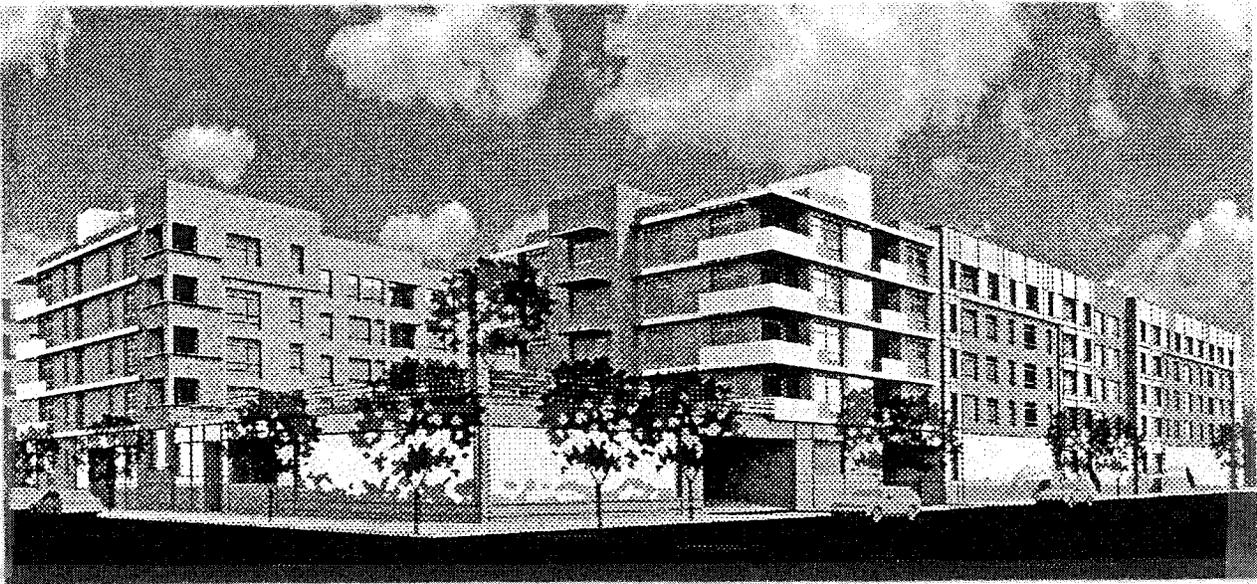


Initial Study

199 River Oaks Parkway

PDC07-102

June 18, 2008



CITY OF SAN JOSE

Initial Study

199 River Oaks Parkway

Planned Development (PD) Rezoning (PDC 07-102)

June 18, 2008

CITY OF SAN JOSE

INTRODUCTION

The project site was included within the area covered by the North San Jose Development Policies Update Program Environmental Impact Report (hereinafter referred to as the North San Jose EIR), which evaluated the modification of plans and policies in order to encourage a greater intensity of development within the Rincon de los Esteros Redevelopment Area, approximately 4,987 acres located generally south of State Route 237, east of the Guadalupe River, north and northwest of Interstate 880, and west of Coyote Creek. Most of the Rincon area was designated Industrial Park on the City's General Plan. The North San Jose EIR addressed the impacts of developing approximately 26.7 million square feet of new industrial/office/R&D building space in the Rincon area beyond existing entitlements, with an increase of approximately 83,300 new employees. In addition, the North San Jose EIR addressed the development of up to 32,000 new residential dwelling units within the project area, for a population increase of approximately 56,640 persons.

The following environmental effects were evaluated at a General Plan level in the North San Jose EIR:

- Land Use
- Transportation
- Air Quality
- Noise
- Biological Resources
- Cultural Resources
- Geology and Soils
- Hydrology and Water Quality
- Hazardous Materials
- Utilities and Service Systems
- Energy
- Public Facilities and Services

The following were found to have Unavoidable Significant Impacts:

- Transportation
- Air Quality
- Noise

This Initial Study evaluates the project site at a Project level, as a specific development project is proposed.

CEQA Section 21093(b) states that environmental impact reports shall be tiered whenever feasible, as determined by the lead agency. "Tiering" refers to using the analysis of general matters contained in a broader environmental impact report (EIR) (such as one prepared for a general plan or policy statement) in subsequent EIRs or Initial Studies/Negative Declarations on

narrower projects; and concentrating the later environmental review on the issues specific to the later project (CEQA Guidelines 15152[a]).

Tiering is appropriate when it helps a public agency to focus on issues at each level of environmental review and to avoid or eliminate duplicative analysis of environmental effects examined in previous EIRs (CEQA Section 21093[a]).

North San Jose is also a Redevelopment Project area. Section 15180 of the CEQA Guidelines states all public and private activities pursuant to a redevelopment plan are considered a single project. An EIR on a redevelopment plan is to be treated as a program EIR and no subsequent EIR is required for individual components of the redevelopment plan unless otherwise required by Section 15162 or 15163.

In accordance with CEQA Sections 21093(a) and 21093(b) and CEQA Guidelines Section 15152(a), this Initial Study tiers off the North San Jose EIR (State Clearinghouse No. 2004102067) certified by the City Council in June, 2005.

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- Persons and Organizations Consulted
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I. PROJECT DESCRIPTION

A. GENERAL INFORMATION

Lead Agency Contact: John Baty
City of San Jose
Planning, Building and Code Enforcement
200 East Santa Clara Street
San Jose, CA 95113
408-535-7894
john.baty@sanjoseca.gov

Applicant: BRE Properties, Inc.
525 Market Street, 4th Floor
San Francisco, CA 94105
415-445-6530; (fax) 415-445-3715
Attn: Don Reber
dreber@breproperties.com

Property Owner: Applejack 199
23271 Partridge Lane
Los Altos, CA 94024

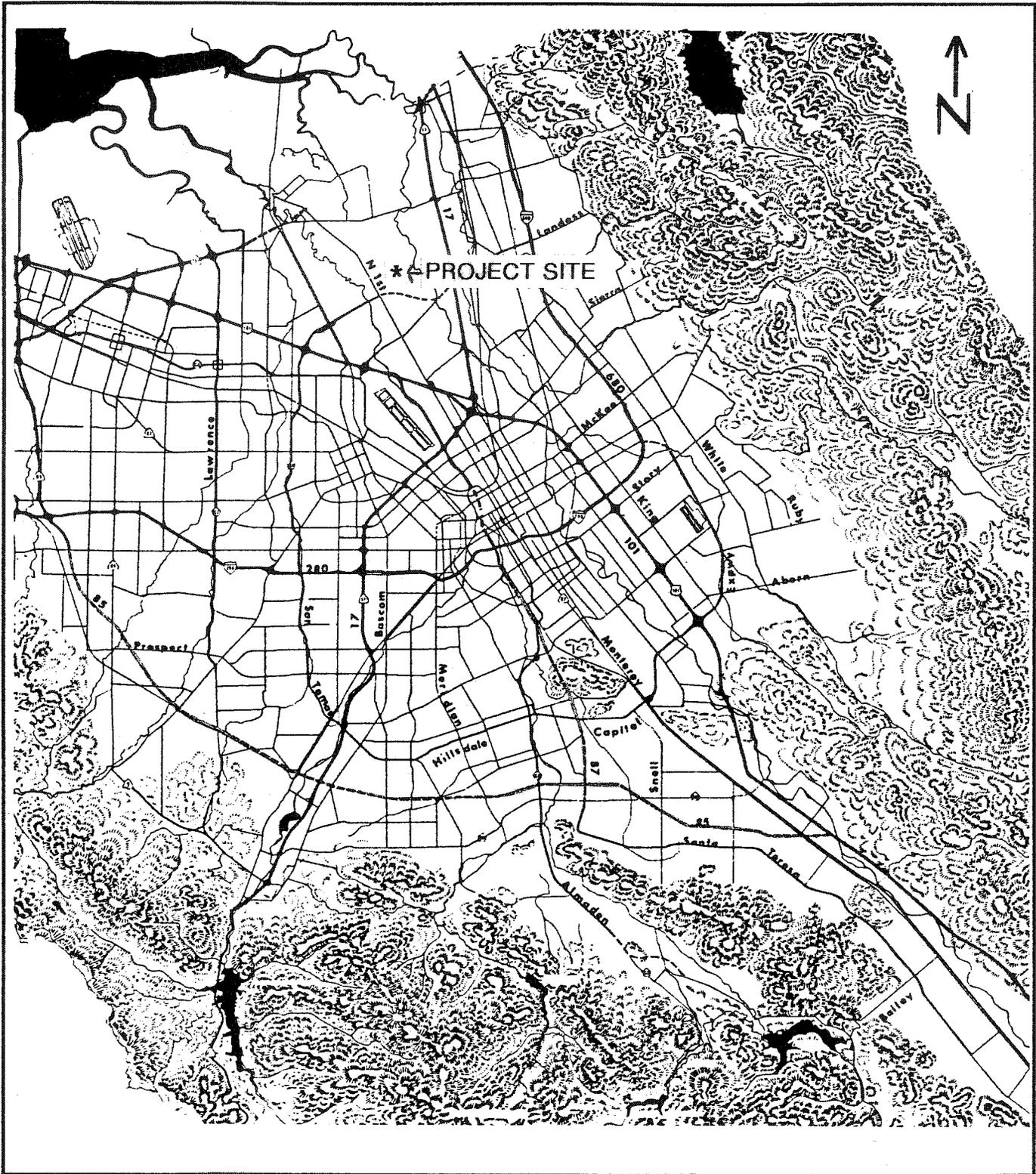
Environmental Consultant: Mindigo & Associates
1984 The Alameda
San Jose, CA 95126
408-554-6531, (fax) 408-554-6577
rmindigo@aol.com

Name of Project: **199 River Oaks Parkway**

Location and Address: Northerly side of River Oaks Parkway,
just easterly of Zanker Road
(199 River Oaks Parkway)

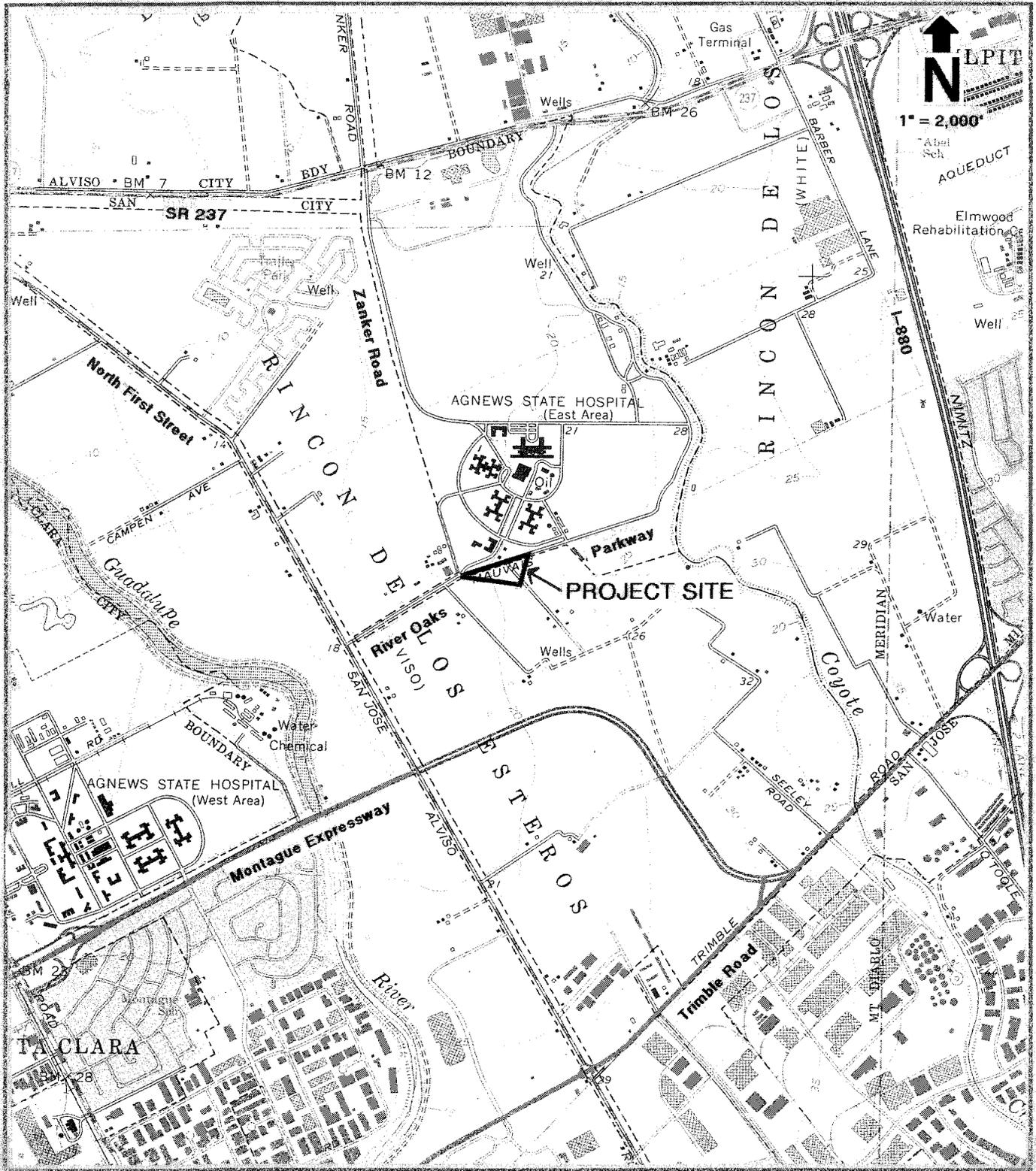
Brief Description of Project: **A Planned Development (PD) Zoning**
application and subsequent permits for a 297-
unit multi-family (apartment) residential
development and 1,500 square feet of retail
space on approximately 3.7 gross acres

Assessor's Parcel Number(s): 097-33-036



Santa Clara Valley Map

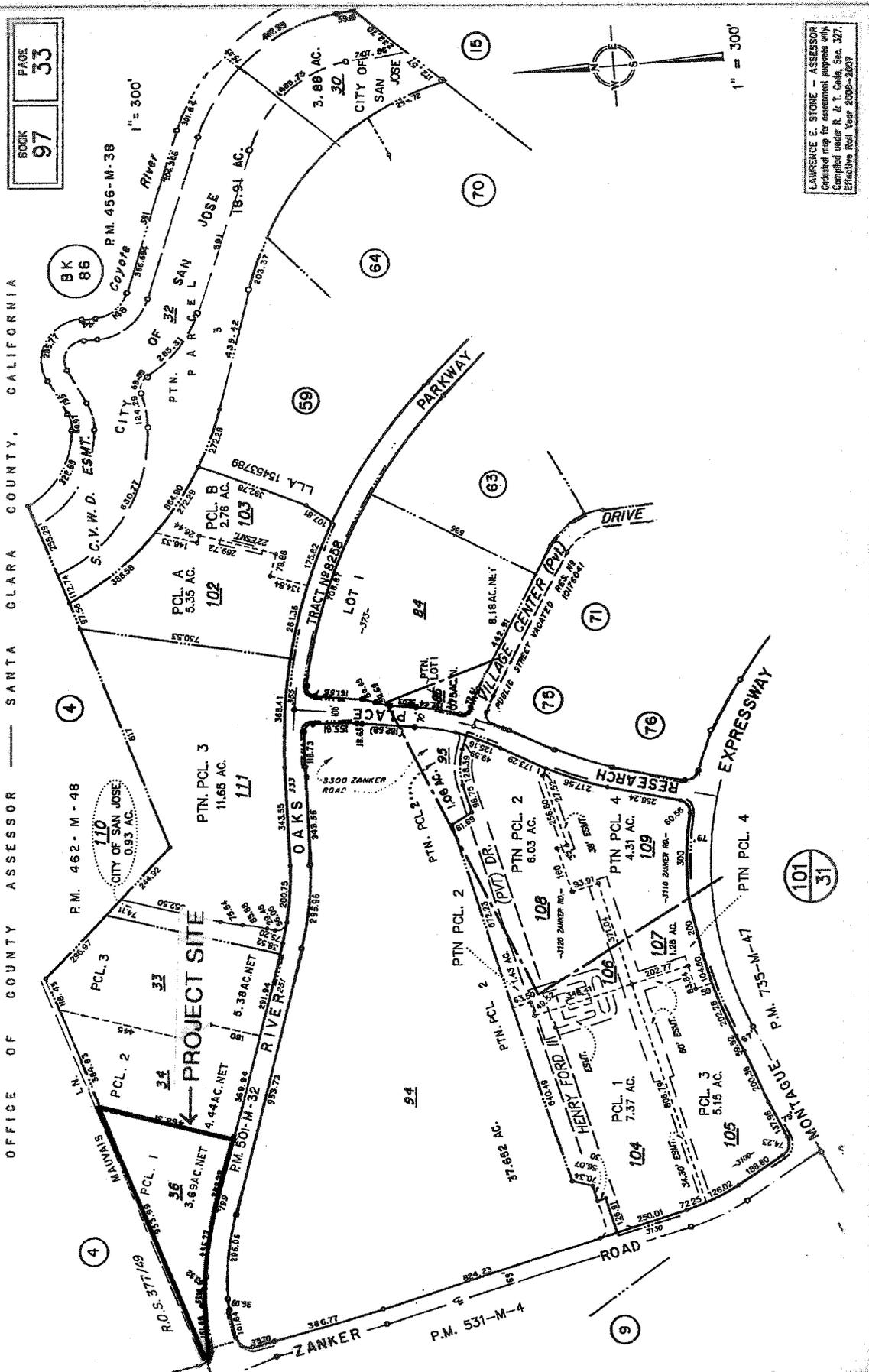
Figure 1



Source: Milpitas Quadrangle (1961, photorevised 1980)

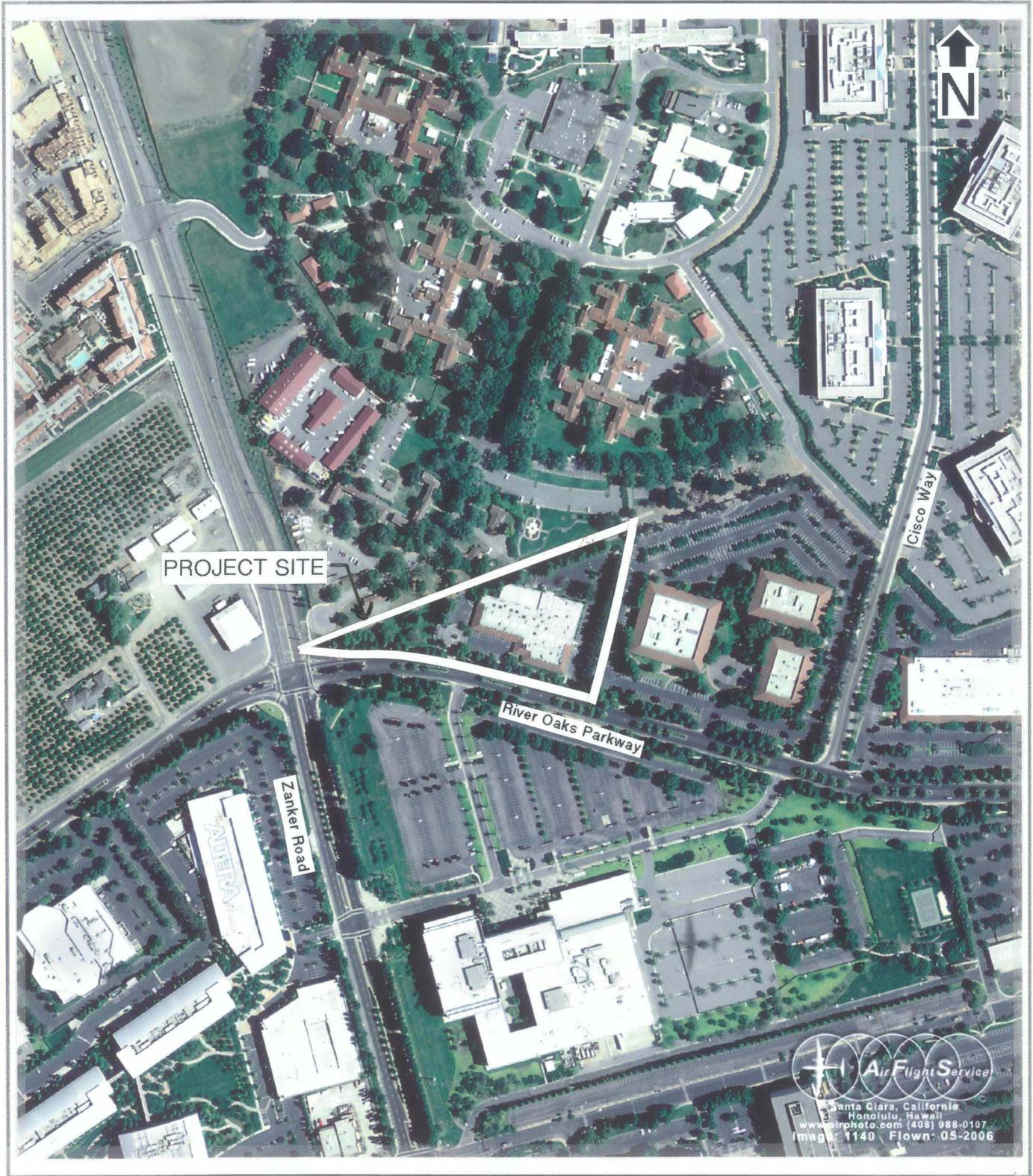
USGS Map
Figure 2

OFFICE OF COUNTY ASSESSOR — SANTA CLARA COUNTY, CALIFORNIA

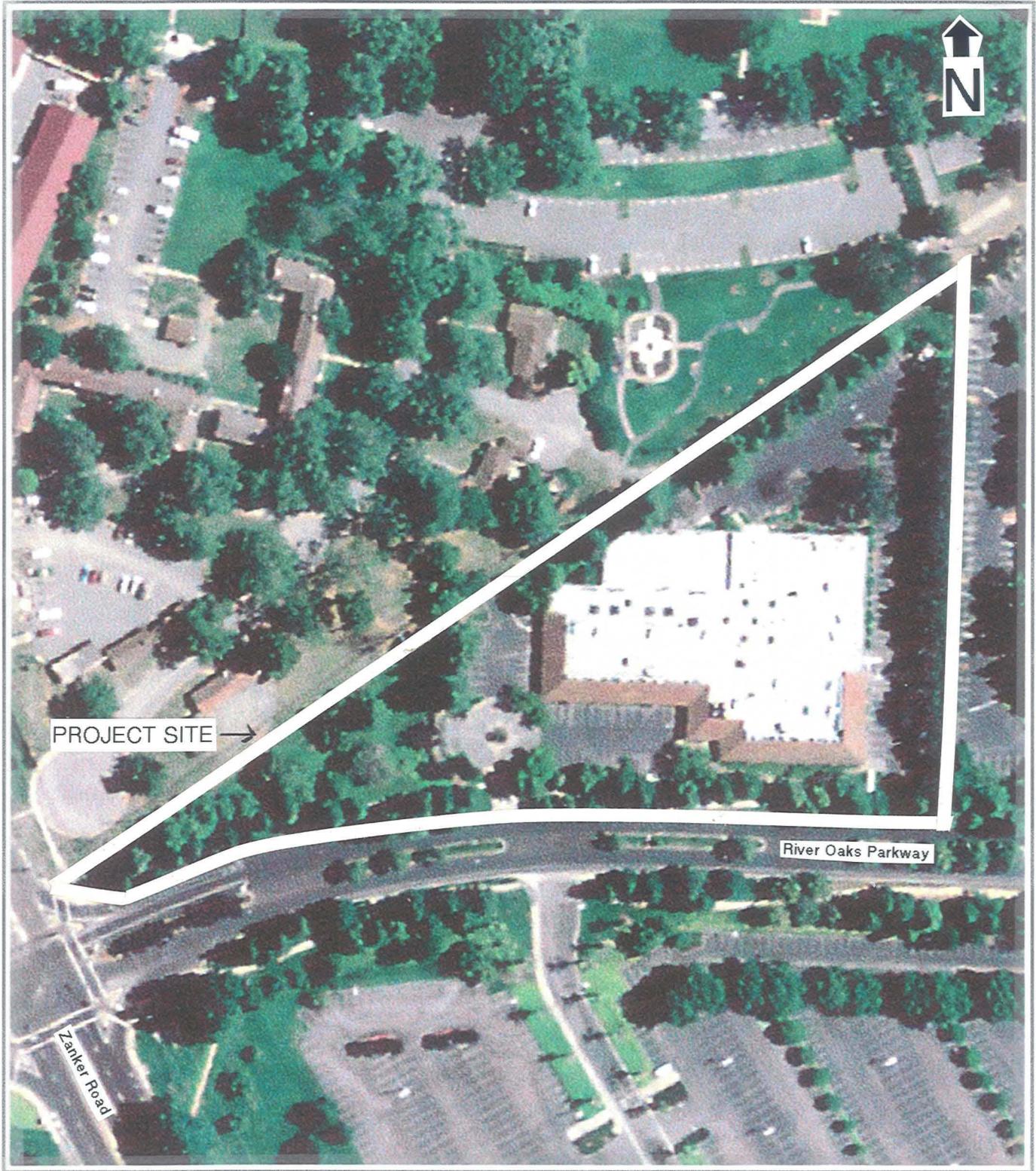


LAWRENCE E. STORE - ASSESSOR
 Certified map for assessment purposes only.
 Compiled under R. & T. Code, Sec. 327.
 Effective Roll Year 2006-2007

Assessor's Parcels Figure 4



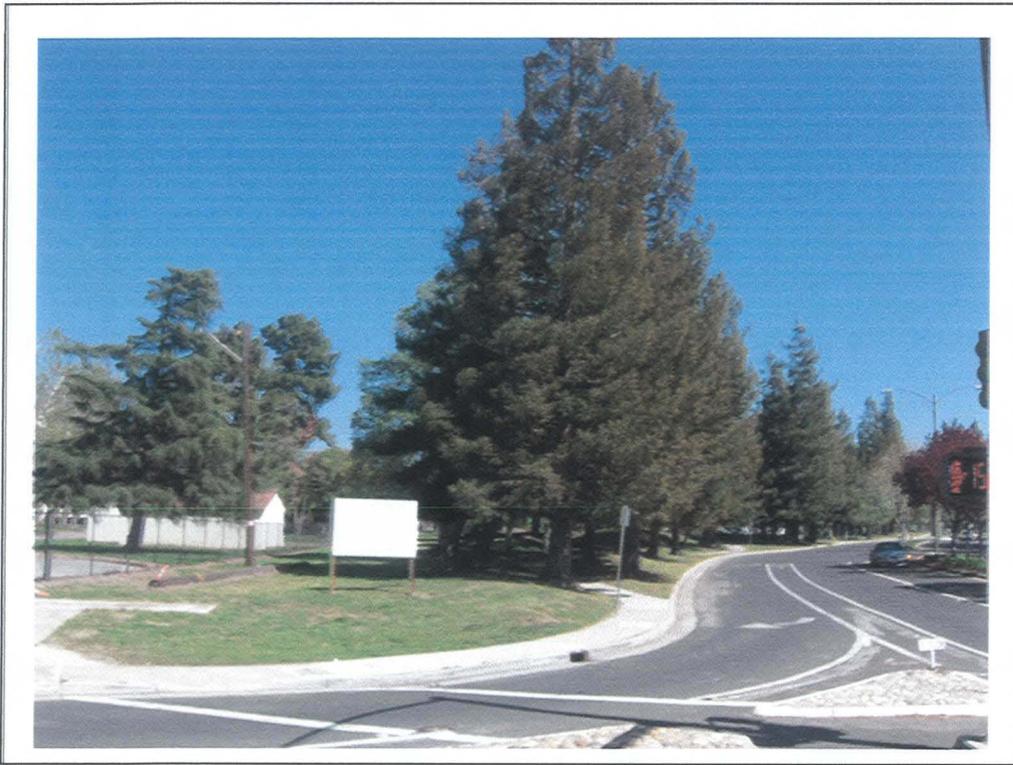
Aerial Photo of the Vicinity
May, 2006 Figure 5



Aerial Photo of the Site

May, 2006

Figure 6



Viewing easterly from the westerly corner on Zanker Road at River Oaks Parkway.



Viewing easterly from the westerly area of the site.

View of the Site

March 24, 2008

Figure 7



Viewing northwesterly along River Oaks Parkway at the easterly boundary.



Viewing northwesterly along River Oaks Parkway near the center of the site.

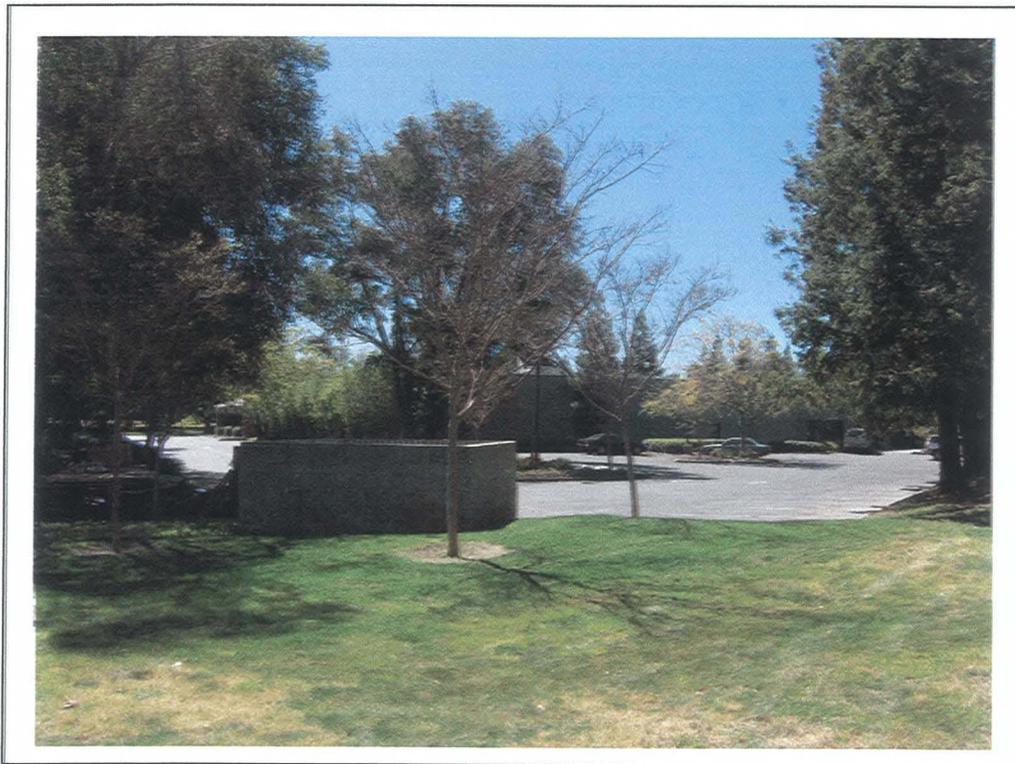
View of the Site

March 24, 2008

Figure 8



Viewing the easterly boundary from the adjacent property.



Viewing southwesterly from the northerly corner.

View of the Site

March 24, 2008

Figure 9

B. PROJECT OBJECTIVE

The objective of this project is to construct high quality, multi-family apartment homes and retail space on the site, in accordance with the goals and policies of the City of San Jose.

C. DESCRIPTION

The project is a **Planned Development (PD) Re-Zoning** from the IP, Industrial Park Zoning District, to the A(PD), Planned Development Zoning District, and subsequent permits, to allow the construction of 297 residential units and 1,500 square feet of retail space, located on the northerly side of River Oaks Parkway, just easterly of Zanker Road (199 River Oaks Parkway). The majority of the project is a multi-family (apartment) residential development within a podium building. The building is proposed to have five floors. Parking is to be provided in the central portion of the first (ground) level and within partially-underground Level A and one subterranean level (Level B); while residential uses are around the perimeter of the first (ground) level (23 units), around the interior courtyards on the second (podium) level (64 units), and on the top three floors (70 units each). Retail space is located adjacent to the leasing office on the first (ground) level on River Oaks Parkway. The Conceptual Site Plan provides for a total of 297 units and 1,500 square feet of retail space. The Project Data table and reduced copies of the project plans follow, Figures 10 through 20. Full size copies are available for review at the City of San Jose Planning Division.

Unit Types

The building is planned to be a five-story podium structure with stucco exteriors. The building is to have three residential levels above the residential podium level; a perimeter row of residential units surrounding parking on the ground level; and two subterranean parking levels. Studio, one-bedroom and two-bedroom units are planned.

Landscaping

The landscaping proposed is shown in schematic form on the Conceptual Landscape Plan, Figure 20. Street trees, specimen trees, planting strips, and accent paving on sidewalks and plaza entries are planned around the project perimeter. Trees, shrubs, lawn, groundcover, decorative walls, and raised planters with different planter wall heights are planned throughout the podium courtyards. The site will be plumbed for future connection to recycled water, which will be used for all landscape irrigation.

Recreation Facilities

Recreation facilities planned within the podium courtyards include a swimming pool, spa, landscaped seating areas, and private patios. A fitness room and a recreation/lounge area are also planned, as further discussed in the following Recreation section.

Access

Access to the project is from River Oaks Parkway. A publicly accessible pedestrian paseo/emergency vehicle access (EVA) route is to be provided along the northerly site boundary, with a new public street along the easterly boundary.

Parking

Parking for the project is provided by covered spaces provided in the ground-level and subterranean parking structure beneath the building, as shown on the Conceptual Building Ground Level and Subterranean Levels A and B exhibits, Figures 12 through 14. Parking spaces are listed in the Project Data table.

Exterior Lighting

Standard electroliers using low pressure sodium vapor lights are already provided along River Oaks Parkway. Normal exterior household lighting is to be provided with the residential units. Downward-directed lighting fixtures with low-elevation standards are to be provided within the project interior. All exterior lighting is subject to the City's Outdoor Lighting Policy (4-3).

Utilities

All utilities required to serve the project, including sanitary sewer, wastewater treatment, water supply, storm drainage, natural gas, electricity and telephone, as further described in the following Utilities and Service Systems section, would be provided with the project. All of the utilities within the project are to be underground.

Demolition

The project proposes the demolition of the onsite structure. A discussion of potential asbestos-containing materials (ACM) and/or lead based paint (LBP) hazards is included in the following Hazards and Hazardous Materials section.

Hazardous Materials

Hazardous materials other than those for normal household and yard use will not be used as a part of the operation of any of the establishments on the project site.

Grading

Grading planned for the project is shown on the following Conceptual Grading and Drainage Plan, Figure 18. The final grading for the project outside the building footprint is to be designed to conform to the natural ground as closely as possible. The amount of grading planned is the minimum required to allow for construction with positive drainage. In addition to the building excavation that includes a half level (Level A) and a full level (Level B) of subterranean parking, trenching is required for the underground utilities and sewer system. Approximately 44,000 cubic yards of material are estimated to be removed during the grading operations. The maximum excavation for the subterranean parking is 7 feet for Level A and 18 feet for Level B. The grading contractor would be responsible for the removal and disposal of the material. The haul route would likely be Zanker Road to SR 237.

Water Quality Treatment

In accordance with the Santa Clara Valley Urban Runoff Pollution Prevention Program NPDES MS4 permit and City Council Policies 6-29 and 8-14, the project includes disconnected roof drains that discharge into landscaped planter boxes, Continuous Deflective Separation (CDS) media filter units, and pervious areas that are exempt from treatment, as further discussed in the following Hydrology and Water Quality section.

Tree Removal

There are 125 existing trees onsite, 114 of which are to be removed, as further discussed in the following Biological Resources section.

Public Improvements

River Oaks Parkway is fully dedicated and improved to City standards. Public improvements planned with the project include an irrevocable offer of dedication of 159 square feet for Zanker Road widening; and the additional dedication (as required) and improvement of a new public street along the easterly side of the project site. This public street is to be dedicated and improved in accordance with City standards. The precise dedication and improvement widths and public street right-of-way are to be in conformance with City plans and requirements.

Public Land Reservations

There are no public land reservations with this project; however, the project will contribute toward a planned 5-acre park southerly across River Oaks Parkway in conformance with the City's Park Impact Ordinance (PIO) and Parkland Dedication Ordinance (PDO) (Municipal Code Chapters 14.25 and 19.38, respectively). The location of the proposed park is shown on the preceding Vicinity Map, Figure 3.

Other Related Permits

In addition to the proposed **Planned Development (PD) Zoning**, other related permits to be obtained from the City of San Jose and/or any other public agency approvals required for this project by other local, State or Federal agencies are as follows:

Agency	Permit / Approval
City of San Jose	PD Permit, Demolition Permit, Grading Permit, Building Permit(s)

Community Meeting

A community meeting to discuss the proposed project with neighbors was held on March 24, 2008. The following issues were covered: traffic, circulation, architecture, building mass, setbacks and open space.

Table 1. Project Data

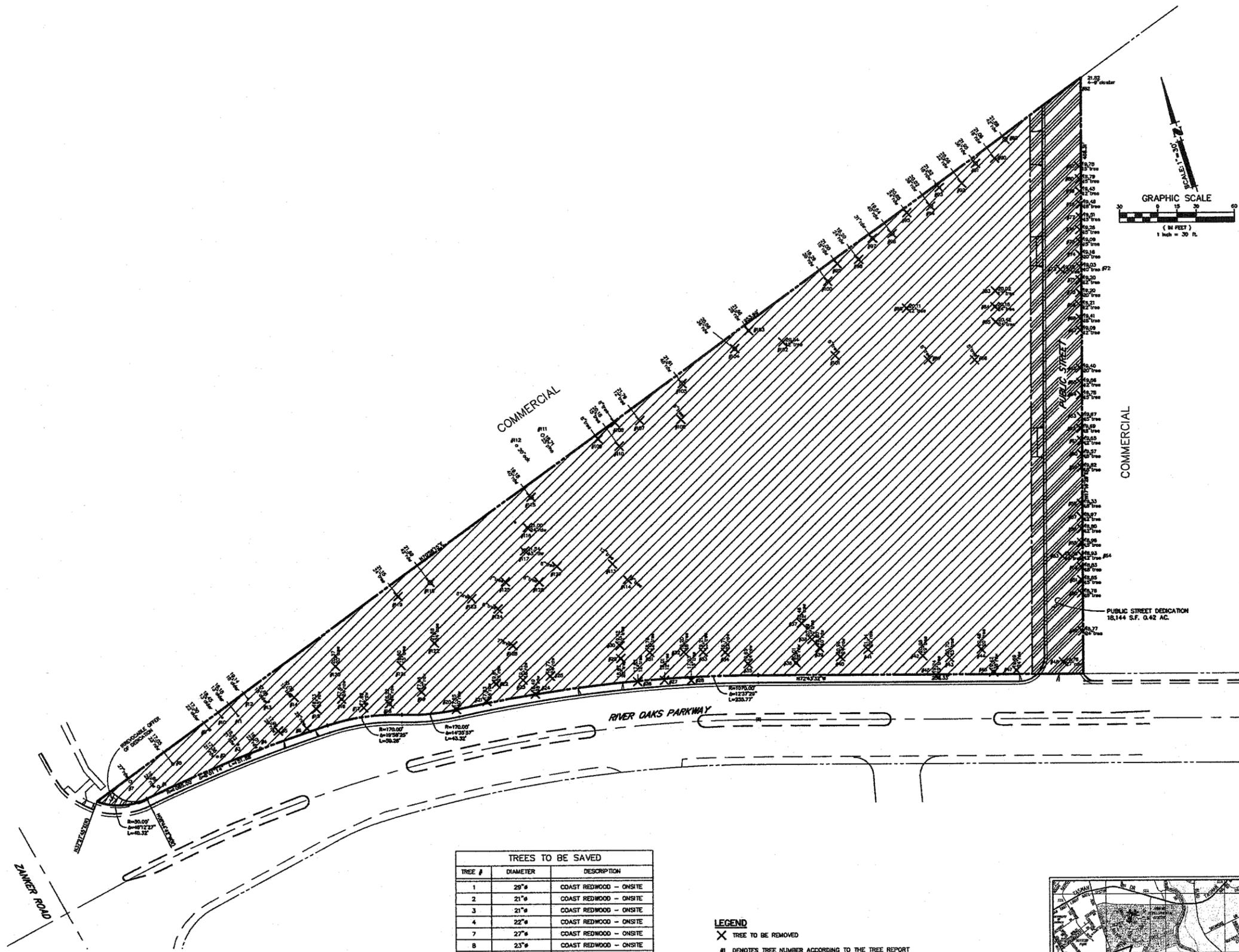
Category	Figure	
Gross Acreage	3.69	
Public Street	0.42	
Net Acreage	3.27	
Maximum Building Height (<i>feet</i>)	80	
Parking Spaces		
Podium Building	512	
Offsite Street	<u>8</u>	
Total	520	
Coverage Factors	Acres	Percent
Buildings	2.4	65
Private Open Space	0.5	13
Private Vehicular Area	0.4	11
Public Street	<u>0.4</u>	<u>11</u>
Total	3.7	100
Impervious Areas	Square Feet	Percent
Existing	96,885	60
Project	125,442	78
Start/Completion Dates	Summer, 2009 / Summer, 2011	
Residential		
Number of Units by Level		
First - ground	23	
Second - podium	64	
Third	<u>70</u>	
Fourth	<u>70</u>	
Fifth	<u>70</u>	
Total	297	
Unit Types		
Studio units	67	
One bedroom units	134	
Two bedroom units	<u>96</u>	
Total	297	
Estimated Population *	909	
Estimated Wastewater (<i>gallons/day</i>)	56,800	
Estimated Water Demand (<i>gallons/day</i>)	66,800	
Estimated Solid Waste (<i>tons/year</i>)	249	
Density (<i>units net acre</i>)	297 / 3.27 = 91.0	
Density (<i>units/gross acre</i>)	297 / 3.69 = 80.5	
<i>continued</i>		

Table 1. Project Data (Cont.)

Category	Figure
Commercial	
Building Area (<i>square feet</i>)	1,500
Estimated Number of Employees **	4
Estimated Wastewater (<i>gallons/day</i>)	128.0
Estimated Water Demand (<i>gallons/day</i>)	150.0
Estimated Solid Waste (<i>tons/year</i>)	0.8

* Based on 2000 Census average of 3.06 persons per SFA dwelling unit.

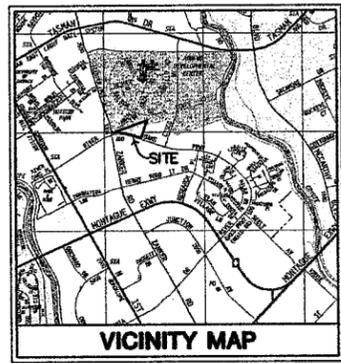
** Based on 2.5 employees per 1,000 square feet of retail space.



TREES TO BE SAVED		
TREE #	DIAMETER	DESCRIPTION
1	29"	COAST REDWOOD - ONSITE
2	21"	COAST REDWOOD - ONSITE
3	21"	COAST REDWOOD - ONSITE
4	22"	COAST REDWOOD - ONSITE
7	27"	COAST REDWOOD - ONSITE
8	23"	COAST REDWOOD - ONSITE
9	22"	ITALIAN ALDER - ONSITE
10	15"	ITALIAN ALDER - ONSITE
11	15"	ITALIAN ALDER - ONSITE
12	18"	ITALIAN ALDER - ONSITE
13	15"	ITALIAN ALDER - ONSITE
82	9" (2), 8", 7", 6", 5" & 4"	RIVER RED GUM; CLUSTER OF 7 TREES
111	25"	MONTEREY PINE - OFFSITE
112	20"	CORK OAK - OFFSITE

LEGEND
 X TREE TO BE REMOVED
 # DENOTES TREE NUMBER ACCORDING TO THE TREE REPORT
 PREPARED BY HORTSCIENCE, INC. DATED FEBRUARY, 2008

LAND USE LEGEND					
SYMBOL	USE	AREA (SQ. FT.)	PERCENT OF SITE COVERAGE	DWELLING UNITS/ RETAIL S.F.	NET DENSITY
[Hatched Box]	PUBLIC STREET DEDICATION	18,144	11.3%	-	-
[Hatched Box]	ATTACHED RESIDENTIAL & RETAIL COMPONENT	142,628	88.7%	297 UNITS & 1,500 S.F. RETAIL	91 DU/AC
	TOTAL	160,772	100%	297 UNITS & 1,500 S.F. RETAIL	91 DU/AC

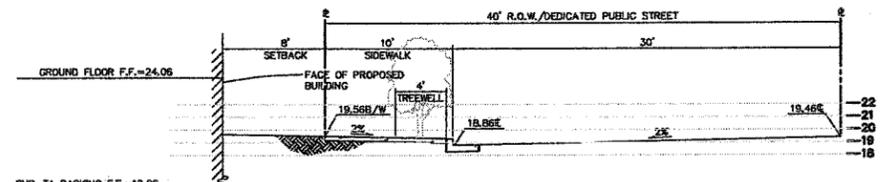


PDC07-102
GENERAL DEVELOPMENT PLAN EXHIBIT "C" LAND USE PLAN
 Date: MAY 1, 08
 Scale: 1"=30'
 Drawn: CH
 Designed: AT
 Job: 07-112
 Sheet: **2**
 of 2 Sheets

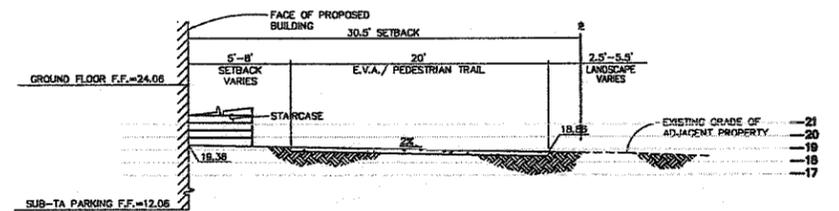
PREPARED FOR:
BRE PROPERTIES, INC.
 408 MARKET STREET, 4TH FLOOR
 SAN FRANCISCO, CALIFORNIA 94102
 (415) 442-6685
bre

Civil Engineering Associates
 Civil Engineers • Planners • Surveyors
 2580 North First Street • Suite 200 • San Jose, CA 95131
 (408) 435-1086 • Fax: (408) 435-1075

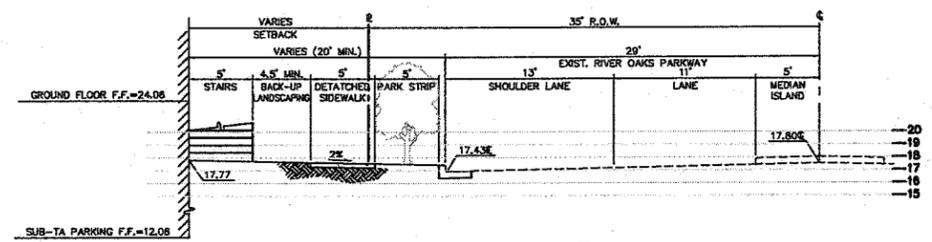
Figure 10



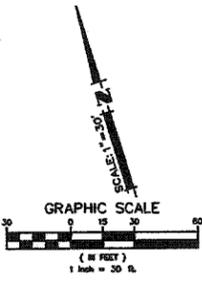
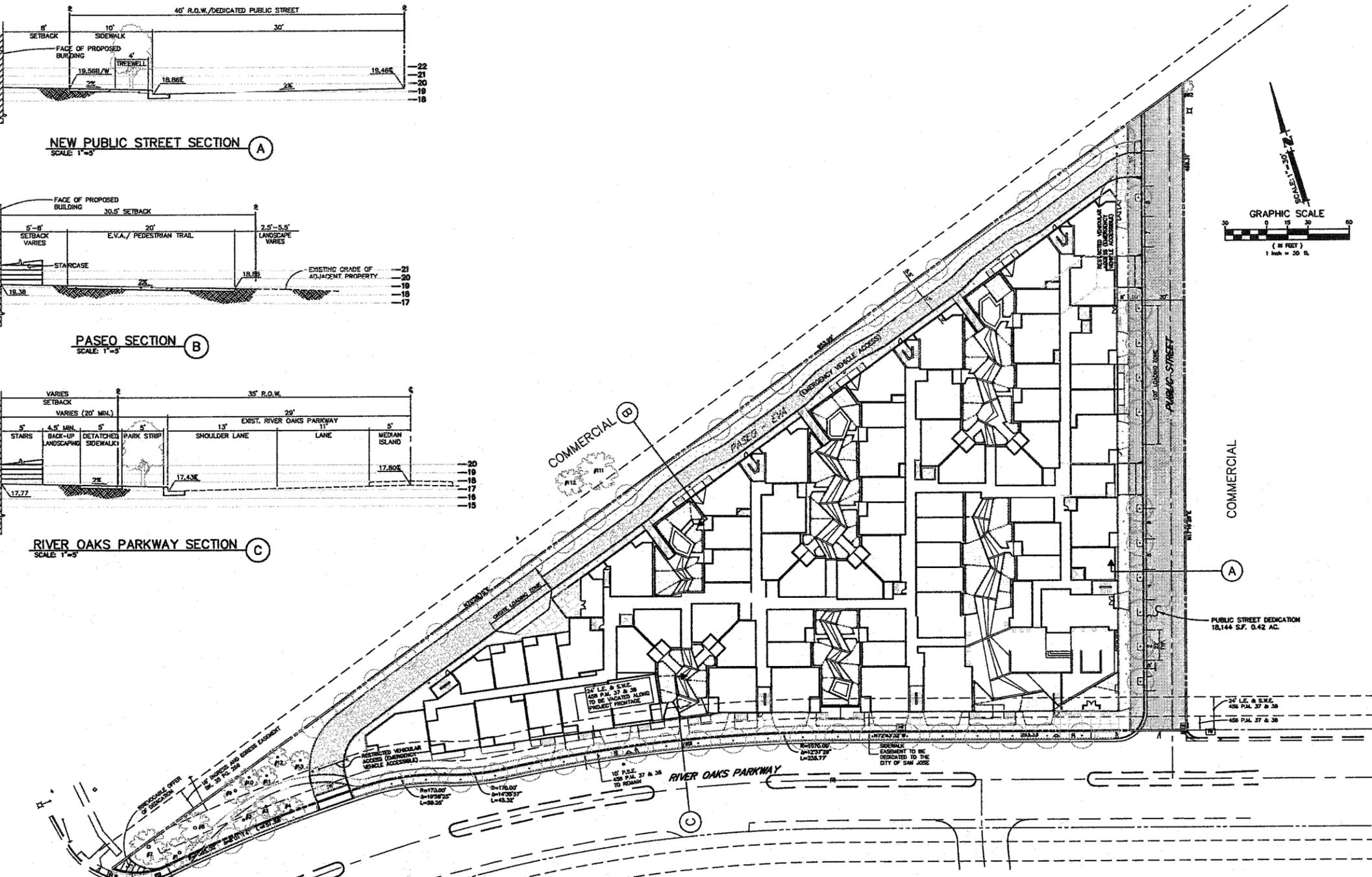
NEW PUBLIC STREET SECTION (A)
SCALE: 1"=3'



PASEO SECTION (B)
SCALE: 1"=3'



RIVER OAKS PARKWAY SECTION (C)
SCALE: 1"=3'



LEGEND
#1 DENOTES TREE NUMBER ACCORDING TO THE TREE REPORT PREPARED BY HORTSCIENCE, INC. DATED FEBRUARY, 2008

TREES TO BE SAVED		
TREE #	DIAMETER	DESCRIPTION
1	29"	COAST REDWOOD - ONSITE
2	21"	COAST REDWOOD - ONSITE
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13	15"	ITALIAN ALDER - ONSITE
82	8" (2), 8", 7", 6", 5" & 4"	RIVER RED GUM; CLUSTER OF 7 TREES
111	25"	MONTEREY PINE - OFFSITE
112	20"	CORK OAK - OFFSITE

STATEMENTS AND TABLES
PROPOSED USE: 297 ATTACHED RESIDENTIAL UNITS AND 1,500 S.F. RETAIL
NET DENSITY: 91 DU/AC

GROSS ACREAGE: 3.89 ACRES
STREET DEDICATION: 0.42 ACRES
NET ACREAGE: 3.47 ACRES

RESIDENTIAL CALCULATIONS
AREA OF PRIVATE STREET: 0.35 ACRES PRIVATE STREET
SITE COVERAGE: 11% OF NET ACREAGE

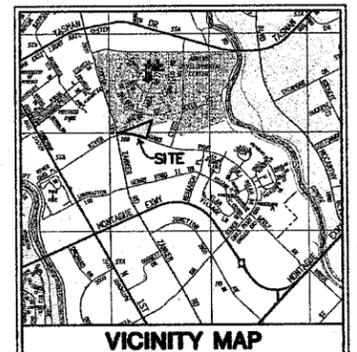
AREA OF ATTACHED RESIDENTIAL: 2.37 ACRES
ATTACHED RESIDENTIAL SITE COVERAGE: 72% OF NET ACREAGE

AREA OF RETAIL: 0.03 ACRES
RETAIL SITE COVERAGE: 1% OF NET ACREAGE

AREA OF OPEN SPACE: 0.52 ACRES
OPEN SPACE SITE COVERAGE: 16% OF NET ACREAGE

PARKING PROVIDED:
PODIUM BUILDING:
GROUND LEVEL: 154 SPACES
SUB-T LEVEL A: 291 SPACES
SUB-T LEVEL B: 102 SPACES
TOTAL: 547 SPACES

OFFSITE STREET PARKING: 8 SPACES
520 TOTAL



Civil Engineering Associates
Civil Engineers - Planners - Surveyors
2500 Mission Street, Suite 200
San Francisco, CA 94110
(415) 435-1086 Fax: (415) 435-1075

PREPARED FOR:
BRE PROPERTIES, INC.
658 MARKET STREET, 4TH FLOOR
SAN FRANCISCO, CALIFORNIA 94105
(415) 448-9850

**GENERAL DEVELOPMENT PLAN
EXHIBIT "C"
CONCEPTUAL SITE PLAN**

Date: MAY 1, 08
Scale: 1"=30'
Drawn: CH
Designed: AT
Job: 07-112
Sheet: **3**
Of: 3

Sheet	5.0
Date	
Author	
Checked	
Reviewed	
Approved	
Discipline	
Scale	
Drawn	

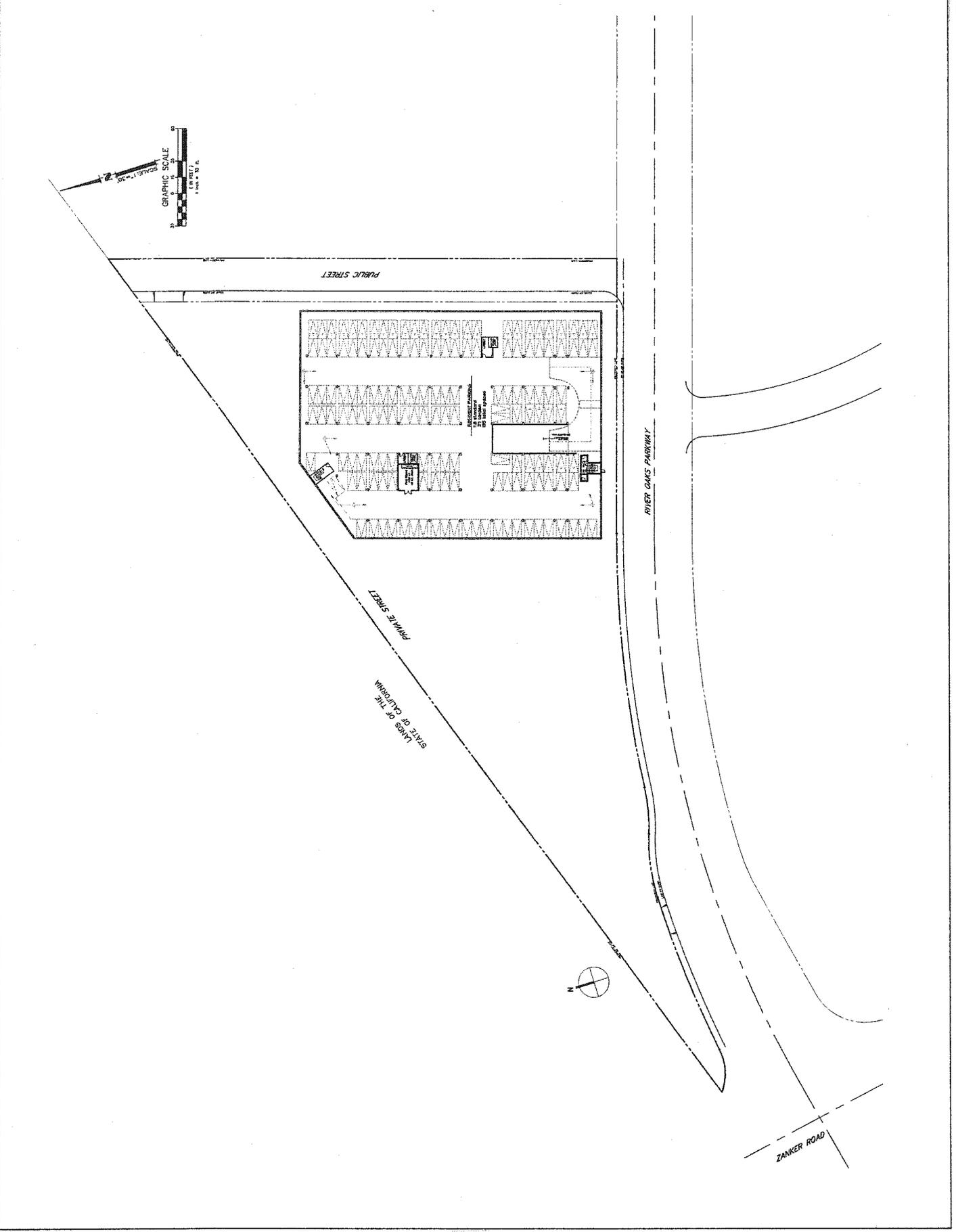
GENERAL DEVELOPMENT PLAN
 EXHIBIT C
 CONCEPTUAL BUILDING
 SUB-T B LEVEL

PREPARED FOR
 BRE PROPERTIES, INC.
 505 FARMERS CALIFORNIA 94203
 505 MARKET STREET, 4TH FLOOR
 SAN FRANCISCO, CALIFORNIA 94102
 (415) 445-5500

Thomas P. Cox Architects, Inc.
 1732 Market Street, Suite 200
 San Francisco, CA 94103
 T 415 862 0270 F 415 862 0279

PDC07-102
 REVISED SUBMITTAL - MAY 1st, 2008

REVISIONS			
NO.	DATE	DESCRIPTION	BY



LEGEND

-  TOTAL AREA TREATED BY CDS MEDIA FILTER UNIT OR APPROVED EQUAL MECHANICAL DEVICE
-  PERVIOUS AREA EXEMPT FROM TREATMENT
-  PLANTER BOXES WITH ROOF DRAINS DIRECTED INTO THEM

NOTES

1. THIS AREA IN THE CITY OF SAN JOSE IS DESIGNATED AS FLOOD ZONE "X" (AREAS OUTSIDE THE 1-PERCENT ANNUAL CHANCE FLOODPLAIN, AREAS OF 1% ANNUAL CHANCE SHEET FLOW FLOODING WHERE AVERAGE DEPTHS ARE LESS THAN 1 FOOT, AREAS OF 1% ANNUAL CHANCE STREAM FLOODING WHERE THE CONTRIBUTING DRAINAGE AREA IS LESS THAN 1 SQUARE MILE, OR AREAS PROTECTED FROM THE 1% ANNUAL CHANCE FLOOD BY LEVEES. NO BASE FLOOD ELEVATIONS OR DEPTHS ARE SHOWN WITHIN THIS ZONE. INSURANCE PURCHASE IS NOT REQUIRED IN THESE ZONES)
2. EXISTING IMPERVIOUS AREA = 2.23 ACRES
3. EXISTING PERVIOUS AREA = 1.48 ACRES
4. PROPOSED IMPERVIOUS AREA = 2.88 ACRES
5. PROPOSED PERVIOUS AREA = 0.81 ACRES
6. THERE IS A 18% PERCENT INCREASE OF IMPERVIOUS AREA.
7. RECEIVING SYSTEM FOR THE STORM WATER: CITY OF SAN JOSE PUBLIC STORM SEWER. SYSTEM OUTFALLS INTO THE GUADALUPE RIVER.
8. 3.16 ACRES OF THE SITE'S STORM WATER RUNOFF IS DESIGNED TO BE TREATED BY A SIZED "CDS MEDIA FILTER UNIT" OR APPROVED EQUAL.
9. THE OVERALL STORM CONVEYANCE SYSTEM WAS CALCULATED ASSUMING THE 10-YEAR STORM EVENT.
10. 1.36 ACRES OF THE SITE'S STORM WATER RUNOFF FROM WATERSHED A IS BEING DIRECTED INTO PLANTER BOXES FOR INITIAL TREATMENT AND THEN IS ULTIMATELY TREATED BY A MEDIA FILTER STYLE MECHANICAL DEVICE BEFORE BEING RELEASED INTO THE PUBLIC STORM SYSTEM.

