methyl parathion	29.3	5.0	"	40.0		73.3	60-130	1.76	20	
Stirophos (Tetrachlorvinphos)	30.7	5.0	"	40.0		76.7	60-130	3.84	20	
Surrogate: Tributylphosphate	*9.41*		*"*	*10.0*		*94.1*	*40-125*			

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EEI -- Carlsbad	Project: Hanson Windsor Gravel Ponds	
2195 Faraday Ave., Ste K	Project Number: END-71435	**Reported:**
Carlsbad CA, 92008	Project Manager: Bernie Sentianin	08/09/12 16:05

Polynuclear Aromatic Compounds by GC/MS with Selected Ion Monitoring - Quality Control

SunStar Laboratories, Inc.

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 2080113 - EPA 3550 ECD/GCMS										
Blank (2080113-BLK1)				Prepared: 08/01/12 Analyzed: 08/07/12						
Acenaphthene	ND	10	ug/kg							
Acenaphthylene	ND	5.0	"							
Anthracene	ND	5.0	"							
Benzo (a) anthracene	ND	5.0	"							
Benzo (b) fluoranthene	ND	10	"							
Benzo (k) fluoranthene	ND	10	"							
Benzo (g,h,i) perylene	ND	5.0	"							
Benzo (a) pyrene	ND	10	"							
Chrysene	ND	5.0	"							
Dibenz (a,h) anthracene	ND	5.0	"							
Fluoranthene	ND	5.0	"							
Fluorene	ND	10	"							
Indeno (1,2,3-cd) pyrene	ND	5.0	"							
Naphthalene	ND	5.0	"							
Phenanthrene	ND	5.0	"							
Pyrene	ND	10	"							
Surrogate: Terphenyl-dl4	*1670*		*"*	*1670*		*100*	*18-137*			
LCS (2080113-BS1)				Prepared: 08/01/12 Analyzed: 08/07/12						
Acenaphthene	1030	10	ug/kg	1670		61.7	46-118			
Pyrene	1080	10	"	1670		65.0	26-142			
Surrogate: Terphenyl-dl4	*1370*		*"*	*1670*		*82.4*	*18-137*			
LCS Dup (2080113-BSD1)				Prepared: 08/01/12 Analyzed: 08/07/12						
Acenaphthene	1050	10	ug/kg	1670		63.2	46-118	2.34	31	
Pyrene	1260	10	"	1670		75.7	26-142	15.1	31	
Surrogate: Terphenyl-dl4	*1540*		*"*	*1670*		*92.7*	*18-137*			

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EEI -- Carlsbad	Project:	Hanson Windsor Gravel Ponds	
2195 Faraday Ave., Ste K	Project Number:	END-71435	**Reported:**
Carlsbad CA, 92008	Project Manager:	Bernie Sentianin	08/09/12 16:05

Notes and Definitions

QM-05	The spike recovery was outside acceptance limits for the MS and/or MSD due to possible matrix interference. The LCS was within acceptance criteria. The data is acceptable as no negative impact on data is expected.
DET	Analyte DETECTED
ND	Analyte NOT DETECTED at or above the reporting limit
NR	Not Reported
dry	Sample results reported on a dry weight basis
RPD	Relative Percent Difference

SunStar Laboratories, Inc.

Daniel J Chavez

Daniel Chavez, Project Manager

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Lake Forest, CA 92630
949-297-5020

Chain of Custody Record

Client: EEI
Address: 2195 FARADAY AVE #K, CARLSBAD CA
Phone: 805-987-8728 Fax: 760-431-3748
Project Manager: B. SEUTAVIN

Date: 7/31/12 Page: 1 Of 1
Project Name: HANSON WINDSOR GRAVEL PONDS
Collector: B. SEUTAVIN Client Project #: END-7435
Batch #: 1121308 EDF #:

Sample ID	Date Sampled	Time	Sample Type	Container Type	8260	8260 + OXY	8260 BTEX, OXY only	8270 (DAH) SIM	8021 BTEX	8015M (gasoline)	8015M (diesel)	8015M Ext./Carbon Chain	6010/7000 Title 22 Metals	ORGANOCHLORINE PEST.	ORGANOPHOSPHORUS PEST.			Laboratory ID #	Comments/Preservative	Total # of containers
VIMARK #4	7/31/12	1300	SOIL	4-oz				X				X	X	X	X			01		1
RICHARDSON #5		1320		4-oz				X				X	X	X	X			02		1
VIBRACORE #12		1505		Liner				X				X	X	X	X			03		1
VIBRACORE #15		1440		Liner				X				X	X	X	X			04		1
VIBRACORE #20		1420		Liner				X				X	X	X	X			05		1
VIBRACORE #22	8/1/12	0830		Liner				X				X	X	X	X			06		1
VIBRACORE #25	"	0855		Liner				X				X	X	X	X			07		1

Relinquished by: (signature)	Date / Time	Received by: (signature)	Date / Time	Total # of containers	7
			8-1-12	Chain of Custody seals Y/N/NA	Y
Relinquished by: (signature)	Date / Time	Received by: (signature)	Date / Time	Seals intact? Y/N/NA	Y
				Received good condition/cold	4.8
Relinquished by: (signature)	Date / Time	Received by: (signature)	Date / Time		
GSC	8.2.12 10:13		8.2.12 10:15		

Turn around time: 5-DAY

NORMAL

Notes
STD. TAT
8.2.12
BC

Sample disposal Instructions: Disposal @ $2.00 each ___ Return to client ___ Pickup ___

COC 110041

SunStar Laboratories, Inc.
PROVIDING QUALITY ANALYTICAL SERVICES NATIONWIDE

SAMPLE RECEIVING REVIEW SHEET

BATCH # T121308

Client Name: EEI-CARLSBAD Project: NANSON WINSOR GRAVEL PONDS

Received by: BRIAN Date/Time Received: 8.2.12 10:15

Delivered by : ☐ Client ☐ SunStar Courier ☒ GSO ☐ FedEx ☐ Other

Total number of coolers received 1 **Temp criteria = 6°C > 0°C (no frozen containers)**

Temperature: cooler #1 5.0 °C +/- the CF (- 0.2°C) = 4.8 °C corrected temperature

cooler #2 _____ °C +/- the CF (- 0.2°C) = _____ °C corrected temperature

cooler #3 _____ °C +/- the CF (- 0.2°C) = _____ °C corrected temperature

Samples outside temp. but received on ice, w/in 6 hours of final sampling.	☒ Yes	☐ No*	☐ N/A
Custody Seals Intact on Cooler/Sample	☒ Yes	☐ No*	☐ N/A
Sample Containers Intact	☒ Yes	☐ No*	
Sample labels match COC ID's	☒ Yes	☐ No*	
Total number of containers received match COC	☒ Yes	☐ No*	
Proper containers received for analyses requested on COC	☒ Yes	☐ No*	
Proper preservative indicated on COC/containers for analyses requested	☐ Yes	☐ No*	☒ N/A

Complete shipment received in good condition with correct temperatures, containers, labels, volumes preservatives and within method specified holding times. ☒ **Yes** ☐ **No***

* Complete Non-Conformance Receiving Sheet if checked Cooler/Sample Review - Initials and date BC 8.2.12

Comments:

_____

_____

_____

_____

CERTIFICATE OF ANALYSIS

Client:	Environmental Equalizers - Camarillo 1358 Oakhurst Court Camarillo CA, 93010	**Report Date:**	08/21/12 10:31
		Received Date:	08/02/12 18:15
		Turn Around:	Normal
Attention:	Bernie Sentianin	**Client Project:**	Hanson Windsor Gravel Ponds
Phone:	(805) 987-8728		
Fax:	(805) 987-0758		
Work Order(s):	2H02074		

NELAP #04229CA ELAP#1132 NEVADA #CA211 HAWAII LACSD #10143

The results in this report apply to the samples analyzed in accordance with the Chain of Custody document. Weck Laboratories, Inc. certifies that the test results meet all NELAC requirements unless noted in the case narrative. This analytical report is confidential and is only intended for the use of Weck Laboratories, Inc. and its client. This report contains the Chain of Custody document, which is an integral part of it, and can only be reproduced in full with the authorization of Weck Laboratories, Inc.

Dear Bernie Sentianin :

Enclosed are the results of analyses for samples received 08/02/12 18:15 with the Chain of Custody document. The samples were received in good condition, at 2.1 °C and on ice. All analysis met the method criteria except as noted below or in the report with data qualifiers.

Case Narrative:

Reviewed by:

Kim G Tu
Project Manager

Environmental Equalizers - Camarillo
1358 Oakhurst Court
Camarillo CA, 93010

Date Received: 08/02/12 18:15
Date Reported: 08/21/12 10:31

ANALYTICAL REPORT FOR SAMPLES

Sample ID	Sampled by:	Sample Comments	Lab ID	Matrix	Date Sampled
Vimark	Bernie Sentianin		2H02074-01	Water	08/01/12 08:45
Richardson	Bernie Sentianin		2H02074-02	Water	08/01/12 12:15
Mariana	Bernie Sentianin		2H02074-03	Water	08/01/12 14:10
Piombo	Bernie Sentianin		2H02074-04	Water	08/01/12 14:45

ANALYSES

Chlorinated Pesticides and/or PCBs

Conventional Chemistry/Physical Parameters by APHA/EPA/ASTM Methods

Hydrocarbons by EPA 8015B

Metals - Low Level by 1600 Series Methods

Metals (Aqueous) by EPA 6000/7000 Series Methods

Organophosphorus Pesticides by EPA Method 8141A

Volatile Organic Compounds by EPA Method 8260B

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Environmental Equalizers - Camarillo
1358 Oakhurst Court
Camarillo CA, 93010

Date Received: 08/02/12 18:15
Date Reported: 08/21/12 10:31

2H02074-01 **Vimark**

Sampled: 08/01/12 08:45 **Sampled By:** Bernie Sentianin **Matrix:** Water

Chlorinated Pesticides and/or PCBs

Method: EPA 8081A | Batch: W2H0260 | Prepared: 08/07/12 12:40 | Analyst: abj

Analyte	Result		MRL	Units	Dil	Analyzed	Qualifier
4,4´-DDD	ND		0.050	ug/l	1	08/09/12 21:51	
4,4´-DDE	ND		0.050	ug/l	1	08/09/12 21:51	
4,4´-DDT	ND		0.050	ug/l	1	08/09/12 21:51	
Aldrin	ND		0.050	ug/l	1	08/09/12 21:51	
alpha-BHC	ND		0.050	ug/l	1	08/09/12 21:51	
beta-BHC	ND		0.050	ug/l	1	08/09/12 21:51	
Chlordane (tech)	ND		0.50	ug/l	1	08/09/12 21:51	
delta-BHC	ND		0.050	ug/l	1	08/09/12 21:51	
Dieldrin	ND		0.050	ug/l	1	08/09/12 21:51	
Endosulfan I	ND		0.050	ug/l	1	08/09/12 21:51	
Endosulfan II	ND		0.050	ug/l	1	08/09/12 21:51	
Endosulfan sulfate	ND		0.050	ug/l	1	08/09/12 21:51	
Endrin	ND		0.050	ug/l	1	08/09/12 21:51	
Endrin aldehyde	ND		0.050	ug/l	1	08/09/12 21:51	
gamma-BHC (Lindane)	ND		0.050	ug/l	1	08/09/12 21:51	
Heptachlor	ND		0.050	ug/l	1	08/09/12 21:51	
Heptachlor epoxide	ND		0.050	ug/l	1	08/09/12 21:51	
Methoxychlor	ND		0.050	ug/l	1	08/09/12 21:51	
Toxaphene	ND		2.0	ug/l	1	08/09/12 21:51	
Surr: Decachlorobiphenyl	*82 %*	Conc:*0.412*	*0.1-153*	%			
Surr: Tetrachloro-meta-xylene	*74 %*	Conc:*0.371*	*44-144*	%			

Conventional Chemistry/Physical Parameters by APHA/EPA/ASTM Methods

Method: Various | Batch: [CALC] | Prepared: 08/07/12 15:56 | Analyst: mbc

Analyte	Result	MRL	Units	Dil	Analyzed	Qualifier
Nitrogen, Total	ND	0.20	mg/l	1	08/10/12 15:35	

Method: SM 10200H | Batch: W2H0110 | Prepared: 08/02/12 19:20 | Analyst: mbc

Analyte	Result	MRL	Units	Dil	Analyzed	Qualifier
Chlorophyll-A	ND	10	ug/l	1	08/14/12 17:51	

Method: EPA 365.1 | Batch: W2H0242 | Prepared: 08/07/12 10:08 | Analyst: mbc

Analyte	Result	MRL	Units	Dil	Analyzed	Qualifier
Phosphorus as P, Total	**12**	10	ug/l	1	08/08/12 09:27	

Method: EPA 351.2 | Batch: W2H0246 | Prepared: 08/07/12 10:34 | Analyst: mbc

Analyte	Result	MRL	Units	Dil	Analyzed	Qualifier
TKN	**0.16**	0.10	mg/l	1	08/10/12 15:35	

Method: EPA 353.2 | Batch: W2H0282 | Prepared: 08/07/12 15:56 | Analyst: sml

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Environmental Equalizers - Camarillo
1358 Oakhurst Court
Camarillo CA, 93010

Date Received: 08/02/12 18:15
Date Reported: 08/21/12 10:31

2H02074-01 **Vimark**

Sampled: 08/01/12 08:45 **Sampled By:** Bernie Sentianin **Matrix:** Water

Conventional Chemistry/Physical Parameters by APHA/EPA/ASTM Methods

Method: EPA 353.2 Batch: W2H0282 Prepared: 08/07/12 15:56 Analyst: sml

Analyte	Result	MRL	Units	Dil	Analyzed	Qualifier
NO2+NO3 as N	ND	100	ug/l	1	08/07/12 18:20	

Hydrocarbons by EPA 8015B

Method: EPA 8015B Batch: W2H0212 Prepared: 08/06/12 12:57 Analyst: hmc

Analyte	Result		MRL	Units	Dil	Analyzed	Qualifier
Gasoline Range Organics	ND		0.10	mg/l	1	08/07/12 10:30	
Surr: 4-Bromofluorobenzene	*97 %*	Conc:*0.0484*	*63-120*	%			

Method: EPA 8015B Batch: W2H0258 Prepared: 08/07/12 11:43 Analyst: bma

Analyte	Result		MRL	Units	Dil	Analyzed	Qualifier
Diesel Range Organics	ND		0.10	mg/l	1	08/10/12 09:30	
Oil Range Organics	ND		0.50	mg/l	1	08/10/12 09:30	
Surr: n-Tetracosane	*145 %*	Conc:*0.362*	*77-162*	%			

Metals - Low Level by 1600 Series Methods

Method: GC-CV-AFS Batch: W2H0840 Prepared: 08/09/12 00:00 Analyst: sub

Analyte	Result	MRL	Units	Dil	Analyzed	Qualifier
Methyl Mercury	**See Attachment**	0.0500	ng/l	1	08/09/12 00:00	A-01

Metals (Aqueous) by EPA 6000/7000 Series Methods

Method: EPA 6010B Batch: W2H0126 Prepared: 08/03/12 10:59 Analyst: jck

Analyte	Result	MRL	Units	Dil	Analyzed	Qualifier
Antimony, Total	ND	0.010	mg/l	1	08/07/12 09:19	
Arsenic, Total	**0.036**	0.010	mg/l	1	08/07/12 09:19	
Barium, Total	**0.12**	0.010	mg/l	1	08/07/12 09:19	
Beryllium, Total	ND	0.010	mg/l	1	08/07/12 09:19	
Cadmium, Total	ND	0.010	mg/l	1	08/07/12 09:19	
Chromium, Total	ND	0.010	mg/l	1	08/07/12 09:19	
Cobalt, Total	ND	0.010	mg/l	1	08/07/12 09:19	
Copper, Total	ND	0.020	mg/l	1	08/07/12 09:19	
Lead, Total	ND	0.010	mg/l	1	08/07/12 09:19	
Molybdenum, Total	ND	0.010	mg/l	1	08/07/12 09:19	
Nickel, Total	ND	0.010	mg/l	1	08/07/12 09:19	
Selenium, Total	ND	0.030	mg/l	1	08/07/12 09:19	
Silver, Total	ND	0.0050	mg/l	1	08/07/12 09:19	
Thallium, Total	ND	0.050	mg/l	1	08/07/12 09:19	
Vanadium, Total	ND	0.010	mg/l	1	08/07/12 09:19	
Zinc, Total	ND	0.050	mg/l	1	08/07/12 09:19	

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Camarillo CA, 93010

Date Received: 08/02/12 18:15
Date Reported: 08/21/12 10:31

2H02074-01 **Vimark**

Sampled: 08/01/12 08:45 **Sampled By:** Bernie Sentianin **Matrix:** Water

Metals (Aqueous) by EPA 6000/7000 Series Methods

Method: EPA 7470A | Batch: W2H0198 | Prepared: 08/06/12 10:18 | Analyst: gza

Analyte	Result	MRL	Units	Dil	Analyzed	Qualifier
Mercury, Total	ND	0.10	ug/l	1	08/06/12 17:02	

Organophosphorus Pesticides by EPA Method 8141A

Method: EPA 8141A | Batch: W2H0120 | Prepared: 08/03/12 09:57 | Analyst: smr/a

Analyte	Result	MRL	Units	Dil	Analyzed	Qualifier
Azinphos methyl (Guthion)	ND	0.10	ug/l	1	08/13/12 18:39	
Bolstar	ND	0.10	ug/l	1	08/13/12 18:39	
Chlorpyrifos	ND	0.10	ug/l	1	08/13/12 18:39	
Coumaphos	ND	0.10	ug/l	1	08/13/12 18:39	
Demeton-o	ND	0.10	ug/l	1	08/13/12 18:39	
Demeton-s	ND	0.10	ug/l	1	08/13/12 18:39	
Diazinon	ND	0.10	ug/l	1	08/13/12 18:39	
Dichlorvos	ND	0.10	ug/l	1	08/13/12 18:39	
Dimethoate	ND	0.25	ug/l	1	08/13/12 18:39	
Disulfoton	ND	0.10	ug/l	1	08/13/12 18:39	
Ethoprop	ND	0.10	ug/l	1	08/13/12 18:39	
Ethyl parathion	ND	0.25	ug/l	1	08/13/12 18:39	
Fensulfothion	ND	0.10	ug/l	1	08/13/12 18:39	
Fenthion	ND	0.10	ug/l	1	08/13/12 18:39	
Malathion	ND	0.25	ug/l	1	08/13/12 18:39	
Merphos	ND	0.10	ug/l	1	08/13/12 18:39	
Methyl parathion	ND	0.10	ug/l	1	08/13/12 18:39	
Mevinphos	ND	0.10	ug/l	1	08/13/12 18:39	
Naled	ND	0.10	ug/l	1	08/13/12 18:39	BS-L
Phorate	ND	0.10	ug/l	1	08/13/12 18:39	
Ronnel	ND	0.10	ug/l	1	08/13/12 18:39	
Stirophos	ND	0.10	ug/l	1	08/13/12 18:39	
Thionazin	ND	0.25	ug/l	1	08/13/12 18:39	
Tokuthion (Prothiofos)	ND	0.10	ug/l	1	08/13/12 18:39	
Trichloronate	ND	0.10	ug/l	1	08/13/12 18:39	
Surr: Triphenyl phosphate	*128 %*	Conc:*1.28*	*6-173*	%		

Volatile Organic Compounds by EPA Method 8260B

Method: EPA 8260B | Batch: W2H0172 | Prepared: 08/06/12 08:36 | Analyst: mdt

Analyte	Result	MRL	Units	Dil	Analyzed	Qualifier
1,1,1,2-Tetrachloroethane	ND	1.0	ug/l	1	08/06/12 18:00	
1,1,1-Trichloroethane	ND	1.0	ug/l	1	08/06/12 18:00	
1,1,2,2-Tetrachloroethane	ND	1.0	ug/l	1	08/06/12 18:00	
1,1,2-Trichloroethane	ND	1.0	ug/l	1	08/06/12 18:00	
1,1-Dichloroethane	ND	1.0	ug/l	1	08/06/12 18:00	

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Environmental Equalizers - Camarillo
1358 Oakhurst Court
Camarillo CA, 93010

Date Received: 08/02/12 18:15
Date Reported: 08/21/12 10:31

2H02074-01 **Vimark**

Sampled: 08/01/12 08:45 **Sampled By:** Bernie Sentianin **Matrix:** Water

Volatile Organic Compounds by EPA Method 8260B

Method: EPA 8260B Batch: W2H0172 Prepared: 08/06/12 08:36 Analyst: mdt

Analyte	Result	MRL	Units	Dil	Analyzed	Qualifier
1,1-Dichloroethene	ND	1.0	ug/l	1	08/06/12 18:00	
1,1-Dichloropropene	ND	1.0	ug/l	1	08/06/12 18:00	
1,2,3-Trichlorobenzene	ND	1.0	ug/l	1	08/06/12 18:00	
1,2,3-Trichloropropane	ND	1.0	ug/l	1	08/06/12 18:00	
1,2,4-Trichlorobenzene	ND	1.0	ug/l	1	08/06/12 18:00	
1,2,4-Trimethylbenzene	ND	1.0	ug/l	1	08/06/12 18:00	
1,2-Dibromo-3-chloropropane	ND	1.0	ug/l	1	08/06/12 18:00	
1,2-Dibromoethane (EDB)	ND	1.0	ug/l	1	08/06/12 18:00	
1,2-Dichloroethane	ND	1.0	ug/l	1	08/06/12 18:00	
1,2-Dichloropropane	ND	1.0	ug/l	1	08/06/12 18:00	
1,3,5-Trimethylbenzene	ND	1.0	ug/l	1	08/06/12 18:00	
1,3-Dichloropropane	ND	1.0	ug/l	1	08/06/12 18:00	
2,2-Dichloropropane	ND	1.0	ug/l	1	08/06/12 18:00	
2-Butanone	ND	5.0	ug/l	1	08/06/12 18:00	
2-Chloroethyl vinyl ether	ND	5.0	ug/l	1	08/06/12 18:00	
2-Chlorotoluene	ND	1.0	ug/l	1	08/06/12 18:00	
2-Hexanone	ND	5.0	ug/l	1	08/06/12 18:00	
4-Chlorotoluene	ND	1.0	ug/l	1	08/06/12 18:00	
4-Methyl-2-pentanone	ND	5.0	ug/l	1	08/06/12 18:00	
Acetone	ND	5.0	ug/l	1	08/06/12 18:00	
Acrolein	ND	5.0	ug/l	1	08/06/12 18:00	
Acrylonitrile	ND	5.0	ug/l	1	08/06/12 18:00	
Benzene	ND	1.0	ug/l	1	08/06/12 18:00	
Bromobenzene	ND	1.0	ug/l	1	08/06/12 18:00	
Bromochloromethane	ND	1.0	ug/l	1	08/06/12 18:00	
Bromodichloromethane	ND	1.0	ug/l	1	08/06/12 18:00	
Bromoform	ND	1.0	ug/l	1	08/06/12 18:00	
Bromomethane	ND	1.0	ug/l	1	08/06/12 18:00	
Carbon tetrachloride	ND	1.0	ug/l	1	08/06/12 18:00	
Chlorobenzene	ND	1.0	ug/l	1	08/06/12 18:00	
Chloroethane	ND	1.0	ug/l	1	08/06/12 18:00	
Chloroform	ND	1.0	ug/l	1	08/06/12 18:00	
Chloromethane	ND	1.0	ug/l	1	08/06/12 18:00	
cis-1,2-Dichloroethene	ND	1.0	ug/l	1	08/06/12 18:00	
cis-1,3-Dichloropropene	ND	1.0	ug/l	1	08/06/12 18:00	
Dibromochloromethane	ND	1.0	ug/l	1	08/06/12 18:00	
Dibromomethane	ND	1.0	ug/l	1	08/06/12 18:00	
Dichlorodifluoromethane (Freon 12)	ND	1.0	ug/l	1	08/06/12 18:00	
Ethylbenzene	ND	1.0	ug/l	1	08/06/12 18:00	
Hexachlorobutadiene	ND	1.0	ug/l	1	08/06/12 18:00	

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1358 Oakhurst Court
Camarillo CA, 93010

Date Received: 08/02/12 18:15
Date Reported: 08/21/12 10:31

2H02074-01 **Vimark**

Sampled: 08/01/12 08:45 **Sampled By:** Bernie Sentianin **Matrix:** Water

Volatile Organic Compounds by EPA Method 8260B

Method: EPA 8260B Batch: W2H0172 Prepared: 08/06/12 08:36 Analyst: mdt

Analyte	Result		MRL	Units	Dil	Analyzed	Qualifier
Isopropylbenzene	ND		1.0	ug/l	1	08/06/12 18:00	
m,p-Xylene	ND		1.0	ug/l	1	08/06/12 18:00	
m-Dichlorobenzene	ND		1.0	ug/l	1	08/06/12 18:00	
Methyl tert-butyl ether (MTBE)	ND		3.0	ug/l	1	08/06/12 18:00	
Methylene chloride	ND		1.0	ug/l	1	08/06/12 18:00	
Naphthalene	ND		1.0	ug/l	1	08/06/12 18:00	
n-Butylbenzene	ND		1.0	ug/l	1	08/06/12 18:00	
n-Propylbenzene	ND		1.0	ug/l	1	08/06/12 18:00	
o-Dichlorobenzene	ND		1.0	ug/l	1	08/06/12 18:00	
o-Xylene	ND		1.0	ug/l	1	08/06/12 18:00	
p-Dichlorobenzene	ND		1.0	ug/l	1	08/06/12 18:00	
p-Isopropyltoluene	ND		1.0	ug/l	1	08/06/12 18:00	
sec-Butylbenzene	ND		1.0	ug/l	1	08/06/12 18:00	
Styrene	ND		1.0	ug/l	1	08/06/12 18:00	
tert-Butylbenzene	ND		1.0	ug/l	1	08/06/12 18:00	
Tetrachloroethene	ND		1.0	ug/l	1	08/06/12 18:00	
Toluene	ND		1.0	ug/l	1	08/06/12 18:00	
trans-1,2-Dichloroethene	ND		1.0	ug/l	1	08/06/12 18:00	
trans-1,3-Dichloropropene	ND		1.0	ug/l	1	08/06/12 18:00	
Trichloroethene	ND		1.0	ug/l	1	08/06/12 18:00	
Trichlorofluoromethane	ND		1.0	ug/l	1	08/06/12 18:00	
Vinyl chloride	ND		1.0	ug/l	1	08/06/12 18:00	
Surr: 1,2-Dichloroethane-d4	*100 %*	Conc:*50.2*	*83-119*	%			
Surr: 4-Bromofluorobenzene	*99 %*	Conc:*49.7*	*83-110*	%			
Surr: Dibromofluoromethane	*101 %*	Conc:*50.4*	*89-115*	%			
Surr: Toluene-d8	*101 %*	Conc:*50.4*	*92-112*	%			

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Environmental Equalizers - Camarillo
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Camarillo CA, 93010

Date Received: 08/02/12 18:15
Date Reported: 08/21/12 10:31

2H02074-02 Richardson

Sampled: 08/01/12 12:15 **Sampled By:** Bernie Sentianin **Matrix:** Water

Chlorinated Pesticides and/or PCBs

Method: EPA 8081A | Batch: W2H0260 | Prepared: 08/07/12 12:40 | Analyst: abj

Analyte	Result		MRL	Units	Dil	Analyzed	Qualifier
4,4´-DDD	ND		0.050	ug/l	1	08/09/12 22:20	
4,4´-DDE	ND		0.050	ug/l	1	08/09/12 22:20	
4,4´-DDT	ND		0.050	ug/l	1	08/09/12 22:20	
Aldrin	ND		0.050	ug/l	1	08/09/12 22:20	
alpha-BHC	ND		0.050	ug/l	1	08/09/12 22:20	
beta-BHC	ND		0.050	ug/l	1	08/09/12 22:20	
Chlordane (tech)	ND		0.50	ug/l	1	08/09/12 22:20	
delta-BHC	ND		0.050	ug/l	1	08/09/12 22:20	
Dieldrin	ND		0.050	ug/l	1	08/09/12 22:20	
Endosulfan I	ND		0.050	ug/l	1	08/09/12 22:20	
Endosulfan II	ND		0.050	ug/l	1	08/09/12 22:20	
Endosulfan sulfate	ND		0.050	ug/l	1	08/09/12 22:20	
Endrin	ND		0.050	ug/l	1	08/09/12 22:20	
Endrin aldehyde	ND		0.050	ug/l	1	08/09/12 22:20	
gamma-BHC (Lindane)	ND		0.050	ug/l	1	08/09/12 22:20	
Heptachlor	ND		0.050	ug/l	1	08/09/12 22:20	
Heptachlor epoxide	ND		0.050	ug/l	1	08/09/12 22:20	
Methoxychlor	ND		0.050	ug/l	1	08/09/12 22:20	
Toxaphene	ND		2.0	ug/l	1	08/09/12 22:20	
Surr: Decachlorobiphenyl	*80 %*	Conc:*0.400*	*0.1-153*	%			
Surr: Tetrachloro-meta-xylene	*78 %*	Conc:*0.388*	*44-144*	%			

Conventional Chemistry/Physical Parameters by APHA/EPA/ASTM Methods

Method: Various | Batch: [CALC] | Prepared: 08/07/12 15:56 | Analyst: mbc

Analyte	Result	MRL	Units	Dil	Analyzed	Qualifier
Nitrogen, Total	ND	0.20	mg/l	1	08/10/12 15:36	

Method: SM 10200H | Batch: W2H0110 | Prepared: 08/02/12 19:20 | Analyst: mbc

Analyte	Result	MRL	Units	Dil	Analyzed	Qualifier
Chlorophyll-A	**13**	10	ug/l	1	08/14/12 17:51	

Method: EPA 365.1 | Batch: W2H0242 | Prepared: 08/07/12 10:08 | Analyst: mbc

Analyte	Result	MRL	Units	Dil	Analyzed	Qualifier
Phosphorus as P, Total	**12**	10	ug/l	1	08/08/12 09:32	

Method: EPA 351.2 | Batch: W2H0246 | Prepared: 08/07/12 10:34 | Analyst: mbc

Analyte	Result	MRL	Units	Dil	Analyzed	Qualifier
TKN	**0.19**	0.10	mg/l	1	08/10/12 15:36	

Method: EPA 353.2 | Batch: W2H0282 | Prepared: 08/07/12 15:56 | Analyst: sml

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Environmental Equalizers - Camarillo
1358 Oakhurst Court
Camarillo CA, 93010

Date Received: 08/02/12 18:15
Date Reported: 08/21/12 10:31

2H02074-02 Richardson

Sampled: 08/01/12 12:15 **Sampled By:** Bernie Sentianin **Matrix:** Water

Conventional Chemistry/Physical Parameters by APHA/EPA/ASTM Methods

Method: EPA 353.2 Batch: W2H0282 Prepared: 08/07/12 15:56 Analyst: sml

Analyte	Result	MRL	Units	Dil	Analyzed	Qualifier
NO2+NO3 as N	ND	100	ug/l	1	08/07/12 18:22	

Hydrocarbons by EPA 8015B

Method: EPA 8015B Batch: W2H0212 Prepared: 08/06/12 12:57 Analyst: hmc

Analyte	Result		MRL	Units	Dil	Analyzed	Qualifier
Gasoline Range Organics	ND		0.10	mg/l	1	08/07/12 10:58	
Surr: 4-Bromofluorobenzene	*99 %*	Conc:*0.0497*	*63-120*	%			

Method: EPA 8015B Batch: W2H0258 Prepared: 08/07/12 11:43 Analyst: bma

Analyte	Result		MRL	Units	Dil	Analyzed	Qualifier
Diesel Range Organics	ND		0.10	mg/l	1	08/10/12 09:30	
Oil Range Organics	ND		0.50	mg/l	1	08/10/12 09:30	
Surr: n-Tetracosane	*143 %*	Conc:*0.358*	*77-162*	%			

Metals - Low Level by 1600 Series Methods

Method: GC-CV-AFS Batch: W2H0840 Prepared: 08/09/12 00:00 Analyst: sub

Analyte	Result	MRL	Units	Dil	Analyzed	Qualifier
Methyl Mercury	**See Attachment**	0.0500	ng/l	1	08/09/12 00:00	A-01

Metals (Aqueous) by EPA 6000/7000 Series Methods

Method: EPA 6010B Batch: W2H0126 Prepared: 08/03/12 10:59 Analyst: jck

Analyte	Result	MRL	Units	Dil	Analyzed	Qualifier
Antimony, Total	ND	0.010	mg/l	1	08/07/12 09:21	
Arsenic, Total	**0.015**	0.010	mg/l	1	08/07/12 09:21	
Barium, Total	**0.053**	0.010	mg/l	1	08/07/12 09:21	
Beryllium, Total	ND	0.010	mg/l	1	08/07/12 09:21	
Cadmium, Total	ND	0.010	mg/l	1	08/07/12 09:21	
Chromium, Total	ND	0.010	mg/l	1	08/07/12 09:21	
Cobalt, Total	ND	0.010	mg/l	1	08/07/12 09:21	
Copper, Total	ND	0.020	mg/l	1	08/07/12 09:21	
Lead, Total	ND	0.010	mg/l	1	08/07/12 09:21	
Molybdenum, Total	ND	0.010	mg/l	1	08/07/12 09:21	
Nickel, Total	ND	0.010	mg/l	1	08/07/12 09:21	
Selenium, Total	ND	0.030	mg/l	1	08/07/12 09:21	
Silver, Total	ND	0.0050	mg/l	1	08/07/12 09:21	
Thallium, Total	ND	0.050	mg/l	1	08/07/12 09:21	
Vanadium, Total	ND	0.010	mg/l	1	08/07/12 09:21	
Zinc, Total	ND	0.050	mg/l	1	08/07/12 09:21	

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1358 Oakhurst Court
Camarillo CA, 93010

Date Received: 08/02/12 18:15
Date Reported: 08/21/12 10:31

2H02074-02 Richardson

Sampled: 08/01/12 12:15 **Sampled By:** Bernie Sentianin **Matrix:** Water

Metals (Aqueous) by EPA 6000/7000 Series Methods

Method: EPA 7470A Batch: W2H0198 Prepared: 08/06/12 10:18 Analyst: gza

Analyte	Result	MRL	Units	Dil	Analyzed	Qualifier
Mercury, Total	ND	0.10	ug/l	1	08/06/12 17:02	

Organophosphorus Pesticides by EPA Method 8141A

Method: EPA 8141A Batch: W2H0120 Prepared: 08/03/12 09:57 Analyst: smr/a

Analyte	Result	MRL	Units	Dil	Analyzed	Qualifier
Azinphos methyl (Guthion)	ND	0.10	ug/l	1	08/13/12 19:10	
Bolstar	ND	0.10	ug/l	1	08/13/12 19:10	
Chlorpyrifos	ND	0.10	ug/l	1	08/13/12 19:10	
Coumaphos	ND	0.10	ug/l	1	08/13/12 19:10	
Demeton-o	ND	0.10	ug/l	1	08/13/12 19:10	
Demeton-s	ND	0.10	ug/l	1	08/13/12 19:10	
Diazinon	ND	0.10	ug/l	1	08/13/12 19:10	
Dichlorvos	ND	0.10	ug/l	1	08/13/12 19:10	
Dimethoate	ND	0.25	ug/l	1	08/13/12 19:10	
Disulfoton	ND	0.10	ug/l	1	08/13/12 19:10	
Ethoprop	ND	0.10	ug/l	1	08/13/12 19:10	
Ethyl parathion	ND	0.25	ug/l	1	08/13/12 19:10	
Fensulfothion	ND	0.10	ug/l	1	08/13/12 19:10	
Fenthion	ND	0.10	ug/l	1	08/13/12 19:10	
Malathion	ND	0.25	ug/l	1	08/13/12 19:10	
Merphos	ND	0.10	ug/l	1	08/13/12 19:10	
Methyl parathion	ND	0.10	ug/l	1	08/13/12 19:10	
Mevinphos	ND	0.10	ug/l	1	08/13/12 19:10	
Naled	ND	0.10	ug/l	1	08/13/12 19:10	BS-L
Phorate	ND	0.10	ug/l	1	08/13/12 19:10	
Ronnel	ND	0.10	ug/l	1	08/13/12 19:10	
Stirophos	ND	0.10	ug/l	1	08/13/12 19:10	
Thionazin	ND	0.25	ug/l	1	08/13/12 19:10	
Tokuthion (Prothiofos)	ND	0.10	ug/l	1	08/13/12 19:10	
Trichloronate	ND	0.10	ug/l	1	08/13/12 19:10	
Surr: Triphenyl phosphate	*125 %*	Conc:*1.25*	*6-173*	%		

Volatile Organic Compounds by EPA Method 8260B

Method: EPA 8260B Batch: W2H0172 Prepared: 08/06/12 08:36 Analyst: mdt

Analyte	Result	MRL	Units	Dil	Analyzed	Qualifier
1,1,1,2-Tetrachloroethane	ND	1.0	ug/l	1	08/07/12 11:24	
1,1,1-Trichloroethane	ND	1.0	ug/l	1	08/07/12 11:24	
1,1,2,2-Tetrachloroethane	ND	1.0	ug/l	1	08/07/12 11:24	
1,1,2-Trichloroethane	ND	1.0	ug/l	1	08/07/12 11:24	
1,1-Dichloroethane	ND	1.0	ug/l	1	08/07/12 11:24	

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Environmental Equalizers - Camarillo
1358 Oakhurst Court
Camarillo CA, 93010

Date Received: 08/02/12 18:15
Date Reported: 08/21/12 10:31

2H02074-02 **Richardson**

Sampled: 08/01/12 12:15 **Sampled By:** Bernie Sentianin **Matrix:** Water

Volatile Organic Compounds by EPA Method 8260B

Method: EPA 8260B Batch: W2H0172 Prepared: 08/06/12 08:36 Analyst: mdt

Analyte	Result	MRL	Units	Dil	Analyzed	Qualifier
1,1-Dichloroethene	ND	1.0	ug/l	1	08/07/12 11:24	
1,1-Dichloropropene	ND	1.0	ug/l	1	08/07/12 11:24	
1,2,3-Trichlorobenzene	ND	1.0	ug/l	1	08/07/12 11:24	
1,2,3-Trichloropropane	ND	1.0	ug/l	1	08/07/12 11:24	
1,2,4-Trichlorobenzene	ND	1.0	ug/l	1	08/07/12 11:24	
1,2,4-Trimethylbenzene	ND	1.0	ug/l	1	08/07/12 11:24	
1,2-Dibromo-3-chloropropane	ND	1.0	ug/l	1	08/07/12 11:24	
1,2-Dibromoethane (EDB)	ND	1.0	ug/l	1	08/07/12 11:24	
1,2-Dichloroethane	ND	1.0	ug/l	1	08/07/12 11:24	
1,2-Dichloropropane	ND	1.0	ug/l	1	08/07/12 11:24	
1,3,5-Trimethylbenzene	ND	1.0	ug/l	1	08/07/12 11:24	
1,3-Dichloropropane	ND	1.0	ug/l	1	08/07/12 11:24	
2,2-Dichloropropane	ND	1.0	ug/l	1	08/07/12 11:24	
2-Butanone	ND	5.0	ug/l	1	08/07/12 11:24	
2-Chloroethyl vinyl ether	ND	5.0	ug/l	1	08/07/12 11:24	
2-Chlorotoluene	ND	1.0	ug/l	1	08/07/12 11:24	
2-Hexanone	ND	5.0	ug/l	1	08/07/12 11:24	
4-Chlorotoluene	ND	1.0	ug/l	1	08/07/12 11:24	
4-Methyl-2-pentanone	ND	5.0	ug/l	1	08/07/12 11:24	
Acetone	ND	5.0	ug/l	1	08/07/12 11:24	
Acrolein	ND	5.0	ug/l	1	08/07/12 11:24	
Acrylonitrile	ND	5.0	ug/l	1	08/07/12 11:24	
Benzene	ND	1.0	ug/l	1	08/07/12 11:24	
Bromobenzene	ND	1.0	ug/l	1	08/07/12 11:24	
Bromochloromethane	ND	1.0	ug/l	1	08/07/12 11:24	
Bromodichloromethane	ND	1.0	ug/l	1	08/07/12 11:24	
Bromoform	ND	1.0	ug/l	1	08/07/12 11:24	
Bromomethane	ND	1.0	ug/l	1	08/07/12 11:24	
Carbon tetrachloride	ND	1.0	ug/l	1	08/07/12 11:24	
Chlorobenzene	ND	1.0	ug/l	1	08/07/12 11:24	
Chloroethane	ND	1.0	ug/l	1	08/07/12 11:24	
Chloroform	ND	1.0	ug/l	1	08/07/12 11:24	
Chloromethane	ND	1.0	ug/l	1	08/07/12 11:24	
cis-1,2-Dichloroethene	ND	1.0	ug/l	1	08/07/12 11:24	
cis-1,3-Dichloropropene	ND	1.0	ug/l	1	08/07/12 11:24	
Dibromochloromethane	ND	1.0	ug/l	1	08/07/12 11:24	
Dibromomethane	ND	1.0	ug/l	1	08/07/12 11:24	
Dichlorodifluoromethane (Freon 12)	ND	1.0	ug/l	1	08/07/12 11:24	
Ethylbenzene	ND	1.0	ug/l	1	08/07/12 11:24	
Hexachlorobutadiene	ND	1.0	ug/l	1	08/07/12 11:24	

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1358 Oakhurst Court
Camarillo CA, 93010

Date Received: 08/02/12 18:15
Date Reported: 08/21/12 10:31

2H02074-02 **Richardson**

Sampled: 08/01/12 12:15 **Sampled By:** Bernie Sentianin **Matrix:** Water

Volatile Organic Compounds by EPA Method 8260B

Method: EPA 8260B Batch: W2H0172 Prepared: 08/06/12 08:36 Analyst: mdt

Analyte	Result		MRL	Units	Dil	Analyzed	Qualifier
Isopropylbenzene	ND		1.0	ug/l	1	08/07/12 11:24	
m,p-Xylene	ND		1.0	ug/l	1	08/07/12 11:24	
m-Dichlorobenzene	ND		1.0	ug/l	1	08/07/12 11:24	
Methyl tert-butyl ether (MTBE)	ND		3.0	ug/l	1	08/07/12 11:24	
Methylene chloride	ND		1.0	ug/l	1	08/07/12 11:24	
Naphthalene	ND		1.0	ug/l	1	08/07/12 11:24	
n-Butylbenzene	ND		1.0	ug/l	1	08/07/12 11:24	
n-Propylbenzene	ND		1.0	ug/l	1	08/07/12 11:24	
o-Dichlorobenzene	ND		1.0	ug/l	1	08/07/12 11:24	
o-Xylene	ND		1.0	ug/l	1	08/07/12 11:24	
p-Dichlorobenzene	ND		1.0	ug/l	1	08/07/12 11:24	
p-Isopropyltoluene	ND		1.0	ug/l	1	08/07/12 11:24	
sec-Butylbenzene	ND		1.0	ug/l	1	08/07/12 11:24	
Styrene	ND		1.0	ug/l	1	08/07/12 11:24	
tert-Butylbenzene	ND		1.0	ug/l	1	08/07/12 11:24	
Tetrachloroethene	ND		1.0	ug/l	1	08/07/12 11:24	
Toluene	ND		1.0	ug/l	1	08/07/12 11:24	
trans-1,2-Dichloroethene	ND		1.0	ug/l	1	08/07/12 11:24	
trans-1,3-Dichloropropene	ND		1.0	ug/l	1	08/07/12 11:24	
Trichloroethene	ND		1.0	ug/l	1	08/07/12 11:24	
Trichlorofluoromethane	ND		1.0	ug/l	1	08/07/12 11:24	
Vinyl chloride	ND		1.0	ug/l	1	08/07/12 11:24	
Surr: 1,2-Dichloroethane-d4	*103 %*	Conc:*51.4*	*83-119*	%			
Surr: 4-Bromofluorobenzene	*100 %*	Conc:*49.8*	*83-110*	%			
Surr: Dibromofluoromethane	*101 %*	Conc:*50.5*	*89-115*	%			
Surr: Toluene-d8	*101 %*	Conc:*50.3*	*92-112*	%			

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Environmental Equalizers - Camarillo
1358 Oakhurst Court
Camarillo CA, 93010

Date Received: 08/02/12 18:15
Date Reported: 08/21/12 10:31

2H02074-03 Mariana

Sampled: 08/01/12 14:10 **Sampled By:** Bernie Sentianin **Matrix:** Water

Chlorinated Pesticides and/or PCBs

Method: EPA 8081A | Batch: W2H0260 | Prepared: 08/07/12 12:40 | Analyst: abj

Analyte	Result		MRL	Units	Dil	Analyzed	Qualifier
4,4´-DDD	ND		0.050	ug/l	1	08/09/12 22:48	
4,4´-DDE	ND		0.050	ug/l	1	08/09/12 22:48	
4,4´-DDT	ND		0.050	ug/l	1	08/09/12 22:48	
Aldrin	ND		0.050	ug/l	1	08/09/12 22:48	
alpha-BHC	ND		0.050	ug/l	1	08/09/12 22:48	
beta-BHC	ND		0.050	ug/l	1	08/09/12 22:48	
Chlordane (tech)	ND		0.50	ug/l	1	08/09/12 22:48	
delta-BHC	ND		0.050	ug/l	1	08/09/12 22:48	
Dieldrin	ND		0.050	ug/l	1	08/09/12 22:48	
Endosulfan I	ND		0.050	ug/l	1	08/09/12 22:48	
Endosulfan II	ND		0.050	ug/l	1	08/09/12 22:48	
Endosulfan sulfate	ND		0.050	ug/l	1	08/09/12 22:48	
Endrin	ND		0.050	ug/l	1	08/09/12 22:48	
Endrin aldehyde	ND		0.050	ug/l	1	08/09/12 22:48	
gamma-BHC (Lindane)	ND		0.050	ug/l	1	08/09/12 22:48	
Heptachlor	ND		0.050	ug/l	1	08/09/12 22:48	
Heptachlor epoxide	ND		0.050	ug/l	1	08/09/12 22:48	
Methoxychlor	ND		0.050	ug/l	1	08/09/12 22:48	
Toxaphene	ND		2.0	ug/l	1	08/09/12 22:48	
Surr: Decachlorobiphenyl	*71 %*	Conc:*0.354*	*0.1-153*	%			
Surr: Tetrachloro-meta-xylene	*72 %*	Conc:*0.358*	*44-144*	%			

Conventional Chemistry/Physical Parameters by APHA/EPA/ASTM Methods

Method: Various | Batch: [CALC] | Prepared: 08/07/12 15:56 | Analyst: mbc

Analyte	Result	MRL	Units	Dil	Analyzed	Qualifier
Nitrogen, Total	**1.3**	0.20	mg/l	1	08/10/12 15:37	

Method: SM 10200H | Batch: W2H0110 | Prepared: 08/02/12 19:20 | Analyst: mbc

Analyte	Result	MRL	Units	Dil	Analyzed	Qualifier
Chlorophyll-A	**17**	10	ug/l	1	08/14/12 17:51	

Method: EPA 365.1 | Batch: W2H0242 | Prepared: 08/07/12 10:08 | Analyst: mbc

Analyte	Result	MRL	Units	Dil	Analyzed	Qualifier
Phosphorus as P, Total	**230**	20	ug/l	2	08/08/12 09:37	

Method: EPA 351.2 | Batch: W2H0246 | Prepared: 08/07/12 10:34 | Analyst: mbc

Analyte	Result	MRL	Units	Dil	Analyzed	Qualifier
TKN	**1.3**	0.10	mg/l	1	08/10/12 15:37	

Method: EPA 353.2 | Batch: W2H0282 | Prepared: 08/07/12 15:56 | Analyst: sml

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Environmental Equalizers - Camarillo
1358 Oakhurst Court
Camarillo CA, 93010

Date Received: 08/02/12 18:15
Date Reported: 08/21/12 10:31

2H02074-03 Mariana

Sampled: 08/01/12 14:10 **Sampled By:** Bernie Sentianin **Matrix:** Water

Conventional Chemistry/Physical Parameters by APHA/EPA/ASTM Methods

Method: EPA 353.2 Batch: W2H0282 Prepared: 08/07/12 15:56 Analyst: sml

Analyte	Result	MRL	Units	Dil	Analyzed	Qualifier
NO2+NO3 as N	ND	100	ug/l	1	08/07/12 18:24	

Hydrocarbons by EPA 8015B

Method: EPA 8015B Batch: W2H0212 Prepared: 08/06/12 12:57 Analyst: hmc

Analyte	Result		MRL	Units	Dil	Analyzed	Qualifier
Gasoline Range Organics	ND		0.10	mg/l	1	08/07/12 11:26	
Surr: 4-Bromofluorobenzene	*98 %*	Conc:*0.0489*	*63-120*	%			

Method: EPA 8015B Batch: W2H0258 Prepared: 08/07/12 11:43 Analyst: bma

Analyte	Result		MRL	Units	Dil	Analyzed	Qualifier
Diesel Range Organics	ND		0.10	mg/l	1	08/10/12 09:30	
Oil Range Organics	ND		0.50	mg/l	1	08/10/12 09:30	
Surr: n-Tetracosane	*146 %*	Conc:*0.364*	*77-162*	%			

Metals - Low Level by 1600 Series Methods

Method: GC-CV-AFS Batch: W2H0840 Prepared: 08/14/12 00:00 Analyst: sub

Analyte	Result	MRL	Units	Dil	Analyzed	Qualifier
Methyl Mercury	**See Attachment**	0.4500	ng/l	1	08/14/12 00:00	A-01

Metals (Aqueous) by EPA 6000/7000 Series Methods

Method: EPA 6010B Batch: W2H0126 Prepared: 08/03/12 10:59 Analyst: jck

Analyte	Result	MRL	Units	Dil	Analyzed	Qualifier
Antimony, Total	ND	0.010	mg/l	1	08/07/12 09:23	
Arsenic, Total	**0.020**	0.010	mg/l	1	08/07/12 09:23	
Barium, Total	**0.11**	0.010	mg/l	1	08/07/12 09:23	
Beryllium, Total	ND	0.010	mg/l	1	08/07/12 09:23	
Cadmium, Total	ND	0.010	mg/l	1	08/07/12 09:23	
Chromium, Total	ND	0.010	mg/l	1	08/07/12 09:23	
Cobalt, Total	ND	0.010	mg/l	1	08/07/12 09:23	
Copper, Total	ND	0.020	mg/l	1	08/07/12 09:23	
Lead, Total	ND	0.010	mg/l	1	08/07/12 09:23	
Molybdenum, Total	ND	0.010	mg/l	1	08/07/12 09:23	
Nickel, Total	ND	0.010	mg/l	1	08/07/12 09:23	
Selenium, Total	ND	0.030	mg/l	1	08/07/12 09:23	
Silver, Total	ND	0.0050	mg/l	1	08/07/12 09:23	
Thallium, Total	ND	0.050	mg/l	1	08/07/12 09:23	
Vanadium, Total	ND	0.010	mg/l	1	08/07/12 09:23	
Zinc, Total	ND	0.050	mg/l	1	08/07/12 09:23	

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Environmental Equalizers - Camarillo
1358 Oakhurst Court
Camarillo CA, 93010

Date Received: 08/02/12 18:15
Date Reported: 08/21/12 10:31

2H02074-03 **Mariana**

Sampled: 08/01/12 14:10 **Sampled By:** Bernie Sentianin **Matrix:** Water

Metals (Aqueous) by EPA 6000/7000 Series Methods

Method: EPA 7470A | Batch: W2H0198 | Prepared: 08/06/12 10:18 | Analyst: gza

Analyte	Result	MRL	Units	Dil	Analyzed	Qualifier
Mercury, Total	ND	0.10	ug/l	1	08/06/12 17:02	

Organophosphorus Pesticides by EPA Method 8141A

Method: EPA 8141A | Batch: W2H0120 | Prepared: 08/03/12 09:57 | Analyst: smr/a

Analyte	Result	MRL	Units	Dil	Analyzed	Qualifier
Azinphos methyl (Guthion)	ND	0.10	ug/l	1	08/13/12 19:40	
Bolstar	ND	0.10	ug/l	1	08/13/12 19:40	
Chlorpyrifos	ND	0.10	ug/l	1	08/13/12 19:40	
Coumaphos	ND	0.10	ug/l	1	08/13/12 19:40	
Demeton-o	ND	0.10	ug/l	1	08/13/12 19:40	
Demeton-s	ND	0.10	ug/l	1	08/13/12 19:40	
Diazinon	ND	0.10	ug/l	1	08/13/12 19:40	
Dichlorvos	ND	0.10	ug/l	1	08/13/12 19:40	
Dimethoate	ND	0.25	ug/l	1	08/13/12 19:40	
Disulfoton	ND	0.10	ug/l	1	08/13/12 19:40	
Ethoprop	ND	0.10	ug/l	1	08/13/12 19:40	
Ethyl parathion	ND	0.25	ug/l	1	08/13/12 19:40	
Fensulfothion	ND	0.10	ug/l	1	08/13/12 19:40	
Fenthion	ND	0.10	ug/l	1	08/13/12 19:40	
Malathion	ND	0.25	ug/l	1	08/13/12 19:40	
Merphos	ND	0.10	ug/l	1	08/13/12 19:40	
Methyl parathion	ND	0.10	ug/l	1	08/13/12 19:40	
Mevinphos	ND	0.10	ug/l	1	08/13/12 19:40	
Naled	ND	0.10	ug/l	1	08/13/12 19:40	BS-L
Phorate	ND	0.10	ug/l	1	08/13/12 19:40	
Ronnel	ND	0.10	ug/l	1	08/13/12 19:40	
Stirophos	ND	0.10	ug/l	1	08/13/12 19:40	
Thionazin	ND	0.25	ug/l	1	08/13/12 19:40	
Tokuthion (Prothiofos)	ND	0.10	ug/l	1	08/13/12 19:40	
Trichloronate	ND	0.10	ug/l	1	08/13/12 19:40	
Surr: Triphenyl phosphate	*105 %*	Conc:*1.05*	*6-173*	%		

Volatile Organic Compounds by EPA Method 8260B

Method: EPA 8260B | Batch: W2H0172 | Prepared: 08/06/12 08:36 | Analyst: mdt

Analyte	Result	MRL	Units	Dil	Analyzed	Qualifier
1,1,1,2-Tetrachloroethane	ND	1.0	ug/l	1	08/07/12 11:53	
1,1,1-Trichloroethane	ND	1.0	ug/l	1	08/07/12 11:53	
1,1,2,2-Tetrachloroethane	ND	1.0	ug/l	1	08/07/12 11:53	
1,1,2-Trichloroethane	ND	1.0	ug/l	1	08/07/12 11:53	
1,1-Dichloroethane	ND	1.0	ug/l	1	08/07/12 11:53	

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Environmental Equalizers - Camarillo
1358 Oakhurst Court
Camarillo CA, 93010

Date Received: 08/02/12 18:15
Date Reported: 08/21/12 10:31

2H02074-03 **Mariana**

Sampled: 08/01/12 14:10 **Sampled By:** Bernie Sentianin **Matrix:** Water

Volatile Organic Compounds by EPA Method 8260B

Method: EPA 8260B Batch: W2H0172 Prepared: 08/06/12 08:36 Analyst: mdt

Analyte	Result	MRL	Units	Dil	Analyzed	Qualifier
1,1-Dichloroethene	ND	1.0	ug/l	1	08/07/12 11:53	
1,1-Dichloropropene	ND	1.0	ug/l	1	08/07/12 11:53	
1,2,3-Trichlorobenzene	ND	1.0	ug/l	1	08/07/12 11:53	
1,2,3-Trichloropropane	ND	1.0	ug/l	1	08/07/12 11:53	
1,2,4-Trichlorobenzene	ND	1.0	ug/l	1	08/07/12 11:53	
1,2,4-Trimethylbenzene	ND	1.0	ug/l	1	08/07/12 11:53	
1,2-Dibromo-3-chloropropane	ND	1.0	ug/l	1	08/07/12 11:53	
1,2-Dibromoethane (EDB)	ND	1.0	ug/l	1	08/07/12 11:53	
1,2-Dichloroethane	ND	1.0	ug/l	1	08/07/12 11:53	
1,2-Dichloropropane	ND	1.0	ug/l	1	08/07/12 11:53	
1,3,5-Trimethylbenzene	ND	1.0	ug/l	1	08/07/12 11:53	
1,3-Dichloropropane	ND	1.0	ug/l	1	08/07/12 11:53	
2,2-Dichloropropane	ND	1.0	ug/l	1	08/07/12 11:53	
2-Butanone	ND	5.0	ug/l	1	08/07/12 11:53	
2-Chloroethyl vinyl ether	ND	5.0	ug/l	1	08/07/12 11:53	
2-Chlorotoluene	ND	1.0	ug/l	1	08/07/12 11:53	
2-Hexanone	ND	5.0	ug/l	1	08/07/12 11:53	
4-Chlorotoluene	ND	1.0	ug/l	1	08/07/12 11:53	
4-Methyl-2-pentanone	ND	5.0	ug/l	1	08/07/12 11:53	
Acetone	ND	5.0	ug/l	1	08/07/12 11:53	
Acrolein	ND	5.0	ug/l	1	08/07/12 11:53	
Acrylonitrile	ND	5.0	ug/l	1	08/07/12 11:53	
Benzene	ND	1.0	ug/l	1	08/07/12 11:53	
Bromobenzene	ND	1.0	ug/l	1	08/07/12 11:53	
Bromochloromethane	ND	1.0	ug/l	1	08/07/12 11:53	
Bromodichloromethane	ND	1.0	ug/l	1	08/07/12 11:53	
Bromoform	ND	1.0	ug/l	1	08/07/12 11:53	
Bromomethane	ND	1.0	ug/l	1	08/07/12 11:53	
Carbon tetrachloride	ND	1.0	ug/l	1	08/07/12 11:53	
Chlorobenzene	ND	1.0	ug/l	1	08/07/12 11:53	
Chloroethane	ND	1.0	ug/l	1	08/07/12 11:53	
Chloroform	ND	1.0	ug/l	1	08/07/12 11:53	
Chloromethane	ND	1.0	ug/l	1	08/07/12 11:53	
cis-1,2-Dichloroethene	ND	1.0	ug/l	1	08/07/12 11:53	
cis-1,3-Dichloropropene	ND	1.0	ug/l	1	08/07/12 11:53	
Dibromochloromethane	ND	1.0	ug/l	1	08/07/12 11:53	
Dibromomethane	ND	1.0	ug/l	1	08/07/12 11:53	
Dichlorodifluoromethane (Freon 12)	ND	1.0	ug/l	1	08/07/12 11:53	
Ethylbenzene	ND	1.0	ug/l	1	08/07/12 11:53	
Hexachlorobutadiene	ND	1.0	ug/l	1	08/07/12 11:53	

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Environmental Equalizers - Camarillo
1358 Oakhurst Court
Camarillo CA, 93010

Date Received: 08/02/12 18:15
Date Reported: 08/21/12 10:31

2H02074-03 **Mariana**

Sampled: 08/01/12 14:10 **Sampled By:** Bernie Sentianin **Matrix:** Water

Volatile Organic Compounds by EPA Method 8260B

Method: EPA 8260B Batch: W2H0172 Prepared: 08/06/12 08:36 Analyst: mdt

Analyte	Result		MRL	Units	Dil	Analyzed	Qualifier
Isopropylbenzene	ND		1.0	ug/l	1	08/07/12 11:53	
m,p-Xylene	ND		1.0	ug/l	1	08/07/12 11:53	
m-Dichlorobenzene	ND		1.0	ug/l	1	08/07/12 11:53	
Methyl tert-butyl ether (MTBE)	ND		3.0	ug/l	1	08/07/12 11:53	
Methylene chloride	ND		1.0	ug/l	1	08/07/12 11:53	
Naphthalene	ND		1.0	ug/l	1	08/07/12 11:53	
n-Butylbenzene	ND		1.0	ug/l	1	08/07/12 11:53	
n-Propylbenzene	ND		1.0	ug/l	1	08/07/12 11:53	
o-Dichlorobenzene	ND		1.0	ug/l	1	08/07/12 11:53	
o-Xylene	ND		1.0	ug/l	1	08/07/12 11:53	
p-Dichlorobenzene	ND		1.0	ug/l	1	08/07/12 11:53	
p-Isopropyltoluene	ND		1.0	ug/l	1	08/07/12 11:53	
sec-Butylbenzene	ND		1.0	ug/l	1	08/07/12 11:53	
Styrene	ND		1.0	ug/l	1	08/07/12 11:53	
tert-Butylbenzene	ND		1.0	ug/l	1	08/07/12 11:53	
Tetrachloroethene	ND		1.0	ug/l	1	08/07/12 11:53	
Toluene	ND		1.0	ug/l	1	08/07/12 11:53	
trans-1,2-Dichloroethene	ND		1.0	ug/l	1	08/07/12 11:53	
trans-1,3-Dichloropropene	ND		1.0	ug/l	1	08/07/12 11:53	
Trichloroethene	ND		1.0	ug/l	1	08/07/12 11:53	
Trichlorofluoromethane	ND		1.0	ug/l	1	08/07/12 11:53	
Vinyl chloride	ND		1.0	ug/l	1	08/07/12 11:53	
Surr: 1,2-Dichloroethane-d4	*102 %*	Conc:*50.9*	*83-119*	%			
Surr: 4-Bromofluorobenzene	*99 %*	Conc:*49.4*	*83-110*	%			
Surr: Dibromofluoromethane	*101 %*	Conc:*50.4*	*89-115*	%			
Surr: Toluene-d8	*102 %*	Conc:*50.8*	*92-112*	%			

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Environmental Equalizers - Camarillo
1358 Oakhurst Court
Camarillo CA, 93010

Date Received: 08/02/12 18:15
Date Reported: 08/21/12 10:31

2H02074-04 Piombo

Sampled: 08/01/12 14:45 **Sampled By:** Bernie Sentianin **Matrix:** Water

Chlorinated Pesticides and/or PCBs

Method: EPA 8081A Batch: W2H0260 Prepared: 08/07/12 12:40 Analyst: abj

Analyte	Result		MRL	Units	Dil	Analyzed	Qualifier
4,4´-DDD	ND		0.050	ug/l	1	08/09/12 23:16	
4,4´-DDE	ND		0.050	ug/l	1	08/09/12 23:16	
4,4´-DDT	ND		0.050	ug/l	1	08/09/12 23:16	
Aldrin	ND		0.050	ug/l	1	08/09/12 23:16	
alpha-BHC	ND		0.050	ug/l	1	08/09/12 23:16	
beta-BHC	ND		0.050	ug/l	1	08/09/12 23:16	
Chlordane (tech)	ND		0.50	ug/l	1	08/09/12 23:16	
delta-BHC	ND		0.050	ug/l	1	08/09/12 23:16	
Dieldrin	ND		0.050	ug/l	1	08/09/12 23:16	
Endosulfan I	ND		0.050	ug/l	1	08/09/12 23:16	
Endosulfan II	ND		0.050	ug/l	1	08/09/12 23:16	
Endosulfan sulfate	ND		0.050	ug/l	1	08/09/12 23:16	
Endrin	ND		0.050	ug/l	1	08/09/12 23:16	
Endrin aldehyde	ND		0.050	ug/l	1	08/09/12 23:16	
gamma-BHC (Lindane)	ND		0.050	ug/l	1	08/09/12 23:16	
Heptachlor	ND		0.050	ug/l	1	08/09/12 23:16	
Heptachlor epoxide	ND		0.050	ug/l	1	08/09/12 23:16	
Methoxychlor	ND		0.050	ug/l	1	08/09/12 23:16	
Toxaphene	ND		2.0	ug/l	1	08/09/12 23:16	
Surr: Decachlorobiphenyl	*77 %*	Conc:*0.383*	*0.1-153*	%			
Surr: Tetrachloro-meta-xylene	*78 %*	Conc:*0.391*	*44-144*	%			

Conventional Chemistry/Physical Parameters by APHA/EPA/ASTM Methods

Method: Various Batch: [CALC] Prepared: 08/07/12 15:56 Analyst: mbc

Analyte	Result	MRL	Units	Dil	Analyzed	Qualifier
Nitrogen, Total	**0.44**	0.20	mg/l	1	08/10/12 15:38	

Method: SM 10200H Batch: W2H0110 Prepared: 08/02/12 19:20 Analyst: mbc

Analyte	Result	MRL	Units	Dil	Analyzed	Qualifier
Chlorophyll-A	ND	10	ug/l	1	08/14/12 17:51	

Method: EPA 365.1 Batch: W2H0242 Prepared: 08/07/12 10:08 Analyst: mbc

Analyte	Result	MRL	Units	Dil	Analyzed	Qualifier
Phosphorus as P, Total	**110**	10	ug/l	1	08/08/12 09:35	

Method: EPA 351.2 Batch: W2H0246 Prepared: 08/07/12 10:34 Analyst: mbc

Analyte	Result	MRL	Units	Dil	Analyzed	Qualifier
TKN	**0.44**	0.10	mg/l	1	08/10/12 15:38	

Method: EPA 353.2 Batch: W2H0282 Prepared: 08/07/12 15:56 Analyst: sml

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1358 Oakhurst Court
Camarillo CA, 93010

Date Received: 08/02/12 18:15
Date Reported: 08/21/12 10:31

2H02074-04 Piombo

Sampled: 08/01/12 14:45 **Sampled By:** Bernie Sentianin **Matrix:** Water

Conventional Chemistry/Physical Parameters by APHA/EPA/ASTM Methods

Method: EPA 353.2 Batch: W2H0282 Prepared: 08/07/12 15:56 Analyst: sml

Analyte	Result	MRL	Units	Dil	Analyzed	Qualifier
NO2+NO3 as N	ND	100	ug/l	1	08/07/12 18:27	

Hydrocarbons by EPA 8015B

Method: EPA 8015B Batch: W2H0212 Prepared: 08/06/12 12:57 Analyst: hmc

Analyte	Result		MRL	Units	Dil	Analyzed	Qualifier
Gasoline Range Organics	ND		0.10	mg/l	1	08/07/12 11:53	
Surr: 4-Bromofluorobenzene	*101 %*	Conc:*0.0504*	*63-120*	%			

Method: EPA 8015B Batch: W2H0258 Prepared: 08/07/12 11:43 Analyst: bma

Analyte	Result		MRL	Units	Dil	Analyzed	Qualifier
Diesel Range Organics	ND		0.10	mg/l	1	08/10/12 09:30	
Oil Range Organics	ND		0.50	mg/l	1	08/10/12 09:30	
Surr: n-Tetracosane	*143 %*	Conc:*0.356*	*77-162*	%			

Metals - Low Level by 1600 Series Methods

Method: GC-CV-AFS Batch: W2H0840 Prepared: 08/14/12 00:00 Analyst: sub

Analyte	Result	MRL	Units	Dil	Analyzed	Qualifier
Methyl Mercury	**See Attachment**	0.4500	ng/l	1	08/14/12 00:00	A-01

Metals (Aqueous) by EPA 6000/7000 Series Methods

Method: EPA 6010B Batch: W2H0126 Prepared: 08/03/12 10:59 Analyst: jck

Analyte	Result	MRL	Units	Dil	Analyzed	Qualifier
Antimony, Total	ND	0.010	mg/l	1	08/07/12 09:25	
Arsenic, Total	ND	0.010	mg/l	1	08/07/12 09:25	
Barium, Total	**0.087**	0.010	mg/l	1	08/07/12 09:25	
Beryllium, Total	ND	0.010	mg/l	1	08/07/12 09:25	
Cadmium, Total	ND	0.010	mg/l	1	08/07/12 09:25	
Chromium, Total	ND	0.010	mg/l	1	08/07/12 09:25	
Cobalt, Total	ND	0.010	mg/l	1	08/07/12 09:25	
Copper, Total	ND	0.020	mg/l	1	08/07/12 09:25	
Lead, Total	ND	0.010	mg/l	1	08/07/12 09:25	
Molybdenum, Total	ND	0.010	mg/l	1	08/07/12 09:25	
Nickel, Total	**0.012**	0.010	mg/l	1	08/07/12 09:25	
Selenium, Total	ND	0.030	mg/l	1	08/07/12 09:25	
Silver, Total	ND	0.0050	mg/l	1	08/07/12 09:25	
Thallium, Total	ND	0.050	mg/l	1	08/07/12 09:25	
Vanadium, Total	ND	0.010	mg/l	1	08/07/12 09:25	
Zinc, Total	ND	0.050	mg/l	1	08/07/12 09:25	

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2H02074-04 Piombo

Sampled: 08/01/12 14:45 **Sampled By:** Bernie Sentianin **Matrix:** Water

Metals (Aqueous) by EPA 6000/7000 Series Methods

Method: EPA 7470A Batch: W2H0198 Prepared: 08/06/12 10:18 Analyst: gza

Analyte	Result	MRL	Units	Dil	Analyzed	Qualifier
Mercury, Total	ND	0.10	ug/l	1	08/06/12 17:02	

Organophosphorus Pesticides by EPA Method 8141A

Method: EPA 8141A Batch: W2H0120 Prepared: 08/03/12 09:57 Analyst: smr/a

Analyte	Result	MRL	Units	Dil	Analyzed	Qualifier
Azinphos methyl (Guthion)	ND	0.10	ug/l	1	08/13/12 20:11	
Bolstar	ND	0.10	ug/l	1	08/13/12 20:11	
Chlorpyrifos	ND	0.10	ug/l	1	08/13/12 20:11	
Coumaphos	ND	0.10	ug/l	1	08/13/12 20:11	
Demeton-o	ND	0.10	ug/l	1	08/13/12 20:11	
Demeton-s	ND	0.10	ug/l	1	08/13/12 20:11	
Diazinon	ND	0.10	ug/l	1	08/13/12 20:11	
Dichlorvos	ND	0.10	ug/l	1	08/13/12 20:11	
Dimethoate	ND	0.25	ug/l	1	08/13/12 20:11	
Disulfoton	ND	0.10	ug/l	1	08/13/12 20:11	
Ethoprop	ND	0.10	ug/l	1	08/13/12 20:11	
Ethyl parathion	ND	0.25	ug/l	1	08/13/12 20:11	
Fensulfothion	ND	0.10	ug/l	1	08/13/12 20:11	
Fenthion	ND	0.10	ug/l	1	08/13/12 20:11	
Malathion	ND	0.25	ug/l	1	08/13/12 20:11	
Merphos	ND	0.10	ug/l	1	08/13/12 20:11	
Methyl parathion	ND	0.10	ug/l	1	08/13/12 20:11	
Mevinphos	ND	0.10	ug/l	1	08/13/12 20:11	
Naled	ND	0.10	ug/l	1	08/13/12 20:11	BS-L
Phorate	ND	0.10	ug/l	1	08/13/12 20:11	
Ronnel	ND	0.10	ug/l	1	08/13/12 20:11	
Stirophos	ND	0.10	ug/l	1	08/13/12 20:11	
Thionazin	ND	0.25	ug/l	1	08/13/12 20:11	
Tokuthion (Prothiofos)	ND	0.10	ug/l	1	08/13/12 20:11	
Trichloronate	ND	0.10	ug/l	1	08/13/12 20:11	
Surr: Triphenyl phosphate	*116 %*	Conc:*1.16*	*6-173*	%		

Volatile Organic Compounds by EPA Method 8260B

Method: EPA 8260B Batch: W2H0172 Prepared: 08/06/12 08:36 Analyst: mdt

Analyte	Result	MRL	Units	Dil	Analyzed	Qualifier
1,1,1,2-Tetrachloroethane	ND	1.0	ug/l	1	08/07/12 12:22	
1,1,1-Trichloroethane	ND	1.0	ug/l	1	08/07/12 12:22	
1,1,2,2-Tetrachloroethane	ND	1.0	ug/l	1	08/07/12 12:22	
1,1,2-Trichloroethane	ND	1.0	ug/l	1	08/07/12 12:22	
1,1-Dichloroethane	ND	1.0	ug/l	1	08/07/12 12:22	

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1358 Oakhurst Court
Camarillo CA, 93010

Date Received: 08/02/12 18:15
Date Reported: 08/21/12 10:31

2H02074-04 Piombo

Sampled: 08/01/12 14:45 **Sampled By:** Bernie Sentianin **Matrix:** Water

Volatile Organic Compounds by EPA Method 8260B

Method: EPA 8260B Batch: W2H0172 Prepared: 08/06/12 08:36 Analyst: mdt

Analyte	Result	MRL	Units	Dil	Analyzed	Qualifier
1,1-Dichloroethene	ND	1.0	ug/l	1	08/07/12 12:22	
1,1-Dichloropropene	ND	1.0	ug/l	1	08/07/12 12:22	
1,2,3-Trichlorobenzene	ND	1.0	ug/l	1	08/07/12 12:22	
1,2,3-Trichloropropane	ND	1.0	ug/l	1	08/07/12 12:22	
1,2,4-Trichlorobenzene	ND	1.0	ug/l	1	08/07/12 12:22	
1,2,4-Trimethylbenzene	ND	1.0	ug/l	1	08/07/12 12:22	
1,2-Dibromo-3-chloropropane	ND	1.0	ug/l	1	08/07/12 12:22	
1,2-Dibromoethane (EDB)	ND	1.0	ug/l	1	08/07/12 12:22	
1,2-Dichloroethane	ND	1.0	ug/l	1	08/07/12 12:22	
1,2-Dichloropropane	ND	1.0	ug/l	1	08/07/12 12:22	
1,3,5-Trimethylbenzene	ND	1.0	ug/l	1	08/07/12 12:22	
1,3-Dichloropropane	ND	1.0	ug/l	1	08/07/12 12:22	
2,2-Dichloropropane	ND	1.0	ug/l	1	08/07/12 12:22	
2-Butanone	ND	5.0	ug/l	1	08/07/12 12:22	
2-Chloroethyl vinyl ether	ND	5.0	ug/l	1	08/07/12 12:22	
2-Chlorotoluene	ND	1.0	ug/l	1	08/07/12 12:22	
2-Hexanone	ND	5.0	ug/l	1	08/07/12 12:22	
4-Chlorotoluene	ND	1.0	ug/l	1	08/07/12 12:22	
4-Methyl-2-pentanone	ND	5.0	ug/l	1	08/07/12 12:22	
Acetone	ND	5.0	ug/l	1	08/07/12 12:22	
Acrolein	ND	5.0	ug/l	1	08/07/12 12:22	
Acrylonitrile	ND	5.0	ug/l	1	08/07/12 12:22	
Benzene	ND	1.0	ug/l	1	08/07/12 12:22	
Bromobenzene	ND	1.0	ug/l	1	08/07/12 12:22	
Bromochloromethane	ND	1.0	ug/l	1	08/07/12 12:22	
Bromodichloromethane	ND	1.0	ug/l	1	08/07/12 12:22	
Bromoform	ND	1.0	ug/l	1	08/07/12 12:22	
Bromomethane	ND	1.0	ug/l	1	08/07/12 12:22	
Carbon tetrachloride	ND	1.0	ug/l	1	08/07/12 12:22	
Chlorobenzene	ND	1.0	ug/l	1	08/07/12 12:22	
Chloroethane	ND	1.0	ug/l	1	08/07/12 12:22	
Chloroform	ND	1.0	ug/l	1	08/07/12 12:22	
Chloromethane	ND	1.0	ug/l	1	08/07/12 12:22	
cis-1,2-Dichloroethene	ND	1.0	ug/l	1	08/07/12 12:22	
cis-1,3-Dichloropropene	ND	1.0	ug/l	1	08/07/12 12:22	
Dibromochloromethane	ND	1.0	ug/l	1	08/07/12 12:22	
Dibromomethane	ND	1.0	ug/l	1	08/07/12 12:22	
Dichlorodifluoromethane (Freon 12)	ND	1.0	ug/l	1	08/07/12 12:22	
Ethylbenzene	ND	1.0	ug/l	1	08/07/12 12:22	
Hexachlorobutadiene	ND	1.0	ug/l	1	08/07/12 12:22	

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Environmental Equalizers - Camarillo
1358 Oakhurst Court
Camarillo CA, 93010

Date Received: 08/02/12 18:15
Date Reported: 08/21/12 10:31

2H02074-04 Piombo

Sampled: 08/01/12 14:45 **Sampled By:** Bernie Sentianin **Matrix:** Water

Volatile Organic Compounds by EPA Method 8260B

Method: EPA 8260B Batch: W2H0172 Prepared: 08/06/12 08:36 Analyst: mdt

Analyte	Result		MRL	Units	Dil	Analyzed	Qualifier
Isopropylbenzene	ND		1.0	ug/l	1	08/07/12 12:22	
m,p-Xylene	ND		1.0	ug/l	1	08/07/12 12:22	
m-Dichlorobenzene	ND		1.0	ug/l	1	08/07/12 12:22	
Methyl tert-butyl ether (MTBE)	ND		3.0	ug/l	1	08/07/12 12:22	
Methylene chloride	ND		1.0	ug/l	1	08/07/12 12:22	
Naphthalene	ND		1.0	ug/l	1	08/07/12 12:22	
n-Butylbenzene	ND		1.0	ug/l	1	08/07/12 12:22	
n-Propylbenzene	ND		1.0	ug/l	1	08/07/12 12:22	
o-Dichlorobenzene	ND		1.0	ug/l	1	08/07/12 12:22	
o-Xylene	ND		1.0	ug/l	1	08/07/12 12:22	
p-Dichlorobenzene	ND		1.0	ug/l	1	08/07/12 12:22	
p-Isopropyltoluene	ND		1.0	ug/l	1	08/07/12 12:22	
sec-Butylbenzene	ND		1.0	ug/l	1	08/07/12 12:22	
Styrene	ND		1.0	ug/l	1	08/07/12 12:22	
tert-Butylbenzene	ND		1.0	ug/l	1	08/07/12 12:22	
Tetrachloroethene	ND		1.0	ug/l	1	08/07/12 12:22	
Toluene	ND		1.0	ug/l	1	08/07/12 12:22	
trans-1,2-Dichloroethene	ND		1.0	ug/l	1	08/07/12 12:22	
trans-1,3-Dichloropropene	ND		1.0	ug/l	1	08/07/12 12:22	
Trichloroethene	ND		1.0	ug/l	1	08/07/12 12:22	
Trichlorofluoromethane	ND		1.0	ug/l	1	08/07/12 12:22	
Vinyl chloride	ND		1.0	ug/l	1	08/07/12 12:22	
Surr: 1,2-Dichloroethane-d4	*104 %*	Conc:*52.0*	*83-119*	%			
Surr: 4-Bromofluorobenzene	*99 %*	Conc:*49.5*	*83-110*	%			
Surr: Dibromofluoromethane	*102 %*	Conc:*50.8*	*89-115*	%			
Surr: Toluene-d8	*102 %*	Conc:*50.9*	*92-112*	%			

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QUALITY CONTROL SECTION

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Date Received: 08/02/12 18:15
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Chlorinated Pesticides and/or PCBs - Quality Control

Batch W2H0260 - EPA 8081A

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	% REC Limits	RPD	RPD Limit	Data Qualifiers
Blank (W2H0260-BLK1)				Analyzed: 08/09/12 19:02						
4,4´-DDD	ND	0.050	ug/l							
4,4´-DDE	ND	0.050	ug/l							
4,4´-DDT	ND	0.050	ug/l							
Aldrin	ND	0.050	ug/l							
alpha-BHC	ND	0.050	ug/l							
beta-BHC	ND	0.050	ug/l							
Chlordane (tech)	ND	0.50	ug/l							
delta-BHC	ND	0.050	ug/l							
Dieldrin	ND	0.050	ug/l							
Endosulfan I	ND	0.050	ug/l							
Endosulfan II	ND	0.050	ug/l							
Endosulfan sulfate	ND	0.050	ug/l							
Endrin	ND	0.050	ug/l							
Endrin aldehyde	ND	0.050	ug/l							
gamma-BHC (Lindane)	ND	0.050	ug/l							
Heptachlor	ND	0.050	ug/l							
Heptachlor epoxide	ND	0.050	ug/l							
Methoxychlor	ND	0.050	ug/l							
Toxaphene	ND	2.0	ug/l							
Surr: Decachlorobiphenyl	*0.349*		*ug/l*	*0.500*		*70*	*0.1-153*			
Surr: Tetrachloro-meta-xylene	*0.383*		*ug/l*	*0.500*		*77*	*44-144*			
LCS (W2H0260-BS1)				Analyzed: 08/09/12 19:30						
4,4´-DDD	0.563	0.050	ug/l	0.500		113	50-159			
4,4´-DDE	0.542	0.050	ug/l	0.500		108	58-144			
4,4´-DDT	0.630	0.050	ug/l	0.500		126	42-161			
Aldrin	0.459	0.050	ug/l	0.500		92	56-134			
alpha-BHC	0.520	0.050	ug/l	0.500		104	62-134			
beta-BHC	0.535	0.050	ug/l	0.500		107	56-140			
delta-BHC	0.505	0.050	ug/l	0.500		101	56-142			
Dieldrin	0.530	0.050	ug/l	0.500		106	55-141			
Endosulfan I	0.442	0.050	ug/l	0.500		88	48-128			
Endosulfan II	0.479	0.050	ug/l	0.500		96	48-131			
Endosulfan sulfate	0.582	0.050	ug/l	0.500		116	54-148			
Endrin	0.543	0.050	ug/l	0.500		109	55-156			
Endrin aldehyde	0.553	0.050	ug/l	0.500		111	35-164			
gamma-BHC (Lindane)	0.472	0.050	ug/l	0.500		94	62-135			
Heptachlor	0.522	0.050	ug/l	0.500		104	53-144			
Heptachlor epoxide	0.525	0.050	ug/l	0.500		105	62-138			
Methoxychlor	0.595	0.050	ug/l	0.500		119	45-168			
Surr: Decachlorobiphenyl	*0.372*		*ug/l*	*0.500*		*74*	*0.1-153*			
Surr: Tetrachloro-meta-xylene	*0.413*		*ug/l*	*0.500*		*83*	*44-144*			

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1358 Oakhurst Court
Camarillo CA, 93010

Date Received: 08/02/12 18:15
Date Reported: 08/21/12 10:31

Chlorinated Pesticides and/or PCBs - Quality Control

Batch W2H0260 - EPA 8081A

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	% REC Limits	RPD	RPD Limit	Data Qualifiers
LCS Dup (W2H0260-BSD1)				Analyzed: 08/09/12 19:58						
4,4´-DDD	0.550	0.050	ug/l	0.500		110	50-159	2	25	
4,4´-DDE	0.519	0.050	ug/l	0.500		104	58-144	4	25	
4,4´-DDT	0.615	0.050	ug/l	0.500		123	42-161	2	25	
Aldrin	0.411	0.050	ug/l	0.500		82	56-134	11	25	
alpha-BHC	0.498	0.050	ug/l	0.500		100	62-134	4	25	
beta-BHC	0.517	0.050	ug/l	0.500		103	56-140	3	25	
delta-BHC	0.482	0.050	ug/l	0.500		96	56-142	5	25	
Dieldrin	0.515	0.050	ug/l	0.500		103	55-141	3	25	
Endosulfan I	0.432	0.050	ug/l	0.500		86	48-128	2	25	
Endosulfan II	0.470	0.050	ug/l	0.500		94	48-131	2	25	
Endosulfan sulfate	0.566	0.050	ug/l	0.500		113	54-148	3	25	
Endrin	0.517	0.050	ug/l	0.500		103	55-156	5	25	
Endrin aldehyde	0.540	0.050	ug/l	0.500		108	35-164	3	25	
gamma-BHC (Lindane)	0.455	0.050	ug/l	0.500		91	62-135	4	25	
Heptachlor	0.476	0.050	ug/l	0.500		95	53-144	9	25	
Heptachlor epoxide	0.511	0.050	ug/l	0.500		102	62-138	3	25	
Methoxychlor	0.582	0.050	ug/l	0.500		116	45-168	2	25	
Surr: Decachlorobiphenyl	*0.362*		*ug/l*	*0.500*		*72*	*0.1-153*			
Surr: Tetrachloro-meta-xylene	*0.390*		*ug/l*	*0.500*		*78*	*44-144*			

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Environmental Equalizers - Camarillo
1358 Oakhurst Court
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Date Received: 08/02/12 18:15
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Conventional Chemistry/Physical Parameters by APHA/EPA/ASTM Methods - Quality Control

Batch W2H0110 - SM 10200H

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	% REC Limits	RPD	RPD Limit	Data Qualifiers
Blank (W2H0110-BLK1)				Analyzed: 08/14/12 17:51						
Chlorophyll-A	ND	10	ug/l							
LCS (W2H0110-BS1)				Analyzed: 08/14/12 17:51						
Chlorophyll-A	42.2	10	ug/l	50.0		84	80-120			

Batch W2H0242 - EPA 365.1

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	% REC Limits	RPD	RPD Limit	Data Qualifiers
Blank (W2H0242-BLK1)				Analyzed: 08/08/12 09:23						
Phosphorus as P, Total	ND	10	ug/l							
LCS (W2H0242-BS1)				Analyzed: 08/08/12 09:24						
Phosphorus as P, Total	52.6	10	ug/l	50.0		105	90-110			
Matrix Spike (W2H0242-MS1)	**Source: 2H02074-01**			Analyzed: 08/08/12 09:29						
Phosphorus as P, Total	64.8	10	ug/l	50.0	11.9	106	90-110			
Matrix Spike Dup (W2H0242-MSD1)	**Source: 2H02074-01**			Analyzed: 08/08/12 09:30						
Phosphorus as P, Total	64.3	10	ug/l	50.0	11.9	105	90-110	0.8	10	

Batch W2H0246 - EPA 351.2

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	% REC Limits	RPD	RPD Limit	Data Qualifiers
Blank (W2H0246-BLK1)				Analyzed: 08/10/12 15:09						
TKN	ND	0.10	mg/l							
LCS (W2H0246-BS1)				Analyzed: 08/10/12 15:10						
TKN	1.04	0.10	mg/l	1.00		104	90-110			
Matrix Spike (W2H0246-MS1)	**Source: 2G31012-07**			Analyzed: 08/10/12 15:12						
TKN	1.19	0.10	mg/l	1.00	0.196	100	90-110			
Matrix Spike (W2H0246-MS2)	**Source: 2G31012-08**			Analyzed: 08/10/12 15:16						
TKN	1.16	0.10	mg/l	1.00	0.0740	108	90-110			
Matrix Spike Dup (W2H0246-MSD1)	**Source: 2G31012-07**			Analyzed: 08/10/12 15:13						
TKN	1.21	0.10	mg/l	1.00	0.196	101	90-110	1	15	
Matrix Spike Dup (W2H0246-MSD2)	**Source: 2G31012-08**			Analyzed: 08/10/12 15:17						
TKN	1.16	0.10	mg/l	1.00	0.0740	108	90-110	0.2	15	

Batch W2H0282 - EPA 353.2

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	% REC Limits	RPD	RPD Limit	Data Qualifiers

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1358 Oakhurst Court
Camarillo CA, 93010

Date Received: 08/02/12 18:15
Date Reported: 08/21/12 10:31

Conventional Chemistry/Physical Parameters by APHA/EPA/ASTM Methods - Quality Control

Batch W2H0282 - EPA 353.2

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	% REC Limits	RPD	RPD Limit	Data Qualifiers
Blank (W2H0282-BLK1)				Analyzed: 08/07/12 17:46						
NO2+NO3 as N	ND	100	ug/l							
LCS (W2H0282-BS1)				Analyzed: 08/07/12 17:43						
NO2+NO3 as N	1030	100	ug/l	1000		103	90-110			
Matrix Spike (W2H0282-MS1)	**Source: 2G30030-01**			Analyzed: 08/07/12 17:50						
NO2+NO3 as N	2050	100	ug/l	2000	36.0	100	90-110			
Matrix Spike (W2H0282-MS2)	**Source: 2G30030-02**			Analyzed: 08/07/12 17:56						
NO2+NO3 as N	2200	100	ug/l	2000	226	99	90-110			
Matrix Spike Dup (W2H0282-MSD1)	**Source: 2G30030-01**			Analyzed: 08/07/12 17:52						
NO2+NO3 as N	2040	100	ug/l	2000	36.0	100	90-110	0.4	20	
Matrix Spike Dup (W2H0282-MSD2)	**Source: 2G30030-02**			Analyzed: 08/07/12 17:59						
NO2+NO3 as N	2180	100	ug/l	2000	226	98	90-110	0.8	20	

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Hydrocarbons by EPA 8015B - Quality Control

Batch W2H0212 - EPA 8015B

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	% REC Limits	RPD	RPD Limit	Data Qualifiers
Blank (W2H0212-BLK1)				Analyzed: 08/07/12 09:07						
Gasoline Range Organics	ND	0.10	mg/l							
Surr: 4-Bromofluorobenzene	*0.0481*		*mg/l*	*0.0500*		*96*	*63-120*			
LCS (W2H0212-BS1)				Analyzed: 08/07/12 08:12						
Gasoline Range Organics	0.960	0.10	mg/l	1.00		96	53-136			
Surr: 4-Bromofluorobenzene	*0.0486*		*mg/l*	*0.0500*		*97*	*63-120*			
Matrix Spike (W2H0212-MS1)	**Source: 2H02074-04**			Analyzed: 08/07/12 13:17						
Gasoline Range Organics	1.13	0.10	mg/l	1.00	ND	113	62-142			
Surr: 4-Bromofluorobenzene	*0.0496*		*mg/l*	*0.0500*		*99*	*63-120*			
Matrix Spike Dup (W2H0212-MSD1)	**Source: 2H02074-04**			Analyzed: 08/07/12 13:45						
Gasoline Range Organics	1.12	0.10	mg/l	1.00	ND	112	62-142	0.9	25	
Surr: 4-Bromofluorobenzene	*0.0496*		*mg/l*	*0.0500*		*99*	*63-120*			

Batch W2H0258 - EPA 8015B

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	% REC Limits	RPD	RPD Limit	Data Qualifiers
Blank (W2H0258-BLK1)				Analyzed: 08/10/12 09:30						
Diesel Range Organics	ND	0.10	mg/l							
Oil Range Organics	ND	0.50	mg/l							
Surr: n-Tetracosane	*0.357*		*mg/l*	*0.250*		*143*	*77-162*			
LCS (W2H0258-BS1)				Analyzed: 08/10/12 09:30						
Diesel Range Organics	0.611	0.10	mg/l	0.500		122	69-122			
Surr: n-Tetracosane	*0.365*		*mg/l*	*0.250*		*146*	*77-162*			
LCS Dup (W2H0258-BSD1)				Analyzed: 08/10/12 09:30						
Diesel Range Organics	0.607	0.10	mg/l	0.500		121	69-122	0.6	25	
Surr: n-Tetracosane	*0.370*		*mg/l*	*0.250*		*148*	*77-162*			

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Date Received: 08/02/12 18:15
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Metals (Aqueous) by EPA 6000/7000 Series Methods - Quality Control

