



October 26, 2012

Mr. Frank Berlogar
5587 Sunol Boulevard
Pleasanton, CA 94566

**RE: LANDFILL GAS ASSESSMENT REPORT
88 SILVER OAKS COURT, PLEASANTON, CALIFORNIA
EBA JOB No. 12-1869 (TASK 3)**

Dear Mr. Bhatt:

This report presents the findings from a landfill gas (LFG) assessment performed at the 88 Silver Oaks Court property (Property) located in Pleasanton, California. The LFG assessment was performed at the request of the City of Pleasanton, Engineering Department (City) as part of a building permit requirement based on the Property's proximity to the Old Pleasanton Landfill (Landfill). The Property is currently in the planning stage for the development of two parcels that will include the construction of two single family dwellings. The building pads for the dwellings will be located approximately 250 to 400 feet east of the Landfill's waste footprint. Thus, the purpose of the assessment was to establish if LFG is present on the Property in the area of the proposed building pads. The work was performed in general accordance with the *Work Plan for Landfill Gas Assessment (Work Plan)* dated September 25, 2012 (EBA Engineering [EBA], 2012). The Work Plan was submitted to the City for review prior to implementation.

SCOPE OF WORK

Two (2) temporary LFG monitoring points (MP-1 and MP-2) were installed on October 10, 2012 under a permit from the Zone 7 Water Agency (Permit No. 2012101) at the locations shown on Figure 1 (Appendix A). As shown on Figure 1, one LFG monitoring point was installed on each parcel within or adjacent to the proposed building pads. The LFG monitoring points were installed by Britton Exploration of Los Gatos, California under the direct supervision of EBA. Drilling was performed using a track-mounted rotary auger drill rig equipped with 8-inch diameter hollow-stem augers. Soil samples were collected during the course of drilling at 5-foot intervals using a standard split-spoon sampler for the purpose of characterizing the lithology. In addition, the boreholes were monitored for methane at 5-foot intervals using a portable methane meter (RKI Eagle Series). Each soil boring was logged and recorded by EBA's field geologist. Copies of the corresponding soil boring logs are enclosed in Appendix B.

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825 Sonoma Avenue, Suite C • Santa Rosa, California 95404
(707) 544-0784 • FAX (707) 544-0866 • www.ebagroup.com

PUD-84

The borehole for MP-1 was terminated at a depth of 29.5 feet below ground surface (BGS), while the borehole for MP-2 was terminated at a depth of 17 feet BGS. These termination depths coincide to approximately 15 feet below the proposed building pads. Findings from the soil sampling program revealed soil profiles consisting of sandy silt and silt with sand units at both locations. Based on the relatively uniform and fine-grained nature of the underlying soils, single probes were installed at both locations. The probes were constructed of 1-inch diameter, Schedule 40 polyvinyl chloride (PVC) slotted (0.02-inch machine slot) and blank casing. The slotted intervals for MP-1 and MP-2 were placed from 16.5 to 26.5 feet BGS and eight to 17 feet BGS, respectively. Coarse sand (#3) was placed around the slotted intervals, followed by hydrated bentonite chips to within approximately two feet of ground surface. The upper two feet of the boreholes were backfilled with compacted soil. The tops of the probe casings at ground surface were fitted with labcock valves to facilitate monitoring. Please refer to the soil boring logs in Appendix B for graphic illustrations of the probe construction characteristics.

The probes were allowed to stabilize for one week after installation, whereupon a monitoring event was performed by EBA on October 18, 2012. The monitoring event encompassed initially measuring static pressure conditions using a Magnehelic pressure gauge, followed by purging one probe volume equivalent from each probe. Methane, carbon dioxide and oxygen concentrations were measured during the course of purging using the RKI Eagle Series portable methane meter. A final reading was also measured upon conclusion of the purging process. The corresponding data was recorded on a field data sheet. A copy of the field data sheet is enclosed in Appendix C.

RESULTS AND FINDINGS

Findings from the monitoring activities performed during the course of drilling and one week following the probe installation revealed no indications of methane being present on the Property in the areas of the proposed building pads. Since the Landfill has existed for over 60 years, sufficient time has elapsed to allow for LFG to migrate into the area, if such conditions were going to occur. Thus, the absence of methane negates this concern. Other variables that should provide ongoing protection include the fine-grained nature of the soils underlying the building pads and the fact that active LFG collection is currently performed at the Landfill and will continue as such for the foreseeable future. Based on these circumstances, further assessment of potential LFG migration issues associated with the proposed development is not considered warranted.