CDS MEDIA FILTER UNIT NOTES

1. LIFE EXPECTANCY OF UNIT IS 20-30 YEARS.
2. CLEANOUT AND MAINTENANCE FOR NEW INSTALLATIONS SHALL BE INSPECTED AFTER EVERY RUNOFF EVENT FOR THE FIRST 30 DAYS. FOR ONGOING OPERATION DURING THE RAINFALL SEASON THE UNIT SHOULD BE INSPECTED ONCE EVERY 30 DAYS. CLEANOUT AT THE END OF THE WET WEATHER SEASON IS RECOMMENDED.
 - A. CLEANOUT TO BE PERFORMED BY A VACUUM TRUCK.
 - B. MONITORING AND SCHEDULING TO BE DONE BY CONTRACTOR DURING CONSTRUCTION AND BY THE H.O.A. THEREAFTER.
3. DESIGN OF UNIT BASED ON C-3 REQUIREMENTS AND THE CALIFORNIA STORMWATER BMP HANDBOOK FOR NEW DEVELOPMENT.
4. THE CDS MECHANICAL UNIT OR OTHER "EQUALLY APPROVED MECHANICAL UNIT" SHALL BE DESIGNED TO MEET THE DESIGN STANDARDS OF THE CALIFORNIA STORMWATER BMP HANDBOOK FOR NEW DEVELOPMENT.
5. SEE SHEET 4.3 FOR ADDITIONAL STORMWATER CALCULATION TABLES AND DETAILS.

CDS MEDIA FILTER UNIT SIZING CALCULATIONS WATERSHED "A"

CALCULATION/ ESTIMATION OF RUNOFF FLOW FROM WATER QUALITY STORM EVENT

RATIONAL METHOD: $Q = C \cdot I \cdot A$
 Q = DISCHARGE FLOW (CFS)
 C = RUNOFF COEFFICIENT (NON-DIMENSIONAL)
 I = RAINFALL INTENSITY (0.2 INCHES/HR) PER THE CALIFORNIA STORMWATER BMP HANDBOOK FOR NEW DEVELOPMENT
 A = CATCHMENT AREA (ACRES)

SITE-SPECIFIC RUNOFF COEFFICIENT AND CATCHMENT AREA SIZE 2-YEAR EVENT
 C = 0.83
 I = 0.2 IN/HR
 A = 1.72 ACRES, STORM TREATMENT AREA
 Q = 0.26 TOTAL CFS (126 GPM)

SELECTION OF STRUCTURAL STORM WATER TREATMENT DEVICE MODEL = CDS MEDIA FILTER UNIT MODEL 612 MFS WITH 9 CARTRIDGES (EACH CARTRIDGE TREATS 15 GPM)
 *(COMBINED WITH WATERSHED "B")

CDS MEDIA FILTER UNIT SIZING CALCULATIONS WATERSHED "B"

CALCULATION/ ESTIMATION OF RUNOFF FLOW FROM WATER QUALITY STORM EVENT

RATIONAL METHOD: $Q = C \cdot I \cdot A$
 Q = DISCHARGE FLOW (CFS)
 C = RUNOFF COEFFICIENT (NON-DIMENSIONAL)
 I = RAINFALL INTENSITY (0.2 INCHES/HR) PER THE CALIFORNIA STORMWATER BMP HANDBOOK FOR NEW DEVELOPMENT
 A = CATCHMENT AREA (ACRES)

SITE-SPECIFIC RUNOFF COEFFICIENT AND CATCHMENT AREA SIZE 2-YEAR EVENT
 C = 0.82
 I = 0.2 IN/HR
 A = 0.37 ACRES, STORM TREATMENT AREA
 Q = 0.06 TOTAL CFS

SELECTION OF STRUCTURAL STORM WATER TREATMENT DEVICE MODEL = CDS MEDIA FILTER UNIT MODEL 612 MFS WITH 9 CARTRIDGES (EACH CARTRIDGE TREATS 15 GPM)
 *(COMBINED WITH WATERSHED "A")

CDS MEDIA FILTER UNIT SIZING CALCULATIONS WATERSHED "C"

CALCULATION/ ESTIMATION OF RUNOFF FLOW FROM WATER QUALITY STORM EVENT

RATIONAL METHOD: $Q = C \cdot I \cdot A$
 Q = DISCHARGE FLOW (CFS)
 C = RUNOFF COEFFICIENT (NON-DIMENSIONAL)
 I = RAINFALL INTENSITY (0.2 INCHES/HR) PER THE CALIFORNIA STORMWATER BMP HANDBOOK FOR NEW DEVELOPMENT
 A = CATCHMENT AREA (ACRES)

SITE-SPECIFIC RUNOFF COEFFICIENT AND CATCHMENT AREA SIZE 2-YEAR EVENT
 C = 0.95
 I = 0.2 IN/HR
 A = 0.66 ACRES, STORM TREATMENT AREA
 Q = 0.112 TOTAL CFS (50 GPM)

SELECTION OF STRUCTURAL STORM WATER TREATMENT DEVICE MODEL = 284M MFS WITH 3 FILTER CARTRIDGES (EACH CARTRIDGE TREATS 15 GPM)

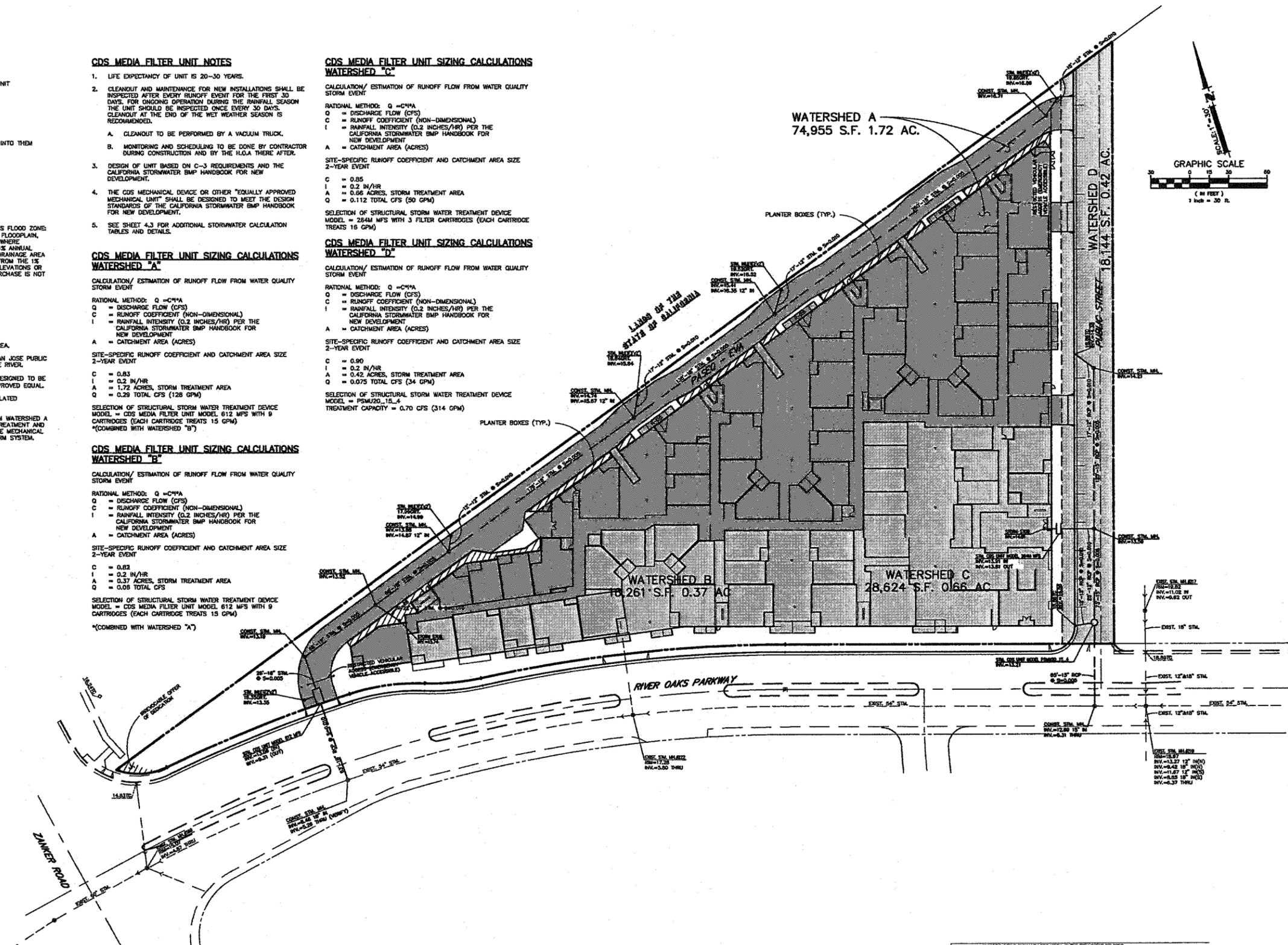
CDS MEDIA FILTER UNIT SIZING CALCULATIONS WATERSHED "D"

CALCULATION/ ESTIMATION OF RUNOFF FLOW FROM WATER QUALITY STORM EVENT

RATIONAL METHOD: $Q = C \cdot I \cdot A$
 Q = DISCHARGE FLOW (CFS)
 C = RUNOFF COEFFICIENT (NON-DIMENSIONAL)
 I = RAINFALL INTENSITY (0.2 INCHES/HR) PER THE CALIFORNIA STORMWATER BMP HANDBOOK FOR NEW DEVELOPMENT
 A = CATCHMENT AREA (ACRES)

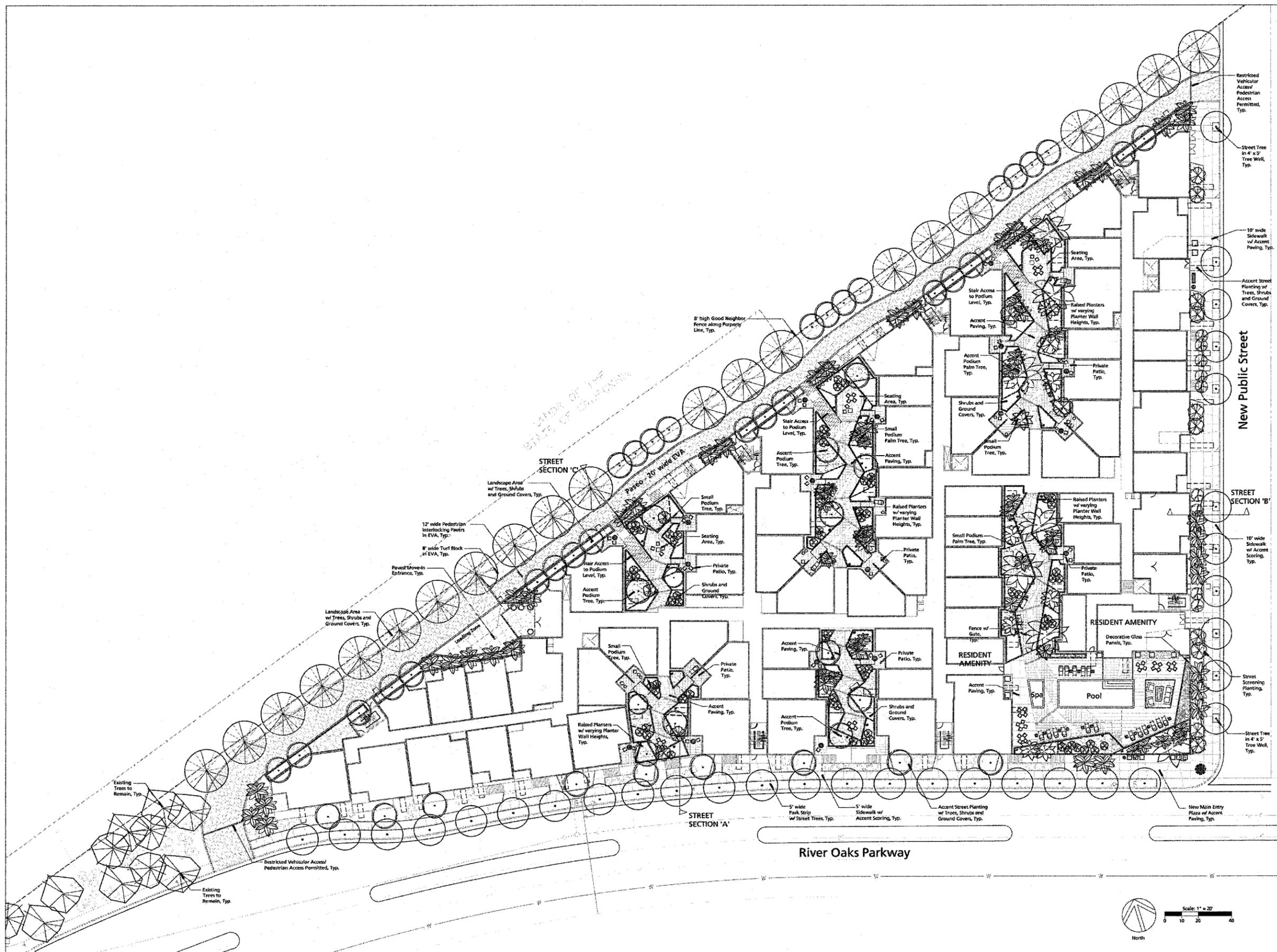
SITE-SPECIFIC RUNOFF COEFFICIENT AND CATCHMENT AREA SIZE 2-YEAR EVENT
 C = 0.90
 I = 0.2 IN/HR
 A = 0.42 ACRES, STORM TREATMENT AREA
 Q = 0.075 TOTAL CFS (34 GPM)

SELECTION OF STRUCTURAL STORM WATER TREATMENT DEVICE MODEL = PSM20_15_4
 TREATMENT CAPACITY = 0.70 CFS (314 GPM)



NUMERIC SUMMARY FOR MEDIA FILTER TREATMENT DEVICES				
DRAINAGE AREA	TOTAL (ACRES)	HARDSCAPE AREA* C-VALUE	LANDSCAPE AREA* C-VALUE	ADJUSTED C-VALUE
A	1.72	0.30	0.76	0.85
B	0.37	0.30	0.02	0.92
C	0.66	0.56	0.02	0.85
D	0.42	0.35	0.00	0.90

PDC07-102
GENERAL DEVELOPMENT PLAN EXHIBIT "C" CONCEPTUAL STORMWATER MANAGEMENT PLAN
 PREPARED FOR: BRE PROPERTIES, INC. 895 MARKET STREET, 4TH FLOOR SAN FRANCISCO, CALIFORNIA 94108 (415) 448-8800
 CIVIL ENGINEERING ASSOCIATES Civil Engineers - Planners - Surveyors 280 MARKET STREET, 4TH FLOOR SAN FRANCISCO, CALIFORNIA 94108 (415) 448-1075
 Date: MAY 1, 08
 Scale: 1" = 30'
 Drawn: CH
 Designed: AT
 Job: 07-112
 Sheet: **42**
 Of: _____ Sheets



DATE: _____

SCALE: _____

THE HAZARD PARTNERSHIP, Inc.
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PREPARED FOR: BRE PROPERTIES, INC.
3880 MARKET STREET, 4TH FLOOR
OAKLAND, CALIFORNIA 94612
(415) 445-8100

PLANNED DEVELOPMENT PERMIT
CONCEPTUAL LANDSCAPE PLAN

Date: May, 01, 2008
Scale: 1" = 20'
Drawn:
Designed:
Job #: 07-112
Sheet:

II. ENVIRONMENTAL SETTING, IMPACT CHECKLIST AND MITIGATION

1. AESTHETICS

SETTING

Scenic Vista

The project site is currently developed with a one-story industrial building. The predominant character of the visual and aesthetic environment in the project area is that of a modern industrial neighborhood. There are no prominent viewpoints (other than buildings) within or adjacent to the project site; this portion of the Santa Clara Valley is flat. The baylands that surround San Francisco Bay are located approximately one mile to the north, but neither the baylands nor the San Francisco Bay is visible from the project site. The most visually prominent scenic resources in this region are the hillsides that border the Santa Clara Valley on three sides (east, south and west). The hills closest to North San Jose are those to the east. Under existing conditions, views of the eastern foothills for people within North San Jose are partially obstructed by buildings, trees and utility poles.

Scenic Resources

The project site is not located adjacent to a designated scenic route.

Visual Character

The current view of the project site consists primarily of a one-story light industrial building with parking, trees and landscaping, which can be seen in the preceding photographs, Figures 7 through 9.

Light and Glare

The project site is currently developed for industrial uses, and is surrounded by other industrial and institutional uses.

IMPACT AND MITIGATION

ISSUES	NEW POTENTIALLY SIGNIFICANT IMPACT	NEW LESS THAN SIGNIFICANT WITH MITIGATION INCORPORATED	NEW LESS THAN SIGNIFICANT IMPACT	SAME IMPACT AS "APPROVED PROJECT"	LESS IMPACT THAN "APPROVED PROJECT"	SOURCES
1. AESTHETICS. Would the project:						
a. Have a substantial adverse effect on a scenic vista?				X		25, 26,27,83
b. Substantially damage scenic resources, including, but not limited to, trees, rock outcroppings and historic buildings within a state scenic highway?				X		25,26,27 29,31,83

ISSUES	NEW POTENTIALLY SIGNIFICANT IMPACT	NEW LESS THAN SIGNIFICANT WITH MITIGATION INCORPORATED	NEW LESS THAN SIGNIFICANT IMPACT	SAME IMPACT AS "APPROVED PROJECT"	LESS IMPACT THAN "APPROVED PROJECT"	SOURCES
1. AESTHETICS (Cont.). Would the project:						
c. Substantially degrade the existing visual character or quality of the site and its surroundings?				X		25, 26,27,83
d. Create a new source of substantial light or glare that would adversely affect day or nighttime views in the area?				X		25,26, 28,32,83
e. Increase the amount of shading on public open space (e.g., parks, plazas and/or school yards)?				X		25, 26,28,83

Scenic Vista

Because of the existing visual character of the project site, the change to a multi-story residential building would not have a substantial effect on scenic vistas.

Scenic Resources

Due to the fact that there are no state scenic highways along any of the roads that border the project site, there would be no impact to trees, rock outcrops or historic buildings along a scenic highway.

Visual Character

The current view of the site consists of a one-story light industrial building with parking, trees and landscaping as shown on the preceding photographs, Figures 7 through 9. The project would change the view of the site from a one-story light industrial building with parking, trees and landscaping to a landscaped five-story building (over two levels of subterranean parking) containing residential units and recreational open space, and trees. Parking would be contained within the building interior (ground level and subterranean levels). Replacement trees, street trees and landscaping will be provided as part of the project. As discussed in the North San Jose EIR, the proposed project would increase mass and density as compared to the existing uses onsite. The proposed project would increase the effective height of residential buildings to up to 80 feet above existing grade. The building would be subject to architectural review as part of the Planned Development Permit process prior to development, and would be required to comply with existing applicable design guidelines for residential and North San Jose development. Because of the developed character of the project site and vicinity, the proposed project would not substantially degrade the existing visual character or quality of the site.

Light and Glare

The proposed project would involve residential development. The project could potentially produce offsite light and glare. The project will be designed to utilize downward-directed lights

with low elevation standards in the project interior in order to prevent offsite light and glare in accordance with the City's Outdoor Lighting on Private Developments Policy.

Temporary Construction Visual Impacts

Construction of a typical project causes short-term visual impacts. The grading operations create a visual impact, and construction debris, rubbish and trash can accumulate on construction sites and are unsightly if visible from public streets. Public streets that are impacted by project construction activities will be swept and washed down daily. Debris, rubbish and trash will be cleared from any areas onsite that are visible from a public street. The completion of the project improvements and landscaping will eliminate the short-term visual impacts of the grading and construction operations.

STANDARD REQUIREMENTS INCLUDED IN THE PROJECT

- The project design will conform to the City's Residential Design Guidelines and the North San Jose Development Policy that include measures such as perimeter setbacks, landscaped areas, building design, and solar access.
- Lighting on the site will conform to the City's Outdoor Lighting Policy (4-3).

MITIGATION MEASURES INCLUDED IN THE PROJECT

None required.

CONCLUSION

With the implementation of the above standard measures, the proposed project would not result in any new or more significant visual impacts than those addressed in the North San Jose EIR.

2. AGRICULTURE RESOURCES

SETTING

Important Farmlands

The *Santa Clara County Important Farmland Map*, prepared by the California Department of Conservation and the USDA Natural Resources Conservation Service, classifies land in seven categories in order of significance: 1) prime farmland, 2) farmland of Statewide importance, 3) unique farmland, 4) farmland of local importance, 5) grazing land, 6) urban and built-up land and 7) other land. The project site is classified as "urban and built-up land," which is defined as land occupied by structures with a building density of at least one unit to one and one-half acres.

Williamson Act

The California Land Conservation Act ("Williamson Act") was enacted to help preserve agricultural and open space lands via a contract between the property owner and the local jurisdiction. Under the contract, the owner of the land agrees not to develop the land in exchange for reduced property taxes. The project site is not under a Williamson Act contract.

IMPACT AND MITIGATION

ISSUES	NEW POTENTIALLY SIGNIFICANT IMPACT	NEW LESS THAN SIGNIFICANT WITH MITIGATION INCORPORATED	NEW LESS THAN SIGNIFICANT IMPACT	SAME IMPACT AS "APPROVED PROJECT"	LESS IMPACT THAN "APPROVED PROJECT"	SOURCES
2. AGRICULTURE RESOURCES. Would the project:						
a. Convert Prime Farmland, Unique Farmland or Farmland of Statewide Importance (Farmland), as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency, to non-agricultural use?				X		33,34,83
b. Conflict with existing zoning for agricultural use, or a Williamson Act contract?				X		35,64,83
c. Involve other changes in the existing environment which, due to their location or nature, could result in conversion of Farmland to non-agricultural use?				X		25, 26,28,83

Important Farmlands

The project site is classified as urban and built-up land on the *Important Farmland Map* for Santa Clara County. Since the site is not located in an area identified as prime farmland, nor is the site being used for or zoned for agricultural use, the project would not have a significant impact on agricultural land.

MITIGATION MEASURES INCLUDED IN THE PROJECT

None required.

CONCLUSION

The proposed project would not result in any new or more significant impacts on agricultural resources than those addressed in the North San Jose EIR.

3. AIR QUALITY

SETTING

Bay Area Air Quality Management District

The project site is located within the jurisdiction of the Bay Area Air Quality Management District (BAAQMD). The District includes seven Bay Area counties and portions of two others. Air quality emission and control standards are established by the BAAQMD and the California Air Resources Board, and by the Environmental Protection Agency (EPA) at the Federal level. These agencies are responsible for developing and enforcing regulations involving industrial and vehicular pollutant emissions, including transportation management and control mitigation measures.

Regional Climate

The air quality of a given area is not only dependent upon the amount of air pollutants emitted locally or within the air basin, but also is directly related to the weather patterns of the region. The wind speed and direction, the temperature profile of the atmosphere, and the amount of humidity and sunlight react with the emitted pollutants each day, and determine the resulting concentrations of air pollutants defining the "air quality."

The Bay Area climate is Mediterranean, with mild, rainy winters November through March, and warm, sunny and nearly dry summers June through September. Summer temperature inversions trap ground level pollutants. Winter conditions are less conducive to smog, but thin evening inversions sometimes concentrate carbon monoxide emissions at ground level.

Air Quality Standards

The U.S. EPA and the California Air Resources Board have both established ambient air quality standards for common pollutants to avoid adverse health effects from each pollutant. The pollutants, which include ozone, carbon monoxide (CO), nitrogen dioxide, and particulate matter (PM₁₀ and PM_{2.5}), and their standards are included in the Local Air Quality table that follows.

Regional Air Quality

The Federal Clean Air Act and the California Clean Air Act of 1988 require that the State Air Resources Board, based on air quality monitoring data, designate portions of the state where the federal or state ambient air quality standards are not met as "nonattainment areas". Because of the differences between the federal and state standards, the designation of nonattainment areas is different under Federal and State legislation.

The Bay Area is currently a nonattainment area for the 1-hour ozone standard. However, in April 2004, U.S. EPA made a final finding that the Bay Area has attained the federal 1-hour ozone standard. The finding of attainment does not mean the Bay Area has been reclassified as an attainment area for the 1-hour standard; the region must submit a re-designation request to EPA in order to be reclassified as an attainment area. The U.S. EPA has classified the San

Francisco Bay Area as a nonattainment area for the federal 8-hour ozone standard. The Bay Area was designated as unclassifiable/attainment for the federal PM_{2.5} standard.

Under the California Clean Air Act, Santa Clara County is a nonattainment area for ozone and particulate matter (PM₁₀ and PM_{2.5}). The county either meets attainment or is unclassified for the other pollutants. The California Clean Air Act requires local air pollution control districts to prepare air quality attainment plans; these plans must provide for district-wide emission reductions of five percent per year averaged over consecutive three-year periods or, if not, provide for adoption of “all feasible measures on an expeditious schedule”.

Local Air Quality

Air quality in the project area is subject to the problems experienced by most of the Bay Area. Emissions from millions of vehicle-miles of travel each day often are not mixed and diluted, but are trapped near ground level by an atmospheric temperature inversion. Prevailing air currents generally sweep from the mouth of the Bay toward the south, picking up and concentrating pollutants along the way. A combination of pollutants emitted locally, the transport of pollutants from other areas, and the natural mountain barriers (the Diablo Range to the east and the Santa Cruz Range to the southwest) produce high concentrations. Air quality data from the last three years at the nearest BAAQMD monitoring station in San Jose, and Federal and State standards, are shown in the following table.

Table 2. Local Air Quality

Pollutant	Standard	Days Exceeding Standard		
		2004	2005	2006
OZONE				
State 1-hour	0.09 ppm	0	1	5
State 8-hour	0.07 ppm	*	1	5
Federal 1-hour	0.12 ppm	0	**	**
Federal 8-hour	0.08 ppm	0	0	1
CARBON MONOXIDE				
State/Federal 8-hour	9.0 ppm	0	0	0
NITROGEN DIOXIDE				
State 1-hour	0.25 ppm	0	0	0
PARTICULATE MATTER (PM₁₀)				
State 24-hour	50 µg/m ³	4	2	2
Federal 24-hour	150 µg/m ³	0	0	0
PARTICULATE MATTER (PM_{2.5})				
Federal 24-hour	65 µg/m ³	0	0	***
Federal 24-hour	35 µg/m ³	***	***	6

ppm = parts per million

µg/m³ = micrograms per cubic meter

SOURCE: Bay Area Air Quality Management District monitoring data for San Jose.

* The California 8-hour standard was implemented on May 17, 2005.

** The U.S. EPA revoked the national 1-hour standard on June 15, 2005.

*** The U.S. EPA revised the national 24-hour PM_{2.5} standard from 0.65 µg/m³ to 0.35 µg/m³ on December 17, 2006.

Project Site

The project site is similar to other locations in the South Bay; air quality meets adopted State and/or Federal standards (the more stringent standard applies) on most days, and during periods when regional atmospheric conditions are stagnated, the air quality is poor throughout the extended South Bay area. There are no existing sources on the project site that currently adversely affect local air quality.

Sensitive Receptors

Sensitive receptors are facilities where sensitive receptor population groups (children, the elderly, the acutely ill and the chronically ill) are likely to be located. These land uses include residences, schools, playgrounds, child care centers, retirement homes, convalescent homes, hospitals and medical clinics. The closest sensitive receptor is Agnews Development Center located northerly of the project site.

IMPACT AND MITIGATION

ISSUES	NEW POTENTIALLY SIGNIFICANT IMPACT	NEW LESS THAN SIGNIFICANT WITH MITIGATION INCORPORATED	NEW LESS THAN SIGNIFICANT IMPACT	SAME IMPACT AS "APPROVED PROJECT"	LESS IMPACT THAN "APPROVED PROJECT"	SOURCES
3. AIR QUALITY. Would the project:						
a. Conflict with or obstruct implementation of the applicable air quality plan?				X		29,37,83
b. Violate any air quality standard or contribute substantially to an existing or projected air quality violation?				X		26,37,83
c. Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is classified as non-attainment under an applicable federal or state ambient air quality standard (including releasing emissions that exceed quantitative thresholds for ozone precursors)?				X		26,37,83
d. Expose sensitive receptors to substantial pollutant concentrations?				X		28,37,83
e. Create objectionable odors affecting a substantial number of people?				X		26,28,83

Regional and Local Impacts

The development of the proposed project would contribute to the significant regional and local air quality impact identified in the North San Jose EIR; however, the proposed project, would not result in any new or more significant regional or local air quality impacts than were described in the EIR.

Odors

The project would not generate objectionable odors or place sensitive receptors adjacent to a use that generates odors (i.e., landfill, composting, etc.).

Sensitive Receptors

The closest sensitive receptor (Agnews Development Center located northerly of the project site) could be subjected to fugitive dust as a result of construction, as discussed below.

Temporary Construction Air Quality

Project construction would produce short-term fugitive dust generated as a result of soil movement and site preparation. Construction would cause dust emissions that could have a significant temporary impact on local air quality. Fugitive dust emissions would be associated with site preparation activities, such as excavation and grading, and building demolition and/or construction. Dust emissions would vary substantially from day to day, depending on the level of activity, the specific operations, and weather conditions. Particulates generated by construction are recognized, but small, contributing sources to regional air quality. While it is a potential impact, construction dust emissions can be mitigated by dust control and suppression practices that are appropriate for the project and level of activity.

STANDARD REQUIREMENTS INCLUDED IN THE PROJECT

Temporary Construction Air Quality

- The following construction practices will be implemented during all phases of construction to prevent visible dust emissions from leaving the site.
 - Water all active construction areas at least twice daily and more often during windy periods; active areas adjacent to existing land uses will be kept damp at all times, or will be treated with non-toxic stabilizers or dust palliatives;
 - Cover all trucks hauling soil, sand, and other loose materials or require all trucks to maintain at least 2 feet of freeboard;
 - Pave, apply water at least three times daily, or apply (non-toxic) soil stabilizers on all unpaved access roads, parking areas and staging areas at construction sites;
 - Sweep daily, or more often if necessary (preferably with water sweepers), all paved access roads, parking areas and staging areas at construction sites; water sweepers will vacuum up excess water to avoid runoff-related impacts to water quality; and
 - Sweep streets daily, or more often if necessary (preferably with water sweepers), if visible soil material is carried onto adjacent public streets.

MITIGATION MEASURES INCLUDED IN THE PROJECT

None required.

CONCLUSION

With the implementation of the above standard measures, the proposed project would not result in any new or more significant air quality impacts than those addressed in the North San Jose EIR.

4. BIOLOGICAL RESOURCES

HortScience, Inc. conducted a tree survey dated November, 2007 that is included in the Technical Appendix.

SETTING

Vegetation

The project site is presently barren except for a low herbaceous ground cover. There are no designated Heritage Trees on the site, and no rare or endangered plant species are known to inhabit the site.

Trees

A detailed tree survey of all trees on the site having trunk diameters of 6 inches or greater, or having multiple trunks, was conducted. A total of 125 onsite trees, ranging in diameter from 6 inches to 46 inches, were tagged and evaluated; none of the trees is native to the site. In addition, 3 offsite trees, whose canopies overhang the northerly site boundary and the northeasterly corner, were also evaluated. Sixty-seven (67) onsite trees exceed 18 inches in diameter and come under the review of the City's Tree Ordinance. The approximate locations of the trees are shown on the following Tree Locations map, and a summary table listing the trees by botanical name, common name, the number surveyed, and the ranges of their diameter and general condition follows. A detailed table listing each individual tree and photographs of the Ordinance-sized trees to be removed are included in the Technical Appendix.

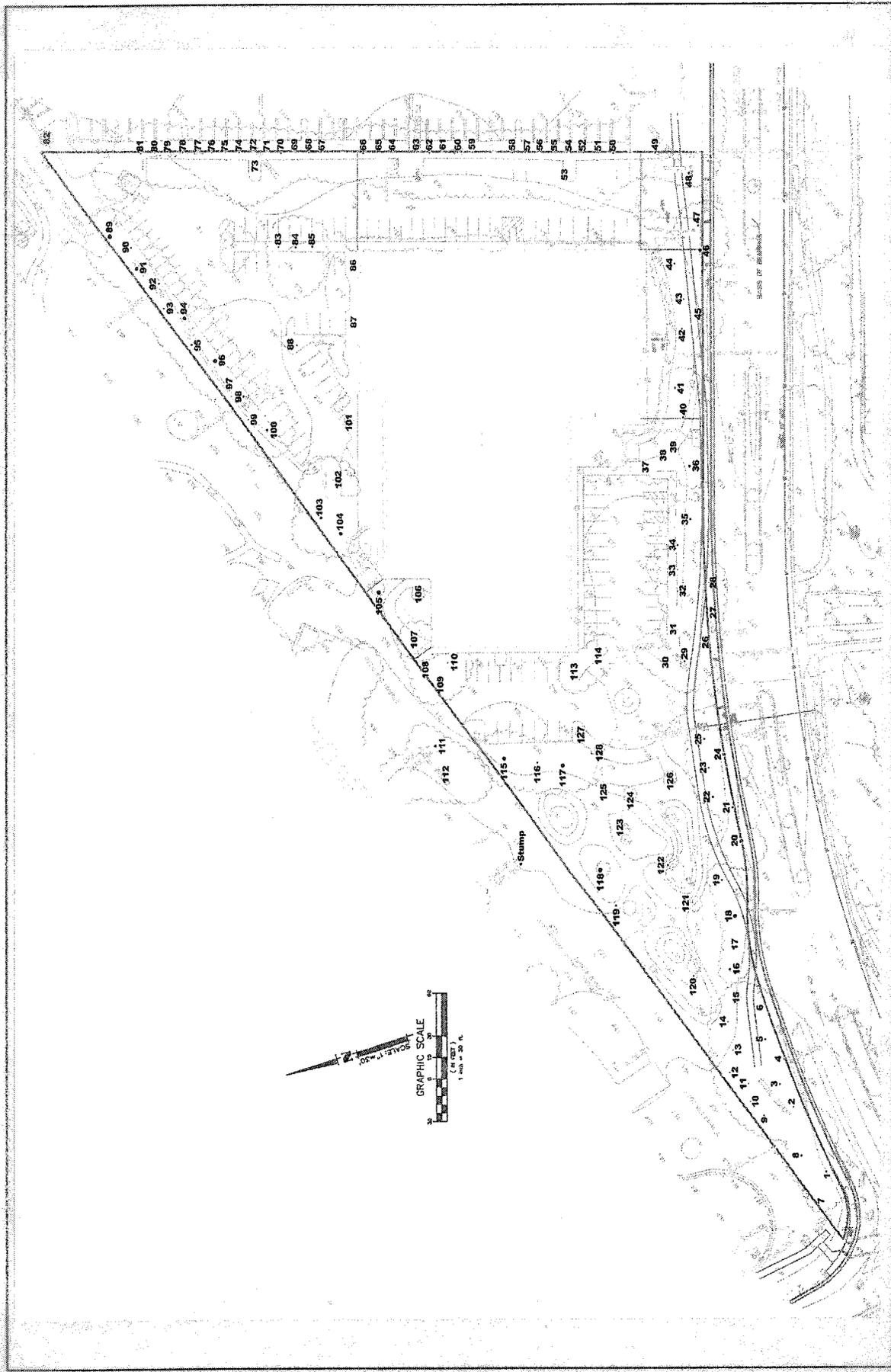
General conditions of the trees were determined using a rating system for individual tree health and structure conditions, by assigning values for these categories from zero to five, with values of zero being the worst rating (dead) and values of five being the best. Trees with values of one to two were rated as "poor", values of three were rated as "fair", and values of four to five were rated as "good".

Table 3. Tree Survey Summary

Botanical Name	Common Name	Number	Diameter (inches)* Range	General Condition
Onsite				
<i>Sequoia sempervirens</i>	Coast Redwood	47	9 to 46	Good to Poor
<i>Eucalyptus camaldulensis</i>	River Red Gum	34	12 to 25	Fair to Poor
<i>Alnus cordata</i>	Italian Alder	20	6 to 22	Good to Poor
<i>Pyrus calleryana</i>	Callery Pear	8	8 to 16	Good to Poor
<i>Prunus cerasifera</i>	Purple Leaf Plum	6	6 to 8	Good to Fair
<i>Ulmus parvifolia</i>	Chinese Elm	4	10 to 14	Good to Poor
<i>Salix babylonica</i>	Weeping Willow	3	24 to 28	Good to Poor
<i>Pinus canariensis</i>	Canary Island Pine	2	8	Good
<i>Celtis occidentalis</i>	European Hackberry	1	6	Good
	Onsite Subtotal	125		
Offsite				
<i>Eucalyptus camaldulensis</i>	River Red Gum	1	48 **	Fair
<i>Pinus radiata</i>	Monterey Pine	1	25	Poor
<i>Quercus suber</i>	Cork Oak	1	20	Good
	Total	128		

* Diameter at 2 feet above ground.

** Combined total of multiple trunks.



Tree Locations
Figure 21

Riparian Corridor Habitat

Riparian corridor habitat, i.e., vegetation occurring along the banks of a waterway, is not located on or within 300 feet of the project site. The project would not be constructed within 100 feet of riparian corridor habitat (within 100 feet of the top of bank or edge of riparian vegetation of any waterway).

Santa Clara Habitat Conservation Plan / Natural Communities Conservation Plan (HCP/NCCP)

The Planning Agreement for the HCP/NCCP requires that the California Department of Fish and Game (DFG) and other agencies comment on Reportable Interim Projects and recommend mitigation measures or project alternatives that will help achieve the preliminary conservation objectives and not preclude important conservation planning options or connectivity between areas of high habitat value. The project site is within the interim referral area; however, it will not adversely affect natural communities, and no referral is required.

Wildlife

The project site contains developed habitat. Wildlife typically associated with this habitat type include birds, reptiles, and small mammals. No rare or endangered animal species are known to inhabit the site. The site does not contain any known important wildlife breeding, nesting or feeding areas.

Raptors

All raptors (i.e., eagles, hawks and owls) and their nests are protected under both Federal and State regulations. The Federal Migratory Bird Treaty Act prohibits killing, possessing or trading in migratory birds except in accordance with regulations prescribed by the Secretary of the Interior. This Act encompasses whole birds, parts of birds and bird nests and eggs. Birds of prey are protected in California under the State Fish and Game Code. Section 3503.5 states that it is *“unlawful to take, possess, or destroy any birds in the order Falconiformes or Strigiformes (birds of prey) or to take, possess, or destroy the nest or eggs of any such bird except as otherwise provided by this code or any regulation adopted pursuant thereto.”* Construction disturbance during the breeding season could result in the incidental loss of fertile eggs or nestlings, or otherwise lead to nest abandonment. Disturbance that causes nest abandonment and/or loss of reproductive effort is considered “taking” by the DFG. Any loss of fertile eggs or nesting raptors, or any activities resulting in nest abandonment would constitute a significant impact. Construction activities such as tree removal, site grading, etc., that disturb a nesting raptor onsite or immediately adjacent to the site constitute a significant impact.

The project site contains trees that may provide suitable habitat for tree-nesting raptors; however, no raptor nests are currently known to exist on the site. The site does not provide suitable habitat for burrowing owls.

IMPACT AND MITIGATION

ISSUES	NEW POTENTIALLY SIGNIFICANT IMPACT	NEW LESS THAN SIGNIFICANT WITH MITIGATION INCORPORATED	NEW LESS THAN SIGNIFICANT IMPACT	SAME IMPACT AS "APPROVED PROJECT"	LESS IMPACT THAN "APPROVED PROJECT"	SOURCES
4. BIOLOGICAL RESOURCES. Would the project:						
a. Have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive or special status species in local or regional plans, policies or regulations, or by the California Department of Fish and Game or U.S. Fish and Wildlife Service?				X		25,67,83
b. Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies or regulations or by the California Department of Fish and Game or U.S. Fish and Wildlife Service?				X		25,41,83
c. Have a substantial adverse effect on federally protected wetlands as defined by Section 404 of the Clean Water Act including, but not limited to, marsh, vernal pool, coastal, etc., through direct removal, filling, hydrological interruption or other means?				X		25,83
d. Interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites?				X		25,83
e. Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?				X		29, 40,83,90
f. Conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional or state habitat conservation plan?				X		25,29,83

Trees

There are 125 trees on the project site, ranging in diameter from 6 to 46 inches. One hundred fourteen (114) trees, of which none is native, are planned to be removed with the project, as indicated by an "X" on the Existing Trees table in the Technical Appendix. Fifty-nine (59) of the trees to be removed exceed 18 inches in diameter (56-inch circumference) and come under the review of the City's Tree Ordinance, which requires approval for the removal of any tree with an 18-inch diameter (56-inch circumference) or greater. Eleven (11) onsite trees (Nos. 1-4 and 7-13) are currently planned to be retained with the project, as shown on the Land Use Plan, Figure 10. Street trees will be planted along the public streets. Any tree that is removed will be replaced with the addition of a new tree(s) at the ratios shown in the Tree Replacement Ratios table that follows.

Trees to remain will be safeguarded before and during construction by a Tree Protection Plan developed by a consulting arborist, and implemented with measures such as the storage of oil, gasoline, chemicals, etc. away from trees; grading around trees or root pruning only as approved, and prevention of drying out of exposed soil where cuts are made; any additional tree pruning needed for clearance performed or supervised by an arborist; application of supplemental irrigation as determined by the consulting arborist; no dumping of liquid or solid wastes in the dripline or uphill from any tree; and construction of barricades around the dripline of the trees until all grading and construction is completed, as outlined in the City's Tree Ordinance.

Replacement trees are in addition to normal landscaping and required street trees. If sufficient area is not available onsite within the project for all of the replacement trees, a contribution would be made to Our City Forest where the funds would be used to plant trees within the City.

Santa Clara Habitat Conservation Plan / Natural Communities Conservation Plan (HCP/NCCP)

The project site is not located in an area that is protected by an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional or State conservation plan.

Wildlife

The project requires the removal of most of the trees and vegetation on the site. The birds and small mammals would diminish during the initial construction, but as the new urban landscaping matures, birds that have adapted to the urban environment would return.

Raptors

The project site provides potentially suitable habitat for tree-nesting raptors. The site does not currently contain any known raptor nests; however, pre-construction surveys for nesting raptors should be conducted.

STANDARD REQUIREMENTS INCLUDED IN THE PROJECT

Trees

- Any tree that is removed will be replaced with the addition of a new tree(s) at the ratios shown in the following Tree Replacement Ratios table.

Table 4. Tree Replacement Ratios

Diameter of Tree to be Removed	<u>Type of Tree to be Removed</u>			Minimum Size of Each Replacement Tree
	Native	Non-Native	Orchard	
18 inches or greater	5:1	4:1	3:1	24-inch box
12 to 17 inches	3:1	2:1	None	24-inch box
Less than 12 inches	1:1	1:1	None	15-gallon container

x:x = tree replacement to tree loss ratio

Note: Trees greater than 18" diameter shall not be removed unless a Tree Removal Permit, or equivalent, has been approved for the removal of such trees.

- The species and exact number of trees to be planted on the site will be determined at the development permit stage, in consultation with the City Arborist and the Department of Planning, Building and Code Enforcement.
- Replacement trees are to be above and beyond standard landscaping; required street trees do not count as replacement trees.
- In the event the project site does not have sufficient area to accommodate the required tree mitigation, one or more of the following measures will be implemented, to the satisfaction of the Director of Planning, Building and Code Enforcement, at the development permit stage:
 - The size of a 15-gallon replacement tree may be increased to 24-inch box and count as two replacement trees.
 - An alternative site(s) will be identified for additional tree planting. Alternative sites may include local parks or schools or installation of trees on adjacent properties for screening purposes to the satisfaction of the Director of the Department of Planning, Building and Code Enforcement. Contact Todd Capurso, Parks, Recreation and Neighborhood Services Landscape Maintenance Manager, at 277-2733 or todd.capurso@sanjoseca.gov for specific park locations in need of trees.
 - A donation of \$300.00 per mitigation tree will be paid to Our City Forest for in-lieu offsite tree planting in the community. These funds will be used for tree planting and maintenance of planted trees for approximately three years. A donation receipt for offsite tree planting will be provided to the Planning Project Manager prior to issuance of a development permit.

MITIGATION MEASURES INCLUDED IN THE PROJECT

Active Raptor Nests

- If possible, construction should be scheduled between September and December (inclusive) to avoid the raptor nesting season. If this is not possible, pre-construction surveys for nesting raptors shall be conducted by a qualified ornithologist to identify active raptor nests that may be disturbed during project implementation. Between January and April (inclusive) pre-construction surveys shall be conducted no more than 14 days prior to the initiation of construction activities or tree relocation or removal. Between May and August (inclusive), pre-construction surveys shall be conducted no more than thirty (30) days prior to the initiation of these activities. The surveying ornithologist shall inspect all trees in and immediately adjacent to the construction area for raptor nests. If an active raptor nest is found in or close enough to the construction area to be disturbed by these activities, the ornithologist shall, in consultation with the California Department of Fish and Game, designate a construction-free buffer zone (typically 250 feet) around the nest, which shall be maintained until after the breeding season has ended and/or a qualified ornithologist has determined that the young birds have fledged. The applicant shall submit a report to the City's Environmental Principal Planner indicating the results of the survey and any designated buffer zones to the satisfaction of the City's Environmental Principal Planner prior to the issuance of any grading or building permit.

CONCLUSION

With the implementation of the above standard measures and mitigation measure, the proposed project would not result in any new or more significant impacts on biological resources than those addressed in the North San Jose EIR.

5. CULTURAL RESOURCES

Holman & Associates conducted a cultural resources review dated March 31, 2008 that is included in the Technical Appendix.

SETTING

Prehistoric Resources

The project site is within a potential archaeological resource zone as outlined on the maps on file at the City of San Jose Planning Division. Prior to a field reconnaissance, maps and records at the Northwest Information Center (NWIC), located at Sonoma State University, were consulted on March 27, 2008 for any record of archaeological remains in and around the project area. The area has previously been surveyed, with negative findings. No archaeological sites are recorded within 1,000 feet of the project site.

A visual inspection of the project site was done on March 29, 2008. Actual ground surface is restricted to the western corner, where the property contains a number of large trees in an elevated area of open ground. The remainder (majority) of the project site is covered either by the building complex or by paved parking lot.

There are no known cultural sites on the project site, nor does the site have any natural features of significant scenic value or with rare or unique characteristics.

Historic Resources

There is one existing building located on the project site, which was constructed in 1981. The structure is not listed as a City Landmark or Candidate City Landmark, nor is it listed or determined eligible for listing on the National or California Register of Historic Places.

IMPACT AND MITIGATION

ISSUES	NEW POTENTIALLY SIGNIFICANT IMPACT	NEW LESS THAN SIGNIFICANT WITH MITIGATION INCORPORATED	NEW LESS THAN SIGNIFICANT IMPACT	SAME IMPACT AS "APPROVED PROJECT"	LESS IMPACT THAN "APPROVED PROJECT"	SOURCES
5. CULTURAL RESOURCES. Would the project:						
a. Cause a substantial adverse change in the significance of an historical resource as defined in CEQA Guidelines §15064.5?				X		25, 43,44,83
b. Cause a substantial adverse change in the significance of an archaeological resource pursuant to CEQA Guidelines §15064.5?				X		27, 42,83,91
c. Directly or indirectly destroy a unique paleontological resource or site, or unique geologic feature?				X		26,67,83

ISSUES	NEW POTENTIALLY SIGNIFICANT IMPACT	NEW LESS THAN SIGNIFICANT WITH MITIGATION INCORPORATED	NEW LESS THAN SIGNIFICANT IMPACT	SAME IMPACT AS "APPROVED PROJECT"	LESS IMPACT THAN "APPROVED PROJECT"	SOURCES
5. CULTURAL RESOURCES (Cont.). Would the project:						
d. Disturb any human remains, including those interred outside of formal cemeteries?				X		27,83

Prehistoric Resources and Native American Burials

The project site is in a potential archaeological resource zone; however, there are no recorded sites on the property, and the area has previously been surveyed with negative findings. Only a small portion of the property is comprised of visible soils, most of which is probably imported fill material. There is no basis to warrant subsurface investigations or monitoring during construction at this time; therefore, the project would not have a significant impact on known archaeological resources. Although they are not expected to be found at this location, Native American burials are protected by State law.

Historic Resources

As there are no designated historical structures on the site or in the vicinity and the existing structure is less than 50 years old, the project would have no significant impact on historic resources.

STANDARD REQUIREMENTS INCLUDED IN THE PROJECT

Prehistoric Resources and Native American Burials

- In the unlikely event that evidence of unknown prehistoric cultural resources is discovered during construction, work within 50 feet of the find will be stopped to allow adequate time for evaluation and mitigation, and a qualified professional archaeologist called in to make an evaluation; the material will be evaluated; and if significant, a mitigation program including collection and analysis of the materials prior to the resumption of grading, preparation of a report and curation of the materials at a recognized storage facility will be developed and implemented to the satisfaction of the Director of Planning and submitted to the City’s Environmental Principal Planner.
- Pursuant to Section 7050.5 of the Health and Safety Code, and Section 5097.94 of the Public Resources Code of the State of California: In the event of the discovery of human remains during construction, there will be no further excavation or disturbance of the site or any nearby area reasonably suspected to overlie adjacent remains. The Santa Clara County Coroner will be notified by the developer and will make a determination as to whether the remains are Native American. If the Coroner determines that the remains are not subject to his authority, he will notify the Native American Heritage Commission, who will attempt to identify descendants of the deceased Native American. If no satisfactory agreement can be

reached as to the disposition of the remains pursuant to this State law, then the landowner will reinter the human remains and items associated with Native American burials on the property in a location not subject to further subsurface disturbance.

- Any Native American human remains that are discovered and would be subject to disturbance will be removed and analyzed, a report will be prepared, and the remains will be reburied in consultation and agreement with the Native American Most Likely Descendant designated by the Native American Heritage Commission. Prior to obtaining a Building Permit, a copy of the report will be submitted to the City's Environmental Principal Planner to the satisfaction of the Director of Planning.

MITIGATION MEASURES INCLUDED IN THE PROJECT

None required.

CONCLUSION

With the implementation of the above standard measures, the proposed project would not result in any new or more significant impacts on cultural resources than those addressed in the North San Jose EIR.

6. GEOLOGY AND SOILS

ENGEO Incorporated conducted a preliminary geotechnical assessment dated July 23, 2007 and a summary of geotechnical hazards dated January 29, 2008, both of which are included in the Technical Appendix.

SETTING

Topography

The project site has a uniform northwesterly slope of less than one-half percent. Elevations on the site range from approximately 22 feet above sea level at the southwesterly portion to approximately 24 feet above sea level at the northwesterly portion. There are no significant topographical features on the site.

Geology

The project site is underlain by Quaternary alluvium (Qal), which consists of unconsolidated to weakly consolidated silt, sand and gravel. Quaternary alluvium includes Holocene and late Pleistocene alluvium and minor amounts of beach and dune sand and marine terrace deposits.

Geologic Hazard Zone

The project site is not located in a geologic hazard zone as mapped by the City of San Jose in accordance with the Geologic Hazards Ordinance.

Soils

The project site is underlain by the alluvial soils of the Orestimba-Willows association as classified by the U.S. Department of Agriculture, Soil Conservation Service. Campbell silty clay loam, clay substratum (Cc) is the specific soil type identified at the site.

Campbell silty clay loam, clay substratum, is characterized by a dark gray, granular, hard, mildly alkaline surface layer approximately 22 to 28 inches thick; somewhat poor natural drainage; slow subsoil permeability; very slow surface runoff; no erosion hazard; high inherent fertility (Class III); and a moderate shrink/swell capacity.

The site is mapped within a hazard zone for liquefaction on the City's *Geologic/Seismic Hazard Zones* maps. According to Cooper-Clark and Associates' *San Jose Geotechnical Investigation*, the site is mapped as having a high liquefaction potential, weak soil layers and lenses occurring at random locations and depths, moderately expansive soils, no erosion potential, and no susceptibility to landslides. The liquefaction potential is considered to warrant further geologic study at the environmental review stage. The remainder of the soils conditions can be managed using standard engineering measures and do not require further geologic study at this time as part of the environmental review process, but may require further analysis prior to the issuance of a grading or building permit.

Faulting

There are no identified earthquake faults mapped on the site, and the site is not mapped within a designated Alquist-Priolo Earthquake Fault Zone (formerly Special Studies Zone) or within a City of San Jose Fault Hazard Zone. The nearest active fault zones are the Hayward (southeast extension and main trace) and Calaveras Faults, which are mapped approximately 4.2, 6.7 and 7.3 miles, respectively, to the northeast; and the San Andreas Fault, which is mapped approximately 13.3 miles to the southwest. A “reported fault” (a concealed, queried splay of the potentially active Silver Creek Fault) is mapped as crossing the site on the City’s *Fault Hazards Map*; this feature is not zoned as requiring further study by the State of California or the City of San Jose.

Preliminary Geotechnical Assessment

A preliminary geotechnical assessment was conducted to identify geotechnical constraints that would affect site development. The investigation included a review of readily available literature and geologic maps for the project area, collection of near-surface soil samples and limited laboratory testing, a limited subsurface exploration using cone penetrometer test (CPT) probes, and analysis of the data.

Literature Review

Regional geologic maps locate the site in the broad, north-south trending, alluvial-filled Santa Clara Valley. The soils at the site have been mapped as Holocene-age flood plain deposits / fluvial deposits at outer edge of alluvial fans composed of fine-grained sand, silt and clay with the deposits in excess of 500 feet thick.

Field Exploration

The preliminary field exploration of the site was performed on July 18 and 20, 2007, and consisted of advancing six cone penetrometer test probes as detailed in the report in the Technical Appendix. Cone readings were taken at approximately 5-centimeter intervals. A water level indicator instrument was used upon removal of the probes to record groundwater levels, if encountered. In addition, three near-surface soil samples were collected for testing.

According to empirical correlations of the CPT data, the probes generally encountered medium stiff to hard clay to silty clay with occasional interbedded thin sand lenses, overlying medium dense to very dense sand to gravelly sand to the maximum depths explored (58 to 80 feet below ground surface – bgs). In general, the clay to silty clay was encountered predominantly above a depth of 31 to 39 feet bgs. Four probes encountered thin sand lenses up to 5 feet thick in the predominantly clay layers at depths ranging from 24 to 29 feet bgs. Groundwater was encountered at approximately 10 to 11 feet bgs.

Laboratory Testing

Limited laboratory testing of the near-surface soil was performed. According to the result of the plasticity index (PI) test, the near surface clayey soil has a PI of 10, which is an indication that the surficial soils have a low to moderate expansion potential.

Investigative Conclusions

The project site is considered feasible from a geotechnical perspective for construction of a residential development. The primary geotechnical concerns are the presence of potentially expansive near-surface soils, potential load-induced settlement, the anticipated existence of shallow groundwater, and seismic shaking.

IMPACT AND MITIGATION

ISSUES	NEW POTENTIALLY SIGNIFICANT IMPACT	NEW LESS THAN SIGNIFICANT WITH MITIGATION INCORPORATED	NEW LESS THAN SIGNIFICANT IMPACT	SAME IMPACT AS "APPROVED PROJECT"	LESS IMPACT THAN "APPROVED PROJECT"	SOURCES
6. GEOLOGY AND SOILS. Would the project:						
a. Expose people or structures to potential substantial adverse effects, including the risk of loss, injury or death involving: 1) Rupture of a known earthquake fault, as described on the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area or based on other substantial evidence of a known fault? (Refer to Division of Mines and Geology Special Publication 42.)				X		46, 47,50,51, 83,92,93
2) Strong seismic ground shaking?				X		83,92,93
3) Seismic-related ground failure, including liquefaction?				X		31,49, 83,92,93
4) Landslides?				X		49,83,92
b. Result in substantial soil erosion or the loss of topsoil?				X		48, 49,83,92
c. Be located on a geologic unit or soil that is unstable, or that would become unstable as a result of the project, and potentially result in on- or off-site landslide, lateral spreading, subsidence, liquefaction or collapse?				X		49, 83,92,93
d. Be located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code (1994), creating substantial risks to life or property?				X		48,49, 83,92,93
e. Have soils incapable of adequately supporting the use of septic tanks or alternative wastewater disposal systems where sewers are not available for the disposal of wastewater?				X		28,83

Expansive Soils

Expansive soils shrink and swell as a result of moisture changes. The surface soils on the site pose a hazard to building foundations because of their low to moderate shrink/swell potential. Measures for buildings on expansive soils include drainage control and the use of special foundations. Drainage will be controlled and directed away from the structure and pavements. Conventional grading operations, incorporating fill placement specifications tailored to the expansive characteristics of the soil, and use of a mat foundation (either post-tensioned or conventionally reinforced) or low-expansive import are common measures to address the expansive potential of the foundation soils. Expansive site soils can be mitigated through design and construction and, therefore, do not pose a significant impact to residential development.