Batch W2H0126 - EPA 6010B

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	% REC Limits	RPD	RPD Limit	Data Qualifiers
Blank (W2H0126-BLK1)				Analyzed: 08/07/12 09:10						
Antimony, Total	0.0100	0.010	mg/l							B-06
Arsenic, Total	ND	0.010	mg/l							
Barium, Total	ND	0.010	mg/l							
Beryllium, Total	ND	0.010	mg/l							
Cadmium, Total	ND	0.010	mg/l							
Chromium, Total	ND	0.010	mg/l							
Cobalt, Total	ND	0.010	mg/l							
Copper, Total	ND	0.020	mg/l							
Lead, Total	ND	0.010	mg/l							
Molybdenum, Total	ND	0.010	mg/l							
Nickel, Total	ND	0.010	mg/l							
Selenium, Total	ND	0.030	mg/l							
Silver, Total	ND	0.0050	mg/l							
Thallium, Total	ND	0.050	mg/l							
Vanadium, Total	ND	0.010	mg/l							
Zinc, Total	ND	0.050	mg/l							
LCS (W2H0126-BS1)				Analyzed: 08/07/12 09:13						
Antimony, Total	1.03	0.010	mg/l	1.00		103	75-125			
Arsenic, Total	0.983	0.010	mg/l	1.00		98	75-125			
Barium, Total	0.998	0.010	mg/l	1.00		100	75-125			
Beryllium, Total	0.996	0.010	mg/l	1.00		100	75-125			
Cadmium, Total	1.02	0.010	mg/l	1.00		102	75-125			
Chromium, Total	0.992	0.010	mg/l	1.00		99	75-125			
Cobalt, Total	0.965	0.010	mg/l	1.00		97	75-125			
Copper, Total	0.989	0.020	mg/l	1.00		99	75-125			
Lead, Total	0.987	0.010	mg/l	1.00		99	75-125			
Molybdenum, Total	0.975	0.010	mg/l	1.00		98	75-125			
Nickel, Total	1.03	0.010	mg/l	1.00		103	75-125			
Selenium, Total	0.973	0.030	mg/l	1.00		97	75-125			
Silver, Total	0.476	0.0050	mg/l	0.500		95	75-125			
Thallium, Total	1.01	0.050	mg/l	1.00		101	75-125			
Vanadium, Total	1.00	0.010	mg/l	1.00		100	75-125			
Zinc, Total	0.935	0.050	mg/l	1.00		93	75-125			

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Date Received: 08/02/12 18:15
Date Reported: 08/21/12 10:31

Metals (Aqueous) by EPA 6000/7000 Series Methods - Quality Control

Batch W2H0126 - EPA 6010B

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	% REC Limits	RPD	RPD Limit	Data Qualifiers
Matrix Spike (W2H0126-MS1)	**Source: 2H02074-04**			Analyzed: 08/07/12 09:27						
Antimony, Total	1.05	0.010	mg/l	1.00	ND	105	75-125			
Arsenic, Total	1.01	0.010	mg/l	1.00	0.00994	100	75-125			
Barium, Total	1.06	0.010	mg/l	1.00	0.0872	97	75-125			
Beryllium, Total	0.999	0.010	mg/l	1.00	ND	100	75-125			
Cadmium, Total	1.04	0.010	mg/l	1.00	ND	104	75-125			
Chromium, Total	1.01	0.010	mg/l	1.00	0.00559	100	75-125			
Cobalt, Total	0.961	0.010	mg/l	1.00	0.00148	96	75-125			
Copper, Total	1.01	0.020	mg/l	1.00	0.00597	101	75-125			
Lead, Total	0.980	0.010	mg/l	1.00	ND	98	75-125			
Molybdenum, Total	0.982	0.010	mg/l	1.00	ND	98	75-125			
Nickel, Total	1.04	0.010	mg/l	1.00	0.0124	103	75-125			
Selenium, Total	0.991	0.030	mg/l	1.00	ND	99	75-125			
Silver, Total	0.461	0.0050	mg/l	0.500	0.00122	92	75-125			
Thallium, Total	0.999	0.050	mg/l	1.00	ND	100	75-125			
Vanadium, Total	0.996	0.010	mg/l	1.00	0.00503	99	75-125			
Zinc, Total	0.938	0.050	mg/l	1.00	0.0174	92	75-125			
Matrix Spike Dup (W2H0126-MSD1)	**Source: 2H02074-04**			Analyzed: 08/07/12 09:30						
Antimony, Total	1.05	0.010	mg/l	1.00	ND	105	75-125	0.6	20	
Arsenic, Total	1.00	0.010	mg/l	1.00	0.00994	99	75-125	0.7	20	
Barium, Total	1.06	0.010	mg/l	1.00	0.0872	97	75-125	0.5	20	
Beryllium, Total	1.00	0.010	mg/l	1.00	ND	100	75-125	0.3	20	
Cadmium, Total	1.04	0.010	mg/l	1.00	ND	104	75-125	0.3	20	
Chromium, Total	1.01	0.010	mg/l	1.00	0.00559	100	75-125	0.2	20	
Cobalt, Total	0.957	0.010	mg/l	1.00	0.00148	96	75-125	0.4	20	
Copper, Total	1.01	0.020	mg/l	1.00	0.00597	101	75-125	0.007	20	
Lead, Total	0.971	0.010	mg/l	1.00	ND	97	75-125	0.9	20	
Molybdenum, Total	0.979	0.010	mg/l	1.00	ND	98	75-125	0.3	20	
Nickel, Total	1.04	0.010	mg/l	1.00	0.0124	103	75-125	0.1	20	
Selenium, Total	0.991	0.030	mg/l	1.00	ND	99	75-125	0.0006	20	
Silver, Total	0.460	0.0050	mg/l	0.500	0.00122	92	75-125	0.2	20	
Thallium, Total	0.991	0.050	mg/l	1.00	ND	99	75-125	0.8	20	
Vanadium, Total	0.995	0.010	mg/l	1.00	0.00503	99	75-125	0.2	20	
Zinc, Total	0.933	0.050	mg/l	1.00	0.0174	92	75-125	0.6	20	

Batch W2H0198 - EPA 7470A

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	% REC Limits	RPD	RPD Limit	Data Qualifiers
Blank (W2H0198-BLK1)				Analyzed: 08/06/12 17:02						
Mercury, Total	ND	0.10	ug/l							
LCS (W2H0198-BS1)				Analyzed: 08/06/12 17:02						
Mercury, Total	0.994	0.10	ug/l	1.00		99	80-120			

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Metals (Aqueous) by EPA 6000/7000 Series Methods - Quality Control

Batch W2H0198 - EPA 7470A

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	% REC Limits	RPD	RPD Limit	Data Qualifiers
Matrix Spike (W2H0198-MS1)	**Source: 2H02074-01**			Analyzed: 08/06/12 17:02						
Mercury, Total	0.985	0.10	ug/l	1.00	0.0360	95	66-123			
Matrix Spike Dup (W2H0198-MSD1)	**Source: 2H02074-01**			Analyzed: 08/06/12 17:02						
Mercury, Total	0.999	0.10	ug/l	1.00	0.0360	96	66-123	1	20	

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Organophosphorus Pesticides by EPA Method 8141A - Quality Control

Batch W2H0120 - EPA 8141A

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	% REC Limits	RPD	RPD Limit	Data Qualifiers
Blank (W2H0120-BLK1)				Analyzed: 08/13/12 15:37						
Azinphos methyl (Guthion)	ND	0.10	ug/l							
Bolstar	ND	0.10	ug/l							
Chlorpyrifos	ND	0.10	ug/l							
Coumaphos	ND	0.10	ug/l							
Demeton-o	ND	0.10	ug/l							
Demeton-s	ND	0.10	ug/l							
Diazinon	ND	0.10	ug/l							
Dichlorvos	ND	0.10	ug/l							
Dimethoate	ND	0.25	ug/l							
Disulfoton	ND	0.10	ug/l							
Ethoprop	ND	0.10	ug/l							
Ethyl parathion	ND	0.25	ug/l							
Fensulfothion	ND	0.10	ug/l							
Fenthion	ND	0.10	ug/l							
Malathion	ND	0.25	ug/l							
Merphos	ND	0.10	ug/l							
Methyl parathion	ND	0.10	ug/l							
Mevinphos	ND	0.10	ug/l							
Naled	ND	0.10	ug/l							BS-L
Phorate	ND	0.10	ug/l							
Ronnel	ND	0.10	ug/l							
Stirophos	ND	0.10	ug/l							
Thionazin	ND	0.25	ug/l							
Tokuthion (Prothiofos)	ND	0.10	ug/l							
Trichloronate	ND	0.10	ug/l							
Surr: Triphenyl phosphate	*0.726*		*ug/l*	*1.00*		*73*	*6-173*			

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Organophosphorus Pesticides by EPA Method 8141A - Quality Control

Batch W2H0120 - EPA 8141A

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	% REC Limits	RPD	RPD Limit	Data Qualifiers
LCS (W2H0120-BS1)				Analyzed: 08/14/12 07:19						
Azinphos methyl (Guthion)	1.16	0.10	ug/l	1.00		116	18-159			
Bolstar	0.973	0.10	ug/l	1.00		97	49-148			
Chlorpyrifos	0.769	0.10	ug/l	1.00		77	49-143			
Coumaphos	1.32	0.10	ug/l	1.00		132	42-161			
Demeton-o	0.518	0.10	ug/l	1.00		52	47-132			
Demeton-s	0.829	0.10	ug/l	1.00		83	45-147			
Diazinon	0.703	0.10	ug/l	1.00		70	46-136			
Dichlorvos	0.939	0.10	ug/l	1.00		94	29-164			
Disulfoton	0.745	0.10	ug/l	1.00		74	46-155			
Ethoprop	0.764	0.10	ug/l	1.00		76	54-141			
Fensulfothion	1.23	0.10	ug/l	1.00		123	54-167			
Fenthion	0.779	0.10	ug/l	1.00		78	50-143			
Merphos	0.880	0.10	ug/l	1.00		88	40-185			
Methyl parathion	0.757	0.10	ug/l	1.00		76	47-142			
Mevinphos	0.792	0.10	ug/l	1.00		79	43-145			
Naled	0.0679		ug/l	1.00		7	16-177			BS-L
Phorate	0.759	0.10	ug/l	1.00		76	56-134			
Ronnel	0.754	0.10	ug/l	1.00		75	49-140			
Stirophos	1.05	0.10	ug/l	1.00		105	46-146			
Tokuthion (Prothiofos)	0.857	0.10	ug/l	1.00		86	52-139			
Trichloronate	0.715	0.10	ug/l	1.00		72	52-136			
Surr: Triphenyl phosphate	*1.20*		*ug/l*	*1.00*		*120*	*6-173*			

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Organophosphorus Pesticides by EPA Method 8141A - Quality Control

Batch W2H0120 - EPA 8141A

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	% REC Limits	RPD	RPD Limit	Data Qualifiers
LCS Dup (W2H0120-BSD1)				Analyzed: 08/14/12 07:55						
Azinphos methyl (Guthion)	1.19	0.10	ug/l	1.00		119	18-159	3	25	
Bolstar	1.09	0.10	ug/l	1.00		109	49-148	11	25	
Chlorpyrifos	0.788	0.10	ug/l	1.00		79	49-143	3	25	
Coumaphos	1.38	0.10	ug/l	1.00		138	42-161	4	25	
Demeton-o	0.552	0.10	ug/l	1.00		55	47-132	6	25	
Demeton-s	0.874	0.10	ug/l	1.00		87	45-147	5	25	
Diazinon	0.750	0.10	ug/l	1.00		75	46-136	6	25	
Dichlorvos	0.928	0.10	ug/l	1.00		93	29-164	1	25	
Disulfoton	0.783	0.10	ug/l	1.00		78	46-155	5	25	
Ethoprop	0.803	0.10	ug/l	1.00		80	54-141	5	25	
Fensulfothion	1.39	0.10	ug/l	1.00		139	54-167	12	25	
Fenthion	0.816	0.10	ug/l	1.00		82	50-143	5	25	
Merphos	0.946	0.10	ug/l	1.00		95	40-185	7	25	
Methyl parathion	0.825	0.10	ug/l	1.00		83	47-142	9	25	
Mevinphos	0.807	0.10	ug/l	1.00		81	43-145	2	25	
Naled	0.104	0.10	ug/l	1.00		10	16-177	42	25	BS-L
Phorate	0.792	0.10	ug/l	1.00		79	56-134	4	25	
Ronnel	0.760	0.10	ug/l	1.00		76	49-140	0.9	25	
Stirophos	1.07	0.10	ug/l	1.00		107	46-146	2	25	
Tokuthion (Prothiofos)	0.912	0.10	ug/l	1.00		91	52-139	6	25	
Trichloronate	0.752	0.10	ug/l	1.00		75	52-136	5	25	
Surr: Triphenyl phosphate	*1.26*		*ug/l*	*1.00*		*126*	*6-173*			

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Volatile Organic Compounds by EPA Method 8260B - Quality Control

Batch W2H0172 - EPA 8260B

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	% REC Limits	RPD	RPD Limit	Data Qualifiers

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Volatile Organic Compounds by EPA Method 8260B - Quality Control

Batch W2H0172 - EPA 8260B

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	% REC Limits	RPD	RPD Limit	Data Qualifiers
Blank (W2H0172-BLK1)				Analyzed: 08/06/12 12:08						
1,1,1,2-Tetrachloroethane	ND	1.0	ug/l							
1,1,1-Trichloroethane	ND	1.0	ug/l							
1,1,2,2-Tetrachloroethane	ND	1.0	ug/l							
1,1,2-Trichloroethane	ND	1.0	ug/l							
1,1-Dichloroethane	ND	1.0	ug/l							
1,1-Dichloroethene	ND	1.0	ug/l							
1,1-Dichloropropene	ND	1.0	ug/l							
1,2,3-Trichlorobenzene	ND	1.0	ug/l							
1,2,3-Trichloropropane	ND	1.0	ug/l							
1,2,4-Trichlorobenzene	ND	1.0	ug/l							
1,2,4-Trimethylbenzene	ND	1.0	ug/l							
1,2-Dibromo-3-chloropropane	ND	1.0	ug/l							
1,2-Dibromoethane (EDB)	ND	1.0	ug/l							
1,2-Dichloroethane	ND	1.0	ug/l							
1,2-Dichloropropane	ND	1.0	ug/l							
1,3,5-Trimethylbenzene	ND	1.0	ug/l							
1,3-Dichloropropane	ND	1.0	ug/l							
2,2-Dichloropropane	ND	1.0	ug/l							
2-Butanone	ND	5.0	ug/l							
2-Chloroethyl vinyl ether	ND	5.0	ug/l							
2-Chlorotoluene	ND	1.0	ug/l							
2-Hexanone	ND	5.0	ug/l							
4-Chlorotoluene	ND	1.0	ug/l							
4-Methyl-2-pentanone	ND	5.0	ug/l							
Acetone	ND	5.0	ug/l							
Acrolein	ND	5.0	ug/l							
Acrylonitrile	ND	5.0	ug/l							
Benzene	ND	1.0	ug/l							
Bromobenzene	ND	1.0	ug/l							
Bromochloromethane	ND	1.0	ug/l							
Bromodichloromethane	ND	1.0	ug/l							
Bromoform	ND	1.0	ug/l							
Bromomethane	ND	1.0	ug/l							
Carbon tetrachloride	ND	1.0	ug/l							
Chlorobenzene	ND	1.0	ug/l							
Chloroethane	ND	1.0	ug/l							
Chloroform	ND	1.0	ug/l							
Chloromethane	ND	1.0	ug/l							
cis-1,2-Dichloroethene	ND	1.0	ug/l							
cis-1,3-Dichloropropene	ND	1.0	ug/l							
Dibromochloromethane	ND	1.0	ug/l							
Dibromomethane	ND	1.0	ug/l							
Dichlorodifluoromethane (Freon 12)	ND	1.0	ug/l							
Ethylbenzene	ND	1.0	ug/l							

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Volatile Organic Compounds by EPA Method 8260B - Quality Control

Batch W2H0172 - EPA 8260B

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	% REC Limits	RPD	RPD Limit	Data Qualifiers
Blank (W2H0172-BLK1)				Analyzed: 08/06/12 12:08						
Hexachlorobutadiene	ND	1.0	ug/l							
Isopropylbenzene	ND	1.0	ug/l							
m,p-Xylene	ND	1.0	ug/l							
m-Dichlorobenzene	ND	1.0	ug/l							
Methyl tert-butyl ether (MTBE)	ND	3.0	ug/l							
Methylene chloride	ND	1.0	ug/l							
Naphthalene	ND	1.0	ug/l							
n-Butylbenzene	ND	1.0	ug/l							
n-Propylbenzene	ND	1.0	ug/l							
o-Dichlorobenzene	ND	1.0	ug/l							
o-Xylene	ND	1.0	ug/l							
p-Dichlorobenzene	ND	1.0	ug/l							
p-Isopropyltoluene	ND	1.0	ug/l							
sec-Butylbenzene	ND	1.0	ug/l							
Styrene	ND	1.0	ug/l							
tert-Butylbenzene	ND	1.0	ug/l							
Tetrachloroethene	ND	1.0	ug/l							
Toluene	ND	1.0	ug/l							
trans-1,2-Dichloroethene	ND	1.0	ug/l							
trans-1,3-Dichloropropene	ND	1.0	ug/l							
Trichloroethene	ND	1.0	ug/l							
Trichlorofluoromethane	ND	1.0	ug/l							
Vinyl chloride	ND	1.0	ug/l							
Surr: 1,2-Dichloroethane-d4	*51.1*		*ug/l*	*50.0*		*102*	*83-119*			
Surr: 4-Bromofluorobenzene	*49.5*		*ug/l*	*50.0*		*99*	*83-110*			
Surr: Dibromofluoromethane	*50.1*		*ug/l*	*50.0*		*100*	*89-115*			
Surr: Toluene-d8	*50.2*		*ug/l*	*50.0*		*100*	*92-112*			

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Volatile Organic Compounds by EPA Method 8260B - Quality Control

Batch W2H0172 - EPA 8260B

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	% REC Limits	RPD	RPD Limit	Data Qualifiers
LCS (W2H0172-BS1)				Analyzed: 08/06/12 10:11						
1,1,1,2-Tetrachloroethane	52.5	1.0	ug/l	50.0		105	78-106			
1,1,1-Trichloroethane	51.6	1.0	ug/l	50.0		103	71-130			
1,1,2,2-Tetrachloroethane	48.1	1.0	ug/l	50.0		96	74-105			
1,1,2-Trichloroethane	48.2	1.0	ug/l	50.0		96	81-126			
1,1-Dichloroethane	49.4	1.0	ug/l	50.0		99	79-123			
1,1-Dichloroethene	50.3	1.0	ug/l	50.0		101	73-129			
1,1-Dichloropropene	49.8	1.0	ug/l	50.0		100	76-126			
1,2,3-Trichlorobenzene	51.8	1.0	ug/l	50.0		104	36-200			
1,2,3-Trichloropropane	46.4	1.0	ug/l	50.0		93	78-107			
1,2,4-Trichlorobenzene	52.0	1.0	ug/l	50.0		104	21-212			
1,2,4-Trimethylbenzene	52.5	1.0	ug/l	50.0		105	80-112			
1,2-Dibromo-3-chloropropane	49.8	1.0	ug/l	50.0		100	49-139			
1,2-Dibromoethane (EDB)	49.6	1.0	ug/l	50.0		99	82-128			
1,2-Dichloroethane	47.1	1.0	ug/l	50.0		94	65-140			
1,2-Dichloropropane	48.6	1.0	ug/l	50.0		97	83-121			
1,3,5-Trimethylbenzene	52.2	1.0	ug/l	50.0		104	69-111			
1,3-Dichloropropane	48.5	1.0	ug/l	50.0		97	79-126			
2,2-Dichloropropane	57.0	1.0	ug/l	50.0		114	64-145			
2-Butanone	54.0	5.0	ug/l	50.0		108	61-156			
2-Chloroethyl vinyl ether	61.2	5.0	ug/l	50.0		122	68-145			
2-Chlorotoluene	49.8	1.0	ug/l	50.0		100	64-108			
2-Hexanone	49.6	5.0	ug/l	50.0		99	54-160			
4-Chlorotoluene	49.9	1.0	ug/l	50.0		100	72-110			
4-Methyl-2-pentanone	48.5	5.0	ug/l	50.0		97	66-156			
Acetone	60.7	5.0	ug/l	50.0		121	57-152			
Acrolein	52.4	5.0	ug/l	50.0		105	67-131			
Acrylonitrile	48.2	5.0	ug/l	50.0		96	72-148			
Benzene	48.9	1.0	ug/l	50.0		98	80-121			
Bromobenzene	48.6	1.0	ug/l	50.0		97	70-107			
Bromochloromethane	48.6	1.0	ug/l	50.0		97	73-130			
Bromodichloromethane	51.3	1.0	ug/l	50.0		103	72-130			
Bromoform	54.0	1.0	ug/l	50.0		108	75-117			
Bromomethane	52.6	1.0	ug/l	50.0		105	53-117			
Carbon tetrachloride	56.6	1.0	ug/l	50.0		113	65-127			
Chlorobenzene	48.6	1.0	ug/l	50.0		97	76-109			
Chloroethane	48.5	1.0	ug/l	50.0		97	64-153			
Chloroform	50.3	1.0	ug/l	50.0		101	73-127			
Chloromethane	46.1	1.0	ug/l	50.0		92	52-130			
cis-1,2-Dichloroethene	49.9	1.0	ug/l	50.0		100	79-127			
cis-1,3-Dichloropropene	53.9	1.0	ug/l	50.0		108	80-130			
Dibromochloromethane	51.5	1.0	ug/l	50.0		103	78-129			
Dibromomethane	49.2	1.0	ug/l	50.0		98	72-139			
Dichlorodifluoromethane (Freon 12)	48.7	1.0	ug/l	50.0		97	47-151			
Ethylbenzene	50.7	1.0	ug/l	50.0		101	74-104			

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Date Reported: 08/21/12 10:31

Volatile Organic Compounds by EPA Method 8260B - Quality Control

Batch W2H0172 - EPA 8260B

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	% REC Limits	RPD	RPD Limit	Data Qualifiers
LCS (W2H0172-BS1)				Analyzed: 08/06/12 10:11						
Hexachlorobutadiene	54.2	1.0	ug/l	50.0		108	64-130			
Isopropylbenzene	52.5	1.0	ug/l	50.0		105	57-122			
m,p-Xylene	103	1.0	ug/l	100		103	80-117			
m-Dichlorobenzene	50.1	1.0	ug/l	50.0		100	84-116			
Methyl tert-butyl ether (MTBE)	49.6	3.0	ug/l	50.0		99	76-132			
Methylene chloride	48.6	1.0	ug/l	50.0		97	73-126			
Naphthalene	53.4	1.0	ug/l	50.0		107	27-167			
n-Butylbenzene	53.0	1.0	ug/l	50.0		106	71-124			
n-Propylbenzene	51.7	1.0	ug/l	50.0		103	64-112			
o-Dichlorobenzene	50.1	1.0	ug/l	50.0		100	84-116			
o-Xylene	50.3	1.0	ug/l	50.0		101	78-113			
p-Dichlorobenzene	48.7	1.0	ug/l	50.0		97	82-111			
p-Isopropyltoluene	53.6	1.0	ug/l	50.0		107	72-122			
sec-Butylbenzene	52.6	1.0	ug/l	50.0		105	63-119			
Styrene	52.1	1.0	ug/l	50.0		104	78-123			
tert-Butylbenzene	52.5	1.0	ug/l	50.0		105	61-117			
Tetrachloroethene	49.2	1.0	ug/l	50.0		98	74-120			
Toluene	49.4	1.0	ug/l	50.0		99	79-118			
trans-1,2-Dichloroethene	49.7	1.0	ug/l	50.0		99	77-124			
trans-1,3-Dichloropropene	54.7	1.0	ug/l	50.0		109	76-139			
Trichloroethene	49.2	1.0	ug/l	50.0		98	79-126			
Trichlorofluoromethane	50.6	1.0	ug/l	50.0		101	62-138			
Vinyl chloride	50.2	1.0	ug/l	50.0		100	67-129			
Surr: 1,2-Dichloroethane-d4	*50.4*		*ug/l*	*50.0*		*101*	*83-119*			
Surr: 4-Bromofluorobenzene	*50.0*		*ug/l*	*50.0*		*100*	*83-110*			
Surr: Dibromofluoromethane	*50.5*		*ug/l*	*50.0*		*101*	*89-115*			
Surr: Toluene-d8	*50.1*		*ug/l*	*50.0*		*100*	*92-112*			

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Environmental Equalizers - Camarillo
1358 Oakhurst Court
Camarillo CA, 93010

Date Received: 08/02/12 18:15
Date Reported: 08/21/12 10:31

Volatile Organic Compounds by EPA Method 8260B - Quality Control

Batch W2H0172 - EPA 8260B

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	% REC Limits	RPD	RPD Limit	Data Qualifiers
LCS Dup (W2H0172-BSD1)				Analyzed: 08/06/12 10:40						
1,1,1,2-Tetrachloroethane	52.9	1.0	ug/l	50.0		106	78-106	0.8	25	
1,1,1-Trichloroethane	50.1	1.0	ug/l	50.0		100	71-130	3	25	
1,1,2,2-Tetrachloroethane	48.0	1.0	ug/l	50.0		96	74-105	0.1	25	
1,1,2-Trichloroethane	48.4	1.0	ug/l	50.0		97	81-126	0.3	25	
1,1-Dichloroethane	47.9	1.0	ug/l	50.0		96	79-123	3	25	
1,1-Dichloroethene	48.5	1.0	ug/l	50.0		97	73-129	4	25	
1,1-Dichloropropene	48.3	1.0	ug/l	50.0		97	76-126	3	25	
1,2,3-Trichlorobenzene	51.4	1.0	ug/l	50.0		103	36-200	0.7	25	
1,2,3-Trichloropropane	46.8	1.0	ug/l	50.0		94	78-107	0.8	25	
1,2,4-Trichlorobenzene	51.4	1.0	ug/l	50.0		103	21-212	1	25	
1,2,4-Trimethylbenzene	51.0	1.0	ug/l	50.0		102	80-112	3	25	
1,2-Dibromo-3-chloropropane	48.3	1.0	ug/l	50.0		97	49-139	3	25	
1,2-Dibromoethane (EDB)	49.8	1.0	ug/l	50.0		100	82-128	0.4	25	
1,2-Dichloroethane	46.0	1.0	ug/l	50.0		92	65-140	2	25	
1,2-Dichloropropane	47.6	1.0	ug/l	50.0		95	83-121	2	25	
1,3,5-Trimethylbenzene	51.2	1.0	ug/l	50.0		102	69-111	2	25	
1,3-Dichloropropane	48.4	1.0	ug/l	50.0		97	79-126	0.1	25	
2,2-Dichloropropane	53.7	1.0	ug/l	50.0		107	64-145	6	25	
2-Butanone	53.2	5.0	ug/l	50.0		106	61-156	2	25	
2-Chloroethyl vinyl ether	57.8	5.0	ug/l	50.0		116	68-145	6	25	
2-Chlorotoluene	49.0	1.0	ug/l	50.0		98	64-108	2	25	
2-Hexanone	48.4	5.0	ug/l	50.0		97	54-160	2	25	
4-Chlorotoluene	49.1	1.0	ug/l	50.0		98	72-110	2	25	
4-Methyl-2-pentanone	49.2	5.0	ug/l	50.0		98	66-156	1	25	
Acetone	59.0	5.0	ug/l	50.0		118	57-152	3	25	
Acrolein	50.8	5.0	ug/l	50.0		102	67-131	3	25	
Acrylonitrile	48.6	5.0	ug/l	50.0		97	72-148	0.7	25	
Benzene	47.7	1.0	ug/l	50.0		95	80-121	2	25	
Bromobenzene	47.9	1.0	ug/l	50.0		96	70-107	2	25	
Bromochloromethane	47.2	1.0	ug/l	50.0		94	73-130	3	25	
Bromodichloromethane	51.2	1.0	ug/l	50.0		102	72-130	0.2	25	
Bromoform	54.9	1.0	ug/l	50.0		110	75-117	2	25	
Bromomethane	51.2	1.0	ug/l	50.0		102	53-117	3	25	
Carbon tetrachloride	54.9	1.0	ug/l	50.0		110	65-127	3	25	
Chlorobenzene	48.1	1.0	ug/l	50.0		96	76-109	1	25	
Chloroethane	48.1	1.0	ug/l	50.0		96	64-153	0.9	25	
Chloroform	49.1	1.0	ug/l	50.0		98	73-127	3	25	
Chloromethane	44.1	1.0	ug/l	50.0		88	52-130	4	25	
cis-1,2-Dichloroethene	48.6	1.0	ug/l	50.0		97	79-127	3	25	
cis-1,3-Dichloropropene	53.2	1.0	ug/l	50.0		106	80-130	1	25	
Dibromochloromethane	51.2	1.0	ug/l	50.0		102	78-129	0.4	25	
Dibromomethane	49.3	1.0	ug/l	50.0		99	72-139	0.2	25	
Dichlorodifluoromethane (Freon 12)	47.2	1.0	ug/l	50.0		94	47-151	3	25	
Ethylbenzene	50.1	1.0	ug/l	50.0		100	74-104	1	25	

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Date Received: 08/02/12 18:15
Date Reported: 08/21/12 10:31

Volatile Organic Compounds by EPA Method 8260B - Quality Control

Batch W2H0172 - EPA 8260B

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	% REC Limits	RPD	RPD Limit	Data Qualifiers
LCS Dup (W2H0172-BSD1)				Analyzed: 08/06/12 10:40						
Hexachlorobutadiene	52.8	1.0	ug/l	50.0		106	64-130	3	25	
Isopropylbenzene	50.8	1.0	ug/l	50.0		102	57-122	3	25	
m,p-Xylene	102	1.0	ug/l	100		102	80-117	1	25	
m-Dichlorobenzene	48.9	1.0	ug/l	50.0		98	84-116	2	25	
Methyl tert-butyl ether (MTBE)	49.5	3.0	ug/l	50.0		99	76-132	0.2	25	
Methylene chloride	47.6	1.0	ug/l	50.0		95	73-126	2	25	
Naphthalene	53.9	1.0	ug/l	50.0		108	27-167	0.9	25	
n-Butylbenzene	50.9	1.0	ug/l	50.0		102	71-124	4	25	
n-Propylbenzene	50.2	1.0	ug/l	50.0		100	64-112	3	25	
o-Dichlorobenzene	49.3	1.0	ug/l	50.0		99	84-116	2	25	
o-Xylene	49.8	1.0	ug/l	50.0		100	78-113	1	25	
p-Dichlorobenzene	47.7	1.0	ug/l	50.0		95	82-111	2	25	
p-Isopropyltoluene	51.6	1.0	ug/l	50.0		103	72-122	4	25	
sec-Butylbenzene	50.6	1.0	ug/l	50.0		101	63-119	4	25	
Styrene	51.6	1.0	ug/l	50.0		103	78-123	0.9	25	
tert-Butylbenzene	51.2	1.0	ug/l	50.0		102	61-117	3	25	
Tetrachloroethene	48.9	1.0	ug/l	50.0		98	74-120	0.6	25	
Toluene	48.8	1.0	ug/l	50.0		98	79-118	1	25	
trans-1,2-Dichloroethene	48.1	1.0	ug/l	50.0		96	77-124	3	25	
trans-1,3-Dichloropropene	54.5	1.0	ug/l	50.0		109	76-139	0.5	25	
Trichloroethene	47.7	1.0	ug/l	50.0		95	79-126	3	25	
Trichlorofluoromethane	49.1	1.0	ug/l	50.0		98	62-138	3	25	
Vinyl chloride	48.1	1.0	ug/l	50.0		96	67-129	4	25	
Surr: 1,2-Dichloroethane-d4	*50.2*		*ug/l*	*50.0*		*100*	*83-119*			
Surr: 4-Bromofluorobenzene	*51.1*		*ug/l*	*50.0*		*102*	*83-110*			
Surr: Dibromofluoromethane	*50.9*		*ug/l*	*50.0*		*102*	*89-115*			
Surr: Toluene-d8	*50.4*		*ug/l*	*50.0*		*101*	*92-112*			

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Date Reported: 08/21/12 10:31

Volatile Organic Compounds by EPA Method 8260B - Quality Control

Batch W2H0172 - EPA 8260B

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	% REC Limits	RPD	RPD Limit	Data Qualifiers
Matrix Spike (W2H0172-MS1)	**Source: 2H02074-02**			Analyzed: 08/08/12 07:49						
1,1,1,2-Tetrachloroethane	53.1	1.0	ug/l	50.0	ND	106	80-120			
1,1,1-Trichloroethane	55.3	1.0	ug/l	50.0	ND	111	80-124			
1,1,2,2-Tetrachloroethane	49.5	1.0	ug/l	50.0	ND	99	80-120			
1,1,2-Trichloroethane	50.5	1.0	ug/l	50.0	ND	101	80-120			
1,1-Dichloroethane	51.7	1.0	ug/l	50.0	ND	103	80-120			
1,1-Dichloroethene	53.3	1.0	ug/l	50.0	ND	107	85-144			
1,1-Dichloropropene	51.7	1.0	ug/l	50.0	ND	103	80-132			
1,2,3-Trichlorobenzene	50.9	1.0	ug/l	50.0	ND	102	72-144			
1,2,3-Trichloropropane	49.4	1.0	ug/l	50.0	ND	99	80-120			
1,2,4-Trichlorobenzene	49.1	1.0	ug/l	50.0	ND	98	71-141			
1,2,4-Trimethylbenzene	50.0	1.0	ug/l	50.0	ND	100	80-120			
1,2-Dibromo-3-chloropropane	57.8	1.0	ug/l	50.0	ND	116	80-120			
1,2-Dibromoethane (EDB)	53.5	1.0	ug/l	50.0	ND	107	80-120			
1,2-Dichloroethane	50.0	1.0	ug/l	50.0	ND	100	80-120			
1,2-Dichloropropane	50.4	1.0	ug/l	50.0	ND	101	80-120			
1,3,5-Trimethylbenzene	50.0	1.0	ug/l	50.0	ND	100	80-120			
1,3-Dichloropropane	51.4	1.0	ug/l	50.0	ND	103	80-120			
2,2-Dichloropropane	41.2	1.0	ug/l	50.0	ND	82	80-143			
2-Butanone	56.4	5.0	ug/l	50.0	ND	113	80-120			
2-Chloroethyl vinyl ether	101	5.0	ug/l	50.0	ND	202	80-120			MS-05
2-Chlorotoluene	47.8	1.0	ug/l	50.0	ND	96	80-120			
2-Hexanone	58.0	5.0	ug/l	50.0	ND	116	80-137			
4-Chlorotoluene	47.7	1.0	ug/l	50.0	ND	95	80-120			
4-Methyl-2-pentanone	56.7	5.0	ug/l	50.0	ND	113	80-137			
Acetone	65.2	5.0	ug/l	50.0	ND	130	80-120			MS-05
Acrolein	46.9	5.0	ug/l	50.0	ND	94	60-120			
Acrylonitrile	57.6	5.0	ug/l	50.0	ND	115	80-120			
Benzene	50.0	1.0	ug/l	50.0	ND	100	91-120			
Bromobenzene	48.0	1.0	ug/l	50.0	ND	96	80-120			
Bromochloromethane	50.5	1.0	ug/l	50.0	ND	101	80-120			
Bromodichloromethane	54.0	1.0	ug/l	50.0	ND	108	80-122			
Bromoform	55.6	1.0	ug/l	50.0	ND	111	80-120			
Bromomethane	6.51	1.0	ug/l	50.0	ND	13	69-120			MS-05
Carbon tetrachloride	64.1	1.0	ug/l	50.0	ND	128	80-127			MS-05
Chlorobenzene	47.2	1.0	ug/l	50.0	ND	94	81-108			
Chloroethane	57.3	1.0	ug/l	50.0	ND	115	80-127			
Chloroform	51.7	1.0	ug/l	50.0	ND	103	80-120			
Chloromethane	41.7	1.0	ug/l	50.0	ND	83	80-120			
cis-1,2-Dichloroethene	49.7	1.0	ug/l	50.0	ND	99	80-120			
cis-1,3-Dichloropropene	10.5	1.0	ug/l	50.0	ND	21	80-122			MS-05
Dibromochloromethane	54.7	1.0	ug/l	50.0	ND	109	80-129			
Dibromomethane	52.6	1.0	ug/l	50.0	ND	105	80-120			
Dichlorodifluoromethane (Freon 12)	50.1	1.0	ug/l	50.0	ND	100	80-120			
Ethylbenzene	49.4	1.0	ug/l	50.0	ND	99	80-120			

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Volatile Organic Compounds by EPA Method 8260B - Quality Control

Batch W2H0172 - EPA 8260B

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	% REC Limits	RPD	RPD Limit	Data Qualifiers
Matrix Spike (W2H0172-MS1)	**Source: 2H02074-02**			Analyzed: 08/08/12 07:49						
Hexachlorobutadiene	51.8	1.0	ug/l	50.0	ND	104	80-120			
Isopropylbenzene	50.4	1.0	ug/l	50.0	ND	101	77-121			
m,p-Xylene	101	1.0	ug/l	100	ND	101	80-120			
m-Dichlorobenzene	46.9	1.0	ug/l	50.0	ND	94	0-200			
Methyl tert-butyl ether (MTBE)	54.1	3.0	ug/l	50.0	ND	108	80-134			
Methylene chloride	50.5	1.0	ug/l	50.0	ND	101	80-120			
Naphthalene	57.8	1.0	ug/l	50.0	ND	116	68-139			
n-Butylbenzene	53.7	1.0	ug/l	50.0	ND	107	80-120			
n-Propylbenzene	49.4	1.0	ug/l	50.0	ND	99	80-120			
o-Dichlorobenzene	47.8	1.0	ug/l	50.0	ND	96	0-200			
o-Xylene	49.2	1.0	ug/l	50.0	ND	98	80-120			
p-Dichlorobenzene	45.8	1.0	ug/l	50.0	ND	92	0-200			
p-Isopropyltoluene	52.8	1.0	ug/l	50.0	ND	106	80-120			
sec-Butylbenzene	52.7	1.0	ug/l	50.0	ND	105	80-120			
Styrene	50.5	1.0	ug/l	50.0	ND	101	80-120			
tert-Butylbenzene	50.8	1.0	ug/l	50.0	ND	102	80-120			
Tetrachloroethene	50.0	1.0	ug/l	50.0	ND	100	80-125			
Toluene	50.6	1.0	ug/l	50.0	ND	101	90-117			
trans-1,2-Dichloroethene	52.3	1.0	ug/l	50.0	ND	105	80-120			
trans-1,3-Dichloropropene	30.2	1.0	ug/l	50.0	ND	60	80-127			MS-05
Trichloroethene	52.3	1.0	ug/l	50.0	ND	105	89-124			
Trichlorofluoromethane	43.5	1.0	ug/l	50.0	ND	87	80-124			
Vinyl chloride	54.8	1.0	ug/l	50.0	ND	110	80-120			
Surr: 1,2-Dichloroethane-d4	*54.0*		*ug/l*	*50.0*		*108*	*83-119*			
Surr: 4-Bromofluorobenzene	*49.9*		*ug/l*	*50.0*		*100*	*83-110*			
Surr: Dibromofluoromethane	*51.5*		*ug/l*	*50.0*		*103*	*89-115*			
Surr: Toluene-d8	*50.4*		*ug/l*	*50.0*		*101*	*92-112*			

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Volatile Organic Compounds by EPA Method 8260B - Quality Control

Batch W2H0172 - EPA 8260B

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	% REC Limits	RPD	RPD Limit	Data Qualifiers
Matrix Spike Dup (W2H0172-MSD1)	**Source: 2H02074-02**			Analyzed: 08/08/12 08:17						
1,1,1,2-Tetrachloroethane	53.1	1.0	ug/l	50.0	ND	106	80-120	0.09	25	
1,1,1-Trichloroethane	53.2	1.0	ug/l	50.0	ND	106	80-124	4	25	
1,1,2,2-Tetrachloroethane	44.2	1.0	ug/l	50.0	ND	88	80-120	11	25	
1,1,2-Trichloroethane	48.2	1.0	ug/l	50.0	ND	96	80-120	5	25	
1,1-Dichloroethane	50.1	1.0	ug/l	50.0	ND	100	80-120	3	25	
1,1-Dichloroethene	51.5	1.0	ug/l	50.0	ND	103	85-144	4	25	
1,1-Dichloropropene	50.2	1.0	ug/l	50.0	ND	100	80-132	3	25	
1,2,3-Trichlorobenzene	44.5	1.0	ug/l	50.0	ND	89	72-144	14	25	
1,2,3-Trichloropropane	45.0	1.0	ug/l	50.0	ND	90	80-120	9	25	
1,2,4-Trichlorobenzene	44.8	1.0	ug/l	50.0	ND	90	71-141	9	25	
1,2,4-Trimethylbenzene	50.0	1.0	ug/l	50.0	ND	100	80-120	0.1	25	
1,2-Dibromo-3-chloropropane	43.2	1.0	ug/l	50.0	ND	86	80-120	29	25	MS-05
1,2-Dibromoethane (EDB)	49.2	1.0	ug/l	50.0	ND	98	80-120	8	25	
1,2-Dichloroethane	47.5	1.0	ug/l	50.0	ND	95	80-120	5	25	
1,2-Dichloropropane	49.0	1.0	ug/l	50.0	ND	98	80-120	3	25	
1,3,5-Trimethylbenzene	49.8	1.0	ug/l	50.0	ND	100	80-120	0.5	25	
1,3-Dichloropropane	48.7	1.0	ug/l	50.0	ND	97	80-120	5	25	
2,2-Dichloropropane	38.7	1.0	ug/l	50.0	ND	77	80-143	6	25	MS-05
2-Butanone	48.5	5.0	ug/l	50.0	ND	97	80-120	15	25	
2-Chloroethyl vinyl ether	94.4	5.0	ug/l	50.0	ND	189	80-120	7	25	MS-05
2-Chlorotoluene	48.2	1.0	ug/l	50.0	ND	96	80-120	1	25	
2-Hexanone	50.2	5.0	ug/l	50.0	ND	100	80-137	14	25	
4-Chlorotoluene	48.1	1.0	ug/l	50.0	ND	96	80-120	0.9	25	
4-Methyl-2-pentanone	46.7	5.0	ug/l	50.0	ND	93	80-137	19	25	
Acetone	58.1	5.0	ug/l	50.0	ND	116	80-120	12	25	
Acrolein	46.1	5.0	ug/l	50.0	ND	92	60-120	2	25	
Acrylonitrile	45.6	5.0	ug/l	50.0	ND	91	80-120	23	25	
Benzene	48.9	1.0	ug/l	50.0	ND	98	91-120	2	25	
Bromobenzene	47.5	1.0	ug/l	50.0	ND	95	80-120	1	25	
Bromochloromethane	48.6	1.0	ug/l	50.0	ND	97	80-120	4	25	
Bromodichloromethane	53.0	1.0	ug/l	50.0	ND	106	80-122	2	25	
Bromoform	53.7	1.0	ug/l	50.0	ND	107	80-120	3	25	
Bromomethane	5.97	1.0	ug/l	50.0	ND	12	69-120	9	25	MS-05
Carbon tetrachloride	61.5	1.0	ug/l	50.0	ND	123	80-127	4	25	
Chlorobenzene	47.0	1.0	ug/l	50.0	ND	94	81-108	0.4	25	
Chloroethane	51.6	1.0	ug/l	50.0	ND	103	80-127	10	25	
Chloroform	49.9	1.0	ug/l	50.0	ND	100	80-120	3	25	
Chloromethane	39.1	1.0	ug/l	50.0	ND	78	80-120	6	25	MS-05
cis-1,2-Dichloroethene	48.1	1.0	ug/l	50.0	ND	96	80-120	3	25	
cis-1,3-Dichloropropene	9.72	1.0	ug/l	50.0	ND	19	80-122	8	25	MS-05
Dibromochloromethane	52.7	1.0	ug/l	50.0	ND	105	80-129	4	25	
Dibromomethane	49.3	1.0	ug/l	50.0	ND	99	80-120	6	25	
Dichlorodifluoromethane (Freon 12)	48.7	1.0	ug/l	50.0	ND	97	80-120	3	25	
Ethylbenzene	49.1	1.0	ug/l	50.0	ND	98	80-120	0.6	25	

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Environmental Equalizers - Camarillo
1358 Oakhurst Court
Camarillo CA, 93010

Date Received: 08/02/12 18:15
Date Reported: 08/21/12 10:31

Volatile Organic Compounds by EPA Method 8260B - Quality Control

Batch W2H0172 - EPA 8260B

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	% REC Limits	RPD	RPD Limit	Data Qualifiers
Matrix Spike Dup (W2H0172-MSD1)	**Source: 2H02074-02**			Analyzed: 08/08/12 08:17						
Hexachlorobutadiene	46.8	1.0	ug/l	50.0	ND	94	80-120	10	25	
Isopropylbenzene	50.4	1.0	ug/l	50.0	ND	101	77-121	0.2	25	
m,p-Xylene	100	1.0	ug/l	100	ND	100	80-120	0.4	25	
m-Dichlorobenzene	47.5	1.0	ug/l	50.0	ND	95	0-200	1	25	
Methyl tert-butyl ether (MTBE)	50.4	3.0	ug/l	50.0	ND	101	80-134	7	25	
Methylene chloride	49.3	1.0	ug/l	50.0	ND	99	80-120	2	25	
Naphthalene	47.1	1.0	ug/l	50.0	ND	94	68-139	20	25	
n-Butylbenzene	47.7	1.0	ug/l	50.0	ND	95	80-120	12	25	
n-Propylbenzene	49.2	1.0	ug/l	50.0	ND	98	80-120	0.4	25	
o-Dichlorobenzene	47.6	1.0	ug/l	50.0	ND	95	0-200	0.5	25	
o-Xylene	49.3	1.0	ug/l	50.0	ND	99	80-120	0.2	25	
p-Dichlorobenzene	46.4	1.0	ug/l	50.0	ND	93	0-200	1	25	
p-Isopropyltoluene	50.1	1.0	ug/l	50.0	ND	100	80-120	5	25	
sec-Butylbenzene	49.8	1.0	ug/l	50.0	ND	100	80-120	6	25	
Styrene	50.5	1.0	ug/l	50.0	ND	101	80-120	0.04	25	
tert-Butylbenzene	49.8	1.0	ug/l	50.0	ND	100	80-120	2	25	
Tetrachloroethene	49.3	1.0	ug/l	50.0	ND	99	80-125	1	25	
Toluene	49.3	1.0	ug/l	50.0	ND	99	90-117	3	25	
trans-1,2-Dichloroethene	50.5	1.0	ug/l	50.0	ND	101	80-120	3	25	
trans-1,3-Dichloropropene	29.2	1.0	ug/l	50.0	ND	58	80-127	3	25	MS-05
Trichloroethene	50.9	1.0	ug/l	50.0	ND	102	89-124	3	25	
Trichlorofluoromethane	52.5	1.0	ug/l	50.0	ND	105	80-124	19	25	
Vinyl chloride	50.3	1.0	ug/l	50.0	ND	101	80-120	9	25	
Surr: 1,2-Dichloroethane-d4	*51.4*		*ug/l*	*50.0*		*103*	*83-119*			
Surr: 4-Bromofluorobenzene	*50.5*		*ug/l*	*50.0*		*101*	*83-110*			
Surr: Dibromofluoromethane	*52.0*		*ug/l*	*50.0*		*104*	*89-115*			
Surr: Toluene-d8	*50.5*		*ug/l*	*50.0*		*101*	*92-112*			

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Environmental Equalizers - Camarillo
1358 Oakhurst Court
Camarillo CA, 93010

Date Received: 08/02/12 18:15
Date Reported: 08/21/12 10:31

Notes and Definitions

SeeAtt	See Attachment
MS-05	The spike recovery and/or RPD were outside acceptance limits for the MS and/or MSD due to possible matrix interference. The LCS and/or LCSD were within acceptance limits showing that the laboratory is in control and the data is acceptable.
BS-L	The recovery of this analyte in the BS/LCS was below the control limit. Sample result is suspect.
B-06	This analyte was found in the method blank, which was possibly contaminated during sample preparation. The batch was accepted since this analyte was either not detected or more than 10 times of the blank value for all the samples in the batch.
A-01	Analysis subcontracted to Frontier Global Sciences.
ND	NOT DETECTED at or above the Reporting Limit. If J-value reported, then NOT DETECTED at or above the Method Detection Limit (MDL)
NR	Not Reportable
Dil	Dilution
dry	Sample results reported on a dry weight basis
RPD	Relative Percent Difference
% Rec	Percent Recovery
Sub	Subcontracted analysis, original report available upon request
MDL	Method Detection Limit
MDA	Minimum Detectable Activity
MRL	Method Reporting Limit

Any remaining sample(s) will be disposed of one month from the final report date unless other arrangements are made in advance.

An Absence of Total Coliform meets the drinking water standards as established by the California Department of Health Services.

The Reporting Limit (RL) is referenced as the Laboratory's Practical Quantitation Limit (PQL) or the Detection Limit for Reporting Purposes (DLR).

All samples collected by Weck Laboratories have been sampled in accordance to laboratory SOP Number MIS002.

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20 August 2012

Kim Tu
Weck Laboratories
14859 East Clark Avenue
City of Industry, CA 91745-1396

RE: Methyl Mercury

Enclosed are the analytical results for samples received by Frontier Global Sciences. All quality control measurements are within established control limits and there were no analytical difficulties encountered with the exception of those listed in the case narrative section of this report.

If you have any questions concerning this report, please feel free to contact me.

Sincerely,



Curtis Armstrong

Project Manager

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Bothell, WA 98011
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Fx: 425-686-3096

ANALYTICAL REPORT FOR SAMPLES

Laboratory: Frontier Global Sciences, Inc. **SDG:**

Client: Weck Laboratories **Project:** Methyl Mercury

Sample ID	Lab ID	Matrix	Date Sampled	Date Received
2H02074-01	1208101-01	Water	01-Aug-12 08:45	07-Aug-12 09:20
2H02074-02	1208101-02	Water	01-Aug-12 12:15	07-Aug-12 09:20
2H02074-03	1208101-03	Water	01-Aug-12 14:10	07-Aug-12 09:20
2H02074-04	1208101-04	Water	01-Aug-12 14:45	07-Aug-12 09:20

Frontier Global Sciences, Inc.

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Curtis Armstrong, Project Manager

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CASE NARRATIVE

SAMPLE RECEIPT

Samples were received at Frontier Global Sciences (FGS) on August 07th, 2012. The samples were received intact, on-ice with temperatures measured at 0.4 degrees Celsius.

SAMPLE PREPARATION AND ANALYSIS

Samples were prepared and analyzed for methyl mercury in accordance with EPA Method 1630.

ANALYTICAL ISSUES

Liquid spikes were prepared for every preparation as a measure of accuracy. All liquid spikes and certified reference material were within the control limits.

As an additional measure of the accuracy of the methods utilized for analysis and to check for matrix interference, matrix spikes (MS) and matrix spike duplicates (MSD) were digested and analyzed. All of the matrix spike recoveries were within the control limits with the exception of any QC flagged and described in the notes and definitions section of the following report.

A reasonable measure of the precision of the analytical methods utilized for analysis is the relative percent difference (RPD) between matrix spike and matrix spike duplicate recoveries and between laboratory control sample and laboratory control sample duplicate recoveries. All of the relative percent differences were within the control limits with the exception of any QC flagged and described in the notes and definitions section of the following report.

Frontier Global Sciences, Inc.

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Curtis Armstrong, Project Manager

FRONTIER GLOBAL SCIENCES

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CHAIN OF CUSTODY FORMS

SUBCONTRACT ORDER
Weck Laboratories, Inc
2H02074

1208101

SENDING LABORATORY:
Weck Laboratories, Inc
14859 East Clark Avenue
City of Industry, CA 91745
Phone: (626) 336-2139
Fax: (626) 336-2634
Project Manager: Kim G Tu

RECEIVING LABORATORY:
Frontier Global Sciences, INC. - subcontract
11720 North Creek Pkwy North, Suite 400
Bothell, WA 98011
Phone :(425) 686-3584
Fax: -

Analysis	Due	Expires	Laboratory ID	Comments
Sample ID: 2H02074-01	**Water**	**Sampled:08/01/12 08:45**		
Methyl Mercury	08/15/12 12:00	08/03/12 08:45		
Containers Supplied:				
Sample ID: 2H02074-02	**Water**	**Sampled:08/01/12 12:15**		
Methyl Mercury	08/15/12 12:00	08/03/12 12:15		
Containers Supplied:				
Sample ID: 2H02074-03	**Water**	**Sampled:08/01/12 14:10**		
Methyl Mercury	08/15/12 12:00	08/03/12 14:10		
Containers Supplied:				
Sample ID: 2H02074-04	**Water**	**Sampled:08/01/12 14:45**		
Methyl Mercury	08/15/12 12:00	08/03/12 14:45		
Containers Supplied:				

No COC seal
Rec'd @ 0.4°C TID 3155
Shipped FedEx
7938 7301 2693
VTSR 0920

Released By	Date	Received By	Date
	8/6/12 10:40	Fedex	
		FGS Cho Dowray	8/7/12 0930
Released By	Date	Received By	Date

Frontier Global Sciences, Inc.

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Curtis Armstrong, Project Manager

FRONTIER GLOBAL SCIENCES

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CHAIN OF CUSTODY FORMS

FGS Work Order: 1208101 **Sample Receipt Checklist** Frontier Global Sciences

Client: Weck Labs Date & Time Received: 8/7/12 0930 Date Logged In: 8/7/12 Date Labeled: 8/7/12

Project: Metha Received By: CT Logged By: CT Labeled By: CT

# of Coolers Received: 1 Samples Arrived By: X Shipping Service ___Courier ___Hand ___Other:

Tracking/Airbill Number(s): FedEx 7938 7301 2692

Thermal Preservation: _____None (Ambient) ___X___Loose Ice _____Gel/Blue Ice _____Other:

Thermal Preservation Required: (Y) N

Thermometer ID: 3155		CF: +0.7 °C		
Cooler 1: 0.4 °C	Cooler 4: °C	Cooler 7: °C	Cooler 10: °C	Cooler 13: °C
Cooler 2: °C	Cooler 5: °C	Cooler 8: °C	Cooler 11: °C	Cooler 14: °C
Cooler 3: °C	Cooler 6: °C	Cooler 9: °C	Cooler 12: °C	Cooler 15: °C

Cooler Information:	Y/N	Comments
The coolers do not appear to be tampered with:	Y	
Custody Seals are present and intact:	N	None used
Custody seals signed by:	N/A	

Chain of Custody:	Y/N	Comments
Sample ID/Description:	Y	
Date/Time of collection:	Y	
Sampled by:	N	
Preservation type:	N	Client sent HCl, no indication if used
Requested analyses:	Y	
Required signatures:	Y	
Internal COC required:	N	

Sample Condition/Integrity:	Y/N	Comments
Sample containers intact:	Y	
Sample labels are present and legible:	Y	
Sample ID on container matches COC:	Y	
Correct sample containers used:	Y	
Samples received within holding times:	Y	
Sample volume sufficient for requested analyses:	Y	
Correct preservative used for requested analyses:	Y	
pH of preserved samples verified and recorded:	Y	pH <2 on all Samples

Client Contacted: _____ Date/Time: _____ Method: _____

Anomalies/Non-conformances (attach additional pages if needed):

Discussion/Resolution:

FGS Sample Receipt Checklist Revision 2; 07/09/2012

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ANALYTICAL RESULTS

2H02074-01

Matrix: Water **Laboratory ID:** 1208101-01

Analyte	Result	MDL	MRL	Units	Dilution	Batch	Sequence	Analyzed	Method	Notes
Methyl Mercury	**0.215**	0.026	0.050	ng/L	1.25	F208085	2H09018	08/09/12	1630 Mod/FGS	

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ANALYTICAL RESULTS

2H02074-02

Matrix: Water **Laboratory ID:** 1208101-02

Analyte	Result	MDL	MRL	Units	Dilution	Batch	Sequence	Analyzed	Method	Notes
Methyl Mercury	**0.905**	0.026	0.050	ng/L	1.25	F208085	2H09018	08/09/12	1630 Mod/FGS	

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ANALYTICAL RESULTS

2H02074-03

Matrix: Water **Laboratory ID:** 1208101-03

Analyte	Result	MDL	MRL	Units	Dilution	Batch	Sequence	Analyzed	Method	Notes
Methyl Mercury	**15.3**	0.233	0.450	ng/L	1.25	F208134	2H14009	08/14/12	1630 Mod/FGS	QB-01

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ANALYTICAL RESULTS

2H02074-04

Matrix: Water **Laboratory ID:** 1208101-04

Analyte	Result	MDL	MRL	Units	Dilution	Batch	Sequence	Analyzed	Method	Notes
Methyl Mercury	**7.97**	0.233	0.450	ng/L	1.25	F208134	2H14009	08/14/12	1630 Mod/FGS	QB-01

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MATRIX DUPLICATES/TRIPLICATES

SOURCE: 1208101-01

Batch: F208085 **Sequence:** 2H09018

Preparation: Methyl Hg Distillation for Water **Lab Number:** F208085-DUP1

Analyte	Sample Concentration ng/L	Duplicate Concentration ng/L	MRL	% RPD	RPD Limit	Method	Notes
Methyl Mercury	0.215	0.257	0.050	18.1	35	\ 1630 Mod/FGS-	

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MATRIX DUPLICATES/TRIPLICATES

SOURCE: 1208056-06RE1

Batch: F208134 **Sequence:** 2H14009

Preparation: Methyl Hg Distillation for Water **Lab Number:** F208134-DUP1

Analyte	Sample Concentration ng/L	Duplicate Concentration ng/L	MRL	% RPD	RPD Limit	Method	Notes
Methyl Mercury	ND	ND	0.450	ND	35	\ 1630 Mod/FGS-	U

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MATRIX SPIKE / MATRIX SPIKE DUPLICATE RECOVERY AND RPD

SOURCE: 1208101-02

Batch: F208085 **Sequence:** 2H09018

Preparation: Methyl Hg Distillation for Water **Lab Number:** F208085-MS/MSD1

Analyte	Sample Concentration (ng/L)	Spike Added (ng/L)	MS Concentration (ng/L)	MS % Recovery	Recovery Limits	Method	Notes
Methyl Mercury	0.905	1.0000	1.133	22.8	65 - 130	1630 Mod/FGS	QM-07

Analyte	Spike Added (ng/L)	MSD Concentration (ng/L)	MSD % Recovery	% RPD	Recovery Limits	RPD Limit	Method	Notes
Methyl Mercury	1.0000	1.160	25.5	2.35	65 - 130	35	1630 Mod/FGS	QM-07

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MATRIX SPIKE / MATRIX SPIKE DUPLICATE RECOVERY AND RPD

SOURCE: 1207386-32

Batch: F208085 **Sequence:** 2H09018

Preparation: Methyl Hg Distillation for Water **Lab Number:** F208085-MS/MSD3

Analyte	Sample Concentration (ng/L)	Spike Added (ng/L)	MS Concentration (ng/L)	MS % Recovery	Recovery Limits	Method	Notes
Methyl Mercury	19.61	44.444	68.82	111	65 - 130	1630 Mod/FGS	

Analyte	Spike Added (ng/L)	MSD Concentration (ng/L)	MSD % Recovery	% RPD	Recovery Limits	RPD Limit	Method	Notes
Methyl Mercury	44.444	58.69	87.9	15.9	65 - 130	35	1630 Mod/FGS	

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MATRIX SPIKE / MATRIX SPIKE DUPLICATE RECOVERY AND RPD

SOURCE: 1207386-35

Batch: F208085 **Sequence:** 2H09018

Preparation: Methyl Hg Distillation for Water **Lab Number:** F208085-MS/MSD4

Analyte	Sample Concentration (ng/L)	Spike Added (ng/L)	MS Concentration (ng/L)	MS % Recovery	Recovery Limits	Method	Notes
Methyl Mercury	34.82	88.889	134.7	112	65 - 130	1630 Mod/FGS	

Analyte	Spike Added (ng/L)	MSD Concentration (ng/L)	MSD % Recovery	% RPD	Recovery Limits	RPD Limit	Method	Notes
Methyl Mercury	88.889	128.3	105	4.81	65 - 130	35	1630 Mod/FGS	

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MATRIX SPIKE / MATRIX SPIKE DUPLICATE RECOVERY AND RPD

SOURCE: 1208056-06RE1

Batch: F208134 **Sequence:** 2H14009

Preparation: Methyl Hg Distillation for Water **Lab Number:** F208134-MS/MSD1

Analyte	Sample Concentration (ng/L)	Spike Added (ng/L)	MS Concentration (ng/L)	MS % Recovery	Recovery Limits	Method	Notes
Methyl Mercury	ND	9.0000	8.908	99.0	65 - 130	1630 Mod/FGS	

Analyte	Spike Added (ng/L)	MSD Concentration (ng/L)	MSD % Recovery	% RPD	Recovery Limits	RPD Limit	Method	Notes
Methyl Mercury	9.0000	8.191	91.0	8.39	65 - 130	35	1630 Mod/FGS	

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MATRIX SPIKE / MATRIX SPIKE DUPLICATE RECOVERY AND RPD

SOURCE: 1208101-03RE1

Batch: F208134 **Sequence:** 2H14009

Preparation: Methyl Hg Distillation for Water **Lab Number:** F208134-MS/MSD2

Analyte	Sample Concentration (ng/L)	Spike Added (ng/L)	MS Concentration (ng/L)	MS % Recovery	Recovery Limits	Method	Notes
Methyl Mercury	15.30	9.0000	25.57	114	65 - 130	1630 Mod/FGS	

Analyte	Spike Added (ng/L)	MSD Concentration (ng/L)	MSD % Recovery	% RPD	Recovery Limits	RPD Limit	Method	Notes
Methyl Mercury	9.0000	38.17	254	39.5	65 - 130	35	1630 Mod/FGS	QM-07, QR-08

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LABORATORY CONTROL SAMPLE/ LABORATORY CONTROL SAMPLE DUPLICATE

RECOVERY AND RPD

Batch: F208085 **Sequence:** 2H09018

Preparation: Methyl Hg Distillation for Water **Lab Number:** F208085-BS/BSD1

LCS Source: Blank Spike

Analyte	Spike Added (ng/L)	LCS Concentration (ng/L)	LCS % Recovery	Recovery Limits	Method	Notes
Methyl Mercury	1.0000	0.970	97.0	70 - 130	1630 Mod/FGS	

Analyte	Spike Added (ng/L)	LCSD Concentration (ng/L)	LCSD % Recovery	% RPD	Recovery Limits	RPD Limit	Method	Notes
Methyl Mercury	1.0000	1.001	100	3.21	70 - 130	25	1630 Mod/FGS	

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Curtis Armstrong, Project Manager

11720 North Creek Parkway North, Suite 400
Bothell, WA 98011
Ph: 425-686-1996
Fx: 425-686-3096

LABORATORY CONTROL SAMPLE/ LABORATORY CONTROL SAMPLE DUPLICATE

RECOVERY AND RPD

Batch: F208134 **Sequence:** 2H14009

Preparation: Methyl Hg Distillation for Water **Lab Number:** F208134-BS/BSD1

LCS Source: Blank Spike

Analyte	Spike Added (ng/L)	LCS Concentration (ng/L)	LCS % Recovery	Recovery Limits	Method	Notes
Methyl Mercury	1.0000	0.951	95.1	70 - 130	1630 Mod/FGS	

Analyte	Spike Added (ng/L)	LCSD Concentration (ng/L)	LCSD % Recovery	% RPD	Recovery Limits	RPD Limit	Method	Notes
Methyl Mercury	1.0000	1.038	104	8.74	70 - 130	25	1630 Mod/FGS	

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PREPARATION BLANKS

Instrument: Hg-15 **Sequence:** 2H09018

Preparation: Methyl Hg Distillation for Water

Lab Sample ID	Analyte	Found	MRL	Units	Batch	Method	Notes
F208085-BLK1	Methyl Mercury	0.000	0.050	ng/L	F208085	1630 Mod/FGS	U
F208085-BLK2	Methyl Mercury	0.000	0.050	ng/L	F208085	1630 Mod/FGS	U
F208085-BLK3	Methyl Mercury	0.006	0.050	ng/L	F208085	1630 Mod/FGS	U

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Curtis Armstrong, Project Manager

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PREPARATION BLANKS

Instrument: Hg-07 **Sequence:** 2H14009

Preparation: Methyl Hg Distillation for Water

Lab Sample ID	Analyte	Found	MRL	Units	Batch	Method	Notes
F208134-BLK1	Methyl Mercury	0.005	0.050	ng/L	F208134	1630 Mod/FGS	U
F208134-BLK2	Methyl Mercury	-0.005	0.050	ng/L	F208134	1630 Mod/FGS	U
F208134-BLK3	Methyl Mercury	0.072	0.050	ng/L	F208134	1630 Mod/FGS	QB-10

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Notes and Definitions

U	Analyte included in the analysis, but not detected
QR-08	The RPD value for the MS/MSD was outside of acceptance limits. Batch QC acceptable based on matrix duplicate and/or LCS/LCSD RPD values within control limits.
QM-07	The spike recovery was outside control limits for the MS and/or MSD. The batch was accepted based on LCS and LCSD recoveries within control limits and, when analysis permits, acceptable AS/ASD.
QB-10	The method blank and/or initial/continuing calibration blank contains analyte at a concentration above the MRL. Only report sample results greater than 10 times the contamination value (QB-01), or samples less than the MRL (QB-02).
QB-01	The method blank and/or initial/continuing calibration blank contains analyte at a concentration above the MRL. However, the blank concentration(s) are less than 10% of the sample result.
DET	Analyte Detected
MDL	Minimum Detection Limit
MRL	Minimum Reporting Limit
ND	Analyte Not Detected at or above the reporting limit
wet	Sample results reported on a wet weight basis
dry	Sample results reported on a dry weight basis
RPD	Relative Percent Difference
RSD	Relative Standard Deviation

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Curtis Armstrong, Project Manager

2H02074

CHAIN OF CUSTODY RECORD

STANDARD

Weck Laboratories, Inc.
Analytical Laboratory Services - Since 1964
14859 East Clark Avenue : Industry : CA 91745
Tel 626-336-2139 ♦ Fax 626-336-2634 ♦ www.wecklabs.com

Page 1 Of 1

CLIENT NAME: EEI

PROJECT: HANSON WINDSOR GRAVEL PONDS

ADDRESS: 2145 FARADAY AV. #K CARLSBAD, CA 92008

PHONE: 805-987-8728
FAX: 760-431-3748
EMAIL: bsentianin@eeitigerica

PROJECT MANAGER: BERNIE SENTIANIN

SAMPLER: BERNIE SENTIANIN

SPECIAL HANDLING

- ☐ Same Day Rush 150%
- ☐ 24 Hour Rush 100%
- ☐ 48-72 Hour Rush 75%
- ☐ 4 - 5 Day Rush 30%
- ☐ Rush Extractions 50%
- ☐ 10 - 15 Business Days
- ☐ QA/QC Data Package

Charges will apply for weekends/holidays

Method of Shipment: COURIER

ID# (For lab Use Only)	DATE SAMPLED	TIME SAMPLED	SMPL TYPE	SAMPLE IDENTIFICATION/SITE LOCATION	# OF CONT.	OCP's (8081)	OPP's (8141)	CAM 17 METALS	PCB's (8082)	METHYL MERCURY	TDPH (8015M)	VOC's (8260)	TOTAL CHLORIDES	TOTAL NITROGEN	TOTAL PHOSPHORUS	COMMENTS
	8/1/12	0845	W	VIMARK		X	X	X	X	X	X	X	X	X	X	pH - 7.87
	↓	1215	W	RICHARDSON		X	X	X	X	X	X	X	X	X	X	pH - 7.34
		1410	W	MARIANA		X	X	X	X	X	X	X	X	X	X	pH - 9.45
	↓	1445	W	PLUMBO		X	X	X	X	X	X	X	X	X	X	pH - 8.05
																4 ICE CHESTS
																SAMPLE PICK-UP

RELINQUISHED BY	DATE / TIME	RECEIVED BY
	8/2/12 0932	
	8/2/12 1345	ALLAN C.
ALLAN C.	8/2/12 1815	

SAMPLE CONDITION:
Actual Temperature: 20.1°C

Received On Ice	(Y)	N
Preserved	(Y)	N
Evidence Seals Present	Y	(N)
Container Attacked	Y	(N)
Preserved at Lab	Y	(N)

SAMPLE TYPE CODE:
AQ=Aqueous
NA= Non Aqueous
SL = Sludge
DW = Drinking Water
WW = Waste Water
RW = Rain Water
GW = Ground Water
SO = Soil
SW = Solid Waste
OL = Oil
OT = Other Matrix

PRESCHEDULED RUSH ANALYSES WILL TAKE PRIORITY OVER UNSCHEDULED RUSH REQUESTS
Client agrees to Terms & Conditions at: www.wecklabs.com

SPECIAL REQUIREMENTS / BILLING INFORMATION

COC version 042707

11720 North Creek Parkway North, Suite 400
Bothell, WA 98011
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Fx: 425-686-3096

20 August 2012

Kim Tu
Weck Laboratories
14859 East Clark Avenue
City of Industry, CA 91745-1396

RE: Methyl Mercury

Enclosed are the analytical results for samples received by Frontier Global Sciences. All quality control measurements are within established control limits and there were no analytical difficulties encountered with the exception of those listed in the case narrative section of this report.

If you have any questions concerning this report, please feel free to contact me.

Sincerely,



Curtis Armstrong

Project Manager

11720 North Creek Parkway North, Suite 400
Bothell, WA 98011
Ph: 425-686-1996
Fx: 425-686-3096

ANALYTICAL REPORT FOR SAMPLES

Laboratory: Frontier Global Sciences, Inc. **SDG:**

Client: Weck Laboratories **Project:** Methyl Mercury

Sample ID	Lab ID	Matrix	Date Sampled	Date Received
2H02074-01	1208101-01	Water	01-Aug-12 08:45	07-Aug-12 09:20
2H02074-02	1208101-02	Water	01-Aug-12 12:15	07-Aug-12 09:20
2H02074-03	1208101-03	Water	01-Aug-12 14:10	07-Aug-12 09:20
2H02074-04	1208101-04	Water	01-Aug-12 14:45	07-Aug-12 09:20

Frontier Global Sciences, Inc.

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CASE NARRATIVE

SAMPLE RECEIPT

Samples were received at Frontier Global Sciences (FGS) on August 07th, 2012. The samples were received intact, on-ice with temperatures measured at 0.4 degrees Celsius.

SAMPLE PREPARATION AND ANALYSIS

Samples were prepared and analyzed for methyl mercury in accordance with EPA Method 1630.

ANALYTICAL ISSUES

Liquid spikes were prepared for every preparation as a measure of accuracy. All liquid spikes and certified reference material were within the control limits.

As an additional measure of the accuracy of the methods utilized for analysis and to check for matrix interference, matrix spikes (MS) and matrix spike duplicates (MSD) were digested and analyzed. All of the matrix spike recoveries were within the control limits with the exception of any QC flagged and described in the notes and definitions section of the following report.

A reasonable measure of the precision of the analytical methods utilized for analysis is the relative percent difference (RPD) between matrix spike and matrix spike duplicate recoveries and between laboratory control sample and laboratory control sample duplicate recoveries. All of the relative percent differences were within the control limits with the exception of any QC flagged and described in the notes and definitions section of the following report.

Frontier Global Sciences, Inc.

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Curtis Armstrong, Project Manager

FRONTIER GLOBAL SCIENCES

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Ph: 425-686-1996
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CHAIN OF CUSTODY FORMS

SUBCONTRACT ORDER
Weck Laboratories, Inc
2H02074

1208101

SENDING LABORATORY:
Weck Laboratories, Inc
14859 East Clark Avenue
City of Industry, CA 91745
Phone: (626) 336-2139
Fax: (626) 336-2634
Project Manager: Kim G Tu

RECEIVING LABORATORY:
Frontier Global Sciences, INC. - subcontract
11720 North Creek Pkwy North, Suite 400
Bothell, WA 98011
Phone :(425) 686-3584
Fax: -

Analysis	Due	Expires	Laboratory ID	Comments
Sample ID: 2H02074-01	**Water**	**Sampled:08/01/12 08:45**		
Methyl Mercury	08/15/12 12:00	08/03/12 08:45		
Containers Supplied:				
Sample ID: 2H02074-02	**Water**	**Sampled:08/01/12 12:15**		
Methyl Mercury	08/15/12 12:00	08/03/12 12:15		
Containers Supplied:				
Sample ID: 2H02074-03	**Water**	**Sampled:08/01/12 14:10**		
Methyl Mercury	08/15/12 12:00	08/03/12 14:10		
Containers Supplied:				
Sample ID: 2H02074-04	**Water**	**Sampled:08/01/12 14:45**		
Methyl Mercury	08/15/12 12:00	08/03/12 14:45		
Containers Supplied:				

No COC seal
Rec'd @ 0.4°C TID 3155
Shipped FedEx
7938 7301 2693
V75R 0920

Released By	Date	Received By	Date
	8/6/12 10:40	FedEx	
		FGS Cao Dowday	8/7/12 0930
Released By	Date	Received By	Date

Page 1 of 1

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Curtis Armstrong, Project Manager

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CHAIN OF CUSTODY FORMS

FGS Work Order: 1208101 **Sample Receipt Checklist** Frontier Global Sciences

Client: Weck Labs Date & Time Received: 8/7/12 0930 Date Logged In: 8/7/12 Date Labeled: 8/7/12

Project: Metha Received By: CT Logged By: CT Labeled By: CT

# of Coolers Received: 1 Samples Arrived By: X Shipping Service ___Courier ___Hand ___Other:

Tracking/Airbill Number(s): FedEx 7938 7301 2692

Thermal Preservation: _____None (Ambient) ___X___Loose Ice _____Gel/Blue Ice _____Other:

Thermal Preservation Required: (Y) N

Thermometer ID: 3155		CF: +0.7 °C		
Cooler 1: 0.4 °C	Cooler 4: °C	Cooler 7: °C	Cooler 10: °C	Cooler 13: °C
Cooler 2: °C	Cooler 5: °C	Cooler 8: °C	Cooler 11: °C	Cooler 14: °C
Cooler 3: °C	Cooler 6: °C	Cooler 9: °C	Cooler 12: °C	Cooler 15: °C

Cooler Information:	Y/N	Comments
The coolers do not appear to be tampered with:	Y	
Custody Seals are present and intact:	N	None used
Custody seals signed by:	N/A	

Chain of Custody:	Y/N	Comments
Sample ID/Description:	Y	
Date/Time of collection:	Y	
Sampled by:	N	
Preservation type:	N	Client sent HCl, no indication if used
Requested analyses:	Y	
Required signatures:	Y	
Internal COC required:	N	

Sample Condition/Integrity:	Y/N	Comments
Sample containers intact:	Y	
Sample labels are present and legible:	Y	
Sample ID on container matches COC:	Y	
Correct sample containers used:	Y	
Samples received within holding times:	Y	
Sample volume sufficient for requested analyses:	Y	
Correct preservative used for requested analyses:	Y	
pH of preserved samples verified and recorded:	Y	pH <2 on all samples

Client Contacted: _____ Date/Time: _____ Method: _____

Anomalies/Non-conformances (attach additional pages if needed):

Discussion/Resolution:

FGS Sample Receipt Checklist Revision 2; 07/09/2012

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Bothell, WA 98011
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ANALYTICAL RESULTS

2H02074-01

Matrix: Water **Laboratory ID:** 1208101-01

Analyte	Result	MDL	MRL	Units	Dilution	Batch	Sequence	Analyzed	Method	Notes
Methyl Mercury	**0.215**	0.026	0.050	ng/L	1.25	F208085	2H09018	08/09/12	1630 Mod/FGS	

Frontier Global Sciences, Inc.

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ANALYTICAL RESULTS

2H02074-02

Matrix: Water **Laboratory ID:** 1208101-02

Analyte	Result	MDL	MRL	Units	Dilution	Batch	Sequence	Analyzed	Method	Notes
Methyl Mercury	**0.905**	0.026	0.050	ng/L	1.25	F208085	2H09018	08/09/12	1630 Mod/FGS	

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ANALYTICAL RESULTS

2H02074-03

Matrix: Water **Laboratory ID:** 1208101-03

Analyte	Result	MDL	MRL	Units	Dilution	Batch	Sequence	Analyzed	Method	Notes
Methyl Mercury	**15.3**	0.233	0.450	ng/L	1.25	F208134	2H14009	08/14/12	1630 Mod/FGS	QB-01

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ANALYTICAL RESULTS

2H02074-04

Matrix: Water **Laboratory ID:** 1208101-04

Analyte	Result	MDL	MRL	Units	Dilution	Batch	Sequence	Analyzed	Method	Notes
Methyl Mercury	**7.97**	0.233	0.450	ng/L	1.25	F208134	2H14009	08/14/12	1630 Mod/FGS	QB-01

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MATRIX DUPLICATES/TRIPLICATES

SOURCE: 1208101-01

Batch: F208085 **Sequence:** 2H09018

Preparation: Methyl Hg Distillation for Water **Lab Number:** F208085-DUP1

Analyte	Sample Concentration ng/L	Duplicate Concentration ng/L	MRL	% RPD	RPD Limit	Method	Notes
Methyl Mercury	0.215	0.257	0.050	18.1	35	\ 1630 Mod/FGS-	

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MATRIX DUPLICATES/TRIPLICATES

SOURCE: 1208056-06RE1

Batch: F208134 **Sequence:** 2H14009

Preparation: Methyl Hg Distillation for Water **Lab Number:** F208134-DUP1

Analyte	Sample Concentration ng/L	Duplicate Concentration ng/L	MRL	% RPD	RPD Limit	Method	Notes
Methyl Mercury	ND	ND	0.450	ND	35	\ 1630 Mod/FGS-	U

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Bothell, WA 98011
Ph: 425-686-1996
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MATRIX SPIKE / MATRIX SPIKE DUPLICATE RECOVERY AND RPD

SOURCE: 1208101-02

Batch: F208085 **Sequence:** 2H09018

Preparation: Methyl Hg Distillation for Water **Lab Number:** F208085-MS/MSD1

Analyte	Sample Concentration (ng/L)	Spike Added (ng/L)	MS Concentration (ng/L)	MS % Recovery	Recovery Limits	Method	Notes
Methyl Mercury	0.905	1.0000	1.133	22.8	65 - 130	1630 Mod/FGS	QM-07

Analyte	Spike Added (ng/L)	MSD Concentration (ng/L)	MSD % Recovery	% RPD	Recovery Limits	RPD Limit	Method	Notes
Methyl Mercury	1.0000	1.160	25.5	2.35	65 - 130	35	1630 Mod/FGS	QM-07

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MATRIX SPIKE / MATRIX SPIKE DUPLICATE RECOVERY AND RPD

SOURCE: 1207386-32

Batch: F208085 **Sequence:** 2H09018

Preparation: Methyl Hg Distillation for Water **Lab Number:** F208085-MS/MSD3

Analyte	Sample Concentration (ng/L)	Spike Added (ng/L)	MS Concentration (ng/L)	MS % Recovery	Recovery Limits	Method	Notes
Methyl Mercury	19.61	44.444	68.82	111	65 - 130	1630 Mod/FGS	

Analyte	Spike Added (ng/L)	MSD Concentration (ng/L)	MSD % Recovery	% RPD	Recovery Limits	RPD Limit	Method	Notes
Methyl Mercury	44.444	58.69	87.9	15.9	65 - 130	35	1630 Mod/FGS	

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MATRIX SPIKE / MATRIX SPIKE DUPLICATE RECOVERY AND RPD

SOURCE: 1207386-35

Batch: F208085 **Sequence:** 2H09018

Preparation: Methyl Hg Distillation for Water **Lab Number:** F208085-MS/MSD4

Analyte	Sample Concentration (ng/L)	Spike Added (ng/L)	MS Concentration (ng/L)	MS % Recovery	Recovery Limits	Method	Notes
Methyl Mercury	34.82	88.889	134.7	112	65 - 130	1630 Mod/FGS	

Analyte	Spike Added (ng/L)	MSD Concentration (ng/L)	MSD % Recovery	% RPD	Recovery Limits	RPD Limit	Method	Notes
Methyl Mercury	88.889	128.3	105	4.81	65 - 130	35	1630 Mod/FGS	

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MATRIX SPIKE / MATRIX SPIKE DUPLICATE RECOVERY AND RPD

SOURCE: 1208056-06RE1

Batch: F208134 **Sequence:** 2H14009

Preparation: Methyl Hg Distillation for Water **Lab Number:** F208134-MS/MSD1

Analyte	Sample Concentration (ng/L)	Spike Added (ng/L)	MS Concentration (ng/L)	MS % Recovery	Recovery Limits	Method	Notes
Methyl Mercury	ND	9.0000	8.908	99.0	65 - 130	1630 Mod/FGS	

Analyte	Spike Added (ng/L)	MSD Concentration (ng/L)	MSD % Recovery	% RPD	Recovery Limits	RPD Limit	Method	Notes
Methyl Mercury	9.0000	8.191	91.0	8.39	65 - 130	35	1630 Mod/FGS	

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MATRIX SPIKE / MATRIX SPIKE DUPLICATE RECOVERY AND RPD

SOURCE: 1208101-03RE1

Batch: F208134 **Sequence:** 2H14009

Preparation: Methyl Hg Distillation for Water **Lab Number:** F208134-MS/MSD2

Analyte	Sample Concentration (ng/L)	Spike Added (ng/L)	MS Concentration (ng/L)	MS % Recovery	Recovery Limits	Method	Notes
Methyl Mercury	15.30	9.0000	25.57	114	65 - 130	1630 Mod/FGS	

Analyte	Spike Added (ng/L)	MSD Concentration (ng/L)	MSD % Recovery	% RPD	Recovery Limits	RPD Limit	Method	Notes
Methyl Mercury	9.0000	38.17	254	39.5	65 - 130	35	1630 Mod/FGS	QM-07, QR-08

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LABORATORY CONTROL SAMPLE/ LABORATORY CONTROL SAMPLE DUPLICATE

RECOVERY AND RPD

Batch: F208085 **Sequence:** 2H09018

Preparation: Methyl Hg Distillation for Water **Lab Number:** F208085-BS/BSD1

LCS Source: Blank Spike

Analyte	Spike Added (ng/L)	LCS Concentration (ng/L)	LCS % Recovery	Recovery Limits	Method	Notes
Methyl Mercury	1.0000	0.970	97.0	70 - 130	1630 Mod/FGS	

Analyte	Spike Added (ng/L)	LCSD Concentration (ng/L)	LCSD % Recovery	% RPD	Recovery Limits	RPD Limit	Method	Notes
Methyl Mercury	1.0000	1.001	100	3.21	70 - 130	25	1630 Mod/FGS	

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LABORATORY CONTROL SAMPLE/ LABORATORY CONTROL SAMPLE DUPLICATE

RECOVERY AND RPD

Batch: F208134 **Sequence:** 2H14009

Preparation: Methyl Hg Distillation for Water **Lab Number:** F208134-BS/BSD1

LCS Source: Blank Spike

Analyte	Spike Added (ng/L)	LCS Concentration (ng/L)	LCS % Recovery	Recovery Limits	Method	Notes
Methyl Mercury	1.0000	0.951	95.1	70 - 130	1630 Mod/FGS	

Analyte	Spike Added (ng/L)	LCSD Concentration (ng/L)	LCSD % Recovery	% RPD	Recovery Limits	RPD Limit	Method	Notes
Methyl Mercury	1.0000	1.038	104	8.74	70 - 130	25	1630 Mod/FGS	

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Fx: 425-686-3096

PREPARATION BLANKS

Instrument: Hg-15 **Sequence:** 2H09018

Preparation: Methyl Hg Distillation for Water

Lab Sample ID	Analyte	Found	MRL	Units	Batch	Method	Notes
F208085-BLK1	Methyl Mercury	0.000	0.050	ng/L	F208085	1630 Mod/FGS	U
F208085-BLK2	Methyl Mercury	0.000	0.050	ng/L	F208085	1630 Mod/FGS	U
F208085-BLK3	Methyl Mercury	0.006	0.050	ng/L	F208085	1630 Mod/FGS	U

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Curtis Armstrong, Project Manager

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11720 North Creek Parkway North, Suite 400
Bothell, WA 98011
Ph: 425-686-1996
Fx: 425-686-3096

PREPARATION BLANKS

Instrument: Hg-07 **Sequence:** 2H14009

Preparation: Methyl Hg Distillation for Water

Lab Sample ID	Analyte	Found	MRL	Units	Batch	Method	Notes
F208134-BLK1	Methyl Mercury	0.005	0.050	ng/L	F208134	1630 Mod/FGS	U
F208134-BLK2	Methyl Mercury	-0.005	0.050	ng/L	F208134	1630 Mod/FGS	U
F208134-BLK3	Methyl Mercury	0.072	0.050	ng/L	F208134	1630 Mod/FGS	QB-10

Frontier Global Sciences, Inc.



Curtis Armstrong, Project Manager

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Bothell, WA 98011
Ph: 425-686-1996
Fx: 425-686-3096

Notes and Definitions

U	Analyte included in the analysis, but not detected
QR-08	The RPD value for the MS/MSD was outside of acceptance limits. Batch QC acceptable based on matrix duplicate and/or LCS/LCSD RPD values within control limits.
QM-07	The spike recovery was outside control limits for the MS and/or MSD. The batch was accepted based on LCS and LCSD recoveries within control limits and, when analysis permits, acceptable AS/ASD.
QB-10	The method blank and/or initial/continuing calibration blank contains analyte at a concentration above the MRL. Only report sample results greater than 10 times the contamination value (QB-01), or samples less than the MRL (QB-02).
QB-01	The method blank and/or initial/continuing calibration blank contains analyte at a concentration above the MRL. However, the blank concentration(s) are less than 10% of the sample result.
DET	Analyte Detected
MDL	Minimum Detection Limit
MRL	Minimum Reporting Limit
ND	Analyte Not Detected at or above the reporting limit
wet	Sample results reported on a wet weight basis
dry	Sample results reported on a dry weight basis
RPD	Relative Percent Difference
RSD	Relative Standard Deviation

Frontier Global Sciences, Inc.

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Curtis Armstrong, Project Manager

AFFILIATED RESEARCHERS
Environmental Research, Mapping, and Reporting

28 August 2012

Mr. Michael Beck
Endangered Habitats Conservancy
4542 W Talmadge Drive
San Diego, CA 92116-4831

RE: SUMMARY REPORT FOR PHASE II, HYDROGRAPHIC AND GEOTECHNICAL SERVICES ON THE ADJACENT WATERS OF THE RUSSIAN RIVER, SONOMA COUNTY.

Dear Mr. Beck:

Thank you for contracting AFFILIATED RESEARCHERS for our services on the adjacent waters of the Russian River. This report provides a summary of the equipment, methods, and findings regarding the project tasks assigned.

PROJECT TASKS OVERVIEW:

AFFILIATED RESEARCHERS was requested by National Oceanic and Atmospheric Administration (NOAA) Fisheries, and Endangered Habitats Conservancy (EHC) to provide hydrographic, topographic, and geotechnical services in support of a project to restore endangered fish species in the Russian River. The project area includes four gravel mining pit-ponds (ponds) adjacent to the Russian River, approximately 3.5 river miles downstream of the Highway 101 Bridge, and contained within properties owned by Hanson Aggregate Mid-Pacific (Hanson), Sonoma County, California (project area, Figures 1 and 2).

The tasks for the project have been described as "Phase II" of a two-phase project, as written in a previous proposal[1] provided by AFFILIATED RESEARCHERS, dated 23 July 2012.

[1] Proposal for Phase II, Hydrographic and Geotechnical Services on the Russian River and Adjacent Waters, Sonoma County. 23 July 2012. Affiliated Researchers LLC.


Healdsburg Ave
Arata Ln
Old Redwood Hwy
Starr Rd
101
Project Area
Windsor, CA
Eastside Rd
Westside Rd
Windsor Rd
© 2012 Google

Figure 1.


LEGEND
SITE BOUNDARY
PRELIMINARY
FOR REVIEW ONLY
GRAPHIC SCALE:
HORIZONTAL SCALE: 1" = 500'
250 125 0 250 500 750

Figure 2.

The tasks for Phase II were as follows:

- Mobilize and demobilize to/from project site.
- Establish up to 5 semi-permanent, local NGS quality benchmarks.
- Conduct single-beam bathymetric survey of 4 ponds.
- Collect water surface elevation data concurrently with the single-beam bathymetric survey of ponds.
- Collect water surface elevation data at established location on the river for comparison with water elevations at the ponds.
- Collect discrete sediment samples within ponds using vibracore system.
    - Conduct sediment sample processing and management.
- Collect additional terrain elevations to augment existing topographic survey.
- Supervise backhoe excavation of terrain trenches within pond berms to allow access and analysis of soil profiles.
    - Conduct sediment sampling, measurements, GPS positioning, and documentation of soil profiles within trenches.
- Collect water samples from each pond as directed and to provide to client's representative.
- Provide a summary report of Phase II tasking.

AFFILIATED RESEARCHERS utilized its best equipment, software, and most experienced staff to perform the described tasks. AFFILIATED RESEARCHERS' staff includes professionally trained and experienced Hydrographers, Surveyor, Engineer, Scientists, and Technicians.



MOBILIZATION:

AFFILIATED RESEARCHERS Program Manager arrived at the project site on 27 July 2012 and met with representatives from NOAA Fisheries, Hanson, Northwest General Engineering, and Syar Vineyard. The group investigated the site and discussed boat launch access, construction, task scheduling, and logistics.

The balance of AFFILIATED RESEARCHERS' crew (Hydrographer, Surveyor, and Technician) arrived at the project site as scheduled on 30 July 2012, with the vessels and equipment necessary to conduct the project tasks.

ESTABLISH LOCAL NGS QUALITY BENCHMARKS:

AFFILIATED RESEARCHERS provided a survey grade, centimeter accurate *Trimble* RTK-GPS to establish local, semi-permanent, survey grade benchmarks (with horizontal and vertical accuracies of ≤0.1 foot). Two benchmarks were established at hill-top locations near Mariana Pond and Richardson Pond, using recognized National Geodetic Survey (NGS) Online Positioning User Service (OPUS) methods[2]. A total of six additional benchmarks were established at locations surrounding the project site using conventional RTK methods. The benchmarks were constructed with 2 foot lengths of 3/8" diameter re-bar steel rod that was pounded into the ground and capped with a plastic survey marker.

The locations of the benchmarks, which were used during the project and intended for use on future project work, are provided in Table 1 and Attachment 1. All positional survey data were accurately recorded with the GPS data collector in US State Plane (NAD83), survey feet, with elevations in NAVD88 Geoid09.

Benchmark ID	Method	Easting	Northing	Elevation
1	OPUS	6317457.62	1964387.54	85.82
2	OPUS	6316760.42	1960801.04	80.31
3	RTK	6317735.35	1964957.15	75.85
4	RTK	6316946.04	1961655.04	76.06
5	RTK	6317681.43	1959087.57	75.16
6	RTK	6316907.61	1958241.34	75.70
7	RTK	6318605.99	1959734.93	78.01
8	RTK	6319319.34	1961424.48	76.59

Table 1.

[2] http://geodesy.noaa.gov/OPUS/about.jsp. January 2012.

One of the OPUS established benchmarks (Benchmark #1) was used during this project to provide QAQC for the GPS equipment.

SINGLE-BEAM HYDROGRAPHIC SURVEY:

AFFILIATED RESEARCHERS conducted single-beam hydrographic survey in each of the four ponds from its 12' aluminum survey vessel. AFFILIATED RESEARCHERS' Surveyor utilized a *Knudsen 3100 Chirp* dual-frequency (50kHz/200kHz) single-beam echo sounder to collect bathymetric data at two of the four project ponds (Miana Pond and Richardson Pond). The *Knudsen* echo sounder became inoperative during the set-up procedures at the third pond to be surveyed (Vimark Pond), and was then substituted with a *SyQwest HydroBox* dual-frequency (33kHz/200kHz) single-beam echo sounder. The *SyQwest HydroBox* was used to collect bathymetric data at Vimark Pond and Piombo Pond. Both echo sounder systems collected bathymetry data at accuracies of ≤0.1 foot.