RECOMMENDATIONS

Since findings from the investigation confirmed the absence of LFG in the area of the proposed building pads, provisions should be made to properly destroy the LFG monitoring points under permit from the Zone 7 Water Agency. A rotary auger drill rig should be used to remove the probe casing and annular materials (i.e., sand and bentonite chips). Upon removal of these materials, the boreholes should be backfilled with neat cement grout in accordance with Zone 7

Water Agency abandonment procedures. The aforementioned provisions should not be implemented until authorization to do so is granted by the City.

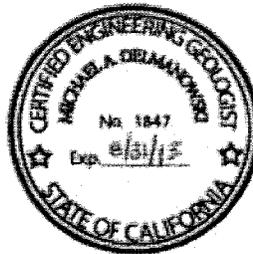
CLOSING

If you should have any questions regarding the information contained herein, please do not hesitate to contact EBA's office at (707) 544-0784.

Sincerely,
EBA ENGINEERING

Mike Delmanowski

Mike Delmanowski, C.E.G., C.Hg.
Senior Hydrogeologist



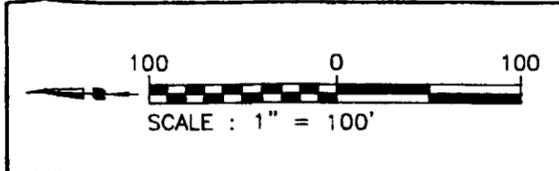
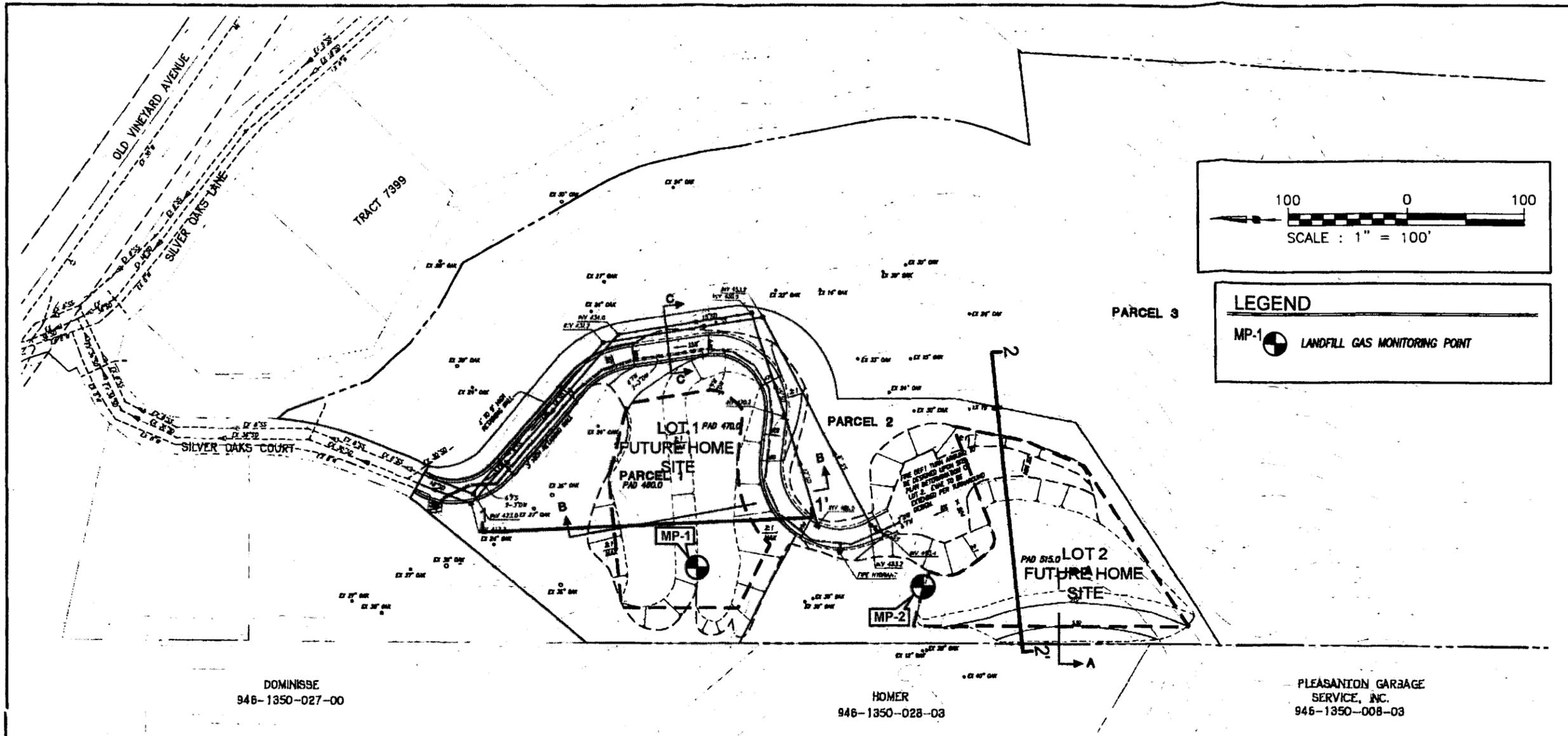
Enclosures: Appendix A - Figure 1
Appendix B - Soil Boring Logs and Probe Construction Details
Appendix C - LFG Monitoring Data Sheet