Load-Induced Settlement / Dynamic Densification

According to the CPT data, portions of the fine-grained material located above 39 feet are medium stiff and below groundwater levels. In addition, small pockets of softer material were also encountered. Some of these materials may be subject to load-induced settlement (compression) under the weight of new fills or building loads. Densification of the potentially liquefiable soils above and below groundwater levels can also result in settlement/densification during an earthquake. Design of a mat or deep foundation system and/or ground improvement techniques such as dynamic compaction or soil mixing are common measures to address the settlement/densification potential of the site soils. Load-induced settlement and the effects of earthquake-induced densification can be mitigated and, therefore, do not pose a significant impact to residential development.

Shallow Groundwater

Groundwater was encountered at elevations ranging from 10 to 11 feet bgs in the CPT probes. Fluctuations in groundwater levels should be expected during seasonal changes or over a period of years because of precipitation changes, perched zones, changes in drainage patterns, and irrigation. Temporary dewatering systems might be required during construction. Permanent basements will require designs that consider the presence of high groundwater levels, and the foundation for the structure will be designed to resist uplift (buoyancy) pressures. As a result, shallow groundwater is able to be mitigated by design and, therefore, should not pose a significant impact to residential development.

Undocumented Fills

Undocumented fill conditions may arise at the site, such as around the existing improvements, as utility trench backfill, and at the landscaped area with minor hills on the southwestern corner. Depending upon planned cuts and fills for the development, fill thicknesses across individual building pads may need mitigation to prevent adverse impacts to the performance of the foundation systems. The most common mitigation method for existing fills is simply to remove them to expose native soil and recompact the material as engineered fill. Existing or undocumented fills do not pose a significant impact to residential development.

Erosion

Development of the project site may subject the soils to accelerated erosion. In order to minimize erosion, erosion control measures such as those described in the Association of Bay Area Governments (ABAG) *Manual of Standards for Erosion & Sediment Control Measures* will be incorporated into the project.

Ground Rupture

Ground rupture (surface faulting) tends to occur along lines of previous faulting. The site is not located within a State of California Earthquake Fault Hazard Zone. As there are no known active faults on the site, and since the concealed and queried projection of the Silver Creek Fault is not zoned by the State of California or City of San Jose for future study, the potential for ground rupture at the site due to an earthquake is low.

Seismic Shaking

The maximum seismic event occurring on the site would probably be from effects originating from the Hayward, Calaveras, or San Andreas fault systems. Ground shaking effects can be expected in the area during a major earthquake originating along any of the active faults within the Bay Area. At present, it is not possible to predict when or where movement will occur on these faults. It must be assumed, however, that movement along one or more of these faults will result in a moderate or major earthquake during the lifetime of any construction on this site. The effects on development would depend on the distance to the earthquake epicenter, duration, magnitude of shaking, design and quality of construction, and geologic character of materials underlying foundations.

The maximum credible earthquake, which is defined as "*the maximum earthquake that appears capable of occurring under the presently known framework*", for the San Andreas Fault ranges from magnitude 8.0 to 8.3; and from magnitude 7.0 to 7.5 for either the Hayward or Calaveras Faults. The maximum probable earthquake, which is defined as "*the maximum earthquake that is likely to occur during a 100-year interval*", for the San Andreas Fault ranges from magnitude 7.5 to 8.5; from magnitude 6.75 to 7.5 for the Hayward Fault; and from magnitude 6.5 to 7.0 for the Calaveras Fault.

Structural damage from ground shaking is caused by the transmission of earthquake vibrations from the ground into the structure. Ground shaking is apparently the only significant threat to structures built on the site; however, it is important to note that well-designed and constructed structures that take into account the ground response of the soil or rock in their design usually exhibit minor damage during earthquake shaking.

The proposed structures on the site will be designed and constructed in conformance with the Uniform Building Code Guidelines for Seismic Zone 4 to avoid or minimize potential damage from seismic shaking on the site.

Secondary Seismic Effects

Liquefaction

Soil liquefaction is a phenomenon in which saturated, cohesionless soil layers located close to the ground surface lose strength during cyclic loading, such as imposed by earthquakes. During the loss of strength, the soil acquires a “mobility” sufficient to permit both horizontal and vertical movements. Soils that are most susceptible to liquefaction are clean, loose, saturated, uniformly graded, fine-grained sands.

Analyses of the CPT data indicate that some medium dense to dense portions of the thick sand to gravelly sand unit, thin sand lenses encountered in the predominantly clay layers in four of the probes, and some clayey silt to silty clay layers are potentially liquefiable. These potentially liquefiable layers were encountered in each boring at depths ranging from 13 feet to 80 feet bgs. Due to the depth of the potentially liquefiable soils and thickness of non-liquefiable material above those materials, it does not appear that these zones are susceptible to ground failure. If site grades are lowered due to excavation for subterranean structures, there is an increased potential for ground failure; if site grades are not lowered, these zones are not considered susceptible to ground failure. The effects of liquefaction should not pose a significant impact to residential development and can be mitigated through foundation design or ground improvement..

Other Secondary Seismic Effects

Based on the topographic and lithologic data, the risk of lurch cracking, regional subsidence or uplift, landslides, tsunamis or seiches is considered low at the site.

STANDARD REQUIREMENTS INCLUDED IN THE PROJECT

Erosion

- A City-approved Erosion Control Plan will be developed and implemented prior to approval of a grading permit or Public Works clearance with such measures as: 1) the timing of grading activities during the dry months, if feasible; 2) temporary and permanent planting of exposed soil; 3) temporary check dams; 4) temporary sediment basins and traps and/or 5) temporary silt fences.

Seismic Shaking

- The proposed structures on the site will be designed and constructed in conformance with the Uniform Building Code Guidelines for Seismic Zone 4 to avoid or minimize potential damage from seismic shaking on the site.

Liquefaction, Expansive Soils and Settlement

- A report addressing the potential hazards of liquefaction, expansive soils and load-induced settlement will be submitted to, and reviewed and approved by, the City Geologist prior to issuance of a grading permit or Public Works clearance. The investigation should be

consistent with the guidelines published by the State of California (CDMG Special Publication 117) and the Southern California Earthquake Center (“SCEC”) report.

MITIGATION MEASURES INCLUDED IN THE PROJECT

None required.

CONCLUSION

With the implementation of the above standard measures, the proposed project would not result in any new or more significant geology and soils impacts than those addressed in the North San Jose EIR.

7. HAZARDS AND HAZARDOUS MATERIALS

ENGEO Incorporated conducted a phase one environmental site assessment dated July 23, 2007 (revised February 1, 2008) that is included in the Technical Appendix. ENGEO Incorporated also conducted environmental soil gas sampling dated September 19, 2007 (revised February 1, 2008), a geophysical survey and additional environmental soil and groundwater sampling dated November 28, 2007 (revised February 1, 2008) and agrichemical soil sampling and laboratory test results dated April 18, 2008, all of which reports are included in the Technical Appendix. The following Screening Level Chemical Risk Appraisal/Accidental Offsite Chemical Release sections are taken from the Sony Project Initial Study and Addendum, reference No. 89 in Sources and References.

SETTING

Phase One Environmental Site Assessment

A phase one environmental site assessment was conducted to identify recognized environmental conditions associated with the property. The term “recognized environmental condition” (REC) means the presence or likely presence of any hazardous substances or petroleum products on a property under conditions that indicate an existing release, a past release, or a material threat of a release of any hazardous substances or petroleum products into structures on the property or into the ground, groundwater, or surface water of the property. The investigation included site history research (a review of available aerial photographs, maps and directories, and interviews with knowledgeable persons); a site reconnaissance; and regulatory agency database review for soil and groundwater contamination cases in the vicinity.

Historical Review

The purpose of the historical review is to develop a history of the previous uses or occupancies of the property and surrounding area in order to identify those uses or occupancies that are likely to have led to RECs on the property. Historical aerial photographs of the site and vicinity from 1939 through 1998 and topographic maps from 1953 through 1980 were reviewed; in addition, city directories were examined and interviews with knowledgeable persons were conducted.

The 1939 and 1956 aerial photographs show the project site and surrounding area as orchard. A paved road is visible along the northern site boundary, and a dirt road crosses the site to the southeast. Agnews State Hospital (East Area) is shown to the north. A small barn westerly of the dirt road is shown on the site in the 1965 photograph. By 1982, the project site and two adjacent properties to the east appear to be developed; the existing site building appears to have been constructed. Zanker Road and River Oaks Parkway are indicated. The orchard on the property across River Oaks Parkway has been removed, and that property appears to be undeveloped land. The area to the south appears developed for commercial/industrial use by 1993; while the project site appears the same in the 1993 and 1998 photographs.

The project site and adjoining properties are depicted as orchard on the 1953 topographic map. Mauvais Lane is shown along the site’s northerly boundary and a road crosses the site trending

southeast. Agnews State Hospital (East Area) is shown to the north. Conditions on the project site and surrounding properties appear similar on the remainder of the historic topographic maps.

A city directory search that includes entries from 1922 through 2001 was conducted as described in the report in the Technical Appendix. The first occupancy of the property at 199 River Oaks Parkway was recorded in 1996 and is listed as Foxboro-ICT, Inc. In 2000 and 2001, the address is not listed in the city directory search. Neighboring or nearby properties are mixed, with residential, commercial/retail and light manufacturing listings.

Interviews with knowledgeable persons indicated that the project site is currently used for semiconductor equipment manufacturing. Monitoring wells are present on the site to monitor the groundwater due to a historical leaking onsite solvent waste underground storage tank.

Regulatory Agency Review

A regulatory agency database report was obtained and reviewed to help establish whether contamination incidents have been reported on the site or in the vicinity, as detailed in the report in the Technical Appendix. A review of local, state, tribal, and federal databases found documentation of hazardous materials violations or discharge on the project site (199 River Oaks Parkway) and did identify contaminated facilities within the appropriate search distances that would reasonably be expected to impact the property. It is possible that portions of the downgradient area of the project site may have been impacted from offsite sources.

Three underground storage tanks (USTs) ranging from 400 to 5,000 gallons in capacity were installed at the property in 1981. Also in 1981, three monitoring wells were installed without permit along the northern side of the building. It appears that the tanks were used to store various hazardous and non-hazardous materials including motor oil waste, solvent waste, and other chemical waste. One 1,500-gallon steel underground storage tank on the north side of the building that was used to store solvent waste was removed in November, 1985. During tank removal activities, it was determined that the UST had leaked. Soil samples were recovered from the base of the excavation and detectable concentrations of trichloroethene (TCE) were reported.

Initial groundwater samples were recovered in 1985, and detectable concentrations of 1,1,1-trichloroethane, 1,1-dichloroethane, 1,1-dichloroethene and trichloroethene were reported. Additional investigations by Applied Earth Consultants, Inc. and later by Studemeister and Associates were performed to determine the extent of the groundwater contamination. A Spills, Leak, Investigation and Cleanup (SLIC) program was implemented by the Regional Water Quality Control Board (RWQCB) in 1987. In March of that year, a groundwater extraction system was installed for the remediation of the trichloroethene-impacted groundwater. Two groundwater extraction wells, and an additional nine groundwater monitoring wells, were installed. Groundwater was pumped from the two wells and filtered to remove solids. The

extracted groundwater was then passed through an air stripper for contaminant removal and pumped into the facility's treatment plant for ultimate disposal into the sanitary sewer.

The groundwater extraction program was in place from 1987 to 1999; and in 2000, the TCE concentration in the groundwater were reduced to levels below the RWQCB Environmental Screening Levels (ESLs). In November, 2000, the RWQCB concluded that the concentrations of the pollutants in the groundwater had reached asymptotic levels and indicated that they believe the groundwater extraction system would no longer significantly reduce the levels of pollutants. As such, the RWQCB authorized the indefinite shutdown of the groundwater extraction system and requested annual groundwater monitoring. Site closure would be considered when the pollutant levels were near the Maximum Contaminant Levels (MCLs) as established by the State of California.

Concentrations of TCE have reportedly decreased from a maximum concentration of 4,100 micrograms per liter ($\mu\text{g/L}$). Data from the most recent groundwater monitoring report (2007) indicate that the maximum reported concentration of TCE is 16 $\mu\text{g/L}$. TCE remains slightly above the MCL for drinking water.

Two of the eleven wells installed in 1987 were destroyed in December, 2000 to accommodate construction of a building addition. The three original (1981) groundwater monitoring wells were destroyed in 2005.

The two other USTs on the project site were for hydrofluoric acid waste and an acid neutralization system with an associated aboveground wastewater treatment system. The hydrofluoric acid waste tank was reportedly removed in about 1996; however, direct documentation of the tank removal was not identified. The acid neutralization system and aboveground wastewater treatment system were removed in 2001.

Site Reconnaissance

A site reconnaissance was conducted on July 12, 2007 to look for hazardous materials storage, surficial staining or discoloration, debris, stressed vegetation, or other conditions that may be indicative of potential sources of soil or groundwater contamination. The site was also inspected for fill/ventilation pipes, ground subsidence, or other evidence of existing or pre-existing underground storage tanks. The project site consists of one mixed light industrial/manufacturing/office building, approximately 46,530 square feet in area; it is currently occupied by Frontier Semiconductor. The building comprises tilt-up concrete walls and wood-truss roof systems with insulation in the ceiling, and is divided into several sections with various uses and flooring types. The large, central section has linoleum flooring and appears to be a storage area with some machine equipment; several tall metal racks store computer parts and electronic equipment. The eastern portion is an office area (several large conference rooms and smaller offices with various office furniture) with carpeting. The northern portion of the building was an

addition constructed in 2001. It consists of a machine shop with sealed concrete flooring and several pieces of large machinery.

Less than 5 gallons of household cleaners were observed in small storage rooms adjacent to the central section of the building; acetone and alcohol were stored in flammable cabinets in the central section; and approximately twenty 5-gallon plastic containers of motor oil on wooden pallets were observed in the machine shop. These areas appeared to be relatively clean with no indications of spills. Petroleum odors were noted near the plastic motor oil containers. Approximately ten 55-gallon steel drums were observed in the machine shop; they appeared to contain aluminum scraps from production. No aboveground storage tanks or evidence of existing underground storage tanks were observed. No signs of stressed vegetation were observed. Minor oil or gas staining of the pavement was observed in the paved parking area on the east side of the building. A total of nine groundwater monitoring wells were observed on the site, two within grated coverings in the machine shop floor.

Environmental Soil Gas Sampling

A soil gas sampling program was conducted at the project site to address the potential for vapor intrusion hazards. Five soil gas probes were advanced to 5 feet bgs on July 19, 2007 with two additional probes recovered from within the building on August 18, 2007, as detailed in the report in the Technical Appendix. The collected samples were analyzed for volatile organic compounds (VOCs); and the results were compared to the San Francisco RWQCB's ESLs for evaluation of potential indoor air impacts. Volatile organic compounds were detected in all soil vapor samples collected; however, the detected concentrations were below ESLs.

Geophysical Survey and Additional Environmental Soil and Groundwater Sampling

Geophysical Survey

A geophysical survey was conducted to determine whether two identified underground storage tanks (for hydrofluoric acid waste and for an acid neutralization system) remain on the project site. The geophysical survey, consisting of a combination of vertical magnetic gradient, ground penetrating radar and hand-held metal detection methods, was conducted over a 140- by 40-foot rectangular area along the northern side of the building on July 31, 2007. The survey was directed at identifying areas with anomalous accumulations of ferrous metals and to search for evidence of USTs, buried debris, or backfilled areas. Based on the results of the survey, which are included in the report in the Technical Appendix, there does not appear to be evidence suggesting the presence of USTs within the surveyed area.

Additional Soil and Groundwater Sampling

Additional soil samples were collected in the areas of the identified underground storage tanks and analyzed to ensure that contaminated soil does not remain onsite. Six borings were advanced on August 1, 2007. Continuous soil samples were recovered to a maximum depth of approximately 16 feet bgs. The soil samples were analyzed for volatile organic compounds; semi-volatile organic compounds (SVOCs); CAM-17 metals; fluoride; and reactivity, corrosivity

and ignitability (RCI). Most VOC and SVOC constituents were reported below laboratory detection limits with the exception of isophorone, which was reported at a concentration of 2.6 milligrams per kilogram (mg/kg) in one boring at a depth of 6 feet. Several CAM-17 metal constituents were reported above laboratory detection limits, and the results were compared to ESLs as established by the RWQCB. After review, it was determined that arsenic and cobalt were reported above the direct contact ESLs for residential land in several of the borings; however, the reported concentrations are within the expected range of background concentrations. A summary of the analytical results is included in the report in the Technical Appendix.

After collection of the soil samples, groundwater samples were collected from two of the borings, as detailed in the report in the Technical Appendix. Groundwater samples were also analyzed for VOCs, SVOCs, CAM-17 metals, fluoride and RCI. No VOCs or SVOCs were reported above laboratory detection limits in the groundwater samples. All CAM-17 metals concentrations were below the established MCLs by the Department of Health Services drinking water program. Again, a summary of the analytical results is included in the report in the Technical Appendix.

Agrichemical Soil Sampling and Laboratory Test Results

As the site has historically been used for agricultural purposes, persistent agrichemicals may have been used in the past; therefore, screening of the near surface soils to check for potential environmental impacts from past agricultural use was conducted. As detailed in the report in the Technical Appendix, the study included recovery of 12 soil samples from approximately 3 to 9 inches bgs on April 9, 2008; and laboratory analysis for organochlorine pesticides and the metals lead and arsenic. Trace levels of organochlorine pesticides (DDE, DDD and DDT) were reported in 2 of the 12 samples; concentrations of lead ranged from 3 to 94 milligrams per kilogram (mg/kg); and concentrations of arsenic ranged from 3.1 to 78.0 mg/kg.

Screening Level Chemical Risk Appraisal

A screening level chemical risk appraisal was previously conducted for the Sony Project (PDC06-038) by TRC Lowney in February, 2007; the Sony Project is located southerly across River Oaks Parkway from the proposed project site. Eighteen facilities in the project vicinity were identified for modeling of an accidental catastrophic release of a hazardous substance; the chemicals of concern are representative of the chemicals used by that facility and were selected to minimize the likelihood that the chemicals and release scenarios modeled would result in risk underestimation. All releases were modeled using worst-case assumptions, including nighttime conditions with ground-level releases entrained into the proposed residential structures at ground level. The eight facilities that could potentially impact the project site are detailed in the following table, five of which are shown on the following exhibit.

Table 5. Offsite Facilities with Potential to Impact the Site

Facility Name	Location	Chemicals of Concern	Max. Threat Zone (miles)	Max. Site Outdoor Concentration (ppm)	Emergency Planning Guidelines (ppm)
3. Neophotonics	2911 Zanker Road – approximately 0.3 miles south of the site	-phosphine (210 cubic feet)	1.4	7.3	IDLH = 50 ERPG-2 = 0.5 ERPG-3 = 5
		-ammonia (1,158 cubic feet)	0.1	17.7	IDLH = 300 ERPG-2 = 150 ERPG-3 = 750
4. Wyse	3471 and 3475 North First Street – approximately 0.5 miles west of the site	-chlorine (100 pounds)	0.83	6.9	IDLH = 10 ERPG-2 = 3 ERPG-3 = 20
7. Sigen	51 Dagget Drive – approximately 0.5 miles south of the site	-diborane (130 cubic feet)	0.49	1	IDLH = 15 ERPG-2 = 1 ERPG-3 = 3
		-germane (111 cubic feet)	0.9	1.7	LC ₅₀ * = 622 1/10 IDLH* = 0.6 ERPG-2 = NE ERPG-3 = NE
9. OLS Energy Agnews (Calpine)	3800 Cisco Way – approximately 0.5 miles north of the site	-liquefied ammonia gas (58,000 pounds)	4.2	9,200	IDLH = 300 ERPG-2 = 150 ERPG-3 = 750
10. Silicon Microstructures, Inc.	1701 McCarthy Boulevard – approximately 0.55 miles east of the site	-chlorine (540 cubic feet)	0.83	6	IDLH = 10 ERPG-2 = 3 ERPG-3 = 20
12. Cypress Semiconductor	3901 North First Street – 1.02 miles northwest of the site	-phosphine (260 cubic feet)	1.3	0.83	IDLH = 50 ERPG-2 = 0.5 ERPG-3 = 5
		-chlorine release (90 pounds)	0.78	1.9	IDLH = 10 ERPG-2 = 3 ERPG-3 = 20
		-waste hydrochloric acid (525 gallons)	0.5	5.3	IDLH = 50 ERPG-2 = 20 ERPG-3 = 150

Table 5. Offsite Facilities with Potential to Impact the Site (Cont.)

Facility Name	Location	Chemicals of Concern	Max. Threat Zone (miles)	Max. Site Outdoor Concentration* (ppm)	Emergency Planning Guidelines (ppm)
13. JDS Uniphase	80 Rose Orchard Way – approximately 1.02 miles northwest of the site	-arsine (150 cubic feet)	1.1	0.61	IDLH = 3 ERPG-2 = 0.5 ERPG-3 = 1.5
		-phosphine (342 cubic feet)	1.8	1.5	IDLH = 50 ERPG-2 = 0.5 ERPG-3 = 5
		-ammonia (1,135 pounds)	0.58	57.4	IDLH = 300 ERPG-2 = 150 ERPG-3 = 750
16. San José Water Pollution Control Plant	700 Los Esters Road – approximately 1.75 miles north/northwest of the site	-chlorine (180,000 pounds)	3.4	8.93	IDLH = 10 ERPG-2 = 3 ERPG-3 = 20

Notes:

Concentrated releases of phosphine, diborane, and germane are not likely to reach the site intact due to reactivity.

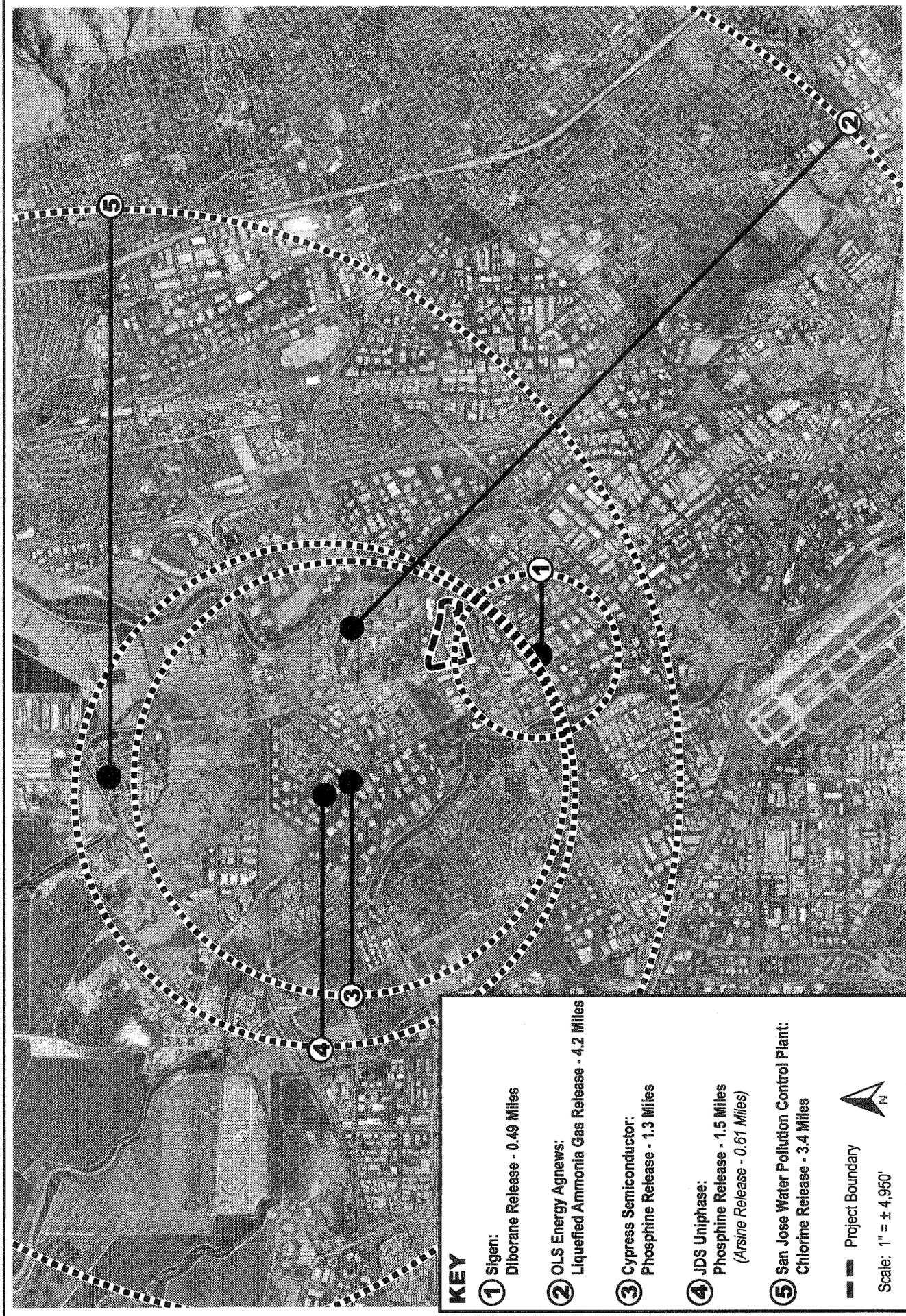
All releases assume US EPA Worst-Case conditions – loss of container contents over 10-minute period, stable conditions

Bold Text = significant impact

NS = not significant

* LC₅₀ lethal concentration 50% as reported by JDS Uniphase and IDLH by Neophotonics

† The maximum outdoor concentration is the concentration predicted at the site exterior after the plume reaches the site.



KEY

- ① Sigen:
Diborane Release - 0.49 Miles
- ② OLS Energy Agnews:
Liquefied Ammonia Gas Release - 4.2 Miles
- ③ Cypress Semiconductor:
Phosphine Release - 1.3 Miles
- ④ JDS Uniphase:
Phosphine Release - 1.5 Miles
(Arsine Release - 0.61 Miles)
- ⑤ San Jose Water Pollution Control Plant:
Chlorine Release - 3.4 Miles

--- Project Boundary
 Scale: 1" = ± 4,950'

Worst-Case Accidental Release Scenario Impact Areas

Figure 22

IMPACT AND MITIGATION

ISSUES	NEW POTENTIALLY SIGNIFICANT IMPACT	NEW LESS THAN SIGNIFICANT WITH MITIGATION INCORPORATED	NEW LESS THAN SIGNIFICANT IMPACT	SAME IMPACT AS "APPROVED PROJECT"	LESS IMPACT THAN "APPROVED PROJECT"	SOURCES
7. HAZARDS AND HAZARDOUS MATERIALS. Would the project:						
a. Create a significant hazard to the public or the environment through the routine transport, use or disposal of hazardous materials?				X		26,27,28, 83,89,94, 95,96,97
b. Create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment?				X		28,83, 94,95,96
c. Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances or waste within one-quarter mile of an existing or proposed school?				X		27,28,83, 94,95,96
d. Be located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result, would it create a significant hazard to the public or the environment?				X		83,88,94
e. For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project result in a safety hazard for people residing or working in the project area?				X		27,69,83
f. For a project within the vicinity of a private airstrip, would the project result in a safety hazard for people residing or working in the project area?				X		27,69,83
g. Impair implementation of, or physically interfere with, an adopted emergency response plan or emergency evacuation plan?				X		27,83

ISSUES	NEW POTENTIALLY SIGNIFICANT IMPACT	NEW LESS THAN SIGNIFICANT WITH MITIGATION INCORPORATED	NEW LESS THAN SIGNIFICANT IMPACT	SAME IMPACT AS "APPROVED PROJECT"	LESS IMPACT THAN "APPROVED PROJECT"	SOURCES
7. HAZARDS AND HAZARDOUS MATERIALS (Cont.). Would the project:						
h. Expose people or structures to a significant risk of loss, injury or death involving wildland fires, including where wildlands are adjacent to urbanized areas or where residences are intermixed with wildlands?				X		25,27, 57,58,83

The project site is not located within the Santa Clara County Airport Land Use Commission (ALUC) jurisdiction, nor is it on one of the City's designated evacuation routes. The site also is not located within an area subject to wildfires.

General

The project site will be viewed by a qualified environmental professional during demolition and pre-grading activities to observe areas of the property that may have been obscured by existing structures or pavement for such items as stained soils, septic systems, underground storage tanks, and/or unforeseen buried utilities; and, if found, a mitigation program will be developed, submitted to the City's Environmental Principal Planner, and implemented with such measures as soil testing, removal and/or offsite disposal at a permitted facility.

Well(s)

There are nine existing groundwater monitoring wells currently on the project site. If no longer needed for groundwater monitoring, they should be destroyed prior to the construction of the project. If not properly destroyed, the wells could cause contamination of the groundwater. Well destruction is regulated by the Santa Clara Valley Water District's Ordinance No. 90-1 in order to assure that such wells will not cause pollution or contamination of groundwater or otherwise jeopardize the health, safety, or welfare of the people of the district. The Ordinance requires that a permit be obtained before a well can be destroyed.

Underground Storage Tank(s)

Three underground storage tanks (USTs) ranging from 400 to 5,000 gallons in capacity were installed at the property in 1981. One 1,500-gallon steel underground storage tank on the north side of the building that was used to store solvent waste was removed in November, 1985. The two other USTs on the project site were for hydrofluoric acid waste and an acid neutralization system with an associated aboveground wastewater treatment system. The hydrofluoric acid waste tank was reportedly removed in about 1996; however, direct documentation of the tank removal was not identified. The acid neutralization system and aboveground wastewater

treatment system were removed in 2001. Based on the geophysical survey, it is concluded that underground storage tanks are not present on the project site at the locations surveyed.

Contamination

The reconnaissance and records research did find documentation or physical evidence of soil or groundwater impairments associated with the current or past use of the project site. A review of regulatory databases maintained by regulatory agencies found documentation of hazardous materials violations or discharge on the project site. No documented soil or groundwater contamination associated with abutting properties was found; however, groundwater impairments have been documented in the general site vicinity.

Soil

During underground storage tank removal activities in 1985, it was determined that the solvent waste UST had leaked, and detectable concentrations of trichloroethene were reported. Soil samples collected from six borings in the area of the identified underground storage tanks in August, 2007 were analyzed to ensure that contaminated soil does not remain onsite. Based on a review of the field and laboratory data, there is no evidence of significant subsurface impacts associated with the property; the project site is considered suitable for residential development.

Groundwater

Initial groundwater samples recovered in 1985 reported concentrations of 1,1,1-trichloroethane, 1,1-dichloroethane, 1,1-dichloroethene and trichloroethene. Additional investigations were performed, and in 1987, a groundwater extraction system was installed for the remediation of the trichloroethene-impacted groundwater. In November, 2000, the RWQCB concluded that the concentrations of the pollutants in the groundwater had reached asymptotic levels and the groundwater extraction system would no longer significantly reduce the levels of pollutants; the RWQCB authorized the indefinite shutdown of the groundwater extraction system and requested annual groundwater monitoring. Site closure would be considered when the pollutant levels were near the MCLs as established by the State of California. Groundwater samples collected from two borings in the area of the identified underground storage tanks in August, 2007 were analyzed for VOCs, SVOCs, CAM-17 metals, fluoride and RCI. No VOCs or SVOCs were reported above laboratory detection limits in the groundwater samples; all CAM-17 metals concentrations were below the established MCLs by the Department of Health Services drinking water program.

Soil Vapor

Based on a review of the data received from a 2007 soil gas sampling program conducted at the project site to address the potential for vapor intrusion hazards, none of the detected analytes in the soil gas samples are present at concentrations greater than respective ESLs. It appears that the soil gas at the project site has not been significantly impacted by the former operations onsite and is not expected to pose a threat to public health and/or the proposed development of the property.

The above reports have been submitted to the Regional Water Quality Control Board for groundwater case closure and residential site approval.

Agrichemicals

Analysis of near surface soil samples for agrichemicals in April, 2008 reported trace levels of organochlorine pesticides in 2 of the 12 samples tested. The reported concentrations are well below the California Environmental Protection Agency's California Human Health Screening Levels (CHHSLs) for residential soils and the Regional Water Quality Control Board's Environmental Screening Levels (ESLs) for residential land use. The reported lead concentrations (3 to 94 mg/kg) are below the ESL for residential land use of 200 mg/kg. The reported arsenic concentrations (3.1 to 78.0 mg/kg) exceed the residential ESL of 0.38 mg/kg; however, the mean arsenic concentration of 16.58 mg/kg is consistent with background soil concentrations for Santa Clara County and the State of California. As there will be no yard areas associated with the residences and no opportunity for end-user excavations and since much of the property is planned to have significant hardscape, the reported pesticides and metal concentrations would not pose a health risk for the future residential development.

City Review

The Municipal Environmental Compliance Officer reviewed the phase one environmental site assessment, environmental soil gas sampling, and geophysical survey and additional environmental soil and groundwater sampling reports and stated that the environmental conditions posed by the underground storage tanks have been adequately characterized. It was determined that additional characterization of surface soils be carried out to determine if impacts from the historical agricultural uses exist onsite. Subsequently, the City Environmental Services Department reviewed the agrichemical testing report, and stated that no additional soil testing is required.

Accidental Offsite Chemical Releases

Modeling performed for eighteen facilities in the project vicinity resulted in eight facilities with the potential to impact the site, as shown in Table 5. Most of these facilities use gases typical of the semiconductor industry; the two exceptions are Calpine (ammonia) and the Water Pollution Control Plant (chlorine). The modeling analysis concluded that the probability of worst-case catastrophic releases for these facilities was low, and that engineering and administrative controls at these hazardous materials facilities further minimize risks to offsite locations. Since the Sony hazards analysis has already evaluated offsite catastrophic release analyses from these selected facilities, and the project site is not appreciably closer to these facilities than the Sony site, site-specific hazard risk assessment for the project site would not be expected to produce significantly different impacts than were found at the Sony site.

Demolition

The project proposes the demolition of a structure(s) that may contain hazards such as asbestos-containing materials (ACM) or lead based paint (LBP). The structure(s) to be removed should be surveyed for the presence of ACM and/or LBP. If any suspect ACM are present, they should

be sampled prior to demolition and removed in accordance with National Emissions Standards for Hazardous Air Pollutants (NESHAP) and Cal-OSHA requirements, if warranted. Notification must also be made to the Bay Area Air Quality Management District (BAAQMD). If any suspect LBP is present, it should be sampled prior to demolition and removed in accordance with EPA, OSHA and BAAQMD requirements, if warranted.

STANDARD REQUIREMENTS INCLUDED IN THE PROJECT

Wells

- If no longer needed for groundwater monitoring, a well destruction permit will be obtained from the Santa Clara Valley Water District, and the wells will be destroyed in accordance with District standards.

Underground Storage Tank

- If an underground storage tank is found during grading operations, a closure plan will be prepared and a permit for the removal of the underground storage tank will be obtained and the underground storage tank removed in accordance with City procedures; the soil and/or groundwater beneath the tank will be sampled for contamination; and, if any contamination is found, a mitigation program including soil removal, aeration and/or appropriate disposal, and groundwater extraction and/or monitoring will be developed and implemented to the satisfaction of the Director of Planning and the RWQCB.

Asbestos-Containing Materials

- The structure(s) to be removed will be surveyed for the presence of asbestos-containing materials at the demolition permit stage; and if any suspect ACM are present, they will be sampled prior to demolition in accordance with NESHAP guidelines, and all potentially friable ACM will be removed prior to building demolition and disposed of by offsite burial at a permitted facility in accordance with NESHAP, Cal-OSHA and BAAQMD requirements.

Lead Based Paint

- The structure(s) to be removed will be surveyed for the presence of lead based paint at the demolition permit stage; and if any suspect LBP is present, it will be sampled prior to demolition, and all potential LBP will be removed prior to building demolition and disposed of by offsite burial at a permitted facility in accordance with EPA and OSHA requirements.

MITIGATION MEASURES INCLUDED IN THE PROJECT

None required.

CONCLUSION

With the implementation of the above standard measures, the proposed project would not result in any new or more significant hazards and hazardous materials impacts than those addressed in the North San Jose EIR.

8. HYDROLOGY AND WATER QUALITY

SETTING

Waterways

There are no waterways on the project site or within 300 feet of the project site.

Flooding

The project site is not within an area of historic flooding; however, according to the Federal Emergency Management Agency's (FEMA) *Flood Insurance Rate Maps*, the site is within Zone X, which is defined as “*areas of 500-year flood; areas of 100-year flood with average depths of less than 1 foot or with drainage areas less than 1 square mile; and areas protected by levees from the 100-year flood*”. According to the Santa Clara Valley Water District's (SCVWD) *Maps of Flood Control Facilities and Limits of 1% Flooding*, the site is within a zone of flooding to a depth of one foot or more. The limits of the potential inundation are shown on the following FEMA-based Potential Flooding map.

Water Quality

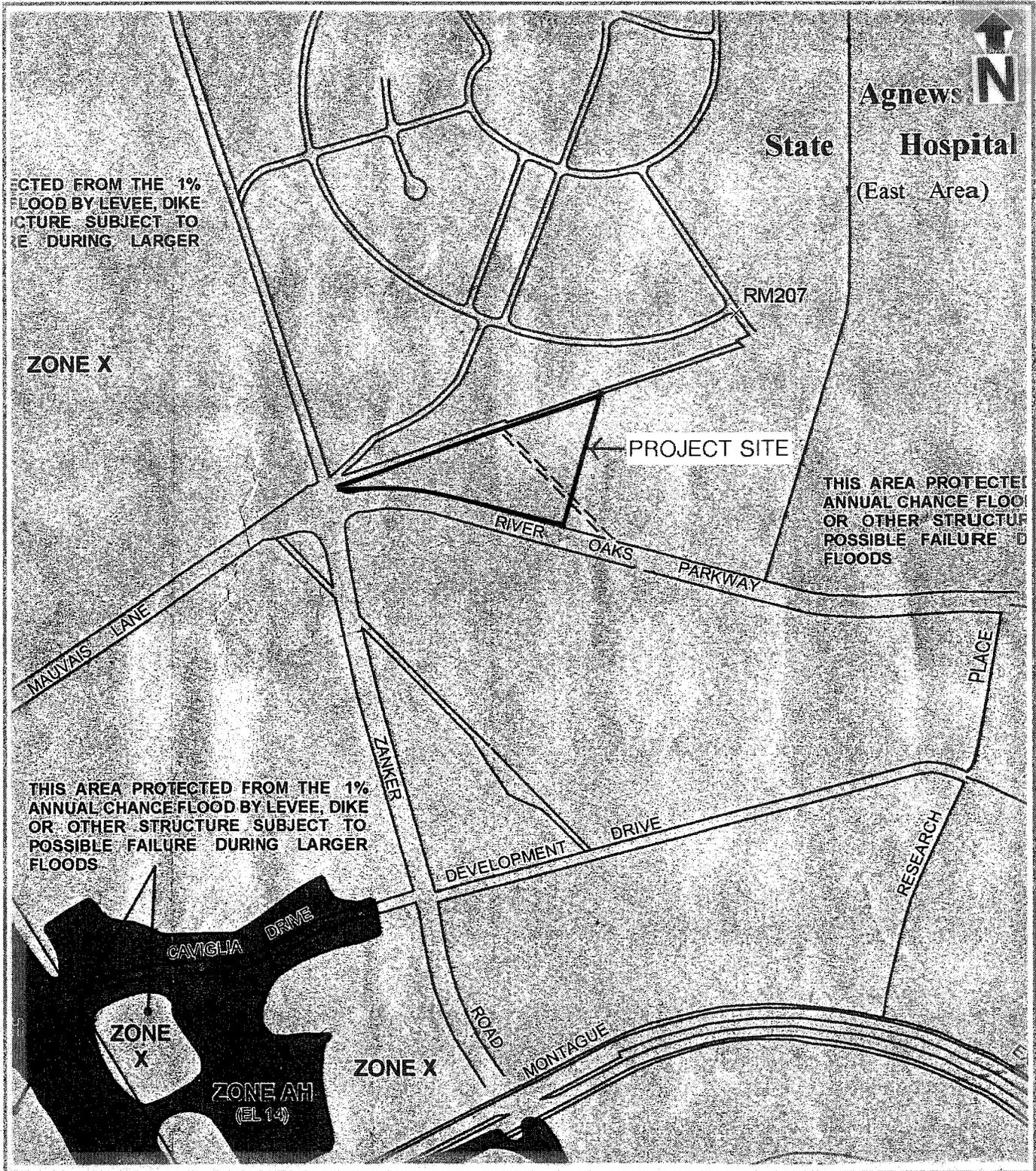
Stormwater runoff flows from the project site via the City's storm drainage system to the Guadalupe River and then north to the San Francisco Bay.

The project site is currently covered with a light industrial building with parking and landscaping, and is approximately 60 percent impervious surfaces.

Nonpoint Sources

The Clean Water Act states that the discharge of pollutants in stormwater to Waters of the United States from any point source is unlawful, unless the discharge is in compliance with a National Pollutant Discharge Elimination System (NPDES) permit. The U.S. Environmental Protection Agency requires under the Clean Water Act that any stormwater discharge from construction sites larger than one acre be in compliance with the NPDES. The State Regional Water Quality Control Board (RWQCB), which is responsible for implementing and enforcing the program, issued a statewide General Permit for construction activities. Provisions of the current Permit require that the following issues be addressed with respect to water quality regardless of the size of the site: 1) erosion and sedimentation during clearing, grading or excavation of a site; 2) the discharge of stormwater once construction is completed; and 3) implementation of post-construction treatment controls. Coverage under this Permit would be obtained by submitting a Notice of Intent to the RWQCB that identifies the responsible party, location and scope of operation; and by developing and implementing a Storm Water Pollution Prevention Plan (SWPPP) as well as monitoring the effectiveness of the plan.

The Santa Clara Valley Urban Runoff Pollution Prevention Program (SCVURPPP) was developed to establish a watershed-based program to control nonpoint sources of pollution from entering water sources and deteriorating water quality. The City of San Jose is a participant in the SCVURPPP. A number of control measures, including those related to development



Source: FEMA, Flood Insurance Rate Maps, San Jose, California, Panel No. 060349-0008F, October 25, 2006

Potential Flooding

Figure 23

activities, industrial and construction inspections, public agency activities and public outreach efforts, are also currently being developed and implemented. The development, implementation and enforcement of control measures to reduce pollutant discharges from areas of new development is the responsibility of the Urban Runoff Pollution Prevention Program in cooperation with the RWQCB, project developer and subsequent property owners.

The RWQCB issued a revised NPDES Municipal Separate Storm Sewer System (MS4) Permit to the SCVURPPP. The Permit requirements are addressed in the City’s Post-Construction Urban Runoff Management Policy (Policy 6-29). Provision C.3 of the Permit establishes two types of requirements for new and redevelopment projects: pollutant control measures and peak flow control measures. Specific pollutant control measures are currently required for projects that add or replace 10,000 square feet or more of impervious surface. Stormwater pollution can be reduced by a combination of site design, source control, and treatment Best Management Practices (BMPs). The Policy includes the requirement of regular maintenance to ensure effectiveness. Provision C.3 also requires the City to require development projects to implement specific numeric sizing hydraulic design calculation methods for stormwater BMPs in lieu of the former qualitative approach. These hydraulic design methods are either volume or flow-based, depending on the type of treatment BMP proposed.

A Post-Construction Hydromodification Management (HMP) Policy (Policy 8-14) was adopted by the San Jose City Council on October 18, 2005. The HMP Policy requires certain development projects to implement post-construction flow-control measures to reduce the volume, velocity and duration of stormwater runoff so that post-project runoff does not exceed pre-project conditions. The project site falls within an area in which post-construction flow control measures are encouraged to be incorporated into new “smaller” projects (those projects on sites less than 50 acres in size) so that post-construction flow volume, velocity and duration match pre-project flow conditions to the “maximum extent practicable”.

IMPACT AND MITIGATION

ISSUES	NEW POTENTIALLY SIGNIFICANT IMPACT	NEW LESS THAN SIGNIFICANT WITH MITIGATION INCORPORATED	NEW LESS THAN SIGNIFICANT IMPACT	SAME IMPACT AS “APPROVED PROJECT”	LESS IMPACT THAN “APPROVED PROJECT”	SOURCES
8. HYDROLOGY AND WATER QUALITY. Would the project:						
a. Violate any water quality standards or waste discharge requirements?				X		28, 61,80,83

ISSUES	NEW POTENTIALLY SIGNIFICANT IMPACT	NEW LESS THAN SIGNIFICANT WITH MITIGATION INCORPORATED	NEW LESS THAN SIGNIFICANT IMPACT	SAME IMPACT AS "APPROVED PROJECT"	LESS IMPACT THAN "APPROVED PROJECT"	SOURCES
8. HYDROLOGY AND WATER QUALITY (Cont.). Would the project:						
b. Substantially deplete groundwater supplies or interfere substantially with groundwater recharge such that there would be a net deficit in aquifer volume or a lowering of the local groundwater table level (e.g., the production rate of pre-existing nearby wells would drop to a level which would not support existing land uses or planned uses for which permits have been granted)?				X		25,27,83
c. Substantially alter the existing drainage pattern of the site or area, including the alteration of the course of a stream or river, in a manner which would result in substantial erosion or siltation on- or off-site?				X		25,26,83
d. Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, or substantially increase the rate or amount of surface runoff in a manner that would result in flooding on- or off-site?				X		25,26,83
e. Create or contribute runoff water which would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff?				X		26,28,83
f. Otherwise substantially degrade water quality?				X		26,28,83
g. Place housing within a 100-year flood hazard area as mapped on a Federal Flood Hazard Boundary or Flood Insurance Rate Map or other flood hazard delineation map?				X		26,27, 59,60,83
h. Place within a 100-year flood hazard area structures that would impede or redirect flood flows?				X		26,27, 59,60,83

ISSUES	NEW POTENTIALLY SIGNIFICANT IMPACT	NEW LESS THAN SIGNIFICANT WITH MITIGATION INCORPORATED	NEW LESS THAN SIGNIFICANT IMPACT	SAME IMPACT AS "APPROVED PROJECT"	LESS IMPACT THAN "APPROVED PROJECT"	SOURCES
8. HYDROLOGY AND WATER QUALITY (Cont.). Would the project:						
i. Expose people or structures to a significant risk of loss, injury or death involving flooding, including flooding as a result of the failure of a levee or dam?				X		27,28,83
j. Be subject to inundation by seiche, tsunami or mudflow?				X		27,83,92

Flooding

The project site is within the limits of potential inundation with the occurrence of a one percent flood. The site is not subject to seiche or tsunami. There is an existing 54-inch City storm drainage line in River Oaks Parkway, which is designed to serve the site in a developed condition. Residential development of the site would not cause flooding. Any excess flows beyond the design capacity would pond onsite.

Erosion

The approximately 18 percent increase in impervious surface on the site would result in an increase in runoff. Increased flow and duration can contribute to downstream streambank erosion. The project would not have a direct outfall into any stream. As described above, project flows would drain through the existing storm drainage system to the Guadalupe River, which is less than 0.5 mile to the east.

Water Quality

The primary impact on water quality would result from the addition of impervious surfaces, such as rooftop, driveway and street runoff. Particulates, oils, greases, toxic heavy metals, pesticides and organic materials are typically found in urban storm runoff. The project's contribution would have a potentially significant impact on water quality. Stormwater runoff could increase under project conditions as the amount of impervious surfaces (buildings and pavement) would increase from approximately 60 percent of the site to approximately 78 percent, as shown in the following table. The proposed increase in impervious surfaces could increase the amount of stormwater discharged into the storm drainage system and the Guadalupe River. In addition, temporary construction-related activities such as clearing, grading, or excavation could result in potentially significant impacts to water quality.

Table 6. Pervious and Impervious Surfaces Comparison

	Existing Condition (sq ft)	%	Proposed Condition (sq ft)	%	Difference (sq ft)	%
Site (acres): 3.7	Site (sq ft): 160,722		160,722			
Building Footprint(s)	44,389	27	96,598	60	52,209	33
Parking, Sidewalks, Patios, Paths, etc.	52,496	33	28,844	18	-23,652	-15
Landscaping/OS	63,837	40	35,280	22	-28,557	-18
Total	160,722	100%	160,722	100%	0	0%
Impervious Surfaces	96,885	60	125,442	78	28,557	18
Pervious Surfaces	63,837	40	35,280	22	-28,557	-18
Total	160,722	100%	160,722	100%	0	0%

Stormwater runoff and pollution would be reduced by the use of disconnected roof drains, Continuous Deflective Separation (CDS) media filter units, and pervious areas exempt from treatment, as shown on the Conceptual Stormwater Management Plan, Figure 19. Roof drains that are not connected to the storm drainage system divert runoff to landscaped planter boxes. CDS units, which use a non-blocking, non-mechanical screening process to remove pollutants from stormwater flows, will also be utilized. The underground units will be located on the storm drainage lines near River Oaks Parkway prior to connection to the City storm drainage system. These measures would also provide some flow control benefit in conformance with HMP Policy provisions.

STANDARD REQUIREMENTS INCLUDED IN THE PROJECT

Water Quality

- A Notice of Intent and a Storm Water Pollution Prevention Plan that addresses both construction and post-construction periods and specifies erosion and sediment control measures, waste disposal controls, maintenance responsibilities and non-stormwater management controls, will be submitted to the RWQCB and maintained onsite, respectively, to comply with the stormwater discharge requirements of the NPDES General Permit.
- Stormwater treatment control measures will be hydraulically sized prior to issuance of a Planned Development (PD) Permit in conformance with provisions of the City’s Post-Construction Urban Runoff Management Policy and to adopted Santa Clara Valley Pollution Prevention Program NPDES Permit C.3 provisions to the satisfaction of the Director of Public Works.

MITIGATION MEASURES INCLUDED IN THE PROJECT

Flooding

- Buildings shall be designed so that the finished floor is elevated above the projected FEMA flood level.
- Garage entries and surrounding elevations shall be raised above the identified flood elevation to prevent flood intrusion into the subterranean parking areas.

Water Quality

Construction

- A Storm Water Pollution Prevention Plan (SWPPP) in compliance with the local NPDES permit shall be developed and implemented including: 1) site description; 2) erosion and sediment controls; 3) waste disposal; 4) implementation of approved local plans; 5) proposed post-construction controls, including description of local post-construction erosion and sediment control requirements; 6) Best Management Practices (BMPs) such as the use of infiltration of runoff onsite, first flush diversion, flow attenuation by use of open vegetated swales and natural depressions, stormwater retention or detention structures, oil/water separators, porous pavement, or a combination of these practices for both construction and post-construction period water quality impacts; and 7) non-storm water management.

Post-Construction

- The project shall incorporate the following site design, source control, and treatment measures to minimize the discharge of stormwater pollutants and limit the volume, velocity and duration of runoff:
 - Roof drains shall discharge and drain into landscaped planter boxes.
 - Continuous Deflective Separation (CDS) media filter units shall be provided.
 - Pervious areas that are exempt from treatment shall be included.
 - A Final Report prepared by a Civil Engineer stating that all the post-construction stormwater BMPs have been correctly installed shall be submitted to the satisfaction of the Director of Public Works.
- A maintenance and monitoring program shall be developed at the PD Permit stage to the satisfaction of the Director of Planning.
- The maintenance and monitoring program shall be implemented to ensure that all stormwater treatment BMPs will be permanently maintained by the project owners for the life of the development, to the satisfaction of the Director of Planning.

CONCLUSION

With the implementation of the above standard measures and mitigation measures, the proposed project would not result in any new or more significant impacts on hydrology and water quality than those addressed in the North San Jose EIR.

9. LAND USE AND PLANNING

SETTING

General Plan

The land use designation for the project site on the *San Jose 2020 General Plan* Land Use/Transportation Diagram is Industrial Park with a Transit/Employment Residential District (55+ DU/AC) Overlay. The project conforms with this Overlay classification.

The Land Use/Transportation Diagram also indicates a “floating park” in the area generally bounded by Zanker Road, Agnews East, Coyote River and Henry Ford Drive. A “floating park” is described in the *San Jose 2020 General Plan* as follows:

"There are cases where a park is needed, but where either no specific site has yet been identified or where the details of surrounding development have not been finalized. In these cases, the designation for the park will be indicated by the letter 'P'. This symbol represents a 'floating' designation and is only intended to indicate a general area within which a park site will be located. The specific size, location and configuration of such park sites will only be finalized through acquisition of a particular parcel."

Special Areas

The project site is located within North San Jose (Rincon de los Esteros), which is located generally south of State Route 237 (SR 237), east of the Guadalupe River, north and northwest of Interstate 880 (I-880), and west of Coyote Creek. Rincon de los Esteros is an established industrial park area, with scattered enclaves of high and medium-high density residential, and a subarea that supports light and heavy industrial uses. The North San Jose Area Development Policy was updated in 2005. It provides for full development of previously adopted base Floor Area Ratio (FAR) caps but also provides additional industrial development capacity for 20 million square feet of transferable floor area credits that can be allocated to specific properties within the Policy area. The Policy supports the conversion of specific sites from industrial to high-density residential, using specific criteria compatible with industrial activity. The Policy also identifies necessary transportation improvements to support new development and establishes an equitable funding mechanism for new development to share the cost of those improvements.

Zoning

The project site is currently zoned IP (Industrial Park District). The project is an application to rezone the site to A(PD) in accordance with the proposed General Development Plan.

Existing Use

The project site is light industrial. The existing mixed-use building is currently occupied by Frontier Semiconductor, an electronics manufacturing company; tenant activities include office work, storage, and the fabrication and distribution of electronic devices. Previous uses of the site include: agriculture (orchard). The proposed project is not a land use presently existing in

the surrounding neighborhood (within 500 feet of the project site); however, the Transit/Employment Residential District (55+ DU/AC) Overlay land use designation covers the surrounding area.

Surrounding Uses

Land uses surrounding (within 500 feet of) the project site include: institutional (Agnews Development Center – currently scheduled to close on June 30, 2008) to the north and west; and light industrial to the east and south. Residential use is planned on the Sony parcel to the south, and the parcel to the east has the same Transit/Employment Residential District (55+ DU/AC) Overlay General Plan land use designation as the project site.

Santa Clara Habitat Conservation Plan / Natural Communities Conservation Plan (HCP/NCCP)

The Planning Agreement for the HCP/NCCP requires that the California Department of Fish and Game (DFG) and other agencies comment on Reportable Interim Projects and recommend mitigation measures or project alternatives that will help achieve the preliminary conservation objectives and not preclude important conservation planning options or connectivity between areas of high habitat value. The project site is within the interim referral area; however, it will not adversely affect natural communities, and no referral is required.

IMPACT AND MITIGATION

ISSUES	NEW POTENTIALLY SIGNIFICANT IMPACT	NEW LESS THAN SIGNIFICANT WITH MITIGATION INCORPORATED	NEW LESS THAN SIGNIFICANT IMPACT	SAME IMPACT AS "APPROVED PROJECT"	LESS IMPACT THAN "APPROVED PROJECT"	SOURCES
9. LAND USE AND PLANNING. Would the project:						
a. Physically divide an established community?				X		25,26,83
b. Conflict with any applicable land use plan, policy or regulation of an agency with jurisdiction over the project (including, but not limited to, the general plan, specific plan, local coastal program or zoning ordinance) adopted for the purpose of avoiding or mitigating an environmental effect?				X		29, 65,83,85
c. Conflict with any applicable habitat conservation plan or natural community conservation plan?				X		25, 26,28,83

Compatibility

The project would change the land use on the site from light industrial use to multi-family (apartment) residential and retail use in accordance with the General Plan land use designation. Residential and retail use is compatible with the surrounding area. Development of the project site would introduce new roads and a residential/retail building to the area. These uses would

change the view of the site and would generate increases in traffic, noise and air pollution in the area that would not be significant.

Conflict with Applicable Plans, Policies or Regulations

The placement of new residential projects within established industrial neighborhoods may create a potential for conflicts between the two land uses. Residents frequently object to nighttime noise and are more likely to object to very bright outdoor lighting, odors, and outdoor storage. The City has adopted Residential Design Guidelines; all new development in North San Jose will be subject to a design review process that would ensure compliance with the policies set forth in these Guidelines. The proposed project will comply with the City's Guidelines to avoid or reduce land use conflicts between new high-density and very high-density residential development and nearby land uses. The proposed project will be set back approximately 120 feet from the existing industrial use to the east.

Santa Clara Habitat Conservation Plan / Natural Communities Conservation Plan (HCP/NCCP)

The project site is not located in an area that is protected by an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional or State conservation plan.

STANDARD REQUIREMENTS INCLUDED IN THE PROJECT

- The project design will conform to the City's Residential Design Guidelines and the North San Jose Development Policy that include measures such as perimeter setbacks (future public street).

MITIGATION MEASURES INCLUDED IN THE PROJECT

None required.

CONCLUSION

With the implementation of the above standard measure, the proposed project would not result in any new or more significant impacts on land use and planning than those addressed in the North San Jose EIR.

10. MINERAL RESOURCES

SETTING

Extractive resources known to exist in and near the Santa Clara Valley include cement, sand, gravel, crushed rock, clay and limestone. Santa Clara County has also supplied a significant portion of the nation's mercury over the past century. Pursuant to the mandate of the Surface Mining and Reclamation Act of 1975 (SMARA), the State Mining and Geology Board has designated the Communications Hill Area, bounded generally by the Southern Pacific Railroad, Curtner Avenue, State Route 87 and Hillsdale Avenue, as the only area in San Jose containing mineral deposits that are of regional significance as a source of construction aggregate materials.

IMPACT AND MITIGATION

ISSUES	NEW POTENTIALLY SIGNIFICANT IMPACT	NEW LESS THAN SIGNIFICANT WITH MITIGATION INCORPORATED	NEW LESS THAN SIGNIFICANT IMPACT	SAME IMPACT AS "APPROVED PROJECT"	LESS IMPACT THAN "APPROVED PROJECT"	SOURCES
10. MINERAL RESOURCES. Would the project:						
a. Result in the loss of availability of a known mineral resource that would be of value to the region and the residents of the state?				X		27, 29,67,83
b. Result in the loss of availability of a locally-important mineral resource recovery site delineated on a local general plan, specific plan or other land use plan?				X		27, 29,67,83

Since the project site is outside of the Communications Hill area, there will be no impact on any known important mineral resource.

MITIGATION MEASURES INCLUDED IN THE PROJECT

None required.

CONCLUSION

The proposed project would not result in any new or more significant impacts on mineral resources than those addressed in the North San Jose EIR.