AFFILIATED RESEARCHERS utilized its *Trimble DSM132* GPS at Piombo, Richardson, and Vimark ponds and its *Trimble R6* GPS at Mariana Pond to continuously collect sub-meter accurate geospatial position data during the single-beam bathymetric survey[3]. The GPS antenna was mounted directly above the echo sounder transducer in order to eliminate the requirement for horizontal offset measurements.

AFFILIATED RESEARCHERS followed protocols provided in the USACE hydrographic survey manual[4] to include the specified QAQC requirements. Water surface elevations were accurately measured at the shoreline using conventional RTK-GPS methods with a *Trimble R6* each project day. These data were accurately recorded with the GPS data collector, and used to establish water surface elevations that existed during the time of the bathymetric survey. An *Odom DigibarPro* sound velocity instrument was used for calibrations of the echo sounder equipment. Calibrations and measurements for the echo sounder were recorded on the onboard hydrographic computer.

The collection of the bathymetric data at the four project ponds was conducted along survey transects established at 100 foot intervals. AFFILIATED RESEARCHERS utilized *HYPACK* and CAD software to plan the survey transects for each project pond. The planned survey transects were uploaded onto the onboard hydrographic computer to enable accurate navigation. The actual course-made-good of the survey transects was recorded onto the onboard hydrographic computer.

During the survey, the echo sounder collected bathymetric data at a rate of approximately 20 pings per second, while the *Trimble* GPS collected geospatial position data at a rate of 1 position per second. The real-time positions and water surface elevations were integrated with the bathymetry data in order to develop the bathymetric survey.

[3] Sub-meter accurate geospatial position data was collected using WAAS real-time differential corrections.
[4] EM 1110- 2-1003: *Engineering and Design – Hydrographic Surveying.*

COLLECT GPS SHORELINE POSITIONS:

Geospatial position data along the pond shorelines (i.e. water's edge) were needed to provide a more complete database for the bathymetric surveys. AFFILIATED RESEARCHERS utilized a *Trimble R6* GPS at Piombo Pond, and a *Trimble ProXT* GPS at Mariana, Richardson, and Vimark ponds to collect sub-meter accurate shoreline geospatial data[4]. These data were accurately recorded with the GPS data collector.

AFFILIATED RESEARCHERS Surveyor boated the perimeter of the project ponds in order to effectively collect positions at the water's edge, at intervals of approximately 200' along the more linear sections of shoreline with a more concentrated effort along the turns and bends of the shoreline.

COMPILING BATHYMETRIC SURVEY DATA:

AFFILIATED RESEARCHERS compiled the collected bathymetry data, shoreline data, and water elevation data to develop a complete bathymetric survey of each of the ponds. Using *HYPACK* and AutoCAD software, AFFILIATED RESEARCHERS processed the collected data into bathymetric contours of the ponds and provided as project deliverables (example provided in Attachment 2). The processed bathymetric survey data have been electronically provided in DXF, PDF, and XYZ formats.

LOCAL HYDRAULIC RELATIONSHIPS:

In order to provide a measurement of the hydraulic relationship between the Russian River and the project ponds, water surface elevation data was obtained with the *Trimble* RTK-GPS at each pond and at an established location of the project reach of the Russian River. These data were accurately recorded with the GPS data collector and are shown in Table 3 and Attachment 3.

Locations and elevations were collected with a Trimble R6 GPS in RTK mode (US State Plane NAD 83 California Zone II US Survey Feet, NAVD88 Geoid12)						
GPS Point	Date	Time (PDT)	Easting	Northing	Elevation	Pond
1	2-Aug-12	1704	6317422.57	1964041.29	44.56	Mariana
2	2-Aug-12	1659	6317045.05	1963921.74	45.09	Piombo
3	2-Aug-12	1717	6316908.11	1960786.47	51.83	Richardson
4	2-Aug-12	1645	6317659.26	1959356.55	42.55	Vimark
5	2-Aug-12	1634	6316665.92	1960940.75	43.82	Russian River

Table 3.

The bathymetric data are to be used in the development of a hydrologic model for the project by NOAA and USGS. A brief summary of the data obtained during the project at the four ponds are provided in Table 4.

Summary of data collected at the four ponds (NAVD88 Geoid 12)						
Pond	Surface Elevation	Measured Volume	Average Depth	Maximum Depth	Lowest Bottom Elevation	Measured Area
Mariana	44.56’	29,427 yds^3	13.4'	38.2'	6.34'	19.6 Acres
Piombo	45.09’	21,106 yds^3	21.2'	35.3'	9.36'	19.8 Acres
Richardson	51.83’	142,414 yds^3	17.3'	37.1'	14.67'	83.8 Acres
Vimark	42.55’	28,320 yds^3	17.8'	42.7'	-0.15'	25.1 Acres

Table 4.

MULTI-BEAM AND SIDE-SCAN HYDROGRAPHIC SURVEY

In addition to the requirements of the project tasks, AFFILIATED RESEARCHERS collected multi-beam bathymetric and side-scan data at Richardson Pond. AFFILIATED RESEARCHERS utilized its International Hydrographic Organization (IHO) compliant *Klein Hydrochart 5000* (*Hydrochart*) which combines multi-beam and side-scan sonar capability, to conduct both the multi-beam and side-scan hydrographic surveys of Richardson Pond. This added service was performed to provide the project with greater graphic understanding of the general conditions of the ponds.

The *Klein 5000 Hydrochart* sonar system is considered “Best in Class” bathymetry accuracy and repeatability (IHO SP-44, Special Order surveys); enabling the collection of high-resolution, co-registered geo-referenced multi-beam bathymetry and side-scan data simultaneously. The *Hydrochart* contains an opposing pair of 455 kHz transducers which produce 210^0 sonar coverage at a swath range of >800 foot.

The *Klein 5000 Hydrochart* is designed for conducting bathymetric surveys in shallow water, and is capable of collecting multi-beam bathymetry at <0.2’ accuracies and at swath range of up to 10x the water depth. The side-scan resolution of the *Klein 5000 Hydrochart* is 4 inches at a distance of 125 foot, and 8 inch resolution is achieved at a distance of 245 foot.

To assure precision certainty, multi-beam and side-scan sonar systems require numerous sensors to continuously monitor changes in the project environment, as well as all of the survey vessel’s motions. AFFILIATED RESEARCHERS utilized an *Applanix POSMV Wavemaster* (*POSMV*)

motion, heading, and position sensor to continuously provide and monitor real-time motion related corrections to the hydrographic data during the survey.

On 3 August 2012, AFFILIATED RESEARCHERS used its 20' pontoon vessel for the multi-beam and side-scan survey. The survey was conducted along transect lines intervals to ensure >150% hydrographic coverage of the channel. Water level elevation, spatial position, and respective times were also continuously collected by the *POSMV* and recorded on the onboard computer during the survey. Based upon the accuracies of the hydrographic equipment used, the estimated accuracy of the multi-beam bathymetric and side-scan survey was approximately 0.23 foot.

AFFILIATED RESEARCHERS followed USACE guidelines and protocol[3] while conducting the multi-beam bathymetry survey to include:

1. patch test;
2. sound velocity measurements;
3. multi-beam check lines;
4. continuous RTK-GPS elevations collected reference to the transducer;
5. separate, periodic RTK-GPS water elevation measurements ("tide file");
6. "overlapping model" performance test conducted using single-beam hydrographic survey methods; and,
7. vessel squat/settlement measurement previously conducted found no discernable "squat" in the 20' pontoon vessel at the survey speeds (~ 2 knots).

Problem with the *POSMV* occurred during the setup procedures resulting in an alternate *POSMV* system being used. During the collection of the multi-beam bathymetry data, the *Klein 5000 Hydrochart* altimeter provided erroneous water depth calibration data on an intermittent basis, which was rectified during the post-processing of the data.

The position, elevation, and attitude data by the *POSMV* were post-processed using *Applanix POSPac MMS Marine* software to achieve maximum accuracies. The multi-beam and side-scan data were post-processed using *Caris*, *Fledermaus*, and *AutoCAD* software. At the time of this Summary Report, the multi-beam bathymetry data was still being compiled. The muli-beam data will be provided in an XYZ format (at 5' x 5' grid spacing in US State Plane NAD83, US Survey Foot, NAVD88 Geoid12); as a GeoTIFF; and as part of the project *Fledermaus* scene for 3-D visualization.

The side-scan data will also be provided in US State Plane NAD83, US Survey Foot, as a GeoTIFF, and as part of the project *Fledermaus* scene for 3-D visualization.

VIBRACORE SEDIMENT SAMPLE COLLECTION:

AFFILIATED RESEARCHERS provided two trained vibracore technicians to utilize its 20' pontoon vibracore vessel and *Rossfelder VT-1* underwater vibracore system, for collection of a total of 30 discrete sediment core samples at designated locations within the project ponds[5]. The discrete

[5] The total number of sediment cores collected included additional cores for purposes of chemical analysis.

sediment samples were collected in 8' lengths of 3 inch diameter polycarbonate (i.e. *Lexan*) core tubes, for the purposes of geotechnical and chemical analysis. NOAA Fisheries and EHC provided scientists[6] to be onboard AFFILIATED RESEARCHERS survey vessel and document the data from the sample collection.



AFFILIATED RESEARCHERS onboard sub-meter GPS[4], enabled a virtual display of, and navigation to the designated sampling locations. The actual or alternative sampling locations were accurately recorded with the GPS data collector. The actual locations of the collected sediment core sampling, along with the sediment length of each core, are provided in Table 5 and Attachment 4.

Upon collection, core samples were given to onsite representatives of NOAA Fisheries and EHC, to be field processed for sediment chemical analysis and characterization. Sub-samples of a portion of the sediment cores were taken at prescribed core-depth intervals by the EHC provided Geologist and delivered to a certified laboratory for analysis[7] in accordance with proper chain-of-custody protocol.

COLLECT ADDITIONAL TERRAIN ELEVATIONS TO AUGMENT EXISTING TOPOGRAPHIC SURVEY:

Additional terrain surveying to augment existing topographic surveys, was determined by as unnecessary based upon the scheduled aerial LiDAR surveying that is to be performed by another contractor.

If need be, AFFILIATED RESEARCHERS can compile, upon request, aerial LiDAR or other topographic survey data, with the developed bathymetric surveys of the ponds.

SOIL PROFILES AND SOIL SAMPLES:

A significant portion of the material contained within the berms surrounding the project ponds, is planned to be excavated and used in the development of the project. Initial analysis of soils and soil profiles of the berms surrounding the project ponds was needed in order to assess the makeup and structure of this material.

[6] NOAA Fisheries provided Dr. Brian Cluer, Ph.D., Dr. Melanie Harrison, PH.D., and Mr. John McKeon. EHC provided Mr. Bernard Sentianin of EEI company.
[7] Report of laboratory analysis were provided by EEI company under separate cover.

Location and length of collected sediment core samples (locations are US State Plane NAD 83 California Zone II, US Survey Feet)					
Sediment Core ID	Pond	Date	Easting	Northing	Length of Sample
1	Mariana	30-Jul-12	6317965	1964560	5.0'
2	Mariana	30-Jul-12	6318264	1964541	5.3'
3	Mariana	30-Jul-12	6317937	1964206	4.0'
4	Mariana	30-Jul-12	6317601	1964016	3.7'
5	Mariana	30-Jul-12	6317869	1963806	1.9'
6	Mariana	30-Jul-12	6317845	1963245	3.4'
7	Piombo	31-Jul-12	6316910	1963696	8.0'
8	Piombo	31-Jul-12	6316968	1963343	7.0'
9	Piombo	31-Jul-12	6317294	1963325	4.5'
10	Piombo	31-Jul-12	6316942	1962935	7.5'
11	Piombo	31-Jul-12	6317254	1962856	5.1'
12	Richardson	31-Jul-12	6317619	1961567	7.6'
13	Richardson	1-Aug-12	6318186	1961346	4.8'
14 (gravel only)	Richardson	1-Aug-12	6318618	1961015	0.5'
14-R	Richardson	1-Aug-12	6318694	1961099	4.7'
15	Richardson	31-Jul-12	6318205	1960915	no data
16	Richardson	1-Aug-12	6318824	1960666	no data
17	Richardson	1-Aug-12	6317287	1960591	3.0'
18	Richardson	31-Jul-12	6317856	1960514	3.7'
19	Richardson	31-Jul-12	6318413	1960382	2.2'
20	Richardson	1-Aug-12	6317182	1960069	no data
22	Vimark	1-Aug-12	6316892	1959215	3.5'
24	Vimark	1-Aug-12	6316827	1958754	7.3'
25	Vimark	1-Aug-12	6317209	1958750	3.1'

Table 5.

Under the direct supervision of NOAA's Fluvial-geomorphologist (Dr. Brian Cluer, Ph.D.), soil profile inspection pits were excavated using a contracted mini-excavator backhoe and operator, at selected locations at the berms adjacent each of the project pond.

Dr. Cluer collected sediment samples and stratigraphy measurements from each of the excavated pits. In support of this effort, AFFILIATED RESEARCHERS provided its Surveyor and sub-meter accurate *Trimble ProXT* GPS to collect geospatial positions at each of the excavated pit locations. The locations of the excavated pits are provided in Table 6 and Attachment 5.

Locations of soil sample excavation pits (US State Plane NAD 83 California Zone II, US Survey Feet)

Pit ID	Easting	Northing		Pit ID	Easting	Northing		Pit ID	Easting	Northing
1	6317079	1961303		16	6318545	1961994		31	6317413	1963679
2	6317066	1961305		17	6319309	1960950		32	6316682	1963874
3	6317052	1961308		18	6319282	1960949		33	6316707	1963871
4	6317004	1961306		19	6319259	1960990		34	6316746	1963857
5	6316984	1961299		20	6319231	1961006		35	6316808	1962693
6	6316954	1961294		21	6318437	1959815		36	6316552	1964582
7	6317070	1961850		22	6318360	1959917		37	6316718	1964516
8	6317040	1961879		23	6318275	1960029		38	6316884	1964435
9	6317027	1961880		24	6317099	1959581		39	6317060	1964390
10	6317794	1962157		25	6317101	1959535		40	6317094	1964241
11	6317802	1962177		26	6316383	1958324		41	6317227	1964206
12	6317799	1962168		27	6316429	1958369		42	6317280	1964174
13	6318403	1961914		28	6316470	1958448		43	6318532	1964666
14	6318421	1961936		29	6317410	1963741		44	6318620	1964634
15	6318487	1961967		30	6317411	1963704		45	6318756	1964601

Table 6.

DE-MOBILIZATION:

AFFILIATED RESEARCHERS demobilized from the project site on 4 August 2012.

DELIVERABLES:

In addition to the deliverables provided with this Summary Report, other deliverables to be provided by AFFILIATED RESEARCHERS for Phase II of the project will include:

- Single-beam bathymetric survey of each of the four ponds to be provided in PDF, AutoCAD, and XYZ formats;
- Side-scan survey of Richardson Pond provided in GeoTiff and Scene formats; and,
- Multi-beam survey of Richardson Pond provided in GeoTiff and Scene formats.

Please advise if there are any additional data or formats that you require.

Thank you,

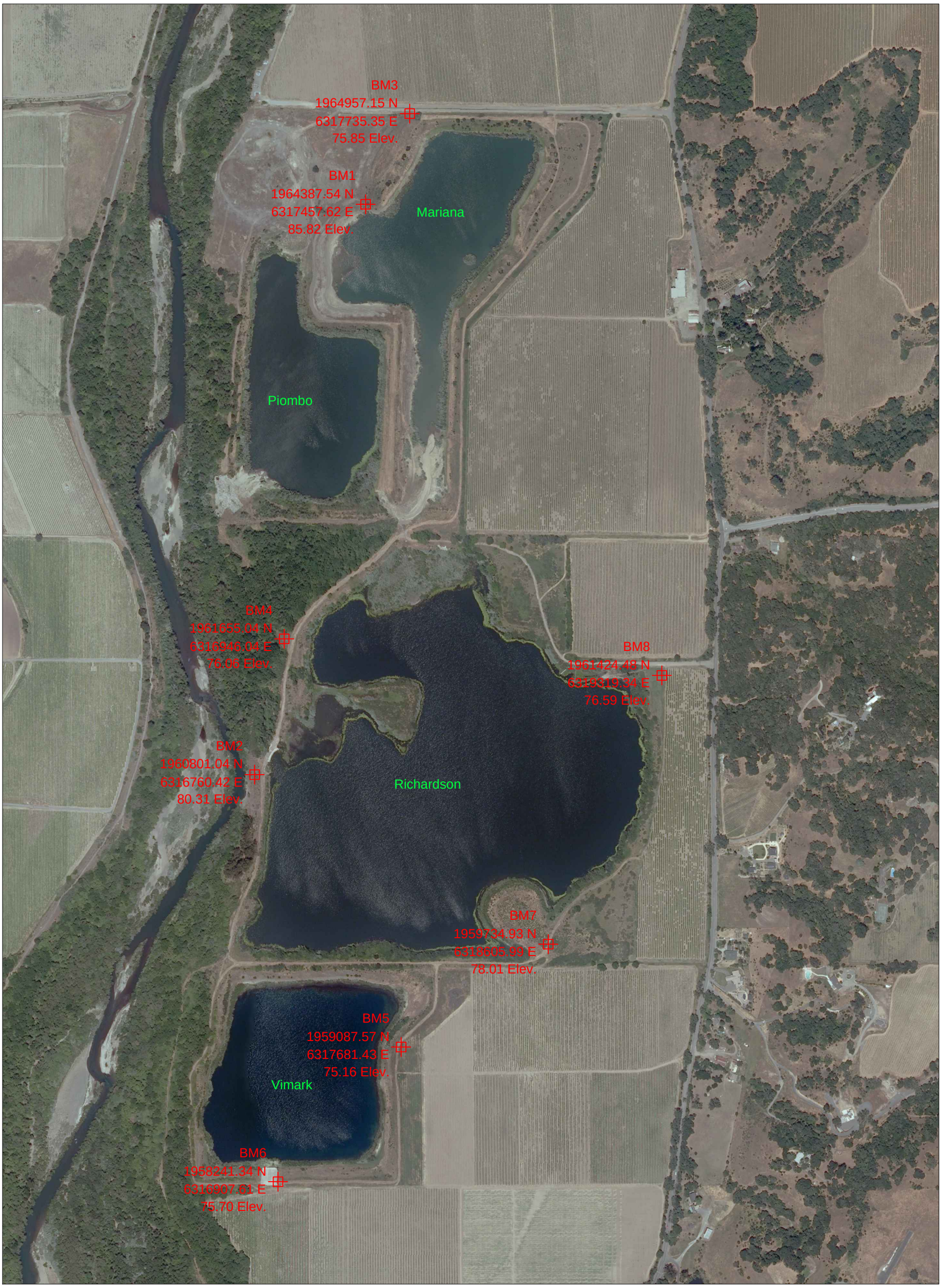
Rollin C. Reineck, Jr.
Director

Attachments

Copy: Ms. Nancy Schaefer
Land Conservation Services

Dr. Brian Cluer, Ph.D.
Regional Coordinator for Hydrology and Geomorphology
NOAA National Marine Fisheries Service, Southwest Region
Habitat Conservation Division

Mr. John McKeon
Natural Resource Management Specialist
NOAA National Marine Fisheries Service
Protected Resources Division



NOTES:

Benchmarks established using Trimble R8 RTK-DGPS raw observable data that was processed with NGS OPUS

DRAWN BY: mjc

DATE: 22 Aug 2012

JOB NO: XXX

FINAL

ATTACHMENT 1

File: Z:\Hydrography\NOAA\Russian River 2012\CAD Files\Russian River.dwg Benchmarks

Locally Established Benchmarks
NOAA Fisheries Reclamation Project
Russian River, Sonoma County, CA

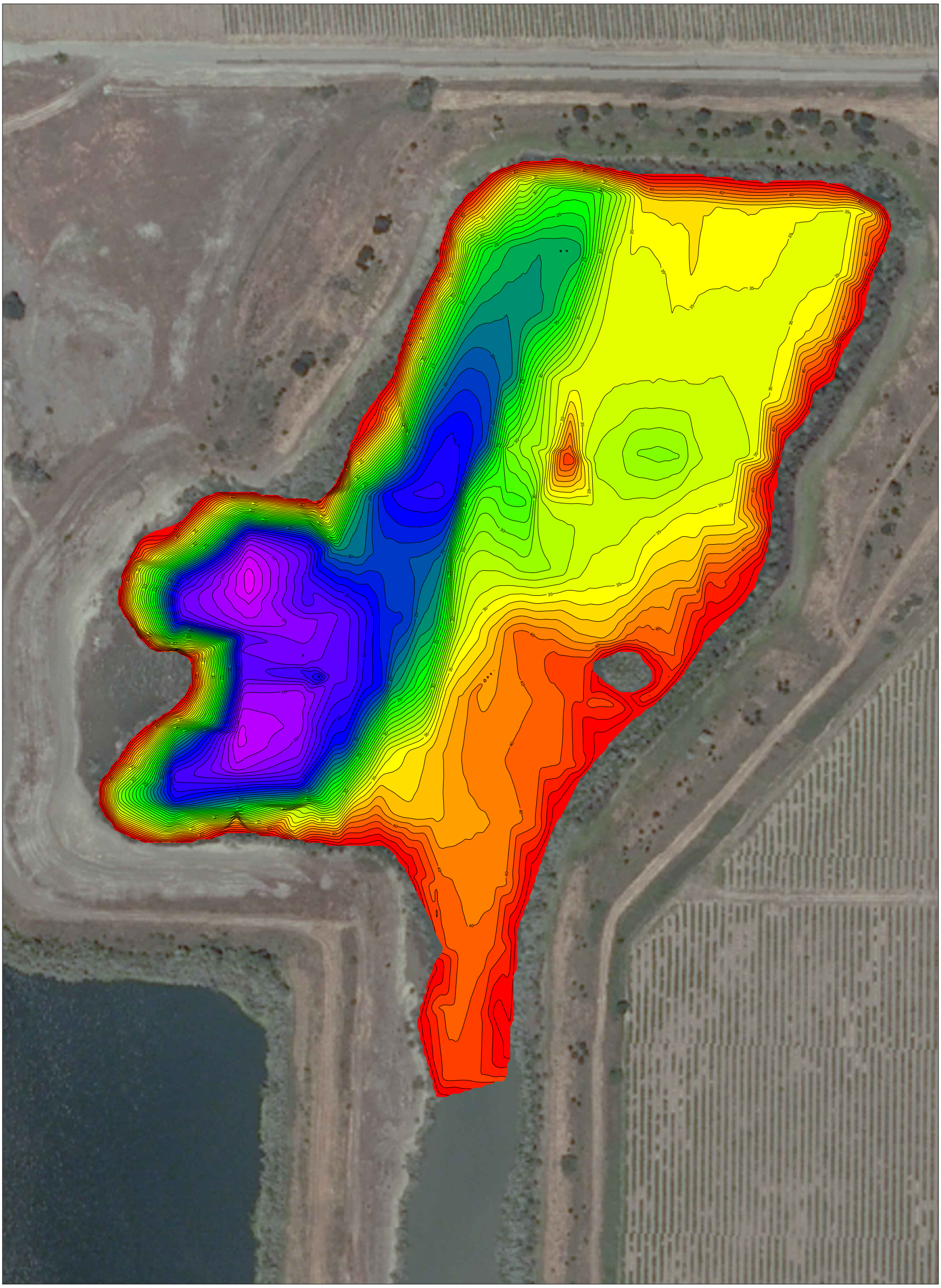
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AFFILIATED RESEARCHERS

122 Lorfield Center
Santa Rosa, CA 95401
(707) 738-6471
www.affiliatedresearchers.com

0 300' 600'



NOTES:
Sampling Dates:
31 July 2012 - 3 August 2012

DRAWN BY: mjc
DATE: 22 Aug 2012
JOB NO: XXX

FINAL

ATTACHMENT
2

Mariana Pond Bathymetry
NOAA Fisheries Reclamation Project
Russian River, Sonoma County, CA

REVISIONS

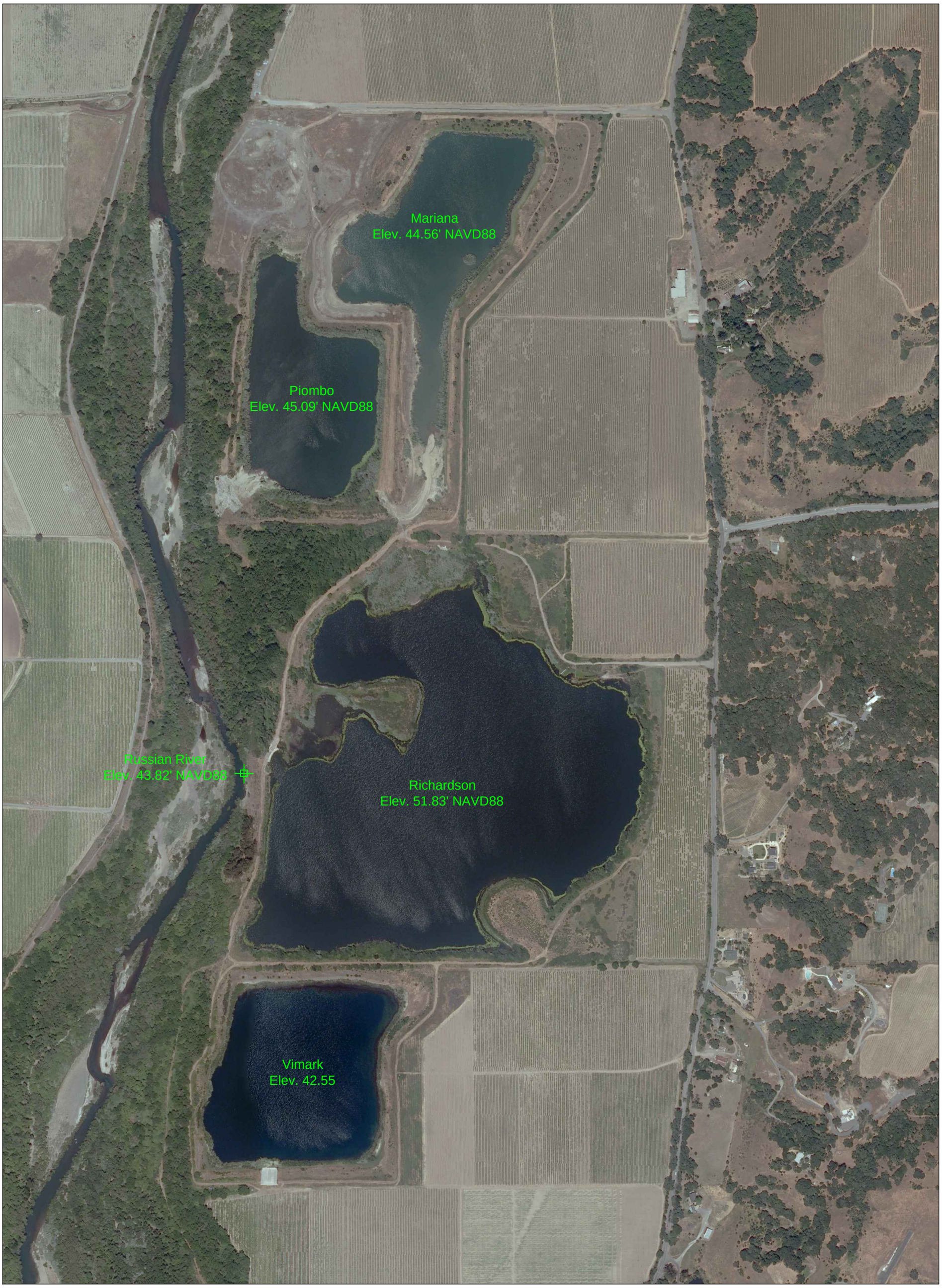
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www.affiliatedresearchers.com

0 75' 150'

File: Z:\Hydrography\NOAA\Russian River 2012\CAD Files\Russian River.dwg, Soil Samples



ATTACHMENT 3

3

FINAL

DRAWN BY: mjc

DATE: 22 Aug 2012

JOB NO: XXX

NOTES:
Water elevations were established using Trimble R6 RTK-DGPS

File: Z:\Hydrography\NOAA\Russian River 2012\CAD Files\Russian River.dwg Hydraulic Relationship

Hydraulic Relationship
NOAA Fisheries Reclamation Project
Russian River, Sonoma County, CA

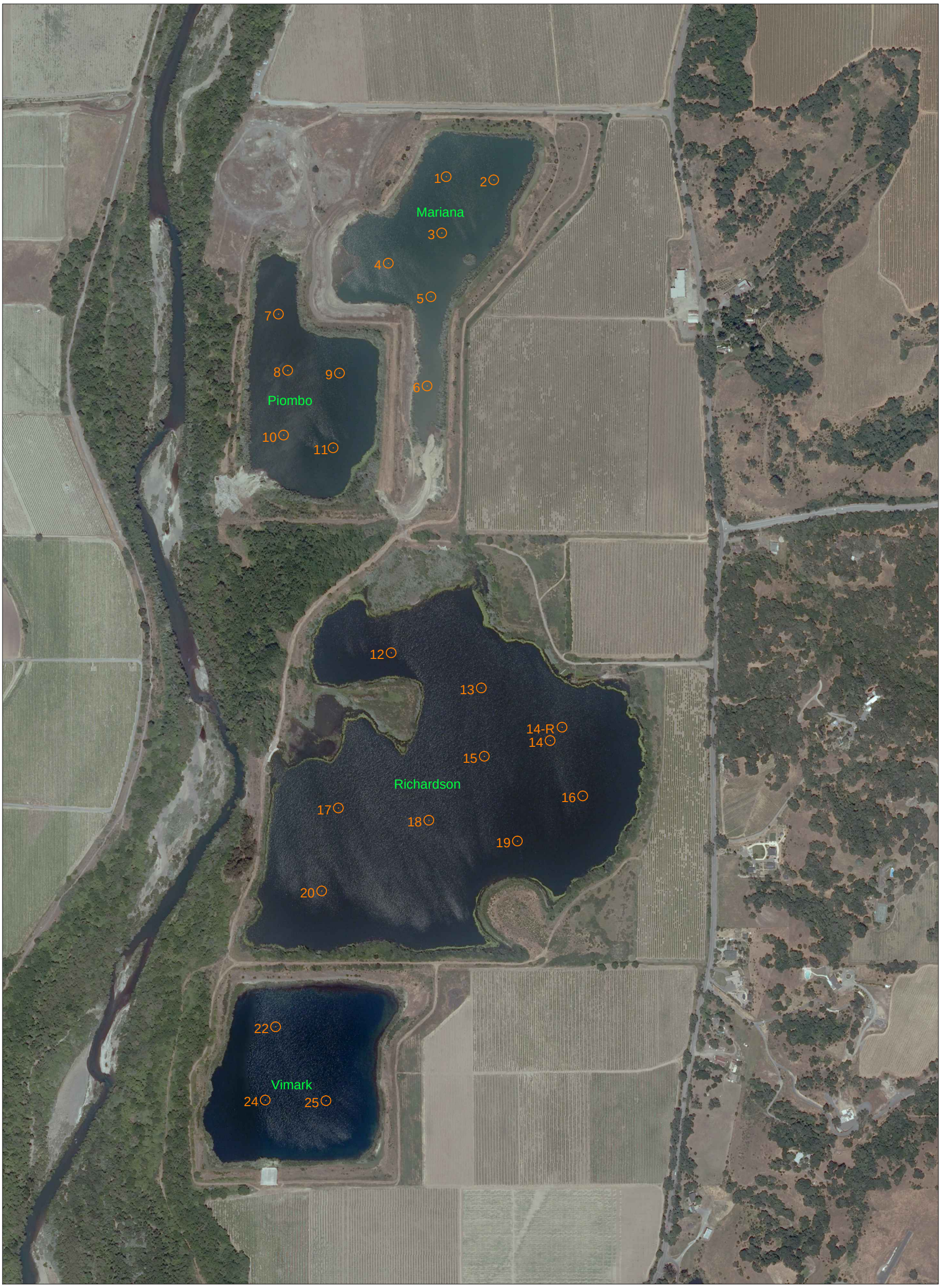
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AFFILIATED RESEARCHERS

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Santa Rosa, CA 95401
(707) 538-6471
www.affiliatedresearchers.com

0 300' 600'



NOTES:

Benchmarks established using Trimble R8 RTK-DGPS raw observable data that was processed with NGS OPUS

DRAWN BY: mjc

DATE: 22 Aug 2012

JOB NO: XXX

FINAL

ATTACHMENT 4

Locations of Sediment Core Sampling NOAA Fisheries Reclamation Project Russian River, Sonoma County, CA

REVISIONS

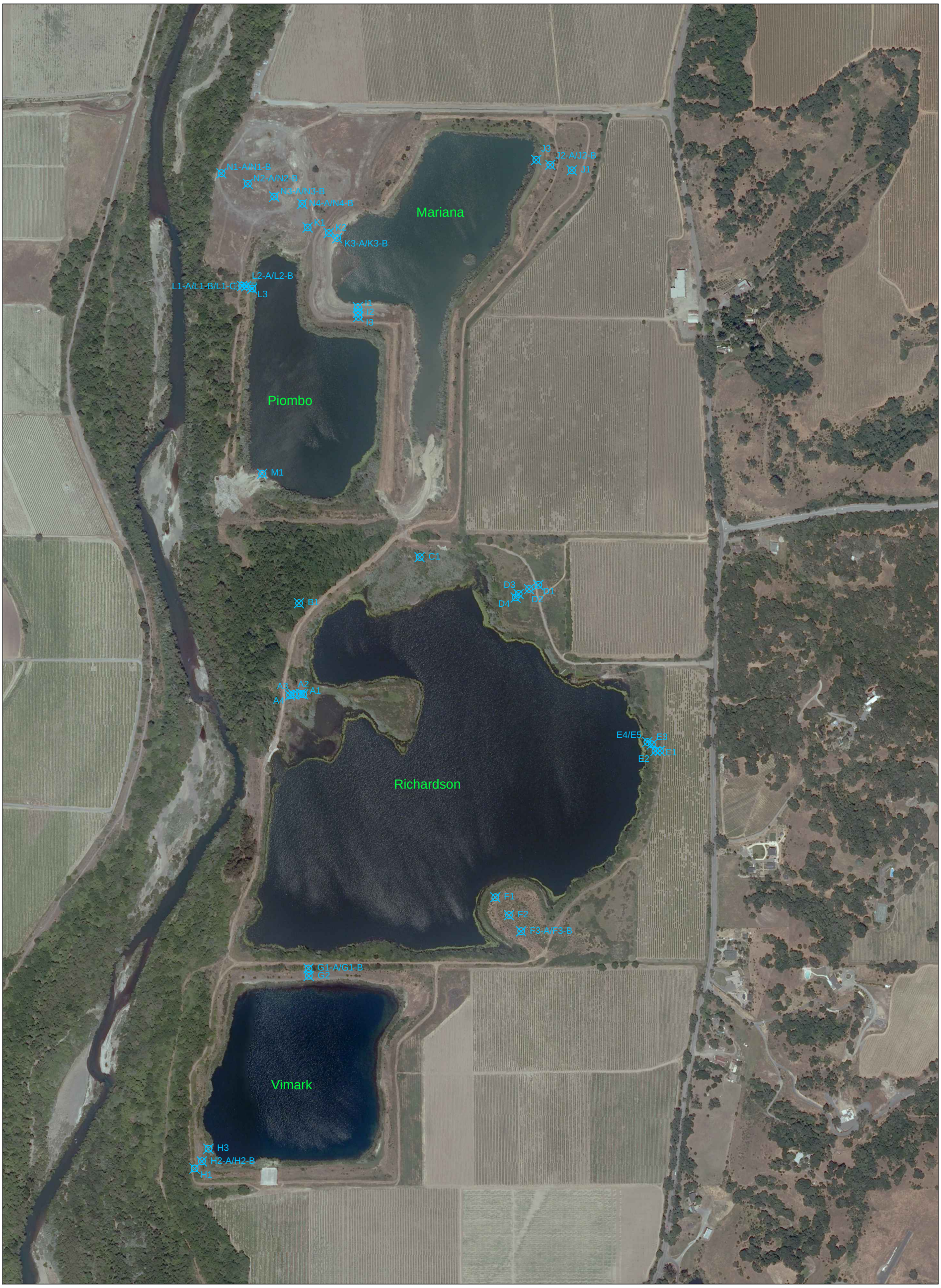
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14		

AFFILIATED RESEARCHERS

122 Lorrfield Center
Santa Rosa, CA 95401
(707) 538-5471
www.affiliatedresearchers.com

0 300' 600'

File: Z:\Hydrography\NOAA\Russian River 2012\CAD Files\Russian River.dwg Sediment Cores



5

ATTACHMENT

FINAL

DRAWN BY: mjc

DATE: 22 Aug 2012

JOB NO: XXX

NOTES:
Sampling Dates:
31 July 2012 - 3 August 2012

File: Z:\Hydrography\NOAA\Russian River 2012\CAD Files\Russian River.dwg Soil Samples

Location of Soil Samples
NOAA Fisheries Reclamation Project
Russian River, Sonoma County, CA

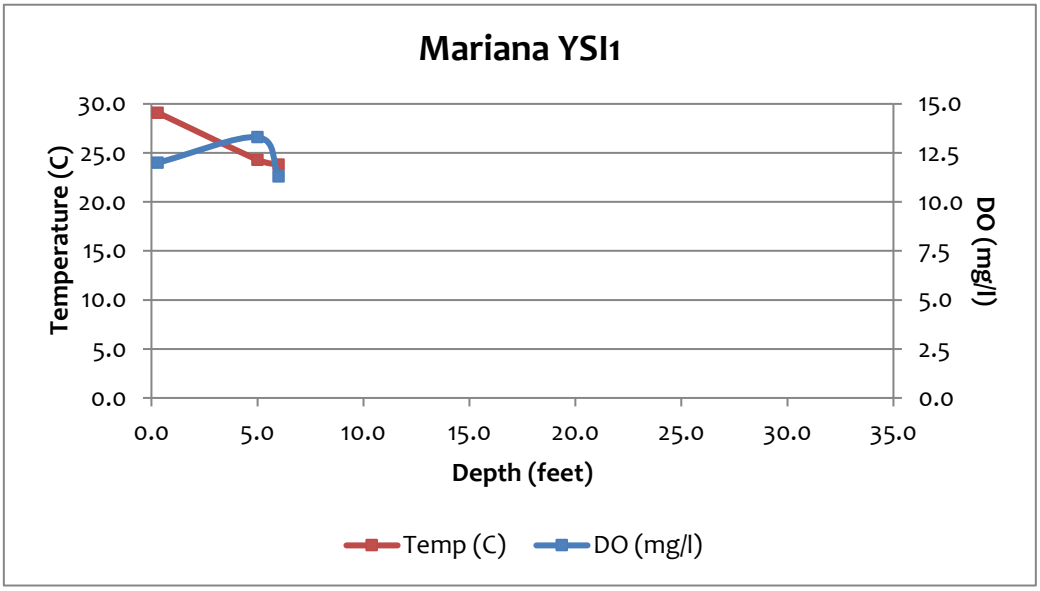
REVISIONS

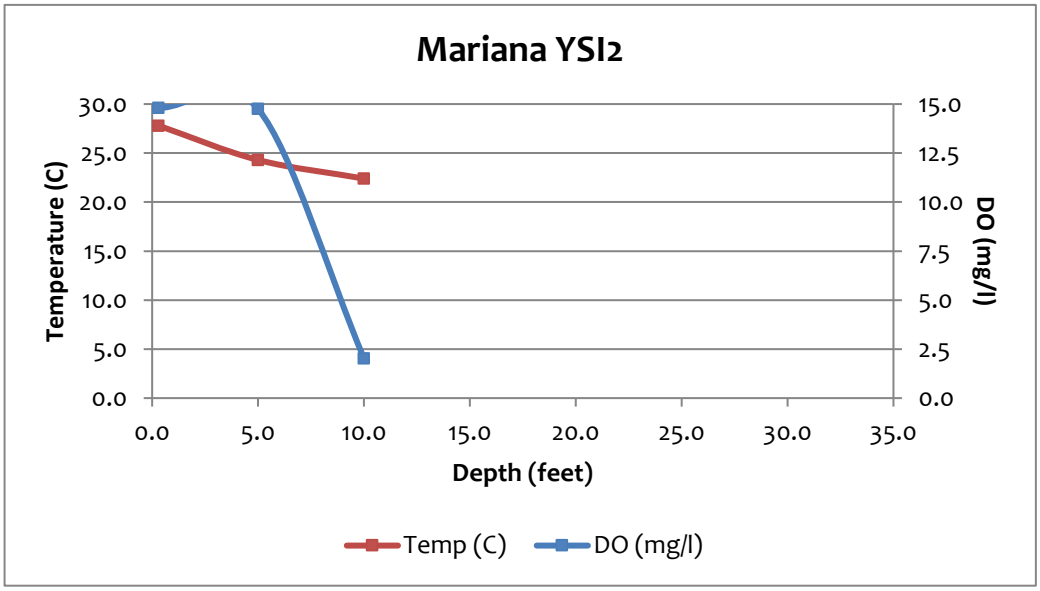
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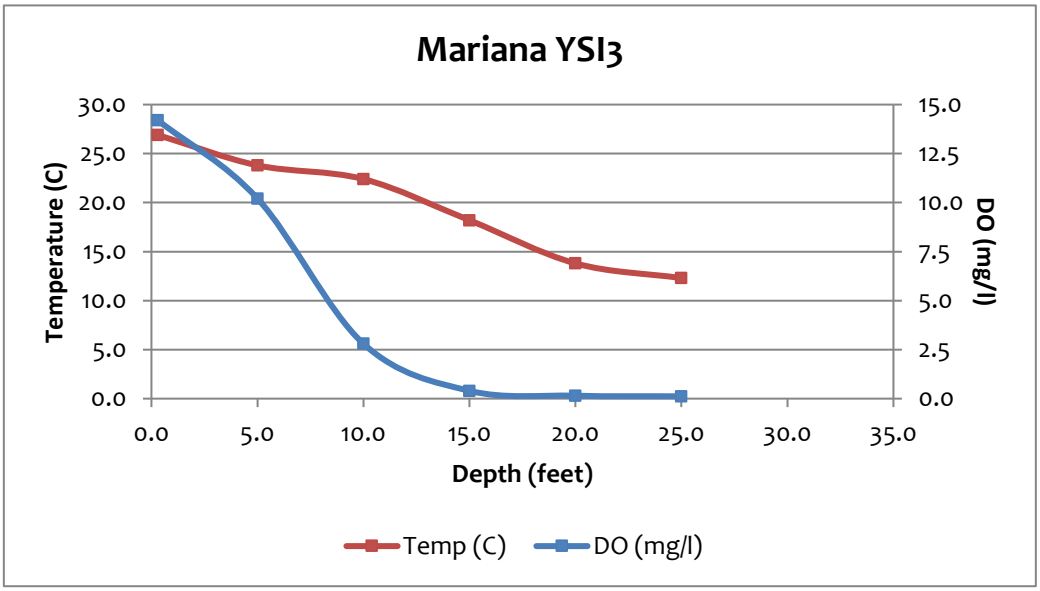
AFFILIATED RESEARCHERS

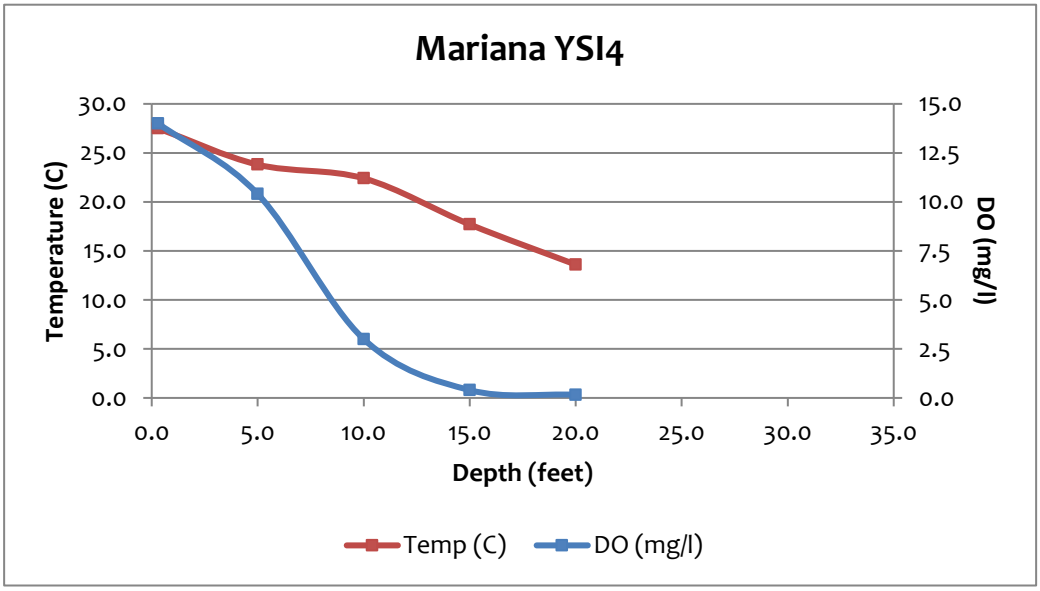
122 Lorrfield Center
Santa Rosa, CA 95401
(707) 538-5471
www.affiliatedresearchers.com

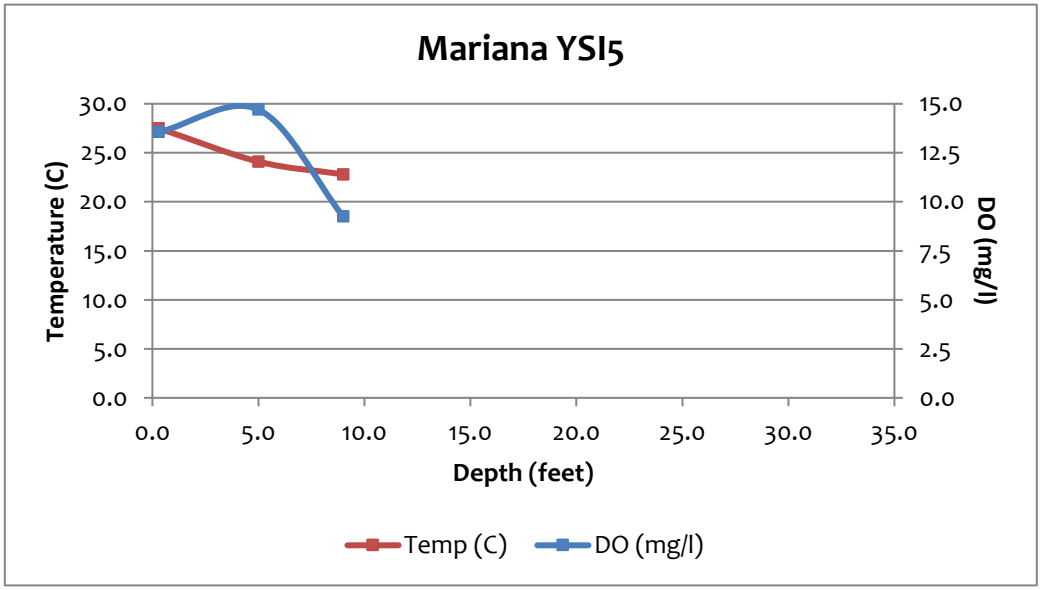
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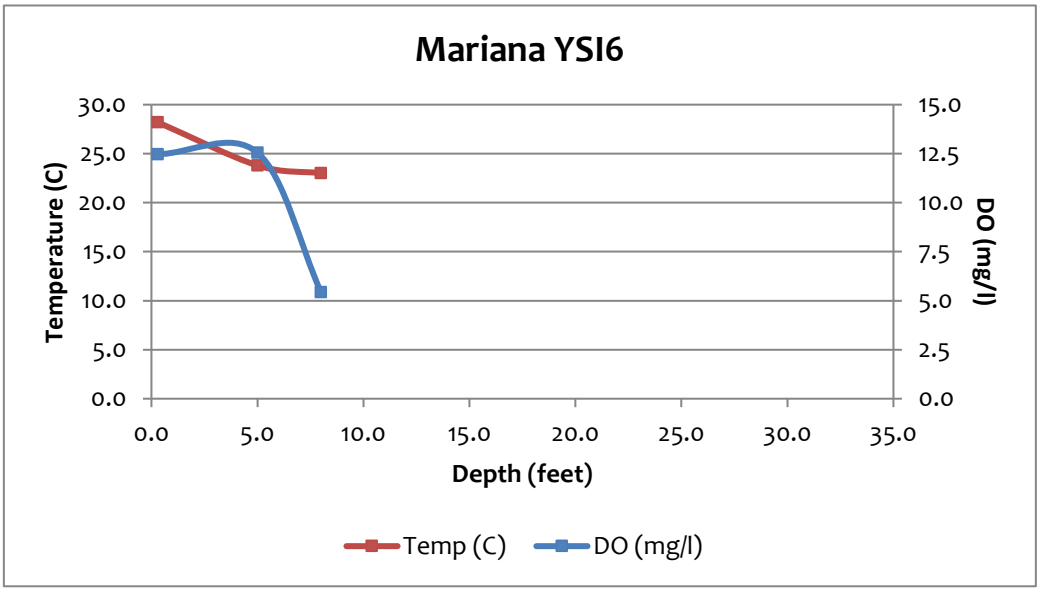

Mariana YSI1
Temperature (C)
DO (mg/l)
Depth (feet)
Temp (C)
DO (mg/l)

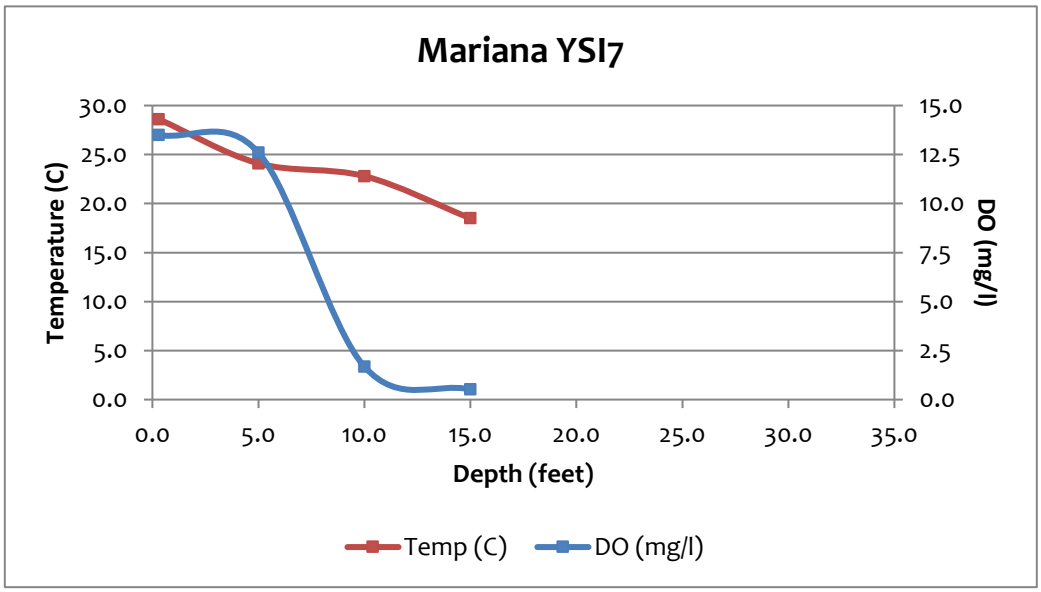

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DO (mg/l)
Depth (feet)
Temp (C)
DO (mg/l)

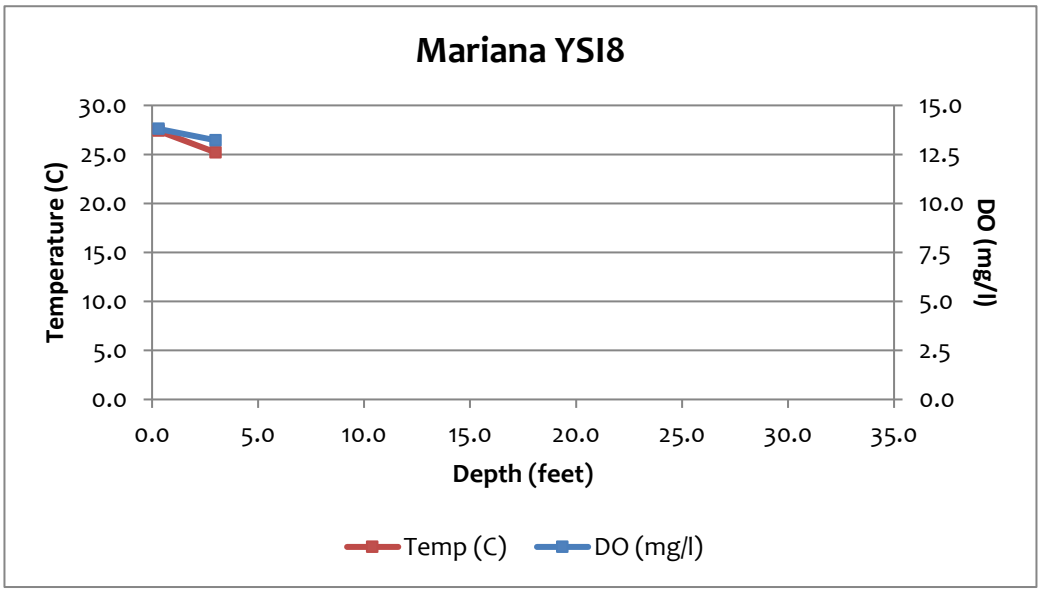

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Temperature (C)
DO (mg/l)
Depth (feet)
Temp (C)
DO (mg/l)

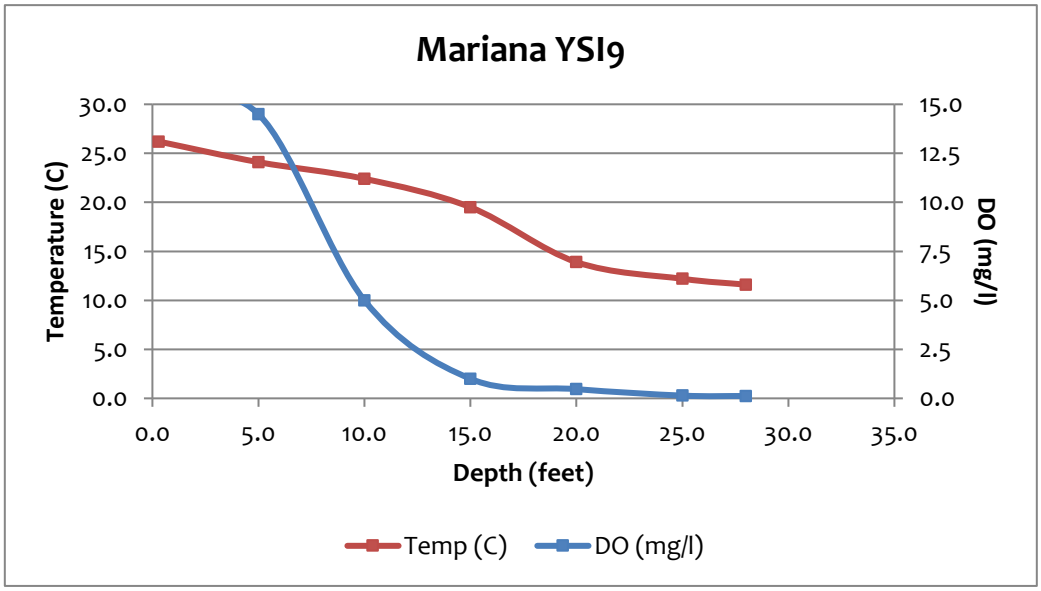

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DO (mg/l)
Depth (feet)
Temp (C)
DO (mg/l)

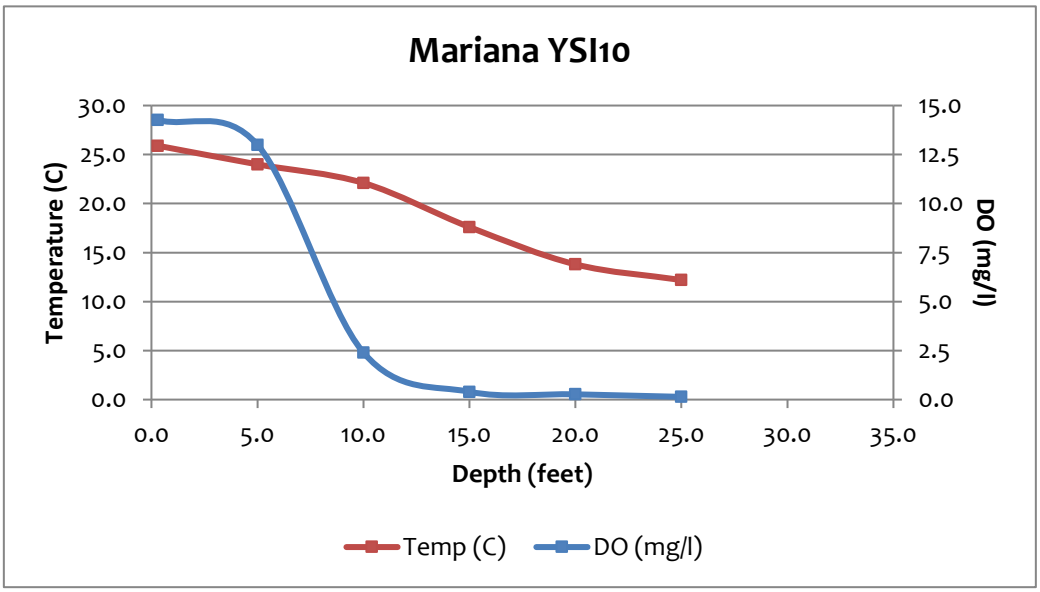

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Temperature (C)
DO (mg/l)
Depth (feet)
Temp (C)
DO (mg/l)

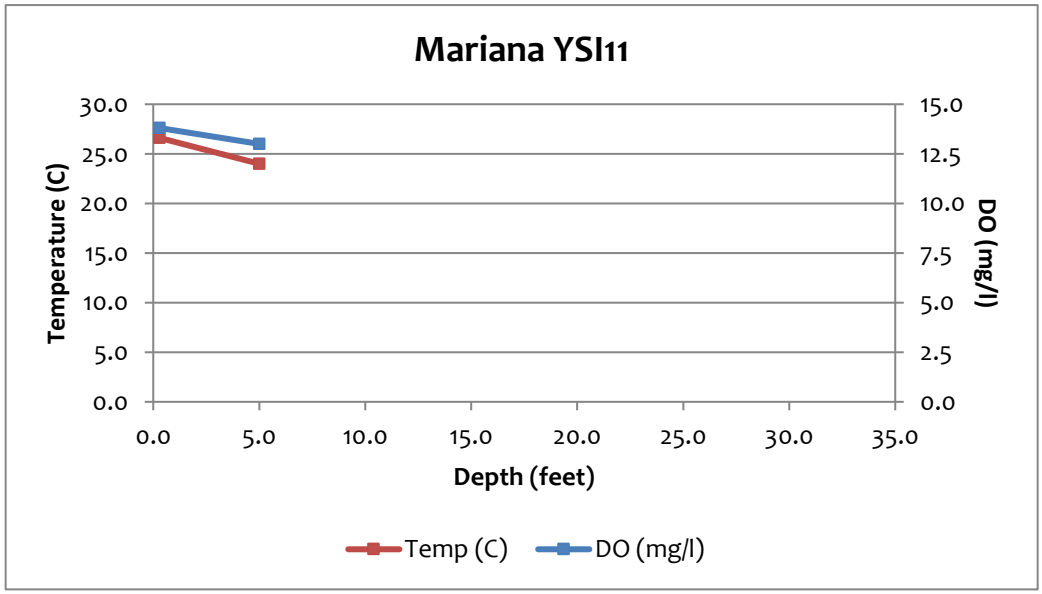

Mariana YSI6
Temperature (C)
DO (mg/l)
Depth (feet)
Temp (C)
DO (mg/l)

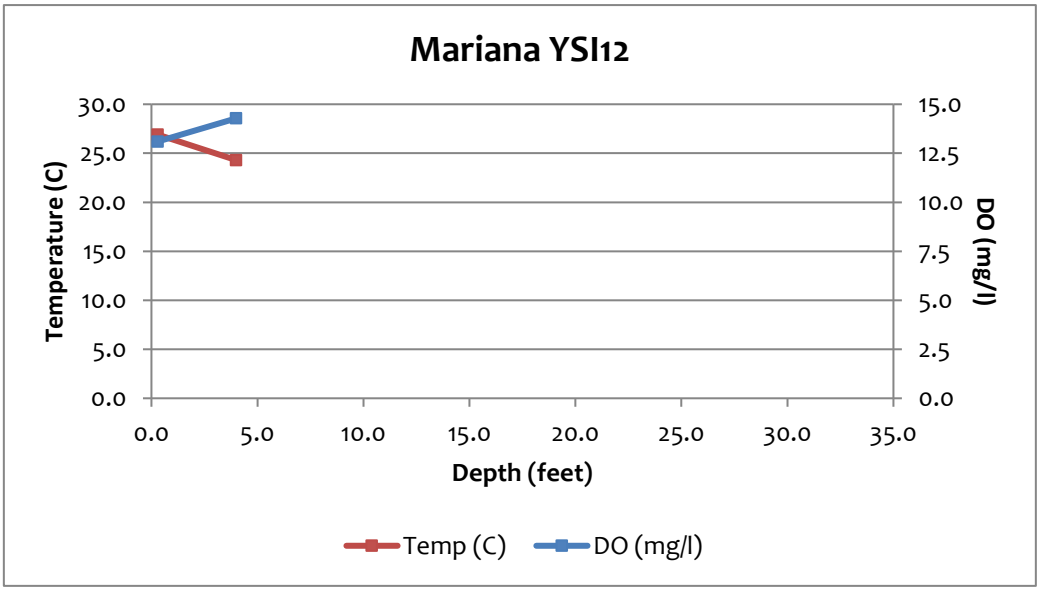

Mariana YSI7
Temperature (C)
DO (mg/l)
Depth (feet)
Temp (C)
DO (mg/l)

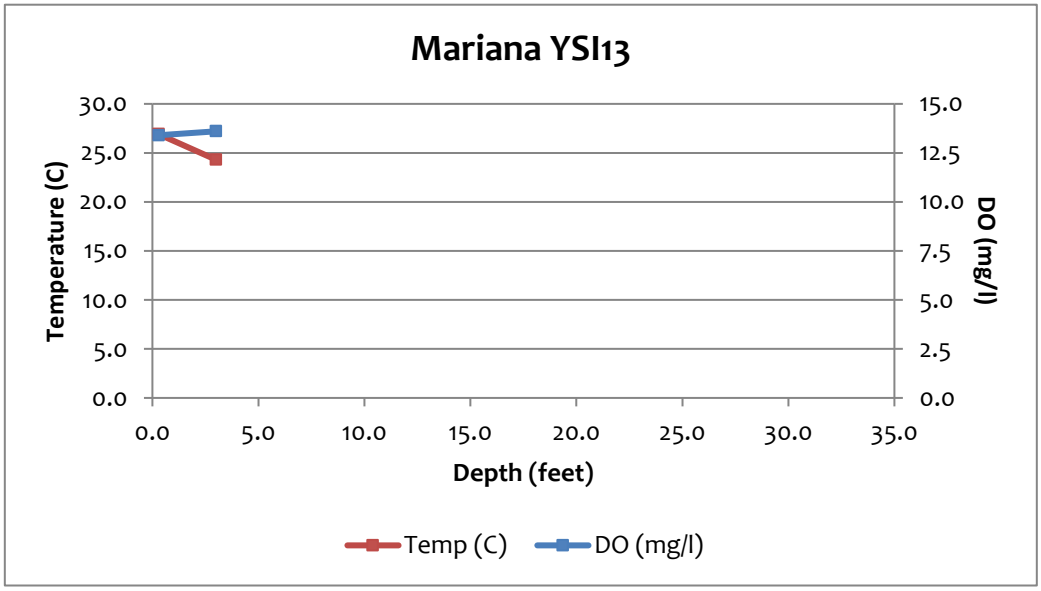

Mariana YSI8
Temperature (C)
DO (mg/l)
Depth (feet)
Temp (C)
DO (mg/l)

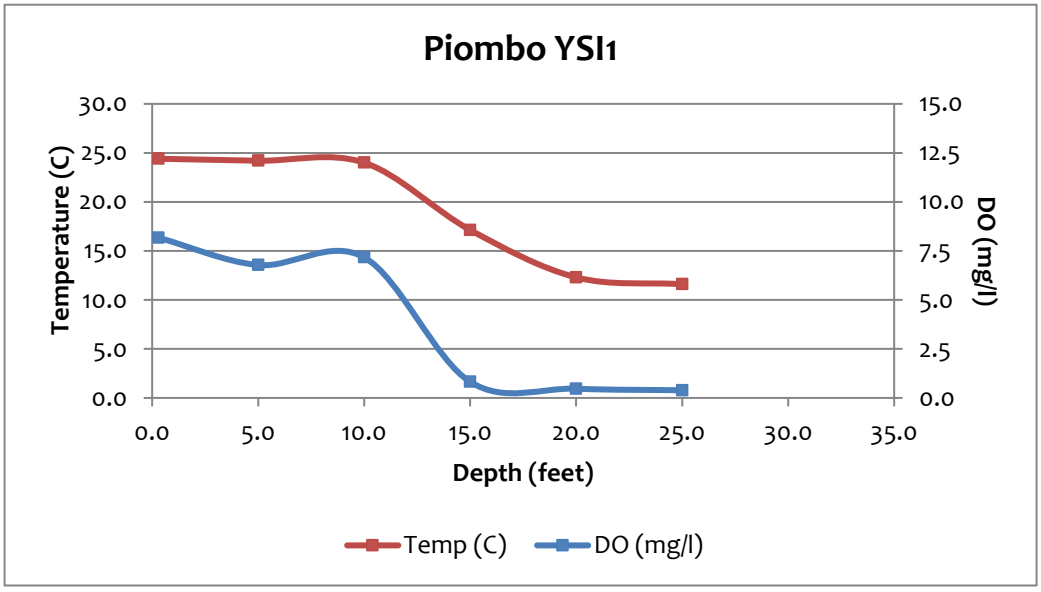

Mariana YSI9
Temperature (C)
DO (mg/l)
Depth (feet)
Temp (C)
DO (mg/l)

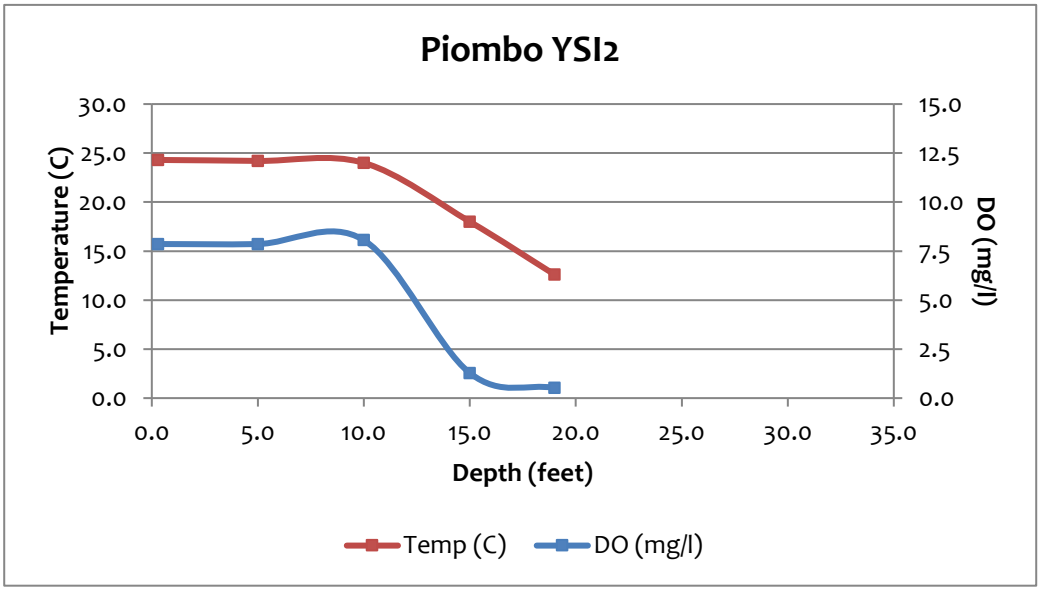

Mariana YSI10
Temperature (C)
DO (mg/l)
Depth (feet)
Temp (C)
DO (mg/l)

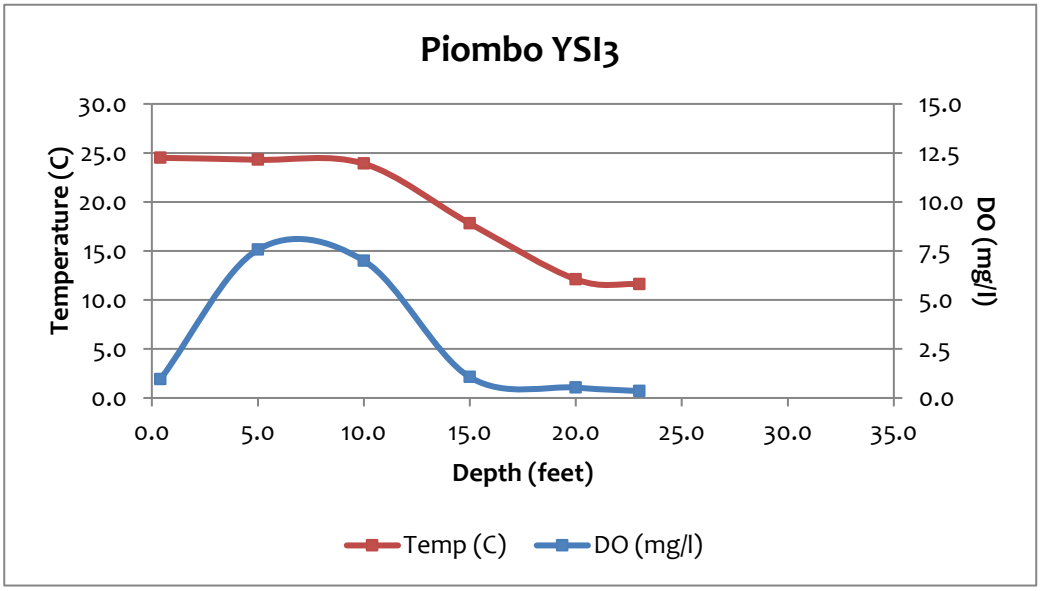

Mariana YSI11
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DO (mg/l)
Depth (feet)
Temp (C)
DO (mg/l)

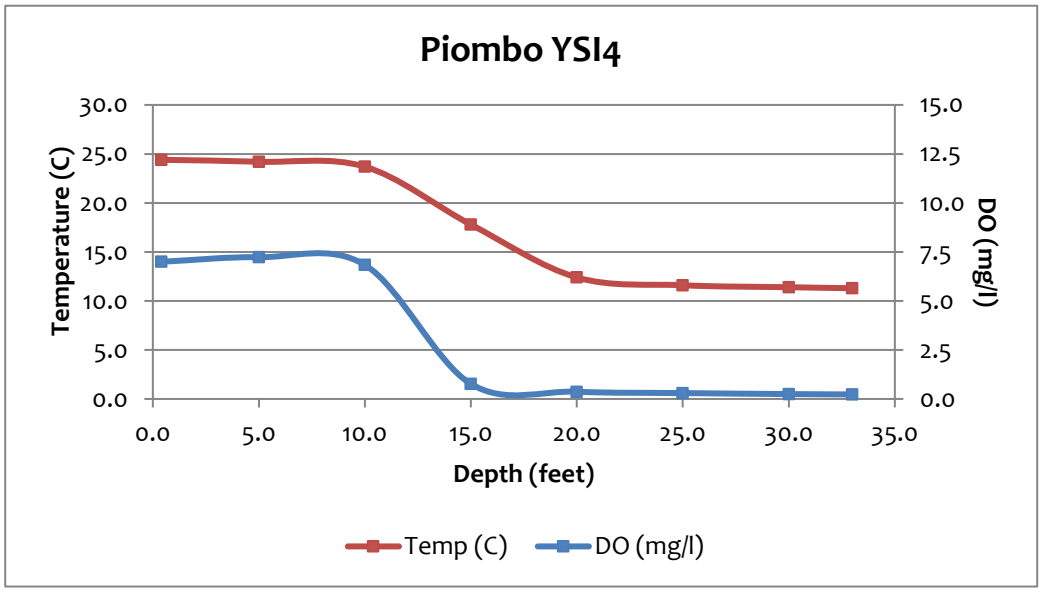

Mariana YSI12
Temperature (C)
DO (mg/l)
Depth (feet)
Temp (C)
DO (mg/l)

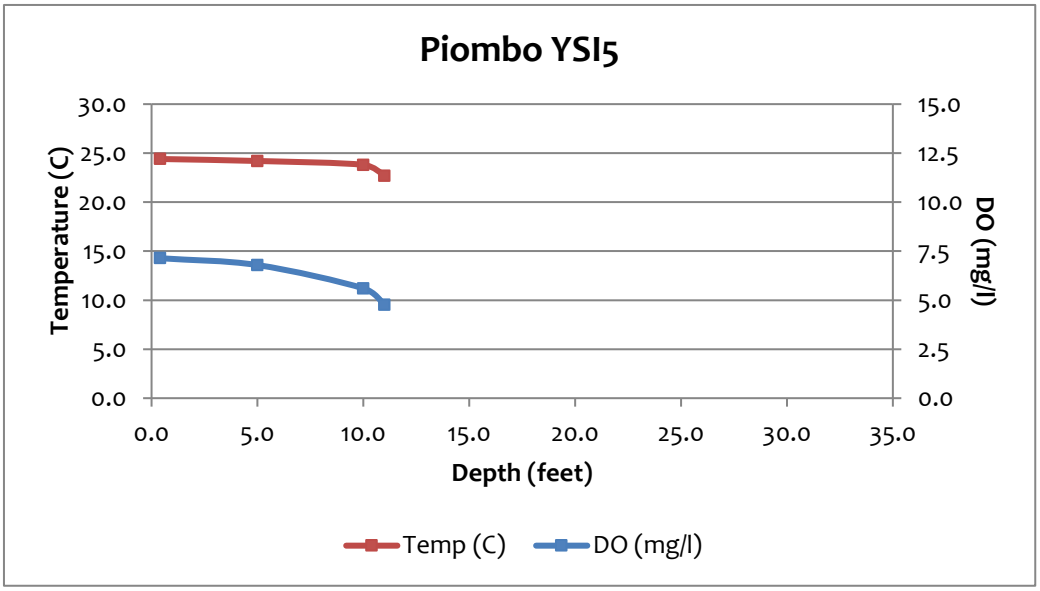

Mariana YSI13
Temperature (C)
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25.0
20.0
15.0
10.0
5.0
0.0
DO (mg/l)
15.0
12.5
10.0
7.5
5.0
2.5
0.0
0.0
5.0
10.0
15.0
20.0
25.0
30.0
35.0
Depth (feet)
Temp (C)
DO (mg/l)

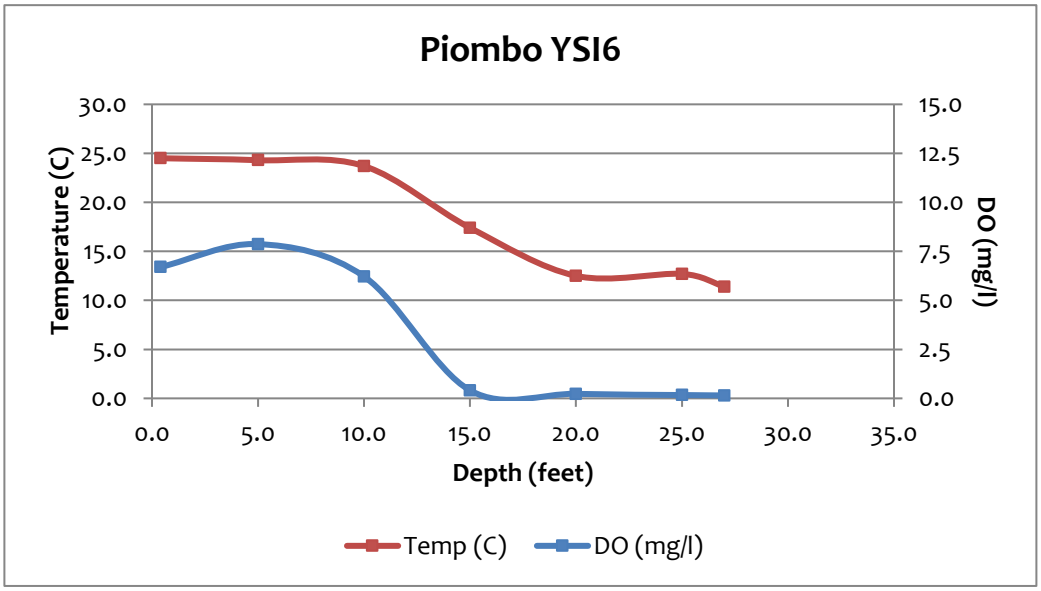

Piombo YSI1
Temperature (C)
DO (mg/l)
Depth (feet)
Temp (C)
DO (mg/l)

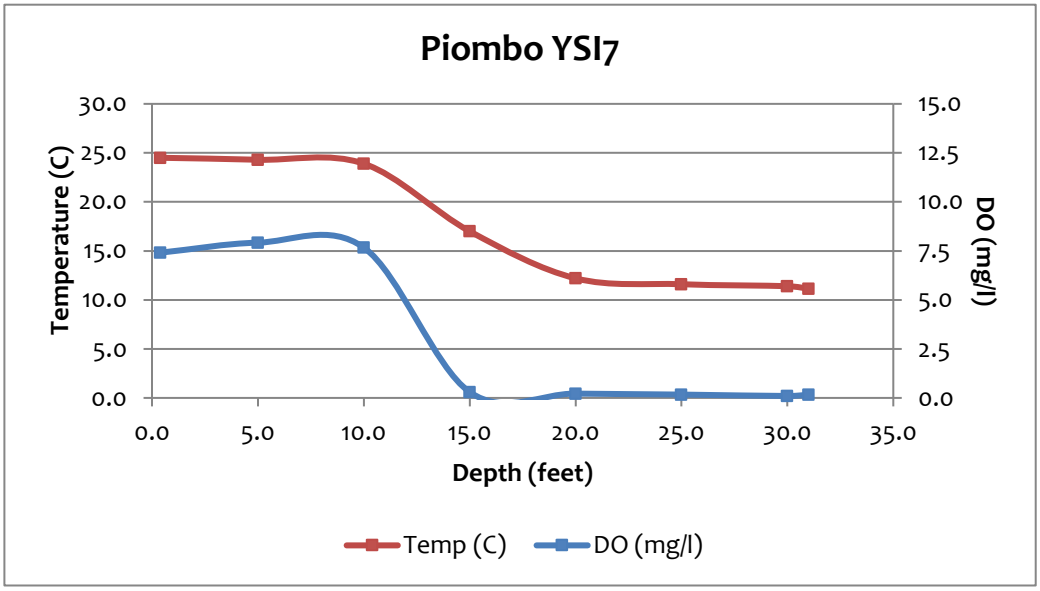

Piombo YSI2
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DO (mg/l)
Depth (feet)
Temp (C)
DO (mg/l)

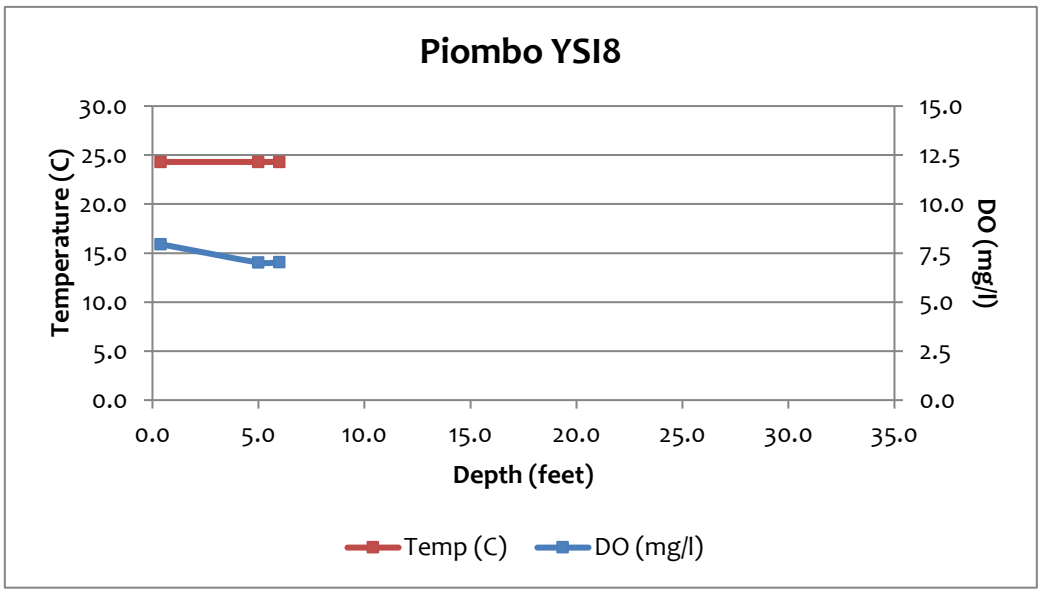

Piombo YSI3
Temperature (C)
DO (mg/l)
Depth (feet)
Temp (C)
DO (mg/l)

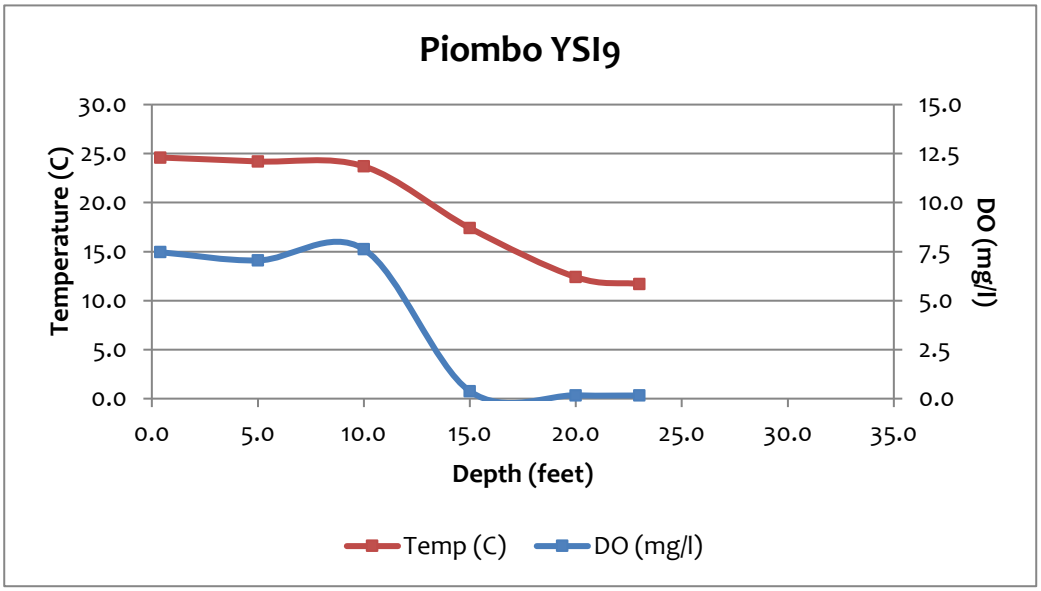

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Temperature (C)
DO (mg/l)
Depth (feet)
Temp (C)
DO (mg/l)

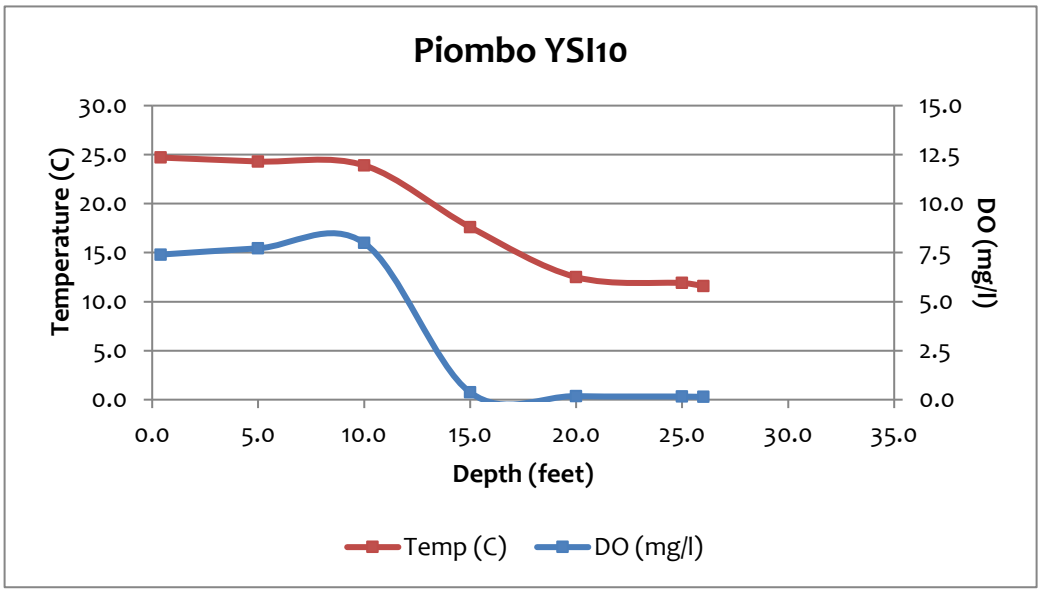

Piombo YSI5
Temperature (C)
DO (mg/l)
Depth (feet)
Temp (C)
DO (mg/l)

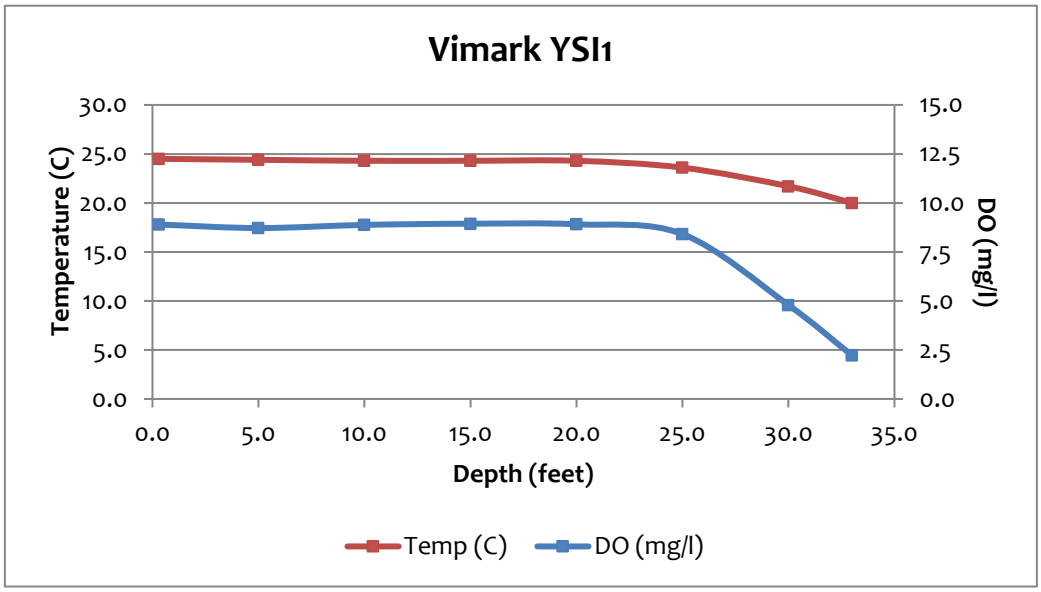

Piombo YSI6
Temperature (C)
DO (mg/l)
Depth (feet)
Temp (C)
DO (mg/l)

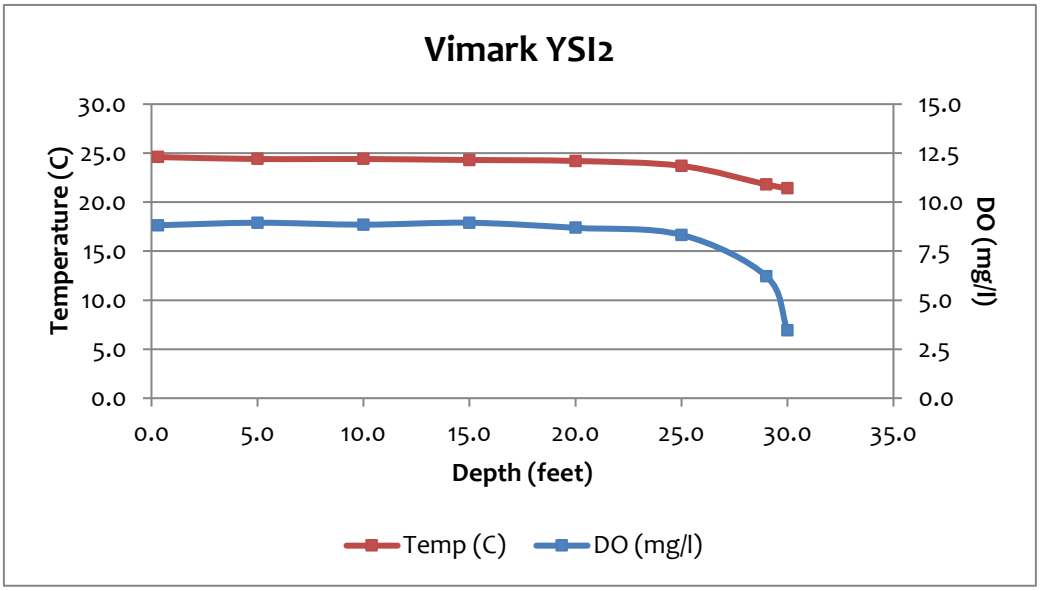

Piombo YSI7
Temperature (C)
DO (mg/l)
Depth (feet)
Temp (C)
DO (mg/l)

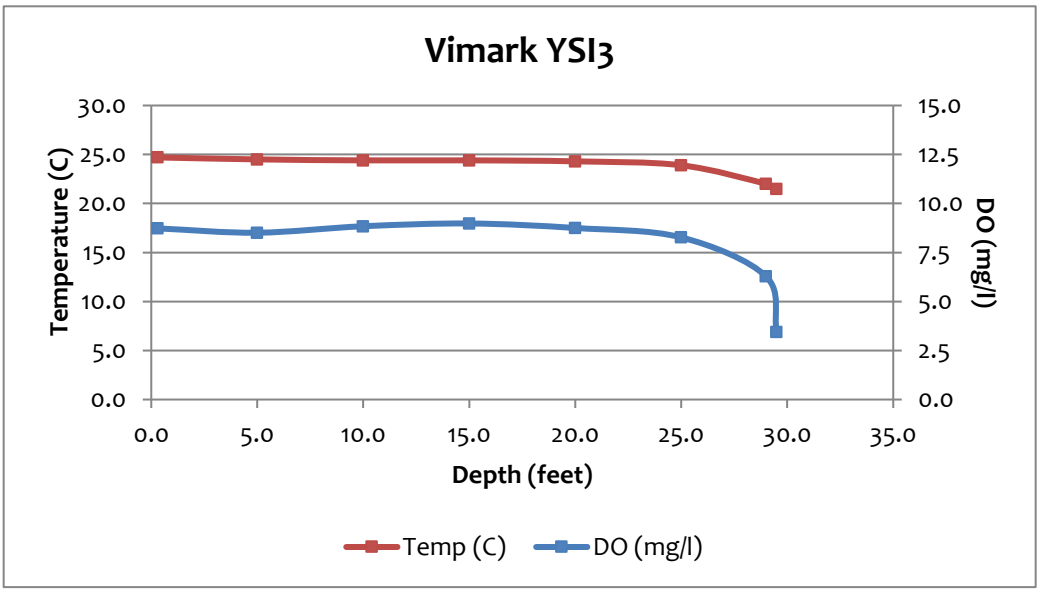

Piombo YSI8
Temperature (C)
DO (mg/l)
Depth (feet)
Temp (C)
DO (mg/l)