REFERENCES

EBA Engineering, September 25, 2012, *Work Plan for Landfill Gas Assessment, 88 Silver Oaks Court, Pleasanton, California, EBA Job No. 12-1869 (Task 1)*; Prepared for Mr. Frank Berlogar by EBA Engineering, Santa Rosa, California.

APPENDIX A

FIGURE 1

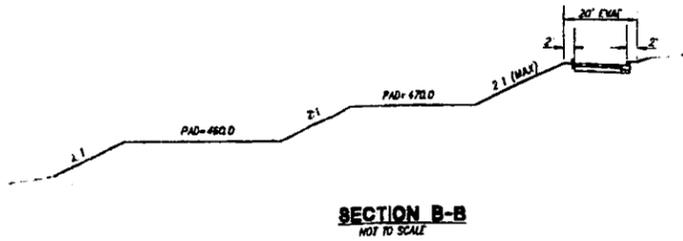
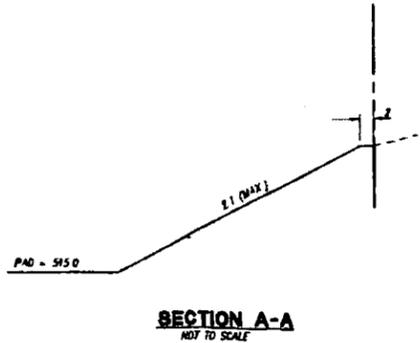
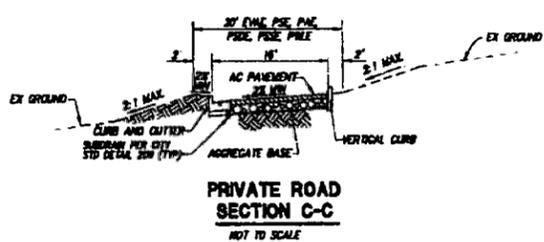


LEGEND	
MP-1	LANDFILL GAS MONITORING POINT

DOMINISSE
946-1350-027-00

HOMER
946-1350-028-03

PLEASANTON GARBAGE
SERVICE, INC.
946-1350-008-03



PRELIMINARY GRADING AND UTILITY PLAN

BERLOGAR PROPERTY

CITY OF PLEASANTON, ALAMEDA COUNTY, CALIFORNIA

FIGURE 1

EBA Engineering modified (2012-09-24), original image by:
RJA (Ruggeri-Jensen-Azar) Engineers, Planners and Surveyors

APPENDIX B
SOIL BORING LOGS
AND
PROBE CONSTRUCTION DETAILS



EBA Engineering
 825 Sonoma Avenue
 Santa Rosa, CA 95404
 Telephone: 707-544-0784
 Fax: 707-544-0866