11. NOISE

Edward L. Pack Associates, Inc. conducted a noise assessment study dated June 11, 2008 that is included in the Technical Appendix.

SETTING

Existing Noise Sources

Noise intrusion over the site originates primarily from vehicular traffic sources on River Oaks Parkway, which carries an Average Daily Traffic (ADT) volume of 7,500 vehicles along the site; with a minor contribution from traffic sources on Zanker Road at the westerly end of the site, which carries an ADT volume of 17,500 vehicles.

ALUC Noise Zone

The project site is not located within an Airport Land Use Commission (ALUC) Noise Zone (65 dB CNEL).

Measurements

To assess the site's existing noise environment, continuous sound level recordings were taken at 2 locations: 1) 50 feet from the centerline of River Oaks Parkway near the easterly corner of the site where traffic noise from Zanker Road did not influence the noise data (represents the planned minimum building setback from River Oaks Parkway); and 2) 86 feet from the centerline of River Oaks Parkway and 235 feet from the centerline of Zanker Road near the westerly "point" of the site.

Noise levels are described in terms of the Day-Night Sound Level (DNL), which is the 24-hour noise descriptor used by the City of San Jose to define acceptable noise levels. These values are calculated from the energy equivalent level (L_{eq}) as outlined in the noise assessment in the Technical Appendix.

To obtain the L_{eq} values, sound level measurements were made on June 2-3, 2008, for a total period of 24 hours at each location, and included representative hours of the DNL index. Calculations, which included the L_{max} , L_1 , L_{10} , L_{50} , L_{90} , L_{min} and L_{eq} , result in DNL values of 63 dB (ground level), 64 dB (podium level), 65 dB (third and fourth levels) and 64 dB (fifth level) at Location 1 at the easterly corner along River Oaks Parkway (planned minimum building setback); and 62 dB (ground level), 63 dB (podium level), 64 dB (third and fourth levels) and 63 dB (fifth level) at Location 2 near the westerly "point" of the site.

IMPACT AND MITIGATION

ISSUES	NEW POTENTIALLY SIGNIFICANT IMPACT	NEW LESS THAN SIGNIFICANT WITH MITIGATION INCORPORATED	NEW LESS THAN SIGNIFICANT IMPACT	SAME IMPACT AS "APPROVED PROJECT"	LESS IMPACT THAN "APPROVED PROJECT"	SOURCES
11. NOISE. Would the project result in:						
a. Exposure of persons to, or generation of, noise levels in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies?				X		26,68, 83,89,98
b. Exposure of persons to, or generation of, excessive groundborne vibration or groundborne noise levels?				X		25,27,83
c. A substantial permanent increase in ambient noise levels in the project vicinity above levels existing without the project?				X		25, 26,28,83
d. A substantial temporary or periodic increase in ambient noise levels in the project vicinity above levels existing without the project?				X		25, 26,28,83
e. For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project expose people residing or working in the project area to excessive noise levels?				X		27,69,83
f. For a project within the vicinity of a private airstrip, would the project expose people residing or working in the project area to excessive noise levels?				X		27,69,83

Standards

Noise criteria that apply to the project are the Noise Insulation Standards of the California Code of Regulations, Title 24, and the City of San Jose General Plan. Title 24 is applicable to all new multi-family dwellings.

The Title 24 standards, which utilize the DNL descriptor, establish an exterior reference level of 60 dB and specify that residential buildings to be located within an annual DNL zone of 60 dB or greater require an acoustical analysis. The analysis report must show that the planned buildings provide adequate attenuation to limit intruding noise from exterior sources to an annual DNL of 45 dB in any habitable space.

The City of San Jose General Plan establishes a policy of requiring noise mitigation from transportation noise for residential land use where the exterior level exceeds 60 dB DNL and/or the interior level exceeds 45 dB DNL. It is recognized, however, that attainment of the exterior

noise quality levels in the vicinity of San Jose International Airport, the Downtown Core Area and along major roadways may not be achieved within the time frame of the General Plan. In these areas, an exterior noise goal of 65 dB DNL is acceptable where it is not feasible to reduce the exterior noise level to 60 dB DNL. Exterior and interior noise levels and mitigation measures that comply with these San Jose standards would also achieve compliance with the Title 24 standards.

Regional and Local Impacts

The development of the proposed project would contribute to the significant regional and local noise impacts identified in the North San Jose EIR; however, the proposed project, would not result in any new or more significant regional or local air quality impacts than were described in the EIR.

Exterior Noise Exposures

Onsite measurements and calculations determined that the maximum DNL at Location 1 under existing traffic conditions is 63 dB (ground level), 64 dB (podium level), 65 dB (third and fourth levels) and 64 dB (fifth level). Onsite measurements and calculations determined that the maximum DNL at Location 2 under existing traffic conditions is 62 dB (ground level), 63 dB (podium level), 64 dB (third and fourth levels) and 63 dB (fifth level).

To fully assess the impact of traffic noise on the project, future traffic levels must also be considered. Future traffic volumes on River Oaks Parkway along the site are projected to increase from the existing 7,500 ADT to an ADT of 15,000 in the year 2030, and future traffic volumes on Zanker Road are projected to increase from the existing 17,500 ADT to an ADT of 37,500. The future year 2030 noise exposures at Location 1 are calculated to increase to 66 dB DNL (ground level), 67 dB DNL (podium level), 68 dB DNL (third and fourth levels) and 67 dB DNL (fifth level), which would exceed the City of San Jose policy level and the Title 24 criterion by up to 8 dB. The future year 2030 noise exposures at Location 2 are calculated to increase to 65 dB DNL (ground level), 66 dB DNL (podium level), 67 dB DNL (third and fourth levels) and 66 dB DNL (fifth level), which would exceed the City of San Jose policy level and the Title 24 criterion by up to 7 dB.

The apartment units would have small balconies that would be rarely used by occupants for outdoor recreation. The exterior noise standards, designed to protect rear yards in single-family developments or common use areas in multi-family developments, are not normally applied to small decks/balconies associated with apartment/condo projects. Exterior noise levels at apartment balconies would exceed 60 dB DNL, but this would not be significant as the noise level is below 76 dB DNL and the spaces would be used infrequently.

With noise reduction provided by the planned 42-inch-high solid railing at the edge of the podium level common area, as described in the report in the Technical Appendix, the existing noise exposure at the podium level common area will range from 46 dB to 54 dB DNL for a person lying down (typical around a swimming pool). Under future traffic conditions, the noise

exposures are expected to increase to 49 dB to 57 dB DNL. For a person seated in a chair on the podium level, the noise exposures are calculated to be 46 dB to 57 dB DNL under existing conditions, and 49 dB to 60 dB DNL under future traffic conditions. Thus, the exposures will be within the limits of the City of San Jose policy level with the 42-inch-high solid railing.

Interior Noise Exposures

To determine the interior DNL values, a 15 dB attenuation factor was applied to the measured exterior exposure. This factor represents an annual average condition; i.e., assuming that windows with single-strength glass are kept open up to 50 percent of the time for natural ventilation. Interior noise exposures in the most impacted living spaces closest to River Oaks Parkway would be 51 dB DNL (ground level), 52 dB DNL (podium level), 53 dB DNL (third and fourth levels) and 52 dB DNL (fifth level) under projected future (2030) traffic conditions. Thus, the interior exposure would be up to 8 dB in excess of the 45 dB interior limit of the General Plan and Title 24.

Temporary Construction Noise

During construction, the site preparation and construction phase would generate temporary sound levels ranging from approximately 70 to 90 dBA at 50 foot distances from heavy equipment and vehicles. These construction vehicles and equipment are generally diesel powered, and produce a characteristic noise that is primarily concentrated in the lower frequencies.

The powered equipment and vehicles act as point sources of sound, which would diminish with distance over open terrain at the rate of 6 dBA for each doubling of the distance from the noise source. For example, the 70 to 90 dBA equipment peak noise range at 50 feet would reduce to 64 to 84 dBA at 100 feet, and to 58 to 78 dBA at 200 feet. Therefore, during the construction operations, sound level increases of 20 to 40 dBA due to these sources could occur near the project boundary.

Since construction is carried out in several reasonably discrete phases, each has its own mix of equipment and consequently its own noise characteristics. Generally, the short-term site preparation phase, which requires the use of heavy equipment such as concrete crushers, bulldozers, scrapers, trenchers, trucks, etc., would be the noisiest. The ensuing building construction and equipment installation phases would be quieter and on completion of the project, the area's sound levels would revert essentially to the traffic levels.

STANDARD REQUIREMENTS INCLUDED IN THE PROJECT

Interior Noise

- Mechanical ventilation will be provided in accordance with Uniform Building Code requirements when windows are to be closed for noise control, to the satisfaction of the Chief Building Inspector.

MITIGATION MEASURES INCLUDED IN THE PROJECT

Exterior Noise

- A 42-inch-high solid (air-tight) railing shall be constructed along the podium level pool/common open space area that fronts River Oaks Parkway.

Interior Noise

- Windows and glass doors shall be maintained closed and STC 28 or higher rated windows and doors shall be installed at all living spaces within 140 feet of the centerline of River Oaks Parkway, and having a direct or side view of the road.
- All units shall be equipped with forced air ventilation systems to allow the occupants the option of maintaining the windows closed to control noise, and maintain an interior noise level of 45 dB DNL.
- Prior to issuance of building permits, the developer shall retain a qualified acoustical consultant to check the building plans for all units to ensure that interior noise levels can be sufficiently attenuated to 45 dB DNL to the satisfaction of the Director of Planning, Building and Code Enforcement.

Temporary Construction Noise

- Construction activities shall be limited to the hours of 7:00 a.m. to 7:00 p.m. Monday through Friday for any onsite or offsite work within 500 feet of any residential unit. Construction outside of these hours may be approved through a development permit based on a site-specific construction noise mitigation plan and a finding by the Director of Planning, Building and Code Enforcement that the construction noise mitigation plan is adequate to prevent noise disturbance of affected residential uses.
- The contractor shall use “new technology” power construction equipment with state-of-the-art noise shielding and muffling devices. All internal combustion engines used on the project site shall be equipped with adequate mufflers and shall be in good mechanical condition to minimize noise created by faulty or poorly maintained engines or other components.
- Stationary noise-generating equipment shall be located as far as possible from sensitive receptors. Staging areas shall be located a minimum of 200 feet from noise-sensitive receptors, such as residential uses.

CONCLUSION

With the implementation of the above standard measure and mitigation measures, the proposed project would not result in any new or more significant noise impacts than those addressed in the North San Jose EIR.

12. POPULATION AND HOUSING

SETTING

The population of the City of San Jose is approximately 989,496 (January 1, 2008). The project site is located in Census Tract 5050.06, which has a population of approximately 3,699 (2000 Census). There are no housing units currently on the project site.

IMPACT AND MITIGATION

ISSUES	NEW POTENTIALLY SIGNIFICANT IMPACT	NEW LESS THAN SIGNIFICANT WITH MITIGATION INCORPORATED	NEW LESS THAN SIGNIFICANT IMPACT	SAME IMPACT AS "APPROVED PROJECT"	LESS IMPACT THAN "APPROVED PROJECT"	SOURCES
12. POPULATION AND HOUSING. Would the project:						
a. Induce substantial population growth in an area, either directly (for example, by proposing new homes and businesses) or indirectly (for example, through extension of roads or other infrastructure)?				X		25, 26,28,83
b. Displace substantial numbers of existing housing, necessitating the construction of replacement housing elsewhere?				X		25,26,83
c. Displace substantial numbers of people, necessitating the construction of replacement housing elsewhere?				X		25,26,83

The project would not displace any existing housing units. The project would add 297 housing units that would add approximately 909 people to the City of San Jose, which would not be a substantial increase to the City's population. These new residential units are already accounted for in the North San Jose EIR.

Growth Inducement

Direct growth inducing impacts include the construction of streets and utilities that would provide access to or capacity for additional undeveloped land. The site is bordered by developed industrial park and institutional uses. The project would not have a direct growth inducing impact. Indirect growth inducing impacts include increases in population and economic impacts. There would be short-term increases in employment in the construction industry. The project would not have a significant indirect growth inducing impact.

MITIGATION MEASURES INCLUDED IN THE PROJECT

None required.

CONCLUSION

The proposed project would not result in any new or more significant impacts on population and housing than those addressed in the North San Jose EIR.

13. PUBLIC SERVICES

SETTING

Schools

The project site is in the Santa Clara Unified School District (K-12). Students from the project are expected to attend:

School	Address	Approx. Distance (miles)	Enrollment
Montague Elementary	720 Laurie Avenue, Santa Clara	1.7	287
Buchser Middle	1111 Bellamy Street, Santa Clara	8.2	991
Santa Clara High	3000 Benton Street, Santa Clara	5.8	1,829

Santa Clara High School is currently over capacity.

Parks

There is one developed City of San Jose park within walking distance (3/4 mile) of the project site. Moitozo Park is a 5.0-acre neighborhood park located on Rio Robles East between North First Street and Baypointe Parkway. It contains a landscaped green, exercise par course, and picnic areas.

In addition, a "floating park" is indicated on the General Plan Land Use/Transportation Diagram in the area generally bounded by Zanker Road, Agnews East, Coyote River and Henry Ford Drive, which includes the project site. A "floating park" is indicated where a park is needed, but where either no specific site has yet been identified or where the details of surrounding development have not been finalized. A future 5-acre park is planned southerly across River Oaks Parkway, as shown on the preceding Vicinity Map, Figure 3.

Fire Protection

The project site is in the service area of the San Jose Fire Department. The closest fire station is Station No. 29, located at 199 Innovation Drive, approximately 0.3 mile southerly of the site.

Police Protection

The project site is within Beat Building Block (BBB) 43 of the San Jose Police Department's service area. The most frequent calls-for-service in BBB 43 from June 1, 2006 through June 1, 2007 were burglary, vehicle theft, auto burglary, and theft.

Libraries

The project site is served by the San Jose Public Library System. The closest branch library is the Alviso Branch, located at 5050 North First Street, approximately 2.5 miles northwesterly of the site.

IMPACT AND MITIGATION

ISSUES	NEW POTENTIALLY SIGNIFICANT IMPACT	NEW LESS THAN SIGNIFICANT WITH MITIGATION INCORPORATED	NEW LESS THAN SIGNIFICANT IMPACT	SAME IMPACT AS "APPROVED PROJECT"	LESS IMPACT THAN "APPROVED PROJECT"	SOURCES
13. PUBLIC SERVICES. Would the project:						
a. Result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, the need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times or other performance objectives for any of the public services:						
Fire protection?				X		83
Police protection?				X		73,83
Schools?				X		4,83
Parks?				X		83
Other Public Facilities?				X		28,83

Schools

Residential

The residential portion of the project would add additional students to the Santa Clara Unified School District. It was estimated in the North San Jose EIR that the buildout of that proposed development would result in approximately 1,829 new students, including 1,112 elementary students, 349 middle school students, and 368 high school students. The North San Jose EIR stated that the total number of students generated from that development assumes the construction of three new elementary schools to accommodate the growth in student population, and that the Santa Clara Unified School District might be able to accommodate the middle and high school students without requiring the construction of new facilities. The North San Jose EIR concludes that the construction of new schools in North San Jose would not necessarily result in significant adverse environmental impacts; supplemental environmental review for new school construction would be required.

The proposed project would generate less than three percent of the students anticipated from the buildout of the development assumed in the North San Jose EIR; therefore, the proposed project would not result in any new or more significant school impacts than were described in the EIR.

The State School Facilities Act provides for school district impaction fees for elementary and high schools and related facilities as a condition of approval to offset the increased demands on school facilities caused by projects. The Santa Clara Unified School District has implemented

such a fee. The one-time fee, which is based on the square footage of new habitable residential construction, would be paid prior to the issuance of a building permit.

Commercial

The commercial portion of the project would have no direct impact on schools, but could have a secondary impact should any of the employees move into the district or petition that their child(ren) be accepted into district schools under Allen Bill provisions. The Allen Bill only applies to elementary-aged school children.

The State School Facilities Act provides for school district impactation fees for elementary and high schools and related facilities as a condition of approval to offset the increased demands on school facilities caused by non-residential projects, when a link is found between the new non-residential development and the need for schools. The Santa Clara Unified School District has implemented such a fee. The one-time fee, which is based on the square footage of newly constructed non-residential (commercial and industrial) use, would be paid prior to the issuance of a building permit.

Parks

Residential

The City of San Jose provides parks and recreation facilities within the city. Project residents would increase the demand for public park facilities; however, there is currently one developed City parks within the 3/4-mile reasonable walking distance standard. A future 5-acre park is planned southerly across River Oaks Parkway with the Sony/Irvine project.

Parkland Dedications

The City has established a Park Impact Fee Ordinance that requires dedication of land and/or payment of fees for any net increase in residential units to help provide park and recreational facilities in accordance with the Services and Facilities and the Parks and Recreation Goals and Policies of the General Plan. There are currently no plans to dedicate land for park purposes with the project. Fees would be paid to improve park features in the area.

Commercial

The commercial portion of the project is not expected to have an impact on City park and recreation facilities, although employees could utilize them during lunch periods or after work.

Fire Protection

The project site is in the service area of the San Jose Fire Department. No additional fire personnel or equipment are expected to be necessary to serve the project.

Police Protection

The San Jose Police Department provides police protection for the city. No additional police personnel or equipment are expected to be necessary to serve the project.

Libraries

The San Jose Public Library System provides library services for the city. No additional library personnel or volumes (items) are expected to be necessary to serve the project.

STANDARD REQUIREMENTS INCLUDED IN THE PROJECT

Schools

- A school impact fee will be paid to the Santa Clara Unified School District to offset the increased demands on school facilities caused by the proposed project, in accordance with California Government Code Section 65996.

Parks

- The project will conform to the City's Park Impact Ordinance (PIO) and Parkland Dedication Ordinance (PDO) (Municipal Code Chapters 14.25 and 19.38, respectively).

MITIGATION MEASURES INCLUDED IN THE PROJECT

None required.

CONCLUSION

With the implementation of the above standard measures, the proposed project would not result in any new or more significant impacts on public services than those addressed in the North San Jose EIR.

14. RECREATION

SETTING

There is one developed City of San Jose park within walking distance (3/4 mile) of the project site. Moitozo Park is a 5.0-acre neighborhood park located on Rio Robles East between North First Street and Baypointe Parkway. It contains a landscaped green, exercise par course, and picnic areas.

IMPACT AND MITIGATION

ISSUES	NEW POTENTIALLY SIGNIFICANT IMPACT	NEW LESS THAN SIGNIFICANT WITH MITIGATION INCORPORATED	NEW LESS THAN SIGNIFICANT IMPACT	SAME IMPACT AS "APPROVED PROJECT"	LESS IMPACT THAN "APPROVED PROJECT"	SOURCES
14. RECREATION.						
a. Would the project increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated?				X		70,71,83
b. Does the project include recreational facilities or require the construction or expansion of recreational facilities that might have an adverse physical effect on the environment?				X		26,28,83

Residential

The City of San Jose provides parks and recreation facilities within the city. Project residents would increase the demand for public park and recreation facilities; however, there is currently one developed City park within the 3/4-mile reasonable walking distance standard. A future 5-acre park is planned southerly across River Oaks Parkway with the Sony/Irvine project.

Recreation facilities planned within the project podium courtyards include a swimming pool, spa, landscaped seating areas, and private patios. A fitness room and a recreation/lounge area are also planned. A total of 51,120 square feet of project open space are planned (24,000 square feet podium courtyards, 4,120 square feet resident amenities, and 23,000 square feet paseo), as shown on the following exhibit.

Commercial

The commercial portion of the project is not expected to have an impact on City park and recreation facilities, although employees could utilize them during lunch periods or after work.



STANDARD REQUIREMENTS INCLUDED IN THE PROJECT

- The project will conform to the City's Park Impact Ordinance (PIO) and Parkland Dedication Ordinance (PDO) (Municipal Code Chapters 14.25 and 19.38, respectively).

MITIGATION MEASURES INCLUDED IN THE PROJECT

None required.

CONCLUSION

With the implementation of the above standard measure, the proposed project would not result in any new or more significant impacts on recreation than those addressed in the North San Jose EIR.

15. TRANSPORTATION / TRAFFIC

SETTING

Street System

Access to the project site is provided by River Oaks Parkway, which is a two-lane street that provides access to State Route 237 (Mountain View to Milpitas) and to Downtown San Jose via North First Street. Zanker Road, a 6-lane arterial street, is located at the site's westerly point.

Public Transit

Public transit in the project area is provided by the Santa Clara Valley Transportation Authority. Bus route 58 (West Valley College to Alviso) operates along Zanker Road to the north and west along River Oaks Parkway with stops at the intersection of Zanker Road and River Oaks Parkway. The project site is located within 2,000 feet of the River Oaks light rail station on North First Street, and lies along the route of the River Oaks Light Rail Shuttle with stops at River Oaks Parkway and Zanker Road.

Existing Conditions

The project site is located within the North San Jose Area Development Policy (ADP) boundary. All major intersections in the vicinity of the proposed project are covered by the intersection level of service analysis contained in the North San Jose Development Policies Update Draft Program EIR. Under existing conditions, none of the nearby intersections is operating at unacceptable levels; however, levels of service under existing plus approved projects conditions for the intersection of Zanker Road and Montague Expressway, southerly of the project site, are reported as Level D and Level F during the a.m. and p.m. peak hours, respectively.

IMPACT AND MITIGATION

ISSUES	NEW POTENTIALLY SIGNIFICANT IMPACT	NEW LESS THAN SIGNIFICANT WITH MITIGATION INCORPORATED	NEW LESS THAN SIGNIFICANT IMPACT	SAME IMPACT AS "APPROVED PROJECT"	LESS IMPACT THAN "APPROVED PROJECT"	SOURCES
15. TRANSPORTATION / TRAFFIC. Would the project:						
a. Cause an increase in traffic which is substantial in relation to the existing traffic load and capacity of the street system (i.e., result in a substantial increase in either the number of vehicle trips, the volume to capacity ratio of roads, or congestion at intersections)?				X		76,83

ISSUES	NEW POTENTIALLY SIGNIFICANT IMPACT	NEW LESS THAN SIGNIFICANT WITH MITIGATION INCORPORATED	NEW LESS THAN SIGNIFICANT IMPACT	SAME IMPACT AS "APPROVED PROJECT"	LESS IMPACT THAN "APPROVED PROJECT"	SOURCES
15. TRANSPORTATION / TRAFFIC (Cont.). Would the project:						
b. Exceed, either individually or cumulatively, a level of service standard established by the county congestion management agency for designated roads or highways?				X		78,83
c. Result in a change in air traffic patterns, including either an increase in traffic levels or a change in location that results in substantial safety risks?				X		27,28,83
d. Substantially increase hazards due to a design feature (e.g., sharp curves or dangerous intersections) or incompatible land uses (e.g., farm equipment)?				X		26,28,83
e. Result in inadequate emergency access?				X		26,28,83
f. Result in inadequate parking capacity?				X		26,28,83
g. Conflict with adopted policies, plans or programs supporting alternative transportation (e.g., bus turnouts, bicycle racks)?				X		26,29,83

Standards

The General Plan/Transportation Level of Service Policy requires that the minimum overall performance of City streets during peak travel periods should be level of service "D". A project should not cause a City intersection operating at acceptable levels to operate at Level E or F; or add four seconds or more to the critical delay and 0.010 or more to the critical volume-to-capacity (V/C) ratio at an intersection that is already projected to operate at Level E or F under existing plus approved conditions. The Congestion Management Program (CMP) traffic level of service standard is Level E.

Regional and Local Impacts

The development of the proposed project would contribute to the significant regional and local transportation / traffic impacts identified in the North San Jose EIR; however, the proposed project, would not result in any new or more significant regional or local transportation / traffic impacts than were described in the EIR.

Trip Generation

The project traffic generation is estimated in the following table.

Table 7. Project Traffic Generation

Land Use	Size	Trip Rate	Daily Trips	A.M. Peak Hour Trips			P.M. Peak Hour Trips		
				In	Out	Total	In	Out	Total
Proposed									
Apartments	297 du	6.0	1,782	62	116	178	116	62	178
Commercial/Retail	1,500 sf	40*	60	1	0	1	2	3	5
Existing									
Industrial Park	44,377 sf	8.0	<u>355</u>	<u>45</u>	<u>12</u>	<u>57</u>	<u>5</u>	<u>45</u>	<u>50</u>
Net Project			1,487	18	104	122	123	20	133

* Per 1,000 square feet

Project Impacts

As previously stated, the project site is located within the North San Jose Area Development Policy (ADP) boundary; and the major intersections in the vicinity of the proposed project are covered by the intersection level of service analysis contained in the North San Jose Development Policies Update Draft Program EIR. Two nearby intersections, Zanker Road and Tasman Drive and Zanker Road and Montague Expressway, were evaluated for level of service in the EIR. The levels of service for the local intersection of Zanker Road and Tasman Drive were reported as Level D and Level E during the a.m. and p.m. peak hours, respectively, under North San Jose buildout conditions. The levels of service for the CMP intersection of Zanker Road and Montague Expressway were reported as Level E and Level F during the a.m. and p.m. peak hours, respectively. The other nearby intersection, Zanker Road and River Oaks Parkway, is a minor intersection that would experience much lower traffic volumes and would not have a significant traffic impact.

Since the North San Jose ADP project was found to significantly impact the intersections of Zanker Road and Tasman Drive and Zanker Road and Montague Expressway, improvements were proposed as part of the North San Jose ADP. The improvements to the intersection of Zanker Road and Tasman Drive, which are planned to be constructed as a City Capital Improvement Program (CIP) project, include widening Zanker Road to six lanes and adding second northbound and southbound left-turn lanes on Tasman Drive. The improvements to the intersection of Zanker Road and Montague Expressway include widening Montague Expressway to eight lanes and adding second northbound and southbound left turn lanes; as Montague Expressway is a County facility, the improvements will require permits from and coordination with the County Roads and Airports Department. The proposed improvements to either intersection would not be adequate to improve intersection level of service to acceptable levels;

however, since no further improvements are possible, the North San Jose ADP project impact was found to be significant and unavoidable.

STANDARD REQUIREMENTS INCLUDED IN THE PROJECT

- A traffic impact fee will be paid prior to building permit issuance to be used to fund the mitigation measures needed to meet future traffic conditions resulting from implementation of the North San Jose Area Development Policy.

MITIGATION MEASURES INCLUDED IN THE PROJECT

None required.

CONCLUSION

With the implementation of the above standard measure, the proposed project would not result in any new or more significant transportation / traffic impacts than those addressed in the North San Jose EIR.

16. UTILITIES AND SERVICE SYSTEMS

SETTING

Sanitary Sewers

There is an existing 10-inch City of San Jose sanitary sewer in River Oaks Parkway. Extensions within the project would be required.

Wastewater Treatment

Wastewater treatment for the City of San Jose is provided by the San Jose-Santa Clara Water Pollution Control Plant (WPCP). Capacity is expected to be available to serve the project based on the current capacity of 167 million gallons per day (MGD). The Water Pollution Control Plant is currently operating under a 120 MGD dry weather flow trigger. This requirement is based upon the State Water Resources Board and the Regional Water Quality Control Board (RWQCB) concerns over the effects of additional freshwater discharges on the saltwater marsh habitat, and pollutants loading to the South Bay from the WPCP. A Growth Management System regulates new development to assure that the capacity is not exceeded. There are programs and services in place to help minimize flows to the Plant and, while plans are in place to ensure Plant compliance with the 120 mgd trigger, those plans call for conservation and water recycling as strategies for ongoing compliance.

Water Supply

There are existing 12-inch San Jose Municipal Water System potable water lines in River Oaks Parkway and in Zanker Road. Extensions within the project would be required. Recycled water is used for irrigation purposes when available; the nearest recycled water line is at the intersection of Cisco Way and River Oaks Parkway. A recycled water line is also located in Zanker Road, approximately 1,000 feet northerly of River Oaks Parkway.

Storm Drainage Facilities

There is an existing 54-inch City of San Jose storm drainage line in River Oaks Parkway. Extensions within the project would be required.

Solid Waste / Recycling

Residential

Residential solid waste disposal service for the project site is provided by the City of San Jose, using Garden City Sanitation, Inc. and/or California Waste Solutions. They are currently using the Newby Island sanitary landfill disposal site operated by International Disposal Company. The landfill area has an estimated service life of 30 years. An unlimited residential recycling program in the City currently results in an approximately 50 percent reduction in residential solid waste that typically required disposal in a landfill.

Commercial

There are several solid waste disposal service companies available for commercial purposes in San Jose. They are using the Newby Island sanitary landfill disposal site operated by International Disposal Company, and/or the Kirby Canyon disposal site operated by Waste Management of California, Inc. Newby Island has an estimated service life of 30 years. Kirby Canyon has an estimated service life of up to 50 years.

Gas and Electric Service

Natural gas and electric services for San Jose are provided by Pacific Gas and Electric Company. There are existing services in the area.

Telephone Service

Residential

Residential telephone service for the project site is provided by AT&T. There is existing service in the area.

Commercial

There are several telephone service providers available for commercial purposes. There is existing service in the area.

IMPACT AND MITIGATION

ISSUES	NEW POTENTIALLY SIGNIFICANT IMPACT	NEW LESS THAN SIGNIFICANT WITH MITIGATION INCORPORATED	NEW LESS THAN SIGNIFICANT IMPACT	SAME IMPACT AS "APPROVED PROJECT"	LESS IMPACT THAN "APPROVED PROJECT"	SOURCES
16. UTILITIES AND SERVICE SYSTEMS. Would the project:						
a. Exceed wastewater treatment requirements of the applicable Regional Water Quality Control Board?				X		80,83
b. Require or result in the construction of new water or wastewater treatment facilities or expansion of existing facilities, the construction of which could cause significant environmental effects?				X		28,83,84
c. Require or result in the construction of new stormwater drainage facilities or expansion of existing facilities, the construction of which could cause significant environmental effects?				X		28,83
d. Have sufficient water supplies available to serve the project from existing entitlements and resources, or are new or expanded entitlements needed?				X		28,83,84

ISSUES	NEW POTENTIALLY SIGNIFICANT IMPACT	NEW LESS THAN SIGNIFICANT WITH MITIGATION INCORPORATED	NEW LESS THAN SIGNIFICANT IMPACT	SAME IMPACT AS "APPROVED PROJECT"	LESS IMPACT THAN "APPROVED PROJECT"	SOURCES
16. UTILITIES AND SERVICE SYSTEMS (Cont.). Would the project:						
e. Result in a determination by the wastewater treatment provider which serves or may serve the project that it has adequate capacity to serve the project's projected demand in addition to the provider's existing commitments?				X		28,83
f. Be served by a landfill with sufficient permitted capacity to accommodate the project's solid waste disposal needs?				X		28,83
g. Comply with federal, state and local statutes and regulations related to solid waste?				X		28,83

Sanitary Sewers

Sanitary sewer service for the project site is provided by the City of San Jose. The existing sanitary sewer line in River Oaks Parkway is available and adequate to serve the project. Extensions within the project would be provided.

Wastewater Treatment

Wastewater treatment for the City of San Jose is provided by the San Jose-Santa Clara Water Pollution Control Plant.

Residential

The residential portion of the project is estimated to generate an average of approximately 56,800 gallons per day (0.05 MGD) of effluent, based on 85 percent of the water demand. High energy efficiency appliances (e.g., Energy Star Certified clothes washers, dishwashers, etc.) would be provided with the project.

Commercial

The commercial portion of the project is estimated to generate an average of approximately 128 gallons per day (0.05 MGD) of effluent, based on 85 percent of the water demand.

Water Supply

Water for the project site is provided by the San Jose Municipal Water System. The existing potable water lines in River Oaks Parkway and/or in Zanker Road are available and adequate to serve the project. Extensions within the project would be provided.

Recycled water for the project site is available at the intersection of Cisco Way and River Oaks Parkway and in Zanker Road, approximately 1,000 feet northerly of River Oaks Parkway.

Extensions to connect these two lines will be provided with area development. Recycled water will be used for all landscape irrigation.

Residential

The residential portion of the project is estimated to require approximately 66,800 gallons of water per day, based on 225 gallons per unit per day. The project incorporates built-in water savings devices such as shower heads with flow control devices and low flush toilets to reduce water usage.

Commercial

The commercial portion of the project is estimated to require approximately 150 gallons of water per day, based on 100 gallons per 1,000 feet of retail space per day. The project incorporates built-in water savings devices such as low flush toilets to reduce water usage.

Storm Drainage Facilities

An increase in impervious surfaces associated with project development would cause an increase in stormwater runoff. Storm drainage service for the project site is provided by the City of San Jose. The existing storm drainage line in River Oaks Parkway is available and adequate to serve the project. Extensions within the project would be provided. An onsite collection system including curbs, gutters and an underground system would be included in the project.

Solid Waste / Recycling

Residential

Residential solid waste disposal service for the project site is provided by the City of San Jose. The residential portion of the project is estimated to generate up to approximately 498 tons of solid waste per year, based on 3.0 pounds per person per day; however, with recycling, the amount disposed of in a landfill could be reduced to approximately 249 tons per year.

Commercial

There are several solid waste disposal service companies available for commercial purposes in San Jose. The commercial portion of the project is estimated to generate up to approximately 0.8 ton of solid waste per year, based on 20 pounds per 1,000 square feet per week. This amount could be reduced with recycling.

Construction / Demolition Recycling

The project is also subject to mandatory construction and demolition debris recycling. At least 50 percent of the debris generated from the project must be recycled.

Gas and Electric Service

There are existing Pacific Gas and Electric Company gas and electric services in the area that would be extended as required to serve the project. There is sufficient capacity in this utility system to provide adequate project service.

Telephone Service

Residential

There are existing AT&T telephone facilities in the area that would be extended as required to serve the residential portion of the project. There is sufficient capacity in this utility system to provide adequate project service.

Commercial

There are several telephone service providers available for commercial purposes. There is sufficient capacity in these utility systems to provide adequate project service.

MITIGATION MEASURES INCLUDED IN THE PROJECT

None required.

CONCLUSION

The proposed project would not result in any new or more significant impacts on utilities and service systems than those addressed in the North San Jose EIR.

17. MANDATORY FINDINGS OF SIGNIFICANCE

ISSUES	NEW POTENTIALLY SIGNIFICANT IMPACT	NEW LESS THAN SIGNIFICANT WITH MITIGATION INCORPORATED	NEW LESS THAN SIGNIFICANT IMPACT	SAME IMPACT AS "APPROVED PROJECT"	LESS IMPACT THAN "APPROVED PROJECT"	SOURCES
17. MANDATORY FINDINGS OF SIGNIFICANCE.						
a. Does the project have the potential to (1) degrade the quality of the environment, (2) substantially reduce the habitat of a fish or wildlife species, (3) cause a fish or wildlife population to drop below self-sustaining levels, (4) threaten to eliminate a plant or animal community, (5) reduce the number or restrict the range of a rare or endangered plant or animal or (6) eliminate important examples of the major periods of California history or prehistory?				X		83
b. Does the project have impacts that are individually limited, but cumulatively considerable? "Cumulatively considerable" means that the incremental effects of a project are considerable when viewed in connection with the effects of past projects and the effects of other current projects.				X		83
c. Does the project have environmental effects which will cause substantial adverse effects on human beings, either directly or indirectly?				X		83

Impact Summary

The North San Jose EIR analyzed the development of 26.7 million square feet of new industrial/office/research and development building space and the addition of 32,000 dwelling units in the Rincon area. Since the approval and certification of the North San Jose EIR in June, 2005, no new development has occurred in the Rincon area that has not already been addressed in the North San Jose EIR. The project proposes to develop 297 residential units and 1,500 square feet of retail space. The proposed development is within the amount of development analyzed in the North San Jose EIR. Therefore, the proposed project would not result in new or more significant environmental impacts than those addressed in the North San Jose EIR with implementation of the standard, avoidance, and/or mitigation measures included in the proposed project and described in the specific sections of this Initial Study.

APPENDIX

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Although Mindigo & Associates have used their best efforts to prepare a complete and competent report, Mindigo & Associates shall not be liable for cost or damage to any project due to judicial or administrative action, whether or not such action is based on the form or content of this report or portion prepared by Mindigo & Associates. Any services of staff or subconsultants of Mindigo & Associates required by any party in any litigation on or related to this report shall be paid for by the party requesting such services at the current, standard consulting rates of Mindigo & Associates.

INITIAL STUDY / EIR

DISCLOSURE STATEMENT

APPLICANT BRE Properties, Inc.

PROJECT TITLE **199 River Oaks Parkway**
PDC07-102

PROJECT LOCATION Northerly side of River Oaks Parkway, just easterly of Zanker Road
(199 River Oaks Parkway)

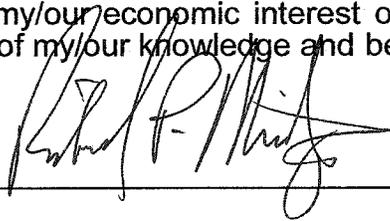
Mindigo & Associates has prepared the above Initial Study or Draft Environmental Impact Report, doing business as:

An Individual

The above-named, now has or will have the following direct or indirect economic interest or interests in the development of, or, after its completion, the operation of the project for which the attached Initial Study or Draft EIR has been submitted:

None, Except Fees For The Preparation Of Environmental Studies

I/We declare, under penalty of perjury, that the statements furnished above pertaining to the environmental effects of a proposed project and to my/our economic interest or interests in that project are complete, true and correct to the best of my/our knowledge and belief.



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In order to achieve maximum objectivity in the Environmental Review process, the City requires persons, including individuals, firms, associations, partnerships, trusts, corporations, or companies, who submit to the City applications for Environmental Clearance, or who submit to the City a proposed Draft EIR, to disclose any economic interest in the project which they have derived or will or might derive from the development of, or, after its completion, the operation of the project. This application shall apply to consultants and subcontracted consultants who prepare all, or portions of, the Environmental Clearance document or the proposed Draft EIR. Each proponent, consultant, and subcontracted consultant shall prepare a disclosure statement as presented in this application.

You have an indirect economic interest in the project if your spouse or dependent child or agent acting on your behalf owns or otherwise has an economic interest in the site upon which the project is to be developed or if your spouse or dependent child or agent acting on your behalf has a present or future economic interest in the development of, or, after its completion, operation of the project. Briefly but specifically describe each of your direct and indirect economic interests in the project. You need but disclose the nature of your economic interest in the project, not the amount of said interest. If you have no interest, simply write "none" in the space provided.

Persons and Organizations Consulted

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5. **Tim Town**, Civil Engineer, Municipal Water System Division, City of San Jose
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TECHNICAL APPENDIX

TECHNICAL APPENDIX

Copies of the following consultants' reports, which were prepared for **199 River Oaks Parkway** and are summarized in this Initial Study, are included in this Technical Appendix.

Tree Report, River Oaks, San Jose CA, HortScience, Inc., February, 2008

Existing Trees Table

Photographs of Ordinance-Sized Trees to be Removed

Cultural Resources Review of the 199 River Oaks Project Area, San Jose, Santa Clara County, California, Holman & Associates, March 31, 2008

Preliminary Geotechnical Assessment, 199 River Oaks Parkway, San Jose, California, ENGEО Incorporated, July 23, 2007

Summary of Geotechnical Hazards, 199 River Oaks Parkway, San Jose, California, ENGEО Incorporated, January 29, 2008

Phase One Environmental Site Assessment, 199 River Oaks Parkway, San Jose, California, ENGEО Incorporated, July 23, 2007, revised February 1, 2008

Environmental Soil Gas Sampling Results, 199 River Oaks Parkway, San Jose, California, ENGEО Incorporated, September 19, 2007, revised February 1, 2008

Geophysical Survey and Additional Environmental Soil and Groundwater Sampling, 199 River Oaks Parkway, San Jose, California, ENGEО Incorporated, November 28, 2007, revised February 1, 2008

Soil Sampling and Laboratory Test Results, 199 River Oaks Parkway, San Jose, California, ENGEО Incorporated, April 18, 2008

Noise Assessment Study for the Planned Multi-Family Development, River Oaks Parkway, San Jose, Edward L. Pack Associates, Inc., June 11, 2008

HORTSCIENCE

Tree Report

River Oaks
San Jose CA

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Tree Report
River Oaks
San Jose, CA

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Attachments

Tree Survey Form

Tree Survey Map

Introduction and Overview

BRE Properties is planning to redevelop the existing property at the corner of Zanker Rd. and River Oaks Parkway, in San Jose CA. Current site use consists of industrial office space, parking and associated landscaping. BRE Properties requested that HortScience, Inc. prepare a **Tree Report** for the site. This report provides the following information:

1. A survey of trees growing on, and adjacent to, the site.
2. An assessment of the impacts of constructing the proposed project on the trees.
3. Guidelines for tree preservation during the design, construction and maintenance phases of development.

Survey Methods

All trees 6" in diameter or greater and greater than 6' in height were surveyed on November 6, 2007. Trees located adjacent to the project area were included when canopies extended into the subject property. The survey procedure consisted of the following steps:

1. Identifying the tree as to species;
2. Tagging each tree with a numerically coded metal tag and recording its location on a map;
3. Measuring the trunk diameter at a point 24" above grade;
4. Evaluating the health and structural condition using a scale of 1 – 5:
 - 5 - A healthy, vigorous tree, reasonably free of signs and symptoms of disease, with good structure and form typical of the species.
 - 4 - Tree with slight decline in vigor, small amount of twig dieback, minor structural defects that could be corrected.
 - 3 - Tree with moderate vigor, moderate twig and small branch dieback, thinning of crown, poor leaf color, moderate structural defects that might be mitigated with regular care.
 - 2 - Tree in decline, epicormic growth, extensive dieback of medium to large branches, significant structural defects that cannot be abated.
 - 1 - Tree in severe decline, dieback of scaffold branches and/or trunk; most of foliage from epicormics; extensive structural defects that cannot be abated.
5. Rating the suitability for preservation as "good", "moderate" or "poor". Suitability for preservation considers the health, age and structural condition of the tree, and its potential to remain an asset to the site for years to come.

Good: Trees with good health and structural stability that have the potential for longevity at the site.

Moderate: Trees with somewhat declining health and/or structural defects than can be abated with treatment. The tree will require more intense management and monitoring, and may have shorter life span than those in 'good' category.

Poor: Trees in poor health or with significant structural defects that cannot be mitigated. Tree is expected to continue to decline, regardless of treatment. The species or individual may have characteristics that are undesirable for landscapes, and generally are unsuited for use areas.

Description of Trees

One hundred and twenty-eight (128) trees, representing 11 species, were evaluated. Included in the survey were two (2) off-site trees along the northern property line (#111 and 112). Descriptions of each tree are found in the **Tree Survey Form** and locations are plotted on the **Tree Survey Map** (see Attachments).

The site is a triangular piece of land, with a group of trees concentrated in the western corner (where Zanker Rd. and River Oaks Pkwy. meet) and a row of 35 river red gum eucalyptus along the eastern property line. Rows of coast redwoods had also been planted along the River Oaks streetscape and along the northern property line.

Surveyed trees had all been planted as part of the landscape. None was native to the site. Tree size ranged from 6" to 46" in diameter.

Average tree condition was fair (63 trees, or 49%). Forty-seven (47) trees were in good condition (37%), and 18 were in poor (14%). Table 1, following page, provides a summary of tree frequency and condition.

The most frequently occurring species was coast redwood, with 47 trees or 37% of the population. River red gum eucalyptus was the second most common species, with 35 trees, or 27% of the population. Italian alder, with 20 trees (16%) was also well represented.

Coast redwoods were in generally good condition (28 trees). With the majority of them suffering some amount of drought stress, resulting in thin crowns and dieback.

The row of river red gums had all been topped at some point, some maybe more than once (photo 1). Topping had produced trees with weak branch attachments and a history of branch failure in three (3) trees (#66, 70 and 85). Additionally, river red gums had a moderate infestation of the Red gum lerp psyllid (*Glycaspis brimblecombei*). These are sap-sucking insects that can infest leaves of certain eucalyptus species.

Overall, Italian alders were in fair condition (10 trees), with two (2) in poor condition and eight (8) in good. Trees in fair and poor condition typically had varying amounts of dieback in the upper crowns.

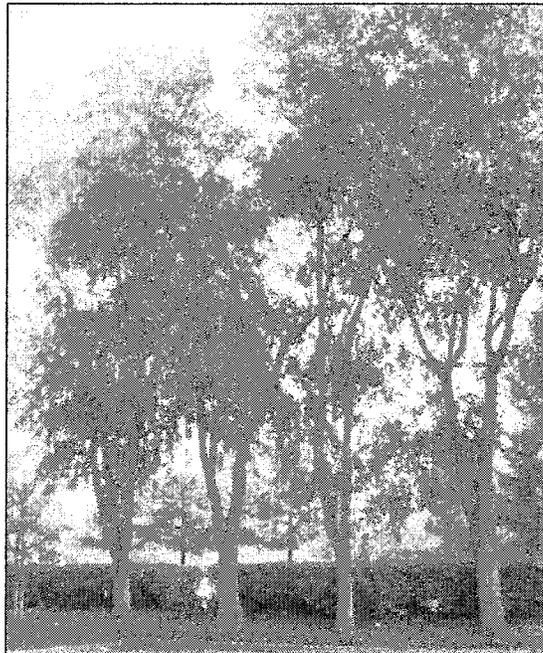


Photo 1: Thirty-five (35) river red gum eucalyptus were planted along the eastern property line. These trees had been topped at least once (blue lines), producing weak branch attachments and a history of branch failures.

**Table 1: Condition ratings and frequency of occurrence of trees.
River Oaks site, San Jose CA.**

Common Name	Scientific Name	Condition Rating			No. of Trees
		Poor (1-2)	Fair (3)	Good (4-5)	
Italian alder	<i>Alnus cordata</i>	2	10	8	20
European hackberry	<i>Celtis occidentalis</i>	-	-	1	1
River red gum	<i>Eucalyptus camaldulensis</i>	7	28	-	35
Canary Island pine	<i>Pinus canariensis</i>	-	-	2	2
Monterey pine	<i>Pinus radiata</i>	1	-	-	1
Purple leaf plum	<i>Prunus cerasifera</i> 'Atropurpurea'	-	3	3	6
Callery pear	<i>Pyrus calleryana</i>	1	6	1	8
Cork oak	<i>Quercus suber</i>	-	-	1	1
Weeping willow	<i>Salix babylonica</i>	1	1	1	3
Coast redwood	<i>Sequoia sempervirens</i>	5	14	28	47
Chinese elm	<i>Ulmus parvifolia</i>	1	1	2	4
Total		18 14%	63 49%	47 37%	128 100%

Suitability for Preservation

Before evaluating the impacts that will occur during development, it is important to consider the quality of the tree resource itself, and the potential for individual trees to function well over an extended length of time. Trees that are preserved on development sites must be carefully selected to make sure that they may survive development impacts, adapt to a new environment, and perform well in the landscape.

Our goal is to identify trees that have the potential for long-term health, structural stability and longevity. For trees growing in open fields, away from people and property, the presence of structural defects and/or poor health presents a low risk of damage or injury if they fail. However, when we invite people to use areas within and adjacent to such trees, we must be concerned about their safety. Therefore, where development encroaches into existing plantings, we must consider the potential for trees to grow and thrive in a new environment as well as their ability to remain structurally stable.

Evaluation of suitability for preservation considers several factors:

- **Tree health**
Healthy, vigorous trees are better able to tolerate impacts such as root injury, demolition of existing structures, changes in soil grade and moisture, and soil compaction than are non-vigorous trees.
- **Structural integrity**
Trees with significant amounts of wood decay and other structural defects that cannot be corrected are likely to fail. Such trees should not be preserved in areas where damage to people or property is likely.

- **Species response**
There is a wide variation in the response of individual species to construction impacts and changes in the environment. In our experience, mature Monterey pines are sensitive to root loss. In contrast, coast redwood is more tolerant of site disturbance.
- **Tree age and longevity**
Old trees, while having significant emotional and aesthetic appeal, have limited physiological capacity to adjust to an altered environment. Young trees are better able to generate new tissue and respond to change.
- **Invasiveness**
Trees with the potential to invade native habitats, reproduce rapidly, and grow in sub-optimal environments are considered invasive. Species with these qualities may alter the functional and aesthetic qualities of the habitats they invade. None of the species surveyed at the River Oaks property are considered invasive.

Each tree was rated for suitability for preservation based upon its age, health, structural condition and ability to safely coexist within a development environment (see **Tree Survey Form**). Off-site trees were not rated for suitability for preservation and are not included in Table 2.

**Table 2: Suitability for preservation.
River Oaks site, San Jose CA**

Good	Trees with good health and structural stability that have the potential for longevity at the site. Twenty-eight (28) trees were rated as having good suitability for preservation. Included in this group were 21 coast redwoods, three (3) Italian alders, two (2) Canary Island pines, one (1) Chinese elm and one (1) European hackberry.
Moderate	Trees with fair health and/or structural defects that may be abated with treatment. Trees in this category require more intense management and monitoring, and may have shorter life-spans than those in the "good" category. Fifty-three (53) trees were rated as having moderate suitability for preservation, including 20 coast redwoods, 12 Italian alders, seven (7) river red gums, six (6) callery pears, five (5) purple-leaf plums, two (2) weeping willows and one (1) Chinese elm.
Poor	Trees in poor health or with significant defects in structure that cannot be abated with treatment. Trees can be expected to decline regardless of management. The species or individual tree may possess either characteristics that are undesirable in landscape settings, or be unsuited for use areas. Forty-five (45) trees were rated as having poor suitability for preservation, including 28 river red gums, five (5) coast redwoods, five (5) Italian alders, two (2) Canary Island pines, two (2) Chinese elms, one (1) purple-leaf plum and one (1) weeping willow.

We cannot recommend retention of trees with poor suitability for preservation in areas where people or property will be present. Retention of trees with moderate suitability for preservation depends upon the intensity of proposed site changes.

Evaluation of Impacts and Preliminary Recommendations for Preservation

Appropriate tree retention develops a practical match between the location, intensity of construction activity and the quality and health of trees. The **Tree Survey Form** was the reference point for tree condition and quality. Potential impacts from construction were evaluated using the Conceptual Site Plan, prepared by Civil Engineering Associates (February 29, 2008).

The plan proposes to construct a high-density residential in-fill project, a public and a private road and a subterranean garage. Tree trunk locations were shown on the plan. Grading, drainage and utilities were not included on the plan.

Potential impacts from construction were estimated for each tree. The proposed project would grade the majority of the site to accommodate the subterranean garage. The most significant impacts to trees would be associated with the grading and construction of roads.

Impacts to trees will occur in several ways. Forty-four (44) trees fall within building footprints, 34 fall within the public street and 27 within the private street. Realignment of the sidewalk along River Oaks Parkway would require the removal of an additional nine (9) trees. Thirteen (13) of the trees recommended for removal were of poor suitability for preservation. In total, we recommend removal for 114 trees (Table 3).

The remaining 14 trees can be preserved, 12 of which are on-site (#1-4, 7-13 and 82) and two (2) are off-site (#111 and 112). These are trees located in the western corner of the site. Preservation is predicated on following the **Tree Preservation Guidelines** provided at the end of this document.

The City of San Jose requires a removal permit for the proposed removal of any tree with a diameter greater than 18", measured 24" above grade (Ordinance 13.32, Tree Removal controls). A removal permit is required when the sum of the trunk diameters of multi-stemmed trees is greater than 18". Based on these requirements, 56 of the trees recommended for removal will require a removal permit.

**Table 3. Trees recommended for removal
River Oaks site, San Jose CA**

Tree #	Species	Diameter (in)	Removal permit?	Impacts
5	Coast redwood	23	Yes	Within private street
6	Coast redwood	23	Yes	Within private street
14	Italian alder	14	No	Within private street
15	Coast redwood	14	No	Within 5' of private street.
16	Coast redwood	23	Yes	Within new building
17	Coast redwood	9	No	Poor suitability
18	Coast redwood	38	Yes	Within new building

(Continued, following page)

**Table 3. Trees recommended for removal, continued
River Oaks site, San Jose CA**

Tree #	Species	Diameter (in)	Removal permit?	Impacts
19	Coast redwood	26	Yes	Within new building
20	Coast redwood	34	Yes	Within new sidewalk
21	Coast redwood	28	Yes	Within new sidewalk
22	Coast redwood	26	Yes	Within new building
23	Coast redwood	22	Yes	Within new building
24	Coast redwood	37	Yes	Within new sidewalk
25	Coast redwood	24	Yes	Within new building
26	Italian alder	14	No	Poor suitability
27	Italian alder	13	No	Poor suitability
28	Italian alder	15	No	Poor suitability
29	Italian alder	22	Yes	Within new building
30	Callery pear	14	No	Within new building
31	Italian alder	12	No	Poor suitability
32	Italian alder	17	No	Within new building
33	Italian alder	13	No	Within new building
34	Coast redwood	26	Yes	Within new building
35	Coast redwood	25	Yes	Within new building
36	Coast redwood	33	Yes	Within new building
37	Callery pear	13	No	Within new building
38	Callery pear	13	No	Poor suitability
39	Coast redwood	13	No	Within new building
40	Coast redwood	27	Yes	Within new building
41	Coast redwood	24	Yes	Within new building
42	Italian alder	18	No	Within new building
43	Italian alder	14	No	Poor suitability
44	Italian alder	19	Yes	Within new building
45	Italian alder	17	No	Within new sidewalk
46	Coast redwood	32	Yes	Within new sidewalk
47	Coast redwood	26	Yes	Within 2' new sidewalk
48	Coast redwood	27	Yes	Within public street
49	River red gum	22	Yes	Within public street
50	River red gum	20	Yes	Within public street
51	River red gum	17	No	Within public street
52	River red gum	19	Yes	Poor suitability
53	Chinese elm	10	No	Within public street
54	River red gum	15	No	Within public street
55	River red gum	17	No	Within public street
56	River red gum	13	No	Poor suitability
57	River red gum	14	No	Within public street

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**Table 3. Trees recommended for removal, continued
River Oaks site, San Jose CA**

Tree #	Species	Diameter (in)	Removal permit?	Impacts
58	River red gum	21	Yes	Within public street
59	River red gum	19	Yes	Within public street
60	River red gum	19	Yes	Within public street
61	River red gum	13	No	Within public street
62	River red gum	22	Yes	Within public street
63	River red gum	17	No	Within public street
64	River red gum	16	No	Within public street
65	River red gum	13	No	Poor suitability
66	River red gum	23	Yes	Within public street
67	River red gum	15	No	Within public street
68	River red gum	18	No	Within public street
69	River red gum	13	No	Poor suitability
70	River red gum	13	No	Within public street
71	River red gum	14	No	Poor suitability
72	River red gum	12	No	Within public street
73	Chinese elm	10	No	Within public street
74	River red gum	23	Yes	Within public street
75	River red gum	15	No	Within public street
76	River red gum	14	No	Poor suitability
77	River red gum	17	No	Within public street
78	River red gum	19	Yes	Within public street
79	River red gum	14	No	Within public street
80	River red gum	18	No	Within public street
81	River red gum	16	No	Within public street
83	River red gum	20	Yes	Within new building
84	River red gum	24	Yes	Within new building
85	River red gum	25	Yes	Within new building
86	Canary Island pine	8	No	Within new building
87	Canary Island pine	8	No	Within new building
88	Chinese elm	14	No	Within new building
89	Coast redwood	42	Yes	Within private street
90	Coast redwood	20	Yes	Within private street
91	Coast redwood	34	Yes	Within private street
92	Coast redwood	25	Yes	Within private street
93	Coast redwood	24	Yes	Within private street
94	Coast redwood	39	Yes	Within private street
95	Coast redwood	24	Yes	Within private street
96	Coast redwood	42	Yes	Within private street
97	Coast redwood	31	Yes	Within private street

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**Table 3. Trees recommended for removal, continued
River Oaks site, San Jose CA**

Tree #	Species	Diameter (in)	Removal permit?	Impacts
98	Coast redwood	27	Yes	Within private street
99	Coast redwood	25	Yes	Within private street
100	Coast redwood	34	Yes	Within private street
101	European hackberry	6	No	Within new building
102	Chinese elm	12	No	Within new building
103	Coast redwood	33	Yes	Within private street
104	Coast redwood	37	Yes	Within private street
105	Coast redwood	45	Yes	Within private street
106	Italian alder	6	No	Within new building
107	Italian alder	12	No	Within private street
108	Callery pear	8	No	Within private street
109	Callery pear	8	No	Within private street
110	Callery pear	16	No	Within private street
113	Callery pear	12	No	Within new building
114	Callery pear	9	No	Within new building
115	Coast redwood	45	Yes	Within private street
116	Coast redwood	24	Yes	Within private street
117	Coast redwood	46	Yes	Within new building
118	Coast redwood	44	Yes	Within private street
119	Weeping willow	24	Yes	Within private street
120	Weeping willow	27	Yes	Within private street
121	Italian alder	16	No	Within new building
122	Weeping willow	28	Yes	Within new building
123	Purple leaf plum	6	No	Within new building
124	Purple leaf plum	6	No	Within new building
125	Purple leaf plum	7	No	Within new building
126	Purple leaf plum	7	No	Within new building
127	Purple leaf plum	6	No	Within new building
128	Purple leaf plum	8	No	Within new building

Tree Preservation Guidelines

The goal of tree preservation is not merely tree survival during development but maintenance of tree health and beauty for many years. Trees retained on sites that are subject to extensive injury during construction and are not adequately maintained become a liability rather than an asset. However, the response of individual trees will depend on the amount of excavation, the care with which demolition is carried out and the degree of compaction needed adjacent to trees. These impacts can be minimized by coordinating construction activity in the **TREE PROTECTION ZONE**. The following recommendations will help maintain and improve the health and vitality of trees preserved at the River Oaks site.

Design recommendations

1. Any plan affecting trees should be reviewed by the Consulting Arborist with regard to tree impacts. These include, but are not limited to, improvement plans, utility and drainage plans, grading plans, landscape and irrigation plans and demolition plans.
2. A **TREE PROTECTION ZONE** must be established for trees to be preserved, in which no soil disturbance is permitted. The **TREE PROTECTION ZONE** shall be defined at the dripline.
3. No underground services including utilities, sub-drains, water or sewer shall be placed in the **TREE PROTECTION ZONE**.
4. **Tree Preservation Notes** should be included on all plans.
5. Any herbicides placed under paving materials must be safe for use around trees and labeled for that use.
6. Irrigation systems must be designed so that no trenching will occur within the **TREE PROTECTION ZONE**.

Pre-construction treatments and recommendations

1. Trees to be retained shall be fenced to completely enclose the **TREE PROTECTION ZONE**. Protective fencing shall be placed at the dripline or as otherwise directed by the Consulting Arborist. Fences are to remain until all grading and construction is completed.
2. Prior to the start of grading, trees may require pruning to clean the crown and/or provide clearance. All pruning shall be completed by a Certified Arborist or Tree Worker and adhere to the *Tree Pruning Guidelines* of the International Society of Arboriculture.