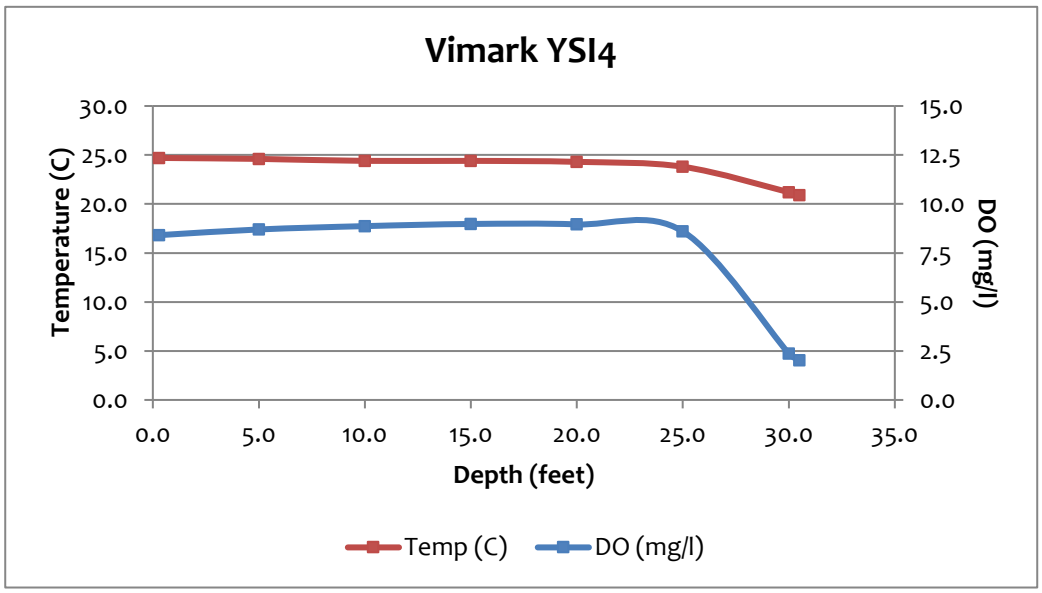

Piombo YSI9
Temperature (C)
DO (mg/l)
Depth (feet)
Temp (C)
DO (mg/l)

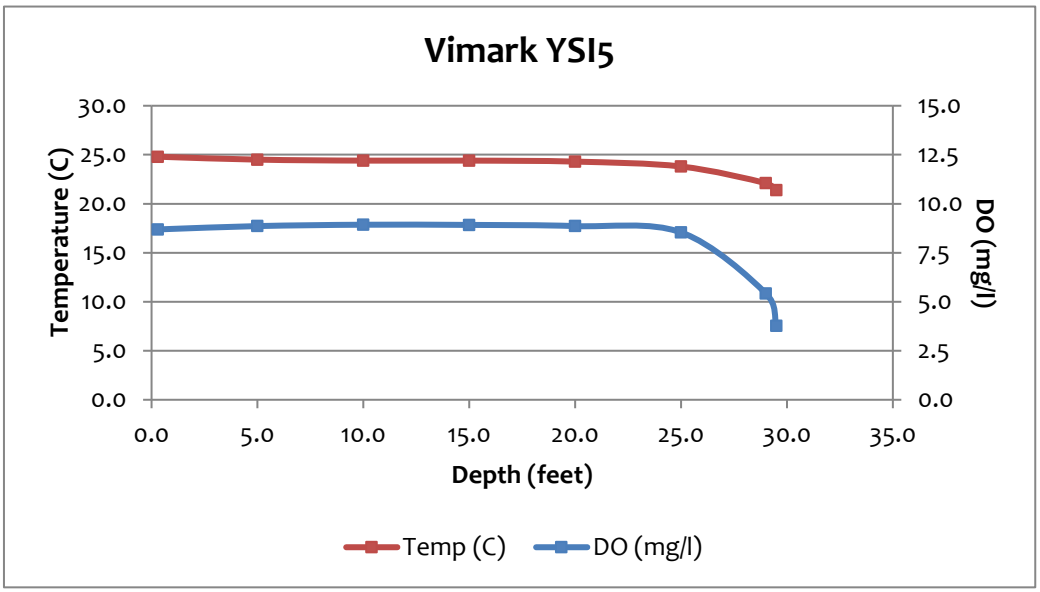

Piombo YSI10
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25.0
20.0
15.0
10.0
5.0
0.0
Temperature (C)
15.0
12.5
10.0
7.5
5.0
2.5
0.0
DO (mg/l)
0.0
5.0
10.0
15.0
20.0
25.0
30.0
35.0
Depth (feet)
Temp (C)
DO (mg/l)

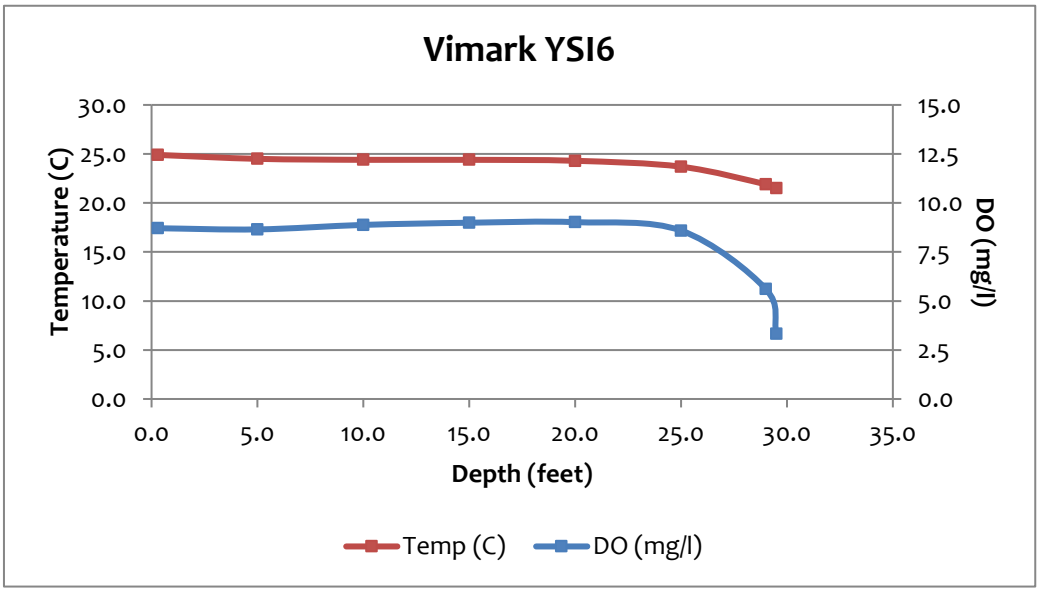

Vimark YSI1
Temperature (C)
DO (mg/l)
Depth (feet)
Temp (C)
DO (mg/l)

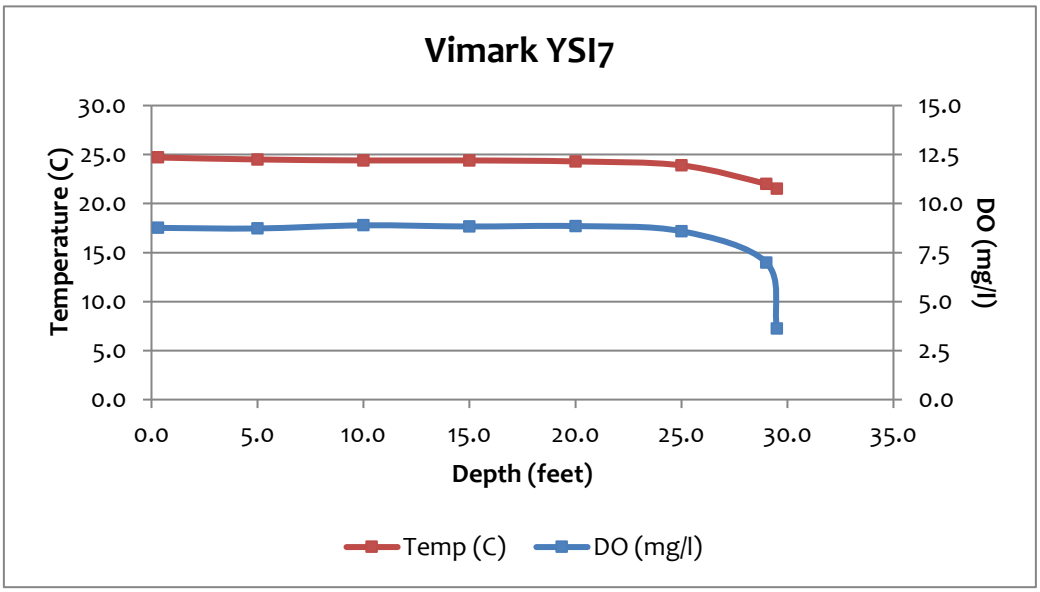

Vimark YSI2
Temperature (C)
DO (mg/l)
Depth (feet)
Temp (C)
DO (mg/l)

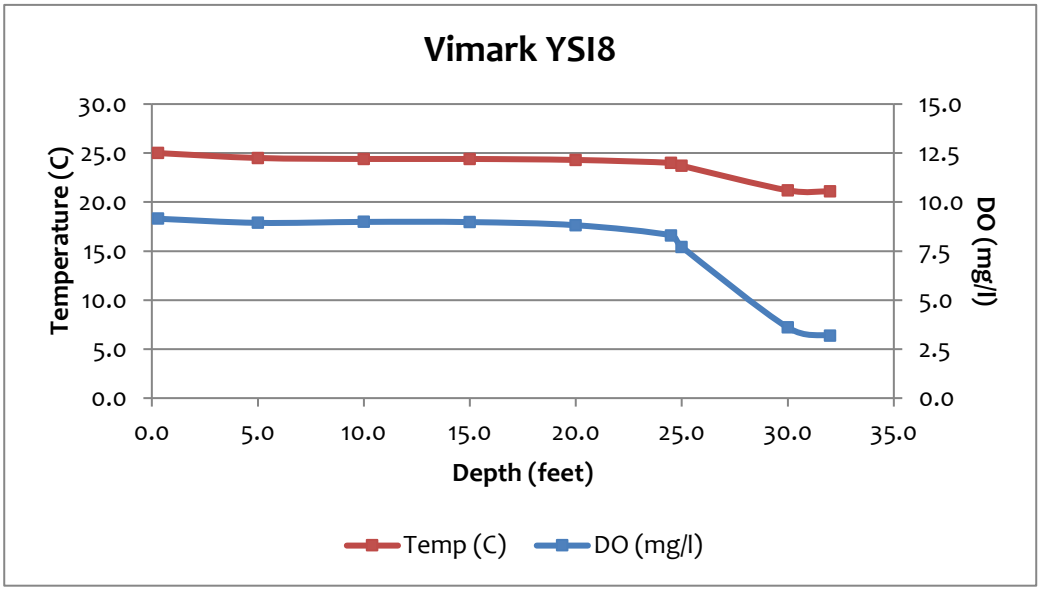

Vimark YSI3
Temperature (C)
DO (mg/l)
Depth (feet)
Temp (C)
DO (mg/l)

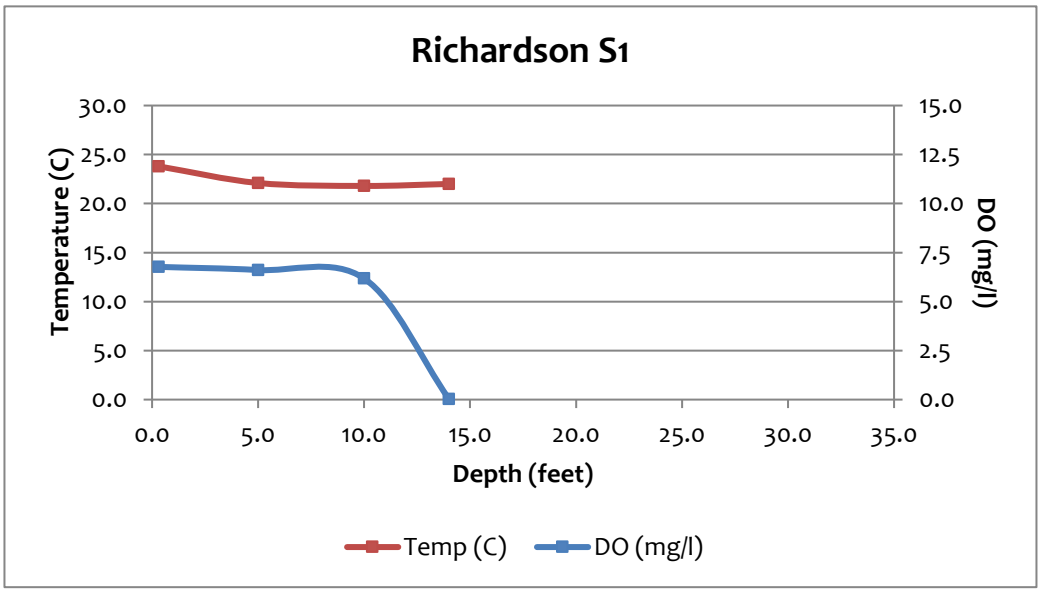

Vimark YSI4
Temperature (C)
DO (mg/l)
Depth (feet)
Temp (C)
DO (mg/l)

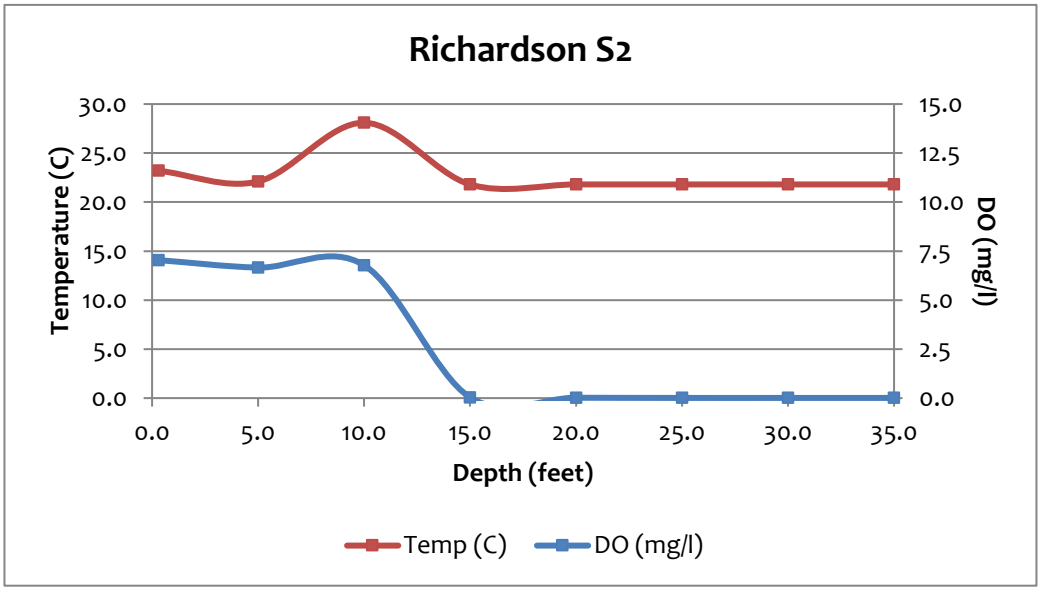

Vimark YSI5
Temperature (C)
DO (mg/l)
Depth (feet)
Temp (C)
DO (mg/l)

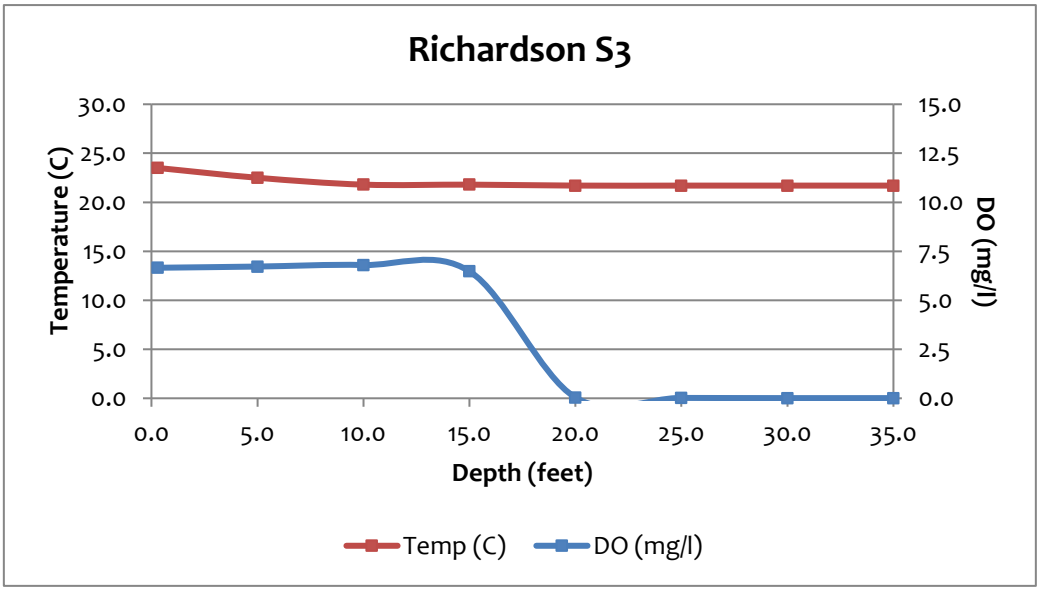

Vimark YSI6
Temperature (C)
DO (mg/l)
Depth (feet)
Temp (C)
DO (mg/l)

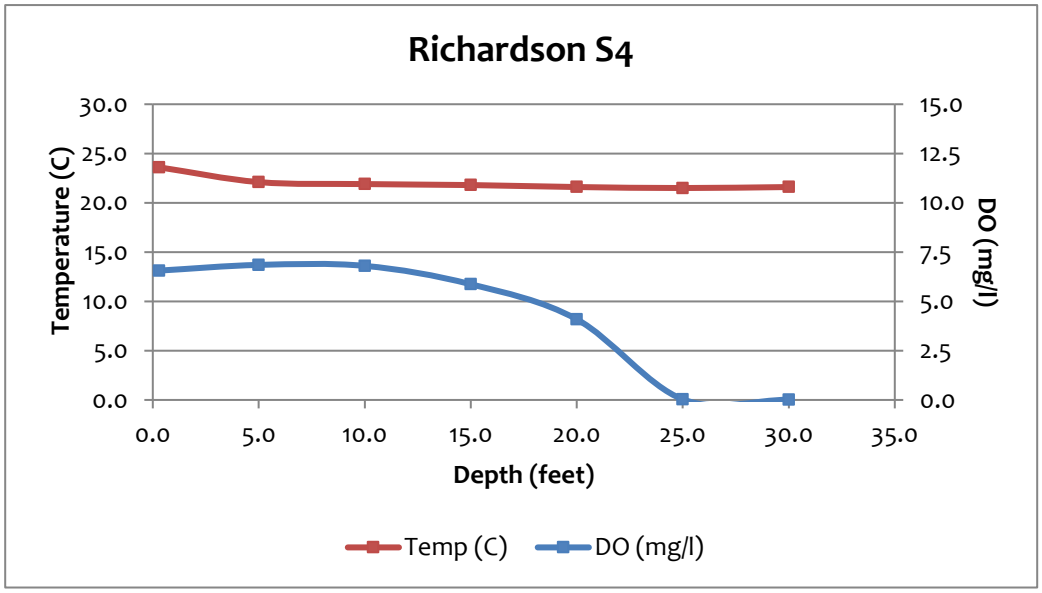

Vimark YSI7
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DO (mg/l)
Depth (feet)
Temp (C)
DO (mg/l)

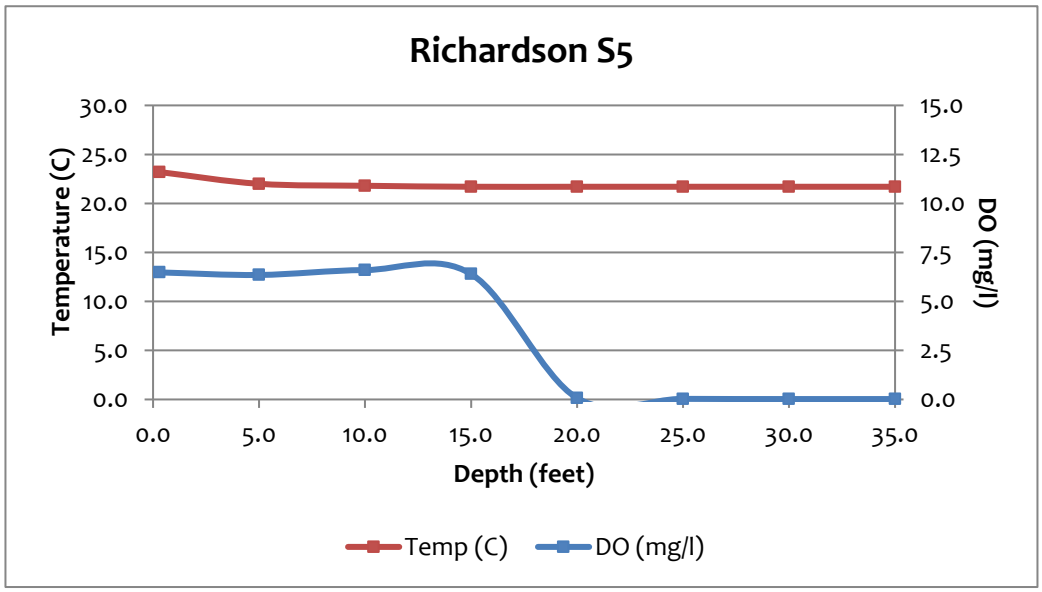

Vimark YSI8
Temperature (C)
DO (mg/l)
Depth (feet)
Temp (C)
DO (mg/l)

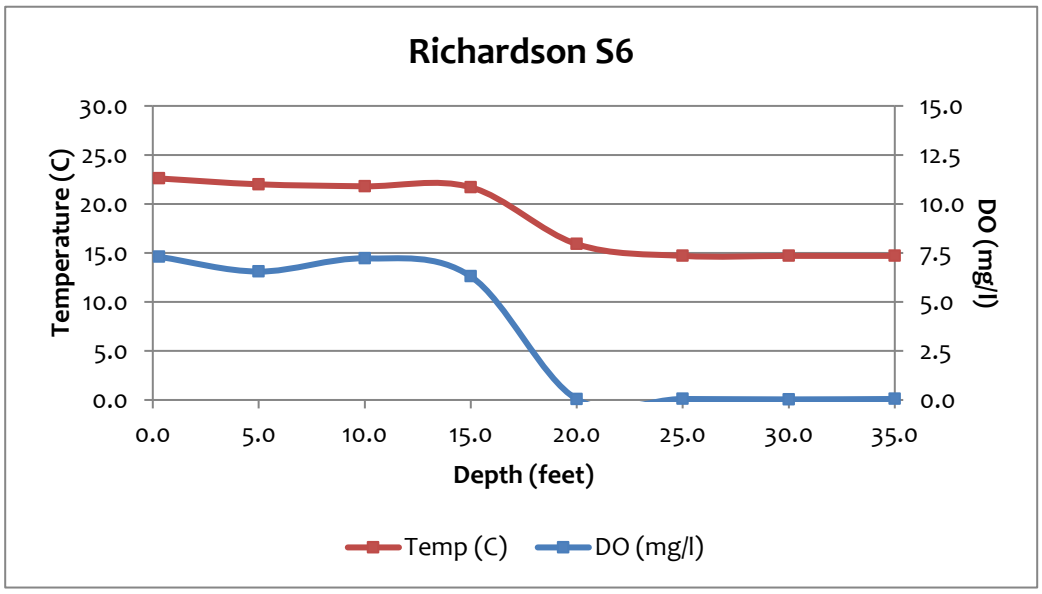

Richardson S1
Temperature (C)
DO (mg/l)
Depth (feet)
Temp (C)
DO (mg/l)

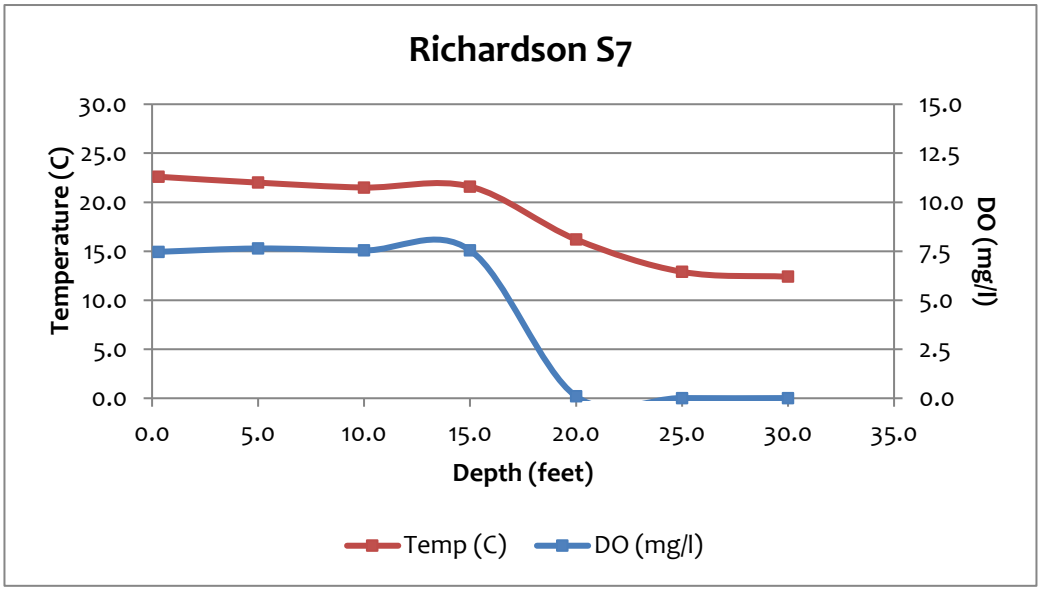

Richardson S2
Temperature (C)
DO (mg/l)
Depth (feet)
Temp (C)
DO (mg/l)

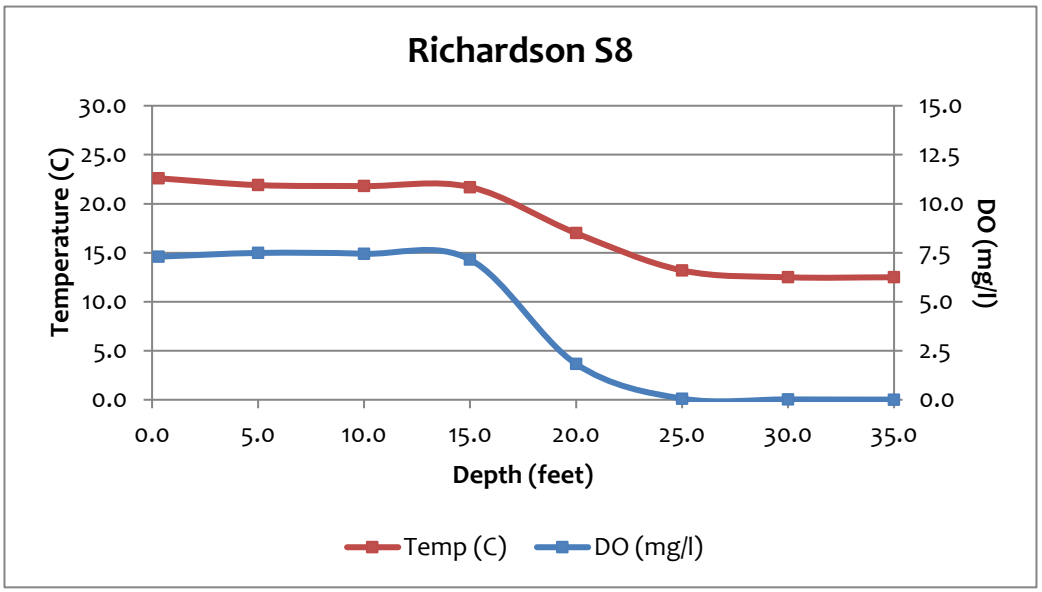

Richardson S3
Temperature (C)
DO (mg/l)
Depth (feet)
Temp (C)
DO (mg/l)

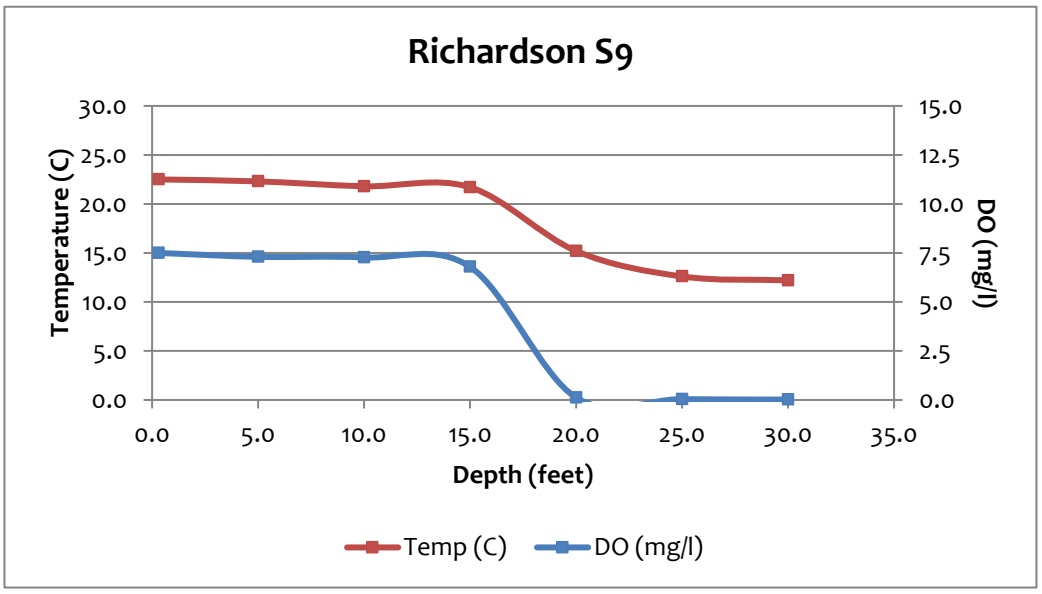

Richardson S4
Temperature (C)
DO (mg/l)
Depth (feet)
Temp (C)
DO (mg/l)

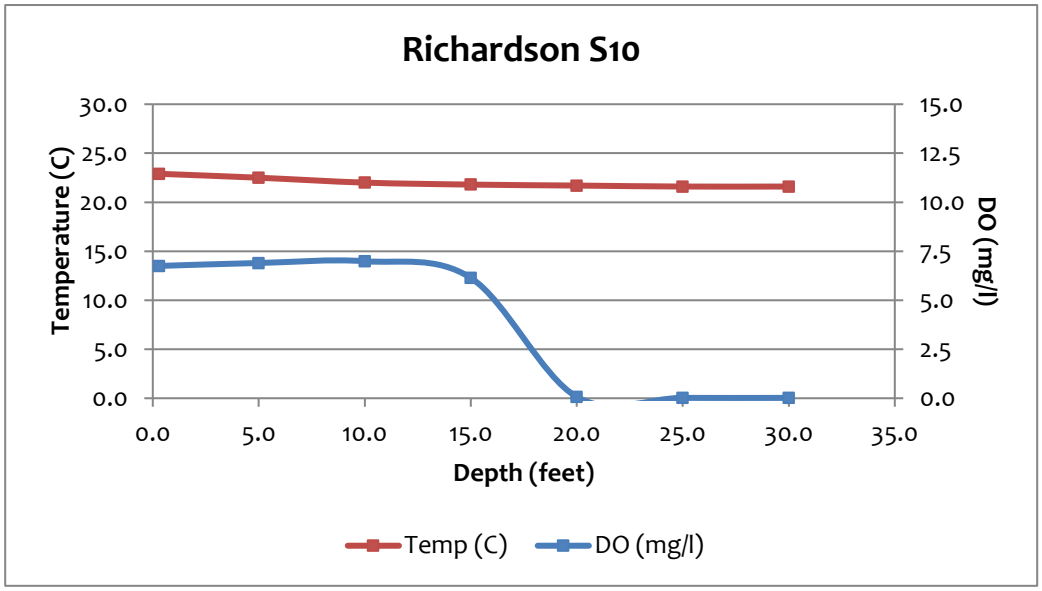

Richardson S5
Temperature (C)
DO (mg/l)
Depth (feet)
Temp (C)
DO (mg/l)


Richardson S6
Temperature (C)
DO (mg/l)
Depth (feet)
Temp (C)
DO (mg/l)


Richardson S7
Temperature (C)
DO (mg/l)
Depth (feet)
Temp (C)
DO (mg/l)


Richardson S8
Temperature (C)
DO (mg/l)
Depth (feet)
Temp (C)
DO (mg/l)


Richardson S9
Temperature (C)
DO (mg/l)
Depth (feet)
Temp (C)
DO (mg/l)


Richardson S10
Temperature (C)
DO (mg/l)
Depth (feet)
30.0
25.0
20.0
15.0
10.0
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DO (mg/l)

Fidelity National Title Company

PRELIMINARY REPORT

In response to the application for a policy of title insurance referenced herein, ***Fidelity National Title Company*** *hereby reports that it is prepared to issue, or cause to be issued, as of the date hereof, a policy or policies of title insurance describing the land and the estate or interest therein hereinafter set forth, insuring against loss which may be sustained by reason of any defect, lien or encumbrance not shown or referred to as an exception herein or not excluded from coverage pursuant to the printed Schedules, Conditions and Stipulations or Conditions of said policy forms.*

The printed Exceptions and Exclusions from the coverage and Limitations on Covered Risks of said policy or policies are set forth in Attachment One. The policy to be issued may contain an arbitration clause. When the Amount of Insurance is less than that set forth in the arbitration clause, all arbitrable matters shall be arbitrated at the option of either the Company or the Insured as the exclusive remedy of the parties. Limitations on Covered Risks applicable to the CLTA and ALTA Homeowner's Policies of Title Insurance which establish a Deductible Amount and a Maximum Dollar Limit of Liability for certain coverages are also set forth in Attachment One. Copies of the policy forms should be read. They are available from the office which issued this report.

This report (and any supplements or amendments hereto) is issued solely for the purpose of facilitating the issuance of a policy of title insurance and no liability is assumed hereby. If it is desired that liability be assumed prior to the issuance of a policy of title insurance, a Binder or Commitment should be requested.

The policy(ies) of title insurance to be issued hereunder will be policy(ies) of Fidelity National Title Insurance Company, a Florida corporation.

Please read the exceptions shown or referred to herein and the exceptions and exclusions set forth in Attachment One of this report carefully. The exceptions and exclusions are meant to provide you with notice of matters which are not covered under the terms of the title insurance policy and should be carefully considered.

It is important to note that this preliminary report is not a written representation as to the condition of title and may not list all liens, defects and encumbrances affecting title to the land.

Fidelity National Title Insurance Company

By:

President

Countersigned By:

Authorized Officer or Agent

Attest:

Secretary

Visit Us on our Website: www.fntic.com

Fidelity National Title Company

ISSUING OFFICE: 11050 Olson Drive, Suite 200, Rancho Cordova, CA 95670

Another Prompt Delivery From Fidelity National Title Company Title Department
Where Local Experience And Expertise Make A Difference

PRELIMINARY REPORT

Title Officer: Cathy Clark
Email: Cathy.Clark@fnf.com
Title No.: FSNX-TO1701229S-CC

TO: Endangered Habitats Conservancy
PO Box 22438
San Diego, CA 92192-9438
Attn: Scott Grimes

PROPERTY ADDRESS(ES): 066-290-049, 050, 052, 110-120-020, 021, 066-300-011, 027, 049, 110-110-015, 016, Healdsburg, CA

EFFECTIVE DATE: May 23, 2017 at 07:30 AM

The form of policy or policies of title insurance contemplated by this report is:

CLTA Standard Coverage Policy 1990 (04-08-14)

1. THE ESTATE OR INTEREST IN THE LAND HEREINAFTER DESCRIBED OR REFERRED TO COVERED BY THIS REPORT IS:

   A Fee as to Tract 1, Tract 2, Parcels 1, 2 & 3 of Tract 3, Tract 4 and Tract 5 and an Easement as to Parcel 4 of Tract 3

2. TITLE TO SAID ESTATE OR INTEREST AT THE DATE HEREOF IS VESTED IN:

   Hanson Aggregates Mid-Pacific, Inc., a Delaware Corporation, formerly known as Kaiser Sand & Gravel Company, a Delaware corporation

3. THE LAND REFERRED TO IN THIS REPORT IS DESCRIBED AS FOLLOWS:

   SEE EXHIBIT "A" ATTACHED HERETO AND MADE A PART HEREOF

EXHIBIT "A"

Legal Description

For APN/Parcel ID(s): 066-290-049-000, 066-290-050-000, 066-290-052-000, 110-120-020-000, 110-120-021-000, 066-300-011-000, 066-300-027-000, 066-300-049-000, 110-110-015-000 and 110-110-016-000

THE LAND REFERRED TO HEREIN BELOW IS SITUATED IN THE UNINCORPORATED AREA IN COUNTY OF SONOMA, STATE OF CALIFORNIA AND IS DESCRIBED AS FOLLOWS:

Tract 1:

A portion of the Southeast quarter of Section 9, and the Southwest quarter of Section 10, Township 8 North, Range 9 West, as said Sections are extended into the El Molino Rancho, said portion being more particularly described as follows:

Beginning at a 3/4" iron pipe marking the Northwest corner of the Calhoun Ranch, as described in the Decree of Distribution recorded in Book 480 of Official Records, at Page 432, Serial No. B-10416, said point bears West 3317.20 feet from an iron pipe set in concrete marking the center of Section 10, Township 8 North, Range 9 West; thence East 2547.24 feet to a point in the center of the East Side Road, a County Road; thence along the center of said road, South 50.00 feet; thence leaving said road, West 2239.92 feet; thence South 1350.00 feet; thence East 508.21 feet; thence South 1247.47 feet to a point which is 50.00 feet North of the South line of the here before described Calhoun Ranch and herein designated as "Point A"; thence along a line, parallel to and 50.00 feet therefrom of the South line of the said Calhoun Ranch, South 89 degrees 45' West, 230.83 feet; thence West 889.58 feet to the West line of said Calhoun Ranch, an agreed line as described in Book "H" of Bonds and Agreements at Page 118, and herein designated as "Point B"; thence along the agreed line, North 6 degrees 34' East, 2665.97 feet to the point of beginning.

Excepting therefrom, that portion described in Deed to the County of Sonoma, a Political Subdivision of the State of California, described in Deed dated November 27, 1957 and recorded December 20, 1957, in Book 1562 of Official Records Page 412, Serial No. F-30965.

Also excepting therefrom any portion within the bed of the Russian River in its last Natural State.

APN: 066-300-011-000

Tract 2:

Parcel One:

That portion of the Sotoyome Rancho commencing at the Southwest corner of Section 9, Township 8 North, Range 9 West, M.D.B. & M.; as said Section is projected into said Sotoyome Rancho thence North on the Section Line 381.48 feet to the point of beginning; thence continuing North on the Section Line 381.48 feet; thence East and Parallel with the South Line of Section 9, a distance of 4351.4 feet more or less, to the Westerly line of the J. W. Calhoun Farm; thence South 7 degrees 15' West, along a line agreed upon by J. W. Calhoun, et al., recorded October 23, 1896 in Book H of Bonds and Agreements at Page 118, Sonoma County Records, a distance of 412.50 feet; thence West and parallel with the South line of Section 9, a distance of 4349.4 feet, more or less, to the point of beginning.

Excepting therefrom any portion lying Westerly of the Easterly line of the Lands of Basalt Rock Company, Inc., as contained in the Deed Recorded June 24, 1957 in Book 1528 of Official Records at Page 588, Serial No. F-16635, Sonoma County Records.

Also excepting therefrom any portion within the bed of the Russian River in its last Natural State.

EXHIBIT "A"

Legal Description
(continued)

Parcel Two:

That portion of the Sotoyome Rancho beginning at the Southwest corner of Section 9, Township 8 North, Range 9 West, M.D.B. & M. as said Section is projected into said Sotoyome Rancho and thence running North along the Westerly line of Section 9, a distance of 381.48 feet; thence Easterly and parallel with the South Line of Section 9, a distance of 4349.40 feet, more or less, to the West Line of the J. W. Calhoun Farm; thence South 7 degrees 15' West along a line agreed upon by J. W. Calhoun, et al., recorded October 23, 1896 in Book H of Bonds and Agreements at Page 118, Sonoma County Records, a distance of 412.50 feet to the South line of Section 9; thence Westerly along said South Line a distance of 4268.22 feet, more or less, to the point of beginning.

Excepting therefrom any portion lying Westerly of the Easterly Line of the Lands of Basalt Rock Company, Inc., as contained in the Deed recorded June 24, 1957 in Book 1528 of Official Records at Page 588, Serial No. F-16635, Sonoma County Records.

Also excepting therefrom any portion within the bed of the Russian River in its last Natural State.

APN: 110-120-020-000 & 021-000

Tract 3:

Parcel One:

Commencing at the Southwest corner of the Northwest quarter of the Northeast quarter of Section 15, Township 8 North, Range 9 West, M.D.M. & M., as said Section is projected into the El Molino Rancho on the East boundary line of the Rancho El Molino; thence South 88 degrees 50' West, 7.14 chains to an iron pin driven in the center of the County Road leading from Healdsburg to Guerneville, the place of beginning; thence North 1 degree West, along the center of said road, 8.89 chains to an iron pin driven in the ground; thence South 88 degrees 50' West, 46.50 chains, more or less, to a point in the boundary line established by the Deed and Agreement dated October 15, 1919 and made and entered into by and between E. D. Thompson, W. M. Richardson and Emily B. Hopkins, and recorded in Book 376, of Deeds, Page 449, Sonoma County Records, which said point is South 15 degrees 50' West, 12.53 chains from the Northerly end of the boundary line so established; thence along said line and its extension South 15 degrees 50' West, 30.62 chains, more or less, to a point in the South line of the Northeast quarter of Section 16, Township 8 North, Range 9 West; thence North 88 degrees 45' East, along said line, 60.29 chains to the center of Section 15 of said Township and Range; thence East 40.00 chains, more or less, to the Southeast corner of the Northeast quarter of said Section 15; thence North 20.00 chains, more or less, to the Southeast corner of the Northeast quarter of the Northeast quarter of Section 15; thence West along the South line of the North half of the Northeast quarter of Section 15, 47.14 chains to the point of beginning.

Being the same premises described in Deed from T. Boone Miller and Jessie L. Miller to Walter M. Richardson, dated November 17, 1913 and recorded in Book 316 of Deeds, Page 353, Sonoma County Records, and in the Deed from E. D. Thompson to W. M. Richardson, dated May 13, 1919 and recorded in Book 368 of Deeds, Page 398, Sonoma County Records, with the Westerly boundaries of the respective tract so conveyed by said Deeds, amended to conform with the Deed and Agreement between E. D. Thompson, W. M. Richardson and Emily Hopkins, hereinabove referred to.

Also excepting therefrom all of the portion thereof which lies East of the center line of the County Road (Eastside Road) leading from Healdsburg, California to Guerneville, California, as said County Road exists as of October 29, 1971.

Also excepting therefrom any portion lying within the parcel described in the deed to the County of Sonoma, recorded October 30, 1974, in Book 2908 OR, Page 685.

EXHIBIT "A"

Legal Description
(continued)

Excepting therefrom that portion described in the Deed records May 8, 1998, under Document No. 19980049700, Official Records of Sonoma County, California.

Also excepting therefrom, that portion within the bed of the Russian River in its last Natural State.

APN: 066-290-052-000

Parcel Two:

That portion of the El Molino Rancho and also a portion of the lands of Argonaut Constructors, as shown on that Record of Survey filed in Book 114 of Maps, at Page 29, Sonoma County Records, and being more particularly described as follows:

Commencing at a 2 inch iron pipe found at the one-quarter section corner common to Sections 10 and 15, Township 8 North, Range 9 West, M.D.B. & M., as said Section are projected into the El Molino Rancho; thence from said point of commencement and along the North line of E. D. Thompson, as referred to in that Document recorded in Book 376 of Deeds, Page 449, Sonoma County Records, South 89 degrees 45' West, 448.05 feet to a 3/4 inch iron pipe and the true point of beginning of the parcel of land to be herein described.

Thence from said point of beginning and continuing along said North line of E. d. Thompson, South 89 degrees 45" West, 2728.55 feet to a 3/4 inch iron pipe; thence leaving said line and along the Agreement line as described in that Document recorded in Book 376 of Deeds, Page 449, Sonoma County Records, South 15 degrees 50' West 825.95 feet to a 3/4 inch iron pipe; thence leaving said agreement line and along the North line of that parcel as described in that Document recorded in Book 559 of Official Records, at Page 496, Sonoma County Records, North 89 degrees 07' 39" East, 2016.00 feet to a 3/4 inch iron pipe; thence leaving said line, North 0 degrees 15' West, 731.72 feet to a 3/4 inch iron pipe; thence North 89 degrees 45' East, 940.41 feet to a 3/4 inch iron pipe set in Eastside Road; thence North 1 degree 16' 23" East, 40.41 feet to the point of beginning of the hereinabove described parcel of land.

Basis of Bearing. North Line E. D. Thompson recorded in Book 376 of Deeds, at Page 449, Sonoma County Records.

Excepting therefrom any portion within the bed of the Russian River in its last Natural State.

APN: 066-300-027-000

Parcel Three:

That portion of the lands of Vimark, Inc., as said lands are described by Deed recorded in Book 2525, Official Records, Page 181, Sonoma County Records, said portion being more particularly described as follows:

All said lands of Vimark lying Westerly of the following described line:

Commencing at the center of Section 15, T8N., R9W., M.D.B.&M. and running thence South 88° 45' 00" West, 492.36 feet, more or less, to the centerline of Eastside Road; thence continuing South 88° 45' 00" West, along the North line of Vimark 1,300 feet to the true point of beginning; thence South 44° 44' 26" West, 670.30 feet; thence South 0° 45' 00" East, 876.74 feet to the South line of Vimark and the terminus of said line.

Excepting therefrom any portion within the bed of the Russian River in its last Natural State.

EXHIBIT "A"

Legal Description
(continued)

Parcel Four:

A 30.00 foot wide easement for ingress, egress and utilities described as follows:

Being a 30.00 foot wide strip of land the Northerly edge of which is coincident with the Northerly line of said land of Vimark, Inc. Starting from the center of Eastside Road and running thence South 88° 45' West, along the North line of Vimark 1,300 feet to the Northeast corner of the above parcel. The Southerly line of said easement is to be extended to intersect the East line of the above parcel.

APN: 066-290-049-000 & 050-000

Tract 4:

The land herein referred to is situated in the State of California, County of Sonoma, and is described as follows:

Beginning at a 3/4 inch iron pipe monument, distant West 3,317.00 feet from a 3/4 inch iron pipe in concrete marking the center of Section 10, Township 8 North, Range 9 West, M.D.B. & M., according to the Official Plat thereof; thence from said point of beginning, South 6 degrees 34' West, along the Agreement Line recorded in Book H of Bonds and Agreement at Page 118, Sonoma County Records, 820.96 feet to the Northeasterly corner of the lands of Basalt Rock Company, Inc., as recorded in Book 2080 of Official Records at Page 350, Sonoma County Records; thence along the Northerly lines of said Lands of Basalt Rock Company, Inc., South 89 degrees 36' 08" West, 876.23 feet to the Southeasterly corner of Parcel 2 of the Lands of Basalt Rock Company, Inc., as recorded in Book 1528 of Official Records, at Page 588, Sonoma County Records; thence along the Easterly line of said Lands of Basalt Rock Company, Inc., North 14 degrees 19' 36" East, 848.03 feet to the Northerly line of the Lands of Harvey C. Frost; thence along said Northerly line, East 760.25 feet to the point of beginning.

Excepting therefrom any portion within the bed of the Russian River in its last Natural State.

APN: 110-110-015-000 & 016-000

Tract 5:

The land herein referred to is situated in the State of California, County of Sonoma, and is described as follows:

Lot 1, as shown on that certain Parcel Map No. M. S. 86-212 filed in the Office of the County Recorder of Sonoma County on June 28, 1989 in Book 438 of Maps at Pages 29 and 30, Sonoma County Records.

Excepting therefrom any portion within the bed of the Russian River in its last Natural State.

APN: 066-300-049-000

AT THE DATE HEREOF, EXCEPTIONS TO COVERAGE IN ADDITION TO THE PRINTED EXCEPTIONS AND EXCLUSIONS IN SAID POLICY FORM WOULD BE AS FOLLOWS:

1. Property taxes, which are a lien not yet due and payable, including any assessments collected with taxes to be levied for the fiscal year 2017-2018.

2. Property taxes, including any personal property taxes and any assessments collected with taxes are as follows:

   Code Area: 176023
   Tax Identification No.: 110-120-020-000
   Fiscal Year: 2016-2017
   1st Installment: $286.51 Paid
   2nd Installment: $335.16 Delinquent + Penalty & Cost
   Land: $33,284.00

   Affects: Portion Tract Two

3. Property taxes, including any personal property taxes and any assessments collected with taxes are as follows:

   Code Area: 179006
   Tax Identification No.: 110-120-021-000
   Fiscal Year: 2016-2017
   1st Installment: $281.87 Paid
   2nd Installment: $330.05 Delinquent + Penalty & Cost
   Land: $33,284.00

   Affects: Portion Tract Two

4. Property taxes, including any personal property taxes and any assessments collected with taxes are as follows:

   Code Area: 179006
   Tax Identification No.: 066-290-052-000
   Fiscal Year: 2016-2017
   1st Installment: $1,451.00 Paid
   2nd Installment: $1,616.10 Delinquent + Penalty & Cost
   Land: $221,912.00

   Affects: Portion Tract Three

5. Property taxes, including any personal property taxes and any assessments collected with taxes are as follows:

   Code Area: 176023
   Tax Identification No.: 110-110-015-000
   Fiscal Year: 2016-2017
   1st Installment: $346.71 Paid
   2nd Installment: $401.38 Delinquent + Penalty & Cost
   Land: $44,380.00

   Affects: Portion Tract Four

EXCEPTIONS
(continued)

6. Property taxes, including any personal property taxes and any assessments collected with taxes are as follows:

Code Area:	179006
Tax Identification No.:	110-110-016-000
Fiscal Year:	2016-2017
1st Installment:	$346.85 Paid
2nd Installment:	$401.53 Delinquent + Penalty & Cost
Land:	$44,380.00

Affects: Portion Tract Four

7. Prior to close of escrow, please contact the Tax Collector's Office to confirm all amounts owing, including current fiscal year taxes, supplemental taxes, escaped assessments and any delinquencies.

8. The lien of supplemental or escaped assessments of property taxes, if any, made pursuant to the provisions of Chapter 3.5 (commencing with Section 75) or Part 2, Chapter 3, Articles 3 and 4, respectively, of the Revenue and Taxation Code of the State of California as a result of the transfer of title to the vestee named in Schedule A or as a result of changes in ownership or new construction occurring prior to Date of Policy.

The Following Matters Affect Tract 1:

9. The fact that the research shows that the El Molina Rancho and the Sotoyomo Rancho, each meandered the Russian River. Nothing was found divesting the State of California of its interest in the natural bed of the river. A boundary settlement agreement with the State of California will be required to establish title and location of the natural bed of the Russian River.

10. Any adverse claim based upon the assertion that:

a. Said land or any part thereof is now or at any time has been below the highest of the high watermarks of the Russian River, in the event the boundary of said river has been artificially raised or is now or at any time has been below the high watermark, if said river is in its natural state.

b. Some portion of said land has been created by artificial means or has accreted to such portion so created.

c. Some portion of said land has been brought within the boundaries thereof by an avulsive movement of the Russian River, or has been formed by accretion to any such portion.

11. Rights and easements for navigation and fishery which may exist over that portion of said land lying beneath the waters of Russian River.

12. Any rights in favor of the public which may exist on said land if said land or portions thereof are or were at any time used by the public.

EXCEPTIONS
(continued)

13. Matters contained in that certain document entitled "Boundary Line Agreement" dated None shown, executed by and between J.W. Calhoun, A. L. Warner, J.E. Warner and M.V. Frost recorded October 23, 1896, Book H of Bond and Agreements, Page 118, of Official Records.

    Reference is hereby made to said document for full particulars.

14. Easement(s) for the purpose(s) shown below and rights incidental thereto as granted in a document.

Granted to:	Sonoma Ranch Company, a partnership
Purpose:	General road
Recorded:	January 24, 1956, Book 1410, Page 13, of Official Records
Affects:	Northerly 50 feet

15. Matters contained in that certain document entitled "Agreement" dated None shown, executed by and between Hein Bros., Basalt Rock Company, a corporation and Sonoma Ranch Company, a partnership recorded January 24, 1956, Book 1410, Page 20, of Official Records.

    Reference is hereby made to said document for full particulars.

16. Effect of that certain Record of Survey Map, filed September 10, 1980 in Book 311 of Maps at Page 19, Records of Sonoma County County, California. Said Record of Survey conflicts with the Record legal description of the herein described land. Said Record of Survey discloses possible conflicts with neighboring parcels.

17. An unrecorded lease with certain terms, covenants, conditions and provisions set forth therein as disclosed by the document

Entitled:	Memorandum of Lease
Lessor:	Hein Bros. Basalt Rock Company, Inc., a California corporation
Lessee:	Quarry Products, Inc., a California corporation
Recorded:	January 28, 1983, Instrument No. 83005548, of Official Records

    The present ownership of the leasehold created by said lease and other matters affecting the interest of the lessee are not shown herein.

    Said lease was modified by an instrument recorded July 11, 1983, under Document No. 83044631 of Official Records of Sonoma County, California.

18. Easement(s) for the purpose(s) shown below and rights incidental thereto as granted in a document.

Granted to:	The Windsor Water District, a political subdivision of the State of California
Purpose:	Waterlines, sewerlines, underground water line, roadway
Recorded:	May 1, 1985, Instrument No. 85026867, of Official Records
Affects:	15 foot wide pipe line and 25 foot wide roadway in the Northerly portion

EXCEPTIONS
(continued)

19. Easement(s) for the purpose(s) shown below and rights incidental thereto as granted in a document.

Granted to:	Pacific Gas and Electric Company, a California corporation
Purpose:	Underground conduits and pole lines
Recorded:	April 2, 1986, Instrument No. 86022375, of Official Records
Affects:	The Northerly portion

20. An easement for an existing pole line as disclosed by the Deed to PG & E recorded April 2, 1986, as Document #86022375, Official Records.

The Following Matters Affect Tract 2:

21. The fact that research shows that the El Molina Rancho and the Sotoyomo Rancho, each meandered the Russian River. Nothing was found divesting the State of California of its interest in the natural bed of the river. A boundary settlement agreement with the State of California will be required to establish the title and location of the natural bed of the Russian River.

22. Any adverse claim based upon the assertion that:

a. Said land or any part thereof is now or at any time has been below the highest of the high watermarks of the Russian River, in the event the boundary of said river has been artificially raised or is now or at any time has been below the high watermark, if said river is in its natural state.

b. Some portion of said land has been created by artificial means or has accreted to such portion so created.

c. Some portion of said land has been brought within the boundaries thereof by an avulsive movement of the Russian River, or has been formed by accretion to any such portion.

23. Rights and easements for navigation and fishery which may exist over that portion of said land lying beneath the waters of Russian River.

24. Any rights in favor of the public which may exist on said land if said land or portions thereof are or were at any time used by the public.

25. Matters contained in that certain document entitled "Agreement" dated None shown, executed by and between J.W. Calhoun, A.L. Warner, J.E. Warner and M.V. Frost recorded October 23, 1896, Book H of Bonds and Agreements, Page 118, of Official Records.

Reference is hereby made to said document for full particulars.

26. Effect of that certain Record of Survey Map, filed September 10, 1980 in Book 311 of Maps at Page 19, Records of Sonoma County, California. Said Record of Survey conflicts with the Record of legal description of the herein described land. Said Record of Survey discloses possible conflicts with neighboring parcels.

The Following Matters Affect Tract 3:

EXCEPTIONS
(continued)

27. The fact that research shows that the El Molina Rancho and the Sotoyomo Rancho, each meandered the Russian River. Nothing was found divesting the State of California of its interest in the natural bed of the river. A boundary settlement agreement with the State of California will be required to establish the title and location of the natural bed of the Russian River.

28. Any adverse claim based upon the assertion that:

a. Said land or any part thereof is now or at any time has been below the highest of the high watermarks of the Russian River, in the event the boundary of said river has been artificially raised or is now or at any time has been below the high watermark, if said river is in its natural state.

b. Some portion of said land has been created by artificial means or has accreted to such portion so created.

c. Some portion of said land has been brought within the boundaries thereof by an avulsive movement of the Russian River, or has been formed by accretion to any such portion.

29. Rights and easements for navigation and fishery which may exist over that portion of said land lying beneath the waters of Russian River.

30. Any rights in favor of the public which may exist on said land if said land or portions thereof are or were at any time used by the public.

31. Rights of the public as to any portion of the land lying within the area commonly known as Eastside Road.

32. Easement(s) for the purpose(s) shown below and rights incidental thereto as reserved in a document;

Reserved by: Ellen M. Quinan, et al.
Purpose: Reserves for well & pipelines
Recorded: March 26, 1956, Book 1426, Page 237, of Official Records

33. Matters contained in that certain document entitled "Agreement" dated None shown, executed by and between Kaiser Industries Corporation, Sand and Gravel Division, a Nevada corporation and Warren P. Richardson and Camille Gertrude Richardson, husband and wife recorded November 1, 1971, Instrument No. M-38787, Book 2577, Page 617, of Official Records.

Reference is hereby made to said document for full particulars.

The effect of of a "Supplemental Agreement", executed by and between Kaiser Industries Corporation, Sand and Gravel Division, a Nevada corporation and Warren P. Richardson and Camille Gertrude Richardson, husband and wife and recorded November 1, 1971 in Book 2577 of Official Records, Page 627, Serial No. M-38788, Sonoma County Records.

34. Any rights, interests or claims which may exists or arise by reason of the following facts shown by a Record of Survey, recorded in Book 114 of Maps, at Page 29, and in Record of Survey, recorded in Book 122 of Maps, at Page 50:

a) An encroachment onto said land of a fence along the Northerly boundary.
b) An encroachment of a fence onto the lands lying Northerly of said land.

EXCEPTIONS
(continued)

35. Easement(s) for the purpose(s) shown below and rights incidental thereto as reserved in a document;

Reserved by: Thomas N. Jordan, Jr.
Purpose: Agricultural purposes
Recorded: November 14, 1989, Instrument No. 89108840, of Official Records
Affects: The Easterly 100 feet

36. Terms, Conditions, Provisions as set forth in the Deed executed by Sonoma Title Guaranty Company, a corporation to Vimark, Inc., a California corporation, recorded August 31, 1990, Instrument No. 1990-0088098, Official Records.

37. A covenant and agreement entitled "Deed and Agreement Conveying an Open Space Easement and Assigning Development Rights"

Executed by: Kaiser Sand & Gravel Company
In favor of: The County of Sonoma
Recorded: October 13, 1997, Instrument No. 1997-0093129, of Official Records

Reference is hereby made to said document for full particulars.

38. A covenant and agreement entitled "Deed and Agreement Conveying an Open Space Easement and Assigning Development Rights"

Executed by: Kaiser Sand and Gravel Company
In favor of: The County of Sonoma
Recorded: October 13, 1997, Instrument No. 1997-0093130, of Official Records

Reference is hereby made to said document for full particulars.

39. Easement(s) for the purpose(s) shown below and rights incidental thereto as granted in a document.

Granted to: FRE 452, LLC, a California limited liability company
Purpose: Agricultural access
Recorded: August 29, 2008, Instrument No. 2008079182, of Official Records
Affects: A portion of premises

Reference is made to said document for full particulars.

40. Easement(s) for the purpose(s) shown below and rights incidental thereto as granted in a document.

Granted to: FRE 452, LLC, a California limited liability company
Purpose: Water source with a pump, irrigation and utility lines
Recorded: August 29, 2008, Instrument No. 2008079184, of Official Records
Affects: A portion of the premises

Reference is hereby made to said document for full particulars.

EXCEPTIONS
(continued)

The Following Matters Affect Tract 4:

41. The fact that research shows that the El Molina Rancho and the Sotoyomo Rancho, each meandered the Russian River. Nothing was found divesting the State of California of its interest in the natural bed of the river. A boundary settlement agreement with the State of California will be required to establish the title and location of the natural bed of the Russian River.

42. Any adverse claim based upon the assertion that:

a. Said land or any part thereof is now or at any time has been below the highest of the high watermarks of the Russian River, in the event the boundary of said river has been artificially raised or is now or at any time has been below the high watermark, if said river is in its natural state.

b. Some portion of said land has been created by artificial means or has accreted to such portion so created.

c. Some portion of said land has been brought within the boundaries thereof by an avulsive movement of the Russian River, or has been formed by accretion to any such portion.

43. Rights and easements for navigation and fishery which may exist over that portion of said land lying beneath the waters of Russian River.

44. Any rights in favor of the public which may exist on said land if said land or portions thereof are or were at any time used by the public.

45. Matters contained in that certain document entitled "Boundary Line Agreement" dated None shown, executed by and between J.W. Calhoun, A.L. Warner and J.E. Warner and M.V. Frost recorded October 23, 1896, Book H of Bonds and Agreements, Page 118, of Official Records.

Reference is hereby made to said document for full particulars.

46. Effect of that certain Record of Survey Map, filed September 10, 1980 in Book 311 of Maps at Page 19, Records of Sonoma County, California. Said Record of Survey conflicts with the record legal description of the herein described land. Said Record of Survey discloses possible conflicts with neighboring parcels.

47. Easement(s) for the purpose(s) shown below and rights incidental thereto as granted in a document.

Granted to:	Pacific Gas and Electric Company, a California corporation
Purpose:	Underground conduits and pole lines
Recorded:	April 2, 1986, Instrument No. 86-22375, of Official Records
Affects:	As described therein

The Following Matters Affect Tract 5:

48. The fact that research shows that the El Molina Rancho and the Sotoyomo Rancho, each meandered the Russian River. Nothing was found divesting the State of California of its interest in the natural bed of the river. A boundary settlement agreement with the State of California will be required to establish the title and location of the natural bed of the Russian River.

EXCEPTIONS
(continued)

49. Any adverse claim based upon the assertion that:

a. Said land or any part thereof is now or at any time has been below the highest of the high watermarks of the Russian River, in the event the boundary of said river has been artificially raised or is now or at any time has been below the high watermark, if said river is in its natural state.

b. Some portion of said land has been created by artificial means or has accreted to such portion so created.

c. Some portion of said land has been brought within the boundaries thereof by an avulsive movement of the Russian River, or has been formed by accretion to any such portion.

50. Rights and easements for navigation and fishery which may exist over that portion of said land lying beneath the waters of Russian River.

51. Any rights in favor of the public which may exist on said land if said land or portions thereof are or were at any time used by the public.

52. Matters contained in that certain document entitled "Boundary Line Agreement" dated October 22, 1896, executed by and between J.W. Calhoun, et al. recorded October 23, 1896, Book H of Bonds and Agreements, Page 118, of Official Records.

Reference is hereby made to said document for full particulars.

53. Easement(s) for the purpose(s) shown below and rights incidental thereto as granted in a document.

Granted to: County of Sonoma
Purpose: Sixty Foot County Road
Recorded: March 5, 1870, Book 29, Page 167, of Deeds

54. Terms, Conditions and Provisions as contained in Deed from Sonoma County Land Title Company, a corporation to Sonoma Ranch Company, a partnership, dated January 5, 1956, Recorded January 24, 1956 in Book 1410 of Official Records, Page 8, Sonoma County Records.

55. Covenants and restrictions imposed by a Land Conservation Contract executed pursuant to Section 51200 et seq. California Government Code.

Dated: None shown
Executed by: Mariani Majority Partnership, Paul Andrew Mariani, Jr., Mary Frances Mariani, Mathilda Marie Sousa, Trustee, Winifred Pauline Thiltgen, Trustee, Mathilda Marie Sousa, individually, George Sousa, Marian Sousa, Ciabattari
Recorded: February 27, 1976, Book 3052, Page 130, of Official Records

56. Matters contained in that certain document entitled "Agreement" dated None shown, executed by and between Mariani Bros., a partnership and Kaiser Sand and Gravel Company, a California corporation recorded December 30, 1985, Instrument No. 85087691, of Official Records.

Reference is hereby made to said document for full particulars.

EXCEPTIONS
(continued)

57. Matters contained in that certain document entitled "Agreement for Covenants Running with the Land" dated None shown, executed by and between Mam Property Ltd., a California limited parnership, Richard M. Mariani, a married man and Mariani Bros., a California general partnership recorded March 9, 1989, Instrument No. 89020519, of Official Records.

Reference is hereby made to said document for full particulars.

The Following Matters Affect All Tracts:

58. Matters contained in that certain document entitled "Memorandum of Option" dated July 14, 2010, executed by and between Hanson Aggregated Mid-Pacific, Inc., a Delaware corporation, and Endangered Habitats Conservancy, a California nonprofit public benefit corporation recorded November 24, 2010, Instrument No. 2010-106872, of Official Records.

Reference is hereby made to said document for full particulars.

First Amendment to Memorandum of Option to extend expiration date to September 30, 2013 recorded Novembe 8, 2012 as Instrument no. 2012112005, of Official Records.

Second Amendment to Memorandum of Option to extend expiration date to May 31, 2015 recorded February 7, 2014, as Instrument NO. 2014009553, of Official Records.

Third Amendment to Memorandum of Option to extend expiration date to December 31, 2016 recorded July 27, 2016, Instrument No. 2016063963, of Official Records.

59. Matters contained in that certain document

Entitled:	Levee Repair and Security Agreement
Dated:	September 6, 2011
Executed by:	County of Sonoma and Hanson Aggregates Mid-Pacific Inc., a Delaware corporation formerly known as Kaiser Sand & Gravel Company
Recording Date:	December 13, 2011
Recording No.:	Instrument No. 2011110309 of Official Records

Reference is hereby made to said document for full particulars.

60. The requirement that evidence of the name change or merger between Hansen Aggregates Mid-Pacific, Inc., a Delaware Corporation and Kaiser Sand & Gravel Company, a Delaware corporation be recorded in Sonoma County prior to issuing any title policy.

61. Any facts, rights, interests or claims, which are not shown by the public records but which could be ascertained by an inspection of the land or which may be asserted by persons in possession thereof.

62. Easements, liens or encumbrances, or claims thereof, which are not shown by the public records.

63. Discrepancies, conflicts in boundary lines, shortage in area, encroachments, or any other facts which a correct survey would disclose and which are not shown by the public records.

EXCEPTIONS
(continued)

64. (a) Unpatented mining claims; (b) reservations or exceptions in patents or in Acts authorizing the issuance thereof; (c) water rights, claims or title to water, whether or not the matters excepted under (a), (b) or (c) are shown in the public records.

65. Water rights, claims or title to water, whether or not disclosed by the public records.

66. Any rights of the parties in possession of a portion of, or all of, said Land, which rights are not disclosed by the public records.

The Company will require, for review, a full and complete copy of any unrecorded agreement, contract, license and/or lease, together with all supplements, assignments and amendments thereto, before issuing any policy of title insurance without excepting this item from coverage.

The Company reserves the right to except additional items and/or make additional requirements after reviewing said documents.

67. Matters which may be disclosed by an inspection and/or by a correct ALTA/NSPS Land Title Survey of said Land that is satisfactory to the Company, and/or by inquiry of the parties in possession thereof.

68. The Company will require the following documents for review prior to the issuance of any title insurance predicated upon a conveyance or encumbrance by the corporation named below:

Name of Corporation: Hanson Aggregates Mid-Pacific, Inc., a Delaware Corporation, formerly known as Kaiser Sand & Gravel Company, a Delaware corporation

a) A Copy of the corporation By-laws and Articles of Incorporation

b) An original or certified copy of a resolution authorizing the transaction contemplated herein

c) If the Articles and/or By-laws require approval by a 'parent' organization, a copy of the Articles and By-laws of the parent

d) A current dated certificate of good standing from the proper governmental authority of the state in which the entity was created

The Company reserves the right to add additional items or make further requirements after review of the requested documentation.

69. The Company will require that an Owner's Affidavit be completed by the party(s) named below before the issuance of any policy of title insurance.

Party(ies): Hanson Aggregates Mid-Pacific, Inc., a Delaware Corporation, formerly known as Kaiser Sand & Gravel Company, a Delaware corporation

The Company reserves the right to add additional items or make further requirements after review of the requested Affidavit.

70. The transaction contemplated in connection with this Report is subject to the review and approval of the Company's Corporate Underwriting Department. The Company reserves the right to add additional items or make further requirements after such review.

EXCEPTIONS
(continued)

71. The transaction contemplated in connection with this Report is subject to the review and approval of the Company's Corporate Underwriting Department for **Tidelands and Wetlands review**. The Company reserves the right to add additional items or make further requirements after such review.

END OF EXCEPTIONS

NOTES

Note 1. Note: The name(s) of the proposed insured(s) furnished with this application for title insurance is/are:

No names were furnished with the application. Please provide the name(s) of the buyers as soon as possible.

Note 2. Note: Property taxes for the fiscal year shown below are PAID. For proration purposes the amounts were:

Tax ID No.:	066-300-011-000
Fiscal Year:	2016-2017
1st Installment:	$2,929.14
2nd Installment:	$2,929.14
Land:	$438,282.00
Improvements:	$5,544.00
Code Area:	179006

Affects: Tract One

Note 3. Note: Property taxes for the fiscal year shown below are PAID. For proration purposes the amounts were:

Tax ID No.:	066-300-027-000
Fiscal Year:	2016-2017
1st Installment:	$3,365.09
2nd Installment:	$3,365.09
Land:	$554,789.00
Code Area:	179006

Affects: Portion Tract Three

Note 4. Note: Property taxes for the fiscal year shown below are PAID. For proration purposes the amounts were:

Tax ID No.:	066-290-049-000
Fiscal Year:	2016-2017
1st Installment:	$2,723.28
2nd Installment:	$2,723.28
Land:	$447,224.00
Code Area:	179006

Affects: Portion Tract Three

NOTES
(continued)

Note 5. Note: Property taxes for the fiscal year shown below are PAID. For proration purposes the amounts were:

Tax ID No.:	066-290-050-000
Fiscal Year:	2016-2017
1st Installment:	$3,689.86
2nd Installment:	$3,689.86
Land:	$472,014.00
Fixed Imp.:	$19,747.00
Growing Imp.:	$118,499.00
Code Area:	179006

Affects: Portion Tract Three

Note 6. Note: Property taxes for the fiscal year shown below are PAID. For proration purposes the amounts were:

Tax ID No.:	066-300-049-000
Fiscal Year:	2016-2017
1st Installment:	$17,924.54
2nd Installment:	$17,924.54
Land:	$3,002,887.00
Code Area:	179006

Affects: Tract Five

Note 7. Note: There are NO conveyances affecting said Land recorded within 24 months of the date of this report.

Note 8. Your application for title insurance was placed by reference to only a street address or tax identification number. Based on our records, we believe that the legal description in this report covers the parcel(s) of Land that you requested. If the legal description is incorrect, the seller/borrower must notify the Company and/or the settlement company in order to prevent errors and to be certain that the correct parcel(s) of Land will appear on any documents to be recorded in connection with this transaction and on the policy of title insurance.

Note 9. If a county recorder, title insurance company, escrow company, real estate broker, real estate agent or association provides a copy of a declaration, governing document or deed to any person, California law requires that the document provided shall include a statement regarding any unlawful restrictions. Said statement is to be in at least 14-point bold face type and may be stamped on the first page of any document provided or included as a cover page attached to the requested document. Should a party to this transaction request a copy of any document reported herein that fits this category, the statement is to be included in the manner described.

Note 10. Any documents being executed in conjunction with this transaction must be signed in the presence of an authorized Company employee, an authorized employee of an agent, an authorized employee of the insured lender, or by using Bancserv or other approved third-party service. If the above requirements cannot be met, please call the company at the number provided in this report.

END OF NOTES

NOTES
(continued)

FIDELITY NATIONAL FINANCIAL
PRIVACY NOTICE
Effective: May 1, 2015; Last Updated: March 1, 2017

At Fidelity National Financial, Inc., we respect and believe it is important to protect the privacy of consumers and our customers. This Privacy Notice explains how we collect, use, and protect any information that we collect from you, when and to whom we disclose such information, and the choices you have about the use of that information. A summary of the Privacy Notice is below, and we encourage you to review the entirety of the Privacy Notice following this summary. You can opt-out of certain disclosures by following our opt-out procedure set forth at the end of this Privacy Notice.

Types of Information Collected. You may provide us with certain personal information about you, like your contact information, address demographic information, social security number (SSN), driver's license, passport, other government ID numbers and/or financial information. We may also receive browsing information from your Internet browser, computer and/or mobile device if you visit or use our websites or applications.	**How Information is Collected**. We may collect personal information from you via applications, forms, and correspondence we receive from you and others related to our transactions with you. When you visit our websites from your computer or mobile device, we automatically collect and store certain information available to us through your Internet browser or computer equipment to optimize your website experience.
Use of Collected Information. We request and use your personal information to provide products and services to you, to improve our products and services, and to communicate with you about these products and services. We may also share your contact information with our affiliates for marketing purposes.	**When Information Is Disclosed**. We may disclose your information to our affiliates and/or nonaffiliated parties providing services for you or us, to law enforcement agencies or governmental authorities, as required by law, and to parties whose interest in title must be determined.
Choices With Your Information. Your decision to submit information to us is entirely up to you. You can opt-out of certain disclosure or use of your information or choose to not provide any personal information to us.	**Information From Children**. We do not knowingly collect information from children who are under the age of 13, and our website is not intended to attract children.
Privacy Outside the Website. We are not responsible for the privacy practices of third parties, even if our website links to those parties' websites.	**International Users**. By providing us with you information, you consent to its transfer, processing and storage outside of your country of residence, as well as the fact that we will handle such information consistent with this Privacy Notice.
The California Online Privacy Protection Act. Some FNF companies provide services to mortgage loan servicers and, in some cases, their websites collect information on behalf of mortgage loan servicers. The mortgage loan servicer is responsible for taking action or making changes to any consumer information submitted through those websites.	
Your Consent To This Privacy Notice. By submitting information to us or by using our website, you are accepting and agreeing to the terms of this Privacy Notice.	**Access and Correction; Contact Us**. If you desire to contact us regarding this notice or your information, please contact us at privacy@fnf.com or as directed at the end of this Privacy Notice.

FIDELITY NATIONAL FINANCIAL
PRIVACY NOTICE
Effective: May 1, 2015; Last Updated: March 1, 2017

Fidelity National Financial, Inc. and its majority-owned subsidiary companies providing title insurance, real estate- and loan-related services (collectively, "FNF", "our" or "we") respect and are committed to protecting your privacy. We will take reasonable steps to ensure that your Personal Information and Browsing Information will only be used in compliance with this Privacy Notice and applicable laws. This Privacy Notice is only in effect for Personal Information and Browsing Information collected and/or owned by or on behalf of FNF, including Personal Information and Browsing Information collected through any FNF website, online service or application (collectively, the "Website").

Types of Information Collected

We may collect two types of information from you: Personal Information and Browsing Information.

Personal Information. FNF may collect the following categories of Personal Information:

- contact information (*e.g.*, name, address, phone number, email address);
- demographic information (*e.g.*, date of birth, gender, marital status);
- social security number (SSN), driver's license, passport, and other government ID numbers;
- financial account information; and
- other personal information needed from you to provide title insurance, real estate- and loan-related services to you.

Browsing Information. FNF may collect the following categories of Browsing Information:

- Internet Protocol (or IP) address or device ID/UDID, protocol and sequence information;
- browser language and type;
- domain name system requests;
- browsing history, such as time spent at a domain, time and date of your visit and number of clicks;
- http headers, application client and server banners; and
- operating system and fingerprinting data.

How Information is Collected

In the course of our business, we may collect *Personal Information* about you from the following sources:

- applications or other forms we receive from you or your authorized representative;
- the correspondence you and others send to us;
- information we receive through the Website;
- information about your transactions with, or services performed by, us, our affiliates or nonaffiliated third parties; and
- information from consumer or other reporting agencies and public records maintained by governmental entities that we obtain directly from those entities, our affiliates or others.

If you visit or use our Website, we may collect *Browsing Information* from you as follows:

- Browser Log Files. Our servers automatically log each visitor to the Website and collect and record certain browsing information about each visitor. The Browsing Information includes generic information and reveals nothing personal about the user.
- Cookies. When you visit our Website, a "cookie" may be sent to your computer. A cookie is a small piece of data that is sent to your Internet browser from a web server and stored on your computer's hard drive. When you visit a website again, the cookie allows the website to recognize your computer. Cookies may store user preferences and other information. You can choose whether or not to accept cookies by changing your Internet browser settings, which may impair or limit some functionality of the Website.

Use of Collected Information

Information collected by FNF is used for three main purposes:

- To provide products and services to you or any affiliate or third party who is obtaining services on your behalf or in connection with a transaction involving you.
- To improve our products and services.
- To communicate with you and to inform you about our, our affiliates' and third parties' products and services, jointly or independently.

When Information Is Disclosed

We may provide your Personal Information (excluding information we receive from consumer or other credit reporting agencies) and Browsing Information to various individuals and companies, as permitted by law, without obtaining your prior authorization. Such laws do not allow consumers to restrict these disclosures. Please see the section "Choices With Your Personal Information" to learn how to limit the discretionary disclosure of your Personal Information and Browsing Information.

Disclosures of your Personal Information may be made to the following categories of affiliates and nonaffiliated third parties:

- to third parties to provide you with services you have requested, and to enable us to detect or prevent criminal activity, fraud, material misrepresentation, or nondisclosure;
- to our affiliate financial service providers for their use to market their products or services to you;
- to nonaffiliated third party service providers who provide or perform services on our behalf and use the disclosed information only in connection with such services;
- to nonaffiliated third party service providers with whom we perform joint marketing, pursuant to an agreement with them to market financial products or services to you;
- to law enforcement or other governmental authority in connection with an investigation, or civil or criminal subpoena or court order;
- to lenders, lien holders, judgment creditors, or other parties claiming an interest in title whose claim or interest must be determined, settled, paid, or released prior to closing; and
- other third parties for whom you have given us written authorization to disclose your Personal Information.

We may disclose Personal Information and/or Browsing Information when required by law or in the good-faith belief that such disclosure is necessary to:

- comply with a legal process or applicable laws;
- enforce this Privacy Notice;
- investigate or respond to claims that any material, document, image, graphic, logo, design, audio, video or any other information provided by you violates the rights of a third party; or
- protect the rights, property or personal safety of FNF, its users or the public.

We maintain reasonable safeguards to keep your Personal Information secure. When we provide Personal Information to our affiliates or third party service providers as discussed in this Privacy Notice, we expect that these parties process such information in compliance with our Privacy Notice or in a manner that is in compliance with applicable privacy laws. The use of your information by a business partner may be subject to that party's own Privacy Notice. Unless permitted by law, we do not disclose information we collect from consumer or credit reporting agencies with our affiliates or others without your consent.

We reserve the right to transfer your Personal Information, Browsing Information, and any other information, in connection with the sale or other disposition of all or part of the FNF business and/or assets, or in the event of our bankruptcy, reorganization, insolvency, receivership or an assignment for the benefit of creditors. You expressly agree and consent to the use and/or transfer of the foregoing information in connection with any of the above described proceedings. We cannot and will not be responsible for any breach of security by a third party or for any actions of any third party that receives any of the information that is disclosed to us.

Choices With Your Information

Whether you submit Personal Information or Browsing Information to FNF is entirely up to you. If you decide not to submit Personal Information or Browsing Information, FNF may not be able to provide certain services or products to you. The uses of your Personal Information and/or Browsing Information that, by law, you cannot limit, include:

- for our everyday business purposes – to process your transactions, maintain your account(s), to respond to law enforcement or other governmental authority in connection with an investigation, or civil or criminal subpoenas or court orders, or report to credit bureaus;
- for our own marketing purposes;
- for joint marketing with financial companies; and
- for our affiliates' everyday business purposes – information about your transactions and experiences.

You may choose to prevent FNF from disclosing or using your Personal Information and/or Browsing Information under the following circumstances ("opt-out"):

- for our affiliates' everyday business purposes – information about your creditworthiness; and
- for our affiliates to market to you.

To the extent permitted above, you may opt-out of disclosure or use of your Personal Information and Browsing Information by notifying us by one of the methods at the end of this Privacy Notice. We do not share your personal information with non-affiliates for their direct marketing purposes.

For California Residents: We will not share your Personal Information and Browsing Information with nonaffiliated third parties, except as permitted by California law. Currently, our policy is that we do not recognize "do not track" requests from Internet browsers and similar devices.

For Nevada Residents: You may be placed on our internal Do Not Call List by calling (888) 934-3354 or by contacting us via the information set forth at the end of this Privacy Notice. Nevada law requires that we also provide you with the following contact information: Bureau of Consumer Protection, Office of the Nevada Attorney General, 555 E. Washington St., Suite 3900, Las Vegas, NV 89101; Phone number: (702) 486-3132; email: BCPINFO@ag.state.nv.us.

For Oregon Residents: We will not share your Personal Information and Browsing Information with nonaffiliated third parties for marketing purposes, except after you have been informed by us of such sharing and had an opportunity to indicate that you do not want a disclosure made for marketing purposes.

For Vermont Residents: We will not share your Personal Information and Browsing Information with nonaffiliated third parties, except as permitted by Vermont law, such as to process your transactions or to maintain your account. In addition, we will not share information about your creditworthiness with our affiliates except with your authorization. For joint marketing in Vermont, we will only disclose your name, contact information and information about your transactions.

Information From Children

The Website is meant for adults and is not intended or designed to attract children under the age of thirteen (13).We do not collect Personal Information from any person that we know to be under the age of thirteen (13) without permission from a parent or guardian. By using the Website, you affirm that you are over the age of 13 and will abide by the terms of this Privacy Notice.

Privacy Outside the Website

The Website may contain links to other websites. FNF is not and cannot be responsible for the privacy practices or the content of any of those other websites.

International Users

FNF's headquarters is located within the United States. If you reside outside the United States or are a citizen of the European Union, please note that we may transfer your Personal Information and/or Browsing Information outside of your country of residence or the European Union for any of the purposes described in this Privacy Notice. By providing FNF with your Personal Information and/or Browsing Information, you consent to our collection and transfer of such information in accordance with this Privacy Notice.

The California Online Privacy Protection Act

For some FNF websites, such as the Customer CareNet ("CCN"), FNF is acting as a third party service provider to a mortgage loan servicer. In those instances, we may collect certain information on behalf of that mortgage loan servicer via the website. The information which we may collect on behalf of the mortgage loan servicer is as follows:

- first and last name;
- property address;
- user name and password;
- loan number;
- social security number - masked upon entry;
- email address;
- three security questions and answers; and
- IP address.

The information you submit through the website is then transferred to your mortgage loan servicer by way of CCN.

The mortgage loan servicer is responsible for taking action or making changes to any consumer information submitted through this website. For example, if you believe that your payment or user information is incorrect, you must contact your mortgage loan servicer.

CCN does not share consumer information with third parties, other than (1) those with which the mortgage loan servicer has contracted to interface with the CCN application, or (2) law enforcement or other governmental authority in connection with an investigation, or civil or criminal subpoenas or court orders. All sections of this Privacy Notice apply to your interaction with CCN, except for the sections titled "Choices with Your Information" and "Access and Correction." If you have questions regarding the choices you have with regard to your personal information or how to access or correct your personal information, you should contact your mortgage loan servicer.

Your Consent To This Privacy Notice

By submitting Personal Information and/or Browsing Information to FNF, you consent to the collection and use of the information by us in compliance with this Privacy Notice. Amendments to the Privacy Notice will be posted on the Website. Each time you provide information to us, or we receive information about you, following any amendment of this Privacy Notice will signify your assent to and acceptance of its revised terms for all previously collected information and information collected from you in the future. We may use comments, information or feedback that you submit to us in any manner that we may choose without notice or compensation to you.

Accessing and Correcting Information; Contact Us

If you have questions, would like to access or correct your Personal Information, or want to opt-out of information sharing with our affiliates for their marketing purposes, please send your requests to privacy@fnf.com or by mail or phone to:

Fidelity National Financial, Inc.
601 Riverside Avenue
Jacksonville, Florida 32204
Attn: Chief Privacy Officer
(888) 934-3354

ATTACHMENT ONE

CALIFORNIA LAND TITLE ASSOCIATION
STANDARD COVERAGE POLICY - 1990

EXCLUSIONS FROM COVERAGE

The following matters are expressly excluded from the coverage of this policy and the Company will not pay loss or damage, costs, attorneys' fees or expenses which arise by reason of:

1. (a) Any law, ordinance or governmental regulation (including but not limited to building or zoning laws, ordinances, or regulations) restricting, regulating, prohibiting or relating (i) the occupancy, use, or enjoyment of the land; (ii) the character, dimensions or location of any improvement now or hereafter erected on the land; (iii) a separation in ownership or a change in the dimensions or area of the land or any parcel of which the land is or was a part; or (iv) environmental protection, or the effect of any violation of these laws, ordinances or governmental regulations, except to the extent that a notice of the enforcement thereof or a notice of a defect, lien, or encumbrance resulting from a violation or alleged violation affecting the land has been recorded in the public records at Date of Policy.

   (b) Any governmental police power not excluded by (a) above, except to the extent that a notice of the exercise thereof or notice of a defect, lien or encumbrance resulting from a violation or alleged violation affecting the land has been recorded in the public records at Date of Policy.

2. Rights of eminent domain unless notice of the exercise thereof has been recorded in the public records at Date of Policy, but not excluding from coverage any taking which has occurred prior to Date of Policy which would be binding on the rights of a purchaser for value without knowledge.

3. Defects, liens, encumbrances, adverse claims or other matters:

   (a) whether or not recorded in the public records at Date of Policy, but created, suffered, assumed or agreed to by the insured claimant;

   (b) not known to the Company, not recorded in the public records at Date of Policy, but known to the insured claimant and not disclosed in writing to the Company by the insured claimant prior to the date the insured claimant became an insured under this policy;

   (c) resulting in no loss or damage to the insured claimant;

   (d) attaching or created subsequent to Date of Policy; or

   (e) resulting in loss or damage which would not have been sustained if the insured claimant had paid value for the insured mortgage or for the estate or interest insured by this policy.

4. Unenforceability of the lien of the insured mortgage because of the inability or failure of the insured at Date of Policy, or the inability or failure of any subsequent owner of the indebtedness, to comply with the applicable doing business laws of the state in which the land is situated.

5. Invalidity or unenforceability of the lien of the insured mortgage, or claim thereof, which arises out of the transaction evidenced by the insured mortgage and is based upon usury or any consumer credit protection or truth in lending law.

6. Any claim, which arises out of the transaction vesting in the insured the estate or interest insured by this policy or the transaction creating the interest of the insured lender, by reason of the operation of federal bankruptcy, state insolvency or similar creditors' rights laws.

EXCEPTIONS FROM COVERAGE - SCHEDULE B, PART I

This policy does not insure against loss or damage (and the Company will not pay costs, attorneys' fees or expenses) which arise by reason of:

1. Taxes or assessments which are not shown as existing liens by the records of any taxing authority that levies taxes or assessments on real property or by the public records.

   Proceedings by a public agency which may result in taxes or assessments, or notices of such proceedings, whether or not shown by the records of such agency or by the public records.

2. Any facts, rights, interests, or claims which are not shown by the public records but which could be ascertained by an inspection of the land or which may be asserted by persons in possession thereof.

3. Easements, liens or encumbrances, or claims thereof, not shown by the public records.

4. Discrepancies, conflicts in boundary lines, shortage in area, encroachments, or any other facts which a correct survey would disclose, and which are not shown by the public records.

5. (a) Unpatented mining claims; (b) reservations or exceptions in patents or in Acts authorizing the issuance thereof; (c) water rights, claims or title to water, whether or not the matters excepted under (a), (b) or (c) are shown by the public records.

6. Any lien or right to a lien for services, labor or material not shown by the public records.

ATTACHMENT ONE
(CONTINUED)

CLTA HOMEOWNER'S POLICY OF TITLE INSURANCE (12-02-13)
ALTA HOMEOWNER'S POLICY OF TITLE INSURANCE

EXCLUSIONS

In addition to the Exceptions in Schedule B, You are not insured against loss, costs, attorneys' fees, and expenses resulting from:

1. Governmental police power, and the existence or violation of those portions of any law or government regulation concerning:
   a. building;
   b. zoning;
   c. land use;
   d. improvements on the Land;
   e. land division; and
   f. environmental protection.

   This Exclusion does not limit the coverage described in Covered Risk 8.a., 14, 15, 16, 18, 19, 20, 23 or 27.
2. The failure of Your existing structures, or any part of them, to be constructed in accordance with applicable building codes. This Exclusion does not limit the coverage described in Covered Risk 14 or 15.
3. The right to take the Land by condemning it. This Exclusion does not limit the coverage described in Covered Risk 17.
4. Risks:
   a. that are created, allowed, or agreed to by You, whether or not they are recorded in the Public Records;
   b. that are Known to You at the Policy Date, but not to Us, unless they are recorded in the Public Records at the Policy Date;
   c. that result in no loss to You; or
   d. that first occur after the Policy Date - this does not limit the coverage described in Covered Risk 7, 8.e., 25, 26, 27 or 28.
5. Failure to pay value for Your Title.
6. Lack of a right:
   a. to any land outside the area specifically described and referred to in paragraph 3 of Schedule A; and
   b. in streets, alleys, or waterways that touch the Land.

   This Exclusion does not limit the coverage described in Covered Risk 11 or 21.
7. The transfer of the Title to You is invalid as a preferential transfer or as a fraudulent transfer or conveyance under federal bankruptcy, state insolvency, or similar creditors' rights laws.
8. Contamination, explosion, fire, flooding, vibration, fracturing, earthquake or subsidence.
9. Negligence by a person or an Entity exercising a right to extract or develop minerals, water, or any other substances.

LIMITATIONS ON COVERED RISKS

Your insurance for the following Covered Risks is limited on the Owner's Coverage Statement as follows:

- For Covered Risk 16, 18, 19 and 21, Your Deductible Amount and Our Maximum Dollar Limit of Liability shown in Schedule A.