WELL NUMBER MP-2
 PAGE 1 OF 1

CLIENT Mr. Frank Berlock PROJECT NAME Landfill Gas Assessment
 PROJECT NUMBER 17-1889 PROJECT LOCATION 88 Silver Oaks Court, Pleasanton, California
 DATE STARTED 10/10/12 COMPLETED 10/10/12 GROUND ELEVATION 515.00' MSL CASING ELEVATION 516.00' MSL
 DRILLING CONTRACTOR Boston Excavation GROUND WATER LEVELS: _____ HOLE SIZE 8"
 DRILLING METHOD Rotary Auger Drilling AT TIME OF DRILLING _____
 LOGGED BY C. Jenkins (EBA) CHECKED BY N. Delmanovsk (EBA) AT END OF DRILLING _____
 NOTES _____ AFTER DRILLING _____

GENERAL BH-1, TP-1, WELL, 88 SILVER OAKS CPT, GENT, LOG, SGT, 10/11/12

DEPTH (ft)	SAMPLE TYPE NUMBER	RECOVERY %	BLOW COUNTS (IN VALUE)	REMARKS	U.S.C.S.	GRAPHIC LOG	CONTACT DEPTH	MATERIAL DESCRIPTION	CONTACT ELEVATION	WELL CONSTRUCTION DETAIL	DEPTH (ft)
0								SANDY SILT, moist, brownish yellow (10YR 6/8), 30-40% fine sand, 60-70% fines		Compacted Soil	0
5	SS	100	28-27-31 (56)	0.0 ppm Methane	ML					Bentonite	5
10	SS	100	9-32-48 (80)	0.0 ppm Methane	ML			same as above, trace fractured cobbles		1" Schedule 40 Blank PVC Casing	10
15	SS	100	14-15-18 (33)	0.0 ppm Methane	ML			SILT WITH SAND, moist, brownish yellow (10YR 6/8), 15% fine sand, 85% fines	500.0	Filter Pack (#3 Sand)	15
17.0								Bottom of Borehole at 17.0 feet BGS.	498.0	1" Schedule 40 Screen PVC Casing (0.020-inch slotted)	17.0

APPENDIX C
LFG MONITORING DATA SHEET

LFG MONITORING DATA SHEET

Project: Berlogar Property		Instrument: RKI Eagle							
Date: 10-18-12		Temperature:							
Sampling Technician: Kari Webster		Weather: Sunny							
Monitoring Probe	Depth (feet)	Time	Static Pressure (In. w.c.)	Initial Reading			Final Reading (1 purge volume)		
				Methane (% Vol.)	Methane (% LEL)	ppmv	Oxygen (% Vol.)	CO2 (% Vol.)	ppmv
MP-1	28	10:55	0.0	0	0	19.1	1.0	18.1	3.0
MP-2	17	11:05	0.0	0	0	19.3	0.0	20.7	0.0

Via E-Mail and Mail

July 2, 2012
Job No. 1806.101A

**BERLOGAR
STEVENS &
ASSOCIATES**

Berlogar Vineyards Inc.
P.O. Box 1000
Pleasanton, California 94566

Subject: Geotechnical Investigation
Tract 7399 - Parcels 1 and 2
Silver Oaks Court
Pleasanton, California

Dear Mr. Berlogar:

INTRODUCTION

This report presents our geotechnical investigation for 2 proposed single-family residences on Parcels 1 and 2 of the Berlogar Vineyards in Pleasanton, California (see Plate 1, Vicinity Map). The Parcels are located at the end of Silver Oaks Court as shown on Plate 2, Site Plan and are proposed to be accessed via a private drive off Silver Oaks Court.

PURPOSE AND SCOPE OF SERVICES

The purpose of this geotechnical investigation was to investigate the site soil, bedrock and groundwater conditions and to evaluate the feasibility of the planned development from a geotechnical engineering standpoint. Our scope of services included:

1. Review of published maps and literature pertinent to the site and vicinity.
2. Review of existing geotechnical and geologic reports pertaining to the site.
3. Excavating and logging exploratory test pits.
4. Geotechnical engineering and geologic analysis.
5. Providing grading recommendations
6. Preparing this report.

SITE CONDITIONS

SURFACE CONDITIONS

Currently, the area is an undeveloped hillside. Parcel 1 is proposed to be graded to be a split pad at 460 and 470 feet MSL separated by a maximum 2H:1V slope. A 2H:1V slope is proposed to extend downhill to the north from the Pad at 460 feet MSL. The pad at 470 feet MSL is proposed to be bordered on the uphill side by a maximum 2H:1V slope. The second pad is on Parcel 2 and is proposed to be at 515 feet MSL.