Recommendations for tree protection during construction

1. Any grading, construction, demolition or other work within the **TREE PROTECTION ZONE** should be monitored by the Consulting Arborist.
2. Any root pruning required for construction purposes shall receive the prior approval of, and be supervised by, the Consulting Arborist.
3. If injury should occur to any tree during construction, it should be evaluated as soon as possible by the Consulting Arborist so that appropriate treatments can be applied.
4. Root-injured trees have a limited capacity to absorb water. Therefore, it is important to ensure adequate soil moisture in the area of active roots. One to several irrigations may be needed for trees that are at risk. Irrigations should be specified by the Consulting Arborist.
5. No excess soil, chemicals, debris, equipment or other materials shall be dumped or stored within the **TREE PROTECTION ZONE**.
6. Any additional tree pruning needed for clearance during construction must be performed by a Certified Arborist and not by construction personnel.

Maintenance of impacted trees

Trees preserved at the site will experience a physical environment different from that pre-development. Following construction, new owners should develop a management plan that includes pruning, fertilization, mulch, pest management, replanting and irrigation. In addition, provisions for monitoring both tree health and structural stability following construction must be made a priority. As trees age, the likelihood of failure of branches or entire trees increases.

HortScience, Inc.

A handwritten signature in black ink that reads "John Leffingwell". The signature is written in a cursive style with a large, looped initial "J".

John Leffingwell
Board Certified Master Arborist WE-3966B
Registered Consulting Arborist #442

BRE Properties
River Oaks
 San Jose
 November 2007

HORTISCIENCE TREE SURVEY

TREE No.	SPECIES	SIZE DIAMETER (in inches)	CONDITION 1=POOR 5=EXCELLENT	SUITABILITY FOR PRESERVATION	COMMENTS
1	Coast redwood	29	4	Good	Slightly thin crown; water stressed.
2	Coast redwood	21	4	Good	Slightly thin crown; water stressed.
3	Coast redwood	21	4	Good	Slightly thin crown; water stressed.
4	Coast redwood	22	4	Good	Slightly thin crown; water stressed.
5	Coast redwood	23	4	Good	Slightly trunk bow; water stressed.
6	Coast redwood	23	5	Good	Good form and structure.
7	Coast redwood	27	4	Good	Slightly thin crown; water stressed.
8	Coast redwood	23	3	Moderate	Corrected lean south; trunk wound; water stressed.
9	Italian alder	22	4	Good	Codominant trunks at 10'; crowded; minor
10	Italian alder	13	3	Moderate	Codominant trunks at 5'; crowded; asymmetric crown.
11	Italian alder	13	3	Moderate	Leans south; crowded; asymmetric crown.
12	Italian alder	18	4	Moderate	Leans south; good structure.
13	Italian alder	15	4	Moderate	Leans south; good structure.
14	Italian alder	14	3	Moderate	Codominant trunks at 5'; crowded;
15	Coast redwood	14	4	Good	Good form and structure; slightly sparse canopy.
16	Coast redwood	23	4	Good	One-sided; slightly sparse canopy.
17	Coast redwood	9	2	Poor	Very sparse canopy.
18	Coast redwood	38	3	Moderate	Sparse canopy; water stressed.
19	Coast redwood	26	4	Moderate	Thinning canopy; water stressed.
20	Coast redwood	34	4	Moderate	Thinning canopy; water stressed.
21	Coast redwood	28	4	Moderate	Thinning in upper crown; water stressed.

BRE Properties
River Oaks
 San Jose
 November 2007

HORTISCIENCE TREE SURVEY

TREE No.	SPECIES	SIZE DIAMETER (in inches)	CONDITION 1=POOR 5=EXCELLENT	SUITABILITY FOR PRESERVATION	COMMENTS
22	Coast redwood	26	4	Moderate	Thinning in upper crown; basal swelling; water stressed.
23	Coast redwood	22	4	Good	Crowded; asymmetric crown.
24	Coast redwood	37	4	Good	Crowded; thinning in upper crown.
25	Coast redwood	24	3	Moderate	Codominant trunks at 25'; thin crown; water stressed.
26	Italian alder	14	2	Poor	Dead top.
27	Italian alder	13	3	Poor	Codominant trunks at 8'; dieback in upper crown.
28	Italian alder	15	3	Poor	Codominant trunks at 6'; dieback in upper crown.
29	Italian alder	22	4	Good	Good form and structure; minor sap flow from trunk.
30	Gallery pear	14	3	Moderate	Heavy lean north; low lateral; fireblight.
31	Italian alder	12	2	Poor	Dieback in upper crown.
32	Italian alder	17	4	Moderate	Twig dieback; upright form.
33	Italian alder	13	4	Moderate	Codominant trunks at 6'; dead wood.
34	Coast redwood	26	4	Good	Crowded; good form and structure.
35	Coast redwood	25	4	Moderate	Slightly thin crown; water stressed.
36	Coast redwood	33	3	Moderate	Thinning crown; water stressed.
37	Gallery pear	13	4	Moderate	Codominant trunks at 6'; epicormic shoots; fireblight.
38	Gallery pear	13	3	Poor	Codominant trunks at 6'; crowded; poor form and structure.
39	Coast redwood	13	4	Moderate	Crowded; one-sided.
40	Coast redwood	27	4	Good	Slightly thin crown; good form and structure.

BRE Properties
River Oaks
 San Jose
 November 2007

HORTISCIENCE TREE SURVEY

TREE No.	SPECIES	SIZE DIAMETER (in inches)	CONDITION 1=POOR 5=EXCELLENT	SUITABILITY FOR PRESERVATION	COMMENTS
41	Coast redwood	24	4	Moderate	Thin crown; water stressed.
42	Italian alder	18	3	Moderate	Codominant trunks at 6'; twig and branch dieback.
43	Italian alder	14	3	Poor	Codominant trunks at 8'; asymmetric crown; twig and branch dieback.
44	Italian alder	19	3	Moderate	Multiple attachments at 7'; twig and branch dieback.
45	Italian alder	17	3	Moderate	Lateral at 6'; twig and branch dieback.
46	Coast redwood	32	4	Good	Codominant trunks at 35'; twig dieback.
47	Coast redwood	26	4	Good	Good form and structure; water stressed.
48	Coast redwood	27	5	Good	Good form and structure.
49	River red gum	22	3	Moderate	Codominant trunks at 18'; trunk wound; asymmetric crown.
50	River red gum	20	3	Moderate	Codominant trunks at 7'; lerp psyllid; poor branch structure.
51	River red gum	17	3	Poor	Codominant trunks at 7'; lerp psyllid; trunk wound.
52	River red gum	19	2	Poor	Codominant trunks at 7'; lerp psyllid; trunk wounds.
53	Chinese elm	10	4	Good	Crowded; good form and structure.
54	River red gum	15	3	Poor	Crowded; asymmetric crown; lerp psyllid; trunk wounds.
55	River red gum	17	3	Poor	Codominant trunks at 8'; asymmetric crown; lerp psyllid; trunk wounds.
56	River red gum	13	1	Poor	All but dead

BRE Properties
River Oaks
 San Jose
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HORTISCIENCE TREE SURVEY

TREE No.	SPECIES	SIZE DIAMETER (in inches)	CONDITION 1=POOR 5=EXCELLENT	SUITABILITY FOR PRESERVATION	COMMENTS
57	River red gum	14	3	Poor	Multiple attachments at 10'; poor branch structure
58	River red gum	21	3	Poor	Codominant trunks at 10'; topped at 15'.
59	River red gum	19	3	Poor	Codominant trunks at 7'; topped at 20'; lerp psyllid.
60	River red gum	19	3	Poor	Codominant trunks at 10'; topped at 20'; lerp psyllid.
61	River red gum	13	3	Poor	Codominant trunks at 5'; topped at 20'; crown bowed east.
62	River red gum	22	3	Poor	Multiple attachments at 7'; topped at 20'; lerp psyllid.
63	River red gum	17	3	Poor	Codominant trunks at 12'; topped at 20'; lerp psyllid.
64	River red gum	16	3	Poor	Codominant trunks at 12'; topped at 20'; lerp psyllid.
65	River red gum	13	2	Poor	Codominant trunks at 8'; topped at 20'; crown bowed east.
66	River red gum	23	3	Poor	Codominant trunks at 6'; topped at 20'; history of branch failure.
67	River red gum	15	3	Poor	Codominant trunks at 7'; topped at 20'; lerp psyllids.
68	River red gum	18	3	Poor	Codominant trunks at 15'; topped at 20'; lerp psyllids.
69	River red gum	13	2	Poor	Codominant trunks at 7'; topped at 20'; suppressed form.

BRE Properties
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HORTISCIENCE TREE SURVEY

TREE No.	SPECIES	SIZE DIAMETER (in inches)	CONDITION 1=POOR 5=EXCELLENT	SUITABILITY FOR PRESERVATION	COMMENTS
70	River red gum	13	3	Poor	Multiple attachments at 15'; topped at 20'; history of branch failure.
71	River red gum	14	2	Poor	Codominant trunks at 7'; topped at 20'; poor branch structure.
72	River red gum	12	3	Moderate	Codominant trunks at 7'; topped at 20'.
73	Chinese elm	10	4	Moderate	Crowded; one-sided west; good young tree.
74	River red gum	23	3	Moderate	Codominant trunks at 10'; topped at 20'; lerp psyllid.
75	River red gum	15	3	Poor	Codominant trunks at 7'; topped at 20'; asymmetric crown.
76	River red gum	14	2	Poor	Codominant trunks at 7'; topped at 20'; poor form and structure.
77	River red gum	17	3	Poor	Topped at 20'; asymmetric crown.
78	River red gum	19	3	Moderate	Codominant trunks at 7'; topped at 20'; lerp psyllid.
79	River red gum	14	3	Poor	Small, high crown; topped at 20'; lerp psyllid.
80	River red gum	18	3	Poor	Multiple attachments at 8'; topped at 20'; lerp psyllid.
81	River red gum	16	3	Poor	Codominant trunks at 7'; topped at 20'; lerp psyllid.
82	River red gum	9,9,8,7,6,5,4	3	Moderate	Multiple attachments at base; lerp psyllid.
83	River red gum	20	2	Poor	Stems removed at 7'; topped at 20'; lerp psyllid.
84	River red gum	24	3	Moderate	Multiple attachments at 8'; topped at 20'; one-sided west.

BRE Properties
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HORTSCIENCE TREE SURVEY

TREE No.	SPECIES	SIZE DIAMETER (in inches)	CONDITION 1=POOR 5=EXCELLENT	SUITABILITY FOR PRESERVATION	COMMENTS
85	River red gum	25	3	Poor	Multiple attachments at 8'; topped at 20'; history of branch failure.
86	Canary Island pine	8	4	Good	Good young tree; girdled by stake tie.
87	Canary Island pine	8	5	Good	Good young tree.
88	Chinese elm	14	3	Poor	Codominant trunks at 7'; topped at 15'.
89	Coast redwood	42	3	Moderate	Slightly sparse canopy; water stressed.
90	Coast redwood	20	2	Poor	Very sparse canopy; water stressed.
91	Coast redwood	34	3	Moderate	Sparse canopy; water stressed.
92	Coast redwood	25	3	Moderate	Thinning crown; water stressed.
93	Coast redwood	24	3	Moderate	Thinning crown; water stressed.
94	Coast redwood	39	3	Moderate	Multiple attachments at 3'; thinning crown; water stressed.
95	Coast redwood	24	3	Moderate	Lost top; thinning crown; water stressed.
96	Coast redwood	42	2	Poor	Very sparse canopy; water stressed.
97	Coast redwood	31	2	Poor	Very sparse canopy; water stressed.
98	Coast redwood	27	2	Poor	Very sparse canopy; water stressed.
99	Coast redwood	25	3	Poor	Crook at top; thinning crown; water stressed.
100	Coast redwood	34	3	Moderate	Thinning crown; water stressed.
101	European hackberry	6	5	Good	Good young tree.
102	Chinese elm	12	2	Poor	Codominant trunks at 10'; extensive dieback.
103	Coast redwood	33	4	Good	Thinning in upper crown; water stressed.
104	Coast redwood	37	4	Good	Slightly thin crown; water stressed.
105	Coast redwood	45	4	Good	Thinning in upper crown; branch dieback.
106	Italian alder	6	5	Good	Slightly one-sided; good young tree.
107	Italian alder	12	3	Moderate	Lost top; mistletoe.

BRE Properties
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HORTISCIENCE TREE SURVEY

TREE No.	SPECIES	SIZE DIAMETER (in inches)	CONDITION 1=POOR 5=EXCELLENT	SUITABILITY FOR PRESERVATION	COMMENTS
108	Callery pear	8	2	Poor	Leans north; poor form and structure.
109	Callery pear	8	3	Moderate	Crown bowed west; dieback.
110	Callery pear	16	3	Moderate	Multiple attachments at 7'; lateral north; trunk wounds.
111	Monterey pine	25	2	Poor	Off-site, no tag; topped for overhead utilities; dieback.
112	Cork oak	20	4	Moderate	Off-site, no tag; topped for overhead utilities; leans west; extends 17' over fence.
113	Callery pear	12	3	Moderate	Multiple attachments at 7'; fair structure.
114	Callery pear	9	3	Moderate	Multiple attachments at 7'; fair structure.
115	Coast redwood	45	3	Moderate	Twisted trunk; thinning crown; branch dieback.
116	Coast redwood	24	3	Moderate	Crowded; thin crown.
117	Coast redwood	46	4	Good	Slightly thin crown; good form and structure.
118	Coast redwood	44	4	Good	Slightly thin crown; good form and structure.
119	Weeping willow	24	4	Moderate	Multiple attachments at 15'; trunk wound; bacterial wetwood.
120	Weeping willow	27	3	Moderate	Multiple attachments at 10'; poor branch structure.
121	Italian alder	16	4	Moderate	Slight lean south; small crown.
122	Weeping willow	28	2	Poor	Extensive dieback in upper crown; trunk wounds.
123	Purple leaf plum	6	3	Moderate	Asymmetric crown; epicormic shoots.
124	Purple leaf plum	6	3	Poor	Asymmetric crown; twig dieback.
125	Purple leaf plum	7	3	Moderate	Multiple attachments at 3'; twig dieback.
126	Purple leaf plum	7	4	Moderate	Multiple attachments at 4'; included bark.

HORTISCIENCE TREE SURVEY

BRE Properties
 River Oaks
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TREE No.	SPECIES	SIZE DIAMETER (in inches)	CONDITION 1=POOR 5=EXCELLENT	SUITABILITY FOR PRESERVATION	COMMENTS
127	Purple leaf plum	6	4	Moderate	Codominant trunks at 3'; included bark.
128	Purple leaf plum	8	4	Moderate	Codominant trunks at 3'; tipped.

Tree Survey Map
199 River Oaks Parkway
San Jose, CA

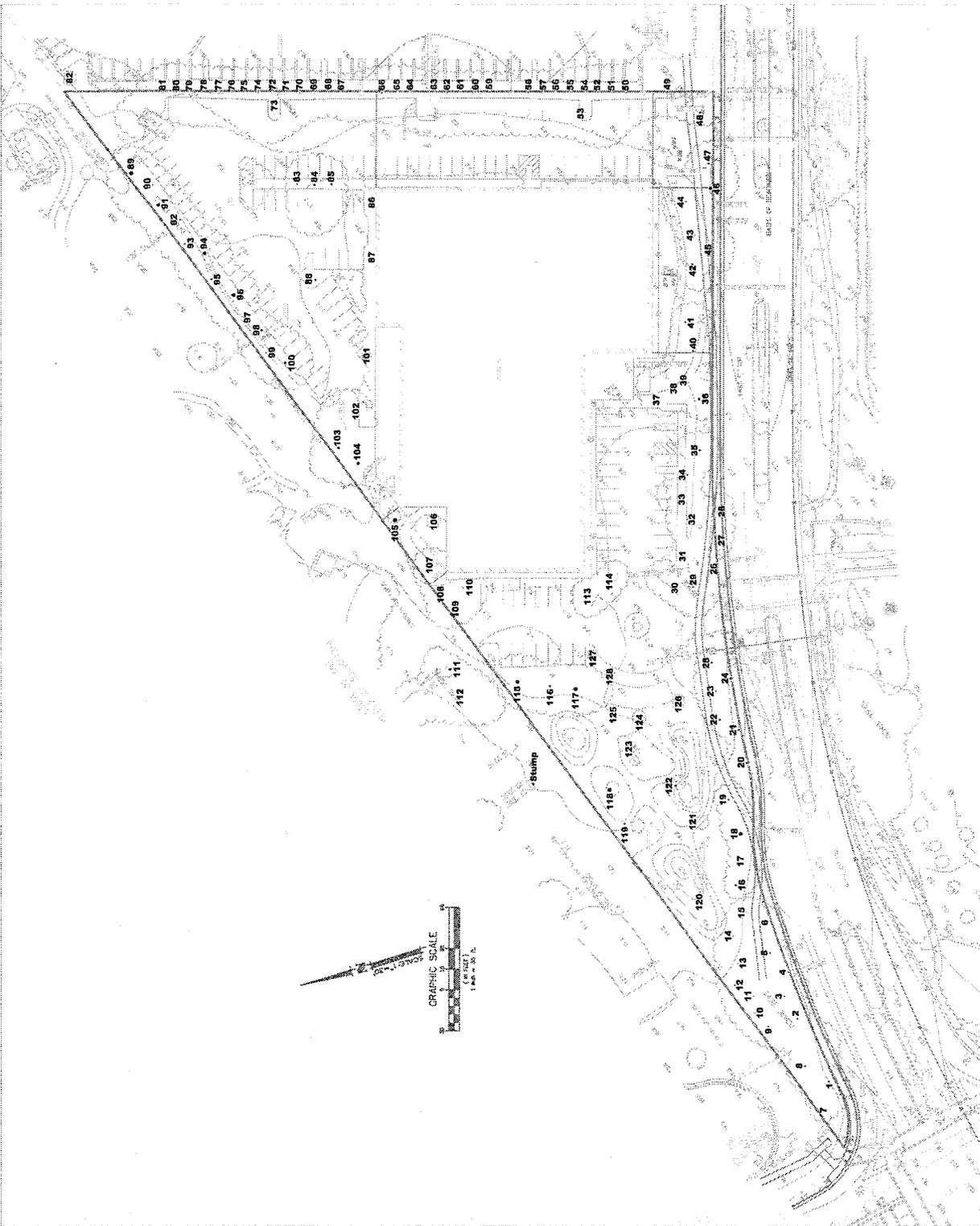
Prepared for:
BRE Properties, Inc.
San Francisco, CA

November 2007

No Scale

Survey
Scale map prepared by:
Carl E. Bergstrom Associates
San Jose, CA
Diploma # 134469666
Location: 199 River Oaks Parkway

HortScience, Inc.
Pleasanton, CA
925-484-0211



Existing Trees

No.	Scientific Name	Common Name	Native Tree	Diameter * (inches)	General Condition	To Be Removed
Onsite						
1.	<i>Sequoia sempervirens</i>	Coast Redwood		29	Good	
2.	<i>Sequoia sempervirens</i>	Coast Redwood		21	Good	
3.	<i>Sequoia sempervirens</i>	Coast Redwood		21	Good	
4.	<i>Sequoia sempervirens</i>	Coast Redwood		22	Good	
5.	<i>Sequoia sempervirens</i>	Coast Redwood		23	Good	X
6.	<i>Sequoia sempervirens</i>	Coast Redwood		23	Good	X
7.	<i>Sequoia sempervirens</i>	Coast Redwood		27	Good	
8.	<i>Sequoia sempervirens</i>	Coast Redwood		23	Fair	
9.	<i>Alnus cordata</i>	Italian Alder		22	Good	
10.	<i>Alnus cordata</i>	Italian Alder		13	Fair	
11.	<i>Alnus cordata</i>	Italian Alder		13	Fair	
12.	<i>Alnus cordata</i>	Italian Alder		18	Good	
13.	<i>Alnus cordata</i>	Italian Alder		15	Good	
14.	<i>Alnus cordata</i>	Italian Alder		14	Fair	X
15.	<i>Sequoia sempervirens</i>	Coast Redwood		14	Good	X
16.	<i>Sequoia sempervirens</i>	Coast Redwood		23	Good	X
17.	<i>Sequoia sempervirens</i>	Coast Redwood		9	Poor	X
18.	<i>Sequoia sempervirens</i>	Coast Redwood		38	Fair	X
19.	<i>Sequoia sempervirens</i>	Coast Redwood		26	Good	X
20.	<i>Sequoia sempervirens</i>	Coast Redwood		34	Good	X
21.	<i>Sequoia sempervirens</i>	Coast Redwood		28	Good	X
22.	<i>Sequoia sempervirens</i>	Coast Redwood		26	Good	X
23.	<i>Sequoia sempervirens</i>	Coast Redwood		22	Good	X
24.	<i>Sequoia sempervirens</i>	Coast Redwood		37	Good	X
25.	<i>Sequoia sempervirens</i>	Coast Redwood		24	Fair	X
26.	<i>Alnus cordata</i>	Italian Alder		14	Poor	X
27.	<i>Alnus cordata</i>	Italian Alder		13	Fair	X
28.	<i>Alnus cordata</i>	Italian Alder		15	Fair	X
29.	<i>Alnus cordata</i>	Italian Alder		22	Good	X
30.	<i>Pyrus calleryana</i>	Callery Pear		14	Fair	X
31.	<i>Alnus cordata</i>	Italian Alder		12	Poor	X
32.	<i>Alnus cordata</i>	Italian Alder		17	Good	X
33.	<i>Alnus cordata</i>	Italian Alder		13	Good	X
34.	<i>Sequoia sempervirens</i>	Coast Redwood		26	Good	X
35.	<i>Sequoia sempervirens</i>	Coast Redwood		25	Good	X
36.	<i>Sequoia sempervirens</i>	Coast Redwood		33	Fair	X

continued

Existing Trees (Cont.)

No.	Scientific Name	Common Name	Native Tree	Diameter * (inches)	General Condition	To Be Removed
37.	<i>Pyrus calleryana</i>	Callery Pear		13	Good	X
38.	<i>Pyrus calleryana</i>	Callery Pear		13	Fair	X
39.	<i>Sequoia sempervirens</i>	Coast Redwood		13	Good	X
40.	<i>Sequoia sempervirens</i>	Coast Redwood		27	Good	X
41.	<i>Sequoia sempervirens</i>	Coast Redwood		24	Good	X
42.	<i>Alnus cordata</i>	Italian Alder		18	Fair	X
43.	<i>Alnus cordata</i>	Italian Alder		14	Fair	X
44.	<i>Alnus cordata</i>	Italian Alder		19	Fair	X
45.	<i>Alnus cordata</i>	Italian Alder		17	Fair	X
46.	<i>Sequoia sempervirens</i>	Coast Redwood		32	Good	X
47.	<i>Sequoia sempervirens</i>	Coast Redwood		26	Good	X
48.	<i>Sequoia sempervirens</i>	Coast Redwood		27	Good	X
49.	<i>Eucalyptus camaldulensis</i>	Red River Gum		22	Fair	X
50.	<i>Eucalyptus camaldulensis</i>	Red River Gum		20	Fair	X
51.	<i>Eucalyptus camaldulensis</i>	Red River Gum		17	Fair	X
52.	<i>Eucalyptus camaldulensis</i>	Red River Gum		19	Poor	X
53.	<i>Ulmus parvifolia</i>	Chinese Elm		10	Good	X
54.	<i>Eucalyptus camaldulensis</i>	Red River Gum		15	Fair	X
55.	<i>Eucalyptus camaldulensis</i>	Red River Gum		17	Fair	X
56.	<i>Eucalyptus camaldulensis</i>	Red River Gum		13	Poor	X
57.	<i>Eucalyptus camaldulensis</i>	Red River Gum		14	Fair	X
58.	<i>Eucalyptus camaldulensis</i>	Red River Gum		21	Fair	X
59.	<i>Eucalyptus camaldulensis</i>	Red River Gum		19	Fair	X
60.	<i>Eucalyptus camaldulensis</i>	Red River Gum		19	Fair	X
61.	<i>Eucalyptus camaldulensis</i>	Red River Gum		13	Fair	X
62.	<i>Eucalyptus camaldulensis</i>	Red River Gum		22	Fair	X
63.	<i>Eucalyptus camaldulensis</i>	Red River Gum		17	Fair	X
64.	<i>Eucalyptus camaldulensis</i>	Red River Gum		16	Fair	X
65.	<i>Eucalyptus camaldulensis</i>	Red River Gum		13	Poor	X
66.	<i>Eucalyptus camaldulensis</i>	Red River Gum		23	Fair	X
67.	<i>Eucalyptus camaldulensis</i>	Red River Gum		15	Fair	X
68.	<i>Eucalyptus camaldulensis</i>	Red River Gum		18	Fair	X
69.	<i>Eucalyptus camaldulensis</i>	Red River Gum		13	Poor	X
70.	<i>Eucalyptus camaldulensis</i>	Red River Gum		13	Fair	X
71.	<i>Eucalyptus camaldulensis</i>	Red River Gum		14	Poor	X
72.	<i>Eucalyptus camaldulensis</i>	Red River Gum		12	Fair	X
73.	<i>Ulmus parvifolia</i>	Chinese Elm		10	Good	X

continued

Existing Trees (Cont.)

No.	Scientific Name	Common Name	Native Tree	Diameter * (inches)	General Condition	To Be Removed
74.	<i>Eucalyptus camaldulensis</i>	Red River Gum		23	Fair	X
75.	<i>Eucalyptus camaldulensis</i>	Red River Gum		15	Fair	X
76.	<i>Eucalyptus camaldulensis</i>	Red River Gum		14	Poor	X
77.	<i>Eucalyptus camaldulensis</i>	Red River Gum		17	Fair	X
78.	<i>Eucalyptus camaldulensis</i>	Red River Gum		19	Fair	X
79.	<i>Eucalyptus camaldulensis</i>	Red River Gum		14	Fair	X
80.	<i>Eucalyptus camaldulensis</i>	Red River Gum		18	Fair	X
81.	<i>Eucalyptus camaldulensis</i>	Red River Gum		16	Fair	X
83.	<i>Eucalyptus camaldulensis</i>	Red River Gum		20	Poor	X
84.	<i>Eucalyptus camaldulensis</i>	Red River Gum		24	Fair	X
85.	<i>Eucalyptus camaldulensis</i>	Red River Gum		25	Fair	X
86.	<i>Pinus canariensis</i>	Canary Island Pine		8	Good	X
87.	<i>Pinus canariensis</i>	Canary Island Pine		8	Good	X
88.	<i>Ulmus parvifolia</i>	Chinese Elm		14	Fair	X
89.	<i>Sequoia sempervirens</i>	Coast Redwood		42	Fair	X
90.	<i>Sequoia sempervirens</i>	Coast Redwood		20	Poor	X
91.	<i>Sequoia sempervirens</i>	Coast Redwood		34	Fair	X
92.	<i>Sequoia sempervirens</i>	Coast Redwood		25	Fair	X
93.	<i>Sequoia sempervirens</i>	Coast Redwood		24	Fair	X
94.	<i>Sequoia sempervirens</i>	Coast Redwood		39	Fair	X
95.	<i>Sequoia sempervirens</i>	Coast Redwood		24	Fair	X
96.	<i>Sequoia sempervirens</i>	Coast Redwood		42	Poor	X
97.	<i>Sequoia sempervirens</i>	Coast Redwood		31	Poor	X
98.	<i>Sequoia sempervirens</i>	Coast Redwood		27	Poor	X
99.	<i>Sequoia sempervirens</i>	Coast Redwood		25	Fair	X
100.	<i>Sequoia sempervirens</i>	Coast Redwood		34	Fair	X
101.	<i>Celtis occidentalis</i>	European Hackberry		6	Good	X
102.	<i>Ulmus parvifolia</i>	Chinese Elm		12	Poor	X
103.	<i>Sequoia sempervirens</i>	Coast Redwood		33	Good	X
104.	<i>Sequoia sempervirens</i>	Coast Redwood		37	Good	X
105.	<i>Sequoia sempervirens</i>	Coast Redwood		45	Good	X
106.	<i>Alnus cordata</i>	Italian Alder		6	Good	X
107.	<i>Alnus cordata</i>	Italian Alder		12	Fair	X
108.	<i>Pyrus calleryana</i>	Callery Pear		8	Poor	X
109.	<i>Pyrus calleryana</i>	Callery Pear		8	Fair	X
110.	<i>Pyrus calleryana</i>	Callery Pear		16	Fair	X
113.	<i>Pyrus calleryana</i>	Callery Pear		12	Fair	X

continued

Existing Trees (Cont.)

No.	Scientific Name	Common Name	Native Tree	Diameter * (inches)	General Condition	To Be Removed
114.	<i>Pyrus calleryana</i>	Callery Pear		9	Fair	X
115.	<i>Sequoia sempervirens</i>	Coast Redwood		45	Fair	X
116.	<i>Sequoia sempervirens</i>	Coast Redwood		24	Fair	X
117.	<i>Sequoia sempervirens</i>	Coast Redwood		46	Good	X
118.	<i>Sequoia sempervirens</i>	Coast Redwood		44	Good	X
119.	<i>Salix babylonica</i>	Weeping Willow		24	Good	X
120.	<i>Salix babylonica</i>	Weeping Willow		27	Fair	X
121.	<i>Alnus cordata</i>	Italian Alder		16	Good	X
122.	<i>Salix babylonica</i>	Weeping Willow		28	Poor	X
123.	<i>Prunus cerasifera</i>	Purple Leaf Plum		6	Fair	X
124.	<i>Prunus cerasifera</i>	Purple Leaf Plum		6	Fair	X
125.	<i>Prunus cerasifera</i>	Purple Leaf Plum		7	Fair	X
126.	<i>Prunus cerasifera</i>	Purple Leaf Plum		7	Good	X
127.	<i>Prunus cerasifera</i>	Purple Leaf Plum		6	Good	X
128.	<i>Prunus cerasifera</i>	Purple Leaf Plum		8	Good	X
Offsite						
82.	<i>Eucalyptus camaldulensis</i>	Red River Gum		9,9,8,7,6,5,4**	Fair	
111.	<i>Pinus radiata</i>	Monterey Pine		25	Poor	
112.	<i>Quercus suber</i>	Cork Oak		20	Good	

Note: Some trees have multiple stems from a single trunk.

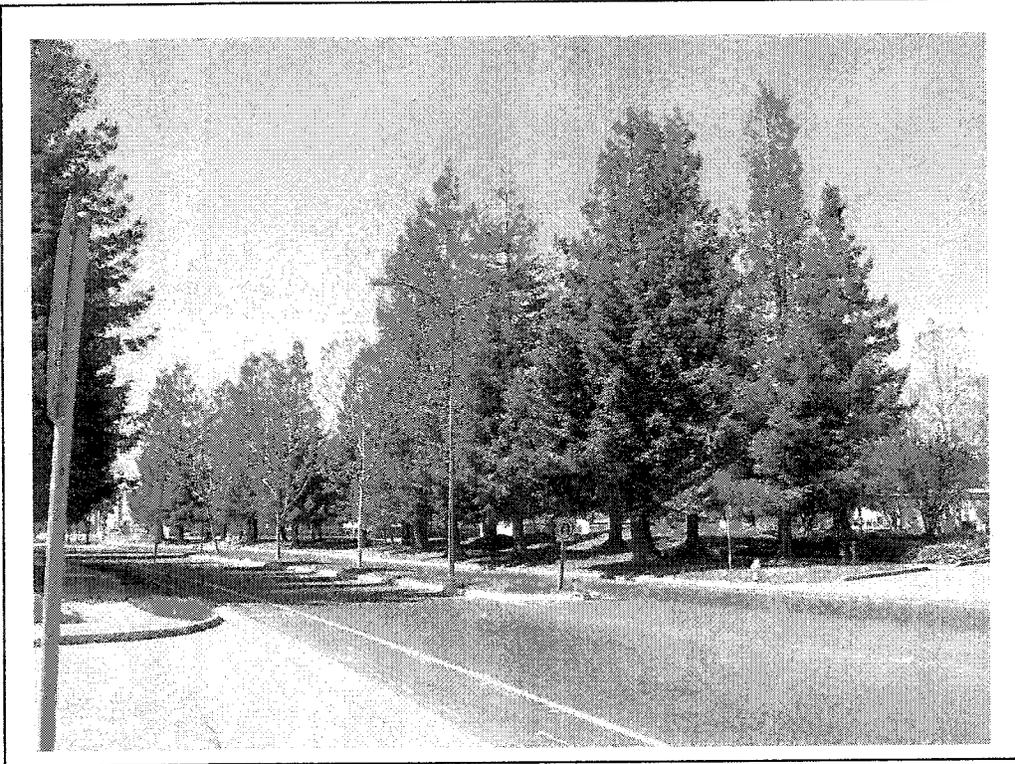
Ordinance-sized trees are shown in bold.

* Diameter at 2 feet above ground.

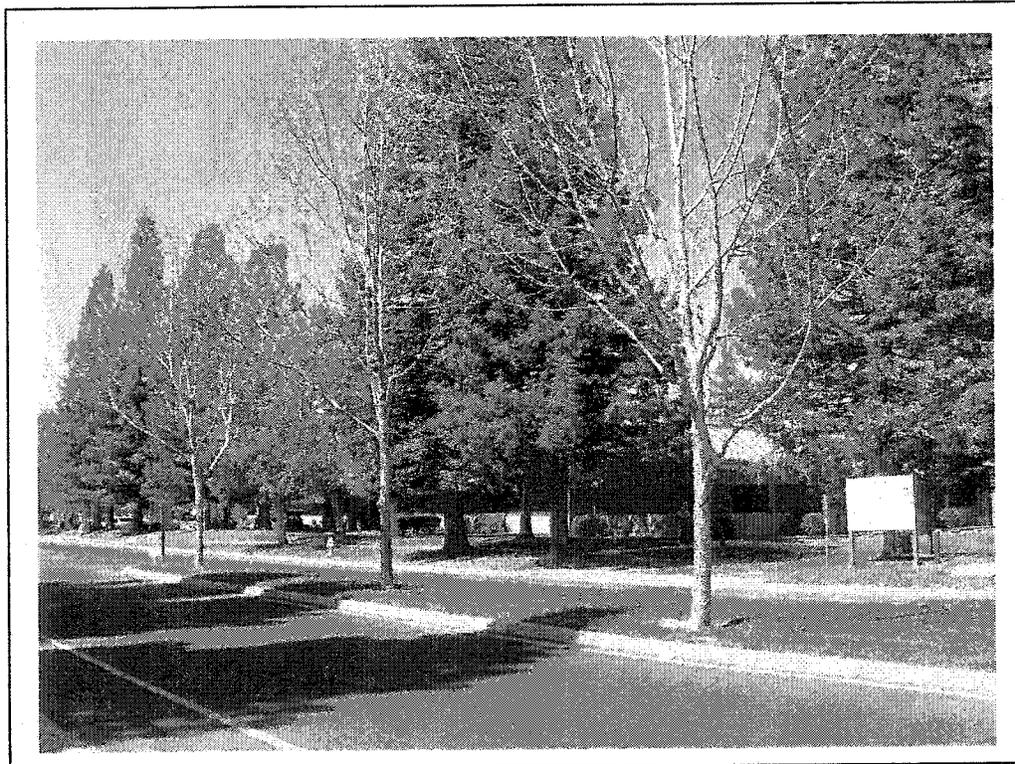
** Combined total represents Ordinance-sized tree.

Y = Native Tree.

X = To be Removed.



Tree Nos. 5, 6, 16 & 18-25 – 23, 23, 23, 38, 26, 34, 28, 26, 22, 37 & 24-inch diameter Coast Redwoods



Tree Nos. 29, 34-36, 40-42, 44 & 46-48 – 22, 26, 25, 33, 27, 24, 18, 19, 32, 26 & 27-inch diameter Coast Redwoods and/or Italian Alders

Ordinance-Sized Trees

March 24, 2008

1 of 10



Tree No. 49 – 22-inch diameter Red River Gum

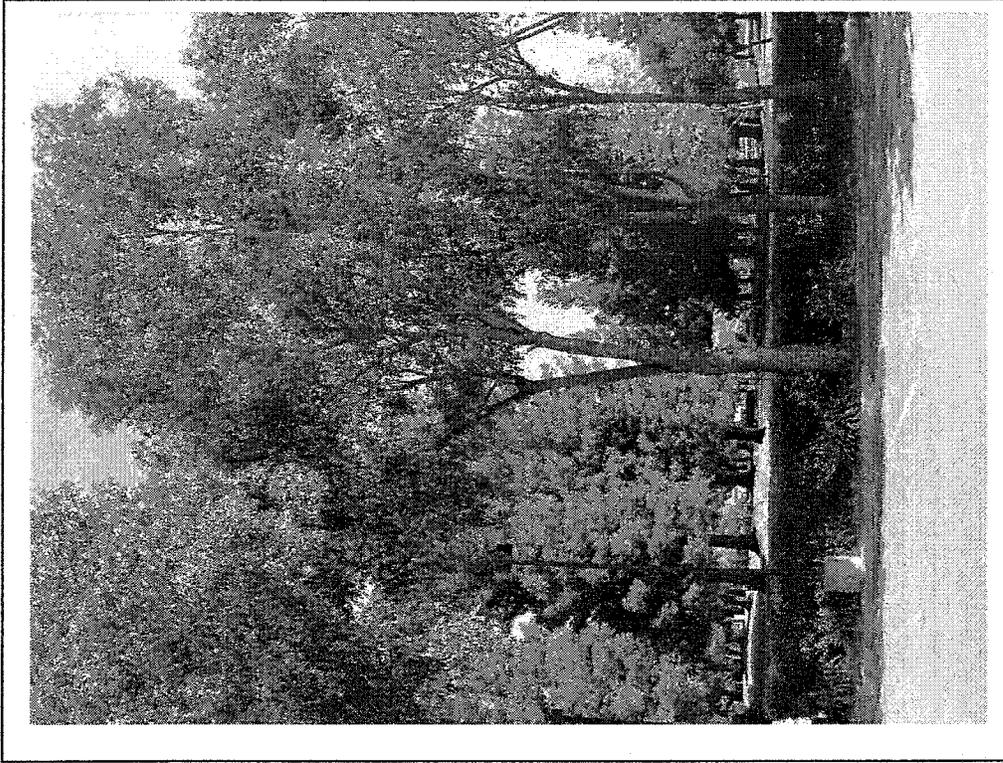


Tree Nos. 50 and 52 – 20 & 19-inch diameter
Red River Gums

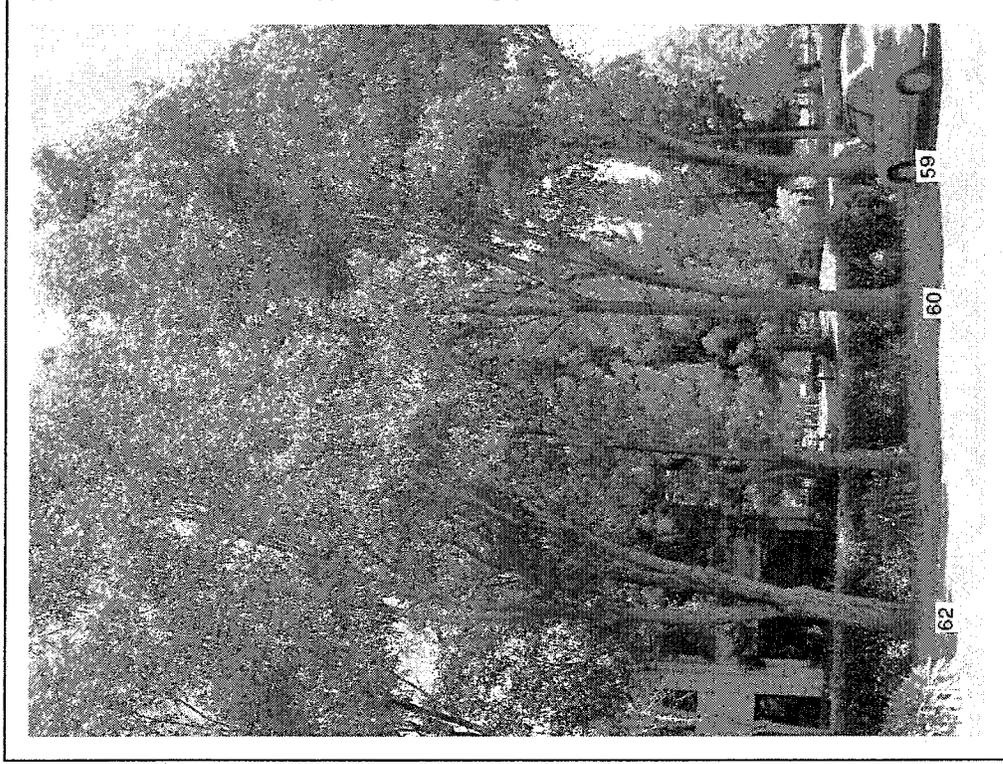
Ordinance-Sized Trees

March 24, 2008

2 of 10



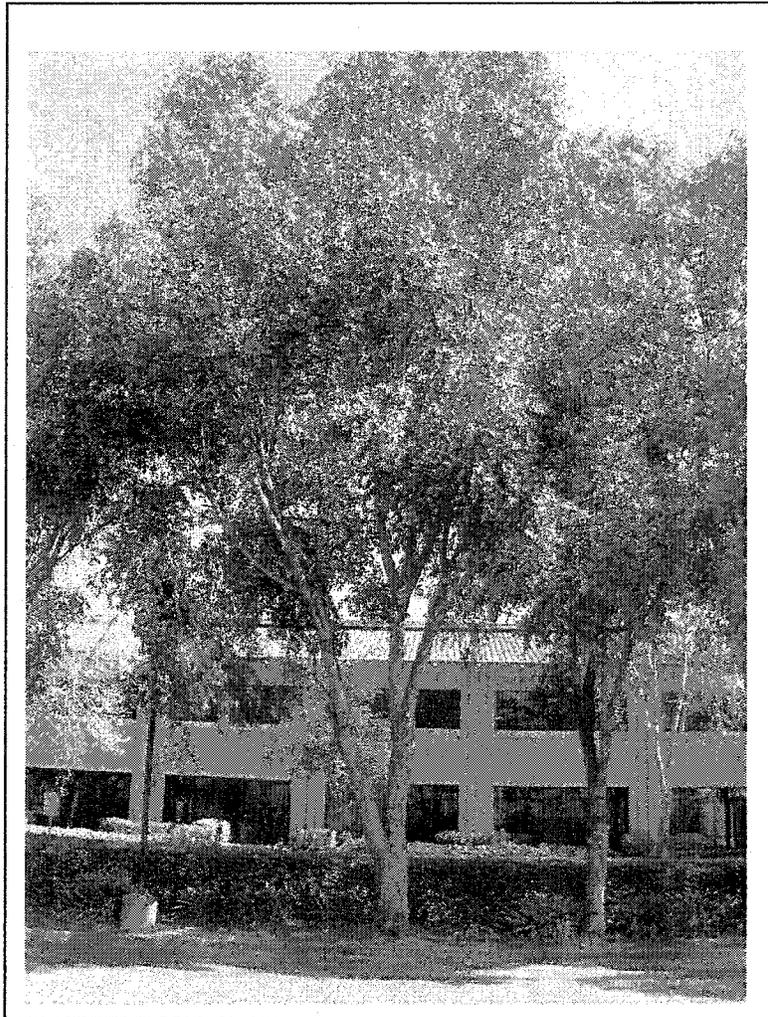
Tree No. 58 – 21-inch diameter Red River Gum



Tree Nos. 59, 60 and 62 – 19, 19 & 22-inch diameter Red River Gums

Ordinance-Sized Trees

March 24, 2008

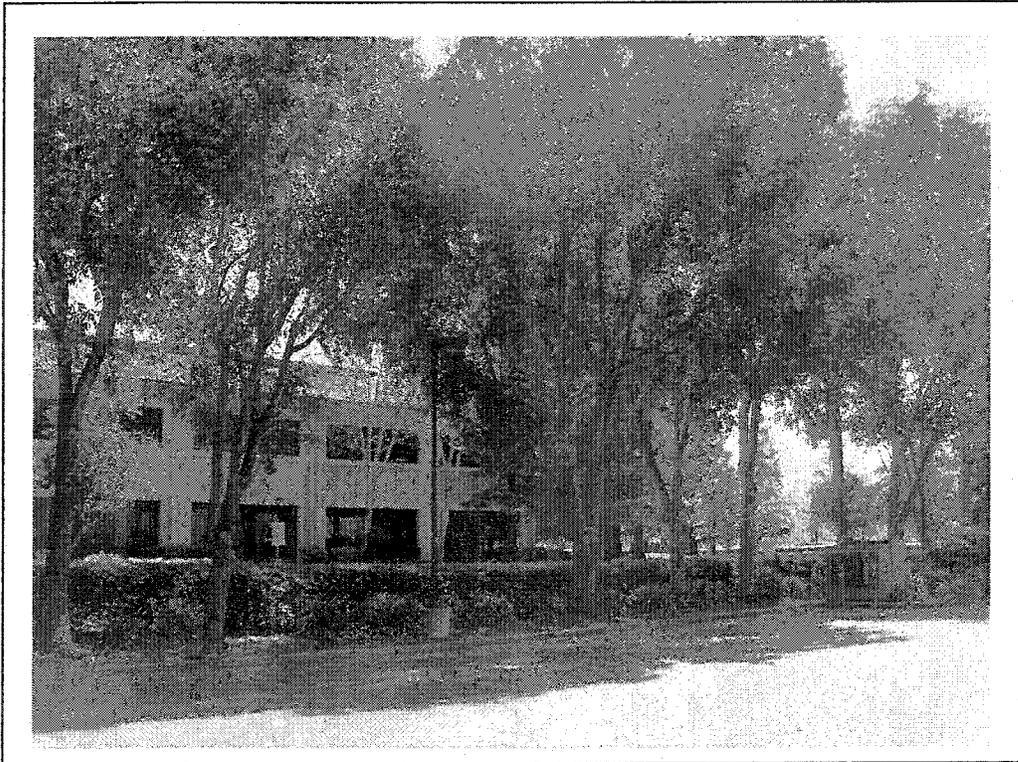


Tree No. 66 – 23-inch diameter Red River Gum

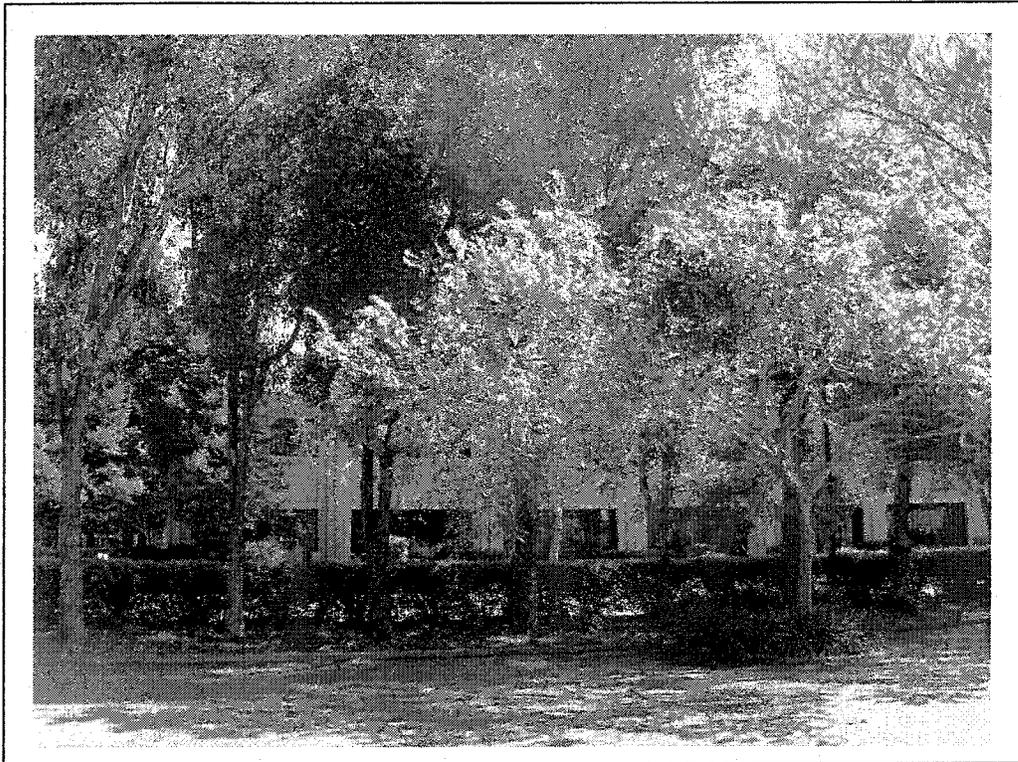
Ordinance-Sized Trees

March 24, 2008

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Tree No. 68 – 18-inch diameter Red River Gum

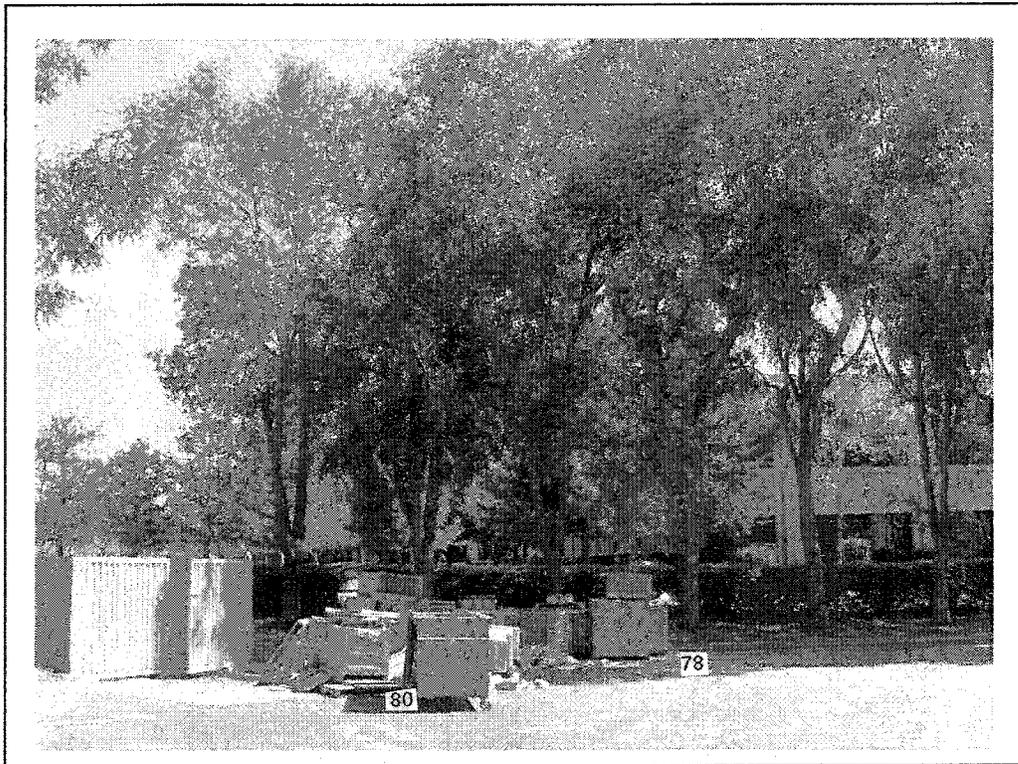


Tree No. 74 – 23-inch diameter Red River Gum

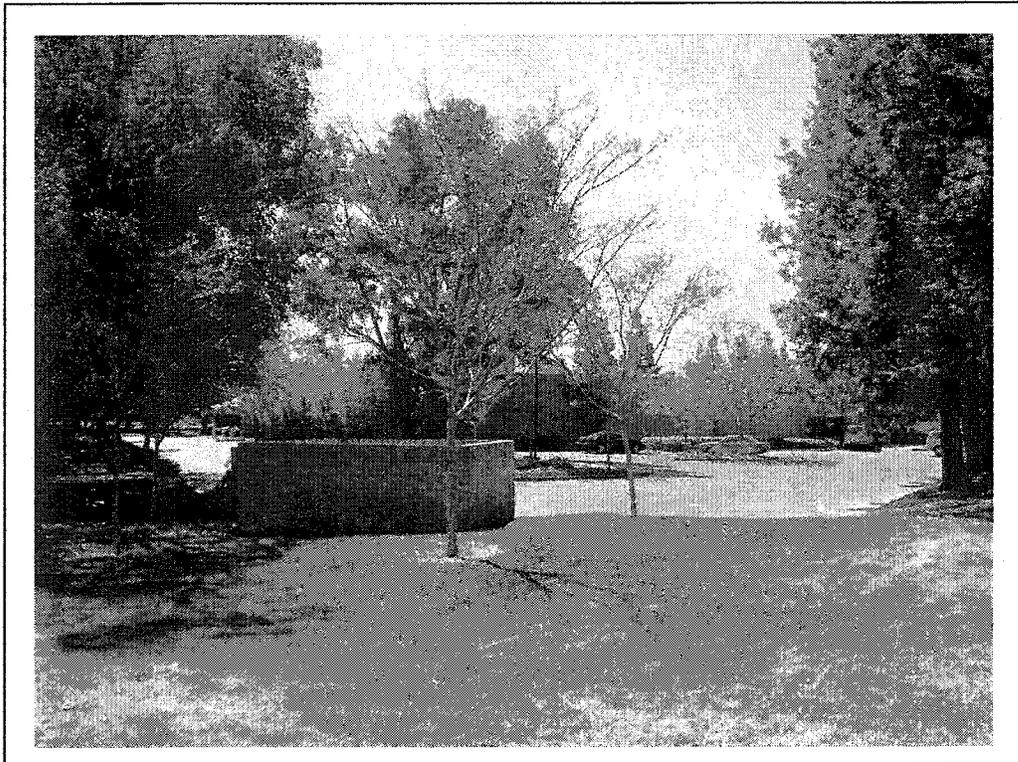
Ordinance-Sized Trees

March 24, 2008

5 of 10



Tree Nos. 78 & 80 – 19 & 18-inch diameter Red River Gums

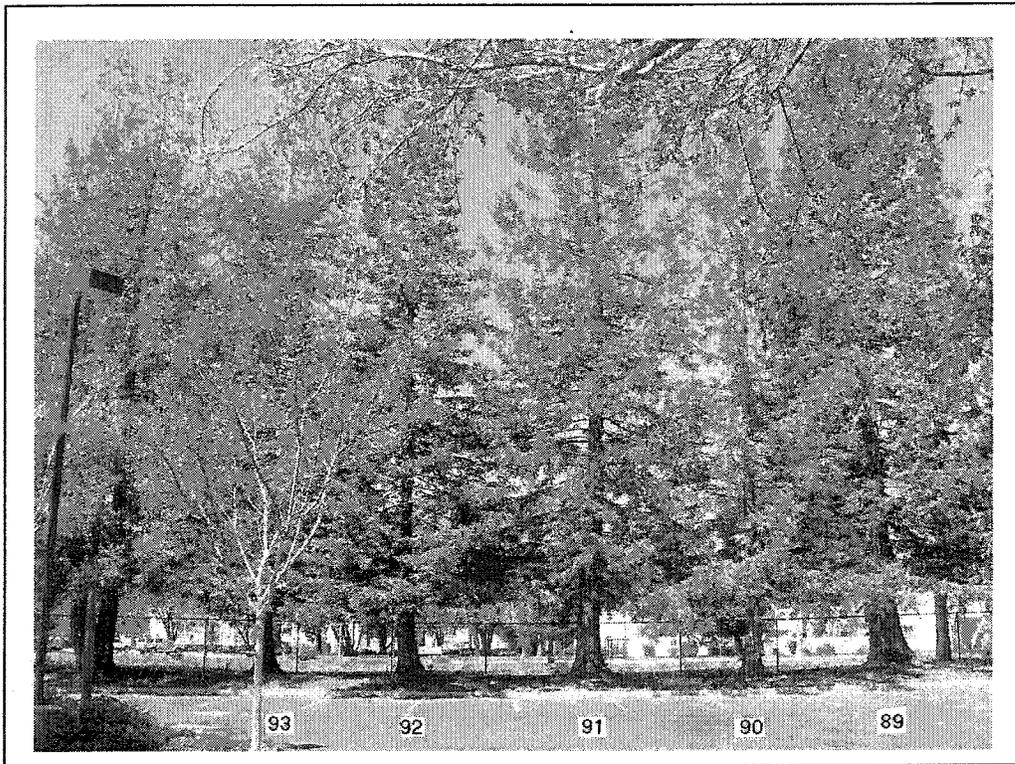


Tree Nos. 83, 84 & 85 – 20, 24 & 25-inch diameter Red River Gums

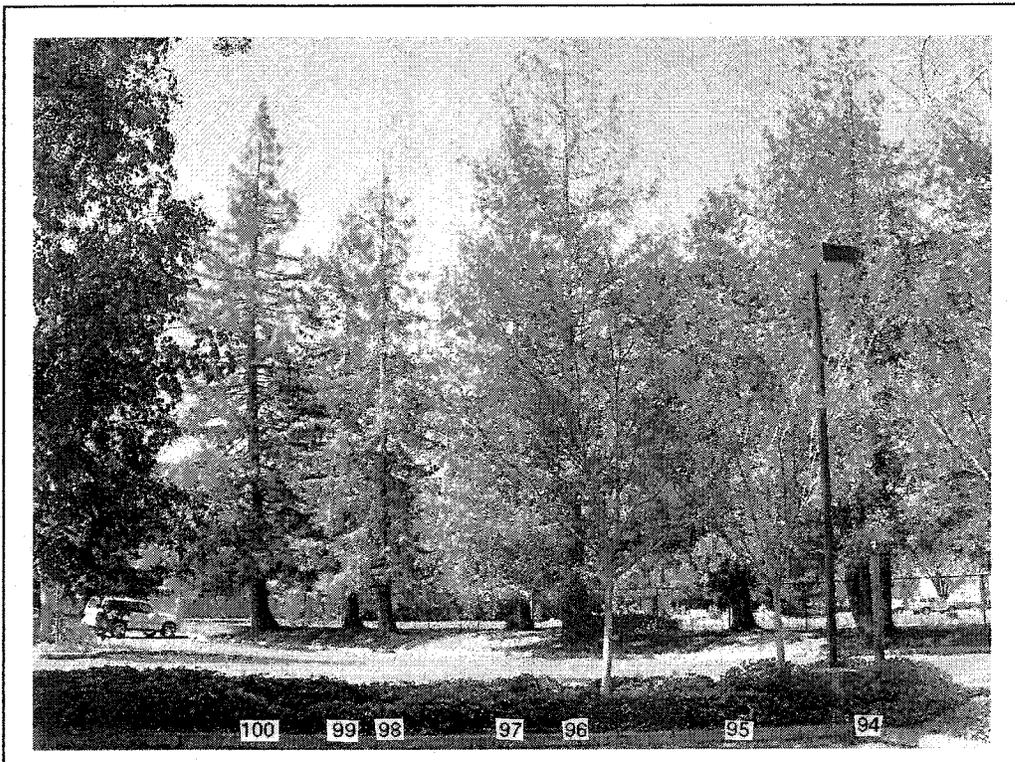
Ordinance-Sized Trees

March 24, 2008

6 of 10



Tree Nos. 89 to 93 – 42, 20, 34, 25 & 24-inch diameter Coast Redwoods

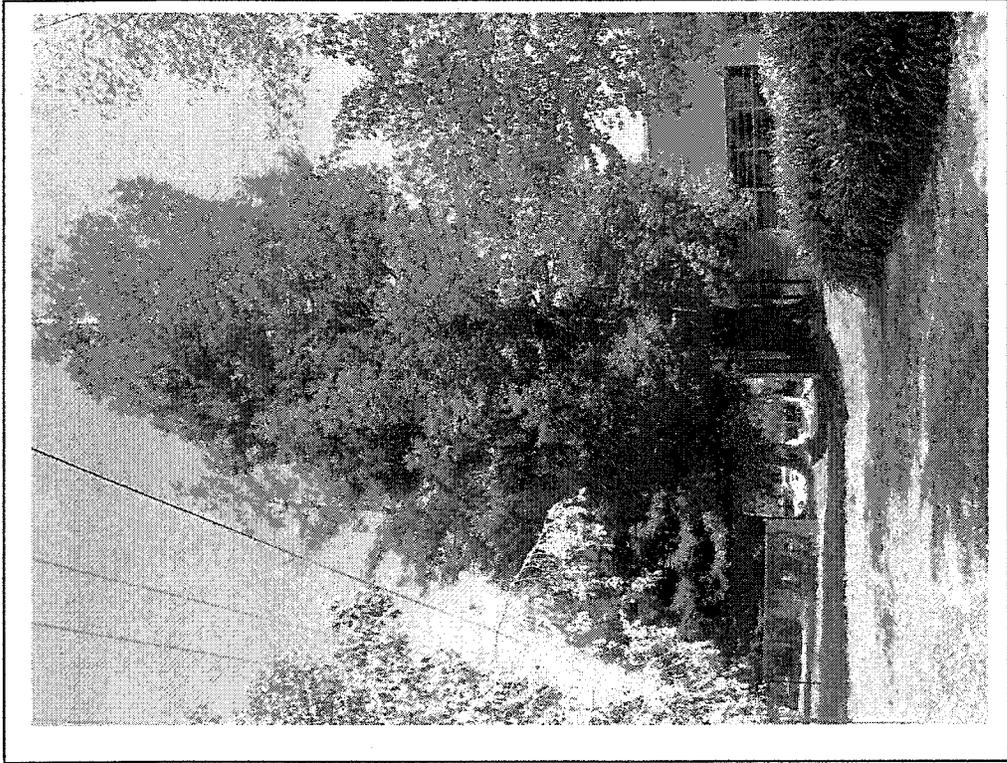


Tree Nos. 94 to 100 – 39, 24, 42, 31, 27, 25 & 34-inch diameter Coast Redwoods

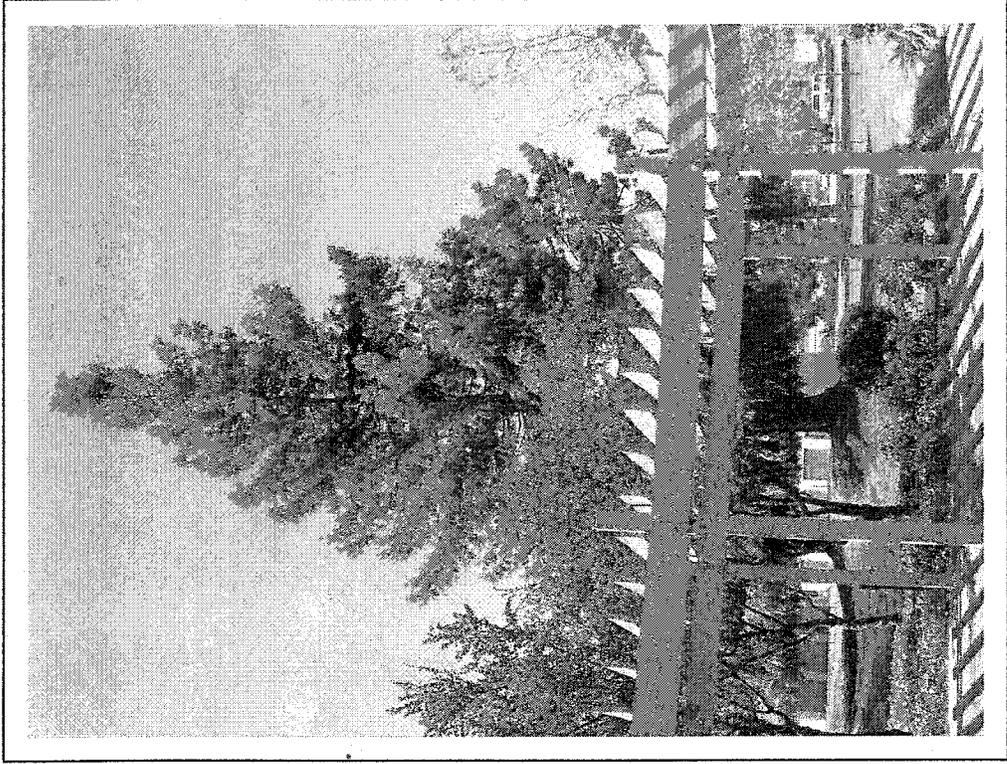
Ordinance-Sized Trees

March 24, 2008

7 of 10



Tree Nos. 103, 104 & 105 -- 33, 37 & 45-inch diameter Coast Redwoods



Tree Nos. 118 & 119 -- 44-inch diameter Coast Redwood and 24-inch diameter Weeping Willow