The deductible amounts and maximum dollar limits shown on Schedule A are as follows:

	Your Deductible Amount	Our Maximum Dollar Limit of Liability
Covered Risk 16:	1.00% of Policy Amount Shown in Schedule A or $2,500.00 (whichever is less)	$ 10,000.00
Covered Risk 18:	1.00% of Policy Amount Shown in Schedule A or $5,000.00 (whichever is less)	$ 25,000.00
Covered Risk 19:	1.00% of Policy Amount Shown in Schedule A or $5,000.00 (whichever is less)	$ 25,000.00
Covered Risk 21:	1.00% of Policy Amount Shown in Schedule A or $2,500.00 (whichever is less)	$ 5,000.00

ATTACHMENT ONE
(CONTINUED)

2006 ALTA LOAN POLICY (06-17-06)

EXCLUSIONS FROM COVERAGE

The following matters are expressly excluded from the coverage of this policy, and the Company will not pay loss or damage, costs, attorneys' fees, or expenses that arise by reason of:

1. (a) Any law, ordinance, permit, or governmental regulation (including those relating to building and zoning) restricting, regulating, prohibiting, or relating to
   (i) the occupancy, use, or enjoyment of the Land;
   (ii) the character, dimensions, or location of any improvement erected on the Land;
   (iii) the subdivision of land; or
   (iv) environmental protection;
   or the effect of any violation of these laws, ordinances, or governmental regulations. This Exclusion 1(a) does not modify or limit the coverage provided under Covered Risk 5.
   (b) Any governmental police power. This Exclusion 1(b) does not modify or limit the coverage provided under Covered Risk 6.
2. Rights of eminent domain. This Exclusion does not modify or limit the coverage provided under Covered Risk 7 or 8.
3. Defects, liens, encumbrances, adverse claims, or other matters
   (a) created, suffered, assumed, or agreed to by the Insured Claimant;
   (b) not Known to the Company, not recorded in the Public Records at Date of Policy, but Known to the Insured Claimant and not disclosed in writing to the Company by the Insured Claimant prior to the date the Insured Claimant became an Insured under this policy;
   (c) resulting in no loss or damage to the Insured Claimant;
   (d) attaching or created subsequent to Date of Policy (however, this does not modify or limit the coverage provided under Covered Risk 11, 13, or 14); or
   (e) resulting in loss or damage that would not have been sustained if the Insured Claimant had paid value for the Insured Mortgage.
4. Unenforceability of the lien of the Insured Mortgage because of the inability or failure of an Insured to comply with applicable doing-business laws of the state where the Land is situated.
5. Invalidity or unenforceability in whole or in part of the lien of the Insured Mortgage that arises out of the transaction evidenced by the Insured Mortgage and is based upon usury or any consumer credit protection or truth-in-lending law.
6. Any claim, by reason of the operation of federal bankruptcy, state insolvency, or similar creditors' rights laws, that the transaction creating the lien of the Insured Mortgage, is
   (a) a fraudulent conveyance or fraudulent transfer, or
   (b) a preferential transfer for any reason not stated in Covered Risk 13(b) of this policy.
7. Any lien on the Title for real estate taxes or assessments imposed by governmental authority and created or attaching between Date of Policy and the date of recording of the Insured Mortgage in the Public Records. This Exclusion does not modify or limit the coverage provided under Covered Risk 11(b).

The above policy form may be issued to afford either Standard Coverage or Extended Coverage. In addition to the above Exclusions from Coverage, the Exceptions from Coverage in a Standard Coverage policy will also include the following Exceptions from Coverage:

EXCEPTIONS FROM COVERAGE

[Except as provided in Schedule B - Part II,[t[or T]his policy does not insure against loss or damage, and the Company will not pay costs, attorneys' fees, or expenses that arise by reason of:

[PART I

[The above policy form may be issued to afford either Standard Coverage or Extended Coverage. In addition to the above Exclusions from Coverage, the Exceptions from Coverage in a Standard Coverage policy will also include the following Exceptions from Coverage:

1. (a) Taxes or assessments that are not shown as existing liens by the records of any taxing authority that levies taxes or assessments on real property or by the Public Records; (b) proceedings by a public agency that may result in taxes or assessments, or notices of such proceedings, whether or not shown by the records of such agency or by the Public Records.
2. Any facts, rights, interests, or claims that are not shown by the Public Records but that could be ascertained by an inspection of the Land or that may be asserted by persons in possession of the Land.
3. Easements, liens or encumbrances, or claims thereof, not shown by the Public Records.
4. Any encroachment, encumbrance, violation, variation, or adverse circumstance affecting the Title that would be disclosed by an accurate and complete land survey of the Land and not shown by the Public Records.
5. (a) Unpatented mining claims; (b) reservations or exceptions in patents or in Acts authorizing the issuance thereof; (c) water rights, claims or title to water, whether or not the matters excepted under (a), (b), or (c) are shown by the Public Records.
6. Any lien or right to a lien for services, labor or material not shown by the Public Records.]

PART II

In addition to the matters set forth in Part I of this Schedule, the Title is subject to the following matters, and the Company insures against loss or damage sustained in the event that they are not subordinate to the lien of the Insured Mortgage:]

ATTACHMENT ONE
(CONTINUED)

2006 ALTA OWNER'S POLICY (06-17-06)

EXCLUSIONS FROM COVERAGE

The following matters are expressly excluded from the coverage of this policy, and the Company will not pay loss or damage, costs, attorneys' fees, or expenses that arise by reason of:

1. (a) Any law, ordinance, permit, or governmental regulation (including those relating to building and zoning) restricting, regulating, prohibiting, or relating to
   (i) the occupancy, use, or enjoyment of the Land;
   (ii) the character, dimensions, or location of any improvement erected on the Land;
   (iii) the subdivision of land; or
   (iv) environmental protection;
   or the effect of any violation of these laws, ordinances, or governmental regulations. This Exclusion 1(a) does not modify or limit the coverage provided under Covered Risk 5.
   (b) Any governmental police power. This Exclusion 1(b) does not modify or limit the coverage provided under Covered Risk 6.
2. Rights of eminent domain. This Exclusion does not modify or limit the coverage provided under Covered Risk 7 or 8.
3. Defects, liens, encumbrances, adverse claims, or other matters
   (a) created, suffered, assumed, or agreed to by the Insured Claimant;
   (b) not Known to the Company, not recorded in the Public Records at Date of Policy, but Known to the Insured Claimant and not disclosed in writing to the Company by the Insured Claimant prior to the date the Insured Claimant became an Insured under this policy;
   (c) resulting in no loss or damage to the Insured Claimant;
   (d) attaching or created subsequent to Date of Policy (however, this does not modify or limit the coverage provided under Covered Risk 9 and 10); or
   (e) resulting in loss or damage that would not have been sustained if the Insured Claimant had paid value for the Title.
4. Any claim, by reason of the operation of federal bankruptcy, state insolvency, or similar creditors' rights laws, that the transaction vesting the Title as shown in Schedule A, is
   (a) a fraudulent conveyance or fraudulent transfer; or
   (b) a preferential transfer for any reason not stated in Covered Risk 9 of this policy.
5. Any lien on the Title for real estate taxes or assessments imposed by governmental authority and created or attaching between Date of Policy and the date of recording of the deed or other instrument of transfer in the Public Records that vests Title as shown in Schedule A.

The above policy form may be issued to afford either Standard Coverage or Extended Coverage. In addition to the above Exclusions from Coverage, the Exceptions from Coverage in a Standard Coverage policy will also include the following Exceptions from Coverage:

EXCEPTIONS FROM COVERAGE

This policy does not insure against loss or damage, and the Company will not pay costs, attorneys' fees, or expenses that arise by reason of:

[The above policy form may be issued to afford either Standard Coverage or Extended Coverage. In addition to the above Exclusions from Coverage, the Exceptions from Coverage in a Standard Coverage policy will also include the following Exceptions from Coverage:

1. (a) Taxes or assessments that are not shown as existing liens by the records of any taxing authority that levies taxes or assessments on real property or by the Public Records; (b) proceedings by a public agency that may result in taxes or assessments, or notices of such proceedings, whether or not shown by the records of such agency or by the Public Records.
2. Any facts, rights, interests, or claims that are not shown by the Public Records but that could be ascertained by an inspection of the Land or that may be asserted by persons in possession of the Land.
3. Easements, liens or encumbrances, or claims thereof, not shown by the Public Records.
4. Any encroachment, encumbrance, violation, variation, or adverse circumstance affecting the Title that would be disclosed by an accurate and complete land survey of the Land and not shown by the Public Records.
5. (a) Unpatented mining claims; (b) reservations or exceptions in patents or in Acts authorizing the issuance thereof; (c) water rights, claims or title to water, whether or not the matters excepted under (a), (b), or (c) are shown by the Public Records.
6. Any lien or right to a lien for services, labor or material not shown by the Public Records.]
7. [Variable exceptions such as taxes, easements, CC&R's, etc., shown here.]

ATTACHMENT ONE
(CONTINUED)

ALTA EXPANDED COVERAGE RESIDENTIAL LOAN POLICY - ASSESSMENTS PRIORITY (04-02-15)

EXCLUSIONS FROM COVERAGE

The following matters are expressly excluded from the coverage of this policy and the Company will not pay loss or damage, costs, attorneys' fees or expenses which arise by reason of:

1. (a) Any law, ordinance, permit, or governmental regulation (including those relating to building and zoning) restricting, regulating, prohibiting, or relating to
   (i) the occupancy, use, or enjoyment of the Land;
   (ii) the character, dimensions, or location of any improvement erected on the Land;
   (iii) the subdivision of land; or
   (iv) environmental protection;
   or the effect of any violation of these laws, ordinances, or governmental regulations. This Exclusion 1(a) does not modify or limit the coverage provided under Covered Risk 5, 6, 13(c), 13(d), 14 or 16.
   (b) Any governmental police power. This Exclusion 1(b) does not modify or limit the coverage provided under Covered Risk 5, 6, 13(c), 13(d), 14 or 16.
2. Rights of eminent domain. This Exclusion does not modify or limit the coverage provided under Covered Risk 7 or 8.
3. Defects, liens, encumbrances, adverse claims, or other matters
   (a) created, suffered, assumed, or agreed to by the Insured Claimant;
   (b) not Known to the Company, not recorded in the Public Records at Date of Policy, but Known to the Insured Claimant and not disclosed in writing to the Company by the Insured Claimant prior to the date the Insured Claimant became an Insured under this policy;
   (c) resulting in no loss or damage to the Insured Claimant;
   (d) attaching or created subsequent to Date of Policy (however, this does not modify or limit the coverage provided under Covered Risk 11, 16, 17, 18, 19, 20, 21, 22, 23, 24, 27 or 28); or
   (e) resulting in loss or damage that would not have been sustained if the Insured Claimant had paid value for the Insured Mortgage.
4. Unenforceability of the lien of the Insured Mortgage because of the inability or failure of an Insured to comply with applicable doing-business laws of the state where the Land is situated.
5. Invalidity or unenforceability in whole or in part of the lien of the Insured Mortgage that arises out of the transaction evidenced by the Insured Mortgage and is based upon usury, or any consumer credit protection or truth-in-lending law. This Exclusion does not modify or limit the coverage provided in Covered Risk 26.
6. Any claim of invalidity, unenforceability or lack of priority of the lien of the Insured Mortgage as to Advances or modifications made after the Insured has Knowledge that the vestee shown in Schedule A is no longer the owner of the estate or interest covered by this policy. This Exclusion does not modify or limit the coverage provided in Covered Risk 11.
7. Any lien on the Title for real estate taxes or assessments imposed by governmental authority and created or attaching subsequent to Date of Policy. This Exclusion does not modify or limit the coverage provided in Covered Risk 11(b) or 25.
8. The failure of the residential structure, or any portion of it, to have been constructed before, on or after Date of Policy in accordance with applicable building codes. This Exclusion does not modify or limit the coverage provided in Covered Risk 5 or 6.
9. Any claim, by reason of the operation of federal bankruptcy, state insolvency, or similar creditors' rights laws, that the transaction creating the lien of the Insured Mortgage, is
   (a) a fraudulent conveyance or fraudulent transfer, or
   (b) a preferential transfer for any reason not stated in Covered Risk 27(b) of this policy.
10. Contamination, explosion, fire, flooding, vibration, fracturing, earthquake, or subsidence.
11. Negligence by a person or an Entity exercising a right to extract or develop minerals, water, or any other substances.

Notice of Available Discounts

Pursuant to Section 2355.3 in Title 10 of the California Code of Regulations Fidelity National Financial, Inc. and its subsidiaries ("FNF") must deliver a notice of each discount available under our current rate filing along with the delivery of escrow instructions, a preliminary report or commitment. Please be aware that the provision of this notice does not constitute a waiver of the consumer's right to be charged the filed rate. As such, your transaction may not qualify for the below discounts.

You are encouraged to discuss the applicability of one or more of the below discounts with a Company representative. These discounts are generally described below; consult the rate manual for a full description of the terms, conditions and requirements for such discount. These discounts only apply to transactions involving services rendered by the FNF Family of Companies. This notice only applies to transactions involving property improved with a one-to-four family residential dwelling.

Not all discounts are offered by every FNF Company. The discount will only be applicable to the FNF Company as indicated by the named discount.

FNF Underwritten Title Companies	**Underwritten by FNF Underwriters**
CTC – Chicago Title Company	CTIC – Chicago Title Insurance Company
CLTC – Commonwealth Land Title Company	CLTIC – Commonwealth Land Title Insurance Company
FNTC – Fidelity National Title Company	FNTIC – Fidelity National Title Insurance Company
FNTCCA – Fidelity National Title Company of California	FNTIC – Fidelity National Title Insurance Company
TICOR – Ticor Title Company of California	CTIC – Chicago Title Insurance Company
LTC – Lawyer's Title Company	CLTIC – Commonwealth Land Title Insurance Company

Available Discounts

CREDIT FOR PRELIMINARY TITLE REPORTS AND/OR COMMITMENTS ON SUBSEQUENT POLICIES (CTIC, FNTIC)

Where no major change in the title has occurred since the issuance of the original report or commitment, the order may be reopened within twelve (12) to thirty-six (36) months and all or a portion of the charge previously paid for the report or commitment may be credited on a subsequent policy charge.

DISASTER LOANS (CTIC, CLTIC, FNTIC)

The charge for a Lender's Policy (Standard or Extended coverage) covering the financing or refinancing by an owner of record, within twenty-four (24) months of the date of a declaration of a disaster area by the government of the United States or the State of California on any land located in said area, which was partially or totally destroyed in the disaster, will be fifty percent (50%) of the appropriate title insurance rate.

CHURCHES OR CHARITABLE NON-PROFIT ORGANIZATIONS (CTIC, FNTIC)

On properties used as a church or for charitable purposes within the scope of the normal activities of such entities, provided said charge is normally the church's obligation the charge for an owner's policy shall be fifty percent (50%) to seventy percent (70%) of the appropriate title insurance rate, depending on the type of coverage selected. The charge for a lender's policy shall be thirty-two percent (32%) to fifty percent (50%) of the appropriate title insurance rate, depending on the type of coverage selected.

COUNTY ASSESSOR'S PARCEL MAP

NOTE: Assessor's parcels do not necessarily constitute legal lots. To verify legal parcel status, check with the appropriate city or county community development or planning division.

NOTE: This map was prepared for Assessment purposes only and does not indicate either parcel legality or a valid building site. No liability is assumed for the accuracy of the data delineated. The acreages are based on the information supplied to the Assessor (i.e. recorded survey maps recorded deeds, prior assessment maps, etc.)

TAX RATE AREA
179-006
179-049
176-022

066-29

Parcel Map No. 5573
REC. 09-13-1977 IN BK. 258 , MAPS, PGS. 06-00

Parcel Map No. 5657
REC. 04-29-1977 IN BK. 249 , MAPS, PGS. 45-00

Parcel Map No. 6184
REC. 05-30-1979 IN BK. 289 , MAPS, PGS. 07-08

Parcel Map No. MNS 08-0001
REC. 08-21-2008 IN BK. 726 , MAPS, PGS. 05-07

SCALE: 1"=600'

PIQ

RUSSIAN RIVER

EASTSIDE ROAD

East Line of Molino Rancho

PM5657

PM6184

PM5573

PM08-0001

Pcl.1

Pcl.2

Pcl.3

Lot1

Lot2

Lot3

126.54 Ac.

±32.28 Ac.

±52.51 Ac.

±7.12 Ac.

50.02 Ac.

10.84 Ac.

30.76 Ac.

50.01 Ac.

2.86 Ac.

1.84 Ac.

62.37 Ac.

5.74 Ac.

2.11 Ac.

5.0 Ac.

22.61 Ac.

20.88 Ac.

41.09 Ac.

40.01 Ac.

8.72 Ac.

78.49 Ac.

11.57 Ac.

Ag Pre 1-368
98-153732

O/E 97-93129

O/E 97-93130
R/S 559/27

Ag Pre 1-269-76
3026/146

Ag Pre 1-269
91-017609

Ag Pre 1-631
90-029035

R/S 205/17

R/S770/43

R/S770/44

Ag Pre 1-269-72
2605/904

Ag Pre 2-474-72
2605/891

Ag Pre 2-474-72
2605/891
W 1-1-1998

R/S 192/34

R/S 291/12

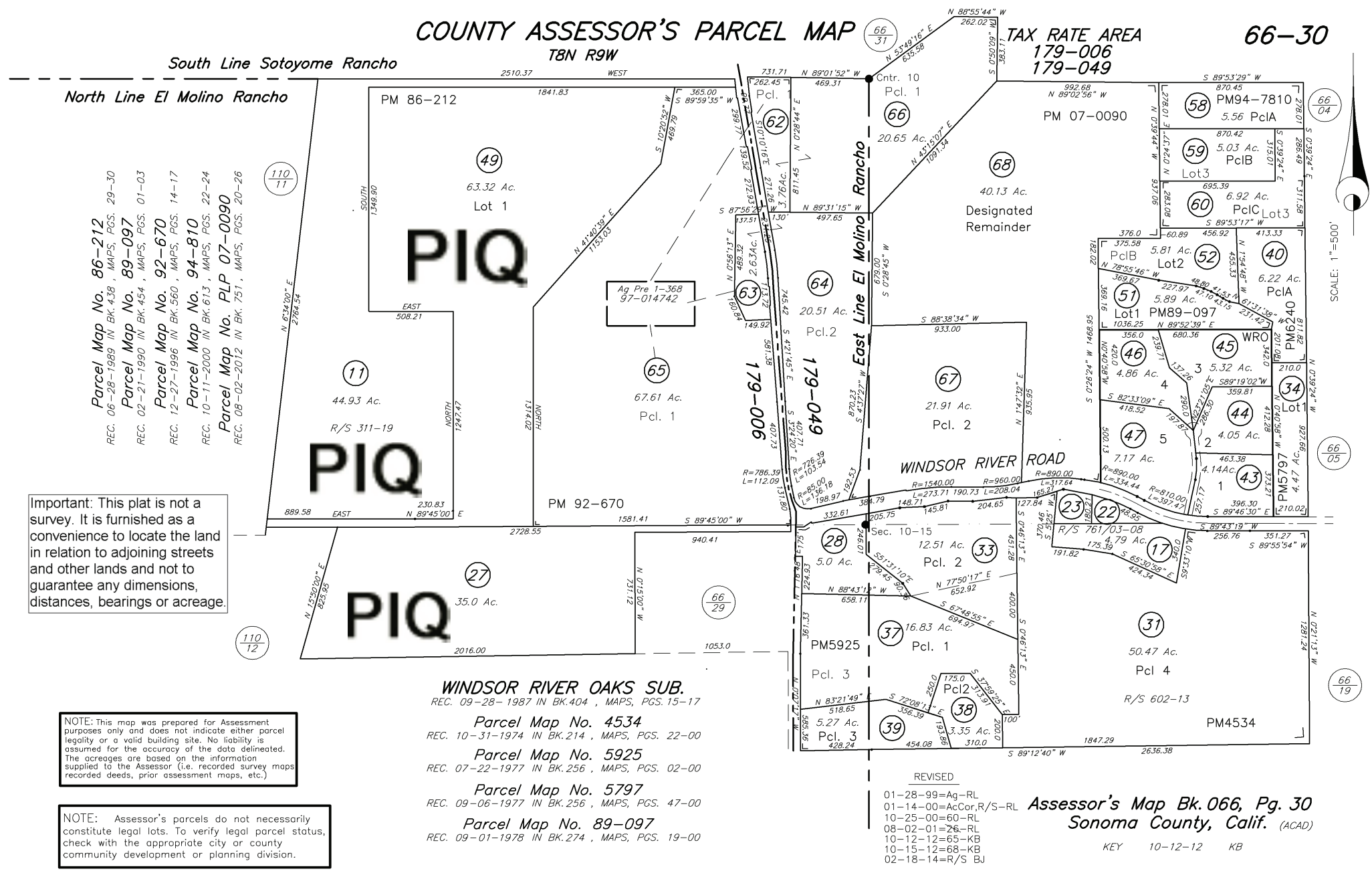
Important: This plat is not a survey. It is furnished as a convenience to locate the land in relation to adjoining streets and other lands and not to guarantee any dimensions, distances, bearings or acreage.

0 300 600 1200

REVISED
09-08-08=Cor.,56-ML
06-25-12=TRA BJ
07-14-15=Ac.Cor-KR
07-14-15=R/S-KR
10-21-15=57-KR

Assessor's Map Bk. 066, Pg. 29
Sonoma County, Calif. (ACAD)

KEY 9/8/08 ML


COUNTY ASSESSOR'S PARCEL MAP
T8N R9W
66/31
TAX RATE AREA
179-006
179-049
66-30
South Line Sotoyome Rancho
North Line El Molino Rancho
Parcel Map No. 86-212
REC. 06-28-1989 IN BK. 438 , MAPS, PGS. 29-30
Parcel Map No. 89-097
REC. 02-21-1990 IN BK. 454 , MAPS, PGS. 01-03
Parcel Map No. 92-670
REC. 12-27-1996 IN BK. 560 , MAPS, PGS. 14-17
Parcel Map No. 94-810
REC. 10-11-2000 IN BK. 613 , MAPS, PGS. 22-24
Parcel Map No. PLP 07-0090
REC. 08-02-2012 IN BK. 751 , MAPS, PGS. 20-26
110/11
PM 86-212
PM 92-670
PM 07-0090
PM94-7810
PM89-097
PM6240
PM5797
PM5925
PM4534
49
63.32 Ac.
Lot 1
PIQ
11
44.93 Ac.
R/S 311-19
PIQ
27
35.0 Ac.
PIQ
110/12
Ag Pre 1-368
97-014742
62
Pcl. 1
64
20.51 Ac.
Pcl.2
65
67.61 Ac.
Pcl. 1
66
20.65 Ac.
Cntr. 10
Pcl. 1
68
40.13 Ac.
Designated
Remainder
67
21.91 Ac.
Pcl. 2
179-006
179-049
East Line El Molino Rancho
WINDSOR RIVER ROAD
28
5.0 Ac.
Sec. 10-15
12.51 Ac.
Pcl. 2
33
37
16.83 Ac.
Pcl. 1
Pcl. 3
39
5.27 Ac.
Pcl. 3
38
3.35 Ac.
Pcl2
31
50.47 Ac.
Pcl 4
R/S 602-13
R/S 761/03-08
4.79 Ac.
58
5.56 PclA
59
5.03 Ac.
PclB
Lot3
60
6.92 Ac.
PclC
Lot3
52
5.81 Ac.
Lot2
PclB
51
5.89 Ac.
Lot1
40
6.22 Ac.
PclA
46
4.86 Ac.
4
45
WRO
3
5.32 Ac.
34
Lot1
47
7.17 Ac.
5
44
4.05 Ac.
2
43
4.14Ac.
1
23
22
17
66/04
66/05
66/29
66/19
WINDSOR RIVER OAKS SUB.
REC. 09-28-1987 IN BK.404 , MAPS, PGS. 15-17
Parcel Map No. 4534
REC. 10-31-1974 IN BK.214 , MAPS, PGS. 22-00
Parcel Map No. 5925
REC. 07-22-1977 IN BK.256 , MAPS, PGS. 02-00
Parcel Map No. 5797
REC. 09-06-1977 IN BK.256 , MAPS, PGS. 47-00
Parcel Map No. 89-097
REC. 09-01-1978 IN BK.274 , MAPS, PGS. 19-00
Important: This plat is not a survey. It is furnished as a convenience to locate the land in relation to adjoining streets and other lands and not to guarantee any dimensions, distances, bearings or acreage.
NOTE: This map was prepared for Assessment purposes only and does not indicate either parcel legality or a valid building site. No liability is assumed for the accuracy of the data delineated. The acreages are based on the information supplied to the Assessor (i.e. recorded survey maps recorded deeds, prior assessment maps, etc.)
NOTE: Assessor's parcels do not necessarily constitute legal lots. To verify legal parcel status, check with the appropriate city or county community development or planning division.
REVISED
01-28-99=Ag-RL
01-14-00=AcCor,R/S-RL
10-25-00=60-RL
08-02-01=26-RL
10-12-12=65-KB
10-15-12=68-KB
02-18-14=R/S BJ
Assessor's Map Bk. 066, Pg. 30
Sonoma County, Calif. (ACAD)
KEY 10-12-12 KB
SCALE: 1"=500'

COUNTY ASSESSOR'S PARCEL MAP

TAX RATE AREA
176-023 179-006

110-11

NOTE: Assessor's parcels do not necessarily constitute legal lots. To verify legal parcel status, check with the appropriate city or county community development or planning division.

1	S83°55'21"W	113.97
	S5°25'17"E	78.68
	S45°44'05"W	35.41
	N70°17'12"E	17.89
	S53°25'40"W	103.99
6	S64°34'44"W	18.59
	N65°44'04"W	90.98
	N78°24'41"W	89.07
	S87°24'42"W	83.92
	N84°27'26"W	60.81
11	N52°41'39"W	95.45
	S71°06'00"W	34.28
	S40°39'22"W	75.72
	S44°15'16"W	90.31
	S81°32'13"E	85.72
	N84°32'47"E	150.04
17	S62°08'42"E	32.30

NOTE: This map was prepared for Assessment purposes only and does not indicate either parcel legality or a valid building site. No liability is assumed for the accuracy of the data delineated. The acreages are based on the information supplied to the Assessor (i.e. recorded survey maps recorded deeds, prior assessment maps, etc.)

Important: This plat is not a survey. It is furnished as a convenience to locate the land in relation to adjoining streets and other lands and not to guarantee any dimensions, distances, bearings or acreage.

SCALE: 1"=400'

REVISED
10-12-04=24 RM
04-06-09=R/S RL
01-28-10=26 RL
11-12-10=R/S BJ
06-25-12=TRA-KB
05-01-13=C/E-BC
12-16-16=AgPre-KB

Assessor's Map Bk. 110, Pg. 11
Sonoma County, Calif. (ACAD)
KEY 1/28/10 RL

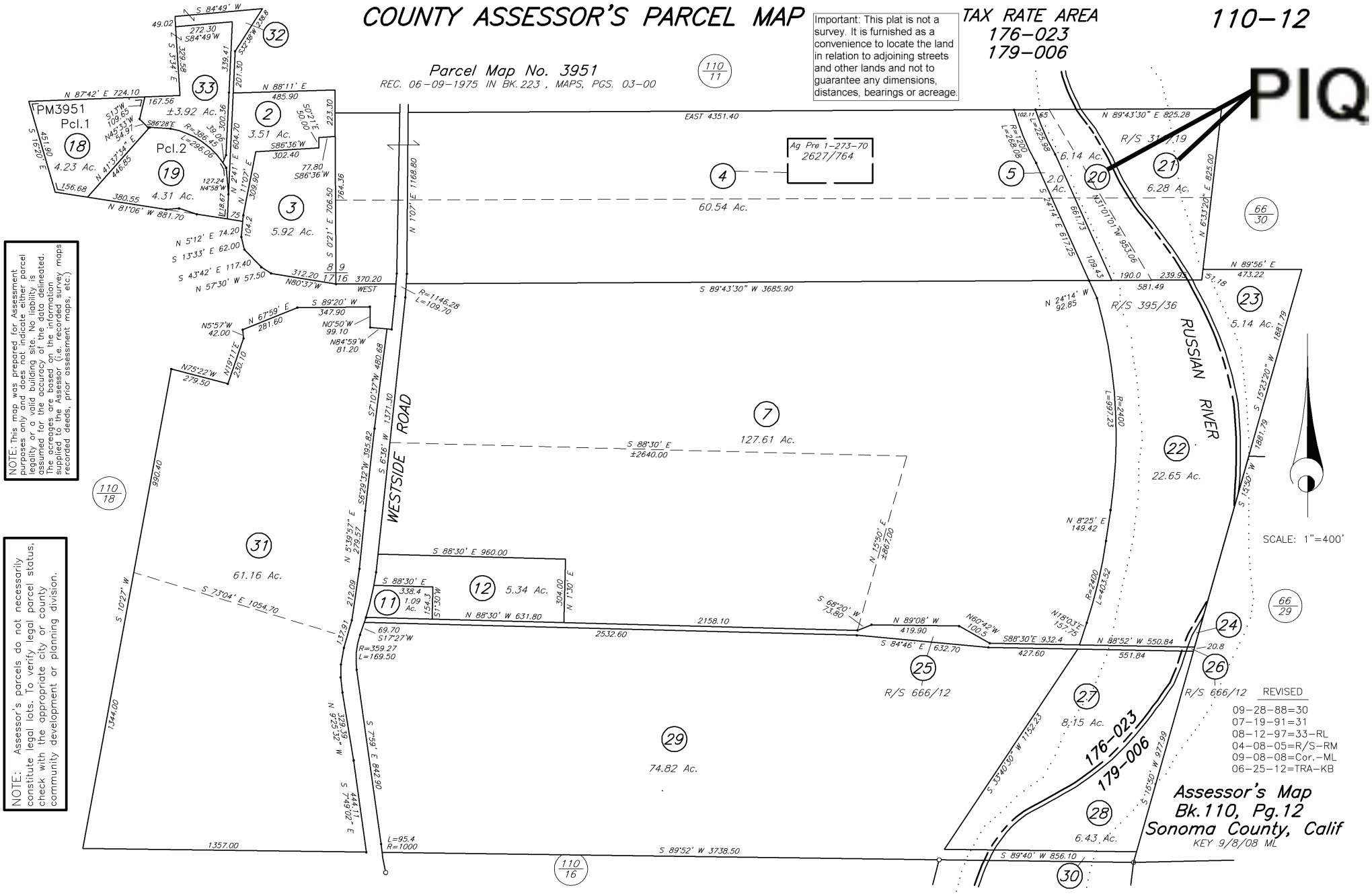
COUNTY ASSESSOR'S PARCEL MAP

Important: This plat is not a survey. It is furnished as a convenience to locate the land in relation to adjoining streets and other lands and not to guarantee any dimensions, distances, bearings or acreage.

TAX RATE AREA
176-023
179-006

110-12

Parcel Map No. 3951
REC. 06-09-1975 IN BK. 223 , MAPS, PGS. 03-00



NOTE: This map was prepared for Assessment purposes only and does not indicate either parcel legality or a valid building site. No liability is assumed for the accuracy of the data delineated. The acreages are based on the information supplied to the Assessor (i.e. recorded survey maps recorded deeds, prior assessment maps, etc.)

NOTE: Assessor's parcels do not necessarily constitute legal lots. To verify legal parcel status, check with the appropriate city or county community development or planning division.

REVISED
09-28-88=30
07-19-91=31
08-12-97=33-RL
04-08-05=R/S-RM
09-08-08=Cor.-ML
06-25-12=TRA-KB

Assessor's Map
Bk.110, Pg.12
Sonoma County, Calif
KEY 9/8/08 ML

Benoist, Wilson, McLaughlin, and Richardson-Argonaut Properties

Reclamation Plans

Grading, Planting, and Erosion & Sediment Control Plans

I. Summary of SMARA Requirements
II. Plans and Specifications

January, 1995

Prepared for:

KAISER SAND AND GRAVEL COMPANY
3000 Busch Road
P.O. Box 580
Pleasanton, CA 95466
(510) 846-8800

Prepared by:

Zitney & Associates, Environmental Planning
Novato, California

2M Associates, Landscape Architects
Berkeley, California

Fugro West
Roseville, California

Dr. Andrew L. Leiser
Davis, California

I. Summary of SMARA Requirements

INFORMATION REQUIRED BY THE SURFACE MINING AND RECLAMATION ACT (REVISED 1/94)

❑ Item 2772 (a) **Name of Operator:** Kaiser Sand and Gravel Company
Address: P. O. Box 145, Windsor, CA 95492
Operator Designated Contact: Mr. Dennis Ripple

❑ **Item 2772 (b) The anticipated quantity and type of minerals for which the surface mining operation is to be conducted:** Not applicable. This application is for reclamation only.

❑ **Item 2772 (c) Proposed dates of initiation and termination of operation:** Initial reclamation activities would commence on or around May 15, 1995. All properties to be reclaimed, with the exception of the McLaughlin property, would be reclaimed sequentially, as shown in the attached Table 1: Reclamation Schedule. All reclamation, with the exception of the northern edge of the Wilson property and the McLaughlin property, would be completed in 2001. Reclamation of the northern side of the Wilson property (which is adjacent to the existing processing plant entrance road) and the McLaughlin property (which is adjacent to the existing processing plant site) would coincide with the cessation of processing operations at the existing plant site. This is anticipated to occur by the year 2005.

❑ **Item 2772 (d) The maximum anticipated depth of the surface mining operation:** Not applicable. This application is for reclamation only.

❑ **Item 2772 (e)**

- ❑ **The size and legal description of the lands that will be affected by such operation, a map that includes the boundaries, and topographic details of such lands:** All lands are owned by Kaiser Sand & Gravel Company. See also permit application and Exhibit 1 - Existing Conditions.
- ❑ **A description of the general geology of the area:** Not applicable. This application is for reclamation only.
- ❑ **A detailed description of the geology of the area in which surface mining is to be conducted:** Not applicable. This application is for reclamation only.
- ❑ **The location within or adjacent to such lands including streams, roads, railroads, utility facilities:** See Exhibit 1 - Existing Conditions.
- ❑ **The location of all proposed access roads to be constructed in conducting such operation:** See Exhibits R-1, R-2, and R-3 for the location of the existing haul route and existing and proposed maintenance roads.
- ❑ **The names and addresses of the owners of all surface and mineral interests of such lands:** Kaiser Sand & Gravel Company, P.O. Box 145, Windsor, CA 95492.

- Item 2772 (f)
  - A description of and plan for the type of surface mining to be employed: Not applicable. This application is for reclamation only.
  - A time schedule that will provide for the completion of surface mining on each segment of the mined lands so that reclamation can be initiated at the earliest possible time on those portions of the mined lands that will not be subject to further disturbance by the surface mining operation: Overall reclamation activities on the four properties (Benoist, Wilson, McLaughlin, and Richardson-Argonaut) will take place sequentially as outlined in Table 1: Reclamation Schedule.

    Specific steps associated with reclamation activities are found in the Master Reclamation Specifications. For each area to be reclaimed, these involve a minimum two-year process. The first year consists of grading to establish the basic land forms outlined in Exhibits R-1 and R-2, seeding with native grasses/forbs followed by immediate irrigation to establish an erosion control cover, and collection of plant propagules for the production of plants to be installed in the following year. These activities will take place during the summer and early fall months prior to the rainy season. The following year, planting of woody species from cuttings or container stock will take place.

- Item 2772 (g)
  - Proposed use or potential use of the land after reclamation: Wildlife habitat, open space, and agriculture.
  - Evidence of notification to owners with possessory interest: All lands are owned by Kaiser Sand & Gravel Company.

- Item 2772 (h-1) A description of the manner in which contaminants will be controlled and mining waste will be disposed: Not applicable. This application is for reclamation only.

- Item 2772 (h-2) A description of the manner in which rehabilitation of the affected streambed channels and stream banks to a condition minimizing erosion and sedimentation will occur: 2:1 slopes and, where practical, 3:1 slopes will be created in areas that have been mined. Exceptions may be made to protect existing established riparian plant communities found at the lake margins. All grading activities will be conducted in the summer months as outlined in Table 1: Sequencing/Timing of Typical Reclamation Activities of the Master Reclamation Specifications. Following grading and prior to the rainy season, all disturbed slopes and other on-site barren areas will be seeded, mulched and irrigated to establish continuous erosion control cover. Straw bales will be stockpiled on site for emergency erosion control purposes.

  The only stream bank to be affected by reclamation is located at the southern end of the Benoist property that has a history of slope failure. This area will be the subject of a detailed engineering study to establish stabilizing design parameters. This study will be filed as an amendment to the permit application prior to any grading activities in the area.

- **Item 2772 (i) An assessment of the effect of implementation of the reclamation on future mining in the area.** Reclamation of these previously mined sites will not preclude future mining of adjacent or nearby sites identified as potential mining areas in the County's Aggregate Resources Management (ARM) Plan.

- **Item 2772 (j) Statement that person submitting plan accepts responsibility for reclaiming lands as described:** See Application, Appendix B.

- **Item 2772 (k) Any other information which the lead agency may require by ordinance:** Not applicable. This application is for reclamation only.

RECLAMATION STANDARDS

as required by the Surface Mining and Reclamation Act (Revised 1/94)

❑ **Item 2773 (b) Reclamation Standards**

- ○ **Wildlife Habitat; Avoidance of Rare, Threatened, Endangered Species; Avoidance of Wetland Habitat:** No Rare, Threatened, or Endangered species exist on the property. Approximately 229.9 acres of open water and 14.3 acres of emergent freshwater marsh either exist or are anticipated to be created through reclamation.

- ○ **Backfilling, Regrading, Slope Stability, and Recontouring:** Slopes from previous mining activities to be reclaimed as shown on Exhibits R-1 and R-2 are "not to exceed" minimums. Final slopes may be shallower but will not be steeper than 2:1, except where existing steeper slopes should be avoided to protect existing, established riparian plant communities.

- ○ **Revegetation:** Revegetation will consist of Freshwater Marsh (through natural succession), Willow/Cottonwood Riparian Forest (through natural succession and active planting), Mixed Riparian Forest, Mixed Evergreen Forest, Oak Savannah, and Grassland associations. See also Exhibit R-3 and Master Reclamation Specifications.

- ○ **Drainage, Diversion Structures, Waterways and Erosion Control:** See also Exhibit R-1 for the location of existing pipes, culverts, spillways, and drainage structures.

  The slopes at the southern end of the Benoist property have a history of erosion and failure. This zone (see Exhibit R-1) will be the subject of a detailed engineering study to identify appropriate stabilizing designs. These could include the installation of culverts, construction of a spillway, lowering and armoring the existing access road slopes, or a combination of these techniques. Design recommendations will be filed with Sonoma County as an amendment to the permit application prior to any reclamation activities in the area.

  Elsewhere within the four properties to be reclaimed, drainage swales will be created, where possible, around the perimeter lands or any lake to direct water away from the top of slopes.

  Erosion control measures include:

  - seeding, mulching, and irrigating as necessary of exposed slopes to establish cover prior to the rainy season;
  - contour wattling;
  - on-site stockpiling of straw hay bales at a rate of .5 tons /acre (of the area being actively reclaimed); straw hay bales to be protected from rain and used for emergency erosion control as necessary.

- **Prime Agricultural Land / Other Agricultural Land:** Reclamation will not convert existing agricultural lands to other uses. Reclamation will result in approximately 47 acres of land available for agriculture.

- **Building / Structure, and Equipment Removal:** No permanent buildings currently exist on lands to be reclaimed. Any abandoned mining equipment or other debris on site will be removed as part of the reclamation activities. Any stored mining equipment on the properties will be relocated to layout / storage areas at the existing plant site.

- **Stream Protection:** Except for the southern portion of the Benoist property as described above, reclamation activities will not directly affect the Russian River or any blue-line streams identified on the United States Geological Survey 7-1/2' series maps.

- **Topsoil Salvage, Maintenance, Redistribution:** Sufficient topsoil exists on site to complete the planned reclamation. See also Master Reclamation Specifications.

❑ **Item 2773.1 Financial Assurance:** Financial assurances for reclamation are covered in a separate report and deposit with Sonoma County.

TABLE 1 : RECLAMATION SCHEDULE

ACTIVITY	YEAR									
	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004
Benoist										
Wilson										
McLaughlin										
Richardson-Argonaut										

* Upon completion of operations at the existing Kaiser processing plant site

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1.0 INTRODUCTION

This document specifies standards and procedures to be followed in association with reclaiming mined lands on property owned by Kaiser Sand and Gravel Company, hereinafter referred to as "Owner". These specifications were developed in conjunction with the California Department of Fish and Game, hereinafter referred to as "CDF&G".

These specifications define the minimum acceptable quality of materials (fertilizer, mulch, plant species, etc.) to be used in reclamation, as well as the precise procedures to be followed when conducting reclamation activities (grading, handling of materials, planting, etc.). This document will be binding upon Owner and Contractor for all future reclamation activities. The following subjects are addressed:

- Grading and Soil Preparation
- Seeding
- Planting
  - Container Stock
  - Cuttings
  - Contour Wattling
- Irrigation
- Erosion Control
- Monitoring

These specifications serve as a "master" document to provide consistent, overall direction for future mining reclamation activities on various Kaiser-owned properties; resulting in a more cohesive, comprehensive treatment than could be achieved by multiple, piecemeal applications. This document sets generic standards for all of Kaiser's future reclamation activities, each of which will be further defined on a project-by-project basis. For example, when replacement planting of "oak savannah" for a particular project is called for, this document contains the species prescription for that plant association. Exceptions or special circumstances may be included in individual applications as needed.

1.1 Regulatory Requirements

Incorporated by reference are reclamation standards as outlined by the Surface Mining and Reclamation Act (SMARA), the Sonoma County Aggregate Resources Management Plan (ARM Plan), and the Sonoma County Surface Mining and Reclamation Ordinance (SMARO). In addition, reclamation activities will be performed in accordance with all applicable laws, codes, and regulations required by authorities having jurisdiction over such work and provide for all inspections and permits required by Federal, State, and local authorities.

1.2 Reclamation Plan

1.2.1 Concept

The grading concept for reclamation is based on a general understanding of the overburden and other fill materials available for use on-site. Where a conservative approach has been taken in cut-and-fill calculations to assure that the grades shown can be created, it should be noted that the precise acreage that can be created for

underwater shoals, freshwater marshlands, and other individual plant communities is dependent upon the extent of on-site fill and topsoil materials. The grading concept assumes no importation of fill materials.

The natural regrowth of riparian vegetation is encouraged. Only native plant species indigenous to the immediate Russian River region are specified. Where practical, all native woody plants used in revegetation efforts will come from site-specific propagules (seeds, nuts, acorns, cuttings, root divisions, etc.). In cases where local plant material near the project area is insufficient to supply needed propagules, alternative local sources of plant material may be used with the verbal approval of CDF&G or a mutually agreed upon third party biologist. In order to protect the health of existing plant communities, over-collection will not occur, so that existing plants may continue to reproduce themselves.

1.2.2 Exhibits

Exhibit R-1: Grading and Exhibit R-2: Sections illustrate the general surface configuration that will be created. Exhibit R-3: Planting illustrates the vegetative mosaic that will be created both through natural succession and through an active planting program. Plant communities associated with reclamation activities and the general methods (natural succession vs. plantings) that will be used to establish each community are incorporated into this exhibit. Table R-2 lists the individual species that will be planted for each plant community.

All exhibits are conceptual. Final slopes, contours, and planting patterns will be determined in the field by applicant or applicant's representatives in consultation with CDF&G and Sonoma County.

1.3 Phasing of Reclamation Activities

Mining reclamation activities are meant to be accomplished in a phased manner. Finished grading and seeding of specified erosion control and seed mixtures would take place during the first phase following completion of mining activities. Planting of specified tree and shrub species would occur the following year, after seeded plants have become established.

Specifically, reclamation will take place in 3 steps after mining is completed. Step 1 involves grading the site to create specified land forms. Step 2 comprises seeding the areas to be reclaimed with specified seed and erosion control mix. Step 3, to take place the year following Steps 1 and 2, involves installing specified tree and shrub species. Table R-1 overviews these steps and related time periods in which they would occur.

1.4 Quality Control

Regularly scheduled on-site inspections will be made as noted in Table R-1. Inspections of all reclamation grading activities will be conducted by a licensed Civil Engineer or Landscape Architect. Inspections of all reclamation seeding, planting, and irrigation activities will be conducted by a licensed Landscape Architect or a mutually agreed upon third party biologist.

TABLE 1: SEQUENCING / TIMING OF TYPICAL RECLAMATION ACTIVITIES

ACTIVITY	MONTH Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
YEAR 1												
Rough Grading												
Spread Topsoil												
Fine Grading												
Seeding of Herbaceous Cover												
Irrigation												
Inspection				report*							weekly	weekly
Collection of Propagules **												
YEAR 2												
Staking Plant Locations												
Collection of Acorns												
Collection of Cuttings ***												
Planting of Cuttings/Wattles												
Planting of Container Stock												
Inspection				report*								

* annual report to Sonoma County regarding progress of reclamation activities

** for propagation and subsequent planting in year 2

*** includes willow cuttings and wattles

TABLE 2: Plant Schedule

Scientific Name	Common Name	Target % of Total***	Type	Size	Average Spacing	Typical Propagation Method
Cottonwood / Willow Riparian Forest						
Alnus rhombifolia *	White Alder	10%	container	deep pot +	8' o.c.	seed
Baccharis salicifolia	Mule Fat	10%	container	deep pot +	8' o.c.	seed
Populus fremontii ssp. *fremontii* *	Fremont Cottonwood	30%	container	deep pot +	15' o.c.	cuttings
Salix exigua	Narrow-leaved Willow	5%	cuttings	3/8" - 1 1/2"diameter x 12" minimum length	8' o.c.	cuttings
Salix laevigata	Red Willow	15%	cuttings	3/8" - 1 1/2"diameter x 12" minimum length	8' o.c.	cuttings
Salix lasiolepis	Arroyo Willow	15%	cuttings	3/8" - 1 1/2"diameter x 12" minimum length	8' o.c.	cuttings
Salix lutea	Yellow Willow	15%	cuttings	3/8" - 1 1/2"diameter x 12" minimum length	8' o.c.	cuttings
Mixed Riparian Forest						
Acer negundo var. *californicum*	Box-elder	15%	container	deep pot +	15' o.c.	seed
Fraxinus latifolia	Oregon Ash	5%	container	deep pot +	15' o.c.	seed
Juglans californica var. *hindsii*	Northern California Black Walnut	20%	container	deep pot +	15' o.c.	seed
Populus fremontii ssp. *fremontii* *	Fremont Cottonwood	5%	container	deep pot +	15' o.c.	cuttings
Rosa californica	California Wild Rose	5%	container	deep pot +	8' o.c.	seed or cuttings
Rubus ursinus	California Blackberry	5%	container	deep pot +	8' o.c.	seed or cuttings
Salix laevigata	Red Willow	10%	cuttings	3/8" - 1 1/2"diameter x 12" minimum length	8' o.c.	cuttings
Salix lasiolepis	Arroyo Willow	10%	cuttings	3/8" - 1 1/2"diameter x 12" minimum length	8' o.c.	cuttings
Salix lutea	Yellow Willow	5%	cuttings	3/8" - 1 1/2"diameter x 12" minimum length	8' o.c.	cuttings
Sambucus mexicana	Blue Elderberry	10%	container	deep pot +	8' o.c.	cuttings
Symphoricarpos albus var. *laevigatus*	Snowberry	5%	container	deep pot +	8' o.c.	seed or cuttings
Vitis californica	California Wild Grape	5%	container	deep pot +	8' o.c.	seed or cuttings

TABLE 2: Plant Schedule (continued)

Scientific Name	Common Name	Target % of Total***	Type	Size	Average Spacing	Typical Propagation Method
Mixed Evergreen Forest						
Acer macrophyllum	Big-leaf Maple	15%	container	deep pot +	15′ o.c.	seed
Arbutus menziesii	Pacific Madrone	15%	container	deep pot +	15′ o.c.	seed
Corylus cornuta var. *californica*	Hazelnut	5%	container	deep pot +	8′ o.c.	seed
Pseudotsuga menziesii var. *menziesii*	Douglas-fir	5%	container	deep pot +	15′ o.c.	seed
Quercus agrifolia	Coast Live Oak	15%	container	deep pot +	15′ o.c.	acorn
Quercus kelloggii	California Black Oak	10%	container	deep pot +	15′ o.c.	acorn
Quercus wislizenii	Interior Live Oak	15%	container	deep pot +	15′ o.c.	acorn
Rubus ursinus	California Blackberry	5%	container	deep pot +	8′ o.c.	seed or cuttings
Sequoia sempervirens	Redwood	5%	container	deep pot +	15′ o.c.	seed
Oak Savannah **						
Quercus agrifolia	Coast Live Oak	25%	container acorns	5 gal.	35′ o.c. per sect. 4.3.2.3	commercial source****
Quercus kelloggii	California Black Oak	25%	container acorns	5 gal.	35′ o.c. per sect. 4.3.2.3	commercial source****
Quercus lobata	Valley Oak	50%	container acorns	5 gal.	35′ o.c. per sect. 4.3.2.3	commercial source****

TABLE 2: Plant Schedule (continued)

Scientific Name	Common Name	Target % of Total***	Type	Pure Live Seed ++	Rate
Seed Mix					
Bromus carinatus	California Brome	30%	seed	76%	10 lbs/acre
Eschscholzia californica	California Poppy	5%	seed	74%	8 lbs/acre
Festuca rubra	Molate Red Fescue	5%	seed	76%	20 lbs/acre
Hordeum brachyantherum	Meadow Barley	30%	seed	72%	20 lbs/acre
Lupinus succulentus	Succulent Lupine	5%	seed+++	83%	5 lbs/acre
Nassella pulchra	Purple Needlegrass	25%	seed	42%	1 lb/acre

Source: 2M Associates; Fugro West

Notes:

1. Seed Mix available from S&S Seeds, Carpinteria CA (805) 684-0436.
2. Scientific names are in conformance with the 1993 Jepson Manual of Higher Plants of California.

* To be planted on lowest slopes near waterline.

** 30 acorns of the same species will also be planted within approximately 1 square meter on the north side of each tree.

*** Percentage composition of species used for revegetation will vary from that shown based on actual availability at time of reclamation activities. Because some species may not be available in some years, mix of species cited is as large as possible.

**** If timing permits during a particular project, 5-gallon oaks may be propagated from acorns. However, oaks of this size may need to come from outside commercial sources, subject to the specifications as per section 4.2.1.3.

\+ Deep pot shall have a minimum size of 9 cubic inches in volume and a depth of 8 inches. Maximum size shall be that of a 1 quart milk carton.

\++ Pure Live Seed = % purity X % germination

\+++ Properly inoculated

2.0 GRADING AND SOIL PREPARATION

2.1 General

2.1.1 Intent of Drawings and Specifications

Exhibits R-1 and R-2 and these specifications provide a general guide showing contours, slopes, and drainage patterns with the expressed intent to communicate an overall design concept and establish certain design parameters. Precise grading and drainage patterns will be determined by the quantity of soil available on site and in the field at time of grading.

2.2 Products

Manufacturer's literature or laboratory analytical data for the following products will be available for inspection, if necessary.

2.2.1 Topsoil

Any topsoil on site will be stockpiled separately from any overburden that may be produced as mining progresses through the site.

2.3 Execution

2.3.1 Timing

All grading activities shall take place during summer months before the onset of seasonal rains. No grading shall take place when conditions are wet or muddy. No slopes shall be disturbed when conditions are wet or muddy. See Table R-1 for scheduling of grading activities.

2.3.2 Protection of Plants To Remain

A. Grading activities will not disturb selected trees as identified on Exhibit R-3: Planting.

B. Protection:

- ❑ All trees to remain will be protected from damage. No limbs will be cut except those that are damaged or diseased. Damage to and scraping of roots will be avoided.
- ❑ Storage of materials or equipment, or operation of equipment under the branches of any existing tree to remain, will not take place except as actually required for construction in those areas.
- ❑ Barricades, fences or other barriers will be provided as necessary at the drip line of existing trees to remain to protect them from damage.
- ❑ No burning will be allowed on site.

C. If existing trees to remain are damaged during mining or reclamation operation replacement trees of the same species and size or trees of equal habitat value will be installed.

2.3.3 Excavation

All earthwork activities will be guided by the dimensions and elevations indicated on Exhibits R-1 and R-2. Where planting areas are indicated on Exhibit R-3, such areas will contain a minimum of 1 foot of topsoil from materials available on site or from existing stockpiles on adjoining property.

2.3.4 Fill

Fill materials will be spread in uniform lifts of not more than 8" in uncompacted thickness. To achieve compaction fill materials will be brought to the optimum moisture content.

2.3.5 Compaction of Planting Areas

Subgrade in areas to receive fill shall be compacted to a density of 85%. Each layer of topsoil and the scarified subgrade will not be compacted to more than 85% maximum density. If soil compaction exceeds 85%, then the top 18 inches of soil shall be mechanically ripped, regraded, and immediately seeded.

2.3.6 Preparation of Subgrade

Prior to spreading topsoil, the subgrade of all planting areas will be scarified to a depth of 18 inches and moisture-conditioned as needed to obtain the required compaction. The upper 18 inches of subgrade shall be brought to true and uniform grade and cleared of all stones larger than 3 inches, sticks and other extraneous materials. Crawler tractors no heavier than a Dresser TD-8 or Cat D-4 shall be used to minimize over-compaction.

2.3.7 Spreading of Topsoil

Stockpiled topsoil will be spread to a minimum depth of 1 foot after natural settlement and light rolling and will conform to the general concept for finish grades and elevations shown on Exhibits R-1 and R-2 and as directed in the field. Topsoil will not be placed or spread under muddy, wet, or frozen conditions. Grading of slopes should be finished by track-walking up and down the slope (1 pass) with a small bulldozer. Spreading of topsoil should be conducted such that unnecessary compaction does not occur.

2.3.8 Finished Grading

All areas covered by the project, including excavated and filled areas and adjacent transition areas, will be uniformly graded so that finished surfaces conform to the general elevations noted on Exhibits R-1 and R-2 and as directed in the field.

3.0 SEEDING

3.1 General

3.1.1 Intent of Specifications

These specifications provide a general guide with the expressed intent to communicate an overall design concept and establish certain design parameters. Precise areas to be seeded will include all disturbed lands and will be further determined in the field at time of seeding.

3.2 Products

3.2.1 Seed

A. All seed will conform with all laws and regulations pertaining to the sale and shipment of seed required by the California Department of Agriculture. Seed will be delivered to the site tagged and labeled in accordance with State Agriculture Code and will be acceptable to the county Agriculture Commissioner.

B. Seed will be of a quality which has a minimum Pure Live Seed (% purity x % germination) as specified (see Table R-2). Weed seed will not exceed 0.5 percent of the pure live seed and inert material. All seed is subject to inspection. Species and/or varieties will not be substituted without prior written approval.

3.2.2 Mulch

Mulch on seeded areas will be wheat or rice straw. All bales will be free of noxious weed seed, mold, and deleterious materials. Owner will furnish evidence that clearance has been obtained from the County Agricultural Commissioner if straw is obtained from outside Sonoma County. Straw mulch will be fixed firmly in place with wood fiber and an organic binder.

3.3 Execution

3.3.1 Timing

Unless otherwise approved, all seeding of native grasses/forbs will be conducted in the late summer or early fall before the onset of annual rains as shown in Table R-1.

3.3.2 Seeding

Specified seed mix identified in Table R-2 will be applied to all exposed or disturbed slopes and to all areas identified as grassland on Exhibit R-3 at rate specified, using mechanical seed spreader to ensure even seed distribution. Seed will be distributed as uniformly as possible. Seed will be applied from tops of slopes where appropriate. Seed will not be left uncovered more than 24 hours.

3.3.3 Mulching

For seeded areas, after seed has been applied, the straw will be blown or broadcast (as access permits) at a rate of 1.5 tons/acre. Following that, the wood fiber and organic binder will be blown over the straw in a water slurry. On slopes of 3:1 and steeper, the rate will be 300 lbs/acre wood fiber and 100 lbs/acre organic binder. Slopes shallower than 3:1 will not be required to receive any fiber or binder and straw may be hand punched or crimped to anchor in place.

4.0 PLANTING

4.1 General

4.1.1 Intent of Drawings and Specifications

Exhibit R-3: Planting and these specifications provide a general guide showing plant locations, numbers, sizes and densities with the expressed intent to communicate an overall design concept and establish certain design parameters. Precise placement of plants will be determined in the field at time of planting.

4.1.2 Site Conditions

All areas of work will be kept clean, neat and orderly at all times. All deleterious materials and debris from the entire work area will be removed prior to beginning of landscape monitoring period.

4.1.3 Plant Materials

A. All plant material will be healthy at time of initial planting.

B. Plants will be subject to inspection and approval at place of growth and upon delivery for conformity to specifications. Such approval will not impair the right of inspection and rejection during progress of the work.

C. Substitutions of plant materials will not be permitted unless authorized in writing by CDF&G or a mutually agreed upon third party biologist. If proof is submitted that any plant material specified is not obtainable, a proposal will be considered for use of the nearest equivalent size, species, cultivar or variety.

4.1.4 Samples and Tests

Samples of materials for conformity to specifications as referenced herein will be furnished by Contractor to Owner upon request. Rejected materials will be immediately removed from the site at Contractor's expense. Cost of testing of materials not meeting specifications will be paid by Contractor.

If requested, manufacturer's literature or laboratory analytical data for the following products will be submitted for review: planting fertilizer; mulch; quantity and species of plants ordered; nursery supplier (s); and proposed substitutions for any plant material not available at time of planting.

4.2 Container Plants

4.2.1 Products

4.2.1.1 Backfill Soil

Topsoil from materials available on site or from existing stockpiles on adjoining property may be used.

4.2.1.2 Herbicide

Pre-emergent herbicide specified is to be Simazine, Treflan, or approved equivalent.

4.2.1.3 Container Plants

All container plants will conform to the following:

A. Where practical and as timing permits, all container plants will be propagated from sources on the project site. When plant material on site is not sufficient to supply needed propagules, plant material will be from sources in the Russian River region, preferably from within 5 miles of the area to be reclaimed, or from other sources with growing conditions similar to the project site, upon verbal approval of CDF&G or a mutually agreed upon third party biologist. Whenever possible, plants will be propagated and grown within the Russian River region in Sonoma County. Plants grown outside the vicinity will be acclimated on site for a minimum of 2 weeks prior to installation. Plant health and vigor will be maintained during this period of acclimatization.

B. Plants to be nursery-grown will be done so in accordance with good horticultural practices under climatic conditions similar to those of project area. Plants will be true to species and cultivar or variety, and will conform to container sizes specified. Plants will be well-formed, symmetrical, and of a size where top growth is balanced with rootball size. All trees will have straight trunks of uniform taper, larger at the bottom than at the top. Plants that do not possess a normal balance between height and spread, or between top growth and rootball size, will be rejected.

C. Plants will be sound, healthy and vigorous, well-branched and densely foliated when in leaf. Plants will be a minimum of 5 inches tall. They will be free of disease, insect pests, eggs, larvae, and will have healthy, well-developed root systems actively growing with white tips. They will be free from physical damage or adverse conditions that would prevent thriving growth.

D. Growing medium will be well-filled with roots so that roots and medium form a cohesive unit when removed from the container.

E. If necessary, shrub species will be pruned during production to stimulate branching and avoid "legginess" (bare lower stems and inability to stand upright).

F. Unless as for shrubs as specified above, plants will not be pruned before delivery. Trunks will be free of damaged bark, with all minor cuts and abrasions showing healing tissue. Trees with major abrasions, disfigurements, or fresh cuts of limbs over 3/4 inch which have not completely calloused, will be rejected.

G. When plants are moved from the nursery to the job site, they shall continue to receive regular irrigation. Container plants stored on site prior to planting will be kept in a moist, shaded environment.

H. The 5-gallon oaks will have grown in the containers in which they are delivered for at least 6 months, but not over 2 years. Samples must prove no rootbound conditions exist. No container plants which have cracked or broken balls of earth when taken from container will be planted except upon special approval from Owner.

4.2.1.4 Fertilizer

A. All fertilizer will conform with all rules and regulations of the California Department of Agriculture and be applied according to manufacturer's specifications. Fertilizer will be uniform in composition, dry, and free-flowing. Fertilizer will be delivered in dry, unopened bags and labeled in accordance with California State regulations. No substitutions of specified fertilizer will be made without prior approval.

B. For all container plants except 5-gallon oaks, slow-release commercial fertilizer will be "Osmocote" granular plant food (18-6-12), or approved equal.

C. For 5-gallon oaks, slow-release commercial fertilizer will be "Osmocote" planting tablets (20-10-12), or approved equal.

4.2.1.5 Mulch

Mulch around individual container plants will be fir/pine bark as follows:

A. Particle Size (Dry Weight Basis):

Percent Passing	Sieve Designation
90-100	6.35 mm (1/4 inch)

B. Organic Content: Determined by ash analysis. Minimum 94 percent based on dry weight.

C. Chemistry:

Nitrogen: Minimum 0.8 percent as N on dry weight basis.
Salinity: Maximum saturation extract conductivity 3.5 millimhos per cm. 25 degrees C.
Iron: Minimum 0.8 percent as Fe dry weight basis.

D. Wettability: The air-dry product will, when applied to a cup or a small beaker of water at 70 degrees F., in the amount of 1 teaspoon, become completely wet in a period not exceeding 2 minutes. Any wetting agent added to accomplish this will be guaranteed to be non-phototoxic at rate used.

4.2.2 Execution

4.2.2.1 Timing

Unless otherwise approved, all planting of container plants will be conducted in the fall near the beginning of annual rains. The optimum time for planting typically occurs from late October into early December, but the actual dates will vary from year to year depending on weather conditions. The Contractor shall submit a written proposed planting schedule to Owner approximately 2 weeks prior to the beginning of plant installation. In general, the work will proceed as rapidly as possible, consistent with normal seasonal limitations for planting work.

4.2.2.2 Handling of Plant Materials

Container stock will be removed carefully after cans have been cut on 2 sides with approved cutter. Do not use spade to cut cans. Do not lift or handle container plants by tops, stems, or trunks at any time.

4.2.2.3 Layout and Excavation of Planting Areas

A. Plants will be placed according to guidelines found in the Table 2: Plant Schedule. Plant locations will be adjusted as necessary in the field before planting begins. Before any plant installation takes place, precise locations for plants shall be staked in the field, and reviewed and approved by Owner in conjunction with CDF&G or a mutually agreed upon third party biologist.

B. Planting on slopes shall proceed from the top to the bottom of the slope, except that installation of brush layering or wattling shall proceed from the bottom to the top. Plantings shall be randomly staggered to avoid straight rows.

C. Planting patterns and densities should vary within sites to create a natural-appearing plant association, as well as to avoid unfavorable site conditions such as rock outcroppings, existing vegetation, and other obstacles. Planting may be denser in more highly erodable areas than elsewhere. Small clearings with herbaceous or shrubby understory within the forest canopy are desirable. The total number of plants per individual site shall be as shown in Exhibit R-3: Planting.

D. Excavation for all container plants other than 5-gallon oaks will be as follows:

Container trees: Can + 18" width; Can +2" = depth
Container shrubs: Can + 12" width; Can +2" = depth

E. Excavation for 5-gallon oaks will be as follows:

5-gallon oaks: Can + 18" width; Can = depth

4.2.2.4 Drainage, Detrimental Soils and Obstructions

A. All container plants other than 5-gallon oaks: Drainage of plant pits will be verified using test pits at the rate of 1 plant pit per every 10 pits dug. Test pits

will be filled with water twice in immediate succession. If conditions result in the retention of water in test pits for more than 24 hours, Landscape Contractor will notify Kaiser Sand and Gravel of such conditions. Corrective measures will be identified before proceeding with work. Notification of such measures will be made to Sonoma County.

B. 5-gallon oaks: Drainage of all plant pits will be verified by filling with water twice in immediate succession. If conditions result in the retention of water in plant pits for more than 24 hours, Landscape Contractor will notify Kaiser Sand and Gravel of such conditions. Corrective measures will be identified before proceeding with work. Notification of such measures will be made to Sonoma County.

4.2.2.5 Weed Control

Upon planting container stock, a circle 3 feet in diameter and 6-12" in depth around each planting hole will be manually loosened and turned over. Except for trees planted in the Oak Savannah association, the cleared area will be sprayed with specified pre-emergent herbicide.

4.2.2.6 Container Planting / Fertilizing

A. Prior to planting, plants will be protected at all times from sun and drying winds. Plants that cannot be planted immediately on delivery will be kept in the shade, well protected and will be kept well watered so that they remain in a healthy and thriving condition. All plants shall be watered immediately before planting (i.e. the same day) so that moisture in the containers is at or near field capacity. Handling during planting shall be such that overheating or excessive drying is avoided.

B. After removing plant from container, the sides of rootball will be scarified to prevent root-bound condition. Plants will be planted in ground within 5 minutes of removal from container and watered within 30 minutes of removal from containers.

C. Fertilizer in plant pits will be applied according to manufacturer's specifications. Care will be taken to ensure that plant roots do not come into direct contact with fertilizer.

D. Only stockpiled topsoil or moist soil excavated from the planting hole will be used to backfill plant pits. Plants will be set plumb and braced rigidly in position until backfill soil has been tamped solidly around the ball and roots. It is critical that all plantings be firmly tamped down so that no air pockets or voids surround the plants and intimate contact between the root systems and the native soils is achieved. When plant pits have been backfilled approximately 2/3 full, water will be applied, saturating rootball, before

installing remainder of the planting soil to top of pit, eliminating all air pockets.

E. Planting areas will be smoothed to conform to specified grades after full settlement has occurred.

F. A saucer will be formed, creating a 4-inch berm around tree pits 12 inches wider than ball diameter.

G. All nursery type plant labels, staking, and ties will be removed from plants.

4.2.2.7 Mulching

All planting pits will be mulched with a 2-inch layer of specified mulch, except in seeded areas.

A. Mulch will be spread evenly on the soil surface after planting has been completed, fine grading has been completed, and soil surface smoothed. Do not cultivate mulch into soil; leave on soil surface.

B. Mulch will be brushed from all foliage. Mulch will not bury plant crown.

4.2.2.8 Staking

Staking, if deemed necessary by Owner, will be used on container trees of 5-gallon size or larger immediately after planting. Plants will stand plumb after staking.

A. 2 stakes total per tree will be used as shown in Figure R-1. Stakes will be driven at least 36 inches into firm ground.

B. Tie tree to stake using approved tree tie in 1 location only. Support for trees to be located as low as possible on the trunk, yet high enough that the tree will return to upright position after deflection.

4.2.2.9 Pruning

Prune plants only at time of planting and according to standard horticultural practice to preserve the natural character of the plant. Only dead wood, suckers, and broken or badly bruised branches will be removed. No wood over 1/2 inch diameter will be removed.

4.2.2.10 Watering

All plantings will be watered immediately after planting. After the first watering, water will be applied as conditions may require such that the plants to grow in a healthy and vigorous condition.

4.3 Acorns

4.3.1 Products

4.3.1.1 Acorns

All acorns will be collected from healthy, live trees native to the immediate Russian River region. Wherever possible, acorns shall be collected from on-site oaks or oaks in the immediate region (See also Sections 1.2, paragraph 4 and 3.4.2 A.). They will be sound, well-formed with shiny coats, and free of insect holes.

4.3.2 Execution

4.3.2.1 Timing

Acorn collection will be done in the late summer to fall months as acorns ripen and begin to drop. Planting acorns will take place in association with planting oak container stock.

4.3.2.2 Weed Control

Prior to planting acorns, a circle 3 feet in diameter and 6-12" around each planting hole will be manually loosened and turned over.

4.3.2.3 Planting

1 acorn grouping, consisting of 30 acorns, will be planted within an approximately 1-square-yard area on the north to west sides of each container oak tree planted. Acorns will be placed in individual holes that are 1 to 3 inches deep, at a rate of 3 acorns per hole, and laid on their sides.

4.4 Cuttings

4.4.1 Products

4.4.1.1 Herbicide

Pre-emergent herbicide specified is to be Simazine, Treflan, or approved equivalent.

4.4.1.2 Willow Cuttings

A. All materials will be cut from healthy, live, dormant branches of willow plants as specified in Table 2 native to and growing in the immediate Russian River region. Propagules will be collected from on-site sources wherever possible.

B. Material will be collected with a maximum harvest per plant of 50% of above-ground vegetative parts. No branches over 3 inches in diameter shall be cut.

C. Cuttings will be a minimum of 3/8 inch and a maximum of 1-1/2 inches in diameter, and will be a minimum of 12 inches in length. Cuts will be diagonal at the lower end, and straight at the upper end, resulting in cuttings with slanted bottoms and blunt tops. Remaining leaves will be removed from cuttings. Cuts will be clean and without frayed ends or bark. Cuttings shall be free of signs of canker diseases.

D. Cuttings shall be maintained in moist conditions at all times. They may be stored out-of-doors in shade and submerged in water, either in natural streams or ponds or in containers. When stored in containers, water shall be changed daily. Cuttings may be wrapped in burlap sacks and watered daily, under refrigeration at 32-45° F, until planting commences.

E. During preparation, the orientation of cuttings shall be maintained, i.e. all cuttings shall be arranged with tops (blunt cut) up and bases (slanted cut) down. Cuttings shall be tied in bundles of 50 and the cut tops painted with a water-base paint to seal the cuts and identify the tops. A highly visible color (red, orange, yellow, etc.) shall be used.

4.4.2 Execution

4.4.2.1 Timing

A. Unless otherwise approved, cuttings will be collected, prepared and planted in the early winter after dormancy (i.e. when the resting buds are se and vegetative growth has ceased) and as shown in Table R-1.

B. Willow cuttings will not be prepared more than 7 days prior to installation.

4.4.2.2 Weed Control

Upon planting cuttings, a circle 1 foot in diameter and 6-12" in depth around each cutting hole will be manually loosened and turned over. The cleared area will be sprayed with specified pre-emergent herbicide.

4.4.2.3 Willow Cutting Installation

Soils will be moist at the time of installation, which may require watering. Cuttings shall be kept moist until planting. This may be accomplished by carrying cuttings in planting bags or buckets, covered with moist vermiculite, sawdust, or similar material, or in water. Cuttings may be pushed into soft ground, or if necessary, to avoid damaging bark, a hole slightly smaller than the diameter of the cutting will be prepared using dibble, star drill, or a similar tool. Cuttings shall not be driven in with hammers. In any event, it is critical that all plantings be firmly tamped down so that no air pockets surround the plants or cuttings. Willow cuttings will be planted to within 2-3 inches of their tops. Cuttings will be planted, on average, on 8.0 foot centers

4.5 Wattles

4.5.1 Products

4.5.1.1 Willow Wattles

A. Wattling bundles shall be prepared from live, shrubby, dormant stems of willow plants as specified in Table R-2 native to and growing in the immediate Russian River region. Material will be collected with a maximum harvest of 50% per plant. No branches over 3 inches in diameter shall be cut.

B. Bundle Size: Wattling bundles may vary in length depending on the average length of branches on the individual plants used for collection. Bundles shall taper at the ends and shall be arranged in a staggered fashion such that total length is 1 to 2 feet longer than the average length of the stems used in the bundle. Butts of stems shall not be more than 1-1/2 inches in diameter. When compressed firmly and tied, each bundle shall be 6 to 10 inches in diameter.

C. Bundle Construction: Stems shall be placed alternately and randomly so that approximately 1/2 the butt ends are at each end of the bundle and the butts are staggered within the bundle. Bundles shall be tied on not more than 15-inch centers with a minimum of 2 wraps of binder's twine or heavier tying materials with a non-slipping knot. Tying may be done with strapping machines or other methods as long as the bundles are compressed tightly.

4.5.1.2 Stakes

Stakes to hold willow wattles in place must be strong and long enough to penetrate to the undisturbed substrate. The minimum sized stake shall be at least 2 by 2 inches at the midpoint. Two by fours (2 x 4's) cut on a diagonal are recommended, resulting in 2 long triangular stakes for each 2 x 4 board used. Live willow stems greater than 1-1/2 inches in diameter may be used for staking.

4.5.2 Execution

4.5.2.1 Timing

A. Unless otherwise approved, cuttings will be collected, prepared and planted in the early winter after dormancy (i.e. when the resting buds are set and vegetative growth has ceased) and as shown in Table R-1.

B. Bundles shall be prepared not more than 2 days in advance of installation except as noted below. If provisions are made for storing under adequate moisture conditions, bundles may be prepared up to 7 days prior to installation. Such storage shall have humidity control to avoid desiccation of plant material.

4.5.2.2 Contour Wattling

A. Location of the rows of wattling shall be staked, on contour, using an Abney or similar type level. The stakes used in installation may be used for layout. Care must be exercised to maintain contour when traversing gullies to avoid diverting more water into these gullies.

B. Vertical spacing of wattling rows shall as shown on Exhibit R-2 and as identified in the field.

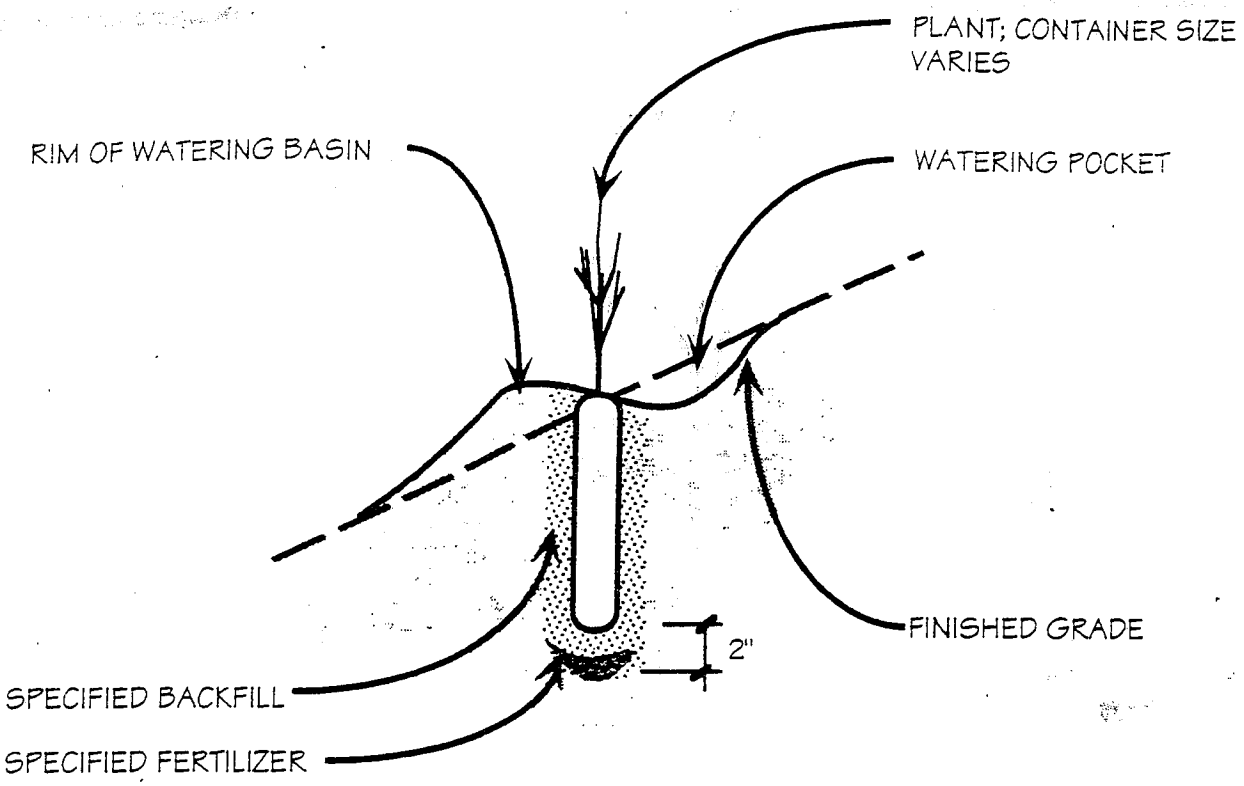
C. Bundles shall be staked firmly in place with 1 row of stakes on the downhill side of the wattling on not more than 3-foot centers. A second row of stakes shall be placed through the bundles at not more than 5-foot centers. Where bundles overlap there shall be 2 stakes to "tie" the bundles together, 1 downhill and 1 through the ends of each bundle and between the last 2 ties of each bundle.

D. Bundles shall be laid in trenches dug approximately 1/2 the bundle diameter, immediately above the bottom row of stakes. Ends of the bundles shall overlap at least 12 inches. The last ties of each bundle shall overlap sufficiently that a stake may be driven between the last 2 ties of each bundle.

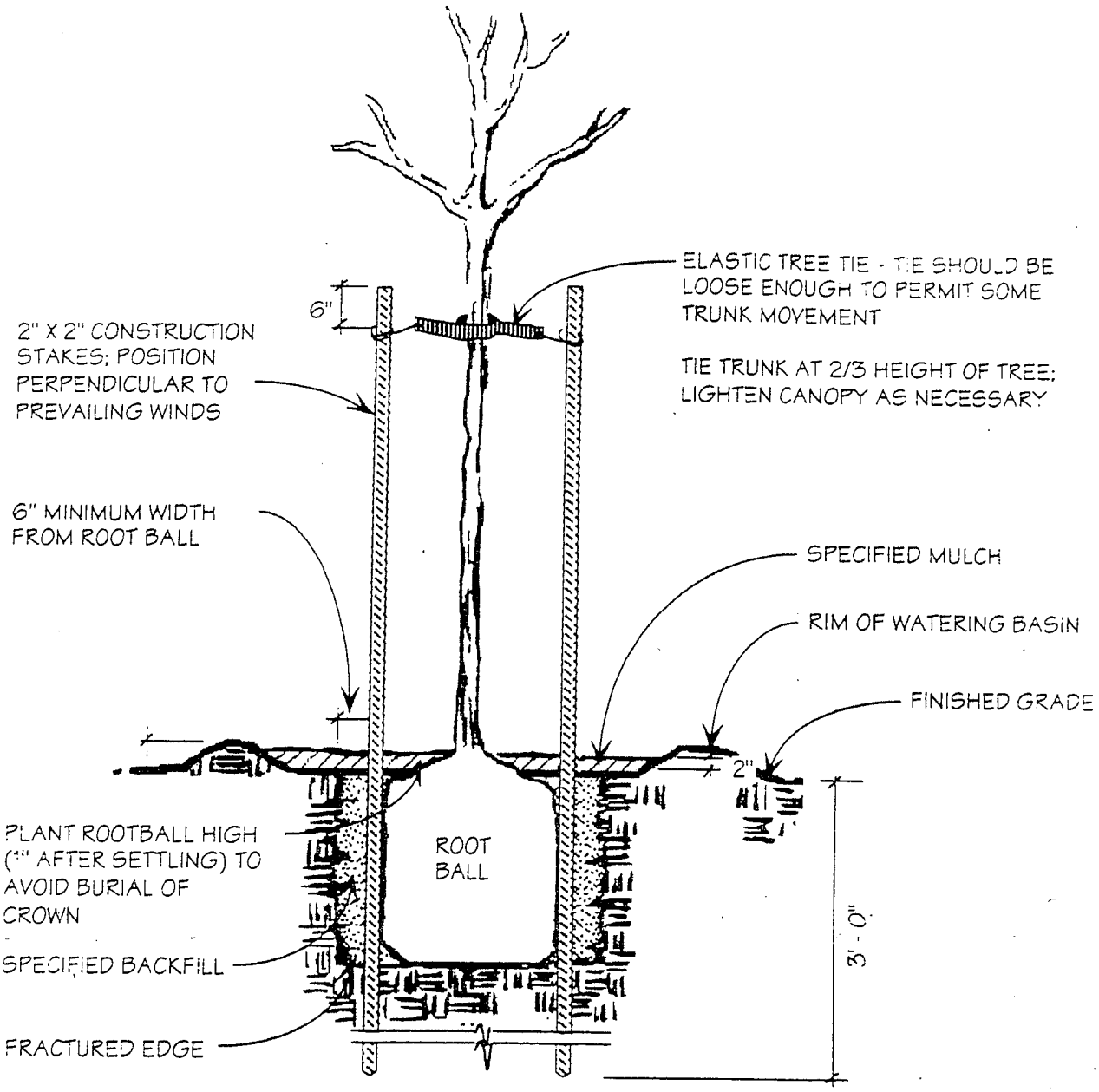
E. Wattling shall be covered with site soils, filling voids within, behind and below the bundles and tamped thoroughly. Water may be used to aid in backfilling. Workers should be encouraged to walk on the covered wattling a other work on the slope is done. Heavy clay materials may need to be pulverized in order to attain suitable backfilling. Successful rooting of the wattling will only be attained if the filling is done properly.

F. Work shall progress from the bottom to the top of the slope. In large areas, work might be underway on 2 or more rows of wattling at 1 time.

G. Exposure of the wattling to sun and wind must be minimized throughout the operation. Trenches shall be dug only as rapidly as placement and covering of the bundles is accomplished to minimize the drying of the brush and the soil removed from the trenches.



DEEP POT PLANTING DETAIL
NO SCALE

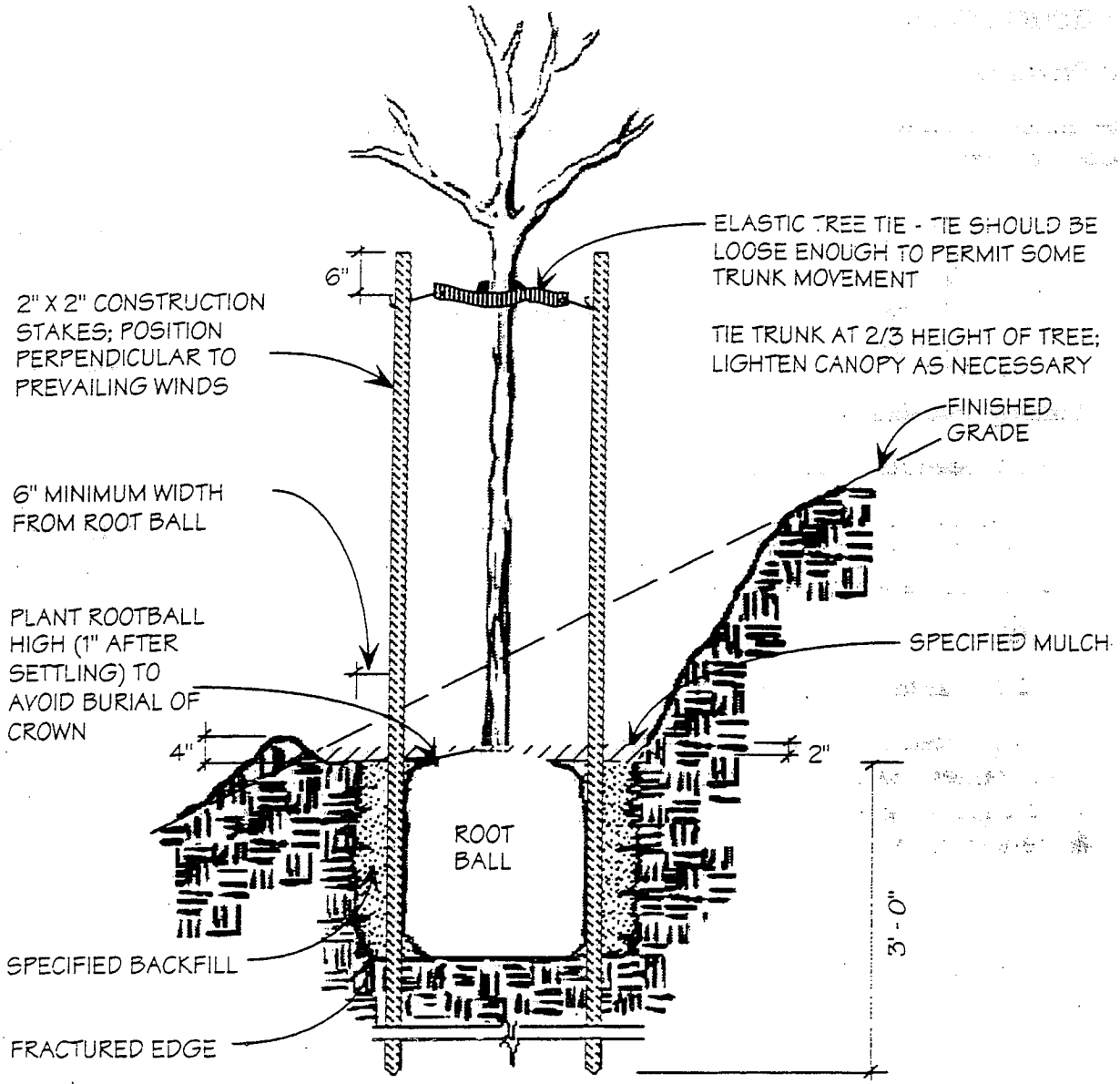


NOTES:

- Excavate for container -grown plants to the following dimensions:
  - Trees = Can + 18" width; Can = depth
  - Shrubs= Can + 12" width; Can = depth
- Stakes to be used only if plant can not stand alone in wind conditions of the site

5 GAL. OAK PLANTING DETAIL ON SHALLOW GRADIENT

NO SCALE



NOTES:

- Excavate for container -grown plants to the following dimensions:
  - Trees = Can + 18" width; Can = depth
  - Shrubs= Can + 12" width; Can = depth
- Stakes to be used only if plant can not stand alone in wind conditions of the site

5 GAL. OAK PLANTING DETAIL ON 2:1 SLOPE
NO SCALE

5.0 IRRIGATION

5.1 Products

The general characteristics of a portable, overhead irrigation system irrigation system to be used include:

- ❑ 2 parallel main lines with 1 located at the top of edge of the slope and roughly along the 60' contour
- ❑ 4" Schedule 40, Brownline pipe
- ❑ brass impact heads triangulated at 60' on center
- ❑ nozzles sized to deliver water no faster than infiltration rate

5.2 Timing and Execution

5.2.1 Seeded Areas (Year 1)

All seeded areas will be immediately irrigated upon installation and as shown in Table R-1. Irrigation shall take place in the early morning hours daily until grasses and forbs are well established and seasonal rains are sufficient to maintain plant vigor.

5.2.2 Planted Areas (Year 2 and beyond)

All planted areas will be watered as necessary during the initial establishment of container plants to supplement seasonal rain patterns. This is typically for a period of 2 growing seasons. Plantings shall be deeply irrigated to promote deep root penetration.

6.0 EROSION CONTROL

6.1 General

Beyond limiting reclamation-related earthwork to the dry summer months and seeding / germinating a ground cover prior to annual rains, no specific erosion control measures are to be employed except on an as-needed, emergency basis. Any or all of the following measures may be used at the discretion of the reclamation planners to control erosion patterns. For emergency erosion control procedures, immediate need and field conditions shall dictate the timing of operations and shall supersede timing as shown in Table

6.2 Products

6.2.1 Silt Fencing

The silt fencing material shall consist of 3-foot height polypropylene fabric with an apparent opening size (AOS) of 20 to 30 (U.S. Standard Sieve) with a tensile strength of at least 100 lbs.

6.2.2 Hay Bales

Bales of hay for emergency erosion control will be wheat or rice straw. All bales will be free of noxious weed seed, mold, and deleterious materials. Owner will furnish evidence that clearance has been obtained from the County Agricultural Commissioner if straw is obtained from outside Sonoma County.

6.2.3 Willow Wattles

See section 4.5.1.1 for willow wattle specification.

6.3 Execution

6.3.1 Silt Fencing and Temporary Sediment Control

The silt fencing should be supported with stakes driven into the ground a minimum of 1 foot, placed a maximum of 8 feet on center. The bottom of the material shall be keyed into a 4-inch trench, then backfilled and compacted.

6.3.2 Hay Bales Emergency Erosion Control

1/2 ton of straw bales per acre of disturbed by reclamation activities, to be used for emergency erosion control as necessary, will be kept on site and protected from rain.

6.3.3 Contour Wattling

See section 4.5.2.3 for contour wattling installation procedures.

7.0 MONITORING PLAN AND SUCCESS CRITERIA

7.1 Overview

Monitoring will be used to assess progress toward the reclamation goals. The overall objectives of this monitoring are to document and evaluate the establishment of habitat over time and to identify problems (if any) and recommend corrective measures so that the success criteria are met. The success criteria outlined in the next section will be used to assess progress toward the specific goals and objectives of this plan. If monitoring determines the objectives are not being fulfilled, corrective actions will be taken. The monitoring program described herein will be funded by Kaiser Sand and Gravel Company. The monitoring will be conducted by a qualified biologist familiar with the area flora and fauna.

Quantitative data considered for each plant association include:

- ❑ tree species composition
- ❑ plant species present
- ❑ tree canopy width
- ❑ plant density
- ❑ percent cover

7.2 Warranty Periods and Replacements

A. Any delay in completion of planting operations that extends the planting into more than 1 planting season will extend the monitoring period correspondingly.

B. Annually during the planting periods shown in Table R-1, Owner will replace all dead plants, and all other plants not in a vigorous, thriving condition, based on stated target goals of the monitoring program.

7.3 Pre-Monitoring Review

A. At the completion of all grading, planting, irrigation, and erosion and sediment control work and before the beginning of the formal Monitoring Period, a review will be performed with Sonoma County and the CDF&G or a mutually agreed upon third party biologist.

B. The review will be requested in writing by the Owner 10 days before the completion of initial planting work in order that a mutually agreeable time for review may be arranged.

C. At the time of pre-monitoring review, all planting areas will be free of weeds and neatly cultivated. All plant basins will be in good repair.

D. If, after the review, Sonoma County is of the opinion that all work has not been performed as per the Drawings and Specifications, written notice shall be provided to Kaiser Sand and Gravel within a period of 10 working days.

E. Work requiring corrective action in the judgment of Sonoma County at the time of t' pre-monitoring review will be performed in a timely manner after receipt of written notification summarizing such work.

7.4 Schedule

Monitoring of vegetation, irrigation, and erosion control measures will be conducted weekly for the first 4 weeks following planting. Monitoring will continue on an annual basis for the first 5 years; and will be conducted every other year thereafter to year 15. Monitoring visits will also be conducted after major storm and/or flooding events.

7.5 Sampling Methods

7.5.1 Vegetation

The rationale for vegetation sampling is based on judgment as to what would yield a reasonable representation of vegetation in each of the restored habitats.

2 permanent 100-square-meter (10 meters x 10 meters) quadrats will be established within each plant association. Within each quadrat the following data will be recorded:

- ❑ species observed,
- ❑ percent cover,
- ❑ presence of non-native, invasive species.

The line intercept method will be used to determine the percent cover within the habitat types. Vegetation cover estimates will be obtained from a tape placed to contact plants. The tape will be stretched taut at a height to contact vegetation canopy. The length of the plant part contacting the tape will be measured. The length of the line and total length intercepted by vegetation will be used to estimate percent cover. This method will also be used to estimate species composition.

The location of the line within each quadrat will be permanently marked by steel stakes so that monitoring can occur over a long period of time. 2 transects will be located within each of the restored habitats. The specific locale of each transect will be determined in the field once implementation has been completed.

Photographs will be taken at permanently established photo points to document establishment over time. Photo point locations will be determined in the field once implementation is complete to assure the most complete coverage of all site aspects. The photo points will serve as verification of the data collected.

7.6 Qualitative Evaluation Methods

7.6.1 Freshwater Marsh (natural succession)

After 2 years, a qualitative assessment will be made in cooperation with the County and the CDF&G or a mutually agreed upon third party biologist to determine the presence of freshwater marsh plants in areas indicated on plans to occur by natural succession. In recognition of the fact that annual water fluctuations may affect the area distribution, monitoring criteria are limited to the presence (not acreage) of *Scirpus spp.* and/or *Typha spp.*, the dominant freshwater marsh species as described by Holland (see Section 3.1.3), and other species as may be deemed appropriate by a

qualified biologist.