SUBSURFACE CONDITIONS

We excavated eleven test pits (TP-1 to TP-11) up to 9 feet deep on September 16, 2010 and October 13, 2011 to explore the subsurface conditions at the locations shown on Plate 2, Site Plan. Soils encountered were generally silty to sandy clays and clayey silts overlying the Livermore Gravels formation. Siltstone was encountered in TP-9 at a depth of 4 feet below existing ground surface and was highly weathered, friable, and moderately to highly fractured. The test pit logs are contained on Plates 3 and 4.

GROUNDWATER

Groundwater was not encountered in the test pits.

GEOLOGIC HAZARDS

LANDSLIDES

Mapped landslides at the site were not found in the geologic literature in our files and we did not find evidence of landslides during our field exploration.

EARTHQUAKES

The site is not located within a designated State of California Earthquake Fault Zone for active faults. We did not observe signs of active faults during our field exploration. Hence, the potential for surface fault rupture at the site is low. The subject site is located at approximately 37.6623 degrees north latitude and 121.8369 degrees west longitude. The peak ground acceleration (PGA) with a 10% chance of exceedance in 50 years (475 year return period) is 0.53g according to the United States Geologic Survey (USGS) Deaggregation website with an assumed shear wave velocity of 270 m/s.

LIQUEFACTION AND DYNAMIC COMPACTION

Liquefaction is the temporary transformation of saturated, loose cohesionless soils into a viscous liquid during strong ground shaking from a major earthquake. The site is underlain by silty to sandy clays and clayey silts which are underlain by the Livermore Gravel formation. Therefore, the risk of liquefaction at the site is believed to be low. Dynamic compaction is the densification of dry, loose sandy soil above the water table. Loose, relatively clean sandy soil was not encountered in the test pits, hence, the potential for dynamic compaction is considered to be low.

CONCLUSIONS AND RECOMMENDATIONS

GENERAL

From a geotechnical engineering standpoint, the proposed home sites appear to be feasible at the site, provided the conclusions and recommendations contained in this report are followed as project planning advances.

SITE GRADING

The on-site soils are generally suitable for engineered fill, provided they are free of debris, significant vegetation, rocks greater than 6 inches in largest dimension and other deleterious matter.

In engineered fill and building pad areas, the upper foot of existing ground should be overexcavated, and the exposed grade should be scarified to a depth of about 12 inches, properly moisture conditioned to at least 3 percent above the optimum moisture content and compacted to a minimum of 90 percent relative compaction as determined by ASTM D1557. Cut and fill slopes should be graded at 2H:1V.

Fill slopes should be keyed and benched into the hillside and should include a subdrain. Keyways should slope back into the slope at a 5 percent gradient, extend a minimum of 4 feet into completed soil, and have a width of 15 feet or half the fill slope height, whichever is greater. All fill should be compacted to a minimum of 90 percent relative compaction (ASTM D1557) at 3 percent above optimum. Horizontal benches should be excavated to key the fill into native material.

A keyway subdrain should be located along the upslope side of the keyway and consist of a 6 inch diameter perforated PVC pipe placed holes down surrounded by 6 inches of Class 2 Permeable Material. The subdrain should discharge via a closed pipe to the proposed storm drain system.

We recommend that supplemental investigations be performed for each proposed residence when specific house plans become available. Foundation recommendations can be provided upon request. We trust this provides the information needed at this time. If you have any questions, please contact us.

LIMITATIONS

The conclusions and recommendations of this geotechnical investigation report are based on the information provided to us regarding the proposed development, subsurface conditions encountered at the test pit locations, laboratory tests and professional judgment. The study has been conducted in accordance with current professional geotechnical engineering standards; no other warranty is expressed or implied.

The locations of the test pits were estimated by pacing from existing features and should be considered approximate only. The test pits show subsurface conditions encountered at the locations and dates indicated; it is not warranted that they are representative of such conditions at other locations or times.

In the event that changes in nature, design, and location of the proposed development are planned, or if the subsurface conditions differ from those described herein during construction, then the conclusions and recommendations presented in this report should be considered invalid unless the changes are reviewed, and the conclusions and recommendations are modified or approved in writing.