Ordinance-Sized Trees

March 24, 2008

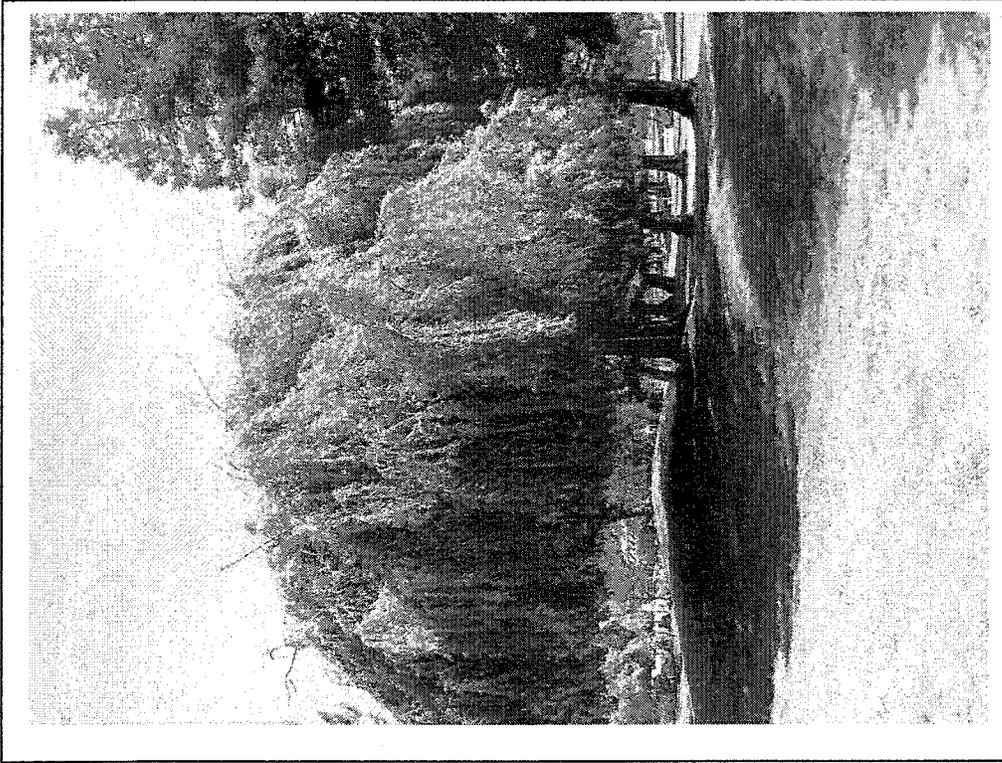


Tree Nos. 115, 116 & 117 – 45, 24 & 46-inch diameter Coast Redwoods

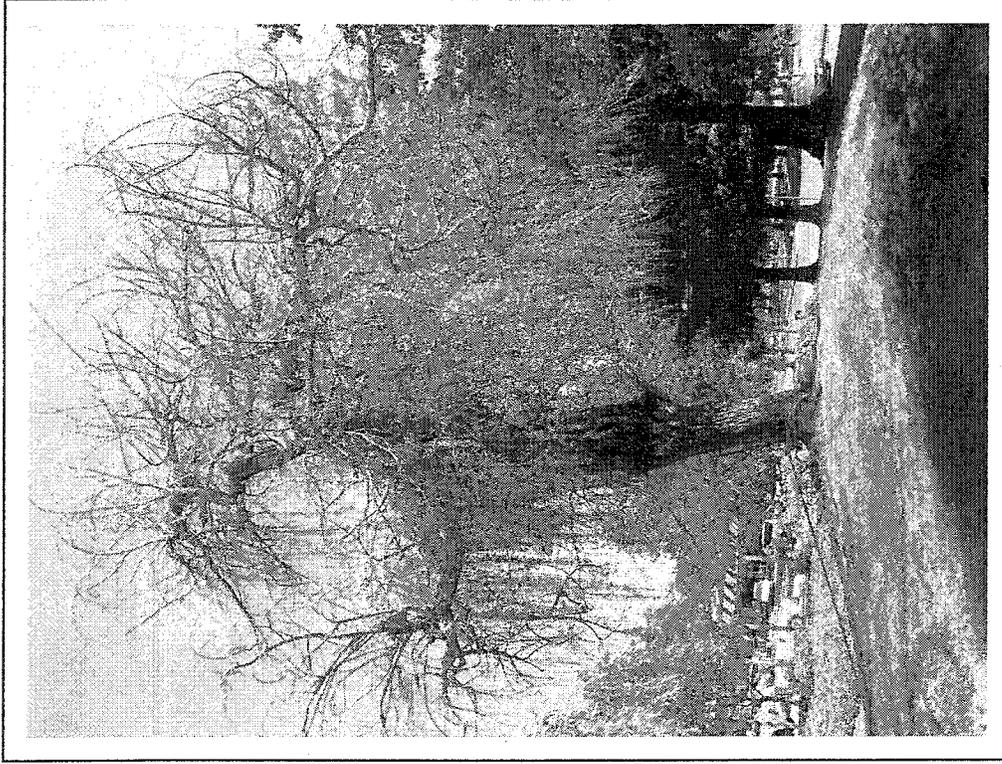
Ordinance-Sized Trees

March 24, 2008

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Tree No. 120 – 27-inch diameter Weeping Willow



Tree No. 122 – 28-inch diameter Weeping Willow



holman & ASSOCIATES
Archaeological Consultants
"SINCE THE BEGINNING"

3615 FOLSOM ST. SAN FRANCISCO,
CALIFORNIA 94110 415/550-7286

Richard Mindigo
Mindigo & Associates
1984 The Alameda
San Jose, Ca 95126

March 31, 2008

Dear Mr. Mindigo:

RE: CULTURAL RESOURCES REVIEW OF THE 199 RIVER OAKS PROJECT AREA, SAN JOSE, SANTA CLARA COUNTY, CALIFORNIA

At your request I have completed an archaeological literature review and field study of the above referenced project area. Neither the literature review nor the field inspection revealed any evidence of cultural resources. This report contains a summary of information gained to date.

PROJECT DESCRIPTION

The proposed project area consists of an approximately 3.7 acre wedge shaped parcel of land located on River Oaks Parkway at its intersection with Zanker Road in San Jose. Located on the Milpitas U.S.G.S. map, the borders of the property are the Agnews facility on the north, existing industrial park on the east and River Oaks Parkway on the south. Currently the project area contains a campus type professional building taking up most of the property; the westernmost portion of the wedge contains a landscaped area containing a number of trees.

ARCHIVAL RESEARCH

Archival research was conducted by this author in person at the Northwest Information Center (NWIC) located in Rohnert Park on March 27th, 2008 (file no. 07-1385). There are no archaeological sites, either historic or prehistoric, located inside the project borders or within 500 feet of it; the nearest recorded prehistoric sites are to be found along the banks of Coyote Creek approximately a half mile to the east and southeast. The property has been part of larger archaeological area studies done since the building was constructed (NWIC file # 31526, 33018); neither study reported new cultural resources in the general vicinity.

DESCRIPTION OF FIELD INSPECTION

A visual inspection of the project area was made by this author on March 29th, 2008.

Actual ground surface is restricted to approximately 10% of the surface of the lot in the western corner, where the property is bordered by buildings associated with the Agnews complex (garage complex) and River Oaks Parkway: this area contains a number of large trees in an elevated area of open ground, covered by a thin layer of vegetation. The remainder of the project area is covered either by the building complex itself or by paved parking lot.

FINDINGS/RECOMMENDATIONS

No visual evidence of either historic or prehistoric cultural resources was discovered by either the literature review or the field inspection. Since only 10% of the property is comprised of visible soils (most of which was probably imported when the area was landscaped), the question remains concerning the potential for the discovery of archaeological materials during future earthmoving activities. Could construction related earthmoving uncover either historic or prehistoric archaeological deposits?

It is the opinion of this author that the project area has a low potential for containing historic archaeological deposits, and a low to moderate potential for containing buried prehistoric deposits. The nearest recorded prehistoric sites are located eastward on either bank of Coyote Creek a quarter to a half mile east of it. Recent work done inside the Agnews facility and adjacent to it has failed to identify any buried archaeological resources away from the creek itself.

Due to the low potential for the discovery of buried prehistoric resources, this report does not recommend mechanical subsurface presence/absence testing, and does not recommend monitoring during demolition of the existing structure or during future grading operations. There always remains some potential however that archaeological materials could be turned up during grading or trenching: should any of the materials described below be discovered, it is recommended that work be halted within 50 feet of the discovery until it has been inspected by a qualified archaeologist.

If the project archaeologist determines that continued earthmoving will affect a resource potentially eligible for inclusion on the California Register of Historic Resources (CRHR), a plan for the evaluation of the resource under CEQA guidelines should be submitted to the San Jose Planning Department for approval. If limited hand excavation demonstrates that the identified resource is eligible for the CRHR, a plan for the mitigation of impacts to the resource to a level of less-than-significant should be submitted to the San Jose Planning Department for approval before any additional earthmoving activities are allowed inside the zone of archaeological sensitivity.

Mitigation can take the form of additional data retrieval through limited hand excavation coupled with archaeological monitoring of all earthmoving inside the zone of archaeological sensitivity in order to record or retrieve significant archaeological information and material for subsequent analysis.

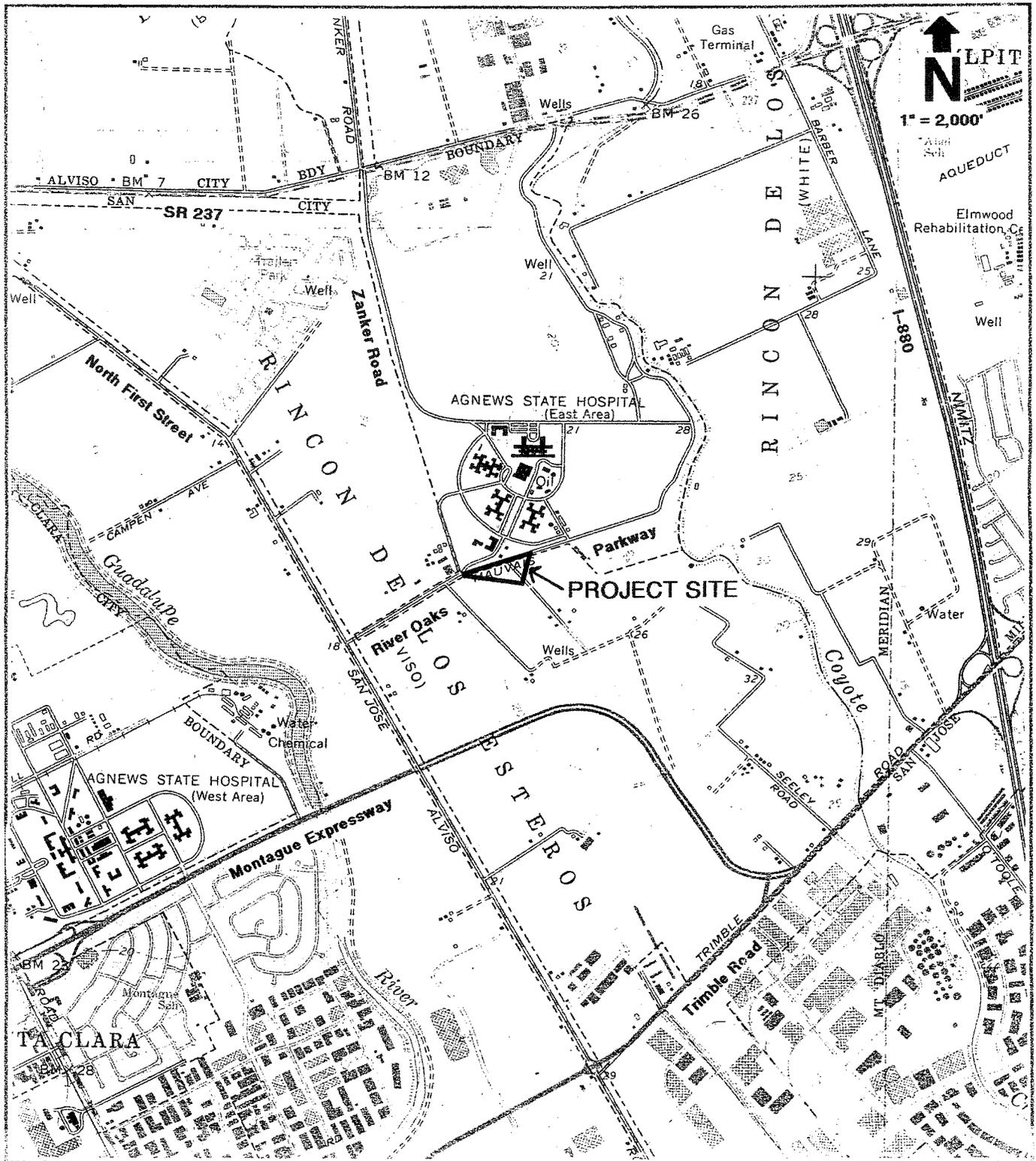
Indicators of potentially significant archaeological deposits include but are not limited to

the following: darker than surrounding soils of a friable nature containing visible amounts of fresh water and salt water shellfish, concentrations of stone, bone, and shellfish, artifacts of these materials, evidence of fire (ash, charcoal, fire affected rock or earth), and burials, either human or animal.

Sincerely,

A handwritten signature in black ink, appearing to read 'M. Holman', with a stylized flourish at the end.

Miley Paul Holman
Holman & Associates



Source: Milpitas Quadrangle (1961, photorevised 1980)

**PRELIMINARY
GEOTECHNICAL ASSESSMENT**

199 RIVER OAKS PARKWAY

SAN JOSE, CALIFORNIA

SUBMITTED

TO

BRE PROPERTIES, INC.

SAN FRANCISCO, CALIFORNIA

PREPARED

BY

ENGEO INCORPORATED

PROJECT NO. 7862.3.001.01

JULY 23, 2007

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WHATSOEVER, NOR MAY IT BE QUOTED OR EXCERPTED WITHOUT THE
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Project No.
7862.3.001.01

July 23, 2007

Mr. Kevin Ma
BRE Properties, Inc.
525 Market Street, 4th floor
San Francisco, CA 94105

Subject: 199 River Oaks Parkway
San Jose, California

PRELIMINARY GEOTECHNICAL ASSESSMENT

Dear Mr. Ma:

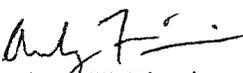
With your authorization and as part of due diligence, we performed a preliminary geotechnical assessment for the 199 River Oaks Parkway site located in San Jose, California. Our geotechnical observations, as well as our preliminary conclusions and recommendations, are presented in this report. We have also provided preliminary site grading, drainage, and foundation recommendations for use during land planning.

Based upon our initial assessment, it is our opinion that a residential development is feasible from a geotechnical standpoint. Design-level exploration(s) should be conducted prior to site development once more detailed land plans have been prepared. Concurrently and presented under separate cover, ENGEO performed a modified environmental site assessment for the subject site.

We are pleased to have been of service on this project and are prepared to consult further with you and your design team as the project progresses. If you have any questions regarding the contents of this report, please do not hesitate to contact us.

Very truly yours,

ENGEO INCORPORATED


Andrew H. Firmin
ahf/pcg/jb

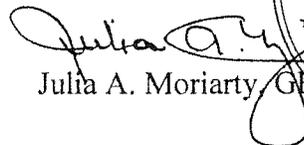

Julia A. Moriarty, GE


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INTRODUCTION

Purpose and Scope

The purpose of this preliminary geotechnical assessment, as described in our proposal dated June 19, 2007 and revised July 11, 2007, is to identify geotechnical constraints that would affect site planning decisions and development. The scope of our services included a review of readily available literature and geologic maps for the project area; collection of near-surface soil samples and limited laboratory testing; a limited subsurface exploration using cone penetrometer test (CPT) probes; analysis of the gathered geotechnical data; and preparation of this report.

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Site Location and Description

The subject triangular-shaped site borders the northern side of River Oaks Parkway between Zanker Road and Cisco Avenue in San Jose, California (Figure 1). In particular, the approximately 3.7-acre property is bounded by River Oaks Parkway to the south, Zanker Road to the west, a care facility to the north, and office/commercial use to the east. A 2004 aerial photograph depicts the current building configurations and site plan (Figure 2).

The site is located at 199 River Oaks Parkway, Assessor's Parcel Number (APN) 097-033-36. The property currently consists of one commercial/industrial building with associated asphalt paved parking areas and landscaping around the building.

A 1998 topographic map of the area shows the site is relatively flat and situated at an approximate elevation of 20 feet above mean sea level (msl). Coyote Creek is roughly ½ mile east of the site, while the Guadalupe River is located roughly ½ mile west of the site, and it appears as though the City and County of San Francisco Aqueduct is roughly ½ mile to the north. The subject site generally conforms to adjacent properties and landscape.

Proposed Development

Based on the architectural plans dated June 12, 2007, prepared by MBH Architects, we understand that the proposed development consists of a podium-style residential complex (Figure 3). The proposed six-story podium structure will consist of two levels of parking garage and four stories of wood-frame construction for residential use. A courtyard is planned in level three. The lowest garage level is planned to be constructed at least partially below grade. Therefore, building loads are anticipated to be moderate to moderately high.

SITE GEOLOGY AND SEISMICITY

Regional and Site Geology

Regional geologic maps locate the site in the broad, north-south trending, alluvial-filled Santa Clara Valley. Wentworth, et al. (1999) has mapped the soils at the site as Holocene-age flood plain deposits (Qhfp) (Figure 4). CDMG (1974) has mapped the soils at the property as fluvial deposits at outer edge of alluvial fans (Qyfl), composed of fine-grained sand, silt and clay with the deposits in excess of 500 feet thick.

Site Seismicity

The site is not located within a State of California Earthquake Fault Hazard Zone (1982), nor within a City of San Jose Fault Hazard Zone (1983); however, a concealed, queried splay of the potentially active Silver Creek fault is shown to cross through the site on the City of San Jose Fault Hazard Zone (1983) map, CDMG (1974), and fault mapping by Jennings (1994). This feature is not zoned as requiring further study by the State of California or City of San Jose.

The site is also not located within a Santa Clara County Geologic Hazard Zones (2002) for Fault Rupture Hazard (Figure 5); however, the site is located within a State of California Seismic Hazard Zone (2004) for Liquefaction Hazard (Milpitas Quadrangle) (Figure 6).

The nearest known active¹ fault surface trace is the Hayward fault (southeast extension) mapped about 4.2 miles northeast of the site. The Hayward fault (main trace) is mapped about 6.7 miles northeast of the site; the Calaveras fault is mapped about 7.3 miles northeast of the site; and the Monte Vista-Shannon fault is located roughly 10 miles southwest of the site. As noted above, a

¹ An active fault is defined by the State Mining and Geology Board as one that has had surface displacement within Holocene time (about the last 10,000 years) (Hart, 1997). The State of California has prepared maps designating zones for special studies that contain these active earthquake faults.

concealed, queried splay of the potentially active Silver Creek fault is shown to cross through the site; however, as noted above, the fault is not zoned as requiring further study by the State of California or City of San Jose.

Because of the presence of nearby active faults, the Bay Area Region is considered seismically active. Numerous small earthquakes occur every year in the region, and large (>M7) earthquakes have been recorded and can be expected to occur in the future. Figure 7 shows the approximate locations of these faults and significant historic earthquakes recorded within the Greater Bay Area Region.

FIELD EXPLORATION

Field Exploration

The preliminary field exploration for this study was conducted on July 18 and 20, 2007, and consisted of advancing six cone penetrometer test (CPT) probes at the approximate locations shown on Figures 2 and 3. The CPT probes were extended to depths ranging from 50 to 80 feet below the existing ground surface (bgs). The CPT locations were established by taping and visual sighting from existing features and should be considered accurately located only to the degree implied by the method used. The locations were selected in areas that would reduce impact to existing improvements.

The CPT equipment used was equipped with a 20-ton compression-type cone with a 15-square-centimeter (cm²) base area, an apex angle of 60 degrees, and a friction sleeve with a surface area of 225 cm². The cone, connected with a series of rods, is pushed into the ground at a constant rate. Cone readings are taken at approximately 5-cm intervals with a penetration rate of 2 cm per second in accordance with revised (2002) ASTM standards (D-5778-95). Measurements include the tip resistance to penetration of the cone (Qc), the resistance of the surface sleeve (Fs), and dynamic pore pressure (U) (Robertson and Campanella, 1988). The CPT logs and supporting empirical data are located in Appendix A.

A water level indicator instrument was used upon removal of the probes to record groundwater levels, if encountered. The CPT holes were backfilled with cement-bentonite grout on the day of the field exploration activities. Three near-surface soil samples were collected and tested for plasticity index (PI) and sulfate ion concentration.

Laboratory Testing

Select samples collected during our field exploration were tested to determine the following soil characteristics:

<u>Soil Characteristic</u>	<u>Test Method</u>	<u>Location of Results</u>
Atterberg Limits	ASTM D-4318	Appendix C
Gradation	ASTM D-422	Appendix C
Water Soluble Sulfate Content	Caltrans 417	Appendix C

The laboratory test results are presented in Appendix C.

Subsurface Stratigraphy

According to empirical correlations of the CPT data, the probes generally encountered medium stiff to hard clay to silty clay with occasional interbedded thin sand lenses, overlying medium dense to very dense sand to gravelly sand to the maximum depths explored (58 to 80 feet bgs). In general, the clay to silty clay was encountered predominantly above a depth of 31 to 39 feet bgs. Probes CPT-1, CPT-3, CPT-4, and CPT-6 encountered thin sand lenses up to 5 feet thick in the predominantly clay layers at depths ranging from 24 to 29 feet bgs.

Probe CPT-1 encountered stiff to very stiff clay to silty clay from the ground surface to 39 feet bgs overlying dense to very dense sand to gravelly sand to the base of the probe at approximately 78 feet bgs. A thin sand lens was encountered in the clay layer from approximately 25 to 29 feet bgs. Probe CPT-2 encountered stiff to hard clay to silty clay from the ground surface to 36 feet bgs overlying dense to very dense sand to gravelly sand to the base of the probe at approximately 50 feet bgs. CPT-3 encountered stiff to hard clay to silty clay from the ground surface to 39 feet bgs overlying dense to very dense silty sand to gravelly sand. A thin sand lens was encountered in the clay layer from approximately 24 to 29 feet bgs. CPT-4 encountered medium stiff to hard clay to clayey and

sandy silt from the ground surface to 38 feet bgs overlying dense to very dense sand to gravelly sand. A thin sand lens was encountered in the clay layer from approximately 25 to 29 feet bgs. CPT-5 encountered medium stiff to very stiff clay to silty clay from the ground surface to 34 feet bgs overlying dense to very dense silty sand to gravelly sand. CPT-6 encountered medium stiff to hard clay to clayey and sandy silt from the ground surface to 31 feet bgs overlying medium dense to very dense silty sand to gravelly sand. A thin sand lens was encountered in the clay layer from approximately 25 to 28 feet bgs.

A near surface soil sample was collected and tested for PI. According to the result of the test, the near surface clayey soil has a PI of 10. It is an indication that the surficial soils have a low to moderate expansion potential.

Soil classification will be provided in more detail during future design-level geotechnical studies, when additional soil samples are retrieved and submitted to our laboratory for supplemental testing.

Groundwater

Groundwater was encountered at approximately 10 to 11 feet below the ground surface in the CPT probes. Fluctuations in groundwater levels should be expected during seasonal changes or over a period of years because of precipitation changes, perched zones, changes in drainage patterns, and irrigation. Groundwater levels will be reassessed in future design-level studies.

DISCUSSION AND CONCLUSIONS

Based upon our research and limited field exploration, the main geotechnical concerns for the proposed site development include: (1) potential seismic hazards, (2) the presence of potentially expansive near-surface soils, (3) potential load-induced settlement; and (4) the anticipated existence of shallow groundwater. These items and other geotechnical issues are discussed in the following sections of this report.

Seismic Hazards

Potential seismic hazards resulting from a nearby moderate to major earthquake can generally be classified as primary and secondary. The primary effect is ground rupture, also called surface faulting. The common secondary seismic hazards include ground shaking, ground lurching, soil liquefaction, and lateral spreading. These hazards are discussed in the following sections.

Based on topographic and lithologic data, risk from earthquake-induced lurch cracking, regional subsidence or uplift, tsunamis, landslides and seiches is considered low at the site.

Ground Rupture. The site is not located within a State of California Earthquake Fault Hazard Zone (1982) or a Fault Rupture Hazard Zone of the Santa Clara County Geologic Hazard Zones (2002). Therefore, since no known active faults cross the site, and since the concealed and queried projection of the Silver Creek fault is not zoned by the State of California or City of San Jose for future study, it is our opinion that ground rupture is not likely to occur at the site.

Ground Shaking. An earthquake of moderate to high magnitude generated within the San Francisco Bay Region, similar to those which have occurred in the past, could cause considerable ground shaking at the site. To mitigate the shaking effects, all structures should be designed using sound

engineering judgment and the latest International Uniform Building Code (UBC) requirements as a minimum.

Seismic design provisions of current building codes generally prescribe minimum lateral forces, applied statically to the structure, combined with the gravity forces of dead and live loads. The code-prescribed lateral forces are generally substantially smaller than the expected peak forces that would be associated with a major earthquake. Therefore, structures should be able to: (1) resist minor earthquakes without damage, (2) resist moderate earthquakes without structural damage but with some nonstructural damage, and (3) resist major earthquakes without collapse but with some structural as well as nonstructural damage. Conformance to the current building code recommendations does not constitute any kind of guarantee that significant structural damage would not occur in the event of a maximum magnitude earthquake; however, it is reasonable to expect that a well-designed and well-constructed structure will not collapse or cause loss of life in a major earthquake (SEAOC, 1996).

Lurching. Ground lurching is a result of the rolling motion imparted to the ground surface during energy released by an earthquake. Such rolling motion can cause ground cracks to form. The potential for the formation of these cracks is considered greater at contacts between deep alluvium and bedrock. Such an occurrence is possible at the site as in other geologically similar locations in the Bay Area, but the offset or strain is expected to be low to negligible at the site.

Liquefaction. Liquefaction is a phenomenon in which saturated, loose or medium dense, cohesionless soils (sands, gravels, and some silts) are subject to a temporary, but essentially total, loss of shear strength because of pore pressure build-up under the reversing cyclic shear stresses associated with earthquakes. As stated in earlier sections, the site is located within a State of California Seismic Hazard Zone (2004) for liquefaction (Figure 6). The potential for liquefaction has been reviewed and addressed below.

To characterize the potential for liquefaction, the CPT probe logs were reviewed for loose or medium dense granular deposits situated below groundwater levels. CPT probes did indicate the presence of zones of medium dense granular material located below the groundwater table, generally below 10 feet bgs.

As a result, we performed preliminary liquefaction analyses of the CPT data that followed general guidelines provided in DMG Special Publication 117 (1997), SCEC (1999), Robertson and Wride (1997), Robertson and Campanella (1988), Finn (1996), Youd et al. (1997), and Seed et al. (1982).

Our analysis generally indicated that some medium dense to dense portions of the thick sand to gravelly sand unit, thin sand lenses encountered in the predominantly clay layers in CPT-1, CPT-3, CPT-4, and CPT-6, and some clayey silt to silty clay layers are potentially liquefiable ($FS < 1.2$). These potentially liquefiable layers were encountered in each boring at depths ranging from 13 feet to 80 feet bgs. CPT-1 had multiple lenses ranging from less than 1 inch to 1.75 feet thick at depths between 25 and 66 feet bgs; CPT-2 had multiple lenses ranging from less than 1 inch to 8 inches thick at depths between 27 and 47 feet bgs; CPT-3 had multiple lenses ranging from less than 1 inch to 5 feet thick at depths between 18 and 50 feet bgs; CPT-4 had multiple lenses ranging from less than 2 inches to 3 feet thick at depths between 18 and 75 feet bgs; CPT-5 had multiple lenses ranging from less than 2 inches to 5.5 feet thick at depths between 15 and 79 feet bgs; and CPT-6 had multiple lenses ranging from less than 1 inch to 3.25 feet thick at depths between 13 and 79 feet bgs.

Due to the depth of the potentially liquefiable soils and thickness of non-liquefiable material above those materials, it does not appear that these zones are susceptible to ground failure based on Ishihara (1985). If site grades are lowered due to excavation for subterranean structures, there is an increased potential for ground failure. This issue will be further addressed during a future design-level geotechnical study.

Appendix B presents spreadsheets of our preliminary analysis for each CPT probe. Liquefaction and its associated consequences will be further addressed during a future design-level geotechnical study.

Densification Due to Earthquake Shaking. Densification of the sandy soils above and below groundwater levels can result in settlement/densification during an earthquake. The granular deposits encountered are estimated to undergo up to 2 inches of earthquake-induced densification (total), with the highest results found in CPT-3, CPT-5 and CPT-6. Preliminary foundation design should incorporate a differential settlement of 1 inch over a 40-foot length/width or between column supports. Earthquake-induced densification will be further addressed during a future design-level geotechnical study.

Expansive Soils

An additional area of concern regarding the geotechnical aspects of the project is the presence of expansive near-surface soils. An initial assessment of near-surface site soil yielded a PI of 10, which is an indication of a low to moderately expansive soil. Expansive soils shrink and swell as a result of moisture changes. This can cause heaving and cracking of slabs-on-grade, pavements, and structures founded on shallow foundations.

Successful development on expansive soils requires special attention during construction. It is imperative that exposed soils be kept moist at all times prior to construction. It is difficult to remoisturize dry, clayey soil without excavation, moisture conditioning and recompaction. Long-term mitigation measures should also include the prevention of moisture variation.

Load-Induced Settlement

As depicted in the CPT data collected, portions of the fine-grained material located above 39 feet are medium stiff and below groundwater levels. Small pockets of softer material were also encountered. Some of these materials may be subject to load-induced settlement (compression). Laboratory testing and settlement analysis may be warranted pending actual land plan concepts and will be included in our design-level study.

Shallow Groundwater

Groundwater was encountered at elevations ranging from 10 to 11 feet bgs. Temporary dewatering systems might be required during construction. Permanent basements will require designs that consider the presence of high groundwater levels. In addition, fluctuations in groundwater levels should be expected during seasonal changes or over a period of years because of precipitation changes, perched zones, changes in drainage patterns, and irrigation.

This issue will be further addressed in the future design-level geotechnical exploration after grading plans and building concepts have been further developed.

Existing or Undocumented Fill

Although not evident in the CPT logs, minor fills likely exist associated with the existing building, which sits slightly higher than surrounding landscaping, parking areas and roads for drainage purposes. In addition, the large landscaped area with minor hills on the southwestern corner of the site likely comprises minor fills. Existing fills are also present as utility trench backfill.

Differential Fill Thickness

Our site reconnaissance did not identify the presence of basements or known below-ground structures, other than anticipated utilities. Other subsurface facilities, however, may be present that were not readily observed during our reconnaissance. Depending upon the depths of excavations required, a differential fill condition may arise that could adversely impact the performance of the residential foundations. Recommendations to address this potential condition are presented in a subsequent section.

Conclusions

Based upon this preliminary study, it is our opinion that the project site is feasible for the proposed multi-family residential development. A site-specific geotechnical exploration should be performed as part of the design process. The exploration would include borings and laboratory soil testing to provide data for preparation of specific recommendations regarding grading, foundation design, and drainage for the proposed multi-family residential construction. The exploration will also allow for more detailed evaluations of the above-described geotechnical issues, including liquefaction and expansive soils, and afford the opportunity to provide recommendations regarding techniques and procedures to be implemented during construction to mitigate potential geotechnical/geological hazards.

RECOMMENDATIONS

The following recommendations are for initial land planning and preliminary estimating purposes. Final recommendations regarding site grading and foundation construction will be provided after additional site-specific exploration has been undertaken.

Selection of Materials

With the exception of construction debris (wood, brick, asphalt, concrete, metal, etc.), trees, and organically contaminated materials (soil which contains more than 3 percent organic content by weight), we anticipate the site soils are suitable for use as engineered fill. Other materials and debris, including trees with their root balls, should be removed from the project site.

If desired and if approved by the regulating agencies, the existing asphalt concrete and underlying aggregate base may be reused as engineered fill within street areas. The material should be broken down, but not pulverized, to meet a 6-inch or less particle size and placed in a separate stockpile outside the limits of grading until used within street areas below subgrade.

Loose or Compressible Soils

Once the site is stripped to expose undisturbed native soil, the site should be observed for its suitability to receive engineered fill materials. Loose soils might be encountered in any area occupied by existing utility trenches or where foundations were removed. Loose or compressible surface soils should be subexcavated and replaced with properly engineered fill. The actual depth of reworking should be determined by a qualified ENGEO field representative at the time of grading.

Some of the clay layers within the upper 39 feet of site soils are medium stiff to stiff and below groundwater levels. As noted above, these materials may be subject to load-induced settlement (compression) and should be further addressed during design-level study.

Expansive Soils

Expansive soils shrink and swell as a result of moisture changes. This can cause heaving and cracking of slabs-on-grade, pavements and structures founded on shallow foundations. Building damage due to volume changes associated with expansive soils can be reduced by deepening the foundations to below the zone of moisture fluctuation with deep foundations, or by using mat foundations which are designed to resist the deflections associated with the expansive soil.

An initial assessment of near-surface site soil yielded a PI of 10, which is an indication of a low to moderately expansive soil. Further evaluation of site soils should be performed during a site-specific geotechnical exploration as part of the design process.

Corrosion Potential

Three soil samples collected from depths ranging from 1 to 2 feet below ground at the site were submitted to our laboratory for sulfate ion concentration. The test results are provided in Appendix C.

According to the test results, the sulfate ion concentration determined on the soil samples ranges from 23 to 30 mg/kg. In accordance with the criteria presented in Table 19-A-4 of the 1997 Uniform Building Code, the site soils are classified in the negligible sulfate exposure range. Based on the results of the testing, we recommend that Type II cement, a maximum water-cement ratio of 0.50, and a minimum compressive strength of 3,000 psi be used for concrete that comes into contact with

the site soils. It should be noted, however, that the structural engineering design requirements for concrete might result in more stringent concrete specifications.

Differential Fill Thickness

Depending upon localized subexcavations in conjunction with planned cuts or existing backfill removal, a differential fill thickness condition could possibly arise. For subexcavation activities that create a differential fill thickness across a building footprint, mitigation to achieve a similar fill thickness across the pad is beneficial for the performance of a shallow foundation system. For preliminary purposes, a differential fill thickness of up to 5 feet is acceptable across a building footprint. For a differential fill thickness exceeding 5 feet across a building footprint, we recommend performing subexcavation activities to bring this vertical distance to within the 5-foot tolerance and that the material be replaced as engineered fill. As a minimum, the subexcavation area should include the entire structure footprint plus 5 feet beyond the edges of the building footprint.

Fill Placement

For land planning and cost estimating purposes, the following compaction control requirements should be anticipated for general fill areas:

Test Procedures:	ASTM D-1557.
Required Moisture Content:	Not less than 3 percentage points above optimum moisture content.
Minimum Relative Compaction:	Not less than 90 percent.

Relative compaction refers to the in-place dry density of soil expressed as a percentage of the maximum dry density of the same material.

Additional compaction requirements may be required for near-surface building pad foundation soils, import soils and retaining wall backfill. These additional requirements will be developed during our detailed exploration.

Shoring

Due to the potential for excavations to accommodate partially below-grade parking and the anticipated shallow groundwater depths, excavation shoring may be necessary. During our design-level study, the soil conditions will be further assessed and soil parameters for use in shoring design can be developed.

Preliminary Building Code Seismic Information

1997 UBC Seismic Information. Based on the anticipated soil conditions and local seismic sources, the site may be characterized for design based on Chapter 16 of the 1997 UBC using the following preliminary information.

Categorization/Coefficient	Design Value ¹
Soil Profile Type (Table 16-J)	S _D
Seismic Zone (Figure 16A-2)	4
Seismic Zone Factor, Z (Table 16-I)	0.4
Seismic Source Type (Table 16-U)	A
Near Source Factor N _a (Table 16-S)	1.0
Near Source Factor N _v (Table 16-T)	1.2
Seismic Coefficient C _a (Table 16-Q)	0.44*N _a
Seismic Coefficient C _v (Table 16-R)	0.64*N _v

¹Hayward fault (Type A) located 4.2 miles (10.8 km) away.

2007 CBC Seismic Information. Based on subsurface soil conditions encountered and local seismic sources, the site may be characterized for design based on the following information.

Categorization/Coefficient	Design Value
Site Class	D
0.2 second Spectral Response Acceleration, S_s	1.50
1.0 second Spectral Response Acceleration, S_1	0.60
Site Coefficient, F_a	1.00
Site Coefficient, F_v	1.50
Maximum considered earthquake spectral response accelerations for short periods, S_{MS}	1.50
Maximum considered earthquake spectral response accelerations for 1-second periods, S_{M1}	0.90
Design spectral response acceleration at short periods, S_{DS}	1.00
Design spectral response acceleration at 1-second periods, S_{D1}	0.60
Long-period transition period, T_L	12 secs

Once additional exploration has occurred, the information above will be reviewed and updated as applicable.

Preliminary Foundation Guidelines

It is our opinion that structural mat foundations would be feasible and likely most cost-effective to support the proposed multi-story residential structures assuming a partial level of below grade parking. Further discussion about proposed building loads and layouts and additional exploration should occur prior to preparation of site-specific foundation designs for the development.

A minimum mat thickness of 16 inches should be anticipated, with the perimeter thickened by at least 2 inches. A maximum allowable bearing pressure of 1,500 psf for dead-plus-live loads should also be anticipated for preliminary purposes, which may be increased by one-third when considering total loads including wind or seismic. We anticipate that structural mats constructed on swelling soils will move differentially; therefore, structural mats may require stiffening to

reduce differential movements due to swelling/shrinkage to a value compatible with the type of structure that will be constructed.

Depending on additional information regarding groundwater levels and the planned depth of partial basements, extra waterproofing or drainage measures should be anticipated.

Preliminary Pavement Design

The following preliminary pavement section has been determined for Traffic Index of 5, an assumed R-value of 5, and in accordance to the design methods contained in Topic 608 of Caltrans Highway Design Manual.

PRELIMINARY PAVEMENT SECTIONS

Traffic Index	AC (inches)	AB (inches)
5.0	3.0	10.0

Note: AC – Asphalt Concrete

AB – Caltrans Class 2 aggregate base (R-value of 78 or greater)

The above preliminary pavement section is for private streets and parking areas, and is provided for estimating only. It does not consider the City of San Jose minimum asphalt concrete (AC) thickness of 4.2 inches.

Surface Drainage

Building pads must be positively graded at all times to provide for rapid removal of surface water runoff from the foundation systems, and to prevent ponding of water under floors or seepage toward the foundation systems at any time during or after construction. Ponded water will cause undesirable soil swell and loss of strength.

As a minimum requirement, finished grades should have slopes of at least 3 percent within 5 feet, where feasible, from the exterior walls and at right angles to allow surface water to drain positively away from the structures. For paved areas, the slope gradient can be reduced to 2 percent.

All surface water should be collected and discharged into outlets approved by the Civil Engineer. Landscape mounds must not interfere with this requirement. In addition, each building should drain individually by providing positive drainage or sufficient area drains around the buildings to remove excessive surface water. All roof stormwater should be collected and directed to downspouts.

Due to the anticipated high clay content, the site soils are not expected to have adequate permeability values to handle stormwater infiltration in grassy swales or permeable pavers. Therefore, best management practices should assume that little stormwater infiltration will occur at the site.

LIMITATIONS AND UNIFORMITY OF CONDITIONS

This preliminary geotechnical study is issued with the understanding that it is the responsibility of the owner to transmit the information and recommendations of this report to developers, contractors, buyers, architects, engineers, and designers for the project so that the necessary steps can be taken by the contractors and subcontractors to carry out such recommendations in the field. The conclusions and recommendations contained in this report are solely professional opinions.

The professional staff of ENGEO Incorporated strives to perform its services in a proper and professional manner with reasonable care and competence but is not infallible. There are risks of earth movement and property damages inherent in land development. We are unable to eliminate all risks or provide insurance; therefore, we are unable to guarantee or warrant the results of our services.

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7862.3.001.01

July 23, 2007

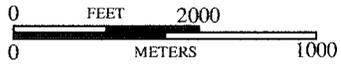
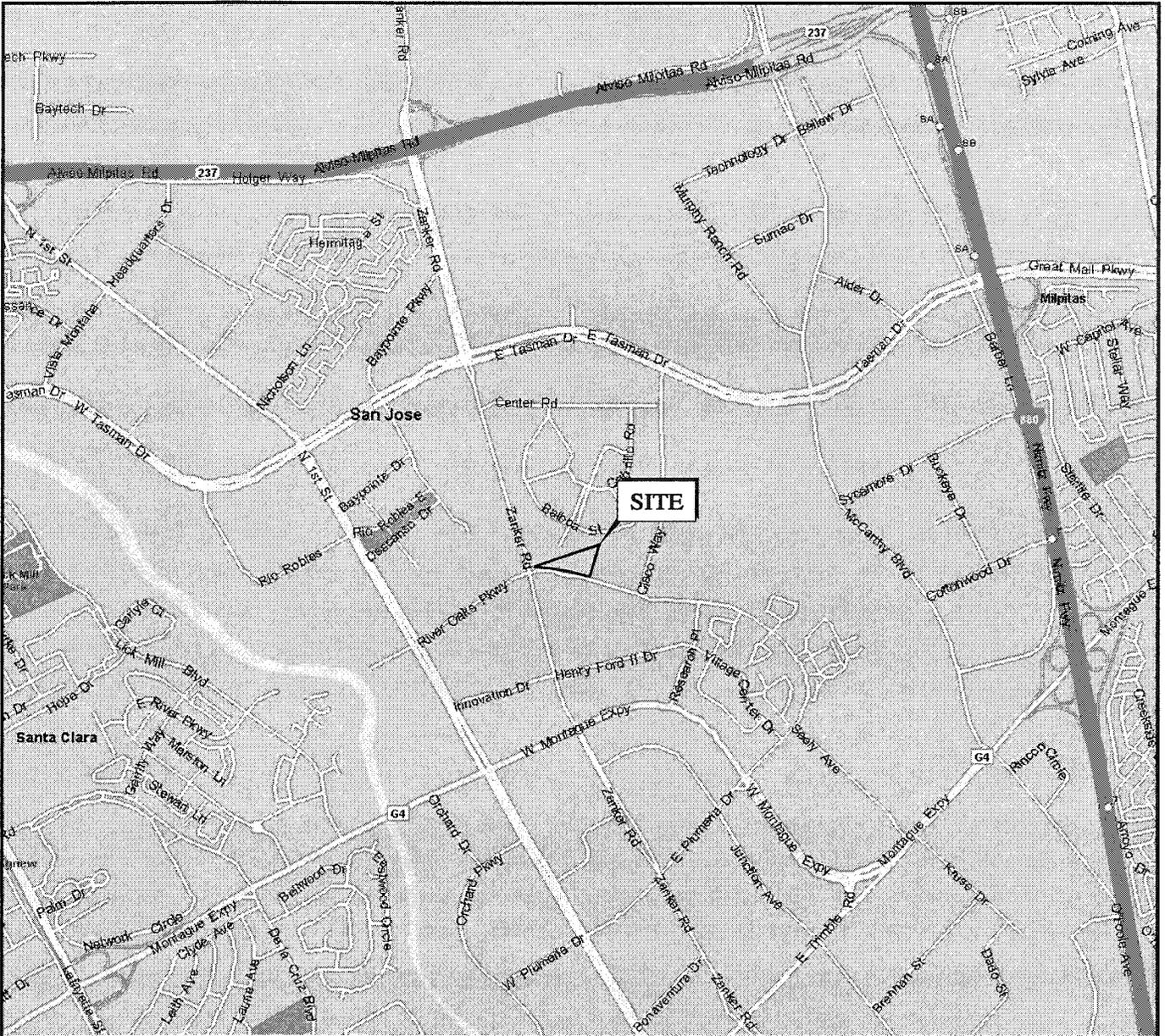
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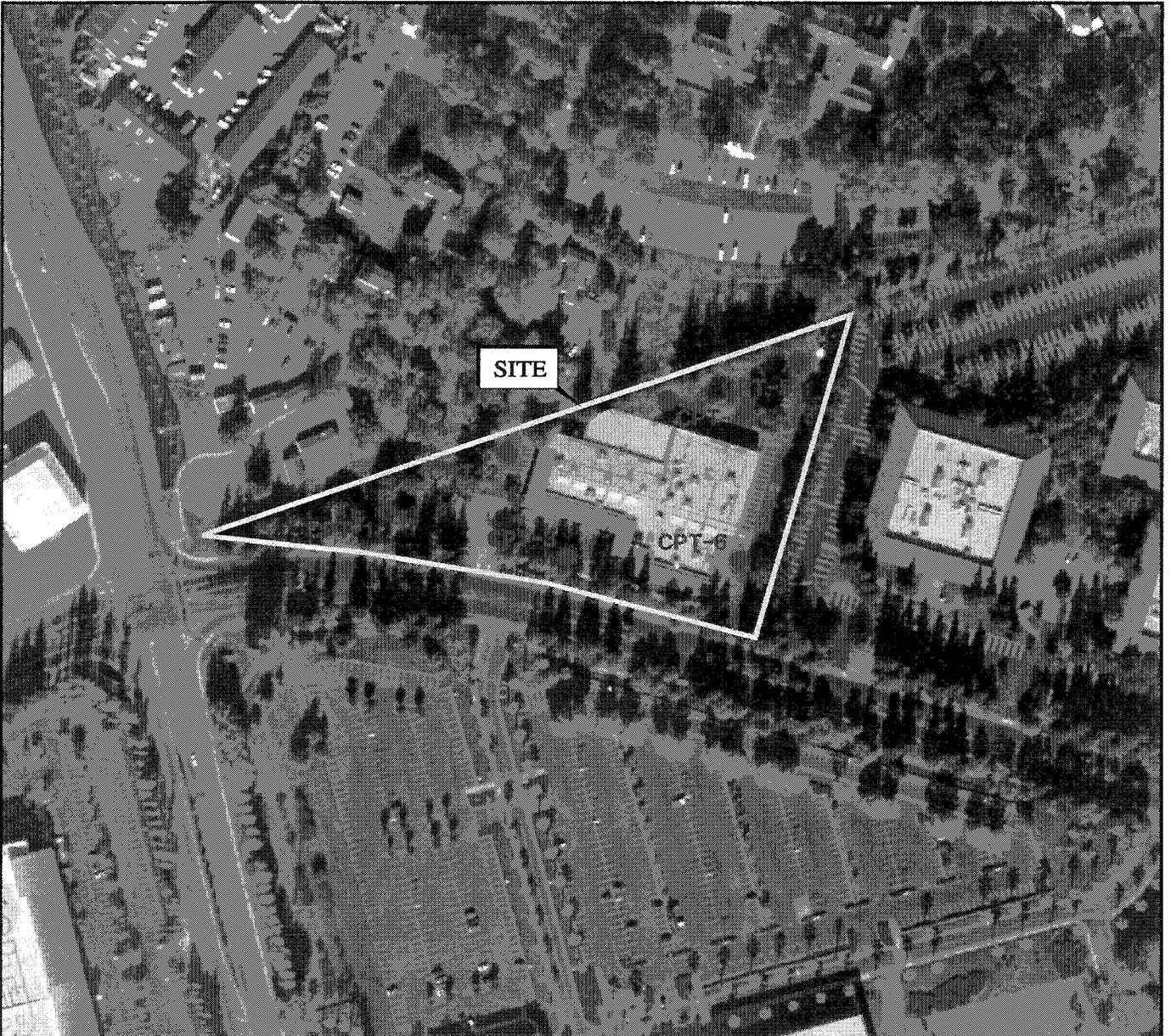
BASE MAP SOURCE: MS STREETS AND TRIPS



VICINITY MAP
 199 RIVER OAKS PARKWAY
 SAN JOSE, CALIFORNIA

PROJECT NO.: 7862.3.001.01	FIGURE NO. 1
DATE: JULY 2007	
DRAWN BY: RJS	CHECKED BY: PG

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EXPLANATION

CPT-2 ●

APPROXIMATE LOCATION OF CONE PENETRATION TEST PROBE

BASE MAP SOURCE: USA PHOTOMAPS



SITE PLAN
199 RIVER OAKS PARKWAY
SAN JOSE, CALIFORNIA

PROJECT NO.: 7862.3.001.01

DATE: JULY 2007

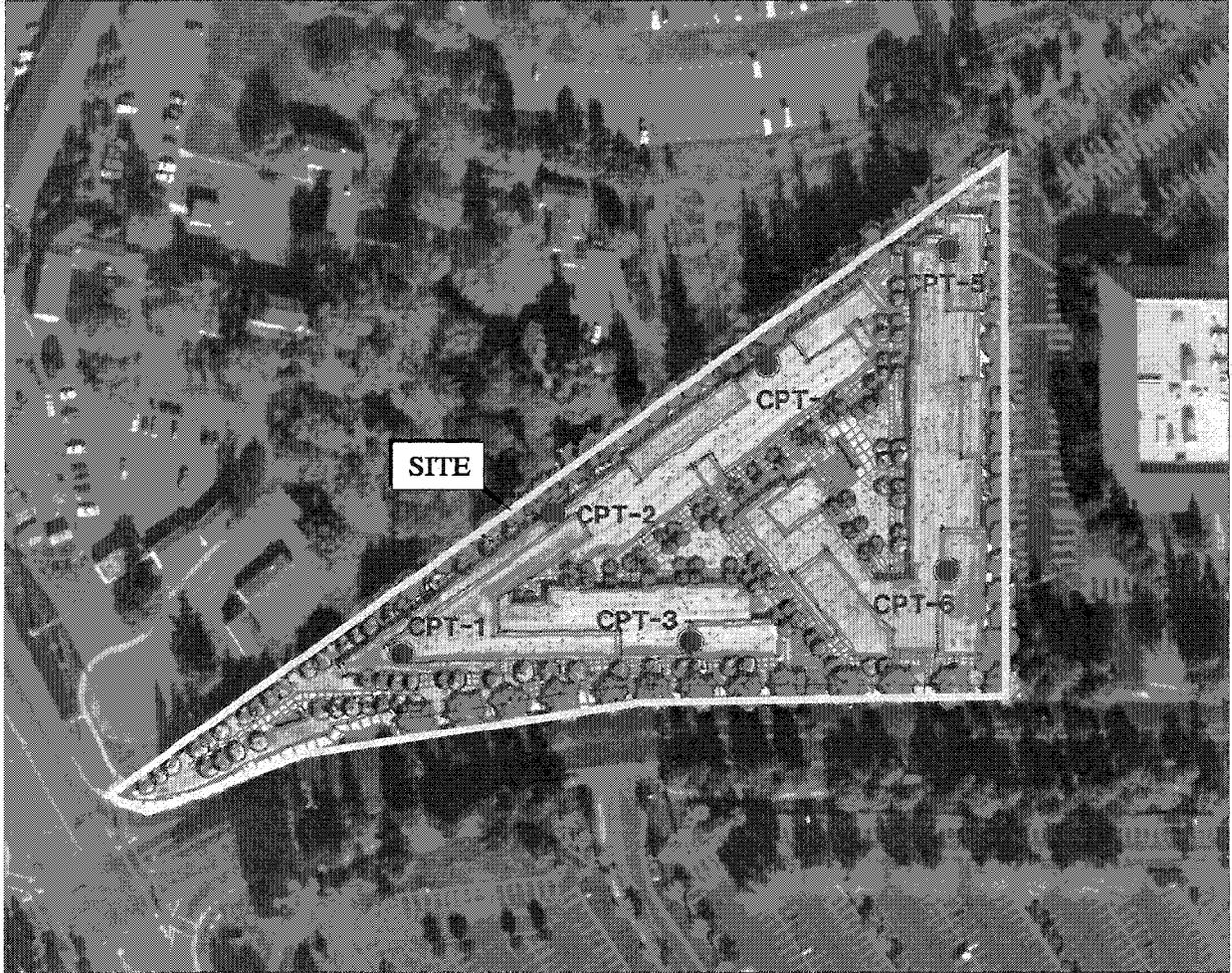
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FIGURE NO.