In the event that no freshwater marsh species are present, an assessment will be made of possible causes, and corrective action will be identified and implemented.

7.6.2 Cottonwood / Willow Riparian Forest (natural succession)

After 2 years, a qualitative assessment will be made in cooperation with Sonoma County and the CDF&G or a mutually agreed upon third party biologist to determine the presence of cottonwood and willow seedlings in areas indicated on plans to occur by natural succession. In recognition of the fact that annual water fluctuations and seasonal rainfall may affect the area distribution, monitoring criteria are limited to the presence and approximate coverage (not acreage) of *Populus fremontii* ssp. *fremontii* and *Salix spp.*, and other species as may be deemed appropriate by a qualified biologist. (see Section 5.6.1)

In the event that no riparian species are present, an assessment will be made of possible causes, and corrective action will be identified and implemented if deemed necessary by the County and the Applicant.

7.7 Vegetation Success Criteria

7.7.1 Species Composition

❑ **Cottonwood/Willow Riparian Forest (by natural succession)**

- Year 1 - 1 to 3 native volunteer species colonizing. Woody species composition will be from the mix of species identified in Table 2 for this plant association.
- Year 5 - woody species composition will be 2 to 3 native volunteer species which will naturally colonize as the habitats develop.
- Year 10 - woody species composition will be the mix of species 3 to 5 native volunteer species which will naturally colonize as the habitats develop.
- Year 15 - woody species composition will be the mix of 5 to 8 native volunteer species which will naturally colonize as the habitats develop.

❑ **Cottonwood/Willow Riparian Forest and Mixed Riparian Forest (planted areas)**

- Year 5 - presence of all species identified in Table R-2.

❑ **Mixed Evergreen Forest**

- Year 5 - presence of all species identified in Table R-2.

❑ **Oak Savannah**

- Year 1 through 15 - 3 tree species per acre: *Quercus agrifolia; Q. kelloggii; Q. lobata.*

7.7.2 Percent Cover

❑ Cottonwood / Willow Riparian Forest: target goal (year 15): 90 - 100%

- ❑ Mixed Riparian Forest: target goal (year 15): 80 - 100%
- ❑ Mixed Evergreen Forest: target goal (year 15): 90 - 100%
- ❑ Oak Savannah: the target goal for this community is approximately 10% cover (this is based on the assumption that at least 10 trees per acre with approximately 20' X 20' canopies and numerous small trees will have established by year 15).

7.7.3 Non-native Invasive Species

Selective weeding of non-native, invasive species will be conducted periodically, as necessary, to reduce competition with and to ensure the establishment of desired vegetation for the duration of the monitoring period.

7.8 Monitoring Reports

Reports summarizing the monitoring results will be prepared in standard scientific format. All data sheets and photographs will be included as appendices in the reports. A preliminary report will be prepared to describe baseline conditions following implementation. Thereafter, reports will be prepared annually for 5 years and submitted by December 31 of each year. Reports will be submitted to the County of Sonoma Planning Department and the CDF&G or a mutually agreed upon third party biologist. Should the results of monitoring show a substantial variance from the success criteria outlined below, the County and Owner will determine an appropriate course of action, which could include taking no action, based on the results that observations have shown up to that time.

8.0 REFERENCE STANDARDS / RESEARCH SOURCES

A. *The Jepson Manual: Higher Plants of California.* Hickman, James C., editor, University of California Press, Berkeley & Los Angeles, California, 1993.

B. *Preliminary Description of Terrestrial Natural Communities of California.* Holland, Department of Fish and Game, State of California, 1986.

C. *Piombo Reclamation Plan: Grading, Planting, and Erosion & Sediment Control Plans.* Zitney & Associates, Western Ecological Services, 2M Associates; prepared for Kaiser Sand & Gravel Co., Pleasanton, California, Oct. 1992.

D. *Fugro West, Inc.* Proposal for Revised Riparian Habitat Revegetation Plan for Lake Piombo, Nov. 28, 1994.

E. *S&S Guidelines for Seed Specifications.* S&S Seeds, Carpinteria, California, 1992.

F. *Selected California Native Plants with Commercial Sources.* Saratoga Horticultural Foundation, Saratoga, California, Third Edition.

G. *California Native Trees & Shrubs.* Lenz, Lee & John Dourley, Rancho Santa Ana Botanic Garden, Claremont, California, 1981.

9.0 LIST OF PREPARERS

This plan was prepared by the following firms and individuals:

- **Zitney & Associates**

Greg Zitney	Environmental Planner / Wildlife Biologist

- **2M Associates**

Patrick T. Miller	Landscape Architect Ca. Lic. # 1842
Jane E. Miller	Horticulturist

- **Fugro West**

Richard Nichols	Botanist

- **Dr. Andrew L. Leiser** — Professor Emeritus, Environmental Horticulture University of California, Davis

Appendix B

Statement of Reclamation Responsibility

KAISER
SAND & GRAVEL COMPANY

P O BOX 145 • WINDSOR, CALIFORNIA 95492 • TEL (707) 579-3764

January 18, 1995

The undersigned represents that Kaiser Sand & Gravel Company accepts responsibility for the reclamation of the previously mined lands referred to in this application.

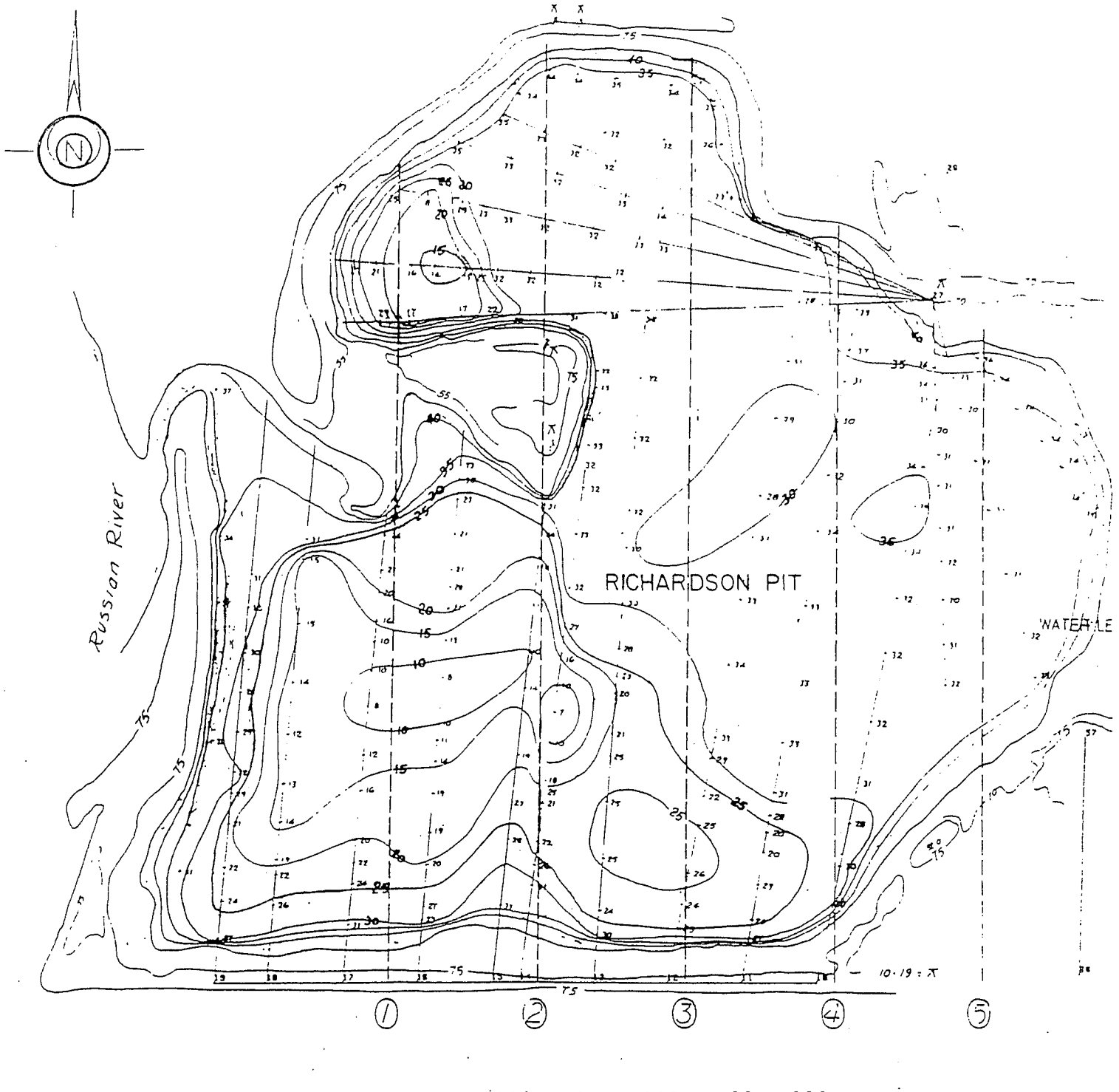
These lands are more specifically designated as: Assessor Parcel Numbers 110-21-10, 110-21-11, 66-23-69, 66-23-79, 66-23-47, 66-23-80, 66-29-01 and 66-30-49.

Signed: _____
J. P. Elsberry, Vice President
Operations

Appendix C

Indemnification Agreement

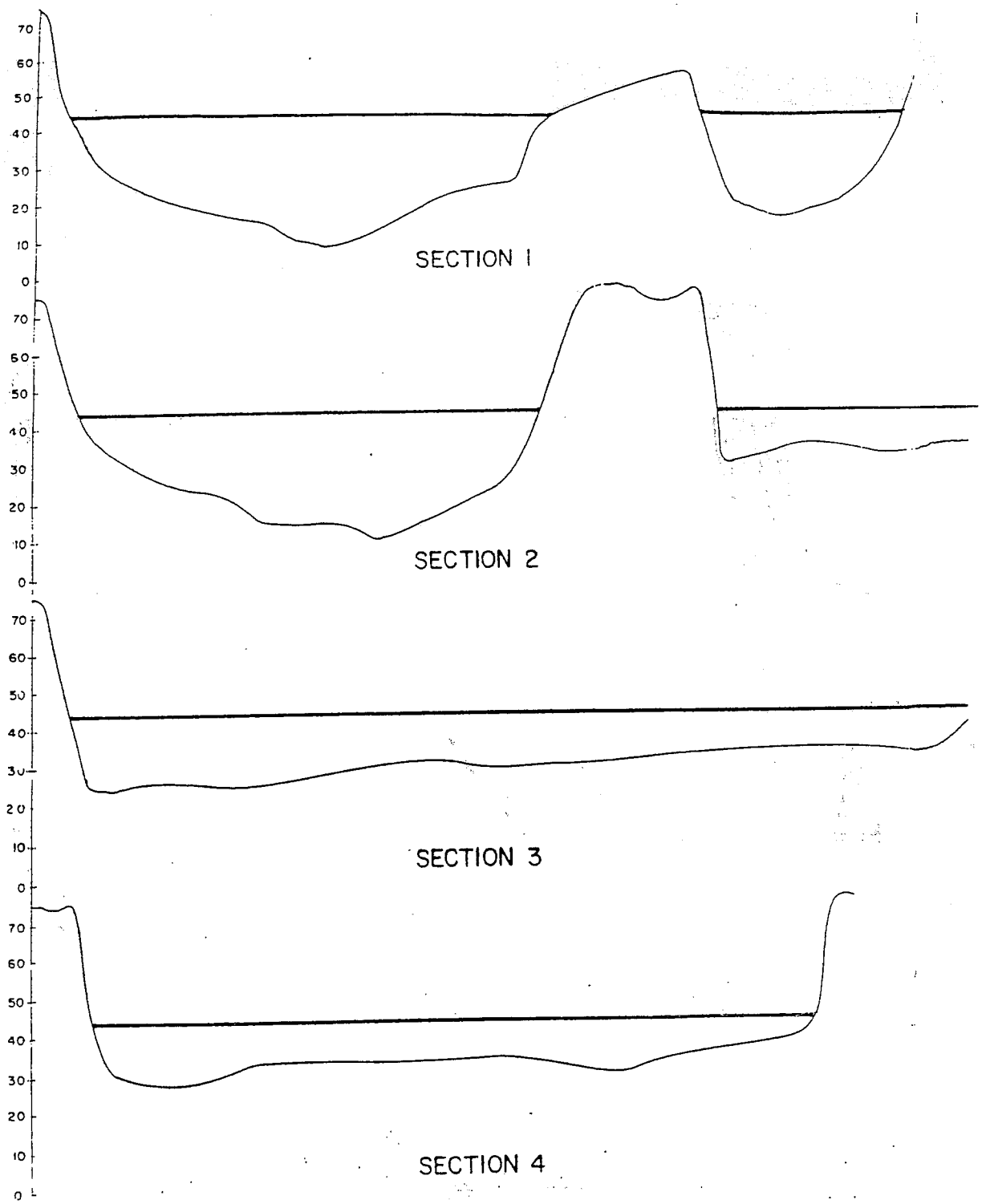
Appendix E.



X = Instrument setup or control pt

Shoreline & contours above are based on

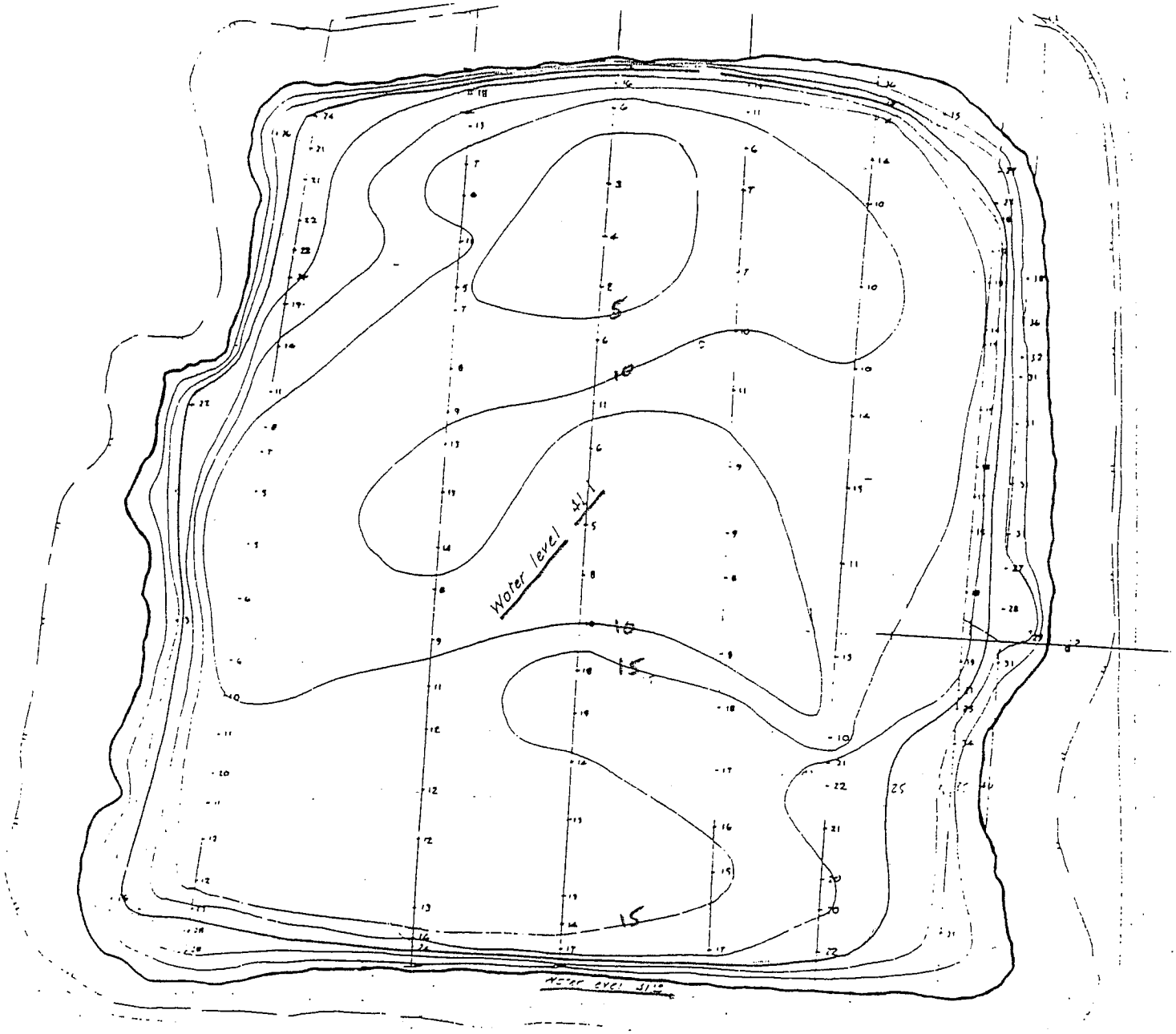
RICHARDSON Pit



RICHARDSON PIT

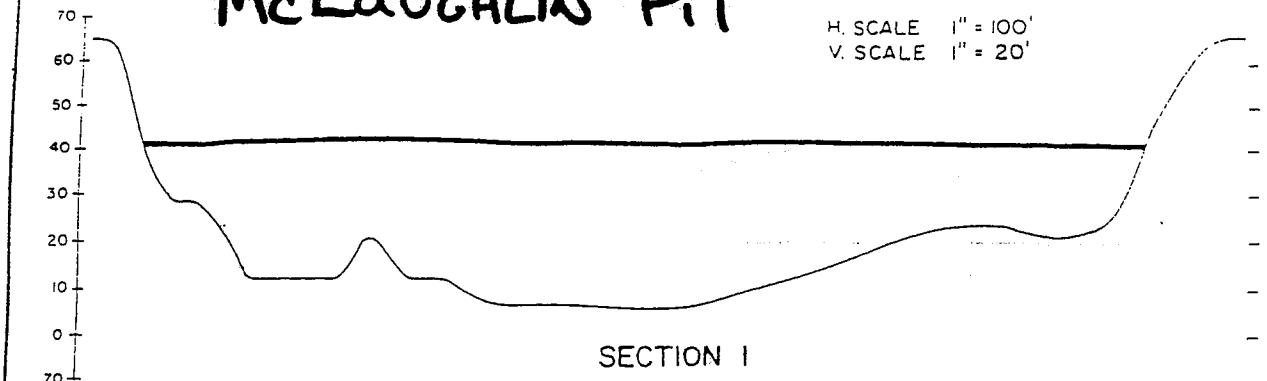
McLaughlin Pit

North

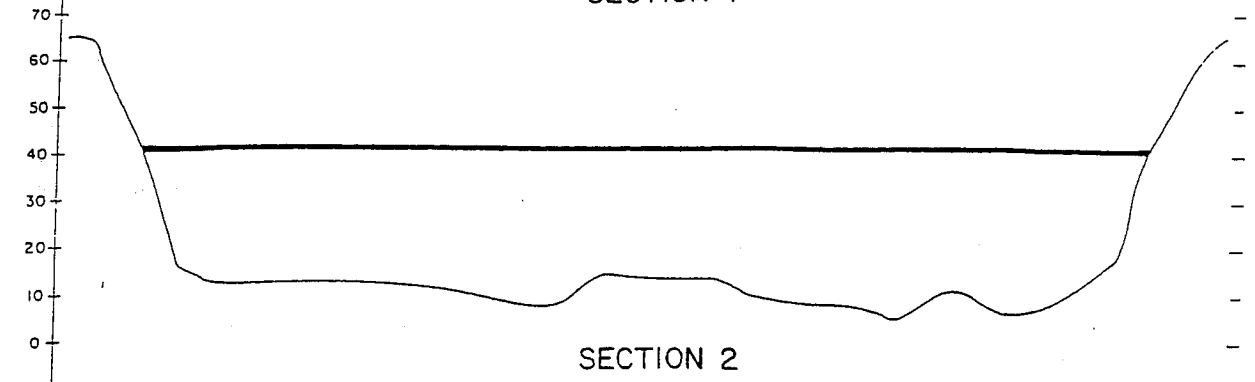


McLAUGHLIN PIT

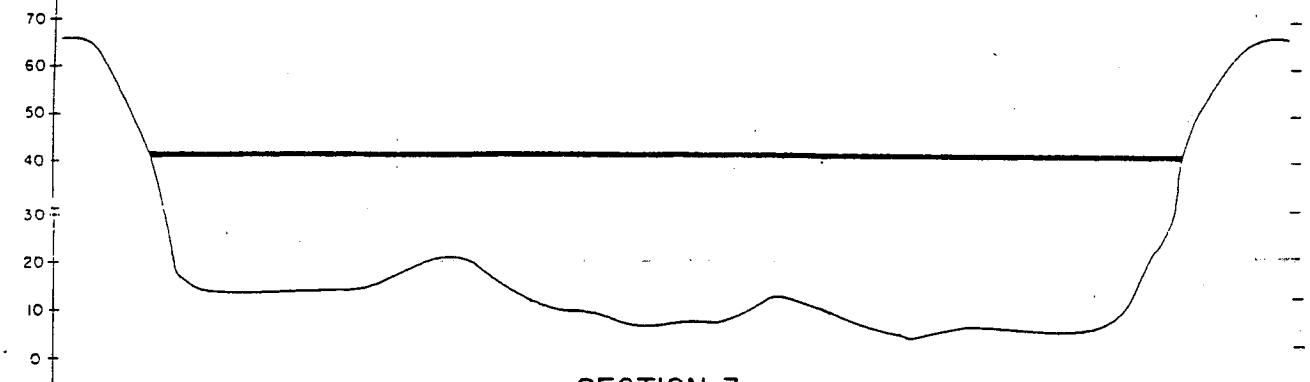
H. SCALE 1" = 100'
V. SCALE 1" = 20'



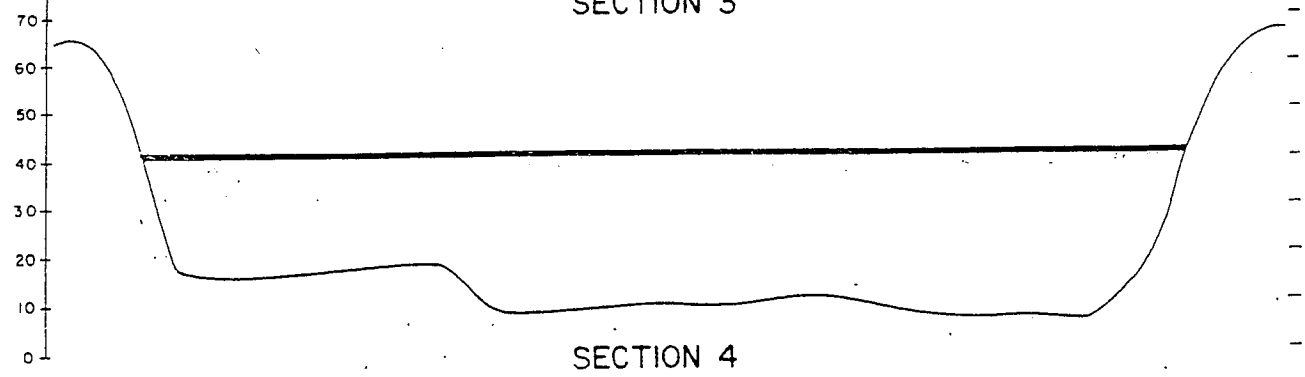
SECTION 1



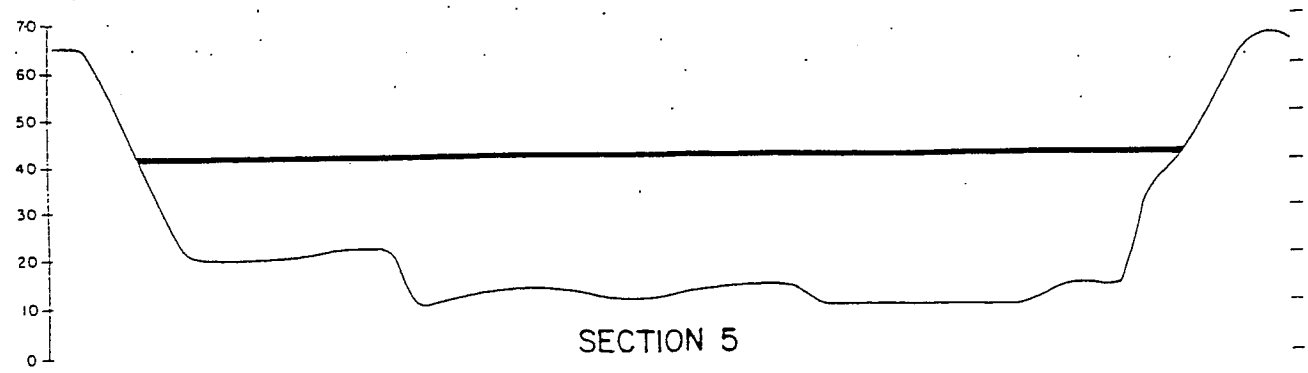
SECTION 2



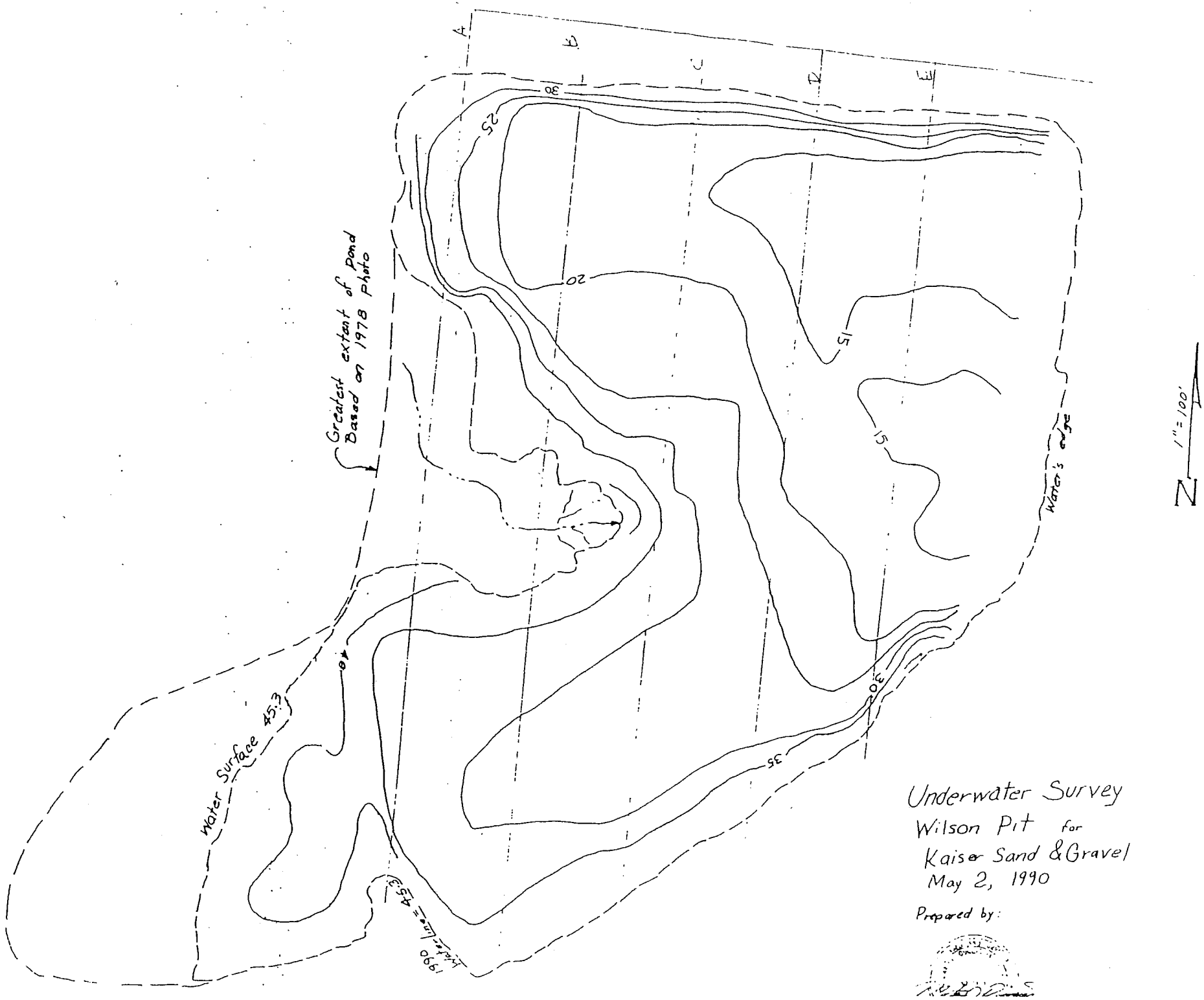
SECTION 3



SECTION 4



SECTION 5



Underwater Survey
Wilson Pit for
Kaiser Sand & Gravel
May 2, 1990

Prepared by:

Appendix F

Transmittal

November 8, 1995

To: Ken Ellison, Sonoma County

From: Greg Zitney, Zitney & Associates
Patrick Miller, 2M Associates

cc: Dennis Ripple, Kaiser Sand and Gravel

Re: Earthwork Budget
Windsor Lakes Master Reclamation Plan
Windsor, California

The following summary report identifies an approximate "earthwork budget" associated with recontouring the following Kaiser Sand and Gravel Company parcels:

SOUTH PARCELS

- McLaughlin
- Wilson
- Benoist

NORTH PARCELS

- Richardson-Argonaut

Also provided in the appendixes are maps and sections used to calculate the earthwork budget.

This earthwork budget may be used in establishing bonding requirements for the related reclamation activities.

RECEIVED
NOV 20 1995
PERMIT AND RESOURCE MANAGEMENT DEPARTMENT
COUNTY OF SONOMA

EARTHWORK BUDGET
Windsor Lakes Master Reclamation Plan

PURPOSE: This report summarizes the estimated "earthwork budget" for reclaiming the following Kaiser Sand and Gravel properties:

SOUTH PARCELS
- McLaughlin
- Wilson
- Benoist

NORTH PARCELS
- Richardson-Argonaut

This budget is provided pursuant to Sonoma County permit requirements for the Windsor Lakes Master Reclamation Plan.

SUMMARY OF EARTHWORK ACTIVITIES – SOUTH PARCELS: Shoreline gradients will generally be brought to a slope not to exceed 2:1 except where mature Willow-Cottonwood Forest associations exist along any particular lake shoreline. In such instances, existing grades will be maintained. Where excess overburden materials exist along the shorelines of Lake McLaughlin and Lake Wilson, materials will typically be deposited into the adjacent lake.

- **Lake McLaughlin (see Sheet 1):** The east, south, and west margins will be modified to obtain a 3:1 gradient where possible. In instances where regrading slopes would jeopardize existing, mature riparian vegetation, no recoutouring would take place. Because of the maturity of existing vegetation, no modifications are proposed along the lake's north shoreline.

- **Plant Site (see Sheet 1):** Existing stockpiled materials and all sand and gravel processing equipment and facilties will be removed. Existing steep slopes on the west side of the plant site will be backfilled and recontoured to a 3:1 gradient. Approximately 6" of fill will be spread over and disked into the existing compacted soils of the plant site prior to reseeding the area with native grasses. Existing stockpiled overburden located along the western side of Lake Wilson and materials generated by sloping back the west side of Lake McLaughlin will be used to accomplish the plant site reclamation.

- **Lake Wilson (see Sheet 2):** The north shoreline along the entrance road will be recontoured to lower the existing berm and create a 3:1 gradient. The remainder of the lake's east shoreline will be generally graded to a 3:1

slope except where mature Willow-Cottonwood Forest associations exist. Existing overburden located on the west end of the lake will be re-configured into a series of rounded hills with side slopes not to be steeper than a 3:1 gradient. Additionally, overburden materials from the west side of the lake will be used to: create a levee with 2:1 side slopes along the southern portion of Lake Benoist; provide 1' of fill along the side slopes of Lake Benoist; and provide 6" of fill over the plant site. Any excess material from the stockpile not needed for fill elsewhere will be deposited into Lake Wilson at one of two points shown on Sheet 2 to create underwater benches that encourage the expansion of freshwater marsh habitat.

- **Lake Benoist (see Sheet 3):** The existing slopes around the lake vary from a 2:1 gradient to a 1:1 gradient and consist predominantly of exposed gravel with little top soil. All gradients will be brought to slopes not steeper than 2:1. Approximately 1' of overburden from existing stockpiles at Lake Wilson will be spread over the slopes. A 15' access road along an easement that extends along the southern half of the eastern side of the lake will be accommodated. An earthen levee with 2:1 side slopes will be constructed at the southwestern end of the lake.

SUMMARY OF EARTHWORK ACTIVITIES -- NORTH PARCELS

- **Lake Richardson-Argonaut (see Sheet 4):** The majority of the lake's north, east and south shorelines will be graded back to create slopes not steeper than 2:1 except where steeper slopes must remain to protect existing riparian vegetation. A bench located roughly at the mid-point of the slopes will be created. Where the pattern of existing riparian vegetation does not allow excess materials to be deposited immediately into the lake, materials will be deposited into the lake a point shown on Sheet 4 to create underwater benches that encourage the expansion of freshwater marsh habitat. Additionally, an open area in the northeast of the property will be filled to enhance its potential for agriculture.

  Along the west side of the lake, where the existing haul road is near the lake's summer water elevation, the eastern half of the road will be ripped to create a bench for the natural succession of riparian vegetation. The remainder of the road will be raised slightly to provide ongoing maintenance access. An existing overburden stockpile also located along the west side of the lake will be lowered and recontoured to create 3:1 side slopes.

EARTHWORK BUDGET: Table 1 summarizes estimates of "cut" and "fill" associated with the various grading activities. The table is keyed to Sheets 1, 2, 3, and 4 which illustrate general grading patterns and sections along individual shorelines. For the South parcels, benchmark sections shown in black on Sheets 1, 2, and 3 indicate typical locations where significant re-contouring of the existing slopes will be necessary. Benchmarks shown in gray represent either areas where no or little grading activity is anticipated, where the grading that would take place involves simply placing a layer of overburden over existing slopes, or where the shoreline is constant and a typical representative section (shown in black) was used for calculation purposes.

Windsor Lakes Master Reclamation Plan
Earthwork Budget

2M Associates
11/6/95

SOUTH PARCELS	CUT cu. yds.	FILL cu. yds.	TOTAL cu. yds.
Lake McLaughlin			
North Shoreline	0	0	
East Shoreline	1,968	1,010	
Entrance Road	9,420	0	
West Shoreline	11,588	0	
Sub-total Lake McLaughlin	22,977	1,010	(21,967)
Lake Wilson			
Redwood Grove Access (East Shoreline)	6,342	0	
East Shoreline	3,371	3,844	
West Shoreline	134,554	58,255	
Sub-total Lake Wilson	144,267	62,100	(82,167)
Lake Benoist			
East Shoreline	1,632	11,394	
Northwest Shoreline	5,458	1,943	
South Shoreline	0	11,396	
Overall	0	24,122	
Sub-total Lake Benoist	7,089	48,855	41,766
Plant Site	0	43,634	43,634
	174,333	155,599	(18,734)
NORTH PARCELS			
Lake Richardson Argonaut			
East Shoreline	12,694	0	
North/West Shoreline	50,976	0	
West Shoreline	0	956	
South Shoreline	24,863	2,773	
Sub-total Lake Richardson Argonaut	88,533	3,729	(84,804)

File
U.P. 95-089

Application for Approval of a Master Reclamation Plan for the Benoist, Wilson, McLaughlin, and Richardson/Argonaut Terrace Gravel Pits

Submitted to:

County of Sonoma

Applicant:

Kaiser Sand and Gravel Company
P.O. Box 145
Windsor, CA 95492

January 1995

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Parcel Map and Acreages	5
Proposal Statement	6
LOCATION	6
GEOLOGY	6
DESCRIPTION OF PRESENT AND PROPOSED USE OF PROPERTY	6
RECLAMATION PLAN	6
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Ultimate Site Condition	6
Physical Condition	6
Possible Future Uses	6
Reclamation Methodology and Sequence	6
Stabilization of Slopes	6
Future Mining Potential	7

Exhibits

1. Richardson/Argonaut Property: Existing Conditions
   Benoist, Wilson, McLaughlin Properties: Existing Conditions
R-1. Richardson/Argonaut Property: Reclamation Plan — Grading
   Benoist, Wilson, McLaughlin Properties: Reclamation Plan — Grading
R-2. Richardson/Argonaut Property: Reclamation Plan — Sections
   Benoist, Wilson, McLaughlin Properties: Reclamation Plan — Sections
R-3. Richardson/Argonaut Property: Reclamation Plan — Vegetation
   Benoist, Wilson, McLaughlin Properties: Reclamation Plan — Vegetation

Appendices

A. Reclamation Plans: Grading, Planting, and Erosion & Sediment Control Plans
   I. Summary of SMARA Requirements
   II. Plans and Specifications
B. Statement of Reclamation Responsibility
C. Indemnification Agreement
D. Assessors Parcel Maps
E. Underwater Profile's of Terrace Pits
F. EarthWork Budget
G. Murray, Burns and Kienlen Memo on Benoist Option 3 costs.
H. Murray, Burns and Kienlen letter to Laurel Marcus on 1995 Flood event.
I. Report on Russian River Potential Pit Capture Middle Reach by Murray, Burns and Kienlen, dated December 1995 and Revised May 1996.
J. Geotechnical Evaluation Slope Stability Analyses Kaiser Sand and Gravel Property Windsor California by RGH Geotechnical and Environmental Consultan

INTRODUCTION

This package contains the information needed to support an application to the County of Sonoma for approval of a master reclamation plan for the previously mined Benoist, Wilson, McLaughlin, and Richardson/Argonaut terrace parcels owned by Kaiser Sand and Gravel Company. In its entirety, including the proposal statement, exhibits, and appendices, the package also contains all of the information required by the Surface Mining and Reclamation Act (SMARA) for review and approval of the reclamation plan.

PLANNING APPLICATION SMR 95-089

File #: [redacted] Date Filed: 2/17/95
Accepted By: FE

TYPE OF APPLICATION REQUESTED:

___Appeal of Ord. Interp.	___Design Review Residential	___Major Subdivision	___Use Permit
___Cert. of Compliance	___Design Review Signs	___Minor Subdivision	___Variance
___Cert. of Modification	___General Plan Amendment	___Mobile Home Permit	___Zone Change
___Coastal Permit	___General Plan Appeal	___Parcel Status Determination	X Other
___Coastal Permit/Use Permit	___Lot Line Adjustment	___Second Unit Permit	Reclamation Plan
___Design Review Comm./Ind.	___Major Sub. Extension	___Specific Plan Amendment	

APPLICANT OR AGENT:
Name: Kaiser Sand and Gravel Co.
Mailing Address: PO Box 145
City/Town: Windsor
State/Zip: CA 95492
Phone: (707) 579-9955
Signature: Dennis A. Rippie
Date: January 18, 1995

OWNER, IF OTHER THAN APPLICANT
Name:
Mailing Address:
City/Town:
State/Zip:
Phone:
Signature:
Date:

OTHER PERSONS TO BE NOTIFIED: Include Agents, Lenders, parties to Deed of Trusts, Etc.

Name:	Name:	Name:
Address:	Address:	Address:
City: Zip:	City: Zip:	City: Zip:
Title: Phone:	Title: Phone:	Title: Phone:

PROJECT INFORMATION:
Address: Eastside Rd. City/Town: Healdsburg Zip: 95448
Assessor's Parcel Number(s): See attached parcel map & acreages Acreage: 506.97 total
Project Description: Reclamation master plan for previously mined terrace gravel pits owned by Kaiser (Benoist, Wilson, McLaughlin, and Richardson/Argonaut pits)

Site Served by Public Water? (Y/N): No
Site Served By Public Sewer? (Y/N): No
Number of New Lots Proposed: NA

COMMERCIAL/INDUSTRIAL USES: (Enter Numbers where applicable)
Bldg.Sq.Ft. Proposed: Existing Employees: 12 New Employees Proposed: 0

RESIDENTIAL USES: (Enter Numbers where applicable)
New Single Family Homes: New Multi-Family Units: New Second Units:
New Mobile Homes: New Units For Sale: For Rent: Density Bonus Units:

==========DO NOT WRITE BELOW THIS LINE==========
Staff Planner: Planning Area: 3 Supervisorial District: 4
Current Zoning: multiple lots General Plan Land Use: Multiple lots
Specific Plan Title: [redacted] ARM S.P. Land Use: NA Needs CEQA Review: YES
1975 Rolls Checked: ✓ Previous Files: multiple

USE PERMIT - SUPPLEMENTAL APPLICATION INFORMATION

EXISTING SITE CHARACTERISTICS:

Existing use of property: Previously mined pits Acreage: 506.97 total

Proximity to creeks, waterways and impoundment areas: Near Russian R and other pits

Vegetation on site: Redwood, oak, riparian, ruderal, agricultural

General topography: Flat with some slopes near river and around lakes.

Surrounding uses to North: Terrace mining South: Forest habitat

East: Agricultural/logging West: Russian River

New buildings proposed (size, height, type): None

Number of Employees (total): 12

Operating days: Monday - Saturday Hours of operation: 6am-10:30 pm M-F
6am-4:30 pm Sat

Expected traffic (amount, type): NA

Water source: Private well Sewage disposal: Portable chemical toilets

Noise Generated: by scrapers/dozers for grading work

Grading Required - Cut Max.: _____ Fill Max.: _____

See reclamation plan Fill Area: _____ Approx. total yds.: _____

Vegetation to be removed: None

Will proposal require annexation to a district in order to obtain public services? yes ____ no X

Are there currently any hazardous materials (chemicals, oils, gasoline) etc. stored, used, or processed on this site? yes _____ no X

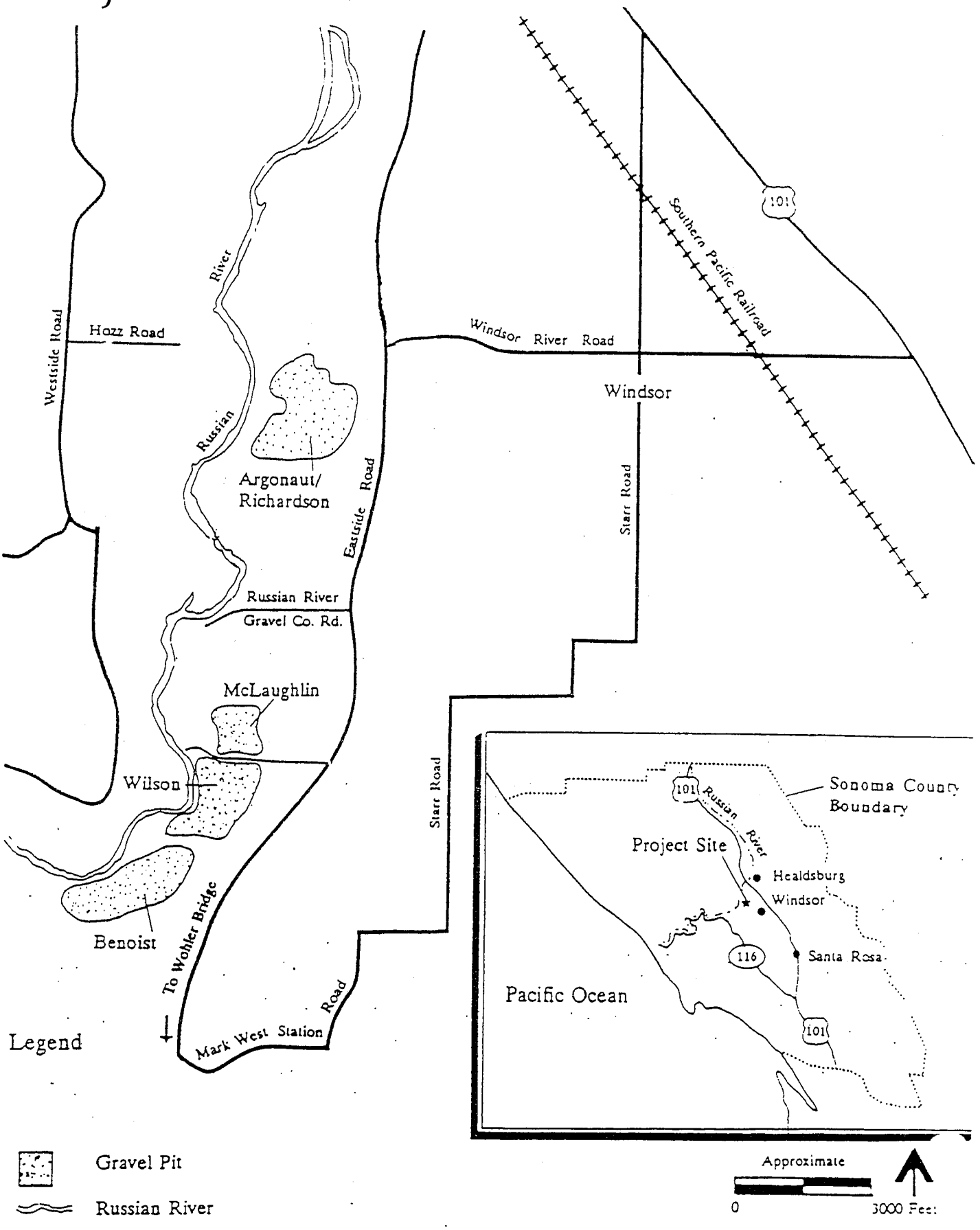
Were there any hazardous materials used, stored, or processed on this site anytime in the past? yes _____ no X

Will the use, storage, or processing of hazardous materials occur on this site in the future if this project is authorized? yes _____ no X

ENVIRONMENTAL STATUS: Reclamation plan proposes establishment of high value wildlife habitat.

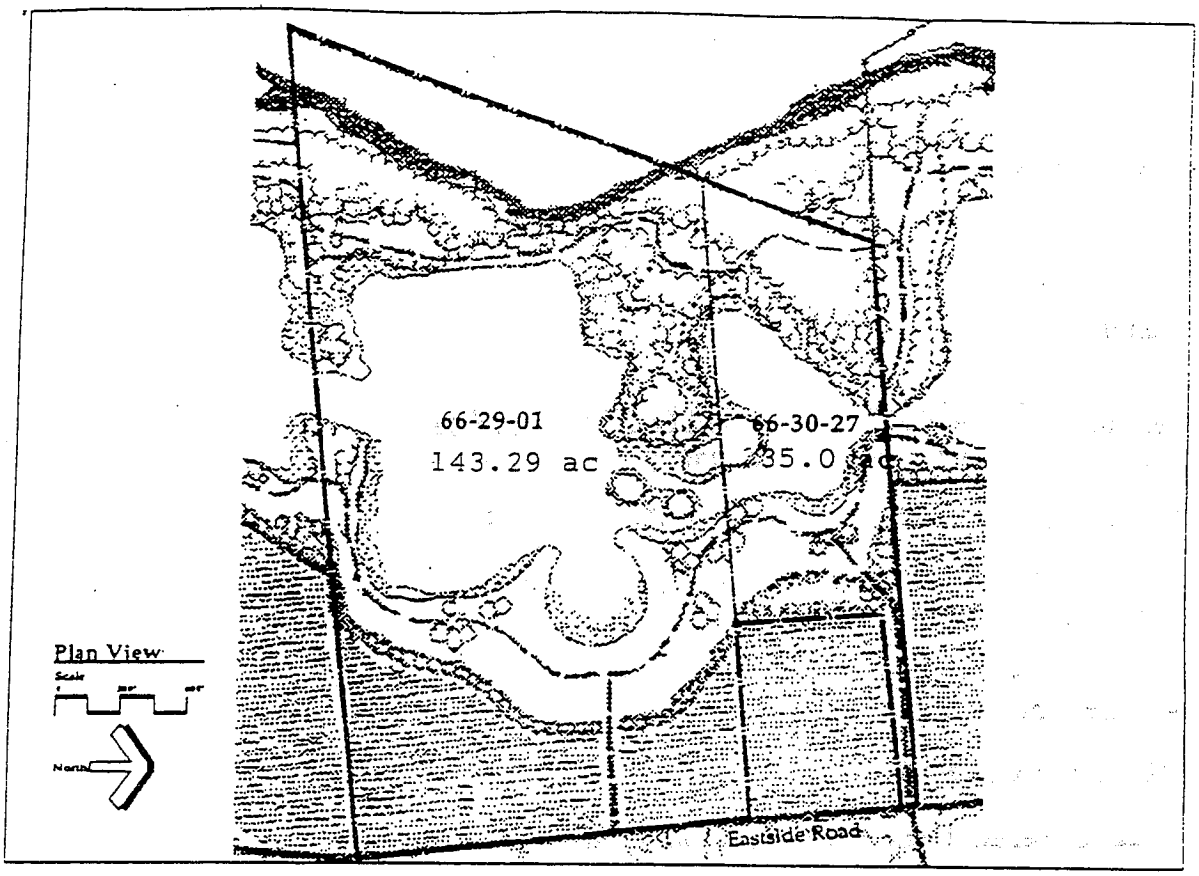
ADDITIONAL INFORMATION: _____

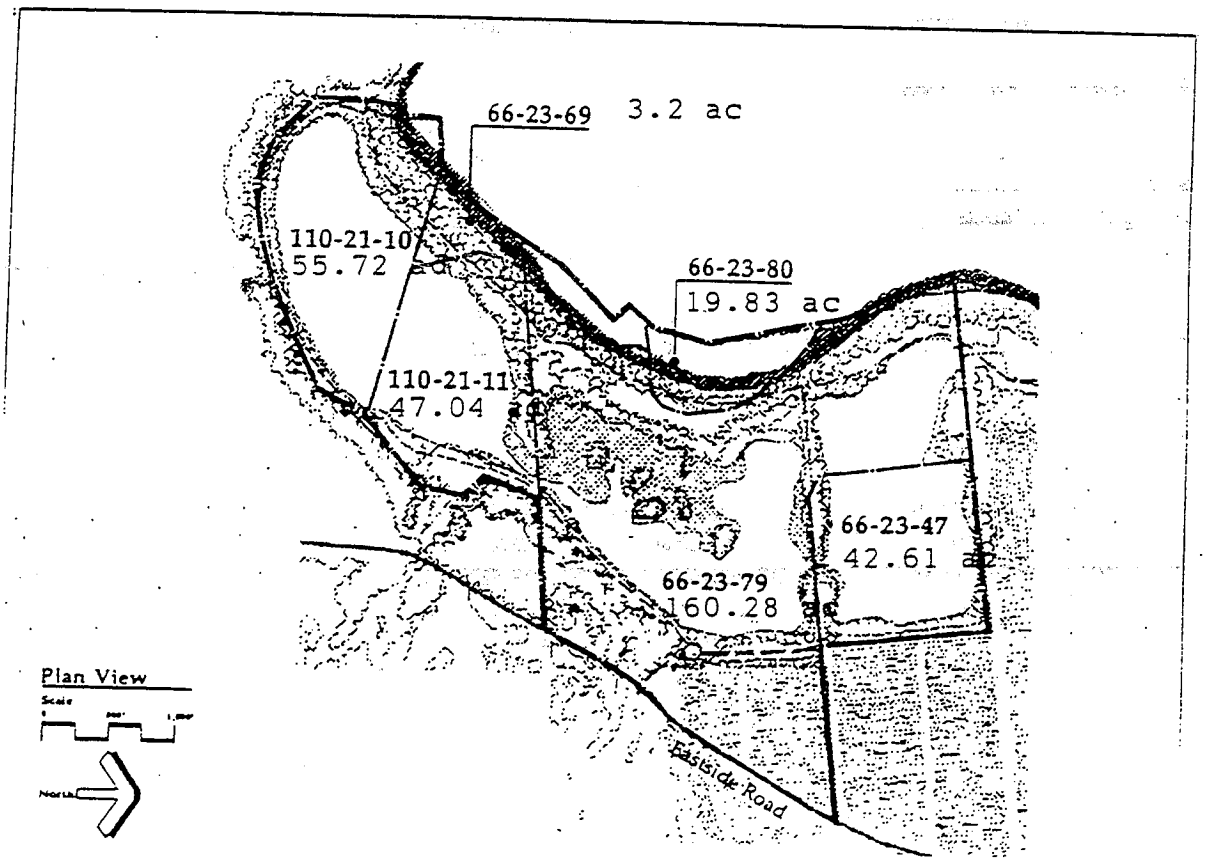
Project Location



Source: Sonoma County, 1992; 1981.

PARCEL MAP AND ACREAGES





PROPOSAL STATEMENT

LOCATION

Parcels are located between the Russian River on the west and Eastside Road on the east. Healdsburg, CA 95448.

GEOLOGY

The parcels consist of previously mined gravel pits which formerly contained recent alluvial deposits on the river terraces of the Middle Reach of the Russian River. The deposits included sand, silt, clay, and gravel of sedimentary and igneous origin.

DESCRIPTION OF PRESENT AND PROPOSED USE OF PROPERTY

Refer to Exhibit 1 for a graphic depiction of existing site conditions. The subject parcels are previously mined, but unreclaimed, terrace gravel pits.

It is proposed that the mined properties be reclaimed to a riparian / wetland / oak savannah wildlife habitat complex.

RECLAMATION PLAN

Area Covered Under Reclamation Plan

The area covered by the reclamation plan is shown on Exhibit 1.

Ultimate Site Condition

Physical Condition. The ultimate physical configuration of the mined and reclaimed site is illustrated on Exhibits R-1, R-2, and R-3 which show final slopes, drainage, and revegetation/landscaping.

Possible Future Uses. Once reclaimed, the sites would provide valuable wildlife habitat. They could also provide potential open space and recreational benefits at some point in the future.

Reclamation Methodology and Sequence

The reclamation plan submitted as part of this application follows similar objectives, methods, and standards that were reviewed and approved by the County for the Piombo site, with modifications to reflect site conditions at the various sites and experience gained at the Piombo site to date. That plan was approved following extensive input by the Department of Fish and Game and review and modification through the EIR process. The reclamation plan for the subject parcels is shown on Exhibits R-1, R-2, and R-3, and specifications for implementing the reclamation plan are contained in Appendix A .

Stabilization of Slopes

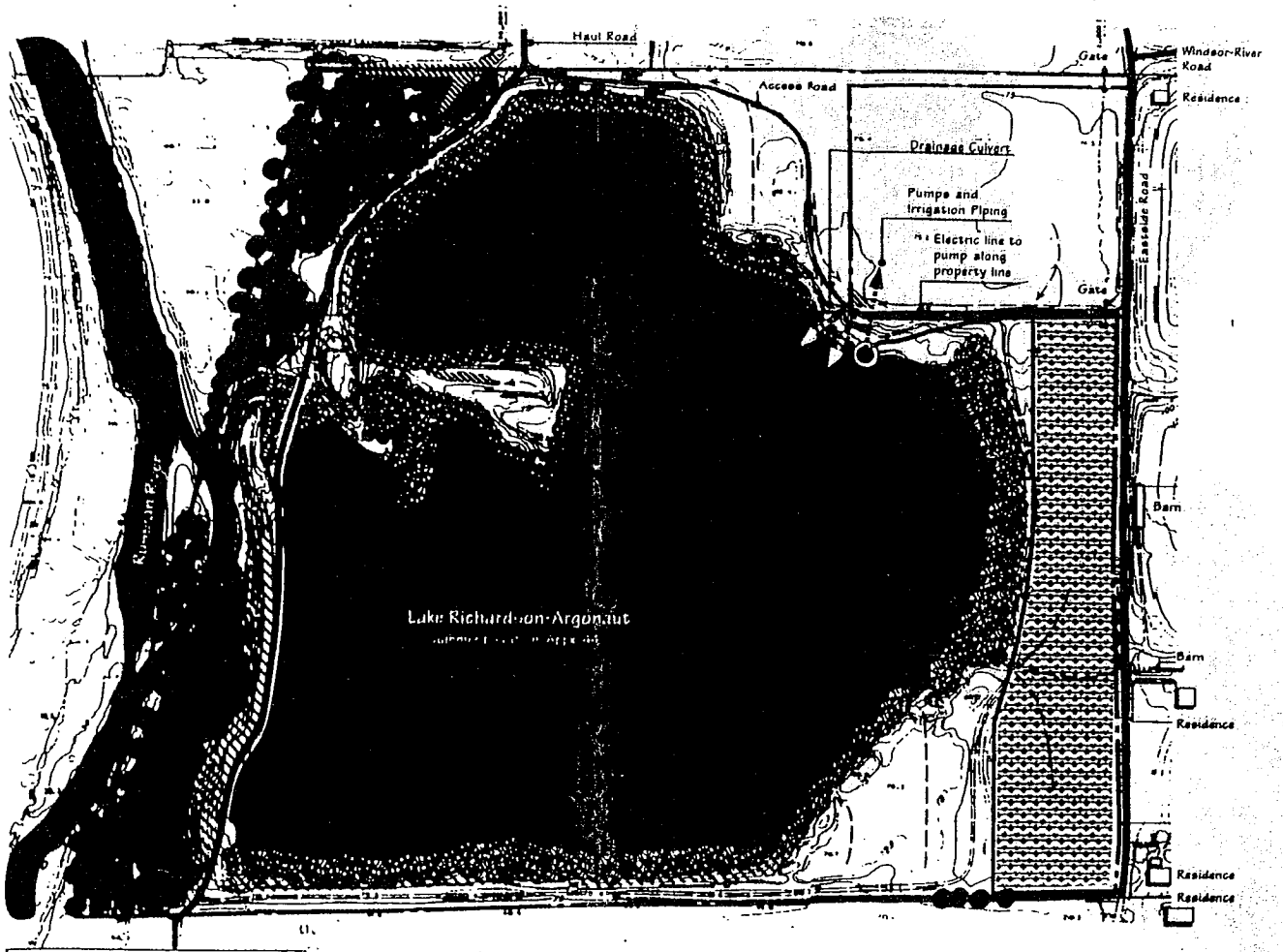
As shown in the reclamation plan, all exposed slopes above the low groundwater elevation

will be no steeper than 2:1, except where property line restrictions or other constraints or objectives (such as preserving established riparian vegetation) dictate otherwise.

Future Mining Potential

Reclamation of these previously mined sites will not preclude future mining of adjacent or nearby sites identified as potential mining areas in the County's Aggregate Resources Management (ARM) Plan.

EXHIBITS



Kuskokwim River

Scale

North

This drawing is conceptual and for planning purposes only. Program information on size, location of areas, and other information shown are subject to field evaluation and modification. See specifications for details.

Kaiser Sand and Gravel Company 1/17/96

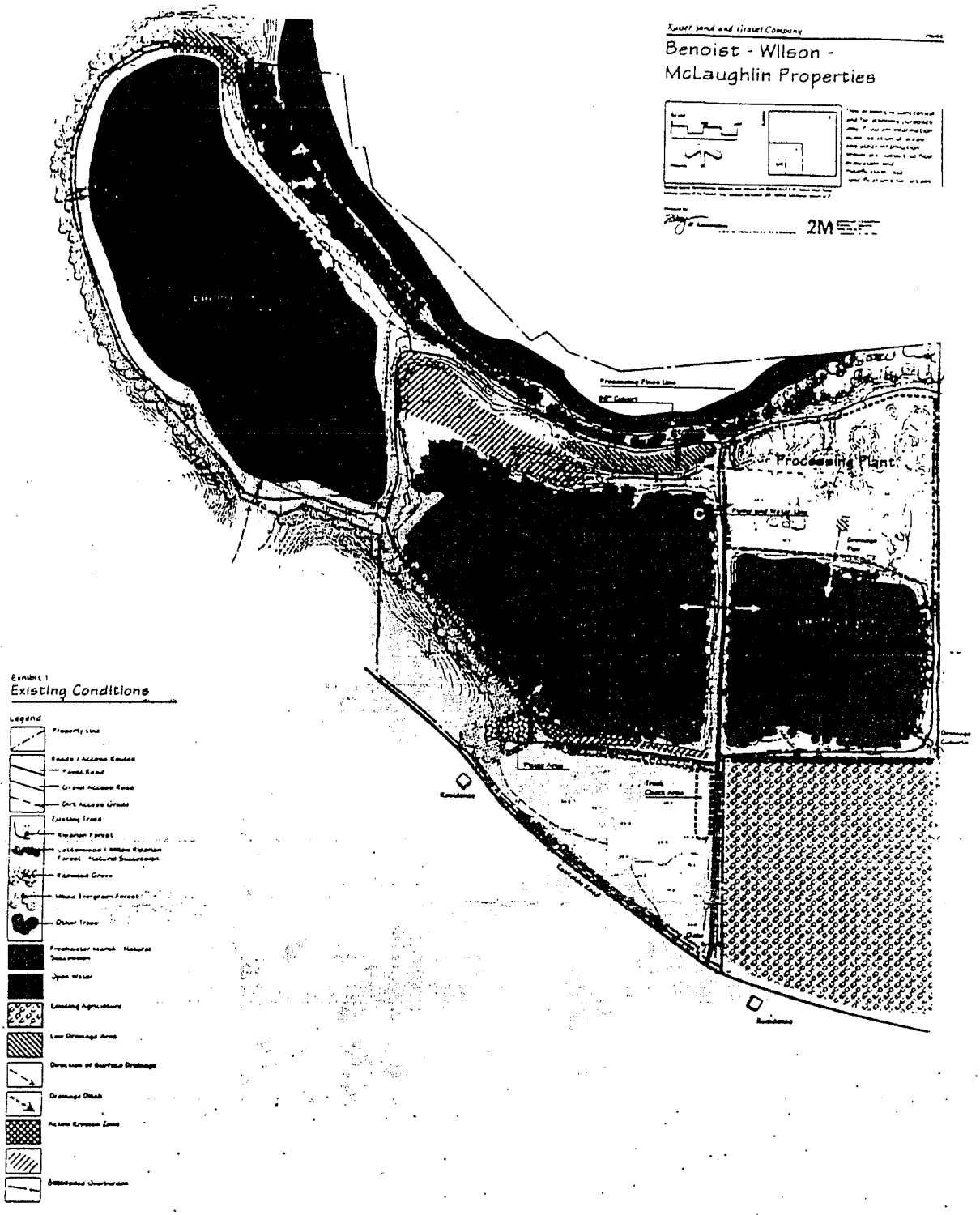
Richardson-Argonaut Property

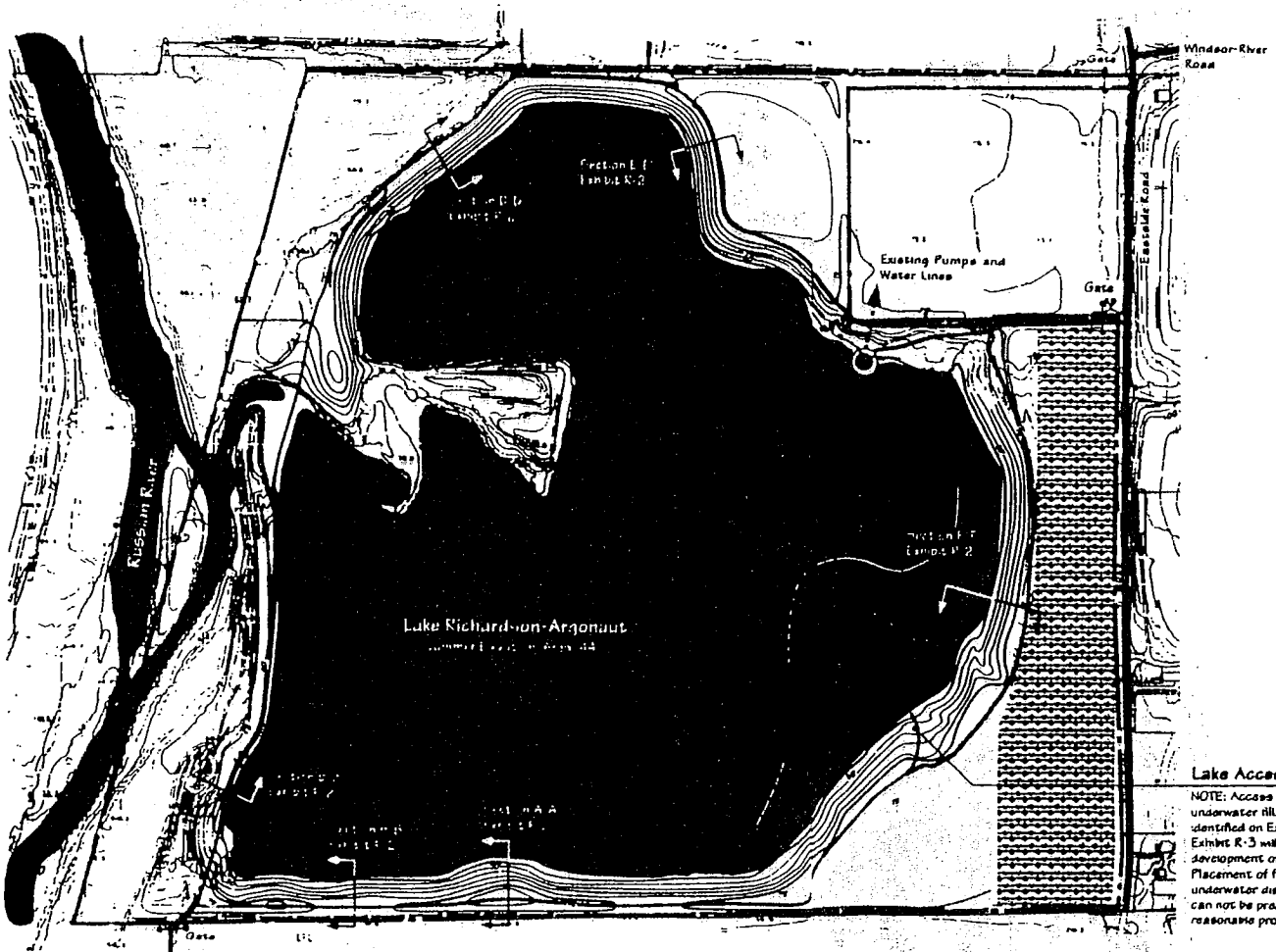
Exhibit 1

Existing Conditions

Legend

- Property Line
- Trees
- Riparian Forest
- Cottonwood / Willow Riparian Forest - Natural Succession
- Other Trees
- Freshwater Marsh (Ludwigia sp.) - Natural Succession
- Open Water
- Agriculture
- Low Drainage Area
- Direction of Surface Drainage
- Excessively Steep Slopes


Kaiser Sand and Gravel Company
Benoist - Wilson -
McLaughlin Properties
2M
Processing Plant
Exhibit 1
Existing Conditions
Legend



Kaiser Sand and Gravel Company

Richardson-Argonaut Property

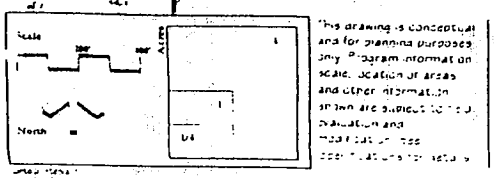
Exhibit R-1

Reclamation Plan: Grading

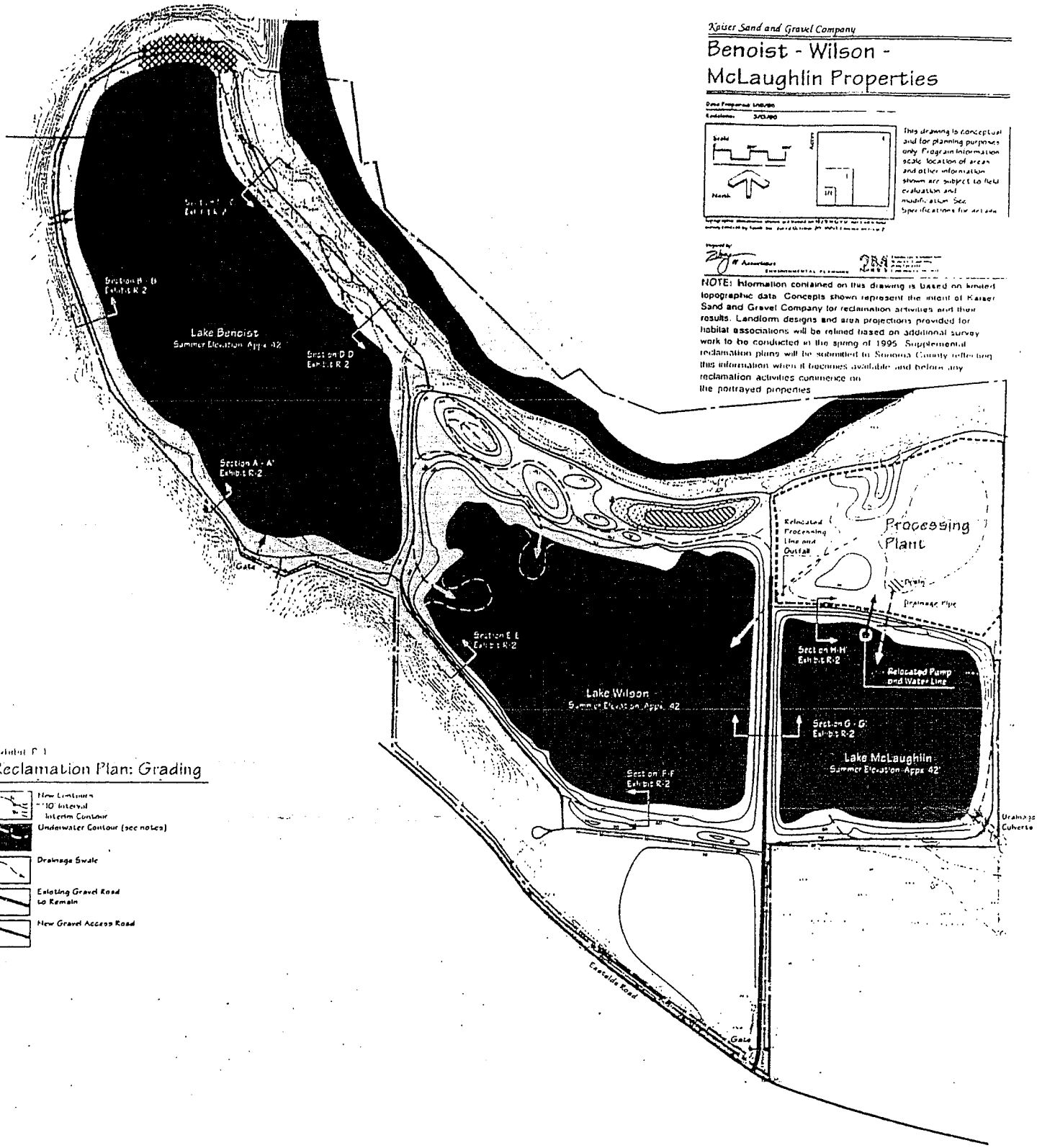
- New Contours — 5' Interval
- Underwater Contour (see notes) — 5' Interval — Interim Interval
- Drainage Swale
- Existing Gravel Road to Remain
- New Gravel Access Road

Lake Access

NOTE: Access to the lake will be developed for placement of underwater fill. Excess soil not required to create slopes identified on Exhibit R-2 or agricultural lands identified on Exhibit R-3 will be used as fill within the lake to encourage the development of a freshwater marsh by natural succession. Placement of fill will occur in the summer months to minimize underwater dispersion of material. However, precise results can not be predicted at this time. Contours shown represent a reasonable projection of the area that could be created.



This drawing is conceptual and for planning purposes only. Program information on scale, location of areas and other information shown are subject to [illegible]

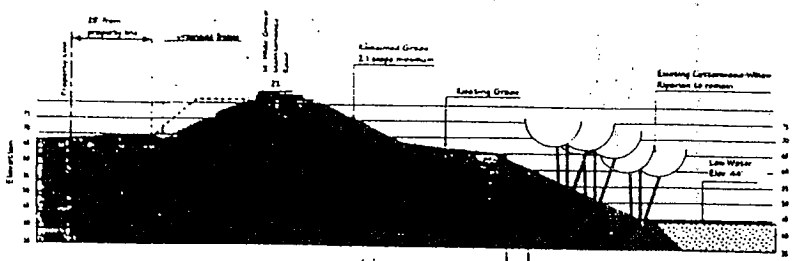

Kaiser Sand and Gravel Company
Benoist - Wilson - McLaughlin Properties
This drawing is conceptual and for planning purposes only. Program information, scale, location of areas and other information shown are subject to field evaluation and modification. See Specifications for details.
NOTE: Information contained on this drawing is based on limited topographic data. Concepts shown represent the intent of Kaiser Sand and Gravel Company for reclamation activities and their results. Landform designs and area projections provided for habitat associations will be refined based on additional survey work to be conducted in the spring of 1995. Supplemental reclamation plans will be submitted to Sonoma County reflecting this information when it becomes available and before any reclamation activities commence on the portrayed properties.
Exhibit R-1
Reclamation Plan: Grading
New Contours
10' Interval
Interim Contour
Underwater Contour (see notes)
Drainage Swale
Existing Gravel Road to Remain
New Gravel Access Road
Lake Benoist
Summer Elevation Appx. 42'
Section A - A'
Exhibit R-2
Section B - B
Exhibit R-2
Section C - C
Exhibit R-2
Section D - D
Exhibit R-2
Section E - E
Exhibit R-2
Lake Wilson
Summer Elevation Appx. 42'
Section F - F
Exhibit R-2
Section G - G
Exhibit R-2
Lake McLaughlin
Summer Elevation Appx. 42'
Section H - H'
Exhibit R-2
Relocated Pump and Water Line
Relocated Processing Line and Outfall
Processing Plant
Drain
Drainage Pipe
Gate
Gate
Estrella Road
Drainage Culverts

Kaiser Sand and Gravel Company 1/17/96

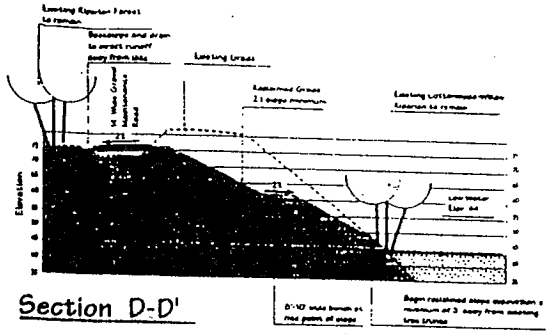
Richardson-Argonaut Property

Exhibit R-2

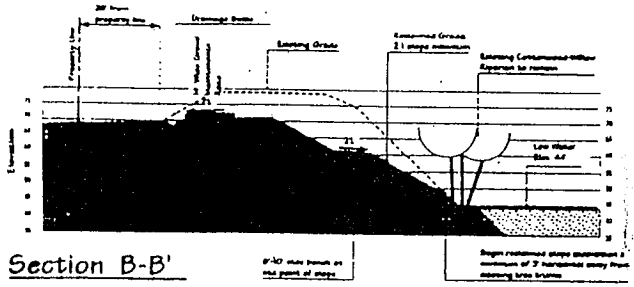
Reclamation Plan: Sections



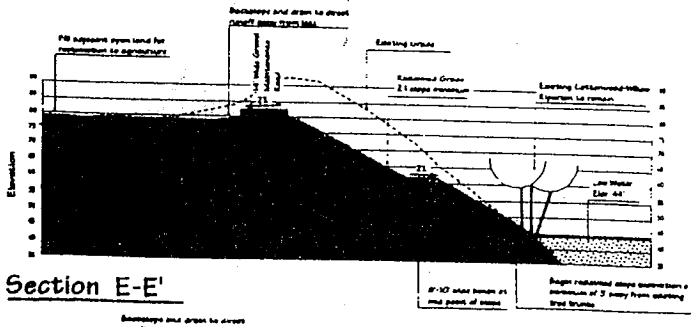
Section A-A'



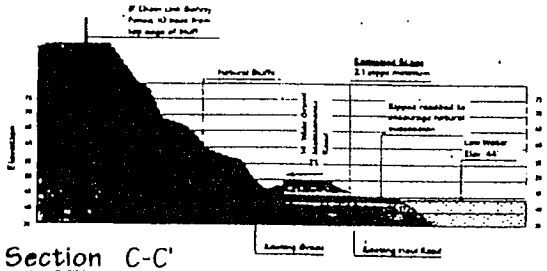
Section D-D'



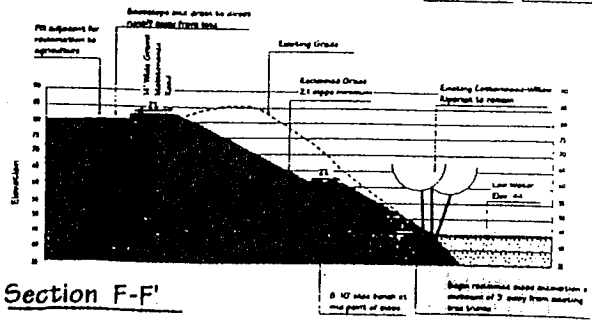
Section B-B'



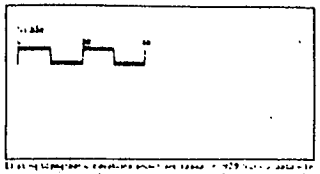
Section E-E'



Section C-C'



Section F-F'



This drawing is conceptual and for planning purposes only. Program information, scale, location of areas and other information shown are subject to field evaluation and modification. See specifications for details.

Exhibit R 2

Reclamation Plan: Sections

Kaiser Sand and Gravel Company

Benoist - Wilson - McLaughlin Properties

Date Prepared: 1/17/95

Revisions: 3/13/95

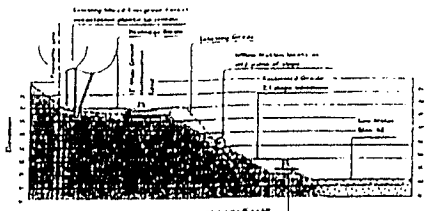
Scale:

This drawing is conceptual and for planning purposes only. Program information re ale location of areas and other information shown are subject to field evaluation and modification. See Specifications for details.

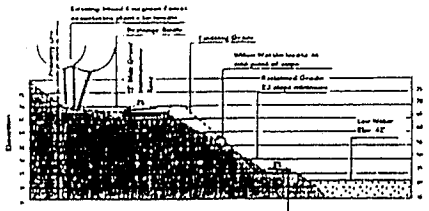
Prepared by

NOTE:

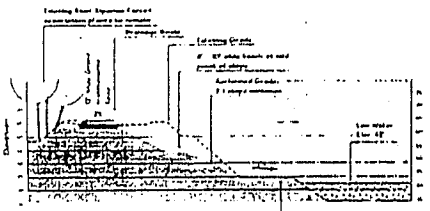
Information contained on this drawing is based on limited topographic data. Concepts shown represent the intent of Kaiser Sand and Gravel Company for reclamation activities and their results. Landform designs and area projections provided for habitat associations will be refined based on additional survey work to be conducted in the spring of 1995. Supplemental reclamation plans will be submitted to Sonoma County reflecting this information when it becomes available and before any reclamation activities commence on the portrayed properties.



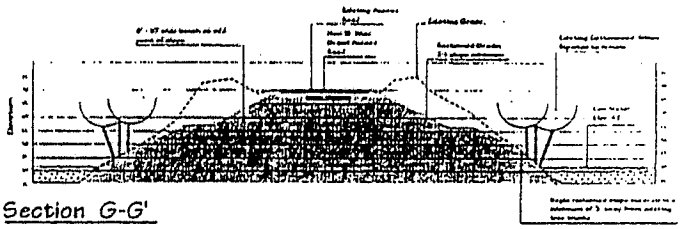
Section A-A'



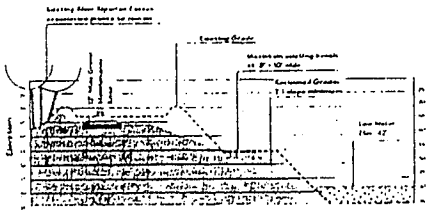
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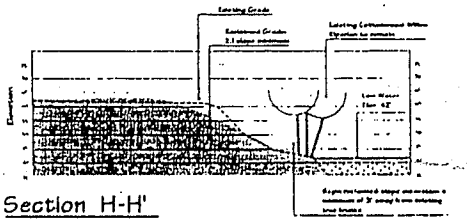
Section C-C'



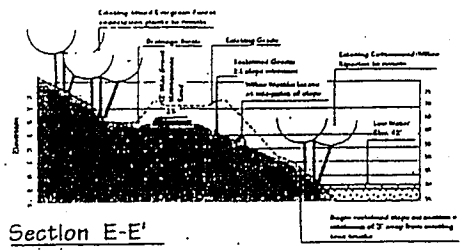
Section G-G'



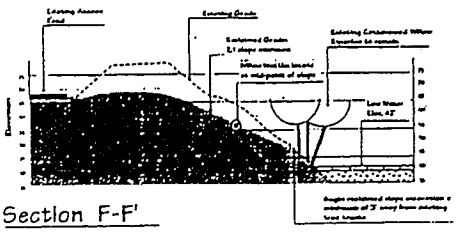
Section D-D'



Section H-H'



Section E-E'



Section F-F'

AMENDMENT TO PROPOSAL STATEMENT
Kaiser Sand and Gravel Company
Master Mining Plan Application
File: PLP 97-0096 (ZCE/UPE)
October 27, 1998

INTRODUCTION

Kaiser Sand and Gravel Company (Kaiser) is amending its current application for a "Master Mining Plan" to address certain environmental issues by incorporating modifications to the proposed project design. These design modifications are proposed to reduce the potential for entrapment of recently listed (federally as "threatened") salmonid species (Coho Salmon and Steelhead) which are known to inhabit the Russian River.

Modifications to the current application include the following:

- The proposed expansion of the McLaughlin pit into Kaiser's former processing plant site on the Wilson parcel is not included in this amendment.

- The Mariani pit is still proposed for expansion; however, it is no longer proposed to be connected to the nearby Piombo pit. Additional modifications have been made to pit perimeter berm heights and the inflow/outflow structure (weir) in order to manage terrace flood waters.

- The Vimark pit is still proposed for expansion; however, additional modifications have been made to pit perimeter berm heights and the inflow/outflow structure (weir) in order to manage terrace flood waters.

These design modifications are proposed as a result of hydrologic and fisheries analyses conducted by consultants to Kaiser. The purpose of the studies was to determine mitigation measures available to reduce the potential for fish entrapment while maintaining the hydrologic stability/integrity of the reclaimed Vimark and Mariani pits.

This amended proposal statement focuses on information that is changed from the Proposal Statement contained in the earlier application. Attached to this Amendment are revised Exhibits 1D through 1G (Mariani) and 2D through 2G (Vimark). Also attached is revised information required by SMARA; two reports by Murray, Burns & Kienlen entitled "Mariani Site Hydraulic Analysis" and "Vimark Site Hydraulic Analysis"; and a report by Dennis Halligan of Natural Resources Management Corporation entitled "Evaluation of Salmonid Entrapment Risk at the Vimark and Mariani Pit Areas Under Current and Proposed Project Conditions".

Exhibits A, B and C from the earlier application remain valid, with the exception that the McLaughlin pit is not proposed for mining under this amendment. Exhibits 1A through 1C and 2A through 2C from the earlier application remain valid in that they indicate existing conditions on the affected sites. Exhibits 3A through 3C (Wilson/McLaughlin Site) are deleted. The "Reclamation Plan: Specifications" portion of Appendix A of the original application remains unchanged.

AFFECTED PARCELS

The following table lists the parcels involved in this amendment and the required action needed by the County for approval of this application.

Parcel No. (Name)	Parcel Acreage	Status/Required Action
66-30-49 (Mariani)	63.32	• Use permit to expand mining area and approval of modified reclamation plan
66-29-49 (Vimark)	57.68	• Use permit to expand mining area and approval of modified reclamation plan

LOCATION

See Exhibit A for a graphic depiction of the location of all affected parcels.

Affected parcel addresses are as follows:

66-30-49 (Mariani): 10249 Eastside Road, Healdsburg, CA 95448
66-29-48 (Vimark): 9029 Eastside Road, Healdsburg, CA 95448

For identification of parcels adjacent to the affected parcels, see Exhibits 1A, 2A, and 3A (Ownership).

Throughout the remainder of this document, affected parcels will be referenced by name.

DESCRIPTION OF PRESENT AND PROPOSED USE OF PROPERTIES

Present and Proposed Uses by Affected Parcel

Mariani

Refer to Exhibits 1A through 1G for a graphic depiction of site conditions and proposed mining and reclamation of the combined Piombo and Mariani parcels.

Kaiser Sand and Gravel Company is requesting an amendment to it's existing mining permit and approved reclamation plan in order to excavate sand and gravel on additional areas of the parcel. The requested expansion is based on results of a MODFLOW study as specified in the ARM Plan. The expansion would be to the south and southwest of the existing lake. (See revised Exhibits 1D, 1E, 1G) The additional area to be mined on the Mariani parcel would be 20.9 acres for a total mined area of 38.9 acres when considering the existing permitted 18.0 acres.

The Mariani parcel is located approximately 1/4 mile east of the Russian River. Currently, the parcel is used for sand and gravel extraction. No native vegetation communities are present on unmined portions of the property. The parcel is being mined and reclaimed concurrently according to the existing permit.

Minerals that would be removed consist of recent alluvium which is approximately 37 percent sand and 63 percent gravel. It is anticipated that approximately 1.79 million tons of raw material would be removed from about 20.9 acres on the parcel. As the site is mined, the existing lake would expand to the south and southwest. The Mariani lake will not be connected to the Piombo lake.

The extracted raw material will be transported by truck to Kaiser's existing processing plant. A water truck will be available during all operating hours for dust control at the mining site and on the haul route.

It is proposed that the mined property be reclaimed to a riparian / wetland / oak savannah habitat complex similar to the existing reclamation plan approved for this site.

Vimark

Refer to Exhibits 2A through 2G for a graphic depiction of site conditions and proposed mining and reclamation of the Vimark parcel.

The western property line of the Vimark parcel is located east of the Russian River from a range of approximately 50 feet at the northwestern corner to about 330 feet at the southwestern corner. All previously approved and proposed excavation on the Vimark parcel is located at least 450 feet from the Russian River as required by the ARM Plan. This site currently has a use

permit for mining a 20-acre pit and an approved reclamation plan. There are no easements on the property.

Minerals that would be removed consist of recent alluvium which is approximately 37 percent sand and 63 percent gravel. It is estimated that approximately 1.78 million tons of raw material would be removed from the site. As the site is mined, the pit will expand to approximately 40.8 acres (20.8 acres of proposed new mining).

The extracted raw material will be transported by truck to Kaiser's processing plant north of the existing Piombo pit via the existing private haul road. Hauling distance to the processing plant is approximately 1.2 miles A water truck will be available during all operating hours for dust control at the mining site and on the haul road.

It is proposed that the mined property be reclaimed to a riparian / wetland / oak savannah habitat complex in conformance with Kaiser's existing approved reclamation plan for the site.

MINING PLAN

Mining and Processing Operation

The mining of these sites would begin with the removal of the overburden (topsoil and silts/clays that are not suitable for aggregate processing) which is estimated to average about 8 feet in depth over the properties which have overburden. The overburden will be removed and stockpiled on the sites for later use in implementation of the reclamation plan. Approximately 465,000 total cubic yards of overburden material will be generated during the life of the project 235,000 at Mariani and 230,000 at Vimark). Overburden and topsoil will generally be used immediately or stockpiled immediately adjacent to pits for use in reclamation. (See the reclamation plan specifications [Appendix A] and Exhibits 1E, 1G, 2E, and 2G for specifics on stockpiling and use of overburden.)

After removal of the overburden, sand and gravel that is above the groundwater table will be placed into bottom dump truck and trailer units by use of a front-end loader for transport to the plant for processing. Depth to low groundwater level is estimated at about 25-30 feet below existing grade.

When the material above the groundwater table is removed and there is an area sufficiently large enough to accommodate it, a dragline or excavator will be used at the sites for mining below the groundwater level. The dragline will excavate to a depth of about 25 feet below the low groundwater level. The excavated material will be placed on the bench adjacent to the dragline and then loaded onto trucks for transport to the processing plant.

Raw material at the processing plant is washed to remove silts and clays and then is sorted by size through the use of screens. Gravel larger than 1-1/8 inches in diameter is crushed. Sands are washed in a screw-type classifier. Wash water from the processing operation, which is laden with the unusable silts and clays, is transported by pipe to the Richardson/Argonaut lake where it is discharged. Crushed, washed and sorted aggregate is loaded onto trucks by a front-end loader. The trucks are weighed on a scale before they leave the processing site. Finished products are primarily used for Portland Cement Concrete (PCC) and Asphaltic Concrete (AC) in Sonoma County.

Haul Routes

Raw material from both sites will be transported to the processing plant by haul trucks. Material from the Vimark parcel will be transported via the existing private haul road. Using this haul road avoids placing this truck traffic on public roads. Haul trucks would only use a portion of Eastside Road if the private haul route becomes unusable as a result of flooding. If hauling on Eastside Road is necessary under these circumstances, legal load limits will be complied with.

It is estimated that 600,000 to 850,000 tons per year would be transported from the proposed mining sites to the processing plant, depending on market demand. Each truck load consists of approximately 55 tons of raw material. Transporting 600,000 to 850,000 tons per year would involve 10,909 to 15,455 round trips per year by haul trucks, or an average of 57 to 80 round trips per operating day, assuming 193 operating days per year.

The private haul road will be maintained by grading as needed to maintain a flat, safe surface with proper drainage. Watering via water truck will be done as needed to suppress dust.

The haul route for trucks loaded with finished product from the processing plant and headed for the primary market is north on Eastside Road to the intersection at Old Redwood Highway, then north on Old Redwood Highway to the South Healdsburg / Highway 101 interchange and onto Highway 101. Empty trucks would return to the new plant by following the same route in reverse (i.e., by exiting Highway 101 at the South Healdsburg / Highway 101 interchange, then traveling south on Old Redwood Highway, then south on Eastside Road to the new plant entrance).

Pit Capacity and Configuration

Proposed new mining acreages, volumes, and final lake acreages are summarized below. See Exhibits 1E through G and 2E through G for a graphic depiction of final pit configurations.

Parcel	New Mining Acreage[1]	New Mining Tonnage[2]	Final Total Pit Acreage[1]	Final Total Lake Surface Acreage[3]
Mariani	20.9	1.79 million	38.9	23.4
Vimark	20.8	1.78 million	40.8	27.4
Totals	41.7	3.57 million	79.7	50.8

It is projected that approximately 3.57 million tons of raw material can be extracted in total from the described parcels. The depth to groundwater varies seasonally, but low groundwater level is estimated to be about 30 feet below existing grade for calculation purposes. Maximum depths of the newly mined areas below original grade will be between 40 and 60 feet depending on the depth of the clay layer at the bottom of the gravel deposits. Excavation depths at each site will likely be similar to the adjacent mined areas under existing permits. As stated earlier, average maximum depth of excavation is estimated to be 55 feet for calculation purposes. The areas of ground disturbance conform to all ARM Plan setback requirements from the river, existing nearby gravel pits, and property lines, except as modified by the attached MODFLOW analysis (See Exhibits 1D and 2D).

Life of Operation and Sequence of Progression

Mining of the affected parcels will begin shortly after permit approval. For parcels where mining is currently permitted and underway at the time of approval of this application, mining and reclamation will continue in a manner to minimize disturbed ground and complete reclamation in an efficient manner. Reclamation of the sites is expected to be completed within two years of completion of mining, with monitoring and maintenance continuing as required by the reclamation plan to assure success.

Depending on market conditions which can vary widely, the combined mining life of the proposed project would be approximately 5.5 years.