Respectfully submitted,

BERLOGAR STEVENS & ASSOCIATES

Wilson Wong
Wilson Wong
Project Engineer
C78589



William R. Stevens
William R. Stevens
Principal Engineer

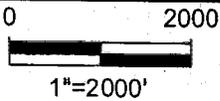
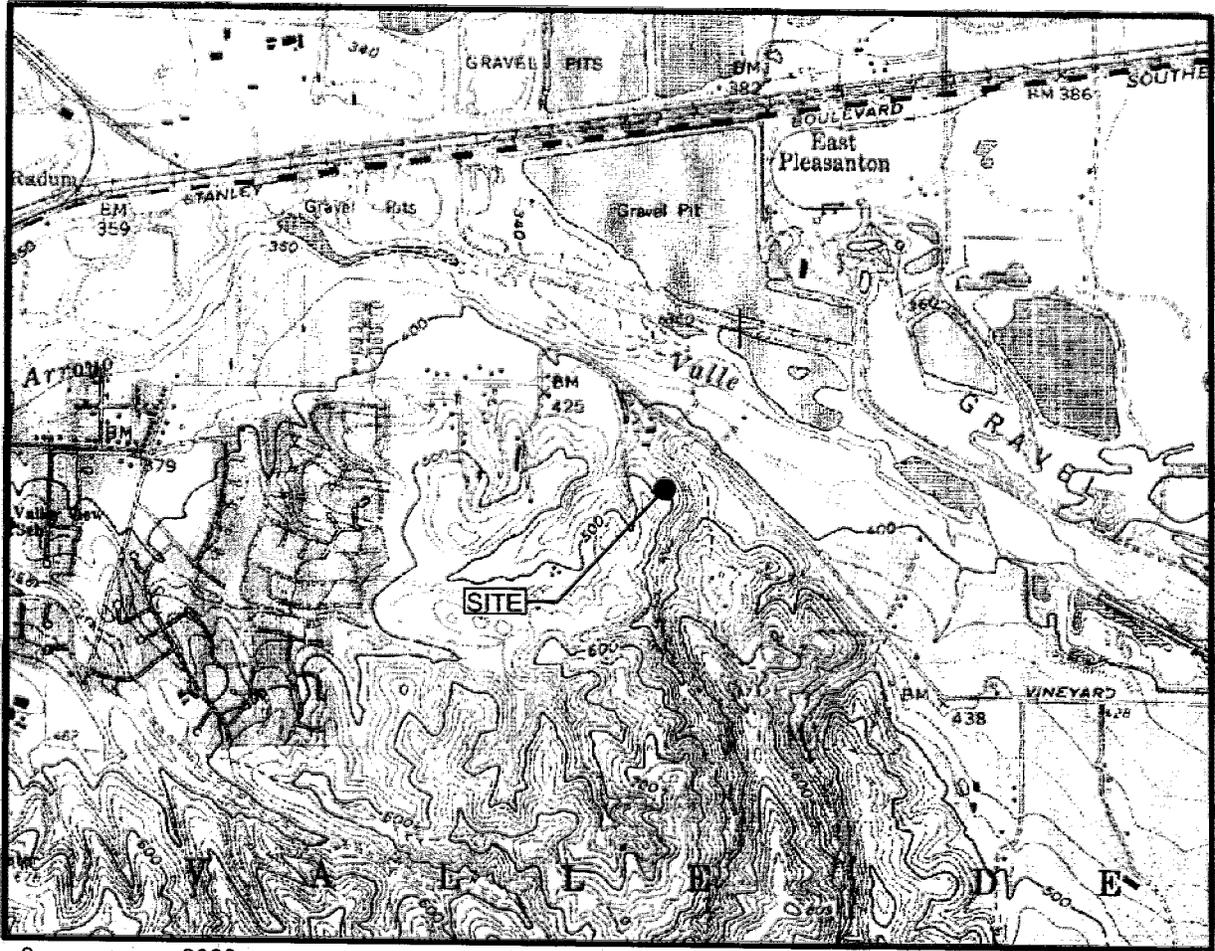
WW/WRS:jmb

Attachment: Plate 1 – Vicinity Map
Plate 2 – Site Plan
Plates 3 and 4 – Test Pit Logs

Copies: Addressee (6)

U:\@@@Public\1-Pleasanton\1806 Silver Oaks\101A Parcels 1 and 2\1806.101A Geotech Inv WRS - 24652.docx

JOB NUMBER: 1806.101A DATE: 2-13-12 BY: CC



VICINITY MAP
TRACT 7399
PARCELS 1 AND 2
SILVER OAKS COURT
PLEASANTON, CALIFORNIA
FOR
BERLOGAR VINEYARDS INC.