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EXPLANATION

CPT-2 ● APPROXIMATE LOCATION OF CONE PENETRATION TEST PROBE

BASE MAP SOURCE: MBH



CONCEPTUAL SITE LAYOUT
 199 RIVER OAKS PARKWAY
 SAN JOSE, CALIFORNIA

PROJECT NO.: 7862.3.001.01

DATE: JULY 2007

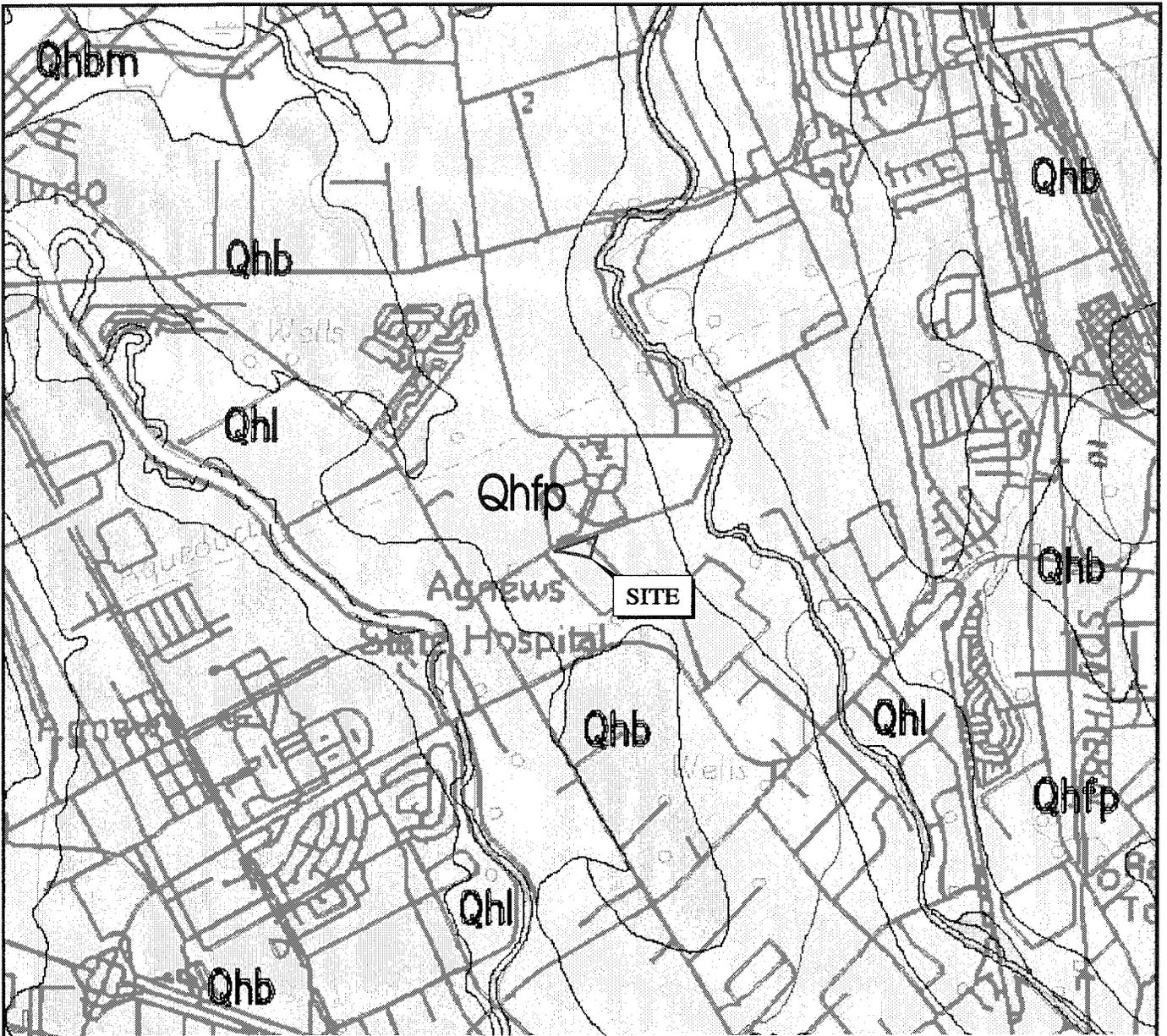
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FIGURE NO.

3

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EXPLANATION

- Qhfp** FLOOD PLAIN DEPOSITS (HOLOCENE)
- Qhb** BASIN DEPOSITS (HOLOCENE)
- Qhbm** BAY MUD (HOLOCENE)
- Qhl** LEVEE DEPOSITS (HOLOCENE)



BASE MAP SOURCE: WENTWORTH, 1999



REGIONAL GEOLOGIC MAP
199 RIVER OAKS PARKWAY
SAN JOSE, CALIFORNIA

PROJECT NO.: 7862.3.001.01

FIGURE NO.

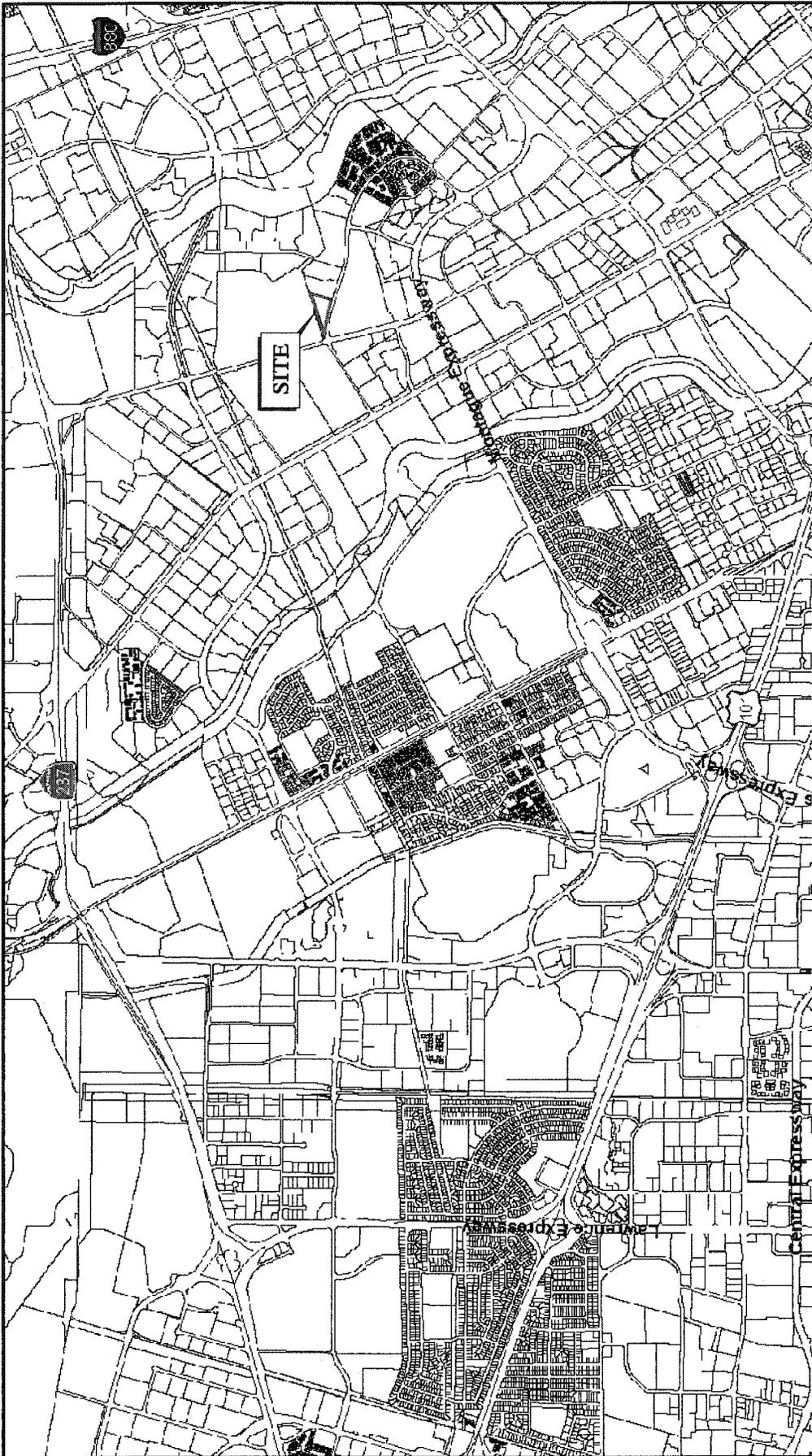
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EXPLANATION

-  FAULT RUPTURE HAZARD ZONES
-  PARCELS
-  COUNTY BOUNDARY



BASE MAP SOURCE: SANTA CLARA COUNTY, 2002

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EXCELLENT SERVICE SINCE 1971

FAULT RUPTURE HAZARD ZONE MAP

199 RIVER OAKS PARKWAY

SAN JOSE, CALIFORNIA

PROJECT NO.: 7862.3.001.01

DATE: JULY 2007

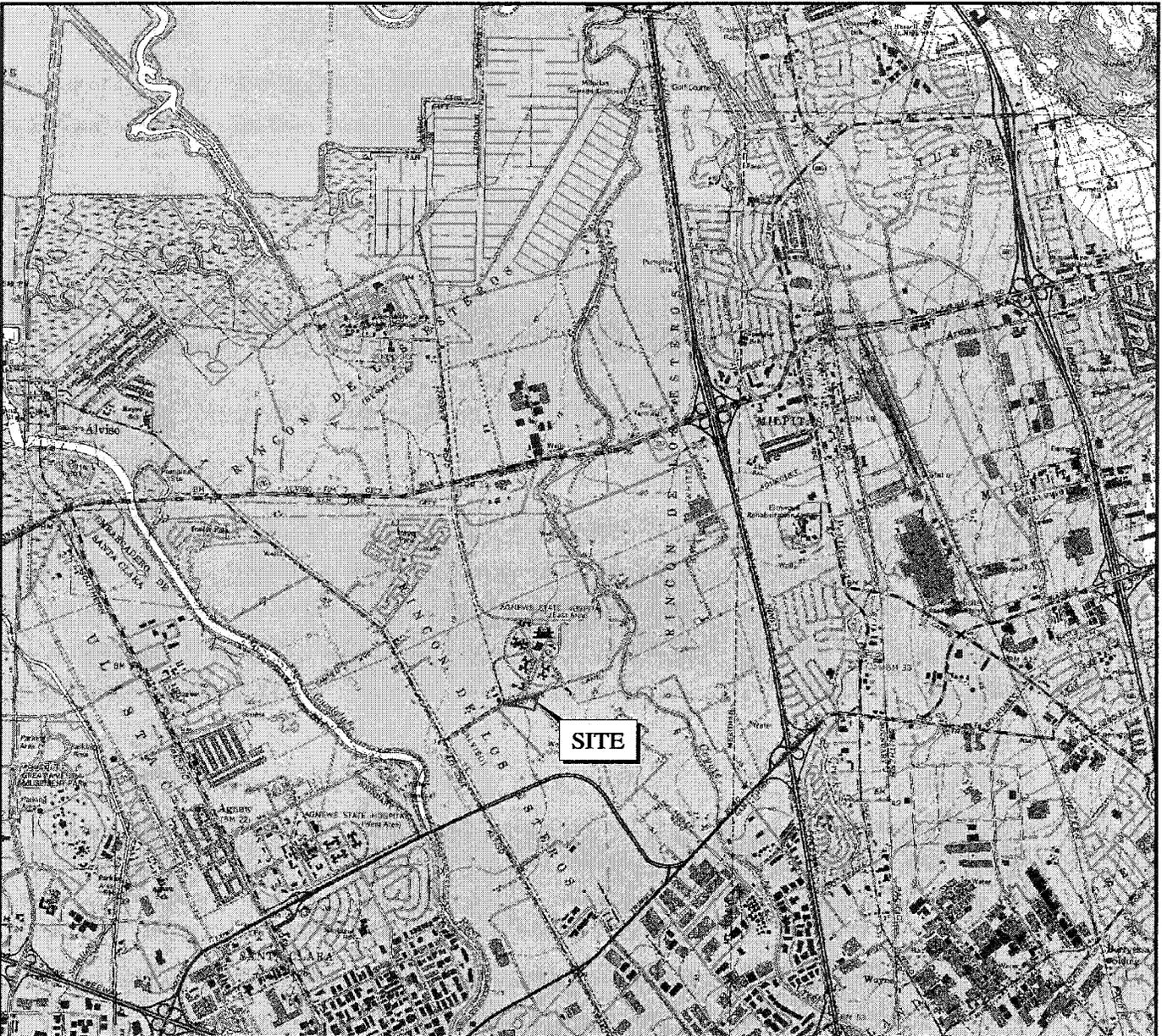
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FIGURE NO.

5

ORIGINAL FIGURE PRINTED IN COLOR

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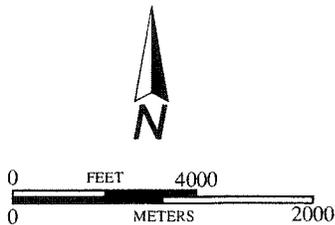
EXPLANATION

Liquefaction

Areas where historical occurrence of liquefaction, or local geological, geotechnical and ground-water conditions indicate a potential for permanent ground displacements such that mitigation as defined in Public Resources Code Section 2693(c) would be required.

Earthquake-Induced Landslides

Areas where previous occurrence of landslide movement, or local topographic, geological, geotechnical and subsurface water conditions indicate a potential for permanent ground displacements such that mitigation as defined in Public Resources Code Section 2693(c) would be required.



BASE MAP SOURCE: CDC, 2004



SEISMIC HAZARDS MAP
199 RIVER OAKS PARKWAY
SAN JOSE, CALIFORNIA

PROJECT NO.: 7862.3.001.01

DATE: JULY 2007

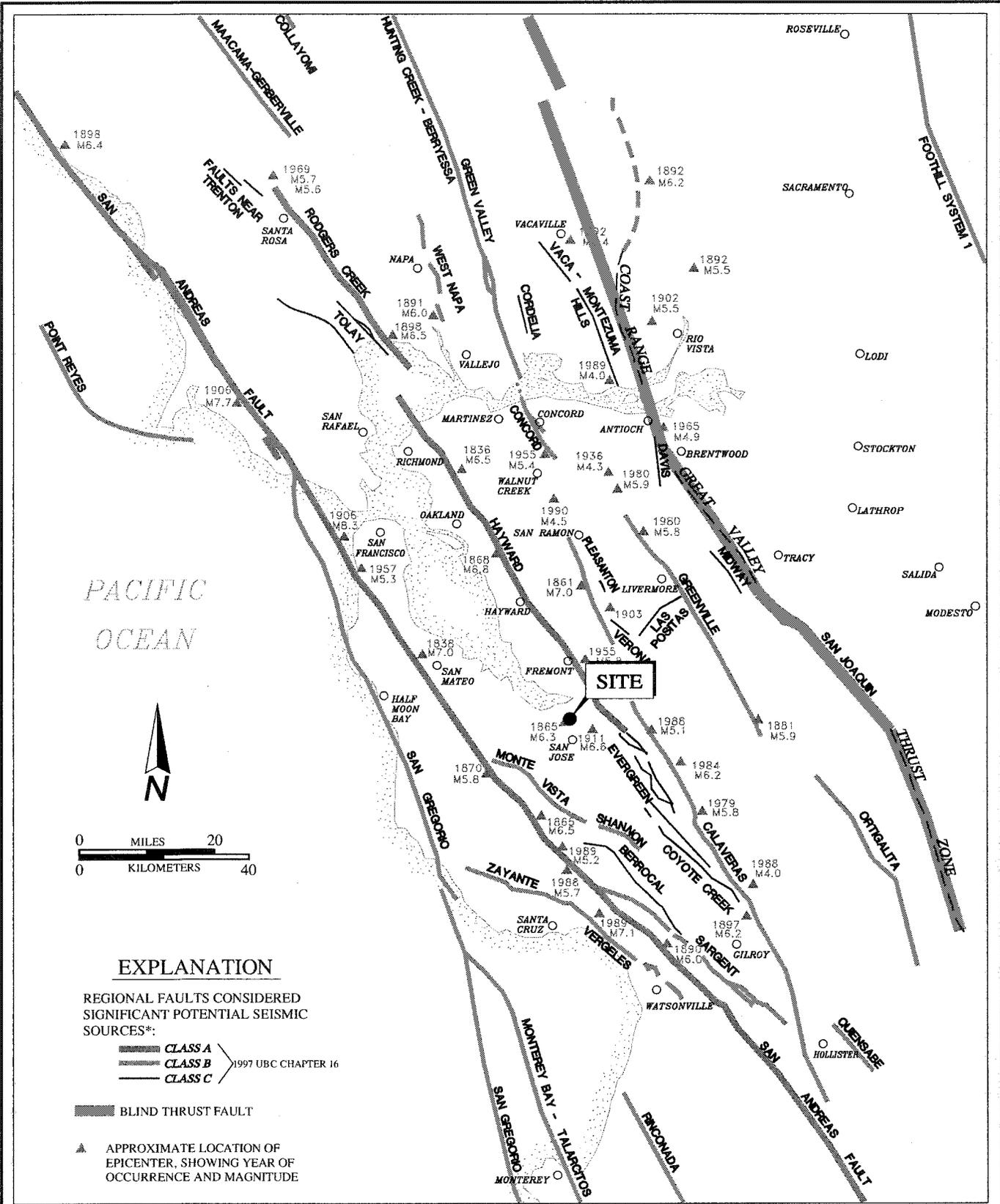
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FIGURE NO.

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EXPLANATION

- REGIONAL FAULTS CONSIDERED SIGNIFICANT POTENTIAL SEISMIC SOURCES*:
- CLASS A
 CLASS B
 CLASS C
 - BLIND THRUST FAULT
 - APPROXIMATE LOCATION OF EPICENTER, SHOWING YEAR OF OCCURRENCE AND MAGNITUDE
- *1997 UBC CHAPTER 16

*BASED ON USGS OPEN FILE 96-706

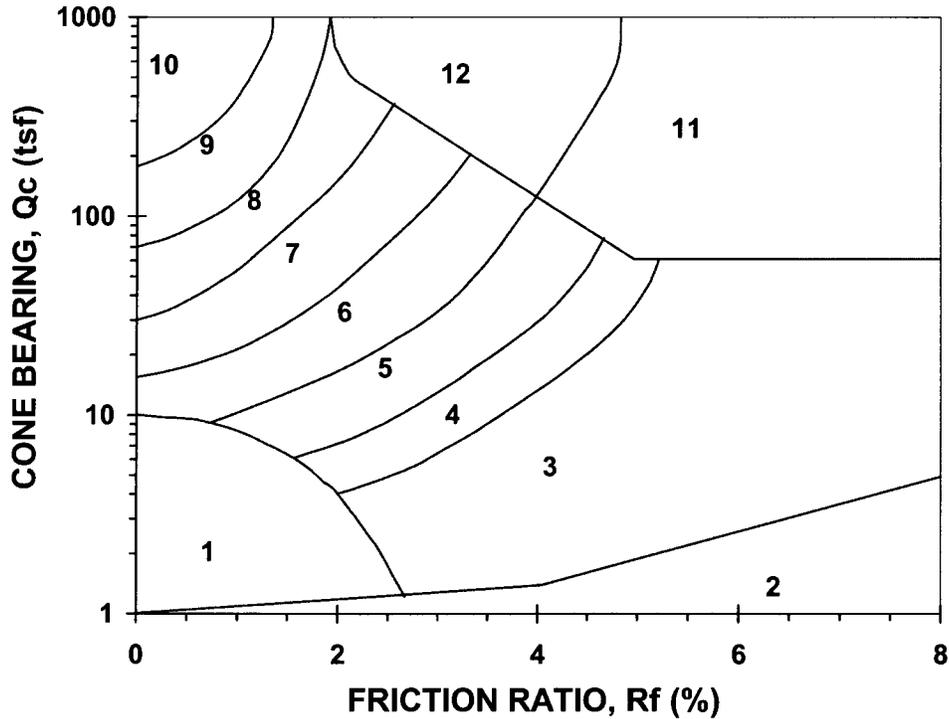
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		<p>DATE: JULY 2007</p>	
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APPENDIX A

JOHN SARMIENTO & ASSOCIATES, INC.

Cone Penetrometer Test Logs

**SIMPLIFIED SOIL BEHAVIOR TYPE CLASSIFICATION
FOR STANDARD ELECTRONIC CONE PENETROMETER**



ZONE	Qc/N ¹	Su Factor (Nk) ²	SOIL BEHAVIOR TYPE ¹
1	2	for Zones 1 to 6 10 for Qc ≤ 9 tsf 12 for Qc = 9 to 12 tsf 15 for Qc > 12 tsf	Sensitive Fine Grained Organic Material CLAY
2	1		
3	1		
4	1.5		
5	2		
6	2.5		
7	3	---	Silty SAND to Sandy SILT
8	4	---	SAND to Silty SAND
9	5	---	SAND
10	6	---	Gravelly SAND to SAND
11	1	15	Very Stiff Fine Grained (*)
12	2	---	SAND to Clayey SAND (*)

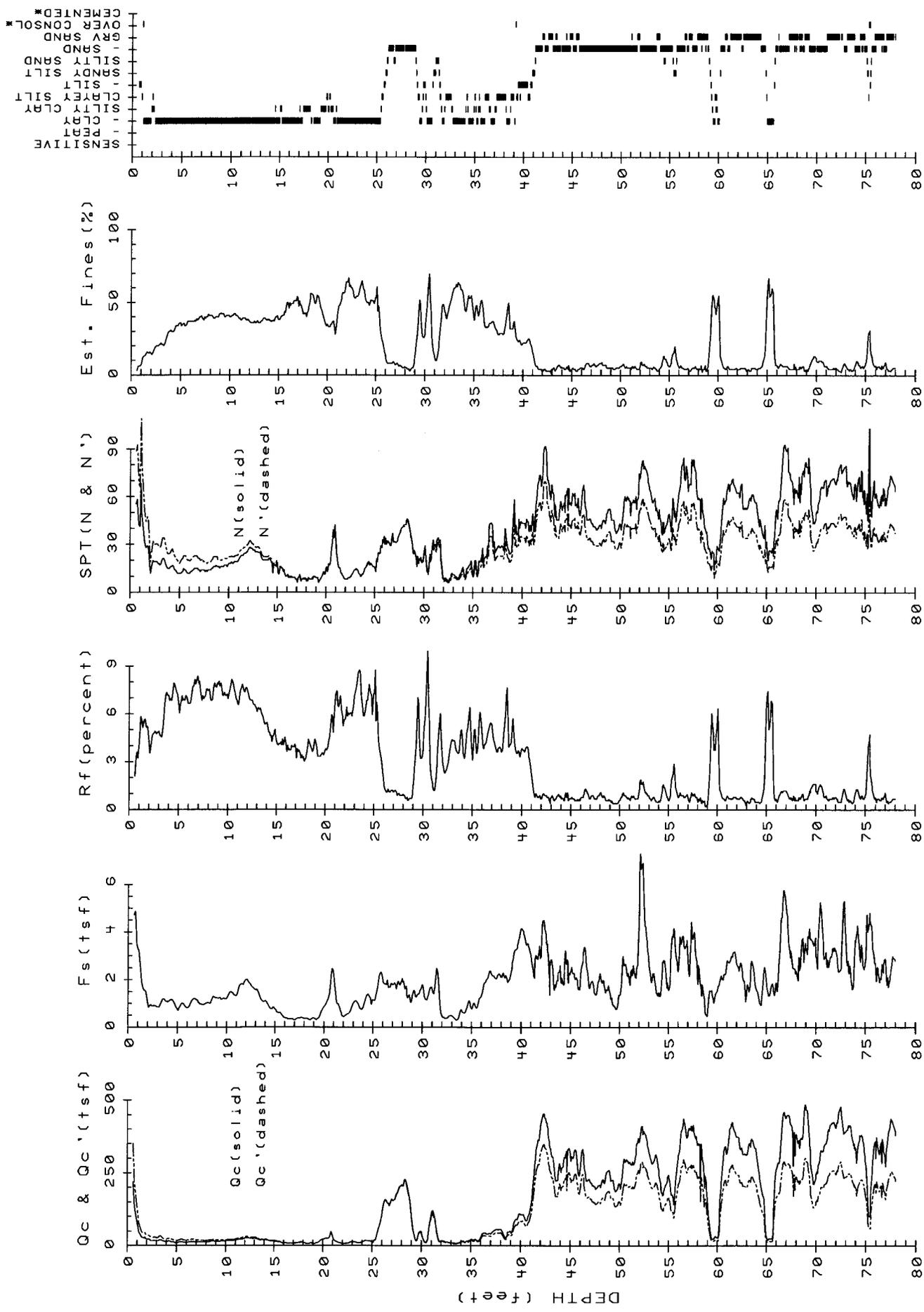
(*) Overconsolidated or Cemented

Qc = Tip Bearing
Fs = Sleeve Friction
Rf = Fs/Qc*100 = Friction Ratio

- References: ¹Robertson, 1986, Olsen, 1988
²Bonaparte & Mitchell, 1979 (young bay mud Qc ≤ 9)
²Estimated from local experience (fine grained soils Qc > 9)

Note: Testing performed in accordance with ASTM D3441

John Sarmiento & Associates
Cone Penetrometer Testing Services



Terminated at 78.0 feet

Groundwater measured at 11.0 feet

PROJECT: 199 RIVER OAKS PARKWAY SITE
 LOCATION: San Jose CA
 PROJ. NO.: 7862.3.001.01(EGO-173)

CPT NO.: CPT-1
 DATE: 07-18-2007

ENGEO, INC.
 cpts by John Sarmiento & Associates

PROJECT: 199 RIVER OAKS PARKWAY SITE
 LOCATION: San Jose CA
 PROJ. NO.: 7862.3.001.01(EGO-173)
 Terminated at 78.0 feet

CPT NO.: CPT-1
 DATE : 07-18-2007
 TIME : 10:38:26
 Groundwater measured at 11.0 feet

ENGEO, INC.
cpts by John Sarmiento & Associates

DEPTH (feet)	Qc (tsf)	Qc' (tsf)	Fs (tsf)	Rf (%)	SPT (N)	SPT' (N')	EffVtStr (ksf)	PHI (deg.)	SU (ksf)	SOIL BEHAVIOR TYPE	DENSITY RANGE (pcf)
0.59	220.5	352.80	4.65	2.1	55	88	0.07	45	---	SAND to Silty SAND	130-140
1.07	67.9	108.64	3.17	4.7	68	109	0.13	---	9.04	Very Stiff Fine Grained *	"
1.54	29.0	46.40	1.61	5.6	29	46	0.20	---	3.85	CLAY	"
2.08	23.5	37.60	0.83	3.5	12	19	0.27	---	3.12	Clayey SILT to Silty CLAY	"
2.53	18.6	29.76	0.90	4.8	19	30	0.33	---	2.46	CLAY	120-130
3.01	17.3	27.68	0.84	4.9	17	28	0.39	---	2.28	"	"
3.50	20.4	32.64	1.17	5.7	20	33	0.45	---	2.69	"	130-140
4.09	15.8	25.28	1.07	6.8	16	25	0.53	---	2.07	"	"
4.59	13.9	22.24	1.08	7.8	14	22	0.59	---	1.81	"	120-130
5.08	11.6	18.56	0.70	6.0	12	19	0.66	---	1.88	"	"
5.52	14.4	23.04	0.99	6.9	14	23	0.71	---	1.87	"	"
6.01	12.1	19.36	0.80	6.6	12	19	0.77	---	1.56	"	"
6.51	15.0	23.40	1.15	7.7	15	23	0.84	---	1.94	"	130-140
7.01	14.1	21.12	1.10	7.8	14	21	0.90	---	1.82	"	120-130
7.59	13.4	19.09	0.94	7.0	13	19	0.98	---	1.72	"	"
8.07	13.8	19.07	1.03	7.5	14	19	1.04	---	1.77	"	"
8.53	16.0	21.59	1.23	7.7	16	22	1.10	---	2.06	"	130-140
9.08	15.1	19.79	1.21	8.0	15	20	1.17	---	1.94	"	"
9.53	16.7	21.36	1.18	7.1	17	21	1.23	---	2.14	"	"
10.08	17.6	21.87	1.26	7.2	18	22	1.31	---	2.26	"	"
10.53	18.5	22.45	1.45	7.8	19	22	1.37	---	2.38	"	"
11.07	21.4	25.57	1.39	6.5	21	26	1.41	---	2.76	"	"
11.51	23.9	28.19	1.81	7.6	24	28	1.44	---	3.09	"	"
12.12	27.9	31.94	1.97	6.1	28	32	1.59	---	3.61	"	"
12.56	25.8	29.54	1.70	6.6	26	30	1.51	---	3.33	"	"
13.07	25.0	28.28	1.57	6.3	25	28	1.55	---	3.22	"	"
13.58	19.7	22.02	1.14	5.8	20	22	1.59	---	2.51	"	"
14.02	20.1	22.24	1.08	5.4	20	22	1.62	---	2.56	"	"
14.54	18.1	19.82	0.76	4.2	12	13	1.65	---	2.29	Silty CLAY to CLAY	120-130
15.08	17.4	18.84	0.72	4.1	12	13	1.69	---	2.19	"	"
15.52	14.6	15.66	0.59	4.0	15	16	1.71	---	1.81	CLAY	"
16.04	10.6	11.27	0.38	3.6	11	11	1.74	---	1.59	"	110-120
16.56	8.8	9.29	0.35	4.0	9	9	1.77	---	1.55	"	"
17.08	9.7	10.17	0.31	3.2	6	7	1.80	---	1.43	Silty CLAY to CLAY	"
17.51	12.2	12.73	0.39	3.2	8	8	1.82	---	1.48	"	"
18.03	11.2	11.61	0.36	3.2	7	8	1.85	---	1.67	"	"
18.52	7.9	8.14	0.31	3.9	8	8	1.87	---	1.34	CLAY	"
19.04	8.7	8.91	0.36	4.1	9	9	1.90	---	1.50	"	"
19.56	14.5	14.73	0.49	3.4	10	10	1.93	---	1.77	Silty CLAY to CLAY	120-130
20.08	23.8	23.97	0.90	3.8	16	16	1.97	---	3.00	"	130-140
20.54	26.7	26.70	1.41	5.3	27	27	2.00	---	3.38	CLAY	"
21.08	24.9	24.88	1.80	7.2	25	25	2.04	---	3.14	"	"
21.52	12.4	12.38	0.88	7.1	12	12	2.07	---	1.47	"	120-130
22.01	7.9	7.88	0.44	5.6	8	8	2.10	---	1.30	"	110-120
22.53	9.6	9.58	0.58	6.0	10	10	2.13	---	1.36	"	120-130
23.00	14.4	14.35	1.02	7.1	14	14	2.16	---	1.72	"	"
23.58	10.4	10.36	0.89	8.6	10	10	2.19	---	1.48	"	"
24.10	16.2	16.12	1.01	6.2	16	16	2.23	---	1.95	"	130-140
24.50	17.5	17.50	1.37	7.8	18	17	3.13	---	2.14	"	130-140
25.02	15.4	15.31	1.12	7.3	15	15	2.30	---	1.84	"	"
25.52	47.8	47.48	1.86	3.9	24	24	2.34	---	6.16	Clayey SILT to Silty CLAY	"
26.03	120.1	119.21	1.86	1.5	30	30	2.37	39	---	SAND to Silty SAND	"
26.54	146.7	145.51	1.65	1.1	29	29	2.40	40	---	SAND	120-130
27.10	154.8	153.44	1.79	1.2	31	31	2.44	40	---	"	"
27.55	184.8	183.07	1.93	1.0	37	37	2.47	41	---	"	"

PROJECT: 199 RIVER OAKS PARKWAY SITE
 LOCATION: San Jose CA
 PROJ. NO.: 7862.3.001.01(EGO-173)
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ENGEO, INC.
cpts by John Sarmiento & Associates

DEPTH (feet)	Qc (tsf)	Qc' (tsf)	Fs (tsf)	Rf (%)	SPT (N)	SPT' (N')	EffVtStr (ksf)	PHI (deg.)	SU (ksf)	SOIL BEHAVIOR TYPE	DENSITY RANGE (pcf)
28.02	209.6	207.52	1.87	0.9	42	42	2.50	42	---	"	"
28.53	210.8	207.06	1.22	0.6	42	41	2.52	42	---	"	110-120
29.08	79.2	76.75	1.41	1.8	26	26	2.56	36	---	Silty SAND to Sandy SILT	130-140
29.54	20.9	20.02	1.37	6.6	21	20	2.60	---	2.53	CLAY	"
30.07	38.3	36.20	1.75	4.6	26	24	2.64	---	4.85	Silty CLAY to CLAY	"
30.54	18.1	16.91	1.25	6.9	18	17	2.67	---	2.15	CLAY	"
31.01	111.9	103.25	1.58	1.4	28	26	2.70	38	---	SAND to Silty SAND	"
31.50	68.2	62.13	2.47	3.6	34	31	2.74	---	8.82	Clayey SILT to Silty CLAY	"
32.01	16.3	14.68	0.47	2.9	8	7	2.77	---	1.90	"	120-130
32.55	13.6	12.10	0.40	2.9	7	6	2.80	---	1.53	"	"
33.05	11.1	9.76	0.48	4.3	11	10	2.84	---	1.50	CLAY	"
33.50	9.0	7.84	0.32	3.6	9	8	2.86	---	1.14	"	110-120
34.03	16.3	14.02	0.71	4.4	16	14	2.89	---	1.88	"	120-130
34.56	16.1	13.67	0.82	5.1	16	14	2.93	---	1.85	"	"
35.04	24.8	20.78	0.78	3.1	12	10	2.96	---	3.01	Clayey SILT to Silty CLAY	130-140
35.56	21.6	17.87	0.80	3.7	14	12	2.99	---	2.58	Silty CLAY to CLAY	120-130
36.08	36.1	29.65	1.43	4.0	18	15	3.03	---	4.50	Clayey SILT to Silty CLAY	130-140
36.50	44.1	36.07	1.98	4.5	29	24	3.06	---	5.57	Silty CLAY to CLAY	"
37.00	41.9	34.09	2.24	5.3	42	34	3.10	---	5.27	CLAY	"
37.57	57.7	46.67	2.07	3.6	29	23	3.14	---	7.37	Clayey SILT to Silty CLAY	"
38.06	56.6	45.56	2.09	3.7	28	23	3.17	---	7.22	"	"
38.52	27.6	22.11	2.10	7.6	28	22	3.21	---	3.35	CLAY	"
39.06	45.6	36.32	2.43	5.3	46	36	3.25	---	5.74	"	"
39.53	92.5	73.31	3.25	3.5	37	29	3.28	---	11.99	Sandy SILT to Clayey SILT	"
40.00	108.3	85.41	4.10	3.8	43	34	3.32	---	14.10	"	"
40.54	87.0	68.22	3.41	3.9	44	34	3.36	---	11.25	Clayey SILT to Silty CLAY	"
41.00	129.5	101.05	3.00	2.3	43	34	3.39	38	---	Silty SAND to Sandy SILT	"
41.50	296.5	230.29	2.99	1.0	59	46	3.42	43	---	SAND	120-130
42.02	419.3	324.36	2.95	0.7	70	54	3.45	45	---	Gravelly SAND to SAND	110-120
42.54	435.8	335.49	3.85	0.9	73	56	3.48	45	---	"	120-130
43.04	333.1	255.23	2.81	0.8	67	51	3.51	43	---	SAND	"
43.50	229.3	175.05	1.66	0.7	46	35	3.54	41	---	"	110-120
44.01	272.1	206.74	2.12	0.8	54	41	3.57	42	---	"	"
44.52	306.2	231.53	2.98	1.0	61	46	3.60	43	---	"	120-130
45.06	291.8	219.51	2.38	0.8	58	44	3.63	43	---	"	"
45.56	328.6	246.21	2.08	0.6	55	41	3.66	43	---	Gravelly SAND to SAND	110-120
46.04	269.7	201.13	2.20	0.8	54	40	3.69	42	---	SAND	120-130
46.53	252.9	187.58	3.17	1.3	51	38	3.72	42	---	"	130-140
47.00	224.2	165.65	1.67	0.7	45	33	3.75	41	---	"	110-120
47.52	201.4	148.17	1.37	0.7	40	30	3.78	40	---	"	"
48.02	209.0	153.01	2.25	1.1	42	31	3.81	40	---	"	120-130
48.56	230.7	168.14	1.45	0.6	46	34	3.84	41	---	"	110-120
49.07	238.8	173.32	1.35	0.6	48	35	3.86	41	---	"	"
49.56	189.4	137.00	0.84	0.4	38	27	3.88	40	---	"	100-110
50.06	207.1	149.18	1.38	0.7	41	30	3.91	40	---	"	110-120
50.55	288.0	206.45	2.60	0.9	58	41	3.94	42	---	"	120-130
51.01	285.7	203.99	1.88	0.7	57	41	3.97	42	---	"	110-120
51.56	289.5	205.75	2.17	0.7	58	41	3.99	42	---	"	"
52.02	355.0	251.24	4.45	1.3	71	50	4.03	43	---	"	130-140
52.50	395.0	278.36	5.60	1.4	79	56	4.06	44	---	"	"
53.05	320.9	225.21	2.54	0.8	64	45	4.10	43	---	"	120-130
53.52	290.2	202.94	2.21	0.8	58	41	4.13	42	---	"	"
54.01	261.0	181.95	1.44	0.6	52	36	4.15	41	---	"	110-120
54.51	186.9	129.71	2.80	1.5	37	26	4.19	39	---	"	130-140
55.01	244.8	169.35	1.55	0.6	49	34	4.21	41	---	"	110-120

PROJECT: 199 RIVER OAKS PARKWAY SITE
 LOCATION: San Jose CA
 PROJ. NO.: 7862.3.001.01(EGO-173)
 Terminated at 78.0 feet

CPT NO.: CPT-1
 DATE : 07-18-2007
 TIME : 10:38:26
 Groundwater measured at 11.0 feet

ENGEO, INC.
cpys by John Sarmiento & Associates

DEPTH (feet)	Qc (tsf)	Qc' (tsf)	Fs (tsf)	Rf (%)	SPT (N)	SPT' (N')	EffVtStr (ksf)	PHI (deg.)	SU (ksf)	SOIL BEHAVIOR TYPE	DENSITY RANGE (pcf)
55.54	141.9	97.72	4.12	2.9	47	33	4.25	38	---	Silty SAND to Sandy SILT	130-140
56.04	311.7	213.82	2.40	0.8	62	43	4.28	42	---	SAND	120-130
56.52	420.7	287.54	3.78	0.9	84	58	4.31	44	---	"	"
57.03	394.7	268.85	2.60	0.7	66	45	4.34	44	---	Gravelly SAND to SAND	110-120
57.50	404.4	274.44	3.65	0.9	81	55	4.37	44	---	SAND	120-130
58.01	347.9	235.31	1.79	0.5	58	39	4.40	43	---	Gravelly SAND to SAND	110-120
58.50	298.1	200.97	1.73	0.6	50	33	4.42	42	---	"	"
59.05	108.8	73.09	0.89	0.8	27	18	4.45	36	---	SAND to Silty SAND	110-120
59.50	24.9	16.66	1.36	5.5	25	17	4.48	---	2.82	CLAY	130-140
60.02	27.5	18.31	1.56	5.7	28	18	4.52	---	3.16	"	"
60.50	252.1	167.21	2.01	0.8	50	33	4.55	41	---	SAND	120-130
61.02	322.6	213.07	2.80	0.9	65	43	4.58	42	---	"	"
61.55	426.3	280.56	2.92	0.7	71	47	4.61	44	---	Gravelly SAND to SAND	110-120
62.07	373.2	244.75	2.58	0.7	62	41	4.64	43	---	"	"
62.56	325.8	212.95	2.34	0.7	54	35	4.66	42	---	"	"
63.05	315.2	205.33	1.80	0.6	53	34	4.69	42	---	"	"
63.53	366.4	237.75	2.77	0.8	61	40	4.72	43	---	"	120-130
64.02	312.6	202.28	1.55	0.5	52	34	4.74	42	---	"	100-110
64.57	183.5	118.29	1.40	0.8	37	24	4.77	39	---	SAND	110-120
65.05	23.1	14.82	1.63	7.1	23	15	4.80	---	2.53	CLAY	130-140
65.58	27.6	17.62	1.83	6.6	28	18	4.84	---	3.13	"	"
66.10	273.9	173.85	1.49	6.7	46	29	4.89	41	---	SAND	"
66.51	374.2	236.74	4.55	1.2	75	47	4.91	43	---	SAND	"
67.06	446.3	281.06	4.76	1.1	89	56	4.94	44	---	"	120-130
67.54	413.3	259.39	2.94	0.7	69	43	4.97	43	---	Gravelly SAND to SAND	110-120
68.02	384.0	240.17	2.34	0.6	64	40	4.99	43	---	"	"
68.55	371.3	231.39	3.47	0.9	74	46	5.03	43	---	SAND	120-130
69.02	466.9	290.22	3.20	0.7	78	48	5.05	44	---	Gravelly SAND to SAND	110-120
69.51	262.4	162.50	3.65	1.4	52	32	5.09	41	---	SAND	130-140
70.00	245.1	151.22	2.97	1.2	49	30	5.12	40	---	"	"
70.57	327.8	201.36	4.79	1.5	66	40	5.16	42	---	"	"
71.02	351.7	215.40	3.13	0.9	70	43	5.19	42	---	"	120-130
71.55	418.4	255.48	2.93	0.7	70	43	5.22	43	---	"	"
72.02	404.3	246.10	3.17	0.8	67	41	5.25	43	---	"	120-130
72.51	479.6	291.29	2.40	0.5	80	49	5.27	44	---	"	100-110
73.05	396.7	240.08	3.44	0.9	79	48	5.30	43	---	SAND	120-130
73.51	410.4	247.73	2.26	0.6	68	41	5.33	43	---	Gravelly SAND to SAND	110-120
74.02	336.6	202.49	3.54	1.1	67	40	5.36	42	---	SAND	120-130
74.51	377.8	226.63	2.73	0.7	63	38	5.39	43	---	Gravelly SAND to SAND	110-120
75.04	274.0	163.78	2.86	1.0	55	33	5.42	41	---	SAND	120-130
75.53	196.7	117.12	4.37	2.2	66	39	5.45	39	---	Silty SAND to Sandy SILT	130-140
76.03	300.4	178.25	2.55	0.8	60	36	5.49	41	---	SAND	120-130
76.54	350.5	207.37	2.01	0.6	58	35	5.51	42	---	Gravelly SAND to SAND	110-120
77.04	292.7	172.58	2.73	0.9	59	35	5.54	41	---	SAND	120-130
77.54	436.1	256.39	2.22	0.5	73	43	5.57	43	---	Gravelly SAND to SAND	110-120
78.02	379.7	222.61	2.75	0.7	63	37	5.60	43	---	"	"

DEPTH = Sampling interval (~0.1 feet)

Qc = Tip bearing resistance TotStr = Total Stress using est. density**

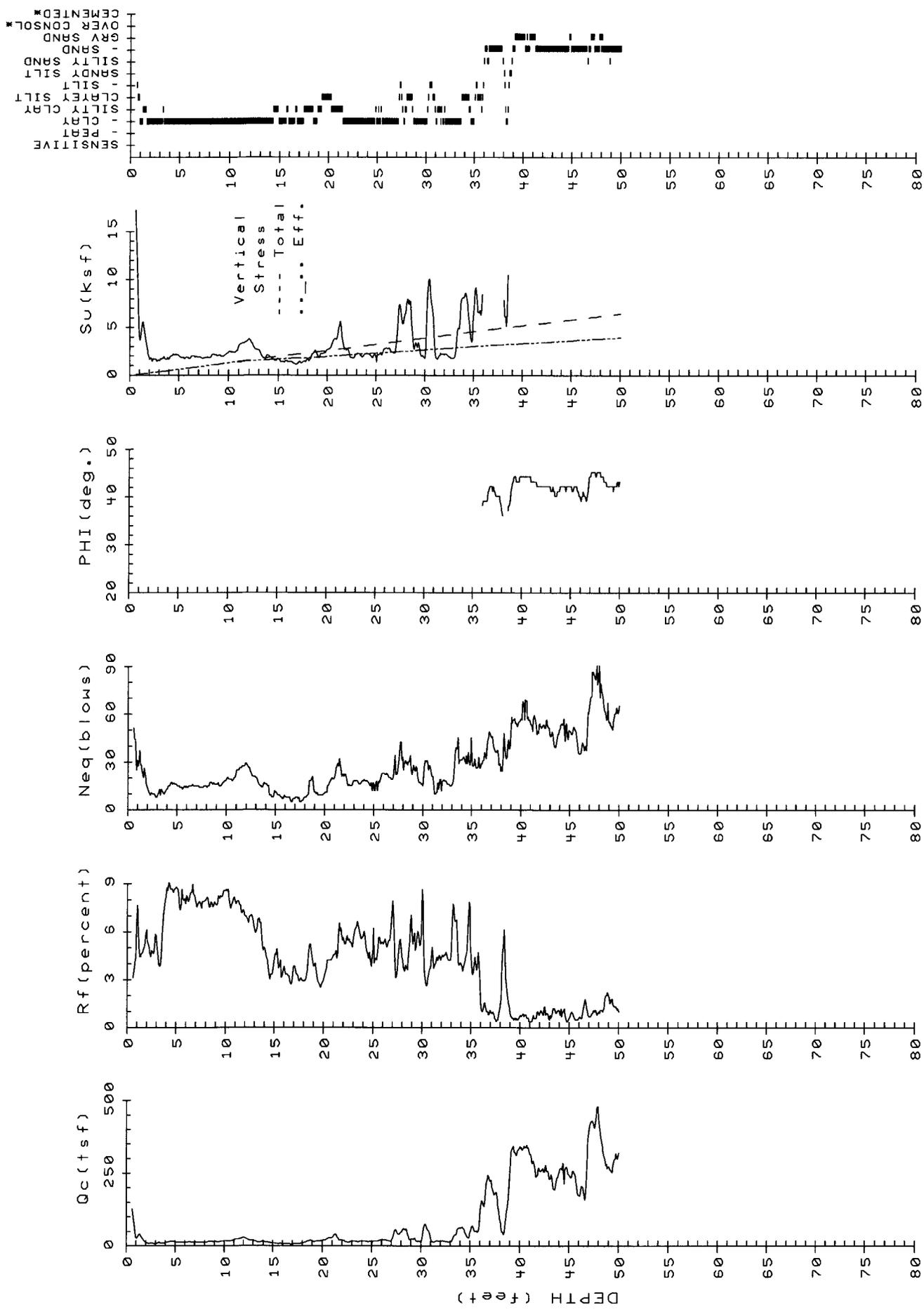
Fs = Sleeve friction resistance Phi = Soil friction angle*

Rf = Tip/Sleeve ratio Su = Undrained Soil Strength* (Nk=10 for Qc<9 tsf)

SPT = Equivalent Standard Penetration Test* (Nk=12 for Qc=9 to 12 tsf) (Nk=15 for Qc>12 tsf)

References: * Robertson and Campanella, 1988

** Olsen, 1989 *** Durgunoglu & Mitchell, 1975



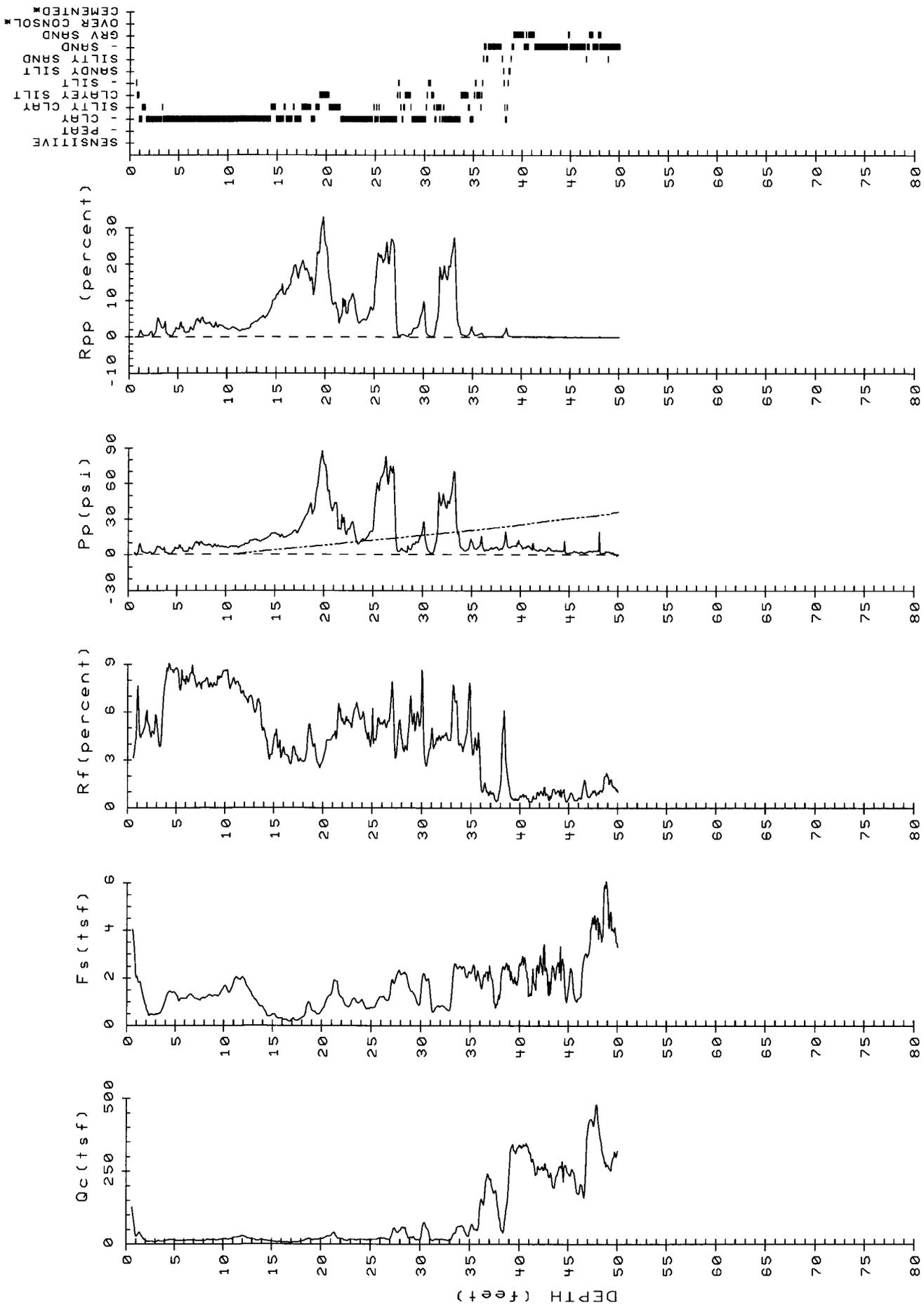
Groundwater measured at 10.5 feet

Terminated at 50.0 feet

PROJECT: 199 RIVER OAKS PARKWAY SITE
 LOCATION: San Jose CA
 PROJ. NO.: 7862.3.001.01 (EGO-173)

ENGEQ, INC.
cpts by John Sarmiento & Associates

CPT NO.: CPT-2
 DATE : 07-18-2007



Groundwater measured at 10.5 feet

Terminated at 50.0 feet

ENGEO, INC.
cpts by John Sarmiento & Associates

CPT NO.: CPT-2
 DATE : 07-18-2007

PROJECT: 199 RIVER OAKS PARKWAY SITE
 LOCATION: San Jose CA
 PROJ. NO.: 7862.3.001.01 (EGO-173)

PROJECT: 199 RIVER OAKS PARKWAY SITE
 LOCATION: San Jose CA
 PROJ. NO.: 7862.3.001.01(EGO-173)
 Terminated at 50.0 feet

CPT NO.: CPT-2
 DATE : 07-18-2007
 TIME : 09:22:07
 Groundwater measured at 10.5 feet

ENGEO, INC.
cpts by John Sarmiento & Associates

DEPTH (feet)	Qc (tsf)	Qc' (tsf)	Fs (tsf)	Rf (%)	SPT (N)	SPT' (N')	EffVtStr (ksf)	PHI (deg.)	SU (ksf)	SOIL BEHAVIOR TYPE	DENSITY RANGE (pcf)
0.57	128.7	205.92	3.99	3.1	51	82	0.07	----	17.16	Sandy SILT to Clayey SILT	130-140
1.05	27.3	43.68	2.07	7.6	27	44	0.13	----	3.63	CLAY	"
1.51	34.7	55.52	1.58	4.6	23	37	0.19	----	4.61	Silty CLAY to CLAY	"
2.06	12.5	20.00	0.68	5.4	13	20	0.26	----	1.65	CLAY	120-130
2.50	10.1	16.16	0.48	4.8	10	16	0.31	----	1.66	"	110-120
3.05	9.3	14.88	0.47	5.1	9	15	0.38	----	1.52	"	"
3.51	11.9	19.04	0.55	4.6	12	19	0.43	----	1.95	"	120-130
4.05	13.2	21.12	1.15	8.7	13	21	0.50	----	1.73	"	"
4.51	16.5	26.40	1.42	8.6	17	26	0.56	----	2.16	"	130-140
5.05	15.4	24.64	1.34	8.7	15	25	0.64	----	2.01	"	"
5.51	14.2	22.72	1.08	7.6	14	23	0.69	----	1.85	"	120-130
6.03	13.7	21.92	1.12	8.2	14	22	0.76	----	1.78	"	"
6.56	15.6	24.48	1.31	8.4	16	24	0.83	----	2.02	"	130-140
7.01	14.8	22.32	1.14	7.7	15	22	0.89	----	1.91	"	"
7.55	14.1	20.32	1.05	7.4	14	20	0.96	----	1.82	"	120-130
8.02	14.3	19.86	1.14	8.0	14	20	1.02	----	1.84	"	130-140
8.51	16.8	22.74	1.31	7.8	17	23	1.09	----	2.17	"	"
9.07	16.4	21.56	1.25	7.6	16	22	1.16	----	2.11	"	"
9.52	16.0	20.53	1.30	8.1	16	21	1.22	----	2.05	"	"
10.06	19.5	24.32	1.68	8.6	20	24	1.30	----	2.51	"	"
10.50	18.6	22.91	1.38	7.4	19	23	1.33	----	2.39	"	"
11.04	24.5	29.72	1.88	7.7	25	30	1.37	----	3.17	"	"
11.57	26.7	31.90	1.92	7.2	27	32	1.41	----	3.46	"	"
12.05	28.3	33.33	1.95	6.9	28	33	1.44	----	3.67	"	"
12.59	21.2	24.58	1.49	7.0	21	25	1.48	----	2.72	"	"
13.02	20.2	23.14	1.19	5.9	20	23	1.51	----	2.58	"	"
13.55	13.9	15.76	0.90	6.5	14	16	1.55	----	1.74	"	120-130
14.08	15.7	17.61	0.74	4.7	16	18	1.58	----	1.97	"	"
14.52	13.2	14.67	0.40	3.0	9	10	1.61	----	1.63	Silty CLAY to CLAY	"
15.06	10.7	11.77	0.49	4.6	11	12	1.64	----	1.62	CLAY	"
15.52	7.9	8.62	0.31	3.9	8	9	1.66	----	1.38	"	110-120
16.05	7.8	8.45	0.27	3.5	8	8	1.69	----	1.35	"	100-110
16.50	7.2	7.75	0.23	3.2	7	8	1.71	----	1.23	"	"
17.04	7.8	8.31	0.30	3.8	8	8	1.73	----	1.34	"	110-120
17.58	8.2	8.68	0.24	2.9	5	6	1.76	----	1.42	Silty CLAY to CLAY	100-110
18.02	11.6	12.21	0.34	2.9	8	8	1.78	----	1.74	"	110-120
18.55	18.1	18.89	0.94	5.2	18	19	1.82	----	2.26	CLAY	130-140
19.06	16.0	16.57	0.62	3.9	11	11	1.85	----	1.97	Silty CLAY to CLAY	120-130
19.58	18.1	18.60	0.48	2.7	9	9	1.88	----	2.25	Clayey SILT to Silty CLAY	"
20.02	21.3	21.75	0.66	3.1	11	11	1.91	----	2.67	"	"
20.55	27.7	28.03	1.17	4.2	18	19	1.95	----	3.52	Silty CLAY to CLAY	130-140
21.07	33.1	33.20	1.50	4.5	22	22	1.99	----	4.24	"	"
21.57	28.1	28.09	1.83	6.5	28	28	2.02	----	3.56	CLAY	"
22.02	21.8	21.78	1.17	5.4	22	22	2.06	----	2.72	"	"
22.54	14.5	14.47	0.80	5.5	15	14	2.09	----	1.74	"	120-130
23.06	18.4	18.35	1.07	5.8	18	18	2.13	----	2.26	"	130-140
23.58	15.9	15.85	0.97	6.1	16	16	2.16	----	1.92	"	120-130
24.04	18.2	18.13	1.10	6.0	18	18	2.19	----	2.22	"	130-140
24.51	16.1	16.03	0.70	4.3	16	16	2.22	----	1.94	"	120-130
25.02	12.1	12.04	0.75	6.2	12	12	2.25	----	1.40	"	"
25.56	17.4	17.30	0.97	5.6	17	17	2.29	----	2.10	"	130-140
26.03	23.0	22.85	1.19	5.2	23	23	2.33	----	2.85	"	"
26.58	19.8	19.65	1.06	5.4	20	20	2.37	----	2.41	"	"
27.04	26.7	26.49	1.90	7.1	27	26	2.40	----	3.33	"	"
27.58	47.9	47.48	2.11	4.4	32	32	2.44	----	6.15	Silty CLAY to CLAY	"

PROJECT: 199 RIVER OAKS PARKWAY SITE
 LOCATION: San Jose CA
 PROJ. NO.: 7862.3.001.01(EGO-173)
 Terminated at 50.0 feet

CPT NO.: CPT-2
 DATE : 07-18-2007
 TIME : 09:22:07
 Groundwater measured at 10.5 feet