Mining and reclamation of the sites are projected to be completed sequentially as shown on Exhibit C (note that McLaughlin is deleted from this exhibit), with Vimark completed first, followed by Mariani, although some overlap and/or modification may be needed for reclamation efficiency as described earlier, or as a result of market demand and location/availability of material

[1] "New Mining Acreage" and "Final Total Pit Acreage" are based on surface area measurements to the top of slope of pits.
[2] "New Mining Tonnage" is based on an average estimate of 85,556 tons of raw material (i.e., pre-processed) per acre mined as measured in footnote #1 above, and as adjusted for side slopes to be mined or left in place.
[3] "Final Total Lake Surface Acreage" is estimated using low summer water elevations.

onsite. If any significant deviation from the projected sequencing is needed in the future, the County would be notified in writing by Kaiser.

As provided for in the ARM Plan, mining will not occur at a rate exceeding 10 acres per year from the year of issuance of the first mining permit (1995) under the 1994 ARM Plan, with the provision that acreage not mined in previous years can be accrued to subsequent years.

RECLAMATION PLAN

Area Covered Under Reclamation Plan

The area covered by the reclamation plan is shown on Exhibits 1G and 2G, and includes the entire disturbed areas of the affected parcels. (Also refer to the Reclamation Plan Specifications in Appendix A of the original application.)

Summary of Modifications to the Previously Proposed Reclamation Plan

Based on the hydrologic and fish entrapment studies conducted, the reclamation plans for Mariani and Vimark have been modified by providing raised perimeter berms and raised inflow/outflow structures (weirs) as shown on the attached exhibits and summarized below.

The Mariani perimeter berm will be constructed at an elevation of 76 feet. (Existing perimeter elevations range from 70 feet on the west side to 75 feet on the east side, with the lowest point at the southwest corner at elevation 69 feet [1.5-year flood elevation].) A 200-foot wide armored weir will be provided at the separator between the Mariani and Piombo pits at an elevation of 70.6 feet (2-year flood elevation).

The Vimark perimeter berm will be constructed at an elevation of 76 feet. (Existing perimeter elevations range from 70 feet on the west side to 71 feet on the east side, with the lowest point at the southwest corner at elevation 67 feet [2-year flood elevation].) A 100-foot wide armored weir will be provided at the southwest corner of the pit at elevation 71.8 feet (5-year flood elevation).

Rather than waiting until completion of mining at each pit to construct the proposed berms, weir, and spillway, Kaiser will construct them during the dry period (June through September) following the season in which additional mining under this application is initiated at each pit in order to further minimize potential for increased fish entrapment during the time that mining is in progress. This means that the only time that each pit would be enlarged somewhat prior to the mitigation being implemented would be one winter season. It is not feasible to construct the weir prior to this time because it will take a few months to remove aggregate to a sufficient depth and area near the location of the weir to allow spillway construction. This strategy has been worked out in consultation with National Marine Fisheries Service and Department of Fish and Game personnel. Kaiser believes that this approach mitigates potential

Reclamation Methodology and Sequence

The reclamation plan submitted as part of this amendment follows the same objectives, methods, and standards that were reviewed and approved by the County for Kaiser's Master Reclamation Plan, the Piombo pit, the Mariani pit and the Vimark pit. The only difference is the minor change in topography which results from the incorporated fish entrapment mitigation. These plans were approved following extensive input by the Department of Fish and Game and review and modification through the EIR process. The reclamation plans for the affected parcels are shown on Exhibits 1E through G and 2E through G, and specifications for implementing the reclamation plan are contained in Appendix A.

Stabilization of Slopes

As shown in the reclamation plans, all exposed slopes above the low groundwater elevation will be no steeper than 3:1. This slope gradient is in compliance with ARM Plan standards. Slopes below water will be no steeper than 1.5:1. The combination of a 3:1 slope gradient and revegetation of exposed slopes will assure slope stability under both static and seismic conditions, as discussed in the Piombo Reclamation Plan EIR.

Removal of Equipment

All mining equipment and vehicles will be removed from the sites following completion of mining.

Control of Contaminants

No chemicals are used in the mining operation. Fueling of the dragline or excavator by a mobile fuel truck is the only activity that represents a potential for a spill; however, this will be mitigated by observing the same refueling conditions that were required by the County in approving the Mariani and Vimark mining and reclamation plans.

Future Mining Potential

Beyond the areas proposed for mining in this application, the only other additional acreage of potentially mineable, high quality aggregate on Kaiser property occurs on the present processing plant site and on the Mariani parcel within the 1,000-foot setback from Windsor Water District wells established as part of the Piombo reclamation plan approval. The potential for mining this area in the future is dependent on additional analyses.

INFORMATION REQUIRED BY THE SURFACE MINING AND RECLAMATION ACT

- **Item 2772 (a) Name of Operator:** Kaiser Sand and Gravel Company
  Address: 10249 Eastside Rd., Healdsburg, CA 95448
  Operator Designated Contact: Mr. Dennis Ripple

- **Item 2772 (b) The anticipated quantity and type of minerals for which the surface mining operation is to be conducted:** see Permit Application.

- **Item 2772 (c) Proposed dates of initiation and termination of operation:** see Permit Application.

- **Item 2772 (d) The maximum anticipated depth of the surface mining operation:**
  - Mariani Site: between approximately 35′ and 55′ below existing surface elevations; 10′ to 30′ below groundwater to approximate elevation between 20′ and 40′
  - Vimark Site: up to approximately 55′ below existing surface elevations; 25′ to 35′ below groundwater to approximate elevation 20′

- **Item 2772 (e)**
  - **The size and legal description of the lands that will be affected by such operation, a map that includes the boundaries, and topographic details of such lands:** see the following in the Permit Application:
    - Mariani Site: Exhibit 1A: Ownership
    - Vimark Site: Exhibit 2A: Ownership
  - **A description of the general geology of the area:** see Permit Application.
  - **A detailed description of the geology of the area in which surface mining is to be conducted:** see Permit Application.
  - **The location within or adjacent to such lands including streams, roads, railroads, utility facilities:** see Permit Application and:
    - Mariani Site: Exhibit 1B: Site Plan and Exhibit 1C: Drainage
    - Vimark Site: Exhibit 2B: Site Plan and Exhibit 2C: Drainage
  - **The location of all proposed access roads to be constructed in conducting such operation**: see Permit Application and:
    - Mariani Site: Exhibit 1G: Reclamation Plan
    - Vimark Site: Exhibit 2G: Reclamation Plan
  - **The names and addresses of the owners of all surface and mineral interests of such lands:** Kaiser Sand & Gravel Company, 10249 Eastside Rd., Healdsburg, CA 95448

- **Item 2772 (f)**
  - **A description of and plan for the type of surface mining to be employed:** see Permit Application.
  - **A time schedule that will provide for the completion of surface mining on each segment of the mined lands so that reclamation can be initiated at the earliest possible time on those portions of the mined lands that will not be subject to further disturbance by the surface mining operation:** see Permit Application and Exhibit C. Reclamation will take place sequentially as mining proceeds beginning with the Vimark site, and moving to the Mariani site. In each specific area, mining activities will move from south to north such that the southern slopes of mined pits may be reclaimed while mining continues in the same area.

    Newly-created slopes will be seeded with an erosion control mix and mulched prior to the onset of winter rains. These slopes will be planted with native woody vegetation the following year. Planting of native woody vegetation will take place as indicated in the Reclamation Plan Technical Specifications and on:
    - Mariani Site: Exhibit 1G: Reclamation Plan
    - Vimark Site: Exhibit 2G: Reclamation Plan

    Upon completion of reclamation activities at the Vimark site, areas used for storing backfill materials to the east of the mined area will be brought to a condition suitable for vineyard development or other agricultural uses.

- **Item 2772 (g)**
  - **Proposed use or potential use of the land after reclamation:**
    - Mariani Site: mined lands and other disturbed areas - wildlife habitat and open space as indicated on Exhibit 1G: Reclamation Plan.
    - Vimark Site: mined lands - wildlife habitat and open space; other disturbed areas - agriculture as indicated on Exhibit 2G: Reclamation Plan
  - **Evidence of notification to owners with possessory interest:** All lands are owned by Kaiser Sand & Gravel Company.
- **Item 2772 (h-1) A description of the manner in which contaminants will be controlled and mining waste will be disposed:** No mining wastes will be generated by proposed activities. The tops of mined slopes will be graded such that agricultural runoff from adjacent properties will not directly enter the mining pit and exposed groundwater. See also:
  - Mariani Site: Exhibit 1E: Mining Plan - Grading; and Exhibit 1F: Mining and Reclamation Plan - Cross Sections

- Vimark Site: Exhibit 2E: Mining Plan - Grading; and Exhibit 2F: Mining and Reclamation Plan - Cross Sections

- **Item 2772 (h-2) A description of the manner in which rehabilitation of the affected streambed channels and stream banks to a condition minimizing erosion and sedimentation will occur:** No streambed channels or stream banks are affected by the proposed mining and reclamation plans. Slopes no steeper than a 3:1 gradient will be created as part of the mining/reclamation process to 5' below summer groundwater conditions. Seeding of erosion control mix will occur as needed throughout the year to ensure adequate erosion control of newly-created slopes. For slopes in the process of being created during mining activities, temporary silt fencing will be installed as necessary immediately above the water line until the completion of soil spreading, seeding of erosion control mix, placement of straw mulch, and germination of plants. Additionally, silt fencing will be installed at the completion of soil spreading in selected locations as indicated on the following:
  - Mariani Site: Exhibit 1E: Mining Plan - Grading
  - Vimark Site: Exhibit 2E: Mining Plan - Grading

- **Item 2772 (i) An assessment of the effect of implementation of the reclamation on future mining in the area.** For the Mariani site, the separator lands between the Mariani and Piombo properties would be precluded from future mining. For the Vimark site, beyond the areas proposed for mining in this application, no acreage with high quality aggregate that could potentially be mined would remain.

- **Item 2772 (j) Statement that person submitting plan accepts responsibility for reclaiming lands as described:** see Permit Application, Appendix B.

- **Item 2772 (k) Any other information which the lead agency may require by ordinance:** Erosion Control Plan: See Reclamation Plan Technical Specifications where erosion control measures have been identified by a Certified Erosion and Sediment Control Specialist. Also see the following:
  - Mariani Site: Exhibit 1E: Mining Plan - Grading
  - Vimark Site: Exhibit 2E: Mining Plan - Grading

RECLAMATION STANDARDS
as required by the Surface Mining and Reclamation Act

- **Item 2773 (b) Reclamation Standards**
  - **Wildlife Habitat; Avoidance of Rare, Threatened, Endangered Species; Avoidance of Wetland Habitat:** Existing lands to be mined are in open space or are used for agriculture. No Rare, Threatened, or Endangered species exist on the property. Mariani and Lake Piombo. No wetlands currently exist at the Vimark

site.

The approximate area of open water and emergent freshwater marsh to be created through mining and reclamation activities is as follows:

Location	Open Water (approximate acres)	Emergent Freshwater Marsh (approximate acres)
- Mariani Site	9.4 acres	2.5 acres
- Vimark Site	9.5 acres	0.9 acres

- **Backfilling, Regrading, Slope Stability, and Recontouring:** Reclaimed slopes will be no steeper than as shown on the following exhibits:
  - Mariani Site: Exhibit 1E: Mining Plan - Grading; and Exhibit 1F: Mining and Reclamation Plan - Cross Sections
  - Vimark Site: Exhibit 2E: Mining Plan - Grading; and Exhibit 2F: Mining and Reclamation Plan - Cross Sections

  Final slopes may be shallower but will not be steeper than 3:1, except steeper slopes may be created in the conduct of extraction for limited periods of time prior to grading the slope to reclamation configurations.

- **Revegetation:** Revegetation of mined slopes at each of the three sites will consist of the following: Willow/Cottonwood Riparian Forest (through natural succession), Willow/Cottonwood Riparian Forest (planted), Mixed Riparian Forest (planted), Oak Savanna (planted and seeded), and Grassland (seeded). See also Reclamation Plan Technical Specifications and:
  - Mariani Site: Exhibit 1F: Mining and Reclamation Plan - Cross Sections.
  - Vimark Site: Exhibit 2F: Mining and Reclamation Plan - Cross Sections.

- **Drainage, Diversion Structures, Waterways and Erosion Control:** Drainage swales will be created around the perimeter of mined lands to direct water away from the top of slopes and to avoid agricultural drainage from directly entering the mined pits. Perimeter berms and flood control weirs will be constructed to around mined lands to protect them from a 5-year flood and to reduce the potential for salmonid entrapment in the pits. This will involve:
  - Mariani Site: Construction of a perimeter berm to 76 foot elevation and a 200-foot wide flood control weir at 70.6 foot elevation (5-year flood elevation).
  - Vimark Site: Construction of a perimeter berm to 76 foot elevation and a 100-foot wide flood control weir at 71.8 foot elevation (5-year flood elevation).

Erosion control measures include:

- seeding and mulching exposed slopes, as necessary;
- stockpiling 1 ton of straw bales on each site and covering to protect them from rain, to be used for emergency erosion control as necessary;
- installation of silt fencing during the creation of slopes at selected locations and at the completion of soil spreading.
- creation of engineered overflow weirs for managing flood waters from the Russian River into Lakes Mariani and Lake Vimark.

See also Reclamation Plan Technical Specifications and:

- Mariani Site: Exhibit 1E: Mining Plan - Grading; and Exhibit 1F: Mining and Reclamation Plan - Cross Sections
- Vimark Site: Exhibit 2E: Mining Plan - Grading; and Exhibit 2F: Mining and Reclamation Plan - Cross Sections

- **Prime Agricultural Land / Other Agricultural Land:** Mining will convert existing agricultural lands at the Mariani and Vimark sites to wildlife habitat/open space lands. Existing topsoil will be salvaged and reused as part of reclamation activities (see below). Portions of the Vimark site will be reclaimed as agricultural lands.

- **Building / Structure, and Equipment Removal:** No structures currently exist on lands to be mined; all mining equipment will be removed prior to reclamation.

- **Stream Protection:** Mining will occur no closer than approximately 450' and no further than 2,000' from the Russian River (top of bank). Perimeter berms and flood control weirs will be constructed to around mined lands to protect them from a 5-year flood and to reduce the potential for salmonid entrapment in the pits. This will involve:
  - Mariani Site: Construction of a perimeter berm to 75 foot elevation and a 200-foot wide flood control weir at 70.6 foot elevation (5-year flood elevation).
  - Vimark Site: Construction of a perimeter berm to 76 foot elevation and a 100-foot wide flood control weir at 71.8 foot elevation (5-year flood elevation).

  See also Permit Application and:
  - Mariani Site: Exhibit 1D: Mining Plan -Setbacks;
  - Vimark Site: Exhibit 2D: Mining Plan -Setbacks;

- **Topsoil Salvage, Maintenance, Redistribution:** All existing topsoil or overburden will be used on site. Sufficient topsoil exists on site to complete the planned reclamation. Topsoil suitable for revegetation shall be removed as a separate layer from areas to be disturbed by mining operations. Overburden and

topsoil generated from initial mining activities will be used to create the proposed screening berm along the eastern portions of the site.

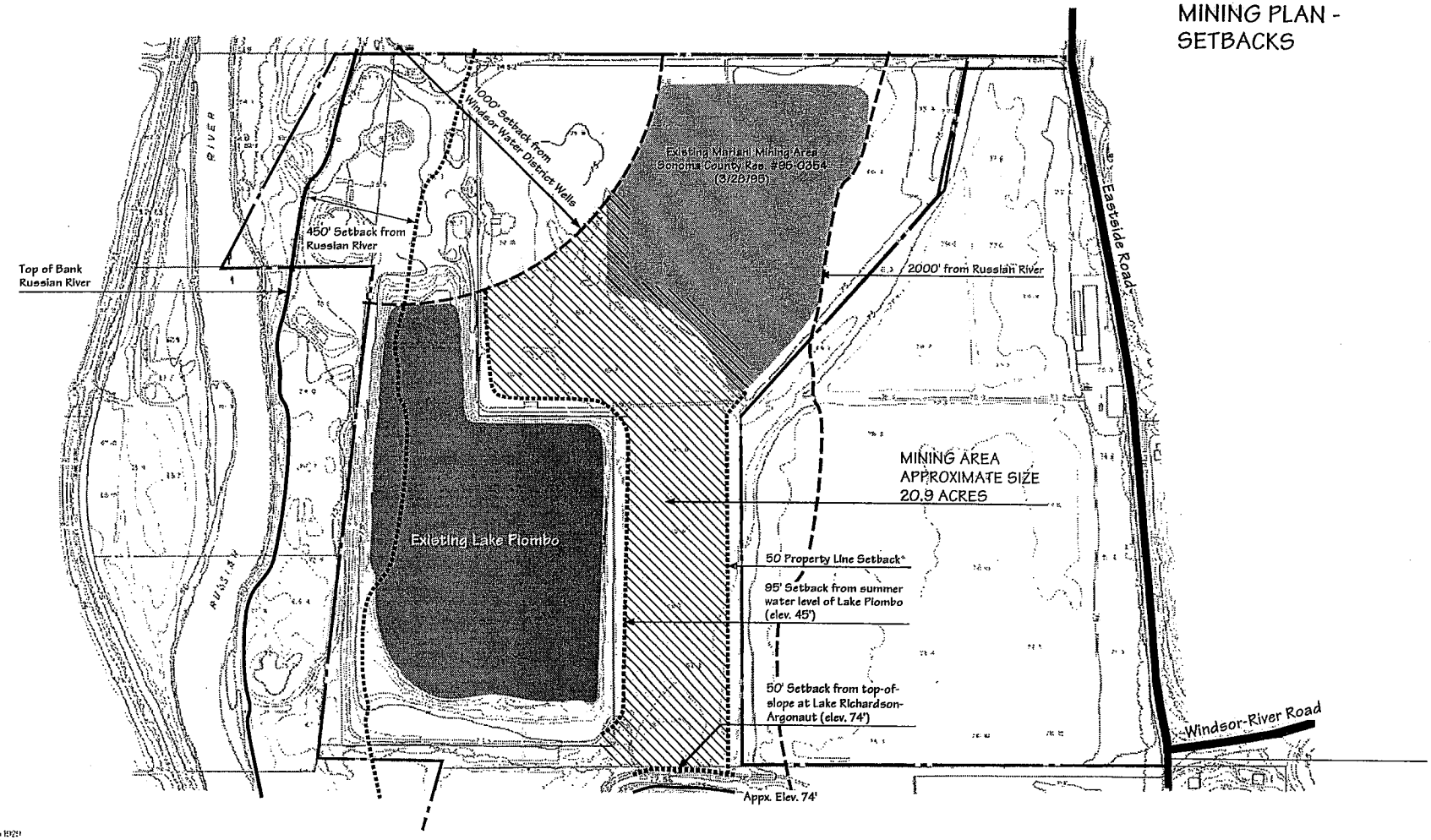
As mining proceeds on the Vimark and Mariani sites, overburden will be removed to expose the resource. The overburden will be stockpiled along the borders of the mined area to be later used as fill to create sloped banks after mining is complete. Topsoil to be removed will either be immediately used as fill on the top 1' of finished slopes or will be temporarily stockpiled within the outer perimeter of the mined area of the site.

See also Reclamation Plan Technical Specifications.

- **Item 2773.1 Financial Assurance:** Financial assurances for reclamation are covered in a separate report and by a deposit with Sonoma County.

Exhibit 1D

MINING PLAN - SETBACKS



Contour Interval 5'.
Topographic elevations shown are based on 1929 N.G.V.D. datum with field survey control by Towill, Inc. dated March 23, 1989.

Scale 0 200' 400'

1 Acre

North

This drawing is conceptual and for planning purposes only. Property information, scale, location of access, and other information shown are subject to field resolution and modification.

Legend

Property Line

Mining Area (New Mining Acreage: 20.9 Acres)

NOTE: New mining acreage estimate does not include side slopes of existing or permitted adjacent pits. For information, the area of adjacent pit sides slopes proposed to be mined is approximately 4.4 acres.

Date: 10/4/98
Revisions:

Mariani Site

Kaiser Sand and Gravel Company

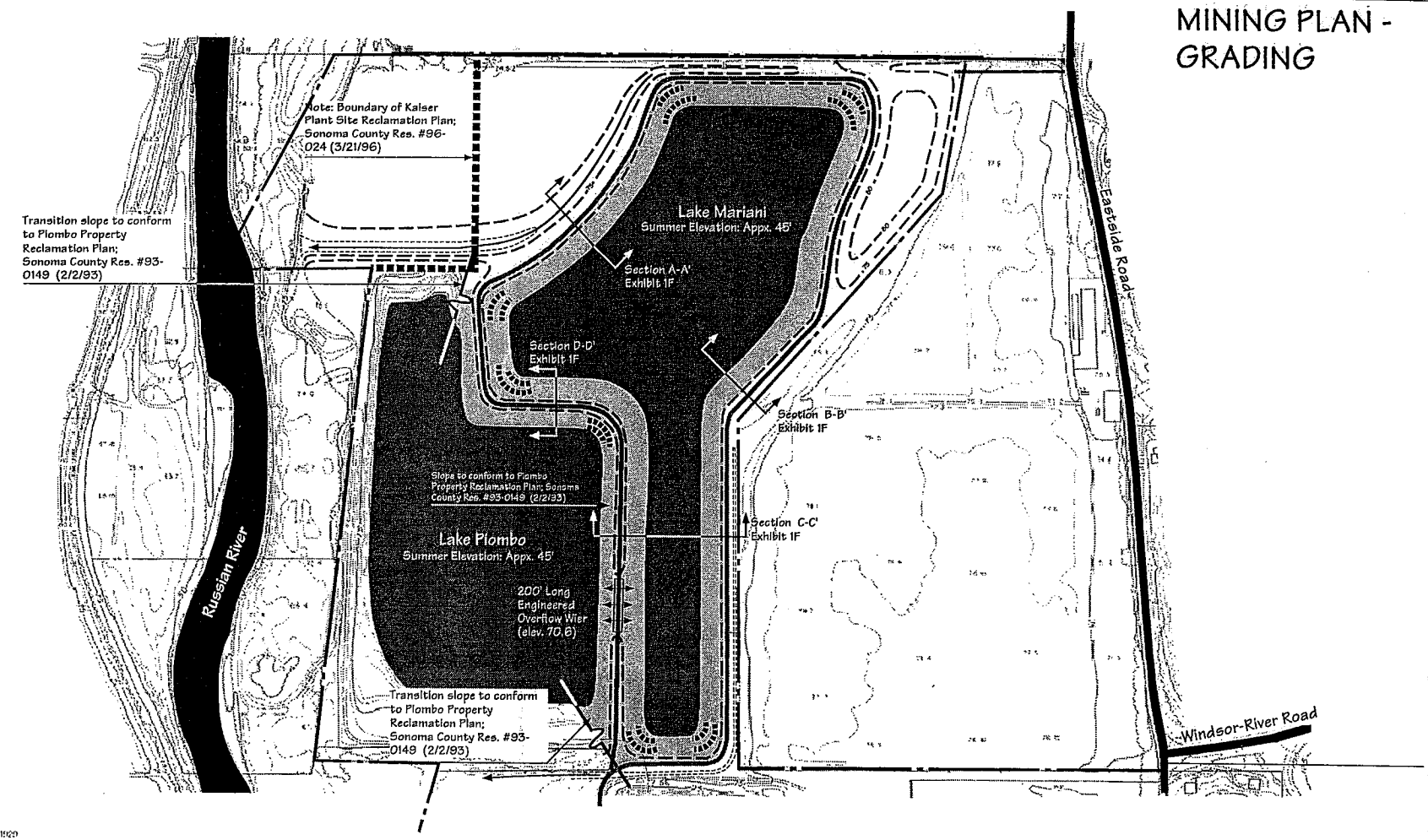
10249 Eastside Road
Healdsburg, CA 95448

Prepared by:
Zinkey & Associates
ENVIRONMENTAL PLANNING

Landscape Architecture Berkeley, California (510) 524-1124 California Lic. No 1402

Exhibit 1E

MINING PLAN - GRADING



Contour interval 5'.
Topographic elevations shown are based on USGS N.G.V.D. datum with field surveys control by Towill, Inc. dated March 23, 1989.

Scale
0 200' 400'
1 Acre
1/2
1/4
North

This drawing is conceptual and for planning purposes only. Property information, scales, location of streets, and other information shown are subject to field evaluation and modification.

Legend

- Property Line
- Mined Slopes (Note: See Exhibit 1F Mining and Reclamation Sections for details)
- Approximate Summer Water Level (Note: See Exhibit 1F Reclamation Plan for final water and shoreline conditions)
- Drainage Swale
- Silt Fencing
- New Contours 5' Interval
- Interim Contour

Date: 10/4/98
Revisions:

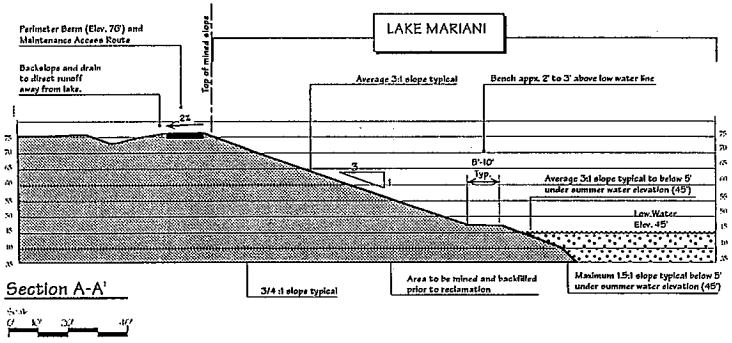
Mariani Site

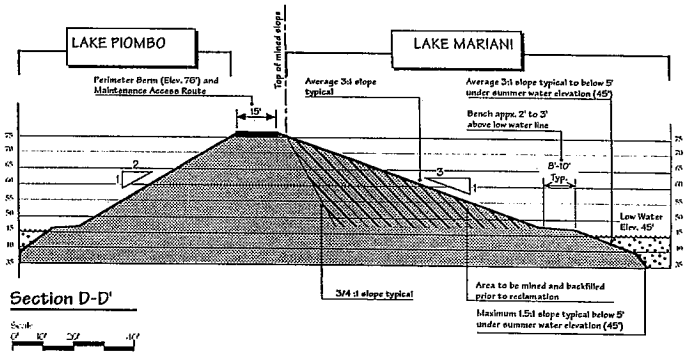
Kaiser Sand and Gravel Company
10249 Eastside Road
Healdsburg, CA 95448

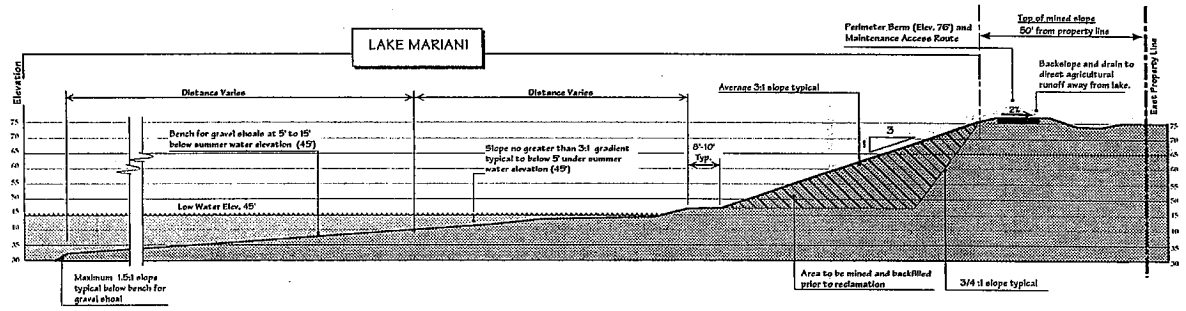
Prepared by:
Zentner & Associates
ENVIRONMENTAL PLANNING

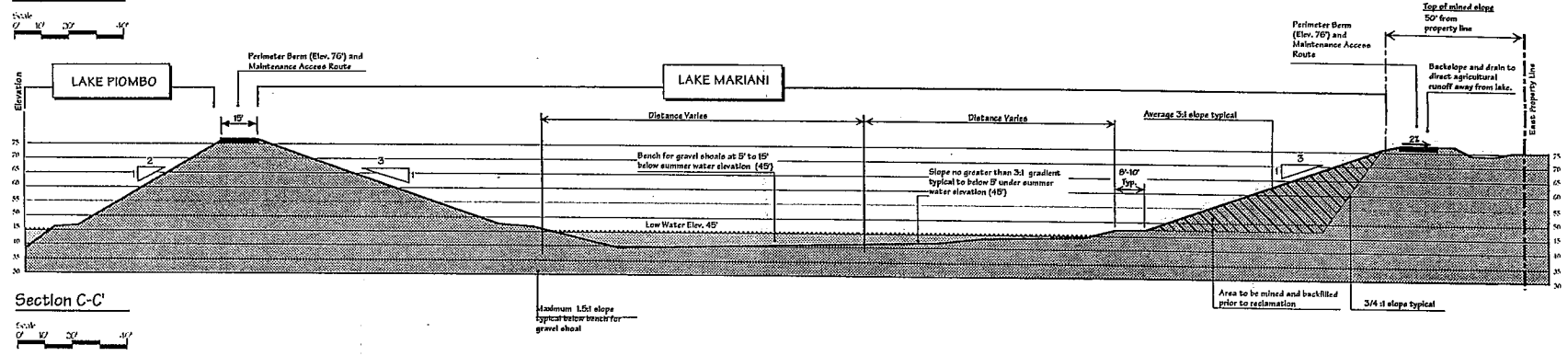
Exhibit 1F

MINING AND RECLAMATION PLAN - CROSS SECTIONS









Scale: As Noted

Topographic elevations shown are based on 1959 USGS data with field survey control by Towill, Inc. dated March 29, 1999. Contour interval 5'.

This drawing is conceptual and for planning purposes only. Property information, scale, location of areas, and other information shown are subject to field evaluation and modification.

Date: 10/5/98
Revisions:

Mariani Site

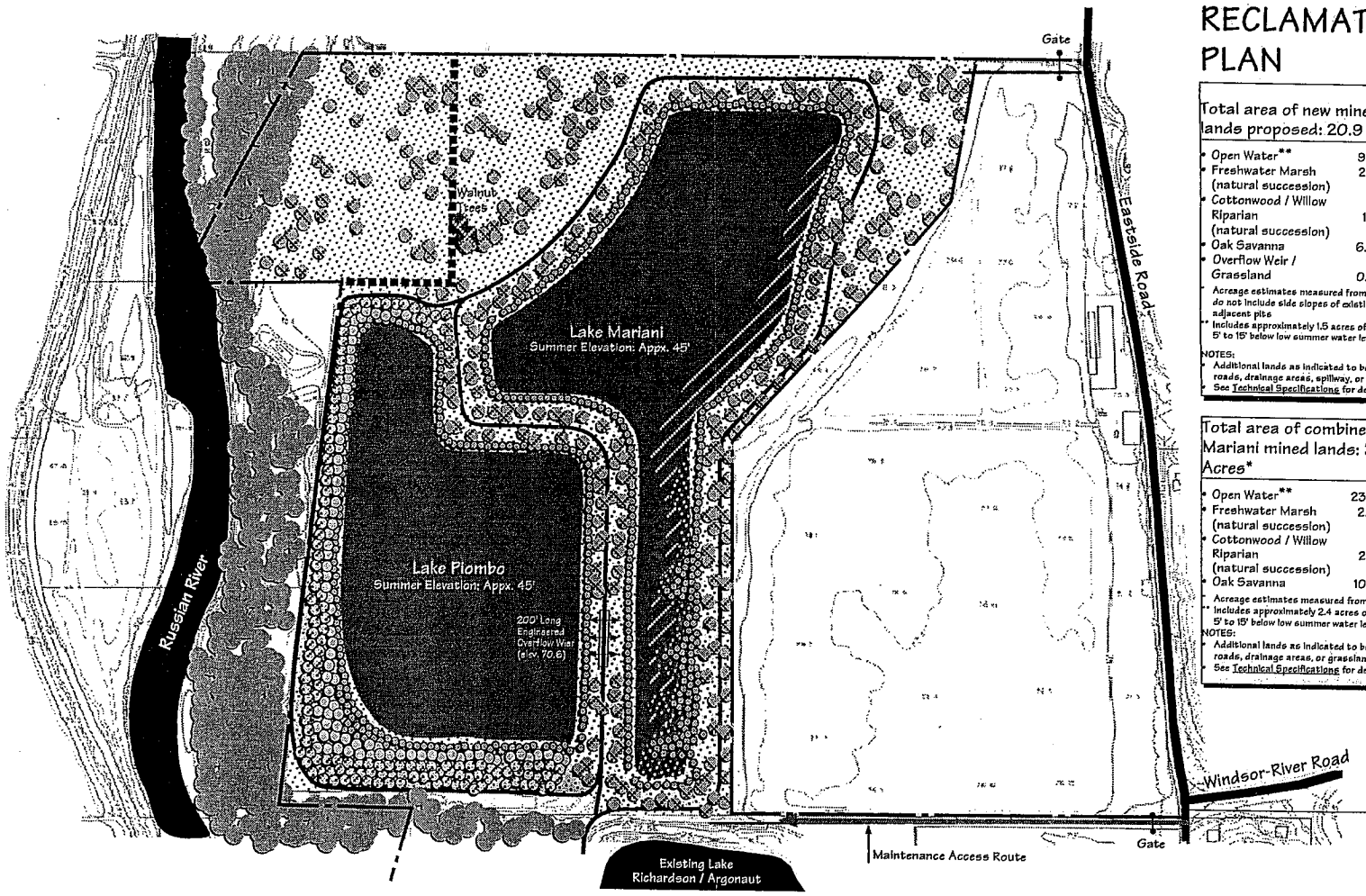
Kaiser Sand and Gravel Company
10249 Eastside Road
Healdsburg, CA 95448

Prepared by:
Cahill & Associates
ENVIRONMENTAL PLANNING

Landscape Architecture Society, California (510) 524-8132 CA License No. 1892

Exhibit 1G

RECLAMATION PLAN



Total area of new mined lands proposed: 20.9 Acres*

• Open Water**	9.4 Acres
• Freshwater Marsh (natural succession)	2.5 Acres
• Cottonwood / Willow Riparian (natural succession)	1.7 Acres
• Oak Savanna	6.8 Acres
• Overflow Weir / Grassland	0.5 Acres

* Acreage estimates measured from top of mined slope and do not include side slopes of existing or permitted adjacent pits

** Includes approximately 1.5 acres of gravel shoals located 5' to 15' below low summer water level

NOTES:
- Additional lands as indicated to be reclaimed as access roads, drainage areas, spillway, or grasslands.
- See Technical Specifications for details.

Total area of combined Mariani mined lands: 38.9 Acres*

• Open Water**	23.4 Acres
• Freshwater Marsh (natural succession)	2.8 Acres
• Cottonwood / Willow Riparian (natural succession)	2.3 Acres
• Oak Savanna	10.4 Acres

* Acreage estimates measured from top of mined slope.

** Includes approximately 2.4 acres of gravel shoals located 5' to 15' below low summer water level.

NOTES:
- Additional lands as indicated to be reclaimed as access roads, drainage areas, or grasslands.
- See Technical Specifications for details.

Contour interval 5'.
Topographic elevations shown are based on 1929 N.G.V.D. data with field survey control by Towill, Inc. dated March 29, 1989.

Scale: 0 200' 400'

1 Acre

North

This drawing is conceptual and for planning purposes only. Property information, scale, location of access, and other information shown are subject to field verification and modification.

Legend

- Property Line
- Open Water
- Gravel Shoals
- Freshwater Marsh - Natural Succession
- Cottonwood / Willow Riparian Forest - Natural Succession
- Cottonwood / Willow Riparian Forest
- Mixed Riparian Forest
- Oak Savanna / Grassland

Date: 10/4/98
Revisions:

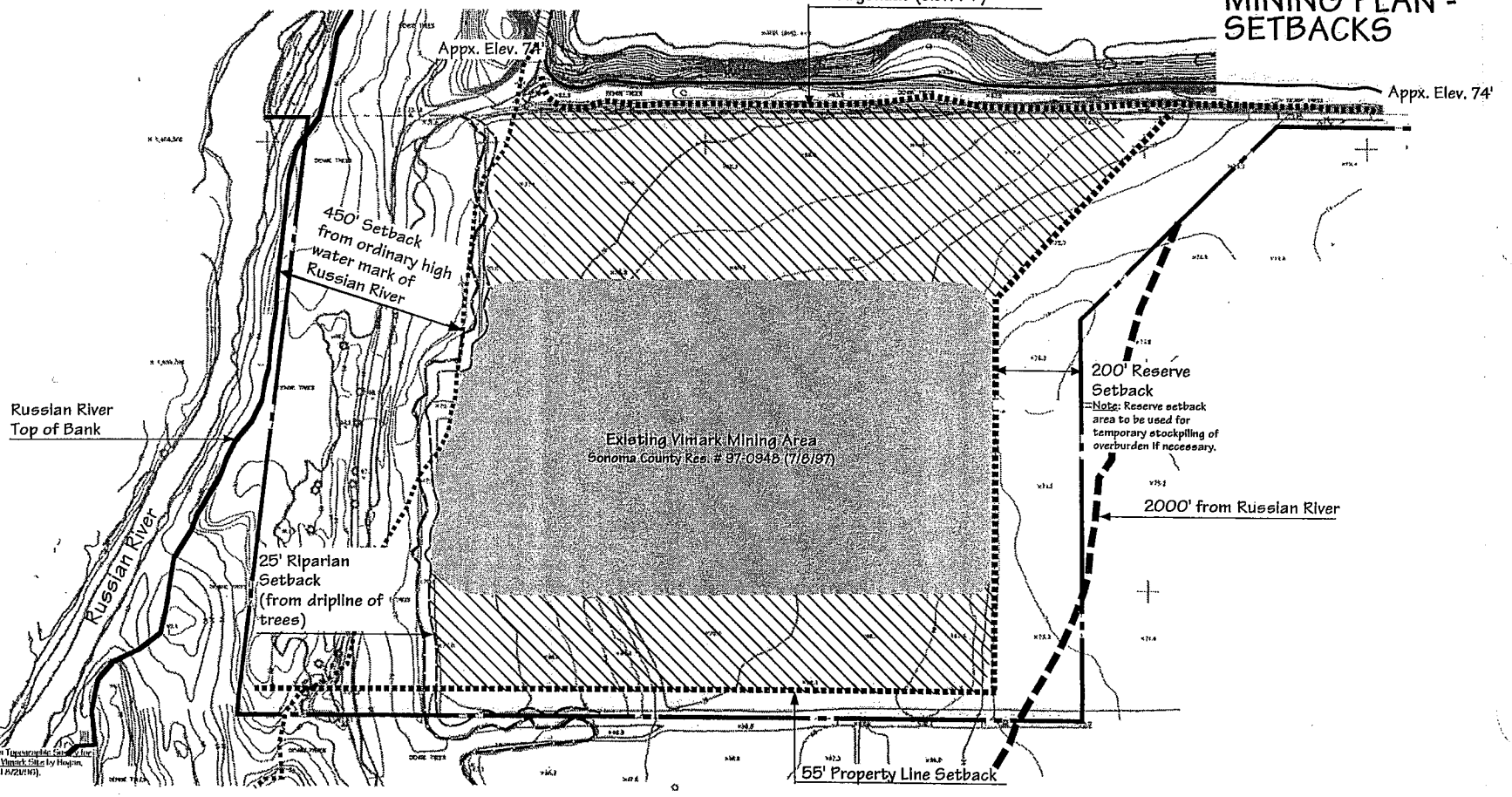
Mariani Site

Kaiser Sand and Gravel Company
10249 Eastside Road
Healdsburg, CA 95448

Prepared by:
Jones & Associates Environmental Planning

Exhibit 2D

MINING PLAN - SETBACKS



Base information shown from Topographic Survey for Kaiser Sand & Gravel of the Vimark Site by Hogan, Selbach & Associates (dated 8/2/96).

Contour Interval = 2'.

Horizontal and vertical datum are referenced to the control scheme detailed in the "1995 A.R.M. Monitoring Program for the Russian River" recorded in Book 544 of Maps 1-6.

Scale 0 100' 200' 300' Acres 1/4

North

This drawing is conceptual and for planning purposes only. Program information, scale, location of areas, and other information shown are subject to field evaluation and modification.

Legend

- Property Line
- Mining Area (New Mining Acreage: 20.0 Acres)

NOTE: New mining acreage estimate does not include side slopes of existing or permitted adjacent pits; For information, the area of adjacent pit sides slopes proposed to be mined is approximately 4.9 acres.

Date: 10/4/98
Revisions: 10/9/98

Vimark Site

Kaiser Sand and Gravel Company

9029 Eastside Road
Healdsburg, CA 95448

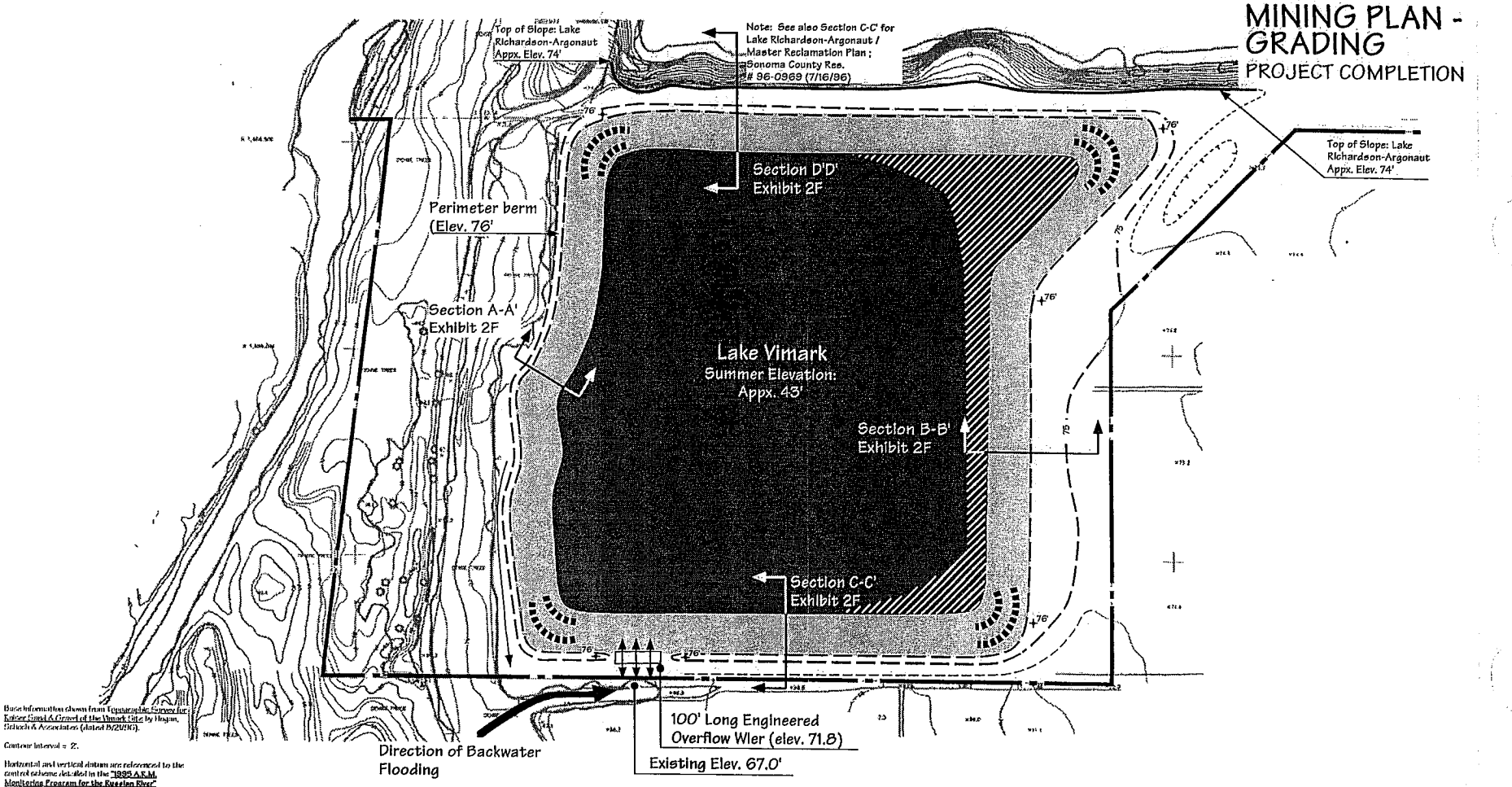
Prepared by:

Zahray & Associates
ENVIRONMENTAL PLANNING

Landscape Architecture
Berkeley, California
(510) 524-8122
California Lic. No. 1402

Exhibit 2E

MINING PLAN - GRADING
PROJECT COMPLETION



Base information shown from Topographic Survey for Kaiser Sand & Gravel of the Vimark Site by Hogan, Stilnich & Associates (dated 8/2/96).

Contour interval = 2'.

Horizontal and vertical datum are referenced to the control scheme detailed in the "1995 A.E.M. Monitoring Program for the Russian River" recorded in Book D44 of Maps 14.

Scale 0 100' 200' 300' Acres 1/4

North

This drawing is conceptual and for planning purposes only. Program information, scale, location of areas, and other information shown are subject to field evaluation and modification.

Legend

- Property Line
- Mined Slopes (Note: See Exhibit B: Mining and Reclamation Sections for details)
- Approximate Summer Water Level (Note: See Exhibit B: Reclamation Plan for final water and shoreline conditions)
- Drainage Swale
- Silt Fencing (Note: See Reclamation Plan Specifications for details)
- New Contours — 5' Interval
- Interim Contour

Date: 10/4/98
Revisions: 10/9/98

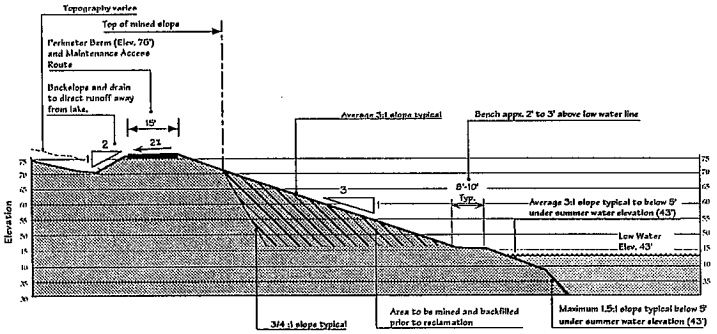
Vimark Site
Kaiser Sand and Gravel Company
9029 Eastside Road
Healdsburg, CA 95448

Prepared by:
Zinny & Associates
ENVIRONMENTAL PLANNING

Landscape Architecture
Berkeley, California
(510) 524-8332
California Lic. No. 1947

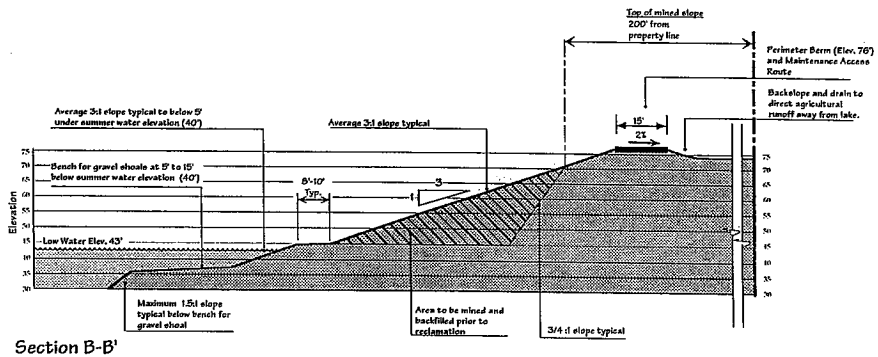
Exhibit 2F

MINING AND RECLAMATION PLAN - CROSS SECTIONS



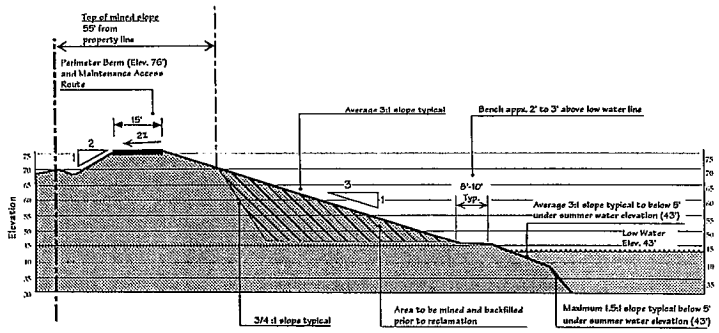
Section A-A'

Scale
0' 10' 20' 40'



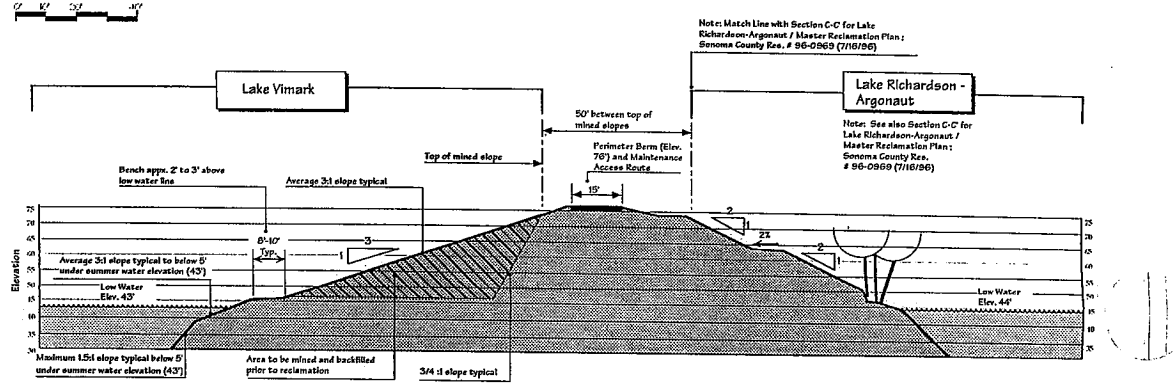
Section B-B'

Scale
0' 10' 20' 40'



Section C-C'

Scale
0' 10' 20' 40'



Section D-D'

Scale
0' 10' 20' 40'

Scale: As Noted

Base information shown from Topographic Survey for Kaiser Sand & Gravel of the Vimark Site by Hayes, Scholz & Associates (dated 9/28/95), Contour Interval = 2'.

Horizontal and vertical datum are referenced to the control scheme detailed in the "1996 A.R.M. Monitoring Program for the Riverlan Plant" recorded in Book 5464 of Maps 1-6.

This drawing is conceptual and for planning purposes only. Final information (lot, scale, location of uses, and other information shown) are subject to field evaluation and modification.

Date: 10/5/98
Revisions: 10/9/98

Vimark Site

Kaiser Sand and Gravel Company
9029 Eastside Road
Healdsburg, CA 95448

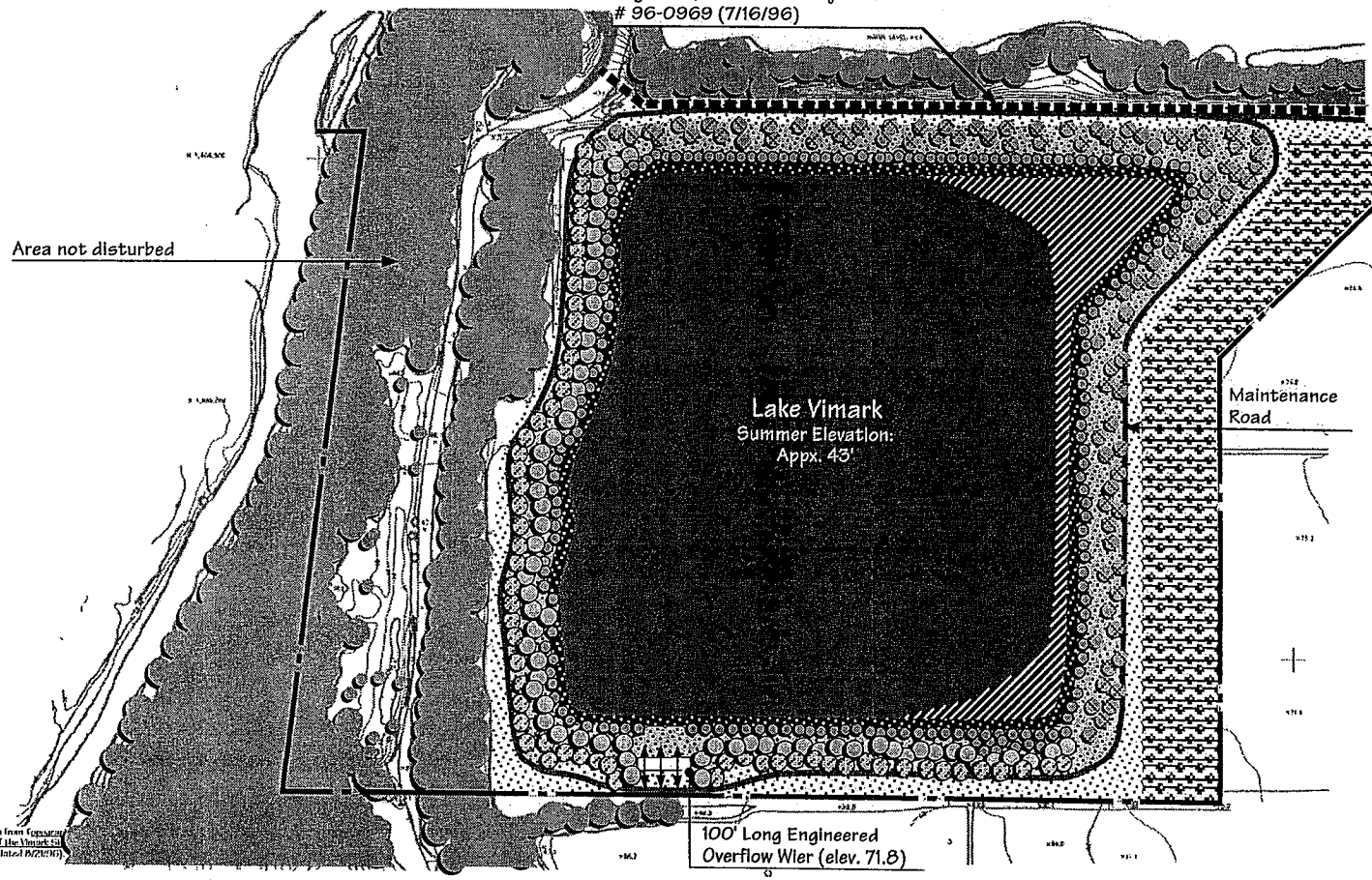
Prepared by:
Hayes & Associates
ENVIRONMENTAL PLANNING

Landscape Architecture
Berkeley, California
(510) 524-8870
California Lic No 3492

Note: Boundary of Kaiser Master Reclamation Plan / Lake Richardson-Argonaut; Sonoma County Res. # 96-0969 (7/16/96)

Exhibit 2G

RECLAMATION PLAN - VEGETATION



Base information drawn from topography by Kaiser Sand & Gravel of the Vimark Pit, Sichuch & Associates (dated 8/28/96).

Contour Interval = 2'.

Horizontal and vertical datum are referenced to the control scheme detailed in the "1995 A.R.M. Monitoring Program for the Russian River" recorded in Book 544 of Maps 1-5.

Scale: 0, 100', 200', 300' — Acres: 1/4

North

This drawing is conceptual and for planning purposes only. Program information, scale, location of items, and other information shown are subject to field evaluation and modification.

Legend

- Property Line
- Open Water
- Gravel Shoals
- Freshwater Marsh - Natural Succession
- Cottonwood / Willow Riparian Forest - Natural Succession
- Cottonwood / Willow Riparian Forest
- Mixed Riparian Forest
- Oak Savanna / Grassland
- Vineyard
- Grassland

Total area of new mined lands proposed: 20.8 Acres*

• Open Water*	9.5 Acres
• Freshwater Marsh (natural succession)	0.9 Acres
• Cottonwood / Willow Riparian (natural succession)	0.9 Acres
• Cottonwood / Willow Riparian	1.8 Acres
• Mixed Riparian Forest	2.5 Acres
• Oak Savanna	4.8 Acres
• Overflow Weir / Grassland	0.4 Acres

* acreage estimates measured from top of mined slope and do not include side slopes of existing or permitted adjacent pits.

** Includes approximately 0.9 acres of gravel shoals located 5' to 15' below low summer water level.

NOTES:

- See Technical Specifications for details.

Total area of combined Vimark mined lands: 40.8 Acres*

Note: Acreage includes the following

- 20 Acres - Sonoma County Res. #97-0948 (7/8/97)
- 20.8 Acres - additional mined lands

• Open Water**	27.4 Acres
• Freshwater Marsh (natural succession)	1.4 Acres
• Cottonwood / Willow Riparian (natural succession)	1.4 Acres
• Cottonwood / Willow Riparian	2.0 Acres
• Mixed Riparian Forest	2.8 Acres
• Oak Savanna	5.4 Acres
• Overflow Weir / Grassland	0.4 Acres

* acreage estimates measured from top of mined slope.

** Includes 2.7 acres of gravel shoals located 5' to 15' below low summer water level.

NOTES:

- Approximately 9 acres of additional lands that may be disturbed by mining associated activities to be reclaimed as access roads, small grassland areas, or to a condition suitable for use as vineyards or other agricultural uses.
- See Technical Specifications for details.

Date: 10/4/98
Revisions: 10/9/98

Vimark Site

Kaiser Sand and Gravel Company
9029 Eastside Road
Healdsburg, CA 95448

Prepared by:
Jones & Associates ENVIRONMENTAL PLANNING
Landscape Architecture Berkeley, California (510) 524-1121 California Lic. No. 1911

MARIANI SITE

HYDRAULIC ANALYSIS

September 1998



MURRAY, BURNS & KIENLEN
A CORPORATION
CONSULTING CIVIL ENGINEERS
1616 29TH STREET, SUITE 300
SACRAMENTO, CA 95816

MARIANI SITE
Hydraulic Analysis
September 1998

Purpose

The purpose of this study is to present engineering analysis for flood water management decisions at the Mariani Aggregate Mining Pit near the Russian River in Sonoma County. This data will also be used by Fisheries biologists to evaluate the impact of the project to fish and provide appropriate mitigation.

The existing Mariani Site is an aggregate mining pit on the flood plain terrace of the Middle Reach of the Russian River. Kaiser Sand & Gravel proposes to expand the existing pit to include an additional 20.9 acres. The Mariani Site is located north of the Richardson/ Argonaut Pit on the left terrace of the Russian River, see Figure 1. Land use on the terrace is a mixture of aggregate mining and agriculture. Mining and subsequent reclamation of the pits has resulted in large lakes on the terrace, which during a flood event can be inundated.

Floods along the project reach are normally of a short duration, lasting three or four days. These floods develop rapidly, shortly after the beginning of a large storm. Since 1986, flood flows have occurred in 1993, 1995, 1997 and 1998.

Stage Frequency

Due to the extensive overbank flows, there is about a 10 foot stage difference on the Middle Reach between the 2-year and 100-year event. Figure 2 provides a stage-frequency curve from the hydraulic analysis at the site. The existing top perimeter elevation varies from 76.2 to 68.7 feet. The frequency curve and respective top of bank elevation indicates how often the perimeter can be expected to overtop. The state-frequency curve shows that the Mariani area is inundated between a two to five year average return interval (a 50% to 20% chance of annual exceedance).

Mariani Analysis

The hydraulic analysis scenarios were evaluated by the unsteady flow model UNET (US Army Corps of Engineers, 1996). The model utilized 1994 cross sections to define river topography and utilized the historic January 1995 flood hydrographs for flow. The resulting stage and flow hydrographs are the basis for comparison to evaluate each alternative.

The lowest elevation for the Mariani perimeter is approximately 68.7 (NGVD '29) and is located at the southwest corner of the pit, near the existing Piombo pit. This area is where flood waters initially overtop the perimeter and would flow into Mariani, from Piombo.

The Piombo Pit has an approved reclamation plan which includes a weir to allow flood water into the pit. The purpose of the weir is to prevent overtopping, failure of the Piombo river bank. It is proposed that a separator embankment be maintained between Piombo and Mariani to

allow Piombo to fill and later Mariani. The Mariani pit will fill through a proposed weir connected to the Piombo pit. The analysis for Mariani assumed that the existing Piombo weir would not be modified for the Mariani expansion. The Piombo river weir is at approximately elevation 68 (NGVD '29).

The Mariani Site is located a minimum of 800 feet from the Russian River. The sites orientation to the river and topography on the floodplain terrace do not pose a significant threat for pit capture.

During a flood, water overtops the banks of the Russian River and flows on the terrace. Fish may also be within the flood flow on the terrace and may become stranded when the flood water recedes. There may be a greater potential for fish to become stranded in the terrace located at an aggregate pit than in the natural pre-pit condition. To mitigate for the potential fish entrapment, low berms are proposed around the perimeter of the Mariani Site to prevent fish access to the pit area.

The UNET model results for the historic 1995 condition, pre-project, was calculated to determine pre-project conditions. A post project comparison of the river and pit stage hydrographs was also calculated. Three alternatives were run to evaluate the proposed overflow configuration and perimeter berm height. Figure 3 is a tabulated summary of the results. Summarized below is a description of the three alternatives.

Alternative A

Allow overflow in the Mariani Pit at elevation 68 (1.5-year event, existing Piombo weir elevation), and raise perimeter ground elevations to a minimum elevation of 74 feet. The minimum opening width at the southwest corner overflow area should be 150 feet. Figure A is the stage hydrograph for the Alternative A layout. The opening and spillway should be hardened to prevent erosion of the bank. The proposed perimeter elevation of 74 (2-year to 5-year stage) is approximately 4 feet higher than existing average elevations on the western edge of the pit. Figure 4 is a schematic of the conceptual pit layout showing the berm location and spillway into the pit.

Alternative B

Allow overflow in the Mariani Pit at elevation 70.6 (2-year event), and raise perimeter ground elevations to a minimum of 76 feet. The minimum opening width should be 200 feet. Figure B is a stage hydrograph for the Alternative B layout. The opening and spillway should be hardened to prevent erosion. The proposed perimeter elevation of 76 feet (5-year to 10-year stage) is approximately 6.0 feet higher than the existing average elevations on the western edge of the pit.

Alternative C

Allow overflow in the Mariani Pit at elevation 74.5 (5-year event), and raise the perimeter ground elevation to a minimum of 78 feet. The minimum opening width at the southwest corner overflow into the pit should be 250 feet. Figure C is the stage hydrograph for

the Alternative C layout. The opening and spillway should be hardened to prevent erosion of the bank. The proposed perimeter elevation of 78 (10-year event) is approximately 78 feet higher than existing average elevations on the western edge of the pit.

Recommendation

The selection for the preferred alternative should balance hydraulic stability, cost and fisheries. The analysis shows that hydraulically, Alternative A will allow filling of the pit and reduce fish contact to the Mariani Pit. The lower weir elevation for Alternative A will be hydraulically more stabile than the higher elevations in Alternative B and Alternative C. A detailed cost analysis was not performed, but since less material will be required for Alternative A it should be the least costly alternative. Based on the above analysis, the recommended alternative is Alternative A. For all the alternatives, the overflow spillway should be designed to prevent erosion of the Mariani bank. Hardening of the spillway should extend from the bottom of the overflow to the top of the proposed berm.

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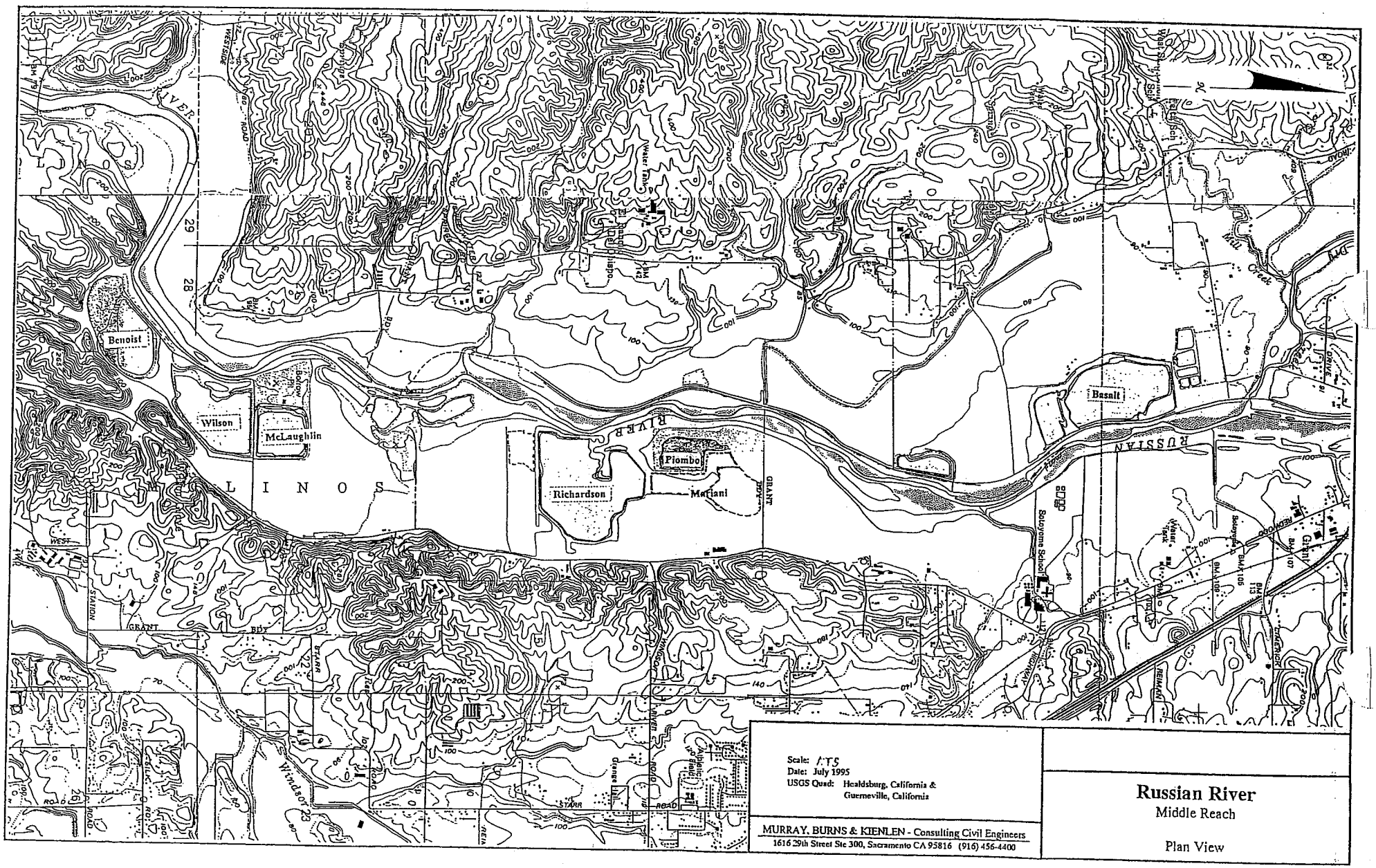

Benoist
Wilson
McLaughlin
Piombo
Richardson
Mariani
Basalt
Salvayone School
GRANT
STARR
Windsor
RIVER
RUSSIAN
Scale: NTS
Date: July 1995
USGS Quad: Healdsburg, California &
Guerneville, California
MURRAY, BURNS & KIENLEN - Consulting Civil Engineers
1616 29th Street Ste 300, Sacramento CA 95816 (916) 456-4400
Russian River
Middle Reach
Plan View

FIG. 1.

Russian River Stage Frequency

MARIANI SITE

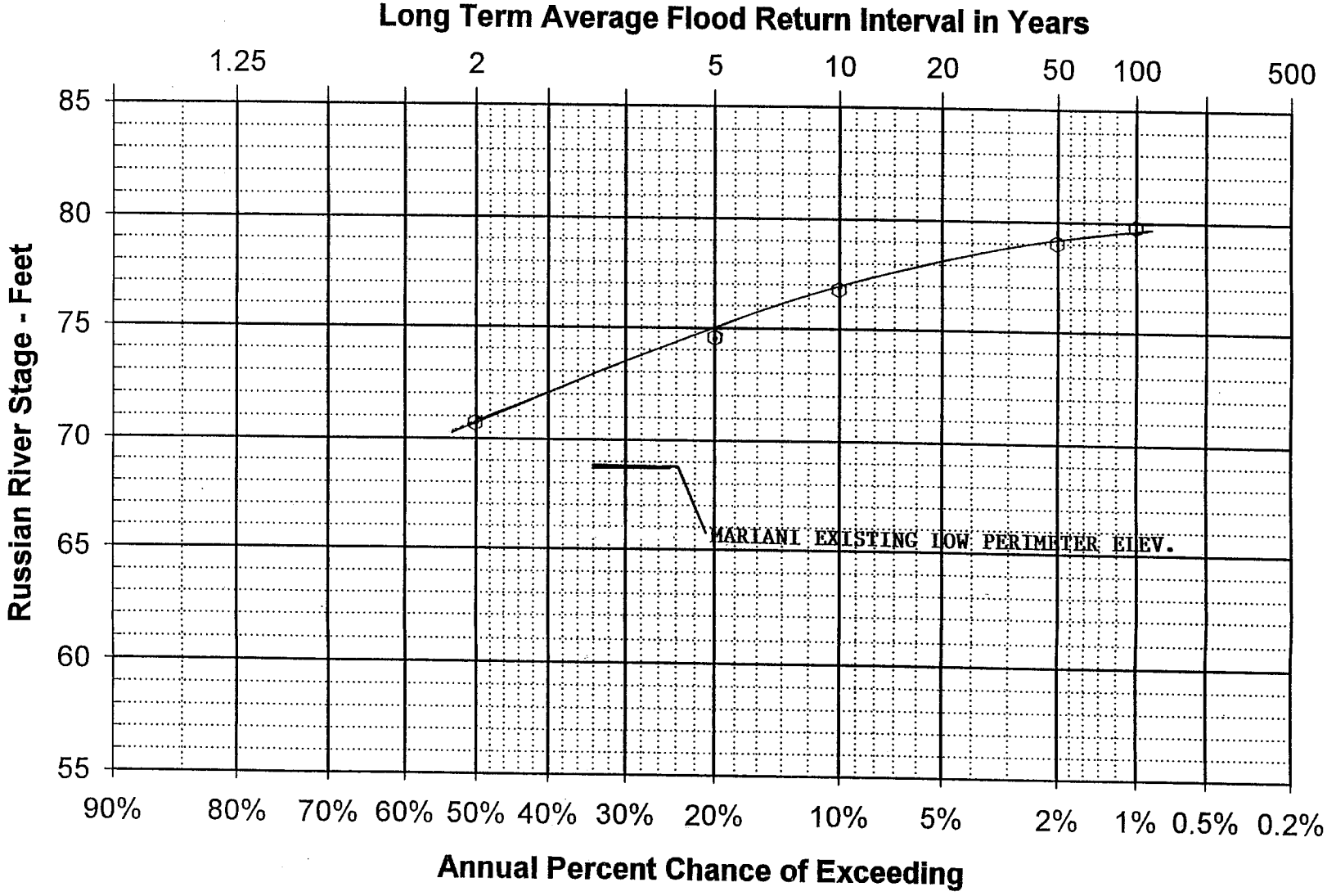


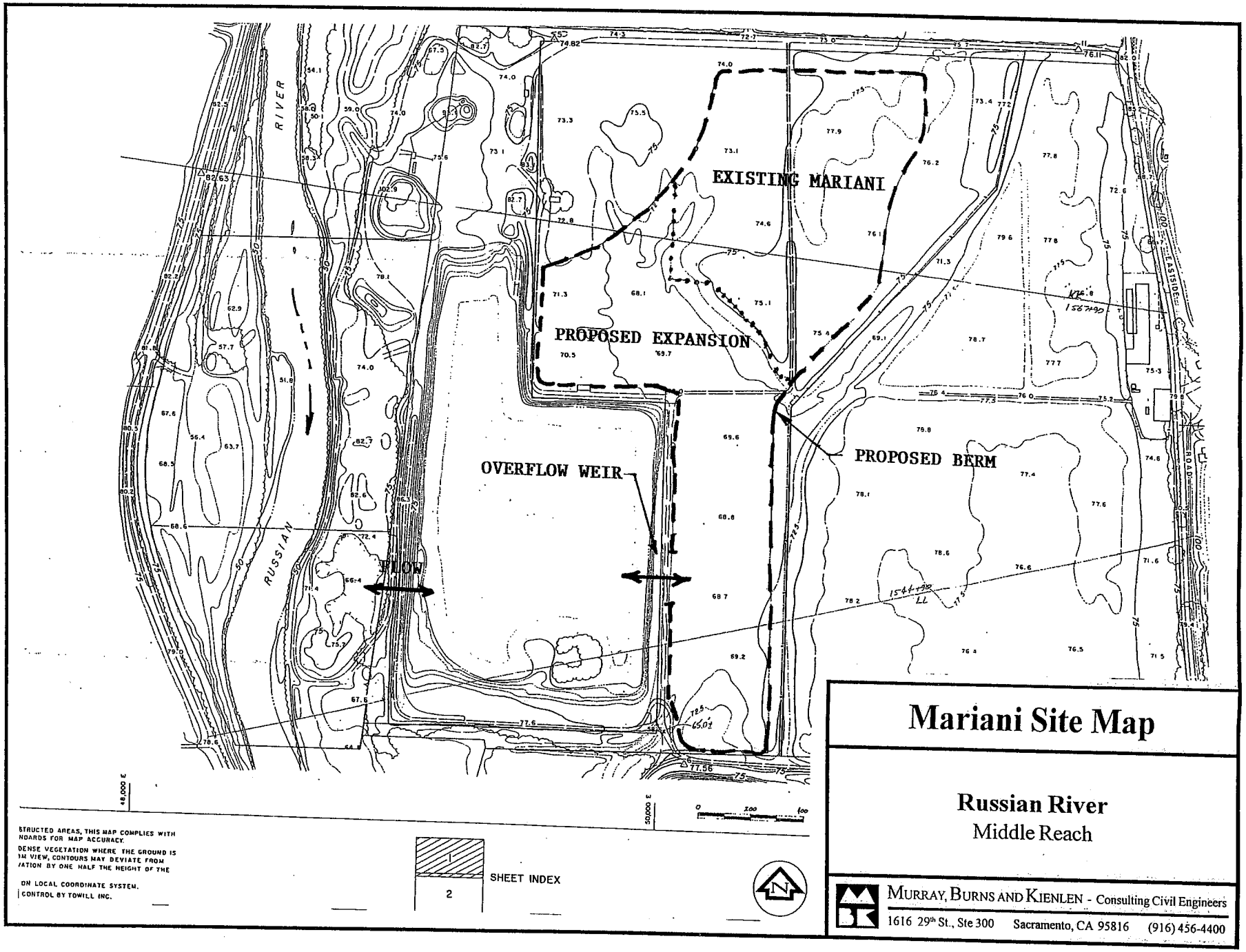
FIG. 2

FIGURE 3

Mariani Overflow Analysis 1995 Hydrograph				
Frequency	Weir Crest Elevation	Width	Time to Fill	Fill Elevation*
1.5 yr	68	150'	4 hours	74
2 yr	70.6	200'	5 hours	76
5 yr	74.5	250'	7 hours	78
Note: Peak river stage at Mariani in 1995 = 78				

---

* Elevation of water surface in Mariani equalized to river elevation.



Mariani Site Map

Russian River
Middle Reach

MURRAY, BURNS AND KIENLEN - Consulting Civil Engineers
1616 29th St., Ste 300 Sacramento, CA 95816 (916) 456-4400

FIG 4

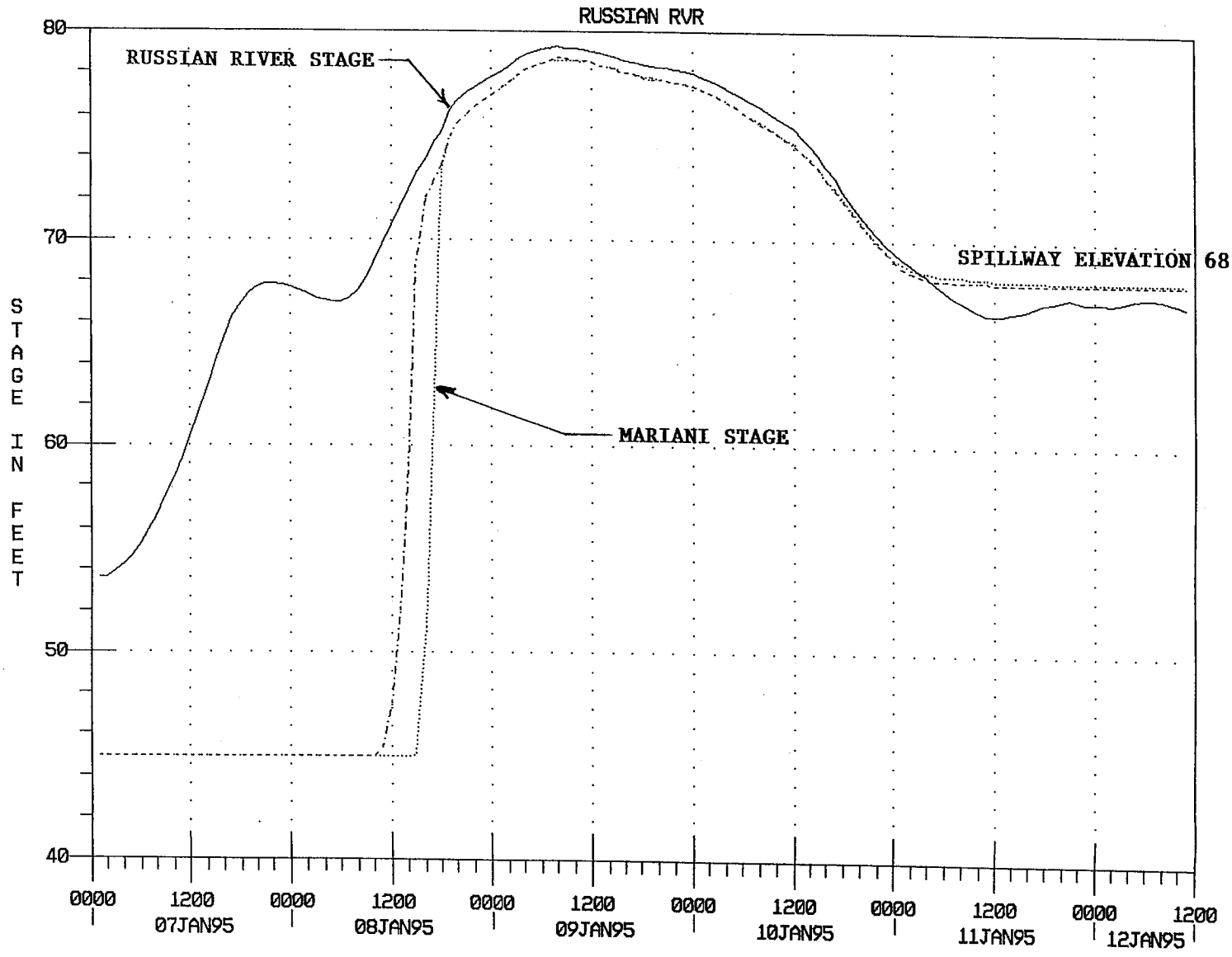

RUSSIAN RVR
RUSSIAN RIVER STAGE
SPILLWAY ELEVATION 68
MARIANI STAGE
STAGE IN FEET
80
70
60
50
40
0000
1200
07JAN95
08JAN95
09JAN95
10JAN95
11JAN95
12JAN95
MARIANI WR53100G STAGE
PIOMBO WR53100G STAGE
XSECKK WR53100G STAGE

FIG. A

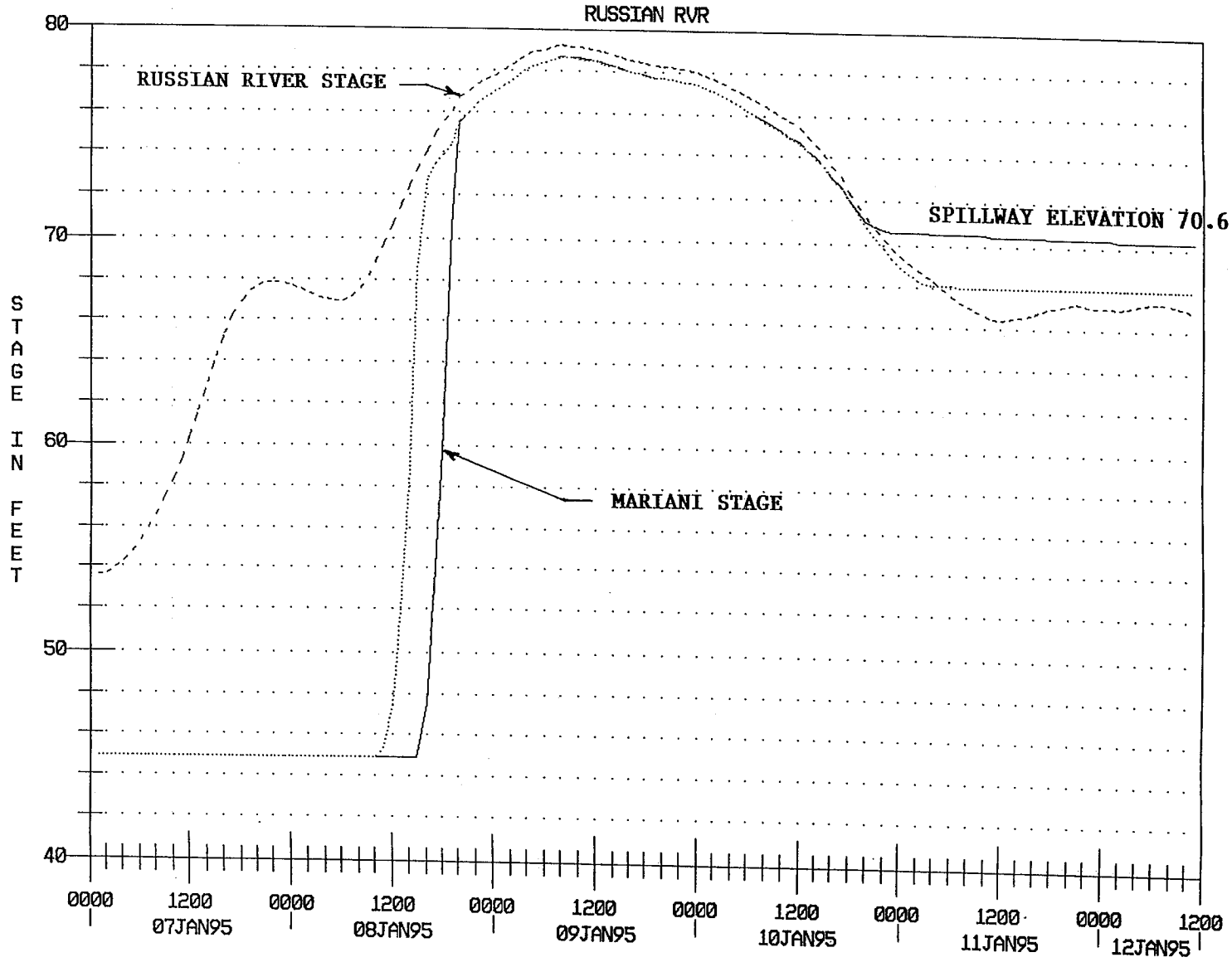

RUSSIAN RVR
RUSSIAN RIVER STAGE
SPILLWAY ELEVATION 70.6
MARIANI STAGE
STAGE IN FEET
80
70
60
50
40
0000
1200
07JAN95
0000
1200
08JAN95
0000
1200
09JAN95
0000
1200
10JAN95
0000
1200
11JAN95
0000
12JAN95
1200
MARIANI WR53100G STAGE
PIOMBO WR53100G STAGE
XSECKK WR53100G STAGE

FIG. B

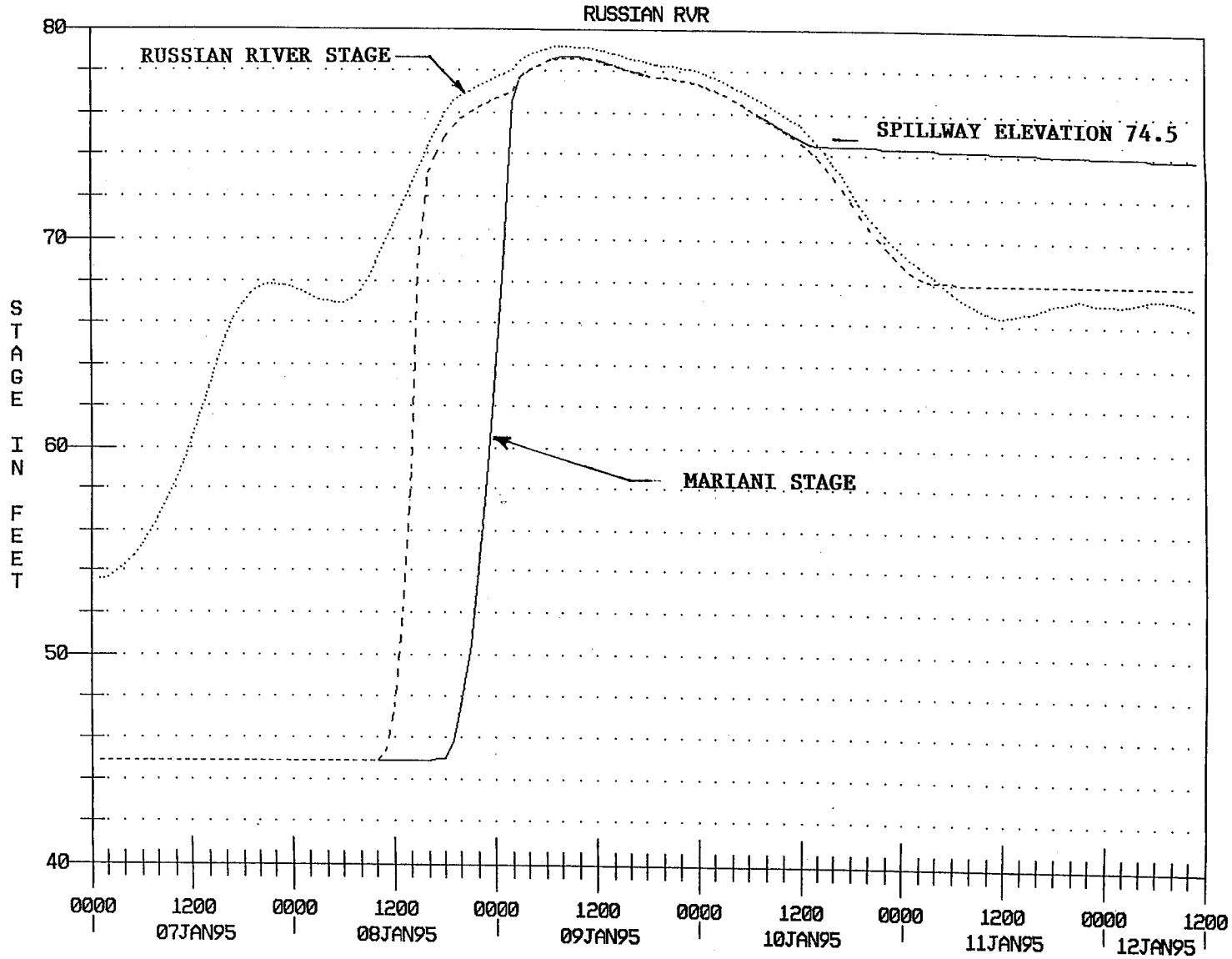

RUSSIAN RVR
RUSSIAN RIVER STAGE
SPILLWAY ELEVATION 74.5
MARIANI STAGE
STAGE IN FEET
80
70
60
50
40
0000
1200
07JAN95
0000
1200
08JAN95
0000
1200
09JAN95
0000
1200
10JAN95
0000
1200
11JAN95
0000
12JAN95
1200
MARIANI WR53100G STAGE
PIOMBO WR53100G STAGE
XSECKK WR53100G STAGE

FIG. C

Piombo Reclamation Plan
Grading, Planting, and Erosion & Sediment Control Plans
Plans and Specifications

October 5, 1992

Prepared for:

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Prepared by:

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Western Ecological Services Company
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1.0 INTRODUCTION

This document specifies grading, planting, irrigation, erosion and sediment control, and monitoring activities associated with reclaiming mined lands on the Piombo property owned by Kaiser Sand and Gravel Company, herein after referred to as "Owner". These specifications were developed in conjunction with the California Department of Fish and Game, herein after referred to as "CDF&G".

1.1 Regulatory Requirements

Incorporated by reference are reclamation standards as outlined by the Surface Mining and Reclamation Act (SMARA) and the Sonoma County Surface Mining and Reclamation Ordinance (SMARO). In addition:

A. Reclamation activities will be performed in accordance with all applicable laws, codes, and regulations required by authorities having jurisdiction over such work and provide for all inspections and permits required by Federal, State, and local authorities in furnishing, transporting and installing materials.

B. Certificates of inspection required by law for transportation of plants will accompany invoice for each shipment. File copies of certificates will be maintained by Owner. Inspection at place of growth does not preclude rejection of plants at project site.

1.2 Reclamation Plan Concept

Figure 1, Grading Concept, illustrates the general surface configuration that will be created. Figure 2, Planting Concept, illustrates the vegetative mosaic that will be created both through natural succession and through an active planting program. Figures 1 and 2 are conceptual. Final slopes, contours, and planting patterns will be determined in the field in consultation with CDF&G and Sonoma County. "As-built" drawings of final designs will be prepared.

The grading concept for reclamation is based on a general understanding of the overburden and other fill materials available for use on-site. Where a conservative approach has been taken in cut-and-fill calculations to assure that the grades shown on Figure 1 can be created, it should be noted that the precise acreage that will be possible to create for underwater shoals, freshwater marshlands, and other individual plant communities are dependent on the extent of on-site fill and topsoil materials. The grading concept assumes no importation of fill materials.

Table 1 lists plant communities associated with reclamation activities, targeted acreage of each, and the general methods (natural succession vs. plantings) that will be used to establish each community. Table 2 lists individual species that will be planted.

The natural regrowth of riparian vegetation is encouraged. Supplemental plantings will be used as necessary to accomplish the revegetation program. Only native plant species indigenous to the immediate Russian River region are specified. Where practical, all native woody plants used in revegetation efforts will come from site-specific propagules (seeds, nuts, acorns, cuttings, root divisions, etc.). In order to protect the health of existing plant communities, over-collection will not occur, so that existing plants may continue to reproduce themselves.