TEST PIT LOGS

<u>Test Pit Number</u>	<u>Depth (feet)</u>	<u>Description</u>
TP-1	0-2	<p>Conglomerate, light to moderate gray-brown, moist, hard/very dense, predominantly sand, gravel and cobbles in sandy clay matrix. "Livermore Gravels"</p> <p>Total Depth 2 feet No free groundwater encountered</p>
TP-2	0-2	<p>Conglomerate, light to medium gray-brown, moist, hard/very dense, gravel and cobbles in sandy clay matrix. "Livermore Gravels"</p> <p>Total Depth 2 feet No free groundwater encountered</p>
TP-3	0-1½ 1½-3	<p>Sandy Clay, light to medium gray-brown, dry to moist, hard, some fine to coarse gravel. "Livermore Gravels"</p> <p>Clayey Silt, light gray-brown (reddish), moist, very stiff to hard, trace fine to coarse gravel. "Livermore Gravels"</p> <p>Total Depth 3 feet No free groundwater encountered</p>
TP-4	0-2½	<p>Clayey Silt, light to medium gray-brown, moist, dense, slightly porous, some fine to medium-grained sand and fine to coarse gravel, occasional cobbles. "Livermore Gravels"</p> <p>Total Depth 2½ feet No free groundwater encountered</p>
TP-5	0-2	<p>Clayey Silt with fine to coarse gravel, light to medium gray-brown. Dry to moist, very dense, occasional cobbles. "Livermore Gravels"</p> <p>Total Depth 2 feet No free groundwater encountered</p>
TP-6	0-2	<p>Clayey Silt, light to medium gray-brown, dry to moist, dense, porous, some fine to coarse grained sand and fine to coarse gravel, occasional cobbles. "Livermore Gravels"</p> <p>Total Depth 2 feet No free groundwater encountered</p>
TP-7	0-2	<p>Sandy Clay, gray-brown, dry to moist, very stiff to hard, some fine to coarse gravel, fine to coarse-grained sand, occasional cobbles. "Livermore Gravels"</p> <p>Total Depth 2 feet No free groundwater encountered</p>

TEST PIT LOGS

<u>Test Pit Number</u>	<u>Depth (feet)</u>	<u>Description</u>
TP-8	0 - 2	Conglomerate, light to medium gray-brown, moist, hard/very dense, gravel and cobbles in sandy clay matrix. "Livermore Gravels"
		Total Depth 2 feet No free groundwater encountered
TP-9	0 - 1	Silty Clay, brown, dry, stiff, trace fine-grained sand.
	1 - 2	Silty Clay, brown, moist, stiff, trace fine-grained sand, trace fine gravel, faint blocky ped structure.
	2 - 4	Conglomerate, red-brown, highly weathered, friable, coarse-grained sand matrix, matrix supported, matrix: gravel ≈ 60:40, rounded gravel up to ½ inch, channeled basal contact. "Livermore Gravels"
	4 - 6	Siltstone, tan-brown, highly weathered, friable, moderately to highly fractured.
		Total Depth 6 feet No free groundwater encountered
TP-10	0 - 1½	Silty Clay, brown, dry, stiff.
	1½ - 2½	Silty Clay, brown, moist, stiff, trace fine-grained sand, trace fine gravel.
	2½ - 5½	Conglomerate, red-brown, highly weathered, friable, coarse-grained sand matrix, clast supported, matrix: gravel ≈ 40:60, rounded gravel up to 1½ inch "Livermore Gravels."
		Total Depth 5½ feet No free groundwater encountered
TP-11	0 - 3½	Silty Clay, brown, dry, stiff, porous, trace fine-grained sand, trace fine gravel.
	3½ - 6½	Silty Clay, brown, dry to moist, very stiff, trace to some rounded fine to coarse gravel, trace fine-grained sand.
	6½ - 9	Conglomerate, brown to red-brown, highly weathered, friable, coarse-grained sand matrix, matrix to clast supported, matrix: gravel ≈ 50:50, rounded fine to coarse gravel "Livermore Gravels."
		Total Depth 9 feet No free groundwater encountered

* Hard excavation in Livermore Gravels due to interlocking gravel.