Piombo Reclamation Plan

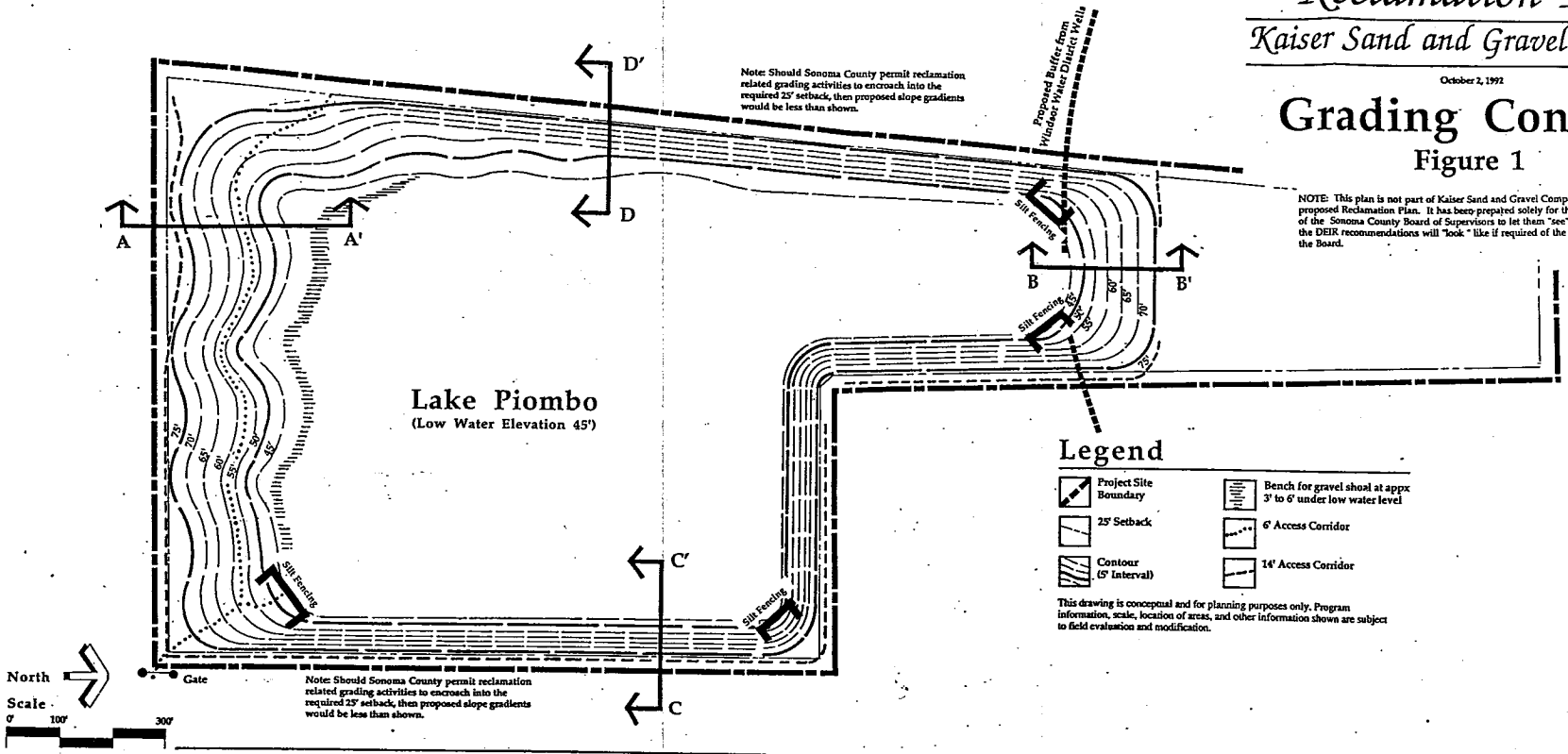
Kaiser Sand and Gravel Company

October 2, 1992

Grading Concept

Figure 1

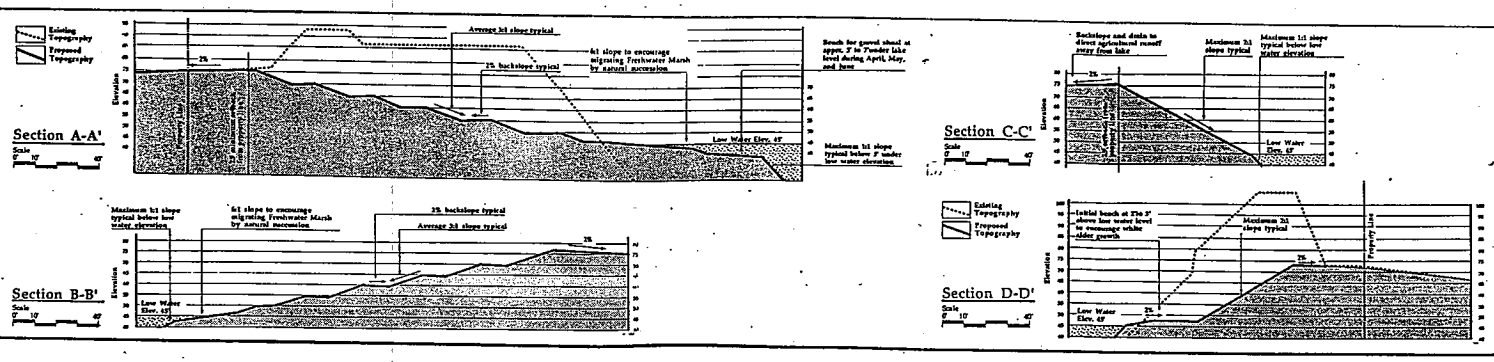
NOTE: This plan is not part of Kaiser Sand and Gravel Company's proposed Reclamation Plan. It has been prepared solely for the convenience of the Sonoma County Board of Supervisors to let them "see" what certain of the DEIR recommendations will "look " like if required of the applicant by the Board.



Legend

- Project Site Boundary
- 25' Setback
- Contour (5' Interval)
- Bench for gravel shoal at appx 3' to 6' under low water level
- 6' Access Corridor
- 14' Access Corridor

This drawing is conceptual and for planning purposes only. Program information, scale, location of areas, and other information shown are subject to field evaluation and modification.



Piombo Reclamation Plan

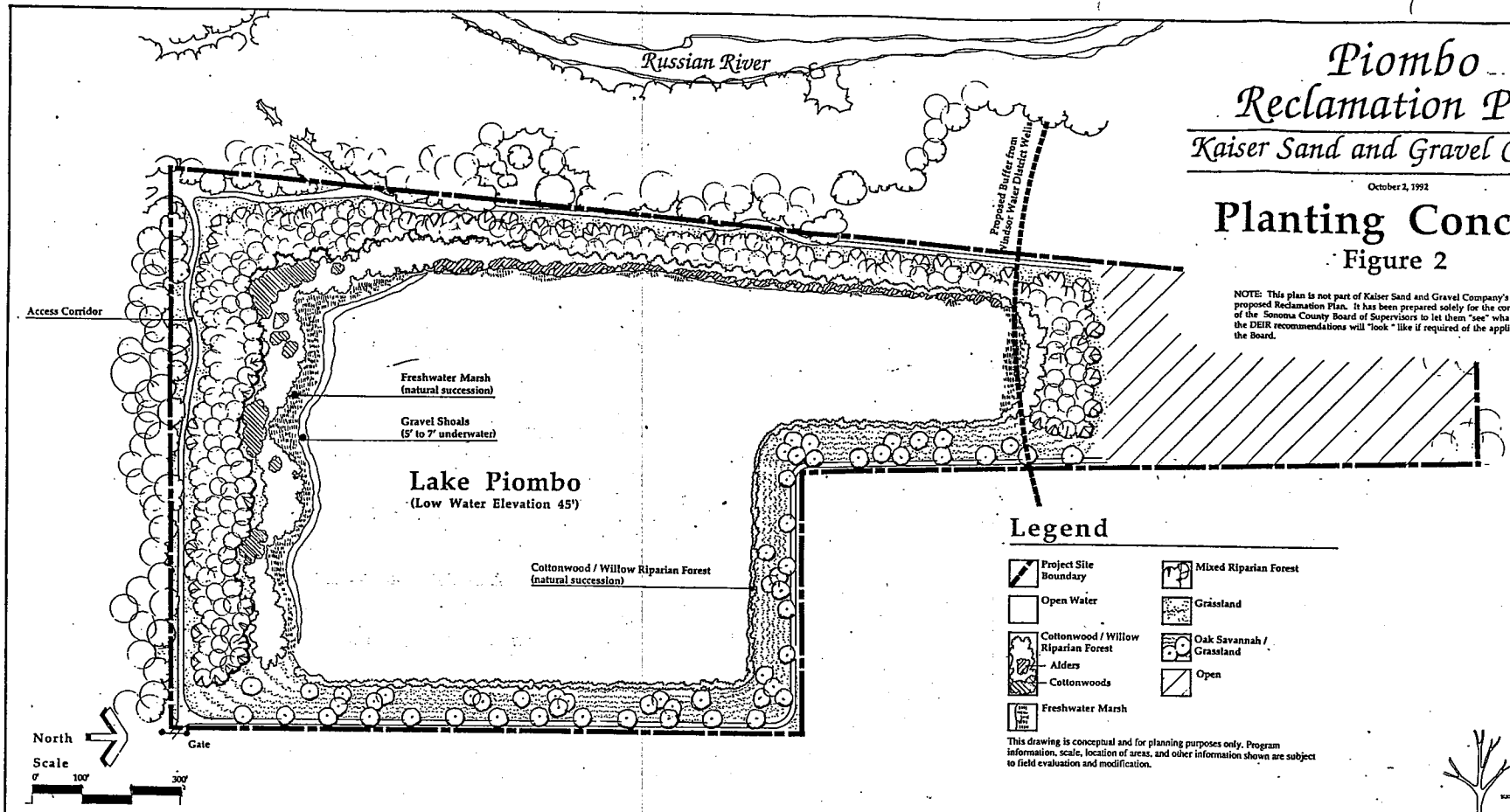
Kaiser Sand and Gravel Company

October 2, 1992

Planting Concept

Figure 2

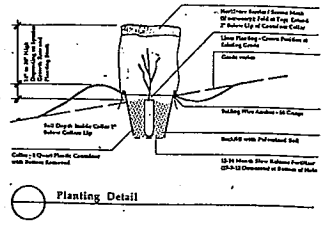
NOTE: This plan is not part of Kaiser Sand and Gravel Company's proposed Reclamation Plan. It has been prepared solely for the convenience of the Sonoma County Board of Supervisors to let them "see" what certain of the DEIR recommendations will "look " like if required of the applicant by the Board.



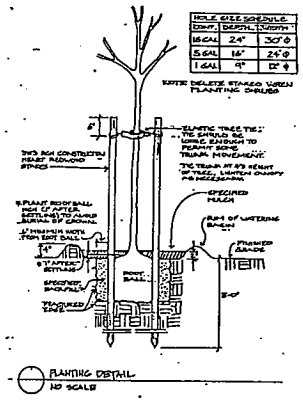
Legend

- Project Site Boundary
- Open Water
- Cottonwood / Willow Riparian Forest
  - Alders
  - Cottonwoods
- Freshwater Marsh
- Mixed Riparian Forest
- Grassland
- Oak Savannah / Grassland
- Open

This drawing is conceptual and for planning purposes only. Program information, scale, location of areas, and other information shown are subject to field evaluation and modification.



Planting Detail



1.3 Phasing of Reclamation Activities

Reclamation will take place in three general phases. The first phase will consist of reclaiming the south and west shorelines of Lake Piombo. Grading, planting and erosion and sediment control measures will be completed by October 1, 1993. Phase 2 consists of reclaiming the remainder of the project area, with initial planting to be completed within one year after completion of mining activities. Phase 3 consists of reclaiming the north end of the panhandle area and the remainder of the Piombo property.

TABLE R-1: Approximate Acreage of Plant Associations After Reclamation

Plant Association	Approximate Acreage
Existing Areas Not Disturbed	1.25 acres
Open Water*	26.50 acres
Freshwater Marsh	1.00 acres
Cottonwood/Willow Riparian Forest	1.50 acres
Mixed Riparian Forest	4.00 acres
Oak Savannah / Grassland	4.50 acres
Open Land (access corridors and non-mined areas)	6.25 acres
TOTAL	**45.00 acres**

* includes approximately 1 acre of underwater gravel shoals

Source: 2M Associates

Piombo Reclamation Plan
TABLE 2: Plant Schedule (continued)

Scientific Name	Common Name	Percentage of Total	Type	Size	Spacing	Approximate Quantity/Rate
Oak Savannah* **						
Quercus agrifolia	California Live Oak	25%	container	5 gal.		34
			acorns			1020
Quercus kelloggii	California Black Oak	25%	container	5 gal.		34
			acorns			1020
Quercus lobata	Valley Oak	50%	container	5 gal.		68
			acorns			2040
Seed Mix						
Bromus carinatus	California Brome	30%	seed			10 pls/acre
Escholzia californica	California Poppy	5%	seed			8 pls/acre
Festuca rubra	Molate Red Fescue	5%	seed			20 pls/acre
Hordeum brachyantherum	Meadow Barley	30%	seed			20 pls/acre
Lupinus succulentus	Succulent Lupine	5%	seed+			5 pls/acre
Stipa pulchra	Purple Needlegrass	25%	seed			1 pls/acre

Source: Western Ecological Services Company /2M Associates

* Plants indicated are supplemental to Cottonwood-Willow Riparian Forest which will occur by natural succession.

** plants to be placed randomly on graded terraces at a density of 3.5 feet on-center (approzimately 3,555 plants per acre)

*** 30 acorns of the same species will also be planted within approximately 1 square meter on the north side of each tree.

\+ properly inoculated

Piombo Reclamation Plan
TABLE 2: Plant Schedule

Scientific Name	Common Name	Percentage of Total	Type	Size	Spacing	Approximate Quantity / Rate
Cottonwood / Willow Riparian Forest*						
Alnus rhombifolia	White Alder	-	cuttings	liners	3.5′ o.c. two rows	572
Populus fremontii	Cottonwood	-	cuttings	-	3.5′ o.c.	1224
Mixed Riparian Forest**						
Salix hindsiana	Sandbar Willow	15%	cuttings	tall - 66%	3.5′ o.c.	1408
				short - 27%	3.5′ o.c.	576
				variable - 7%	3.5′ o.c.	149
Salix laevigata	Red Willow	30%	cuttings	tall - 66%	3.5′ o.c.	2816
				short - 27%	3.5′ o.c.	1152
				variable - 7%	3.5′ o.c.	298
Populus fremontii	Cottonwood	50%	cuttings	-	3.5′ o.c.	7112
Baccharis viminea	Mule Fat	5%	container	liners	3.5′ o.c.	356
Seed Mix						
Bromus carinatus	California Brome	30%	seed			10 pls/acre
Festuca rubra	Molate Red Fescue	10%	seed			20 pls/acre
Hordeum brachyantherum	Meadow Barley	40%	seed			20 pls/acre
Lupinus succulentus	Succulent Lupine	5%	seed+			5 pls/acre
Sisrynchium bellum	Blue-eyed Grass	10%	seed			1 pls/acre
Carex barbarea		5%	plugs			

2.0 GRADING AND SOIL PREPARATION

2.1 General

2.1.1 Intent of Drawings and Specifications

Figure 1, Grading Concept, and these specifications provide a general guide showing contours, slopes, and drainage patterns with the expressed intent to communicate an overall design concept and establish certain design parameters. Precise grading and drainage patterns will be determined by the quantity of soil available on site and in the field at time of grading.

2.1.2 Protection of Plants To Remain

Grading activities will not disturb selected areas of existing plants as identified and agreed to by CDF&G.

A. Existing planting to remain is defined as:

- All planting outside the "14' access corridor" as shown on Figure 2.
- All trees, shrubs and planting identified at the initiation of reclamation activities by a qualified biologist to remain within the "14' access corridor".

B. Protection:

- All trees and other planting to be saved will be protected from damage. No limbs will be cut. Damage to and scraping of roots will be avoided.
- Storage of materials or equipment, or operation of equipment under the branches of any existing plant to remain, will not take place except as actually required for construction in those areas.
- Barricades, fences or other barriers will be provided as necessary at the drip line of existing plants to remain to protect them from damage during construction.
- No burning will be allowed on site.

C. If existing plants to remain are damaged during construction, replacement plants of the same species and size or plants of equal habitat value will be installed.

2.2 Products

Manufacturer's literature or laboratory analytical data for the following products will be available for inspection, if necessary, for imported topsoil.

2.2.1 Topsoil

The upper two feet of all overburden material and topsoil on site will be stockpiled at the initiation of earthwork activities.

2.2.2 Imported Backfill

General Qualifications: Imported backfill, if necessary, to be used as planting medium for the project will conform to the following requirements:

A. General Composition: Soil composition will be sandy loam of a uniform kind and quality, free of debris, noxious weeds and seeds, nematodes and other deleterious matter.

B. Chemistry:

- A pH value of between 5.5 and 7.5.
- A sodium absorption ratio (SAR) of less than 8.
- A boron concentration of the saturation extract of less than 1 ppm.
- Salinity of the saturation extract at 25 degrees C. less than 4.0 millimhos per centimeter.

C. Particle Size: Soil should meet USDA specifications for the desired texture of sandy loam.

D. Fertility: There are no specific requirements for the fertility of the existing or import material. Follow all recommendations of the approved soil analysis in achieving a soil of adequate fertility.

2.2.3 Gravel

Gravel for use in shoals will be composed of a variety of sizes up to 0.75-inch diameter

2.3 Execution

2.3.1 Excavation

All earthwork activities will be guided by the dimensions and elevations indicated on Figure 1: Grading Concept. Where planting areas are indicated on Figure 2, such areas will be excavated to allow for the placing of one foot (1') of topsoil from materials available on site.

2.3.2 Fill

All areas receiving fills will be scarified to a depth of 6" and moisture-conditioned as needed to obtain the required compaction. Fill materials will be spread in uniform lifts of not more than 8" in uncompacted thickness. Prior to commencing compaction, fills will be brought to water content that will permit proper compaction. Thoroughly mix each lift before compaction to assure uniform distribution of water content.

2.3.3 Compaction

Each layer of fill and scarified subgrade will be compacted to not less than 85% maximum density. All compaction will be performed using compacting rollers, pneumatic, or vibratory compactors or other approved equipment and methods.

2.3.4 Preparation of Subgrade

Subgrade will be loosened and scarified to 3 inch (3") minimum depth immediately prior to spreading topsoil. Bring subgrade to true and uniform grade and clear it of all stones larger than 3 inches (3"), sticks and other extraneous materials.

2.3.5 Spreading of Topsoil

Topsoil existing on the site will be spread to a minimum depth of one foot (1') after natural settlement and light rolling and will conform to general concept for finish grades and elevations shown on Figure 1 and as directed in the field. Topsoil will not be placed or spread under muddy, wet, or frozen conditions. Grading of slopes should be finished by track-walking up and down the slope (one pass) with a small bulldozer. Spreading of topsoil should be conducted such that unnecessary compaction is minimized.

2.3.6 Finished Grading

All areas covered by the project, including excavated and filled areas and adjacent transition areas, will be uniformly graded so that finished surfaces conform to the general elevations noted on Figure 2 and as directed in the field.

2.3.7 Soil Treatment / Weed Control

Upon completion of grading activities and prior to seeding and planting, all areas to be planted will be watered such that seeds within the soil germinate. After germination and when plants are in active growth, a non-selective systemic herbicide with the active ingredient of Isopropylamine salt of Glyphosate (Roundup or equivalent) will be applied following manufacturer's specifications.

2.3.8 Temporary Sediment Control

Silt fencing should be installed at the completion of soil spreading in selected locations as indicated on Figure 1. The silt fencing material shall consist of three-foot (3′) width polyproylene fabric with an equivalent opening size (EOS) of 70 to 100 with a tensile strength of at least 200 lbs. The fencing should be supported with stakes driven into the ground a minimum of one-foot (1′), placed a maximum of eight-feet (8′) on center. The bottom of the material shall be keyed into a four inch (4″) trench, then backfilled and compacted.

2.3.9 Gravel

Gravel will be placed on a bench in areas indicated on Figure 1. The gravel shoal will be:

- width of shoal: 10′ minimum
- slope of shoal width: ranging from 3′-5′ near shore to 7′-10′ towards the center of the lake
- length of shoal: parallel shoreline

Depth and size of gravel will be determined by a qualified aquatic biologist.

3.0 PLANTING

3.1 General

3.1.1 Intent of Drawings and Specifications

Figure 2, Planting Concept, and these specifications provide a general guide showing plant locations, numbers, sizes and densities with the expressed intent to communicate an overall design concept and establish certain design parameters. Precise placement of plants will be determined in the field at time of planting.

3.1.2 Selection, Tagging, and Ordering of Plant Materials

A. Plants will be subject to inspection and approval at place of growth and upon delivery for conformity to specifications. Such approval will not impair the right of inspection and rejection during progress of the work. Written requests for inspection of plant material at place of growth will be submitted to Owner. Written requests will state the place of growth and quantity of plants to be inspected. Owner reserves right to refuse inspection at this time if, in his/her judgment, a sufficient quantity of plants is not available for inspection.

B. Substitutions of plant materials will not be permitted unless authorized in writing. If proof is submitted that any plant material specified is not obtainable, a proposal will be considered for use of the nearest equivalent size, species, cultivar or variety. These provisions will not relieve Owner of responsibility for obtaining specified materials in advance if special growing conditions or other arrangements must be made in order to supply specified materials.

3.1.3 Reference Standards

A. *An Annotated Checklist of Woody Ornamental Plants of California, Oregon and Washington*, (Publication number 4901), McClintock and Leiser, Division of Agricultural Sciences, University of California, 1979.

B. *Preliminary Description of Terrestrial Natural Communities of California,*, Holland, Department of Fish and Game, State of California, 1986.

3.1.4 Site Conditions

All areas of work will be kept clean, neat and orderly at all times. All deleterious materials and debris from the entire work area will be removed prior to beginning

of landscape monitoring period.

3.1.5 Samples and Tests

Samples of materials for conformity to specifications as referenced herein will be furnished by Owner upon request. Rejected materials will be immediately removed from the site at Owner's expense. Cost of testing of materials not meeting specifications will be paid by Owner.

3.2 Installation Procedures

Unless otherwise approved, all planting will be conducted in the fall near the beginning of annual rains. In general, the work will proceed as rapidly as possible, consistent with normal seasonal limitations for planting work.

3.3 Warranty Periods and Replacements

A. Owner warrants that all plant material planted will be healthy at time of initial planting.

B. Any delay in completion of planting operations that extends the planting into more than one planting season will extend the monitoring period correspondingly.

C. As soon as weather conditions permit, Owner will replace all dead plants, and all other plants not in a vigorous, thriving condition, based on stated target goals of the monitoring program.

3.4 Products

If requested, manufacturer's literature or laboratory analytical data for the following products will be submitted for review: planting fertilizer; mulch; quantity and species of plants ordered; nursery supplier (s); proposed substitutions for any plant material not available at that time.

3.4.1 Planting Soil

All existing topsoil on site will be stockpiled for later use. Any imported soil, if needed, will meet the specifications discribed in section 2.2.2 and be free of noxious weeds and seed, pests and deleterious substances.

3.4.2 Plant Material

A. Container Plants: All container plants (liners to five-gallon can size) will conform to the following:

- ❑ All container plants will be propagated from sources in Russian River region or other sources with growing conditions similar to the project site. Whenever possible, plants will be propagated and grown within the Russian River region. Plants grown outside the vicinity will be acclimated on site for a minimum of two weeks prior to installation. Plant health and vigor will be maintained during this period of acclimatization.

- ❑ Plants to be nursery-grown will be done so in accordance with good horticultural practices under climatic conditions similar to those of project area. Plants will be true to species and cultivar or variety, and will conform to container sizes specified. Plants will be well-formed, symmetrical, and of a size where top growth is balanced with rootball size. All trees will have straight trunks of uniform taper, larger at the bottom than at the top. Plants that do not possess a normal balance between height and spread, or between top growth and rootball size, will be rejected.

- ❑ Plants will be sound, healthy and vigorous, well branched and densely foliated when in leaf. They will be free of disease, insect pests, eggs, larvae, and will have healthy, well-developed root systems. They will be free from physical damage or adverse conditions that would prevent thriving growth.

- ❑ Plants will not be pruned before delivery. Trunks will be free of damaged bark, with all minor cuts and abrasions showing healing tissue. Trees with major abrasions, disfigurements, or fresh cuts of limbs over three-fourths inch (3/4") which have not completely calloused, will be rejected.

- ❑ Container plants stored on site prior to planting will be kept in a moist, shaded environment.

- ❑ Container stock greater than one gallon in size will have grown in the containers in which delivered for at least six months, but not over two years. Samples must prove no rootbound conditions exist. No container plants which have cracked or broken balls of earth when taken from container will be planted except upon special approval from Owner.

B. Willow and Cottonwood Cuttings: Willow and cottonwood stakes and branches will not be prepared more than seven days prior to installation and will be wrapped in burlap sacks and watered daily until planting commences. All materials will be cut from healthy, dormant live branches of plants native to and growing in the

immediate Russian River region. Material will be collected with a maximum harvest of 25% per plant.

C. Cuttings/Embankment: Stakes will be a minimum of 3/4 inch and a maximum of 2 inches in diameter, and will be between 18 and 36 inches in length. Remaining leaves will be removed from stakes. Cuts will be clean and without frayed ends.

D. Acorns: All acorns will be collected from healthy, live trees native to the immediate Russian River region. Collection will done in the late summer to fall months as acorns ripen and begin to drop. They will be sound, well-formed with shiny coats, and free of insect holes.

3.4.3 Seed

A. All seed will conform with all laws and regulations pertaining to the sale and shipment of seed required by the California Department of Agriculture. Seed will be delivered to the site tagged and labeled in accordance with State Agriculture Code and will be acceptable to the county Agriculture Commissioner.

B. Seed will be of a quality which has a minimum Pure Live Seed (% purity x % germination) as specified (see Table 2). Weed seed will not exceed 0.5 percent of the pure live seed and inert material. All seed is subject to inspection. Species and/or varieties will not be substituted without prior approval.

3.4.4 Mulch

Mulch on seeded areas will be wheat straw. All bales will be free of noxious weed seed, mold, and deleterious materials. Owner will furnish evidence that clearance has been obtained from the County Agricultural Commissioner if straw is obtained from outside Sonoma County. Straw mulch will be anchored with wood fiber and an organic binder. One ton of straw bales will be kept on site and protected from rain upon completion of initial planting to be used for emergency erosion control as necessary.

Mulch around individual container plants will be fir/pine bark as follows:

- Particle Size (Dry Weight Basis):

Percent Passing	Sieve Designation
90-100	6.35 mm (1/4 inch)

COUNTY of SONOMA
DEPARTMENT OF HEALTH SERVICES
Mark A. Kostielney - Director

Environmental Health Division
Jonathan J. Krug - Director

May 6, 1996

RECEIVED
MAY 09 1996
PERMIT AND RESOURCE MANAGEMENT DEPARTMENT COUNTY OF SONOMA

Kaiser Sand & Gravel Company
P.O. Box 580
Pleasanton, CA 94566

Attn: Larry Appleton

RE: Relocation of Processing Plant to APN 66-300-11 and 110-110-016 (a.k.a. Piombo Panhandle)

We have received and reviewed the Sonoma County Planning Commission Staff Report regarding the above referenced project. A Spill Prevention Plan for Field Fueling and Lubrication was also submitted.

The plan submitted was originally designed to address the operators at 7821 Eastside Road which is under permit by this division for hazardous material storage and hazardous waste generation. However, the new site is near the City of Windsor drinking water wells which presents unique concerns. We cannot approve this plan for the above referenced project without due consideration for the protection of those wells.

We have the following comments regarding this project:

1. Fueling Area: A bermed impermeable fueling pad should be constructed in order to minimize runoff and provide spill containment.

2. Spill Notification: Any spill of fuel or other hazardous material which cannot be immediately cleaned up and/or potentially threatens human health, the environment, and/or groundwater, shall be reported to the following agencies in addition to those previously listed by you.

A.) California Department of Emergency Services (800) 852-7550.

B.) Sonoma County Department of Health Services, Environmental Health Division (707) 525-6565.

C.) North Coast Regional Water Quality Control Board (707) 576-2000.

D.) California Department of Health Services, Drinking Water Field Operations Branch (707) 576-2295.

3. Storage Areas: All hazardous materials and hazardous waste should be stored with secondary containment and protective cover to avoid rain water accumulation and runoff.

Through telephone conversations with Dennis Ripple and Larry Appleton of Kaiser Sand & Gravel, we understand that this truck fueling plan is temporary. Operations currently located at the main plant (i.e. 7821 Eastside Road) will be relocated to the Piombo Panhandle in the future. At that time, a complete Hazardous Materials Management Plan will be required for the new hazardous materials and hazardous waste generation site.

Please submit an amended Spill Prevention Plan for Field Fueling and Lubrication to this office for review and approval. At the time of submittal, a review fee of $217.00 is also requested. This fee covers the first two hours of review time. Any time spent on this project beyond that will be billed at the hourly rate of $109.00.

Copies of the Spill Prevention Plan should also be submitted to Sonoma County Permit & Resource Management Department, attention Dave Schiltgen.

If you have any questions, please contact Eleanor Ratliff at (707)525-6577.

Sincerely,

Eleanor Ratliff, R.E.H.S., III
Hazardous Materials Specialist

ER/sh

\cc: Dave Schiltgen, P.R.M.D.
Leah Walker - Cal. Dept of Health Services, Drinking Water Field Operations
50 D Street, Ste 200
Santa Rosa, CA 95404

Robert Tancreto, NCRWQCB

❑ Organic Content: Determined by ash analysis. Minimum 94 percent based on dry weight.

❑ Chemistry:

Nitrogen: Minimum 0.8 percent as N on dry weight basis.
Salinity: Maximum saturation extract conductivity 3.5 millimhos per cm. 25 degrees C.
Iron: Minimum 0.8 percent as Fe dry weight basis.

❑ Wettability: The air-dry product will, when applied to a cup or a small beaker of water at 70 degrees F., in the amount of 1 teaspoon, become completely wet in a period not exceeding 2 minutes. Any wetting agent added to accomplish this will be guaranteed to be non-phototoxic at rate used.

3.4.5 Fertilizer

All fertilizer will conform with all rules and regulations of the California Department of Agriculture and be applied according to manufacturer's specifications. Slow-release commercial fertilizer will be Osmocote 14-14-14 or approved equal. Fertilizer will be uniform in composition, dry, and free-flowing. Fertilizer will be delivered in dry, unopened bags and labeled in accordance with California State regulations. No substitutions of specified fertilizer will be made without prior approval.

3.5 Execution

3.5.1 Handling of Plant Materials

A. Canned stock will be removed carefully after cans have been cut on two sides with approved cutter. Do not use spade to cut cans. Do not lift or handle container plants by tops, stems, or trunks at any time.

3.5.2 Layout and Excavation of Planting Areas

A. Plants will be placed according to guidelines found in the Table 2: Plant Schedule at locations shown on Figure 2. Plant locations will be adjusted as necessary in the field before planting begins.

B. Excavation for plants in container and liners will be in accordance with Drawings.

3.5.3 Drainage, Detrimental Soils and Obstructions

Drainage of plant pits for container plants over one gallon in size will be tested by filling with water twice in succession. Conditions permitting the retention of water in planting pits for more than twenty-four (24) hours will be brought to the attention of Sonoma County. Proposals for correction will be submitted to Sonoma County for approval before proceeding with work.

3.5.4 Seeding

A. Unless otherwise approved, all seeding will be conducted in the late summer or fall near the beginning of annual rains.

B. Specified seed mix will be applied above the 60′ elevation as shown on Figure 1 at rate specified, using mechanical seed spreader to ensure even seed distribution. Seed will be distributed as uniformly as possible. Seed will be applied from tops of slopes where appropriate. Seed will not be left uncovered more than 24 hours. Apply wheat straw mulch as specified in Section 3.5.7.

3.5.5 Acorns

A. One acorn grouping, consisting of thirty acorns, will be planted within an approximately one-square-yard area on the north to west sides of each container oak tree planted. Acorns will be placed in individual holes that are one to three inches deep, at a rate of three acorns per hole, and laid on their side.

3.5.6 Cuttings

Soils will be moist at the time of installation, which may require watering. Cuttings will be pushed into soft ground, or if necessary, to avoid damaging bark, a hole slightly smaller than the diameter of the stake will be prepared using reinforcing bar or a similar tool. Stakes will be planted so that a minimum of 3/4 of the stake is buried. Approximately two inches will remain above ground level. Soil around cuttings will then be firmly tamped into place to avoid air pockets. Stakes will be planted on 3.5 foot centers.

3.5.7 Container Planting

A. Plants will be protected at all times from sun and drying winds. Plants that cannot be planted immediately on delivery will be kept in the shade, well protected

and will be kept well watered so that they remain in a healthy and thriving condition.

B. After removing plant from container, the sides of rootball will be scarified to prevent root-bound condition. Plants will be planted in ground and watered within 30 minutes of removal from containers.

C. Fertilizer in plant pits will be evenly applied according to the Drawings.

D. Stockpiled topsoil will be used to backfill plant pits. Plants will be set plumb and braced rigidly in position until planting soil has been tamped solidly around the ball and roots. When plant pits have been backfilled approximately 2/3 full, water will be applied, saturating rootball, before installing remainder of the planting soil to top of pit, eliminating all air pockets.

E. Planting areas will be smoothed to conform to specified grades after full settlement has occurred.

F. A saucer will be formed, creating a four inch (4") berm around tree pits twelve inches (12") wider than ball diameter.

G. All plants will be watered immediately after planting.

J. All nursery type plant labels, staking, and ties will be removed from plants.

3.5.7 Mulching

All planting pits will be mulched with a two inch (2") layer of specified mulch, except in seeded areas.

A. Mulch will be spread evenly on the soil surface after planting has been completed, fine grading has been completed, and soil surface smoothed. Do not cultivate mulch into soil; leave on soil surface.

B. Mulch will be brushed from all foliage. Mulch will not bury plant crown.

For seeded areas, after seed has been applied, the straw will be blown or broadcast (as access permits) at a rate of 2.5 tons/acre. Following that, the wood fiber and organic binder will be blown over the straw in a water slurry. On slopes of 3:1 and steeper, the rate will be 300 lbs/acre wood fiber and 100 lbs/acre organic binder. Slopes shallower than 3:1 will not be required to recieve any fiber or binder and straw may be hand punched or crimped to anchor in place.

3.5.8 Staking

Staking, if deemed necessary, will be used on container trees of 5-gallon size or larger immediately after planting. Plants will stand plumb after staking.

A. Stakes on the north and south sides of trees (2 stakes total per tree) will be used s shown in Figure 2. Stakes will be driven at least thirty-six inches (36") into firm ground.

B. Tie tree to stake using approved tree tie in one location only. Support for trees to be located as low as possible on the trunk, yet high enough that the tree will return to upright position after deflection.

3.5.7 Pruning

Prune plants only at time of planting and according to standard horticultural practice to preserve the natural character of the plant. Only dead wood, suckers, and broken or badly bruised branches will be removed. No wood over one-half inch (1/2") diameter will be removed.

3.5.8 Watering

All plantings will be watered immediately after planting. After the first watering, water will be applied as conditions may require to encourage the plants to grow in a healthy and vigorous condition.

4.0 IRRIGATION

A temporary, overhead irrigation system will be installed for the initial establishment of seeded areas and container plants. The general characteristics of the system will include:

A. 3:1 sloped areas
- ❑ two parallel main lines with one located at the top of edge of the slope and roughly along the 60′ contour
- ❑ 4″ Schedule 40, Brownline pipe
- ❑ brass impact heads triangulated at 60′ on center

B. 2:1 sloped areas
- ❑ one main line located at the top of edge of slope
- ❑ 4″ Schedule 40, Brownline pipe
- ❑ brass impact heads at 60′ on center

Detailed irrigation plans will be submitted to CDF&G for review prior to the start of reclamation activities.

5.0 MONITORING PLAN AND SUCCESS CRITERIA

5.1 Overview

Monitoring will be used to assess progress toward the restoration goals. The overall objectives of this monitoring plan are to document and evaluate the establishment of habitat over time and to identify problems (if any) and recommend corrective measures so that the success criteria are met. The success criteria outlined in the next section will be used to assess progress toward the specific goals and objectives of this plan. If monitoring determines the objectives are not being fulfilled, corrective actions will be taken. The monitoring program described herein will be funded by Kaiser Sand and Gravel Company. The monitoring should be conducted by a qualified biologist familiar with the area flora and fauna.

The following monitoring parameters are based on discussions with the California Department of Fish and Game, information presented in the Draft Environmental Impact Report for the Piombo Pit Reclamation Plan (BASELINE 1992), and WESCO professional experience.

Quantitative data will be collected from both the riparian and the oak savannah habitat. Parameters which will be assessed are:

- ❑ tree species composition
- ❑ plant and avian species present
- ❑ plant density
- ❑ percent cover
- ❑ size class distribution

Data collected from trees will include:

- ❑ height
- ❑ canopy width
- ❑ diameter at breast height

Qualitative assessments will be made to determine the general condition of the site.

5.2 Pre-Monitoring Review

A. At the completion of all grading, planting, irrigation, and erosion and sediment control work and before the beginning of the formal Monitoring Period, a review will be performed with the California Department of Fish and Game and Sonoma County.

B. The review will be requested in writing by the Owner ten days before the completion of initial planting work in order that a mutually agreeable time for review may be arranged.

C. At the time of pre-monitoring review, all planting areas will be free of weeds and neatly cultivated. All plant basins will be in good repair.

D. If, after the review, CDF&G and Sonoma County are of the opinion that all work has been performed as per the Drawings and Specifications and that all plant materials are in satisfactory growing condition, written notice of acceptance and commencement of the formal Monitoring Period will be provided by CDF&G and Sonoma County.

E. Work requiring corrective action in the judgment of the CDF&G and Sonoma County at the time of the pre-monitoring review will be performed in a timely manner after receipt of written notification summarizing such work.

5.3 Schedule

Monitoring of vegetation, irrigation, and erosion and sediment control measures will be conducted (at most) weekly during and four weeks after planting; annually for the first five years; and every other year to year fifteen. Monitoring visits will also be conducted after major storm and/or flooding events.

5.4 Sampling Methods

5.4.1 Vegetation

The rationale for vegetation sampling is based on judgment as to what would yield a reasonable representation of vegetation in each of the restored habitats. There is no absolutely objective guide for determining the sample size or number of quadrats for quantitative analyses.

Two permanent 100-square-meter quadrats will be established in each of the habitats. Within each quadrat the following data will be recorded:

- ❑ species observed,
- ❑ number of individuals of each woody species observed,
- ❑ and the height and diameter at breast height (DBH) of each tree species observed.

The line intercept method will be used to determine the percent cover within the habitat types. Cover sampling along a line transect is conducted best by point sampling or recording the length of line that intercepts a plant or plant part. Point

sampling data for cover sampling will also be used to calculate the frequency of the species.

Vegetation cover estimates will be obtained from a tape placed to contact plants. The tape will be stretched taut at a height to contact vegetation canopy. The length of the plant part contacting the tape will be measured. The length of the line and total length intercepted by vegetation will be used to estimate percent cover. This method will also be used to estimate species composition; that is, the percentage of the total intercept made by the species.

A 25-meter tape will be used as the line and only one edge will be read for intercept. The location of the line will be permanently marked by steel stakes so that monitoring can occur over a long period of time. Two transects will be located within each of the restored habitats. The specific locale of each transect will be determined in the field once implementation has been completed.

Photographs will be taken at permanently established photopoints to document establishment over time. Photopoint locations will be determined in the field once implementation is complete to assure the most complete coverage of all site aspects. The photopoints will serve as verification of the data collected.

5.4.2 Wildlife

Wildlife monitoring will focus principally on the bird and mammal utilization of the Piombo Pit reclamation site. Wildlife use of open water will also be monitored since emergent vegetation can affect a change in aquatic nutrients, productivity and the development of food chains, and because there is data that gravel pits are actively used by a number of aquatic birds (WESCO 1991; BASELINE 1992). Reptile and amphibian use will be noted and mapped as observed during the course of bird and mammal monitoring.

A. Birds: Avian monitoring will be conducted three times a year. Two surveys will be conducted in spring; one each in May and June. A single survey will be conducted in midwinter because utilization of riparian habitats and associated open water by birds is strongly seasonal (Anderson and Ohmart 1984; Gaines 1980). Four permanent sampling stations located approximately 200 meters apart will be established on the site. The survey method will follow those outlined by Blondel et al. (1981) for point counts using an index of abundance (IPA) for the spring counts and EFP or frequency sampling method for the winter count. Each point count in spring will be sampled for 20 minutes soon after dawn with only the species presence recorded. The winter count can be conducted at any time during the day. Counts will not be conducted in periods of high winds and inclement weather.

From this data, species richness (s) species diversity (H), abundance and frequency values can be generated for year to year comparison. This census method is well suited to long-term studies. The surveys will be conducted annually for the first five years and then every other year for ten years.

Additional data collected will include evidence of nesting such as the presence of nests, presence of young out of a nest, adults observed with food, copulation, distraction displays, adults carrying nesting material, courtship, and territorial males. Location of nests on the site will be mapped and the species identified.

B. Mammals: Mammals will be monitored by conducting transects across the site at the same time bird monitoring is conducted. The transects will evaluate the presence of mammals' tracks and scats. In addition, two nights of small mammal trapping will be conducted annually in spring and fall. Each sample night will consist of 75 live traps run during a new moon. Captured mammals will be released on the site after examination and identification to species. Parameters such as species, richness, species diversity and frequency can be generated from the trapping data. Small mammal trapping will be conducted annually for the first five years and then every other year for ten years.

5.4.3 Erosion and Sediment Control Maintenance Measures

All seeded and mulched areas will be inspected one month prior to the rainy season and after major storm events for both effectiveness and accumulation of sediment behind the silt fencing. Repair and modifications to the erosion and sediment control measures will be made as required. The integrity of the silt fence will be inspected to ensure that no undercutting of the fence occurs. The ends of the fencing will be extended if conditions warrant. Accumulated sediment will be removed when the sediment reaches one-half (1/2) the height of the fence. The sediment will be spread out over a gently sloping, stable area and seeded with the appropriate seed mix listed in Table 2 and mulched. Upon full establishment of herbaceous vegetation, the silt fences will be removed and any remaining sediment will be dressed to conform to the existing grade, then seeded and mulched.

5.5 Monitoring Reports

Reports summarizing the monitoring results will be prepared in standard scientific format. All data sheets and photographs will be included as appendices in the reports. A preliminary report, including as-built plans, will be prepared to describe baseline conditions following implementation. Thereafter, reports will be prepared annually for five years and submitted by December 31 of each year. Reports will be submitted to the

California Department of Fish and Game and the County of Sonoma Planning Department.

5.6 Piombo Pit Restoration Success Criteria

Success criteria for restoration of Piombo Pit is based on data from reference sites collected by WESCO on September 17, 1992, data presented by Caltrans in the *Cloverdale Bypass Mitigation Project* (June 1992), and data provided by Dr. Phil Northern in the nine-year summary of the biological monitoring program for the Sonoma County Aggregate Resources Management Plan.

5.6.1 Vegetation

A. Plant Species Composition

- ❑ Year one - 100% woody species composition will be the mix of species planted in that given habitat.
- ❑ Year five - 100% of woody species composition will be the mix of species planted plus two to three native volunteer species which will naturally colonize as the habitats develop.
- ❑ Year ten - 100% woody species composition will be the mix of species planted plus three to five native volunteer species which will naturally colonize as the habitats develop.
- ❑ Year fifteen - 100% woody species composition will be the mix of species planted plus five to eight native volunteer species which will naturally colonize as the habitats develop.

B. Tree Species Present

- ❑ Goal for riparian (Based on Caltrans Cloverdale study) - an average of 3 tree species per acre.
- ❑ Goal for oak savannah - 2 tree species per acre, *Quercus lobata, Quercus kelloggii.*

C. Plant Density

Restored habitats surrounding Piombo Pit will be planted at densities above the calculated target values. Early year success criteria are based on planting densities while the target goal is based on mean density values of mature habitat determined by Caltrans by studying reference sites. Percent survival is extrapolated directly from the Caltrans study success criteria ratios.

❑ Willow riparian habitat
- year one: 85% survival planted specimens
- year five: 65% survival planted specimens
- target goal: 15% survival planted specimens

planted per acre	year one	year five	target goal
3,555	3,163	2453	> / = 533

❑ Oak savannah habitat
- year one: 85% survival
- year five: 65% survival
- target goal: 35% survival

container planted per acre	year one	year five	goal
20	17	15	10

acorns planted per acre	year one	year five	goal
134 holes (three acorns per hole)	115	90	50

D. Percent Cover

❑ Willow riparian habitat: year one goal and target goal 93 - 100%

❑ Oak savannah habitat: the target goal for this habitat is approximately 10% cover (this is based on the assumption that at least ten trees per acre with approximately 20′ X 20′ canopies and numerous small trees will have established by year fifteen).

E. Size Class Distribution

❑ Willow riparian habitat (determined by Caltrans)

Target goal			
20%	15 - 20′ tall	(3″-5″ dbh)	range = 13 - 31%
80%	> 20′ tall	(>5″ dbh)	range = 37 - 63%

❑ Oak savannah habitat

Target goal	
10%	> 15′ tall (>5″ dbh)
75%	5 - 15′ tall (3″ - 5″ dbh)
15%	< 5′ tall

F. Non-native Invasive Species

Weeding of non-native, invasive species will be conducted periodically, as necessary, to ensure the establishment of desired vegetation for the duration of the monitoring period.

5.6.2 Wildlife

Success criteria for wildlife utilization of reclamation areas are subject to a number of variables that make such criteria difficult to apply. At the very least it can be assumed that species richness (s) and species diversity (H) variables will increase over time because the structural diversity of the vegetation at the site will increase over time. At year five of the monitoring intervals, a graph representing species diversity and species richness values will be plotted over time. A positive slope of this plot will be taken as an indication of primary wildlife utilization success. At year 15 the procedure will be repeated. At some point the plot of these values will asymptote and further changes will be limited. Whether or not this will occur at year 15 is an unknown, but the existing literature would suggest that is will not. Accordingly, if the plot is still positive at year 15, success criteria for wildlife utilization will be considered met because ongoing habitat succession is generally following by increasing species diversity and species richness (see Anderson et al. 1979).

6.0 LIST OF PREPARERS

This plan was prepared by the following firms and individuals:

❑ Zitney and Associates

Greg Zitney	Environmental Planner / Wildlife Biologist

❑ Western Ecological Services Company

Steve Foreman	Certified Wildlife Biologist
Caitlin Bean	Botonist
Joel Butterworth	Certified Erosion and Sediment Control Specialist CPESC #724
Jon Winter	Wildlife Biologist

❑ 2M Asasociates

Patrick T. Miller	Landscape Architect Ca. Lic. # 1842
Jane E. Miller	Horticulturist

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Anderson, B. W., and R. D. Ohmart. 1984. Avian use of revegetated riparian zones. Pp. 626-631. *In* California riparian systems: ecology, conservation, and productive management. R. E. Warner K, M. Hendrix, (eds.). Univ. Calif. Press, Berkeley and Los Angeles.

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KAISER
SAND & GRAVEL COMPANY

P.O. BOX 580 • PLEASANTON, CALIFORNIA 94566 • TEL. (510) 846-8800

February 1, 1993

Mr. David Schiltgen
Sonoma County Planning Department
575 Administration Dr., Rm. 105A
Santa Rosa, CA 95403

Dear Mr. Schiltgen:

Kaiser Sand & Gravel Company hereby accepts responsibility for reclaiming the Piombo Pit as outlined in the amended Resolution to be adopted February 2, 1993 by the Sonoma County Supervisors and as found in File SMP 91-981.

Very truly yours,

KAISER SAND & GRAVEL COMPANY

Lawrence W Appleton

Lawrence W. Appleton
Manager of Engineering &
Environmental Affairs

LWA:mb

RECEIVED
FEB 02 1993
PLANNING DEPARTMENT
COUNTY OF SONOMA

Selected Information Required by the Surface Mining and Reclamation Act

Item 2772 (b) The anticipated quantity and type of minerals for which the surface mining operation is to be conducted.

Total estimated quantity of sand and gravel materials on site is 850,000 tons, with approximately 200,000 tons within the proposed 1000' buffer around the Windsor Water District wells and 650,000 tons outside the buffer. See also attached Figure 4.2-7 from the Draft Environmental Impact Report, June, 1992.

Item 2772 (d) The maximum anticipated depth of the surface mining operation.

Aggregate has been mined from the existing pit to a depth of approximately 25 feet (just above the water table. Approximately 9 acres of the pit have been excavated below the water table, to a depth of about 60' below the original grade. Anticipated depth of mining would be about 60' below the original grade.

Item 2772 (e) The size and legal description of the lands that will be affected by such operation, a map that includes the boundaries, and topographic details of such lands, a description of the general geology of the area, a detailed description of the geology of the area in which surface mining is to be conducted, the location of all streams, roads, railroads, and utility facilities within or adjacent to such lands, the location of all proposed access roads to be constructed in conducting such operation, and the names and addresses of the owners of all surface and mineral interests of such lands.

Size and legal description: 44.93 acres; Assessor parcel 66-300-11.

Boundary Map: See attached Figure 3-3 from the Draft Environmental Impact Report, June, 1992.

Topographic Details: The topography at the site has been disturbed by past terrace mining activities. Although once a relatively flat terrace surface, the site currently consists of a deep pit that extends below the groundwater table. Overburden material has been removed from the entire site except for approximately one acre adjacent to the Russian River. About three feet of overburden has been stockpiled to form a levee bench along the south and west banks of the pit. Elevations of the project site are approximately 10 feet above mean sea level (msl) at the pit bottom, 45 feet above msl at the lake water level (the approximate groundwater level in the pit) and 75 feet above msl along the top of the overburden levee. See also attached Figure 4.1-2 from the Draft Environmental Impact Report, June, 1992.

General Geology of the Area: The project site is located in the Russian River Valley, an alluviated valley formed by the Russian River. The site is within the Coast Ranges geomorphic province of northern California. The Russian River Valley is bounded to the west by ridges, consisting of sandstone, shale, and metamorphic rocks of the Franciscan Complex; to the east, the valley is bounded by sandstone and mudstone of the Glen Ellen Formation (California Division of Mines and Geology, 1980).

Detailed Description of the Geology of the Area in Which Surface Mining is to be Conducted: Semiconsolidated to unconsolidated sand and gravel has been deposited along the floodplain of the river to form the stream terrace deposits that exist on the site. A major portion of the quaternary alluvium in the river channel and sand and gravel deposits of the terrace are designated by the California Department of Conservation as a mineral resource of regional significance. The project site is designated as aggregate resource "terrace reserves - primary" in the Sonoma County Aggregate Resources Management Plan (1981).

Location of Facilities Within or Adjacent to the Site:

Streams: The Russian River is approximately 350 feet to the west of the project site. The project site is located within the 100-year flood hazard zone of the Russian River. See also the attached Figure 4.2-2 from the Draft Environmental Impact Report, June, 1992.

Roads: The property is accessed and bounded by unimproved farm roads. Eastside Road is approximately 1/4 mile to the east.

Railroads: None.

Utility Facilities: Windsor Water District wells are located adjacent and to the north of the property. See also attached Figure 4.2-7 from the Draft Environmental Impact Report, June, 1992.

Proposed Access Roads to be constructed: None.

Owners: Kaiser Sand and Gravel Company
3000 Busch Road
P.O. Box 580
Pleasanton, CA 95466
(510) 846-8800

Item 2772 (f) A description of and plan for the type of surface mining to be employed and a time schedule that will provide for the completion of surface mining on each segment of the mined lands so that reclamation can be initiated at the earliest possible time on those portions of the mined lands that will not be subject to further disturbance by the surface mining operation.

Terrace pit mining using drag lines. All sand and gravel resources to be mined will be extracted within a one year period. Reclamation will take place in three general phases. The first phase will commence immediately and consist of reclaiming the south and west shorelines of Lake Piombo. Grading, planting and erosion and sediment control measures will be completed by October 1, 1993. Phase 2 consists of reclaiming the remainder of the project area, with initial planting to be completed within one year after completion of mining activities. Phase 3 consists of reclaiming the north end of the panhandle area and the remainder of the Piombo property.

Item 2772 (h-1) A description of the manner in which contaminants will be controlled and mining waste will be disposed.

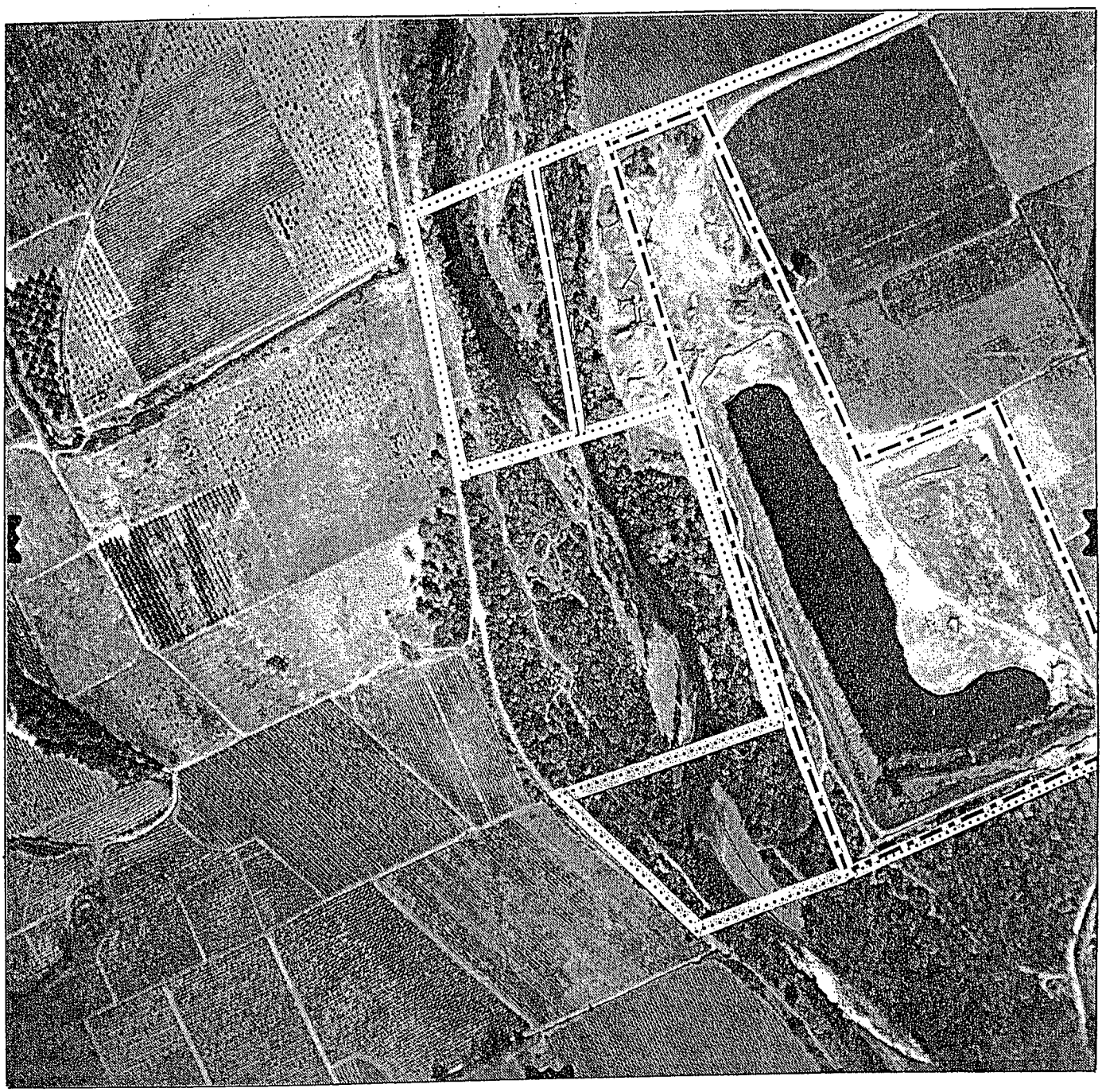
Refer to Mining Spill Plan.

Item 2772 (i) An assessment of the effect of implementation of the reclamation on future mining in the area.

None.

AERIAL PHOTOGRAPH - 1991

Figure 3-3



Legend

— · — Project Site Boundary

..... Kaiser Sand and Gravel Property Boundary

— — — — Western Boundary of the 7.7-Acre Parcel

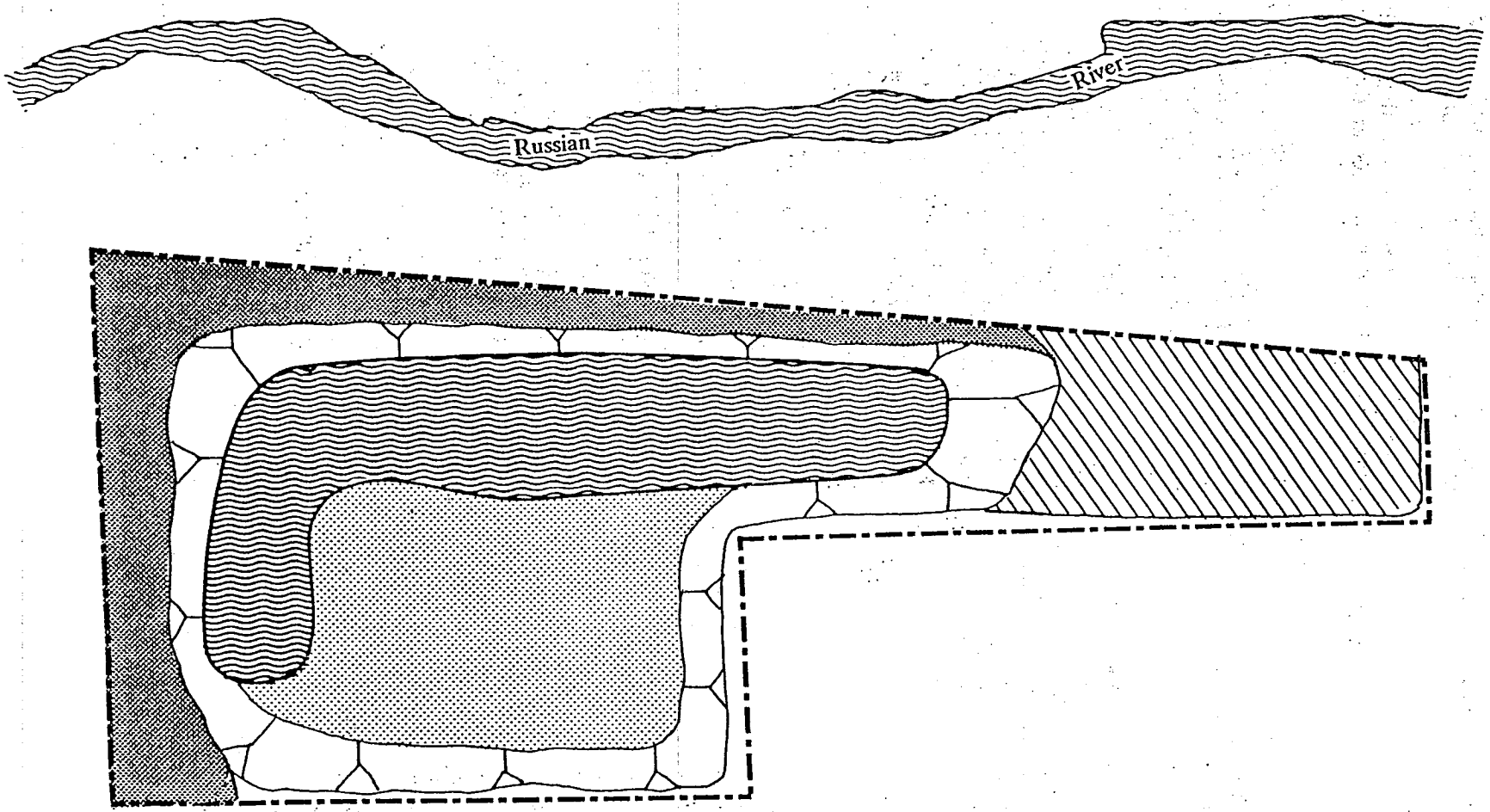
0 500 Feet

BASELINE

Source: 1991 Aerial Photograph, 2M Associates.

SITE FEATURES

Figure 4.1-2

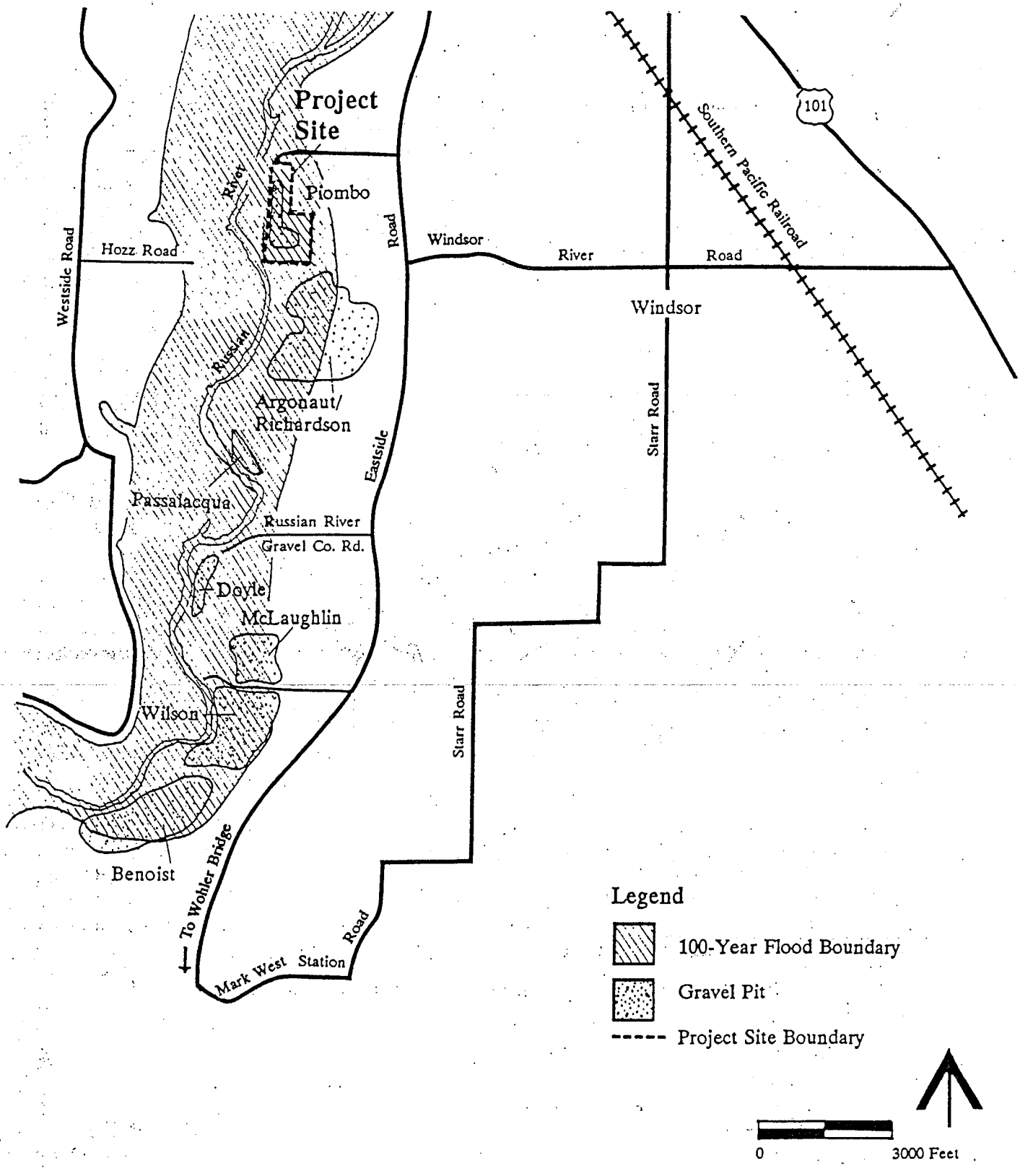


BASELINE

92213.00 5/6/9

FLOOD ZONE

Figure 4.2-2

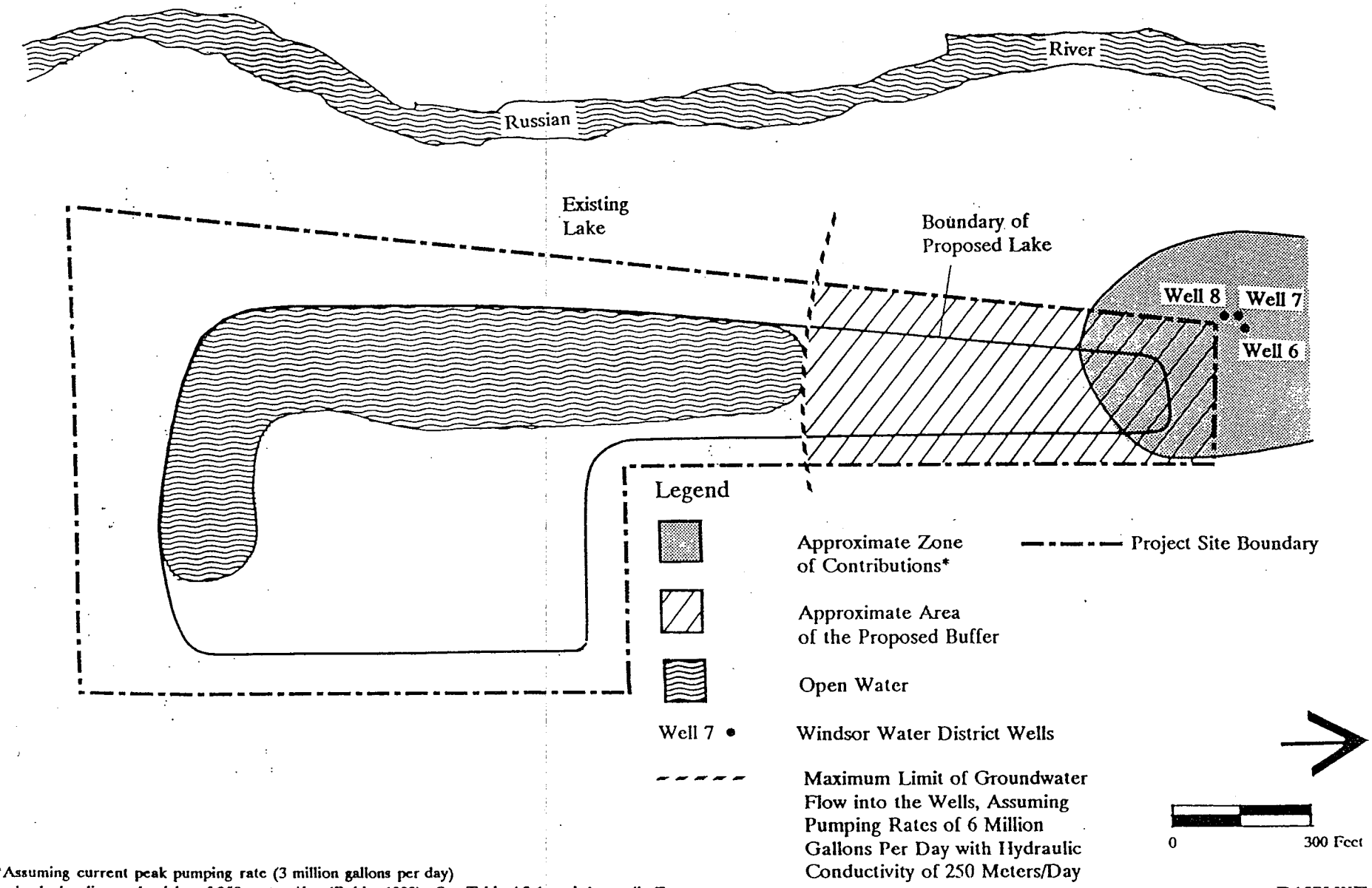


Source: Federal Emergency Management Agency, 1982

BASELINE

ZONE OF CONTRIBUTION
Windsor Water District Wells

Figure 4.2-7



*Assuming current peak pumping rate (3 million gallons per day) and a hydraulic conductivity of 250 meters/day (Rubin, 1992). See Table 4.2-1, and Appendix E.

BASELINE

92213.00 5/11/92

EXHIBIT "A"

CONDITIONS OF APPROVAL AND MITIGATION MONITORING PLAN AGREED TO BY THE APPLICANT FOR THE KAISER MASTER RECLAMATION PLAN: FILE NO. UP 95-089 - Kaiser Sand and Gravel

The California Environmental Quality Act (CEQA), Section 21081.6, requires that a local agency adopt a mitigation monitoring plan to ensure an applicants compliance with any project changes or conditions of approval when the local agency approves a project for which an EIR or Negative Declaration has been completed and bases the approval upon findings that any or all significant adverse environmental effects have been mitigated or avoided by changes that have been required of the project or by conditions of approval. If the changes and conditions have been incorporated at the request of another agency with legal jurisdiction over the natural resources affected by the project, the lead agency (County of Sonoma) may request that agency to prepare a monitoring program.

The Program Environmental Impact Report prepared for the 1994 ARM Plan ("the PEIR") and Mitigated Negative Declaration prepared for the above project identified several potentially significant adverse effects in the areas of: geology, soils and seismicity, hydrology and water quality, biotic resources, cultural resources, noise, air quality, and public services and utilities. The recommended mitigations for each impact and monitoring activities for each mitigation were included in the Conditions of Approval. It is the responsibility of the Sonoma County Board of Supervisors as the hearing body to approve a monitoring plan to ensure that all changes or conditions are complied with.

The Permit and Resource Management Department is responsible for monitoring the compliance of aggregate operations with all permit conditions and ordinance requirements as part of the ongoing inspection, enforcement, mitigation and monitoring program established by the Aggregate Resources Management (ARM) Plan. The County may also contract with certified professionals to conduct an assessment of mining impacts and reclamation efforts in the mining areas and reclamation along the Russian River. In addition, the County conducts an annual inspection of every mining and reclamation site to fulfill the requirement of the State Surface Mining and Reclamation Act (SMARA). Some of the monitoring for the following conditions of approval will be carried out concurrently through the above activities; In other cases more frequent monitoring or monitoring by a qualified professional or responsible agency has been deemed necessary and added to the ongoing monitoring activities.

The monitoring activities planned for each condition of approval along with the responsible person or agency, the frequency or schedule of monitoring are provided after each applicable condition in the following conditions of approval.

The requirements of this Plan run with the real property that is the subject of the project. Successive owners, heirs, and assigns of this real property are bound to comply with all the requirements of this Mitigation Monitoring Plan. Prior to any lease, sale, transfer, or conveyance of any portion of the real property that is the subject of the project, the owner shall provide a copy of the adopted plan to the prospective lessee, buyer, transferee, or one to whom the conveyance is made.

1. The applicant and subsequent owners or operators of the above-referenced project may proceed with the approved reclamation plan only if the conditions of approval which follow have been complied with fully. This use permit/reclamation plan and the conditions of approval run with the project site and are binding on future owners, heirs and assigns. Prior to the lease, sale or other conveyance of any portion of the real property occupied by this project, the owner shall provide a copy of this exhibit to the prospective lessee, buyer or other recipient of such conveyance. The County has the power to revoke a permit, entitlement, or project approval if the conditions are not met.

2. Reclamation shall in all cases be completed substantially in accordance with the approved Reclamation Plan as revised by the Conditions of Approval.

3. Unless otherwise specified herein, this Reclamation Plan is subject to the provisions of the 1994 ARM Plan, Chapter 26A of the Sonoma County Code, and other County ordinances, regulations, rules, orders and requirements regulating surface mining and reclamation in existence or hereafter adopted pursuant to the 1994 ARM Plan.

4. Annual inspection, enforcement and monitoring fees shall be paid by operator in order to cover all actual costs incurred by the County and the inspection, monitoring, and enforcement of the applicable reclamation plan and conditions thereof in accordance with the ARM Plan. Where the monitoring service of a qualified professional is required by the Mitigation Monitoring Plan, additional monitoring fees may be levied on the operator to cover such costs.

5. The operator shall submit to the Sonoma County Permit and Resource Management Department a bond or letter of credit payable to the County of Sonoma and, in the alternative, the State Department of Conservation, in the amount of $1,759,259.00 to assure compliance with the approved Reclamation Plan and conditions thereof excepting river levee repair and maintenance. A valid bond or letter of credit shall be maintained on file until the Permit and Resource Management Department determines that all reclamation has been successfully carried out in compliance with the Reclamation Plan and final conditions. Bonds or Letters of Credit shall renew automatically and shall not expire without 90-days advance written notice being provided to the Permit and Resource Management Department. A continuation Certificate or other proof of extended coverage shall be forwarded to the Permit and Resource Management Department no less than 30 days prior to the expiration date of the financial assurance. The Permit and Resource Management Department may adjust the amount of the security on an annual basis to account for additional lands reclaimed, inflation, or revised cost estimates. The bond or letter of credit shall reference the name of the reclamation project, the resolution number of the County approval, and the Permit and Resource Management Department file number.

   The County may pursue redemption of the securities if 1) the final reclamation does not meet the performance standards of the approved reclamation plan, 2) satisfactory progress is not made towards completing the reclamation in a timely manner, or 3) The applicant is financially incapable of carrying out the reclamation.

   Mitigation Monitoring: Permit and Resource Management Department staff shall not give clearance for reclamation to begin until the required securities have been provided.

6. To the extent required by applicable law, the operator shall obtain any and all permits or approvals required by other agencies having jurisdiction over the project and shall provide copies of same to the Permit and Resource Management Department. This permit is subject to the conditions of said permits and any violation of other such permits shall constitute a violation of this permit. Such agencies may include, but are not limited to:

   a. Sonoma County PRMD - Health Specialist
   b. Northern Sonoma County Air Pollution Control District
   c. California Department of Fish and Game
   d. California Water Resources Control Board/Regional Water Quality Control Board
   e. Army Corps of Engineers
   f. State Lands Commission
   g. U.S. Fish and Wildlife Service

   Mitigation Monitoring: Permit and Resource Management Department staff may respond to any agency's complaint that conditions are not being met at the reclamation site. Such response may include revocation of the use permit/reclamation plan.

7. Within five days after approval of this project and the adoption of a Negative Declaration, the applicant shall pay to the County Permit and Resource Management Department a mandatory $35.00 and $1250 because a Negative Declaration was prepared, for a total of $1285. Checks shall be made payable to "the County of Sonoma". This fee must be paid or the approval of this project is not valid.

8. This permit/reclamation plan approval shall be subject to revocation or modification by the Board of Supervisors if the Board finds that there has been a) noncompliance with any of the foregoing conditions or b) the Board finds that the use for which approval is hereby granted is so exercised as to be substantially detrimental to persons or property in the neighborhood of the use, recognizing that the project as approved may result in some unavoidable environmental impacts. Any such revocation shall be preceded by a public hearing noticed and heard pursuant to the Sonoma County Code.

9. Unless other criteria are established by state or local regulations prior to the approval of this reclamation plan, the following performance standards shall be used to determine when the reclamation has been successfully completed.

   A. Successful completion of revegetation specified in the Reclamation Plan requires an 80% survival rate after a period of five years of plants capable of self-regeneration, unless different criteria are recommended by the California Department of Fish and Game and approved by the Permit and Resource Management Department.

   B. All slopes, benches, and berms shall be graded to the finished slopes as established by the approved plan with such variations as reviewed in advance by the Department of Fish and Game, and approved by the Permit and Resource Management Department and a qualified professional. There should be no "gully-washes" evident on the graded slopes.

   C. Slopes and terraces where indicated in the Master Reclamation Plan shall be resoiled with topsoil prior to revegetating. All planting areas previously packed by equipment or vehicle travel shall be ripped and scarified prior to resoiling or replanting.

   D. All mining debris, inoperative equipment, tires, barrels, etc. shall be removed from the site.

   Mitigation Monitoring: Permit and Resource Management Department staff shall be responsible for reviewing all reclamation work through field inspections. Reclamation securities shall not be fully released until the reclamation is successful, as defined in this condition. Reclamation may be accepted in phases and security reduced as appropriate.

10. Reclamation operations at the existing pits shall not commence until the following activities are completed:

    a) the reclamation plan text and exhibits have been modified to conform to the changes made through this approval, reviewed by the State Department of Fish and Game, and approved by the PRMD, and

    b) financial assurance bonds are supplied to the Permit and Resource Management Department, sufficient to cover the reclamation costs as required by SMARA, and as provided for in the conditions, and

    c) a Spill Prevention Plan is approved by the County Environmental Health Department's Hazardous Materials Division and made part of the reclamation plan, and

    d) a verification list of the reclamation workers and/or employees which have undergone a cultural resources orientation and awareness training is supplied to the Permit and Resource Management Department by the applicant, and

e) the applicant shall file a "Notice of Intent" Form and apply for a Storm Water Permit with the State Water Resources Control Board or such application shall be deemed unnecessary by the Control Board, and

f) an erosion and sediment control plan by a qualified professional in Erosion and Sediment Control as an addendum to the reclamation plan. The plan shall address erosion from flood waters and storm drainage along the interior slopes of the pits and adjacent reclaimed lands.

Mitigation Monitoring: Permit and Resource Management Department staff shall not give clearance for the mining to begin until the above condition has been fully met.

11. Reclamation operations at the site shall be limited to the hours of 7:00 a.m. to 10:00 p.m. weekdays and 7:00 am. to 4:30 pm. Saturdays. There shall be no reclamation operations on Sundays or Federal Holidays except for maintenance repair tasks.

    Mitigation Monitoring: Permit and Resource Management Department staff shall respond to complaints over violations of this condition within one week.

12. The applicant shall adequately muffle and maintain all equipment used on the project site. Noise generation from the site shall not exceed the standards established by Table NE-2 of the General Plan.

    Mitigation Monitoring: The presence or absence of inadequately mufflered equipment shall be noted during field inspections conducted during reclamation work, upon the completion of the initial reclamation work, and every 60 days during the operating season thereafter to assess the need for remedial measures. All complaints will be responded to within one week. All inspection reports will be placed in the project file.

13. The generation of air borne dust at the work sites shall be controlled by frequent water spraying during dry conditions or the use of a dust suppressant approved by Permit and Resource Management Department.

    Mitigation Monitoring: The adequacy of dust control at the sites shall be reviewed at the time of site inspections every 60 days. All complaints will be responded to within one week. Copies of the inspection reports shall be placed in the project file.

14. Prior to the commencement of reclamation, the grading and revegetation plan shall be submitted to the Permit and Resource Management Department for final review and approval. The Permit and Resource Management Department will refer the plans to the Department of Fish and Game for their review and recommendation. The plan shall include the following features to ensure that the impacts identified in the ARM Plan PEIR and the Projects Initial Study are mitigated:

    a) All above water slopes should be no steeper than 3:1 (horizontal to vertical). In addition, an area along the shore equal to 10% of the open water area should be graded such that the ground elevation varies from 5 feet above to 5 feet below the spring water level to allow the formation of cottonwood and willow thickets, and marsh areas in the corners and coves of the water surface. These standards may be modified upon recommendation of the State Department of Fish and Game and approval of the County PRMD when necessary to preserve existing stands of valuable wildlife habitat area, and/or where infeasible due to lack of fill material for the existing pits.

    b) To the extent feasible, at least 10% of the open water area should be no deeper than 5 to 15 feet below the spring water table and left as gravel shoals for fish spawning habitat. These standards may be modified upon recommendation of the State Department of Fish and Game and approval of the County PRMD when necessary to preserve existing stands of valuable wildlife habitat area, and/or where infeasible due to lack of fill material for the existing pits.

c) The revegetation effort shall use only native species unless otherwise approved in the Master Resolution.

d) Existing large boulders and logs in the reclamation area shall be placed along the lake edges or river bank edges.

Mitigation Monitoring Measures: The Permit and Resource Management Department staff shall monitor the compliance with this condition by 1) requiring a letter of review from Fish and Game on the final revised grading and planting scheme, 2) inspecting the site during reclamation work, upon the completion of the initial reclamation work, and every 60 days during the mining season thereafter to assess the need for remedial grading and revegetation efforts until reclamation work has been accepted as complete, and 3) by requiring a Biotic report prepared by a qualified professional to assess the reclaimed areas conformance with the performance standards in the approved reclamation plan and schedules. Applicant shall be responsible for the cost of the assessment.

Inspections shall be verified by inspection reports placed in the project file on the scheduled basis. A copy of any revised planting and grading scheme with the Fish and Game review letter shall be placed in the project file (date completed:_____). The annual assessment of the reclaimed areas shall be placed in the Project file by Permit and Resource Management Department staff until such time that the performance standards in the approved reclamation plan are met and the reclamation plan is deemed complete (date completed:_____).

15. Following flood events which partially or completely inundate the reclamation areas, the operator shall have a qualified professional conduct a damage survey of the reclamation improvements, and recommend remedial actions as necessary to help assure that the performance standards will be met. A report should be submitted to the Sonoma County Permit and Resource Management Department regarding the effects of flooding, including recommendations for replanting, if necessary.

Mitigation Monitoring: Permit and Resource Management Department staff shall be responsible for reviewing the damage report and insuring the applicant complies with any required replanting or other work necessary.

16. To minimize the introduction of contaminants which may degrade the quality of water in the existing lakes, the following measures shall be taken:

A) Fueling and maintenance of all rubber-tired grading and support equipment shall be prohibited within 100 feet of the edge of the gravel pits. All refueling and maintenance of mobile vehicles and equipment shall take place in a designated area with an impervious surface and berms to contain any potential spills.

B) Prior to commencing reclamation activities a spill prevention and emergency response plan shall be prepared and submitted to the County Hazardous Materials Division for review and approval. The applicant shall provide a copy of the approved plan to the Permit and Resource Management Department.

C) Access to the sites shall be controlled by installing or maintaining security fencing and locking gates and posted trespass signs at all vehicular access points to the site. No boat ramps or vehicular roads shall access the lakes or traverse over the inside slope of the surrounding banks. Motorized watercraft, except those used for monitoring and management activities, shall be prohibited on the lake by posting appropriate signs and/or providing for security patrols.

D) The grading plan shall be designed and implemented such that to the extent feasible ground elevations along the top of the pit banks are slightly higher than the surrounding grade with a two percent slope away from the lake to prevent agricultural runoff from adjacent parcels from entering the proposed lake. Runoff from the access roads should be collected and retained to allow sediments to settle out if the water is to be discharged to the lakes.

E) Planting methods used in reclamation shall avoid the surface application of fertilizers high in nitrogen or phosphorus that might contribute to eutrophication of lake waters. Installation of new septic systems within 200 feet of the project sites shall be prohibited.

Mitigation Monitoring: The Permit and Resource Management Department shall monitor the compliance by requiring the applicant to submit a copy of the spill prevention plan for inclusion in the project file prior to the startup of reclamation. Other features of the mitigation will be reviewed in inspections conducted during reclamation work, upon the completion of the initial reclamation work, and every 60 days during the operating season. Inspection reports placed in the project file will address the compliance.

17. The applicant shall have an erosion and sediment control plan covering erosion from flood waters and storm drainage along the interior slopes of the pits and adjacent reclaimed lands prepared by a qualified professional in Erosion and Sediment Control as an addendum to the reclamation plan prior to commencing reclamation activities. Erosion control measures should conform to the standards and recommendations of *Erosion and Sediment Control Handbook* (Amimoto, 1977) and *Sonoma County Water Agency Flood Design Criteria Manual* as specified in the Sonoma County Surface Mining and Reclamation Ordinance and should include provisions related to regrading, resoiling, revegetation, drainage, and erosion and sedimentation.

Mitigation Monitoring: The Permit and Resource Management Department shall require the applicant to include the erosion and sediment control plan measures in the approved final reclamation plan prior to the commencement of reclamation activities (date completed_____). Permit and Resource Management Department shall ensure that final reclamation plan is modified to reflect the grading requirements and shall inspect the site upon completion of grading, and every 60 days during the mining season thereafter. Site inspection reports shall be placed in the project file.

18. All employees on site shall undergo a cultural resources orientation and awareness training prior to commencing work activities on site. Such training shall include familiarization with the stop work restrictions, noticing and handling procedures, and ultimate disposition of artifacts as described below. The operator shall provide Permit and Resource Management Department with a verification list of the employees completing the orientation.

A) Immediately upon discovery of archaeological resources, the shift foreman or manager at the project site should be notified and should be responsible for notifying the Sonoma County Permit and Resource Management Department of the discovery. The Permit and Resource Management Department should notify the North West Information Center (NWIC) and Ya-Ka-Ama. If the discovery occurs during ground disturbance activities, all work should be halted in the immediate vicinity of the find until the County's archaeological and Native American consultants have evaluated the find and mitigated associated impacts. Discovered cultural resources should be stored in a protected environment to prevent vandalism, damage, or theft, until such time as they are examined by an archaeologist and Native American, as appropriate.

B) The identification and handling of archaeological resources at the project should be conducted by qualified archaeologists or Native American representatives (approved by the local Native American community as scholars of their cultural traditions) when Native American archaeological, ethnographic, or spiritual resources are involved. If no approved Native American representative is

available, persons who represent tribal governments and/or organizations in the Middle Reach of the Russian River should be consulted.

C) All Native American artifacts discovered during reclamation should be returned to the Native American community through the Ya-Ka-Ama Indian Education Center, which will be responsible for the disposition of these materials. Arrangements for study of these materials by the archaeological community, prior to final disposition, should be developed by the County's archaeological consultants and Ya-Ka-Ama. These arrangements should include time frames for archaeological study and mechanisms for transporting materials to Ya-Ka-Ama.

D) If human bone or bone of unknown origin were found during reclamation activities, all work must stop in the vicinity of the find and Ya-Ka-Ama, the Sonoma County Permit and Resource Management Department staff, and the Sonoma County Coroner must be contacted immediately. If the remains were determined to be Native American, the Coroner will notify the Native American Heritage Commission who will notify the person believed to be the most likely descendant. The most likely descendant will work with the operator to develop a program for reinterment of the human remains and any associated artifacts. No additional work is to take place within the immediate vicinity of the find until the identified appropriate actions have been carried out.

E) All actions taken to identify, recover, store, process, curate, or reinter archaeological materials and human remains should be overseen by the Sonoma County Permit and Resource Management Department, with associated expenses borne by the Operator. The County will establish agreements with the archaeological community, the Native American community (through the Ya-Ka-Ama), and the historic architectural community to identify representatives of each group who will be responsible to the County for undertaking the above actions. The County will designate one or more Permit and Resource Management Department staff as contacted to be responsible should these situations arise.

Mitigation Monitoring: The Permit and Resource Management Department will monitor both aspects of the mitigation by requiring the applicant to submit to the Permit and Resource Management Department a list of the employees and the date of their participation in the required training sessions (date completed:_____).

19. Any night lighting shall be screened so as not to produce glare onto adjacent properties and roadways.

    Mitigation Monitoring: Permit and Resource Management Department staff shall respond to any complaints over violation of this condition within one week.

20. The operator shall provide to the California Department of Conservation and the Permit and Resource Management Department, in the manner specified by said agencies, annual reports on the reclamation activities on the site until the project is completed.

    Mitigation Monitoring: Permit and Resource Management Department staff shall be responsible for reviewing said reports for compliance with the approved project and conditions and ARM Plan standards.

21. The applicant shall be responsible for maintaining and repairing all river bank and shoreline erosion (except that the applicant and operator shall not be responsible for bank erosion clearly caused by acts or requirements of other parties, including channel encroachment, vegetation removal, vegetation retention and limitations on removal of gravel from the channel.) within 450 feet of the Wilson, Benoist, Richardson/Argonaut, and McLaughlin terrace pits identified in this application for a period of 20 years from the date of approval of the reclamation plan. To insure this occurs, the following conditions shall be met:

A. All of the necessary stability work to the existing levees and banks identified above in the Report on Russian River Potential Pit Capture Middle Reach by Murray, Burns and Kienlen a Corporation, dated December 1995 and revised in May, 1996 shall be completed by the applicant. This work includes but is not limited to:

Wilson - The river bank in the area of potential overtopping identified in the study shall be raised above 76+- feet (the 100 year flood elevation). Where the existing bank protection has become thin or washed out as identified in the study, it shall be revetted to resist erosion according to the engineers recommendations. The mining of the gravel point bar opposite the Wilson bank identified in the levee slope stability study is not approved as part of this reclamation plan. A separate mining application may be filed for such work pursuant to ARM plan and County Mining Ordinance standards and procedures.

Benoist - The existing Benoist breach shall be filled and the opening revetted on both sides according to the engineers recommendations with a minimum bottom width of 80 feet with 6:1 side slope or hydraulic equivalent at an approximate elevation of 53+-feet. The downstream bank of the Benoist river levee shall be revetted according to the engineers recommendations.

Richardson/Argonaut - Instill revetment as recommended in study.

McLaughlin - No initial stability work is required to protect against bank or levee failure.

Final grading plans detailing the above improvements shall be reviewed by the State Department of Fish and Game and approved by the PRMD prior to any levee stabilization work occurring.

B. The applicant shall enter into an agreement with the County of Sonoma for the long term (20 years from date of approval of the reclamation plan) access to and maintenance of the levees, and submit a bond or other financial assurances satisfactory to County Counsel in an amount equal to $366,000.00 (This amount is based upon an engineers estimate for repair to two existing levee breaches (Piombo and Benoist), plus a 20% startup and contingency fee) during the first 10 years, and $750,000.00 during the second 10 years. Bonds or other forms of security shall renew automatically and shall not expire without 90 days advance written notice being provided to the PRMD. A continuation Certificate or other proof of extended coverage shall be forwarded to the PRMD no less than 30 days prior to the expiration date of the financial assurance. The PRMD may adjust the amount of the security every two years to account for inflation. The long term financial securities shall not be reduced or released by the County until 20 years from the date the reclamation plan is approved. The County may pursue redemption of the securities if the PRMD determines that satisfactory progress is not made towards completing necessary levee repairs in a timely manner or the applicant is financially incapable of carrying out the repairs.

C. Prior to the County reducing or releasing the standard reclamation bond specified elsewhere in these conditions of approval, the applicant shall enter into an agreement satisfactory to County Counsel with the Sonoma County Water Agency or other entity approved by the County for long term monitoring of bank stability. Said agreement shall include provisions for financing the monitoring for a period of 20 years. If review of monitoring data indicates significant levee erosion has occurred, the Water Agency shall provide a recommendation for repair work to the PRMD. The applicant shall be responsible for completing any repairs required by the PRMD.

Mitigation Monitoring: Permit and Resource Management Department staff shall be responsible for reviewing all levee reclamation work through regular field inspections.

22. All equipment at the old gravel processing plant site shall be removed within two years of startup of the new plant site on the Piombo parcel. The area shall then be reclaimed as per the Master Reclamation Plan.

Mitigation Monitoring: Permit and Resource Management Department staff shall be responsible for inspection of the old plant site to insure all equipment has been removed two years after startup of the new plant on the Piombo parcel.

23. Underwater profiles of the terrace pits shall be required at the completion of all initial reclamation work and every four years after that, unless it is determined by PRMD that the profiles are unnecessary.

HEALTH:

24. A safe, potable water supply shall be provided and maintained. Bottled water is approved for use at the reclamation sites.

25. Toilet facilities shall be provided for employees. Portable toilets serviced by a licensed portable toilet company may be approved for the reclamation sites.

26. Any septic tanks/systems, and wells not needed for reclamation efforts or other post reclamation uses of the site, shall be abandoned under permit and inspection from the PRMD.

27. The applicant shall comply with hazardous waste generator laws and AB2185 requirements and if necessary obtain a permit from the Environmental Health Division, Hazardous Materials Section, and/or the local Fire District depending on jurisdiction. A copy of current permits or letter of approval to operate shall be submitted to the Health Specialist, Permit and Resource Management Department.

Mitigation Monitoring for all Health Conditions: Permit and Resource Management Department staff shall respond to any complaints over violations of these conditions within one week.

FLOOD AND DRAINAGE:

28. Benoist Breach improvements shall be designed by a civil engineer in accordance with the Water Agency's Flood Control Design Criteria for approval by the Permit and Resource Management Director and shall be shown on the reclamation plans.

29. Filling in the flood plain is subject to the zero net fill rule.

Mitigation Monitoring for all Flood and Drainage Conditions: The Drainage Review Specialist of the Permit and Resource Management Department shall review all drainage plans for compliance with County Standards prior to any grading work beginning.