ENGEO, INC.
cpts by John Sarmiento & Associates

DEPTH (feet)	Qc (tsf)	Qc' (tsf)	Fs (tsf)	Rf (%)	SPT (N)	SPT' (N')	EffVtStr (ksf)	PHI (deg.)	SU (ksf)	SOIL BEHAVIOR TYPE	DENSITY RANGE (pcf)
28.02	50.1	49.63	2.12	4.2	25	25	2.47	---	6.44	Clayey SILT to Silty CLAY	"
28.52	59.3	58.55	2.16	3.6	30	29	2.51	---	7.66	"	"
29.05	27.5	26.80	1.42	5.2	28	27	2.55	---	3.42	CLAY	"
29.57	18.2	17.51	1.09	6.0	18	18	2.58	---	2.17	"	"
30.01	15.3	14.56	1.31	8.6	15	15	2.62	---	1.78	"	"
30.53	69.9	65.66	1.88	2.7	28	26	2.65	---	9.06	Sandy SILT to Clayey SILT	"
31.06	21.0	19.46	1.04	5.0	21	19	2.69	---	2.53	CLAY	"
31.58	17.1	15.66	0.76	4.4	17	16	2.72	---	2.01	"	120-130
32.01	18.1	16.42	0.80	4.4	18	16	2.75	---	2.14	"	"
32.54	16.4	14.69	0.74	4.5	16	15	2.79	---	1.91	"	"
33.08	16.7	14.75	1.08	6.5	17	15	2.82	---	1.94	"	130-140
33.52	38.3	33.41	2.55	6.7	38	33	2.86	---	4.82	"	"
34.06	63.8	54.85	2.41	3.8	32	27	2.89	---	8.21	Clayey SILT to Silty CLAY	"
34.58	42.8	36.26	2.01	4.7	29	24	2.93	---	5.41	Silty CLAY to CLAY	"
35.07	56.0	46.78	2.16	3.9	28	23	2.97	---	7.16	Clayey SILT to Silty CLAY	"
35.50	51.3	42.33	2.18	4.2	26	21	3.00	---	6.53	"	"
36.00	116.2	95.38	1.87	1.6	29	24	3.04	38	---	SAND to Silty SAND	"
36.51	158.5	129.44	2.04	1.3	32	26	3.07	39	---	SAND	"
37.05	223.6	181.72	2.19	1.0	45	36	3.11	41	---	"	120-130
37.52	181.1	146.77	0.90	0.5	36	29	3.13	40	---	"	100-110
38.06	81.0	65.28	1.50	1.9	27	22	3.17	36	---	Silty SAND to Sandy SILT	130-140
38.53	80.3	64.40	2.39	3.0	32	26	3.20	---	10.37	Sandy SILT to Clayey SILT	"
39.07	291.4	232.74	1.90	0.7	58	47	3.23	43	---	SAND	110-120
39.52	321.9	256.23	2.03	0.6	54	43	3.25	43	---	Gravelly SAND to SAND	"
40.04	343.4	272.05	2.59	0.8	57	45	3.29	44	---	"	120-130
40.54	338.0	266.56	2.85	0.8	68	53	3.32	44	---	SAND	"
41.02	316.1	248.54	1.27	0.4	53	41	3.34	43	---	Gravelly SAND to SAND	100-110
41.09	317.4	249.46	1.34	0.4	53	42	3.34	43	---	"	"
41.51	279.9	219.27	1.74	0.6	56	44	3.36	43	---	SAND	110-120
42.01	258.3	201.42	2.28	0.9	52	40	3.39	42	---	"	120-130
42.53	255.4	198.06	3.38	1.3	51	40	3.43	42	---	"	130-140
43.06	231.9	178.94	1.84	0.8	46	36	3.46	41	---	"	120-130
43.50	195.2	149.90	2.41	1.2	39	30	3.50	40	---	"	130-140
44.03	256.9	196.31	2.48	1.0	51	39	3.53	42	---	"	120-130
44.52	214.3	163.00	2.53	1.2	43	33	3.56	41	---	"	"
45.07	243.5	184.40	1.69	0.7	49	37	3.59	42	---	"	110-120
45.52	250.3	188.87	1.42	0.6	50	38	3.61	42	---	"	"
46.06	172.9	129.90	1.13	0.7	35	26	3.64	40	---	"	"
46.50	185.9	138.26	2.54	1.4	40	30	3.68	40	---	"	"
47.03	398.0	296.25	2.94	0.7	66	49	3.70	44	---	Gravelly SAND to SAND	120-130
47.56	407.8	301.99	4.21	1.0	82	60	3.73	44	---	SAND	"
48.04	430.4	317.23	4.38	1.0	86	63	3.76	45	---	"	"
48.54	312.3	228.89	3.72	1.2	62	46	3.80	43	---	"	130-140
49.04	271.5	197.86	5.05	1.9	54	40	3.84	42	---	"	"
49.50	283.9	205.79	4.01	1.4	57	41	3.87	42	---	"	"
50.04	322.5	232.47	3.26	1.0	65	46	3.91	43	---	"	120-130

DEPTH = Sampling interval (~0.1 feet)

Qc = Tip bearing resistance TotStr = Total Stress using est. density**

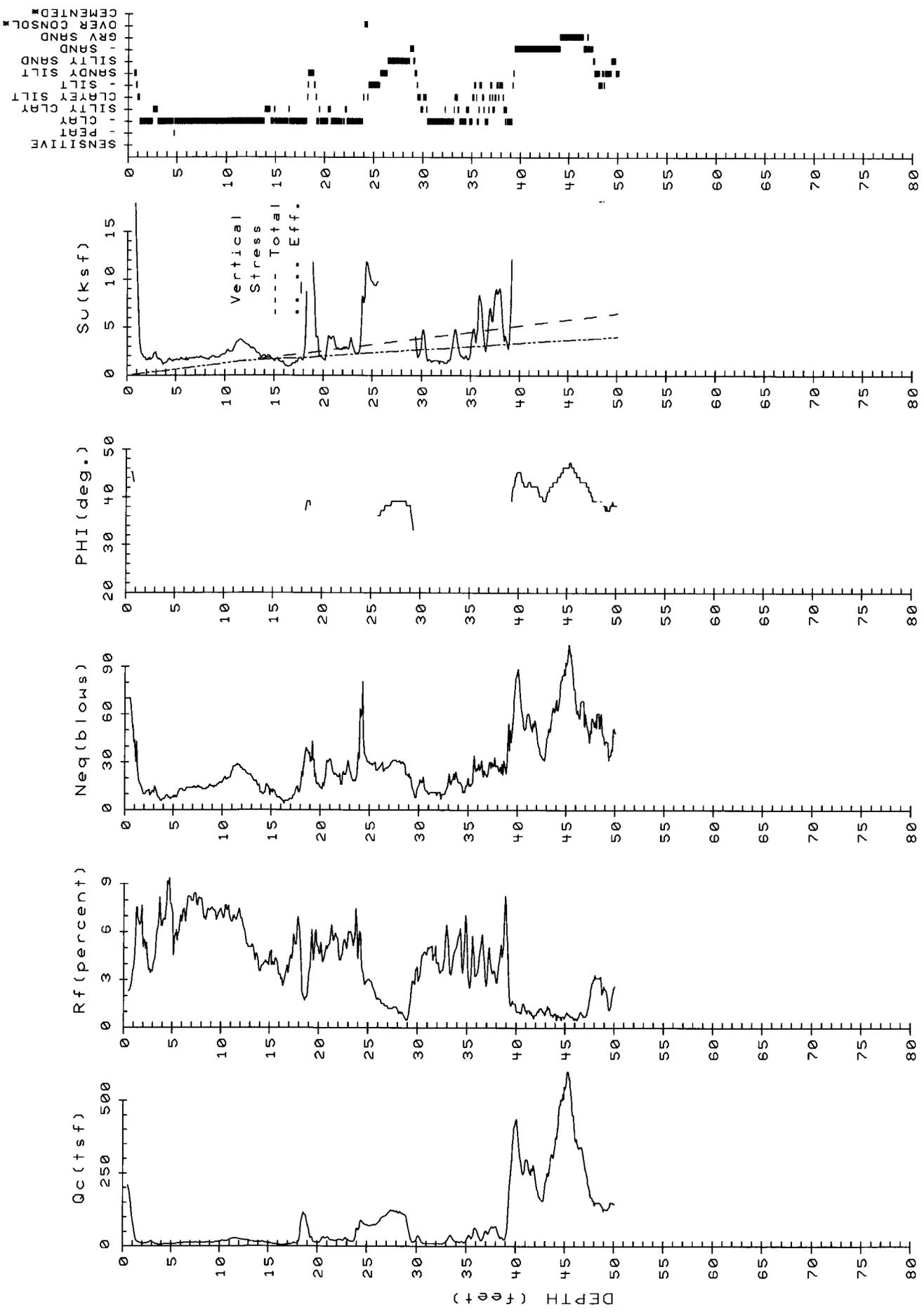
Fs = Sleeve friction resistance Phi = Soil friction angle*

Rf = Tip/Sleeve ratio Su = Undrained Soil Strength* (Nk=10 for Qc<9 tsf)

SPT = Equivalent Standard Penetration Test* (Nk=12 for Qc=9 to 12 tsf) (Nk=15 for Qc>12 tsf)

References: * Robertson and Campanella, 1988

** Olsen, 1989 *** Durgunoglu & Mitchell, 1975



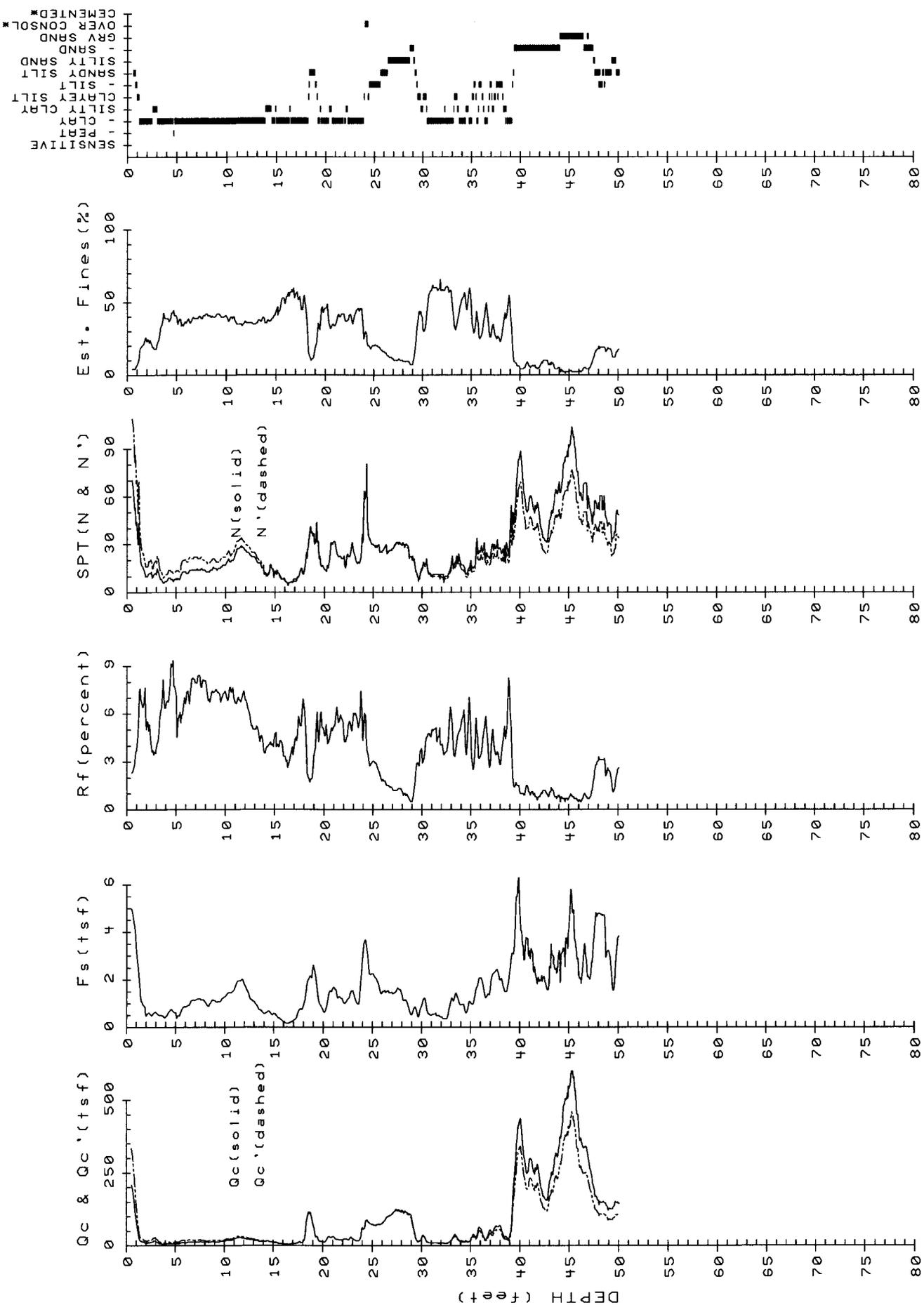
Groundwater measured at 11.3 feet

Terminated at 50.0 feet

PROJECT: 199 RIVER OAKS PARKWAY SITE
 LOCATION: San Jose CA
 PROJ. NO.: 7862.3.001.01(EGO-173)

CPT NO.: CPT-3
 DATE: 07-18-2007

ENGEO, INC.
 cpts by John Sarmiento & Associates



Terminated at 50.0 feet
 Groundwater measured at 11.3 feet

PROJECT: 199 RIVER OAKS PARKWAY SITE
 LOCATION: San Jose CA
 PROJ. NO.: 7862.3.001.01 (EGO-173)

CPT NO.: CPT-3
 DATE : 07-18-2007

ENGEO, INC.
cpts by John Sarmiento & Associates

PROJECT: 199 RIVER OAKS PARKWAY SITE
 LOCATION: San Jose CA
 PROJ. NO.: 7862.3.001.01(EGO-173)
 Terminated at 50.0 feet

CPT NO.: CPT-3
 DATE : 07-18-2007
 TIME : 11:28:53
 Groundwater measured at 11.3 feet

ENGEO, INC.
cpts by John Sarmiento & Associates

DEPTH (feet)	Qc (tsf)	Qc' (tsf)	Fs (tsf)	Rf (%)	SPT (N)	SPT' (N')	EffVtStr (ksf)	PHI (deg.)	SU (ksf)	SOIL BEHAVIOR TYPE	DENSITY RANGE (pcf)
0.51	210.6	336.96	4.93	2.3	70	112	0.06	45	---	Silty SAND to Sandy SILT	130-140
1.02	88.1	140.96	3.28	3.7	44	70	0.13	---	11.74	Clayey SILT to Silty CLAY	"
1.51	16.5	26.40	1.10	6.7	17	26	0.19	---	2.19	CLAY	"
2.00	9.8	15.68	0.49	5.0	10	16	0.25	---	1.61	"	110-120
2.50	12.9	20.64	0.51	4.0	13	21	0.31	---	1.70	"	120-130
3.01	16.6	26.56	0.63	3.8	11	18	0.38	---	2.19	Silty CLAY to CLAY	"
3.54	8.0	12.80	0.50	6.3	8	13	0.44	---	1.56	CLAY	110-120
4.06	6.9	11.04	0.46	6.7	7	11	0.50	---	1.33	"	"
4.50	8.0	12.80	0.73	9.1	8	13	0.55	---	1.54	"	120-130
5.05	8.6	13.76	0.61	7.1	9	14	0.62	---	1.66	"	"
5.51	10.9	17.44	0.59	5.4	11	17	0.68	---	1.76	"	"
6.02	12.4	19.84	0.86	6.9	12	20	0.74	---	1.60	"	"
6.53	13.6	21.69	1.05	7.7	14	22	0.81	---	1.76	"	"
7.05	14.3	21.79	1.13	7.9	14	22	0.88	---	1.85	"	130-140
7.56	15.1	21.96	1.15	7.6	15	22	0.95	---	1.95	"	"
8.07	13.4	18.70	1.02	7.6	13	19	1.01	---	1.72	"	120-130
8.53	14.4	19.67	1.02	7.1	14	20	1.07	---	1.85	"	"
9.02	14.6	19.47	1.09	7.5	15	19	1.13	---	1.87	"	"
9.56	16.0	20.73	1.11	6.9	16	21	1.20	---	2.05	"	130-140
10.02	18.0	22.75	1.30	7.2	18	23	1.26	---	2.32	"	"
10.56	19.6	24.09	1.43	7.3	20	24	1.34	---	2.52	"	"
11.01	25.2	30.23	1.67	6.6	25	30	1.40	---	3.27	"	"
11.54	28.6	33.78	1.92	6.7	29	34	1.43	---	3.72	"	"
12.07	25.3	29.42	1.71	6.8	25	29	1.47	---	3.27	"	"
12.52	22.5	25.83	1.24	5.5	23	26	1.51	---	2.89	"	"
13.05	20.4	23.14	1.03	5.0	20	23	1.54	---	2.61	"	"
13.58	15.8	17.73	0.72	4.6	16	18	1.58	---	1.99	"	120-130
14.02	16.5	18.35	0.57	3.5	11	12	1.61	---	2.08	Silty CLAY to CLAY	"
14.56	15.6	17.16	0.65	4.2	16	17	1.64	---	1.96	CLAY	"
15.04	12.1	13.18	0.57	4.7	12	13	1.67	---	1.49	"	"
15.52	8.9	9.61	0.38	4.3	9	10	1.69	---	1.58	"	110-120
16.06	6.7	7.18	0.22	3.3	7	7	1.72	---	1.14	"	100-110
16.51	5.9	6.28	0.18	3.1	6	6	1.74	---	0.97	"	"
17.04	7.3	7.71	0.32	4.4	7	8	1.76	---	1.25	"	110-120
17.58	14.2	14.89	0.74	5.2	14	15	1.80	---	1.75	"	120-130
18.02	15.8	16.46	0.96	6.1	16	16	1.83	---	1.96	"	"
18.57	118.2	122.02	2.05	1.7	39	41	1.87	39	---	Silty SAND to Sandy SILT	130-140
19.09	62.7	64.16	2.36	3.8	31	32	1.90	---	8.20	Clayey SILT to Silty CLAY	"
19.51	22.8	23.16	1.10	4.8	23	23	1.93	---	2.88	CLAY	"
20.02	14.0	14.12	0.64	4.6	14	14	1.97	---	1.70	"	120-130
20.52	32.1	32.10	1.40	4.4	21	21	2.00	---	4.11	Silty CLAY to CLAY	130-140
21.07	31.3	31.27	1.64	5.2	31	31	2.04	---	4.00	CLAY	"
21.53	22.8	22.77	1.25	5.5	23	23	2.08	---	2.86	"	"
22.08	23.6	23.55	1.00	4.2	16	16	2.12	---	2.96	Silty CLAY to CLAY	"
22.54	21.7	21.64	1.20	5.5	22	22	2.15	---	2.70	CLAY	"
23.10	22.6	22.51	1.34	5.9	23	23	2.19	---	2.82	"	"
23.56	17.7	17.62	0.96	5.4	18	18	2.22	---	2.16	"	"
24.02	62.8	62.48	3.14	5.0	63	62	2.26	---	8.17	Very Stiff Fine Grained *	"
24.56	84.8	84.30	2.57	3.0	34	34	2.30	---	11.10	Sandy SILT to Clayey SILT	"
25.02	73.5	73.02	2.21	3.0	29	29	2.33	---	9.59	"	"
25.54	74.7	74.15	1.83	2.4	30	30	2.37	---	9.74	"	"
26.06	81.0	80.35	1.49	1.8	27	27	2.40	37	---	Silty SAND to Sandy SILT	"
26.49	99.1	98.21	1.52	1.5	25	25	2.44	38	---	Silty SAND to Sandy SILT	"
27.06	113.1	112.04	1.39	1.2	28	28	2.47	39	---	SAND to Silty SAND	120-130
27.56	122.3	120.96	1.64	1.3	31	30	2.50	39	---	"	130-140

PROJECT: 199 RIVER OAKS PARKWAY SITE
 LOCATION: San Jose CA
 PROJ. NO.: 7862.3.001.01(EGO-173)
 Terminated at 50.0 feet

CPT NO.: CPT-3
 DATE : 07-18-2007
 TIME : 11:28:53
 Groundwater measured at 11.3 feet

ENGEO, INC.
cpts by John Sarmiento & Associates

DEPTH (feet)	Qc (tsf)	Qc' (tsf)	Fs (tsf)	Rf (%)	SPT (N)	SPT' (N')	EffVtStr (ksf)	PHI (deg.)	SU (ksf)	SOIL BEHAVIOR TYPE	DENSITY RANGE (pcf)
28.01	123.0	120.50	1.33	1.1	31	30	2.53	39	---	"	120-130
28.52	115.6	112.04	1.04	0.9	29	28	2.56	39	---	"	"
29.03	92.2	88.70	0.55	0.6	23	22	2.58	37	---	"	100-110
29.54	19.6	18.65	0.57	2.9	10	9	2.62	---	2.36	Clayey SILT to Silty CLAY	120-130
30.05	32.9	30.90	0.96	2.9	16	15	2.65	---	4.13	"	130-140
30.57	16.3	15.13	0.74	4.5	16	15	2.69	---	1.91	CLAY	120-130
31.04	10.3	9.46	0.51	5.0	10	9	2.72	---	1.39	"	"
31.55	11.3	10.26	0.48	4.2	11	10	2.75	---	1.55	"	"
32.08	10.6	9.53	0.43	4.1	11	10	2.78	---	1.43	"	110-120
32.54	9.6	8.55	0.35	3.6	10	9	2.80	---	1.25	"	"
33.00	18.8	16.54	1.11	5.9	19	17	2.83	---	2.23	"	130-140
33.56	34.2	29.64	1.41	4.1	23	20	2.87	---	4.27	Silty CLAY to CLAY	"
34.02	17.3	14.83	0.92	5.3	17	15	2.90	---	2.02	CLAY	120-130
34.56	18.1	15.31	0.61	3.4	12	10	2.94	---	2.12	Silty CLAY to CLAY	"
35.00	20.2	16.87	1.04	5.1	20	17	2.97	---	2.40	CLAY	130-140
35.53	27.7	22.83	1.57	5.7	28	23	3.01	---	3.39	"	"
36.07	57.7	47.30	2.03	3.5	29	24	3.05	---	7.39	Clayey SILT to Silty CLAY	"
36.56	21.1	17.21	1.23	5.8	21	17	3.08	---	2.50	CLAY	"
37.00	55.2	44.82	1.55	2.8	22	18	3.11	---	7.04	Sandy SILT to Clayey SILT	"
37.53	67.9	54.83	2.32	3.4	27	22	3.15	---	8.73	"	"
38.04	68.7	55.18	1.95	2.8	27	22	3.19	---	8.83	"	"
38.52	33.7	26.93	1.48	4.4	22	18	3.22	---	4.16	Silty CLAY to CLAY	"
39.04	41.3	32.83	2.44	5.9	41	33	3.26	---	5.17	CLAY	"
39.53	269.5	213.11	4.10	1.5	54	43	3.30	42	---	SAND	"
40.06	438.5	345.08	4.30	1.0	88	69	3.33	45	---	"	120-130
40.51	298.8	234.17	2.79	0.9	60	47	3.36	43	---	"	"
41.01	297.0	231.70	3.19	1.1	59	46	3.39	43	---	"	"
41.53	245.4	190.53	2.49	1.0	49	38	3.42	42	---	"	"
42.02	227.9	176.13	1.90	0.8	46	35	3.45	41	---	"	"
42.52	163.6	125.75	2.03	1.2	33	25	3.49	39	---	"	130-140
43.05	223.3	170.79	2.50	1.1	45	34	3.52	41	---	"	120-130
43.52	284.0	216.26	2.56	0.9	57	43	3.55	42	---	"	"
44.03	346.0	262.19	3.18	0.9	69	52	3.58	44	---	"	"
44.52	487.6	368.06	3.21	0.7	81	61	3.61	46	---	Gravelly SAND to SAND	110-120
45.01	539.0	404.97	4.01	0.7	90	67	3.64	46	---	"	120-130
45.50	581.2	434.61	4.87	0.8	97	72	3.67	46	---	"	"
46.02	392.5	292.27	2.30	0.6	65	49	3.70	44	---	"	"
46.56	341.6	253.04	3.41	1.0	68	51	3.73	43	---	SAND	120-130
47.07	274.2	202.27	2.04	0.7	55	40	3.76	42	---	"	110-120
47.56	191.5	140.49	3.79	2.0	48	35	3.79	40	---	SAND to Silty SAND	130-140
48.02	140.8	102.75	4.70	3.3	56	41	3.83	---	18.36	Sandy SILT to Clayey SILT	"
48.51	151.7	110.08	4.64	3.1	51	37	3.86	39	---	Silty SAND to Sandy SILT	"
49.03	129.8	93.63	3.16	2.4	43	31	3.90	38	---	"	"
49.51	134.7	96.70	1.53	1.1	34	24	3.93	38	---	SAND to Silty SAND	120-130
50.06	145.3	103.64	3.79	2.6	48	35	3.97	38	---	Silty SAND to Sandy SILT	130-140

DEPTH = Sampling interval (~0.1 feet)

Qc = Tip bearing resistance TotStr = Total Stress using est. density**

Fs = Sleeve friction resistance Phi = Soil friction angle*

Rf = Tip/Sleeve ratio Su = Undrained Soil Strength* (Nk=10 for Qc<9 tsf)

SPT = Equivalent Standard Penetration Test* (Nk=12 for Qc=9 to 12 tsf) (Nk=15 for Qc>12 tsf)

References: * Robertson and Campanella, 1988

** Olsen, 1989 *** Durgunoglu & Mitchell, 1975

PROJECT: 199 RIVER OAKS PARKWAY SITE
 LOCATION: San Jose CA
 PROJ. NO.: 7862.3.001.01(EGO-173)
 Terminated at 77.0 feet

CPT NO.: CPT-4
 DATE : 07-18-2007
 TIME : 12:28:33
 Groundwater measured at 10.8 feet

ENGEO, INC.
cpts by John Sarmiento & Associates

DEPTH (feet)	Qc (tsf)	Qc' (tsf)	Fs (tsf)	Rf (%)	SPT (N)	SPT' (N')	EffVtStr (ksf)	PHI (deg.)	SU (ksf)	SOIL BEHAVIOR TYPE	DENSITY RANGE (pcf)
0.55	474.6	759.36	10.04	2.1	237	380	0.06	>48	---	SAND to Clayey SAND *	"
1.03	77.6	124.16	2.46	3.2	31	50	0.13	---	10.34	Sandy SILT to Clayey SILT	"
1.56	17.1	27.36	1.46	8.5	17	27	0.20	---	2.27	CLAY	"
2.05	12.9	20.64	0.61	4.7	13	21	0.26	---	1.70	"	120-130
2.58	11.8	18.88	0.61	5.2	12	19	0.33	---	1.94	"	"
3.04	9.2	14.72	0.60	6.5	9	15	0.39	---	1.50	"	"
3.53	7.7	12.32	0.52	6.8	8	12	0.44	---	1.50	"	110-120
4.09	10.5	16.80	0.60	5.7	11	17	0.51	---	1.71	"	120-130
4.55	13.4	21.44	0.78	5.8	13	21	0.57	---	1.75	"	"
5.00	13.3	21.28	0.82	6.2	13	21	0.63	---	1.73	"	"
5.52	14.6	23.36	0.89	6.1	15	23	0.69	---	1.90	"	"
6.05	14.3	22.88	0.94	6.6	14	23	0.76	---	1.86	"	"
6.58	15.0	23.57	1.18	7.9	15	24	0.83	---	1.94	"	130-140
7.02	14.6	22.07	1.16	7.9	15	22	0.89	---	1.89	"	"
7.55	13.9	20.09	1.04	7.5	14	20	0.95	---	1.79	"	120-130
8.08	13.9	19.31	0.92	6.6	14	19	1.02	---	1.79	"	"
8.52	15.0	20.41	1.05	7.0	15	20	1.08	---	1.93	"	"
9.04	15.2	20.17	0.99	6.5	15	20	1.14	---	1.95	"	"
9.57	16.7	21.54	1.15	6.9	17	22	1.21	---	2.15	"	130-140
10.01	19.0	23.94	1.28	6.7	19	24	1.27	---	2.45	"	"
10.53	21.0	25.74	1.57	7.5	21	26	1.34	---	2.71	"	"
11.05	26.0	31.40	1.67	6.4	26	31	1.38	---	3.37	"	"
11.56	26.3	31.30	1.77	6.7	26	31	1.42	---	3.41	"	"
12.02	20.7	24.30	1.27	6.1	21	24	1.45	---	2.66	"	"
12.53	17.6	20.35	0.95	5.4	18	20	1.49	---	2.24	"	"
13.06	13.1	14.97	0.58	4.4	13	15	1.52	---	1.63	"	120-130
13.57	9.6	10.88	0.43	4.5	10	11	1.55	---	1.46	"	110-120
14.08	6.0	6.75	0.28	4.7	6	7	1.57	---	1.02	"	100-110
14.51	5.8	6.49	0.26	4.5	6	6	1.59	---	0.98	"	"
15.03	7.0	7.76	0.38	5.4	7	8	1.61	---	1.21	"	110-120
15.58	6.8	7.48	0.27	4.0	7	7	1.64	---	1.16	"	100-110
16.00	5.2	5.69	0.22	4.2	5	6	1.66	---	0.84	"	"
16.52	4.7	5.11	0.18	3.8	5	5	1.67	---	0.74	"	90-100
17.03	8.5	9.16	0.32	3.8	9	9	1.70	---	1.49	"	110-120
17.55	3.4	3.65	0.22	6.5	3	4	1.72	---	0.46	"	90-100
18.06	6.8	7.22	0.33	4.9	7	7	1.74	---	1.14	"	110-120
18.54	38.6	40.65	1.50	3.9	19	20	1.78	---	4.99	Clayey SILT to Silty CLAY	130-140
19.04	18.7	19.55	0.80	4.3	19	20	1.81	---	2.34	CLAY	120-130
19.55	16.0	16.61	0.64	4.0	11	11	1.84	---	1.97	Silty CLAY to CLAY	"
20.08	22.0	22.66	0.73	3.3	11	11	1.87	---	2.77	Clayey SILT to Silty CLAY	"
20.54	11.4	11.68	0.44	3.9	11	12	1.90	---	1.69	CLAY	110-120
21.05	6.5	6.62	0.22	3.4	7	7	1.92	---	1.04	"	100-110
21.56	10.2	10.32	0.60	5.9	10	10	1.95	---	1.48	"	120-130
22.06	14.6	14.66	0.83	5.7	15	15	1.98	---	1.77	"	"
22.56	15.3	15.30	0.93	6.1	15	15	2.01	---	1.86	"	"
23.00	14.0	13.99	0.79	5.6	14	14	2.04	---	1.68	"	"
23.58	13.3	13.28	0.83	6.2	13	13	2.08	---	1.58	"	"
24.10	15.8	15.76	0.81	5.1	16	16	2.13	---	1.91	"	"
24.59	15.7	15.66	0.73	4.6	16	16	2.14	---	1.89	"	"
25.05	22.5	22.42	1.26	5.6	23	22	2.18	---	2.79	"	130-140
25.51	27.1	26.99	1.54	5.7	27	27	2.21	---	3.40	"	"
26.07	50.4	50.15	1.64	3.3	20	20	2.25	---	6.51	Sandy SILT to Clayey SILT	"
26.52	76.0	75.57	2.12	2.8	30	30	2.28	---	9.91	"	"
27.05	94.9	94.29	2.71	2.9	38	38	2.32	---	12.43	"	"
27.57	97.3	96.60	2.83	2.9	39	39	2.36	---	12.75	"	"

PROJECT: 199 RIVER OAKS PARKWAY SITE
 LOCATION: San Jose CA
 PROJ. NO.: 7862.3.001.01(EGO-173)
 Terminated at 77.0 feet

CPT NO.: CPT-4
 DATE : 07-18-2007
 TIME : 12:28:33
 Groundwater measured at 10.8 feet

ENGEO, INC.
cpts by John Sarmiento & Associates

DEPTH (feet)	Qc (tsf)	Qc' (tsf)	Fs (tsf)	Rf (%)	SPT (N)	SPT' (N')	EffVtStr (ksf)	PHI (deg.)	SU (ksf)	SOIL BEHAVIOR TYPE	DENSITY RANGE (pcf)
28.08	76.1	75.50	2.49	3.3	30	30	2.40	---	9.91	"	"
28.57	85.3	84.56	2.75	3.2	34	34	2.43	---	11.14	"	"
29.00	71.0	70.34	2.82	4.0	36	35	2.46	---	9.23	Clayey SILT to Silty CLAY	"
29.52	13.3	13.17	0.81	6.1	13	13	2.49	---	1.53	CLAY	120-130
30.04	8.2	8.06	0.46	5.6	8	8	2.52	---	1.27	"	110-120
30.58	8.4	8.18	0.46	5.5	8	8	2.55	---	1.30	"	"
31.03	10.4	10.02	0.52	5.0	10	10	2.58	---	1.41	"	120-130
31.56	13.1	12.49	0.68	5.2	13	12	2.61	---	1.49	"	"
32.03	18.0	16.95	1.17	6.5	18	17	2.65	---	2.13	"	130-140
32.58	23.7	22.01	1.32	5.6	24	22	2.69	---	2.89	"	"
33.05	24.5	22.47	1.15	4.7	25	22	2.72	---	2.99	"	"
33.51	12.9	11.71	0.70	5.4	13	12	2.75	---	1.44	"	120-130
34.05	13.5	12.10	0.91	6.7	14	12	2.78	---	1.52	"	"
34.51	40.3	35.69	1.59	3.9	20	18	2.82	---	5.09	Clayey SILT to Silty CLAY	130-140
35.07	21.9	19.11	1.19	5.4	22	19	2.86	---	2.63	CLAY	"
35.52	44.3	38.16	1.58	3.6	22	19	2.89	---	5.61	Clayey SILT to Silty CLAY	"
36.07	54.9	46.58	2.59	4.7	37	31	2.93	---	7.02	Silty CLAY to CLAY	"
36.59	123.9	103.57	3.12	2.5	41	35	2.97	38	---	Silty SAND to Sandy SILT	"
37.04	77.6	64.03	1.92	2.5	31	26	3.00	---	10.04	Sandy SILT to Clayey SILT	"
37.56	22.0	18.06	1.61	7.3	22	18	3.04	---	2.62	CLAY	"
38.03	29.0	23.69	1.44	5.0	29	24	3.07	---	3.55	"	"
38.53	161.0	130.83	1.97	1.2	32	26	3.11	40	---	SAND	"
39.01	260.5	210.92	1.55	0.6	52	42	3.13	42	---	"	110-120
39.58	295.9	238.37	2.85	1.0	59	48	3.17	43	---	"	120-130
40.07	317.4	254.76	2.21	0.7	53	42	3.19	43	---	Gravelly SAND to SAND	110-120
40.53	220.1	175.92	1.92	0.9	44	35	3.22	41	---	SAND	120-130
41.05	257.6	204.94	2.85	1.1	52	41	3.26	42	---	"	"
41.50	222.3	176.25	1.70	0.8	44	35	3.28	41	---	"	110-120
42.06	182.9	144.51	0.93	0.5	37	29	3.30	40	---	"	100-110
42.53	157.2	123.67	1.85	1.2	31	25	3.33	39	---	"	120-130
43.07	265.1	207.69	1.91	0.7	53	42	3.36	42	---	"	110-120
43.53	254.5	198.53	2.45	1.0	51	40	3.39	42	---	"	120-130
44.02	273.9	212.87	1.50	0.5	46	35	3.42	42	---	Gravelly SAND to SAND	110-120
44.57	269.9	208.68	2.41	0.9	54	42	3.45	42	---	SAND	120-130
45.06	192.5	148.27	1.39	0.7	39	30	3.48	40	---	"	110-120
45.57	16.0	12.26	1.32	8.3	16	12	3.51	---	1.75	CLAY	130-140
46.06	264.8	201.74	3.70	1.4	53	40	3.55	42	---	SAND	"
46.52	334.6	254.00	2.32	0.7	56	42	3.57	43	---	Gravelly SAND to SAND	110-120
47.05	372.7	281.49	3.06	0.8	75	56	3.61	44	---	SAND	120-130
47.54	269.0	202.21	2.20	0.8	54	40	3.64	42	---	"	"
48.02	180.9	135.37	1.93	1.1	36	27	3.67	40	---	"	"
48.55	176.2	131.08	2.94	1.7	44	33	3.71	40	---	SAND to Silty SAND	130-140
49.03	329.0	243.59	3.34	1.0	66	49	3.74	43	---	SAND	120-130
49.53	303.8	223.84	2.71	0.9	61	45	3.77	43	---	"	"
50.02	304.7	223.60	2.12	0.7	61	45	3.79	43	---	"	110-120
50.57	209.6	153.12	1.09	0.5	42	31	3.82	40	---	"	"
51.02	124.0	90.12	2.30	1.9	41	30	3.85	37	---	Silty SAND to Sandy SILT	130-140
51.56	258.2	186.82	1.98	0.8	52	37	3.88	42	---	SAND	110-120
52.00	336.1	242.10	3.29	1.0	67	48	3.91	43	---	"	120-130
52.53	289.0	207.07	2.27	0.8	58	41	3.94	42	---	"	"
53.07	246.0	175.31	2.69	1.1	49	35	3.98	41	---	"	"
53.52	269.0	190.87	2.27	0.8	54	38	4.01	42	---	"	"
54.03	265.3	187.52	2.34	0.9	53	38	4.04	42	---	"	"
54.57	340.7	239.84	3.30	1.0	68	48	4.07	43	---	"	"
55.03	395.1	277.02	5.54	1.4	79	55	4.10	44	---	"	130-140

PROJECT: 199 RIVER OAKS PARKWAY SITE
 LOCATION: San Jose CA
 PROJ. NO.: 7862.3.001.01(EGO-173)
 Terminated at 77.0 feet

CPT NO.: CPT-4
 DATE : 07-18-2007
 TIME : 12:28:33
 Groundwater measured at 10.8 feet

ENGEO, INC.
cpts by John Sarmiento & Associates

DEPTH (feet)	Qc (tsf)	Qc' (tsf)	Fs (tsf)	Rf (%)	SPT (N)	SPT' (N')	EffVtStr (ksf)	PHI (deg.)	SU (ksf)	SOIL BEHAVIOR TYPE	DENSITY RANGE (pcf)
55.52	392.3	274.04	4.09	1.0	78	55	4.13	44	---	"	120-130
56.05	395.1	274.86	3.04	0.8	66	46	4.17	44	---	Gravelly SAND to SAND	"
56.54	332.3	230.18	4.23	1.3	66	46	4.20	43	---	SAND	130-140
57.04	207.2	142.97	2.00	1.0	41	29	4.24	40	---	"	120-130
57.53	229.4	157.78	1.77	0.8	46	32	4.26	41	---	"	110-120
58.04	243.8	167.13	1.88	0.8	49	33	4.29	41	---	"	"
58.51	242.2	165.44	2.34	1.0	48	33	4.32	41	---	"	120-130
59.03	285.8	194.42	2.19	0.8	57	39	4.35	42	---	"	"
59.58	174.1	117.93	1.48	0.9	35	24	4.38	39	---	"	"
60.06	248.0	167.36	2.39	1.0	50	33	4.41	41	---	"	"
60.52	248.6	167.14	2.14	0.9	50	33	4.44	41	---	"	"
61.08	249.1	166.86	1.86	0.7	50	33	4.47	41	---	"	110-120
61.52	304.7	203.50	2.15	0.7	61	41	4.50	42	---	"	"
62.08	268.3	178.40	2.38	0.9	54	36	4.53	41	---	"	120-130
62.53	271.3	179.73	2.49	0.9	54	36	4.56	41	---	"	"
63.00	304.2	200.77	3.04	1.0	61	40	4.59	42	---	"	"
63.53	371.1	243.88	3.29	0.9	74	49	4.62	43	---	"	"
64.02	382.1	250.12	3.60	0.9	76	50	4.65	43	---	"	"
64.51	359.3	234.26	3.59	1.0	72	47	4.68	43	---	"	"
65.07	350.9	227.74	3.16	0.9	70	46	4.72	43	---	"	"
65.54	319.2	206.49	2.36	0.7	64	41	4.74	42	---	"	110-120
66.01	290.9	187.46	2.28	0.8	58	37	4.77	42	---	"	120-130
66.54	327.1	209.98	2.45	0.7	65	42	4.80	42	---	"	110-120
67.00	280.5	179.49	2.10	0.7	56	36	4.82	41	---	"	"
67.53	243.0	154.71	2.88	1.2	49	31	4.86	41	---	"	130-140
68.04	226.5	143.59	2.44	1.1	45	29	4.89	40	---	"	120-130
68.57	297.2	187.56	3.01	1.0	59	38	4.93	42	---	"	"
69.03	341.0	214.23	4.06	1.2	68	43	4.96	42	---	"	130-140
69.54	411.0	257.09	4.08	1.0	82	51	4.99	43	---	"	120-130
70.00	362.5	226.03	3.78	1.0	73	45	5.02	43	---	"	"
70.53	295.0	183.32	2.55	0.9	59	37	5.06	41	---	"	"
71.01	339.5	210.30	3.21	0.9	68	42	5.09	42	---	"	"
71.54	301.9	186.25	5.30	1.8	60	37	5.12	42	---	"	130-140
72.06	336.9	207.25	2.45	0.7	56	35	5.15	42	---	Gravelly SAND to SAND	110-120
72.52	374.7	229.80	3.47	0.9	75	46	5.18	43	---	SAND	120-130
73.04	373.6	228.33	3.02	0.8	62	38	5.21	43	---	Gravelly SAND to SAND	"
73.51	337.3	205.61	2.23	0.7	56	34	5.24	42	---	"	110-120
74.03	247.5	150.43	1.55	0.6	50	30	5.26	40	---	SAND	"
74.56	250.9	152.04	1.41	0.6	50	30	5.29	40	---	"	"
75.03	271.0	163.78	2.01	0.7	54	33	5.32	41	---	"	"
75.53	322.7	194.27	3.80	1.2	65	39	5.35	42	---	"	130-140
76.06	442.9	265.67	4.05	0.9	89	53	5.39	44	---	"	120-130
76.54	430.2	257.22	3.72	0.9	72	43	5.42	43	---	Gravelly SAND to SAND	"
77.06	398.5	237.41	3.97	1.0	80	47	5.45	43	---	SAND	"

DEPTH = Sampling interval (~0.1 feet)

Qc = Tip bearing resistance TotStr = Total Stress using est. density**

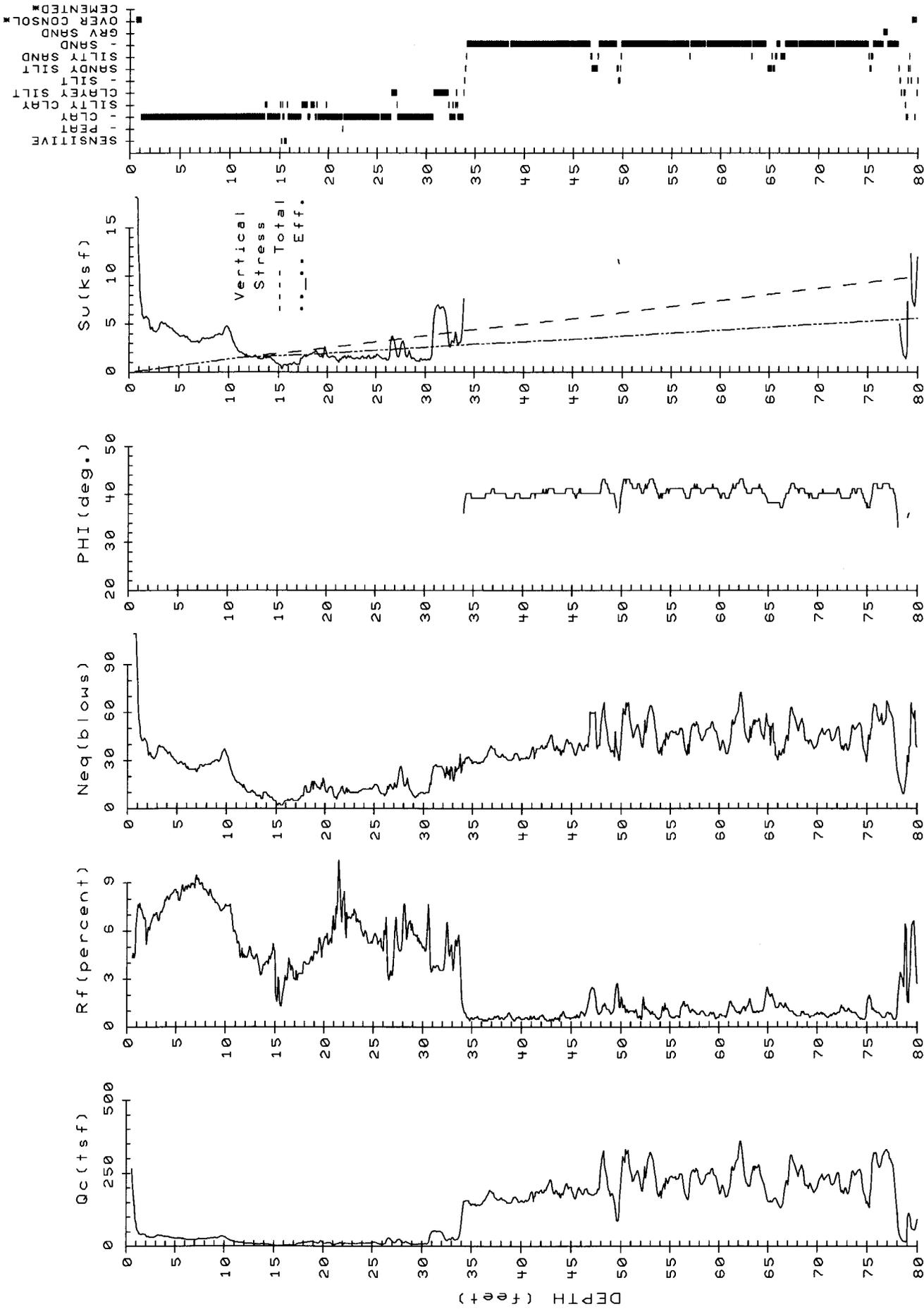
Fs = Sleeve friction resistance Phi = Soil friction angle*

Rf = Tip/Sleeve ratio Su = Undrained Soil Strength* (Nk=10 for Qc<9 tsf)

SPT = Equivalent Standard Penetration Test* (Nk=12 for Qc=9 to 12 tsf) (Nk=15 for Qc>12 tsf)

References: * Robertson and Campanella, 1988

** Olsen, 1989 *** Durgunoglu & Mitchell, 1975



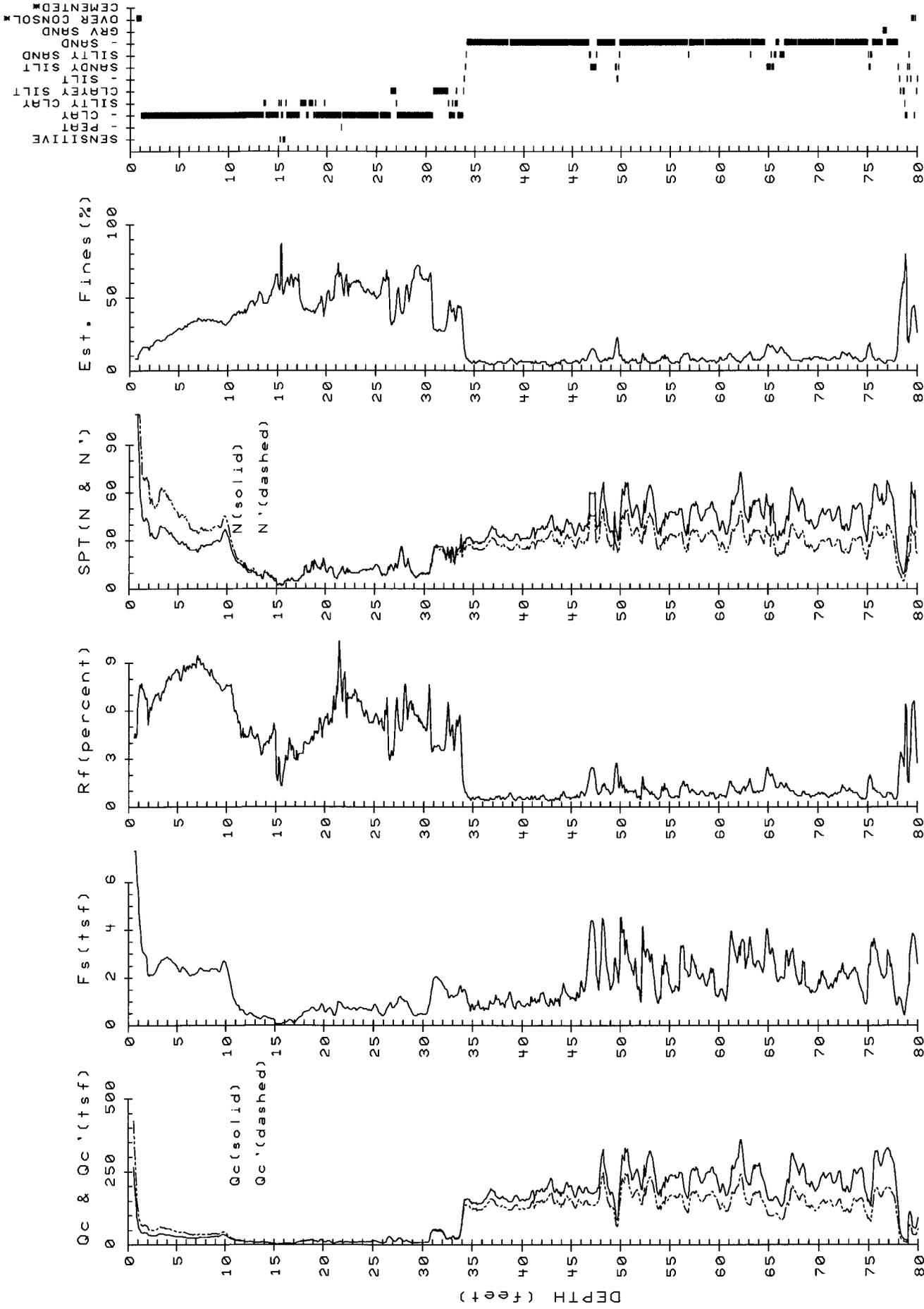
Groundwater measured at 11.0 feet

Terminated at 80.0 feet

PROJECT: 199 RIVER OAKS PARKWAY SITE
 LOCATION: San Jose CA
 PROJ. NO.: 7862.3.001.01(EG0-173)

CPT NO.: CPT-5
 DATE: 07-18-2007

ENGEO, INC.
cpts by John Sarmiento & Associates



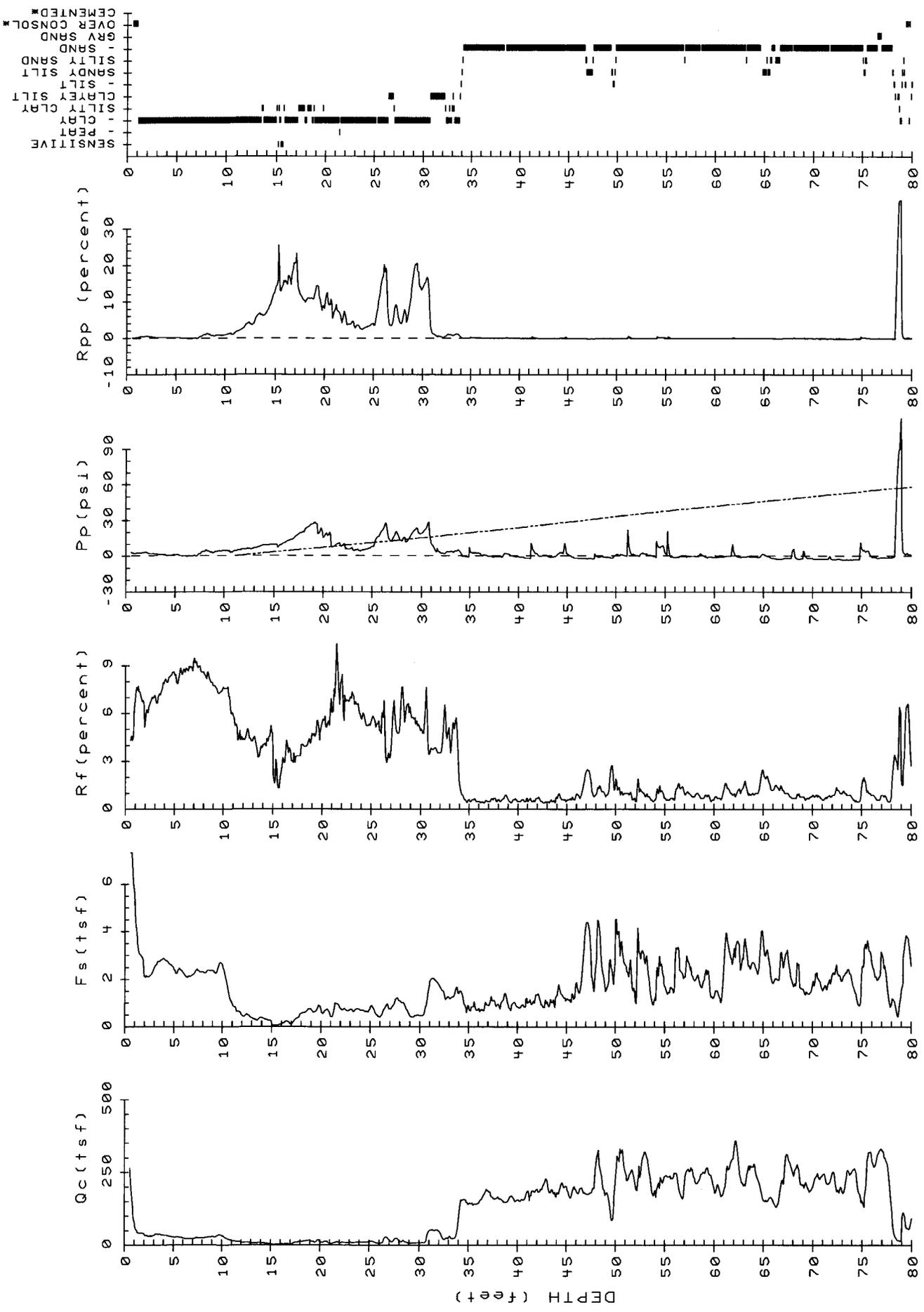
Groundwater measured at 11.0 feet

Terminated at 80.0 feet

CPT NO.: CPT-5
DATE : 07-18-2007

PROJECT: 199 RIVER OAKS PARKWAY SITE
LOCATION: San Jose CA
PROJ. NO.: 7862.3.001.01(EGO-173)

ENGEO, INC.
cpts by John Sarmiento & Associates



Groundwater measured at 11.0 feet

Terminated at 80.0 feet

PROJECT: 199 RIVER OAKS PARKWAY SITE
 LOCATION: San Jose CA
 PROJ. NO.: 7862.3.001.01(EGO-173)
 CPT NO.: CPT-5
 DATE: 07-18-2007
ENGEO, INC.
 cpts by John Sarmiento & Associates

PROJECT: 199 RIVER OAKS PARKWAY SITE
 LOCATION: San Jose CA
 PROJ. NO.: 7862.3.001.01(EGO-173)
 Terminated at 80.0 feet

CPT NO.: CPT-5
 DATE : 07-18-2007
 TIME : 13:29:49
 Groundwater measured at 11.0 feet

ENGEO, INC.
cpts by John Sarmiento & Associates

DEPTH (feet)	Qc (tsf)	Qc' (tsf)	Fs (tsf)	Rf (%)	SPT (N)	SPT' (N')	EffVtStr (ksf)	PHI (deg.)	SU (ksf)	SOIL BEHAVIOR TYPE	DENSITY RANGE (pcf)
0.55	266.6	426.56	11.40	4.3	267	427	0.06	---	35.54	Very Stiff Fine Grained *	>140
1.06	66.0	105.60	4.74	7.2	66	106	0.13	---	8.79	"	130-140
1.54	42.1	67.36	3.00	7.1	42	67	0.20	----	5.60	CLAY	"
2.03	37.1	59.36	2.09	5.6	37	59	0.26	----	4.93	"	"
2.53	31.8	50.88	2.12	6.7	32	51	0.33	----	4.22	"	"
3.07	37.6	60.16	2.55	6.8	38	60	0.40	----	4.99	"	"
3.53	38.1	60.96	2.72	7.1	38	61	0.47	----	5.05	"	"
4.00	35.3	56.48	2.83	8.0	35	56	0.53	----	4.67	"	"
4.57	31.5	50.40	2.61	8.3	32	50	0.61	----	4.16	"	"
5.04	28.4	45.44	2.36	8.3	28	45	0.67	----	3.74	"	"
5.55	28.1	44.96	2.44	8.7	28	45	0.74	----	3.70	"	"
6.01	25.4	40.59	2.22	8.7	25	41	0.80	----	3.33	"	"
6.57	23.9	36.39	2.11	8.8	24	36	0.88	----	3.13	"	"
7.05	23.3	33.98	2.19	9.4	23	34	0.94	----	3.04	"	"
7.52	26.5	37.03	2.35	8.9	27	37	1.01	----	3.47	"	"
8.07	26.8	36.40	2.25	8.4	27	36	1.08	----	3.50	"	"
8.56	28.9	38.27	2.33	8.1	29	38	1.15	----	3.78	"	"
9.03	30.0	38.75	2.32	7.7	30	39	1.21	----	3.92	"	"
9.59	34.6	43.37	2.49	7.2	35	43	1.28	----	4.53	"	"
10.05	32.9	40.24	2.48	7.5	33	40	1.35	----	4.30	"	"
10.51	22.9	27.33	1.61	7.0	23	27	1.41	----	2.96	"	"
11.08	15.7	18.47	0.90	5.7	16	18	1.44	----	1.99	"	120-130
11.55	14.3	16.62	0.65	4.5	14	17	1.47	----	1.80	"	"
12.00	10.8	12.41	0.48	4.4	11	12	1.50	----	1.67	"	"
12.60	11.2	12.72	0.49	4.4	11	13	1.54	----	1.73	"	"
13.00	8.2	9.25	0.36	4.4	8	9	1.56	----	1.47	"	110-120
13.60	8.9	9.94	0.29	3.3	6	7	1.59	----	1.60	Silty CLAY to CLAY	"
14.07	8.9	9.86	0.36	4.0	9	10	1.62	----	1.60	CLAY	"
14.56	6.5	7.15	0.29	4.5	7	7	1.64	----	1.11	"	100-110
15.03	4.7	5.14	0.10	2.1	3	3	1.65	----	0.75	Silty CLAY to CLAY	90-100
15.53	4.7	5.12	0.06	1.3	2	3	1.67	----	0.74	Sensitive Fine Grained	85-90
16.00	4.7	5.10	0.15	3.2	5	5	1.68	----	0.74	CLAY	90-100
16.56	6.3	6.78	0.22	3.5	6	7	1.71	----	1.05	"	100-110
17.04	5.1	5.46	0.15	2.9	5	5	1.72	----	0.81	"	90-100
17.56	11.3	11.98	0.37	3.3	8	8	1.75	----	1.70	Silty CLAY to CLAY	110-120
18.03	14.1	14.85	0.57	4.0	14	15	1.78	----	1.73	CLAY	120-130
18.59	16.0	16.72	0.68	4.3	16	17	1.81	----	1.98	"	"
19.06	15.0	15.57	0.69	4.6	15	16	1.84	----	1.84	"	"
19.52	12.3	12.68	0.68	5.5	12	13	1.87	----	1.48	"	"
20.08	10.8	11.04	0.60	5.6	11	11	1.91	----	1.59	"	"
20.54	13.7	13.91	0.74	5.4	14	14	1.93	----	1.66	"	"
21.09	6.9	6.96	0.42	6.1	7	7	1.96	----	1.12	"	110-120
21.55	10.9	10.92	0.96	8.8	11	11	1.99	----	1.59	"	120-130
22.02	8.9	8.90	0.75	8.4	9	9	2.02	----	1.51	"	"
22.57	10.0	9.99	0.68	6.8	10	10	2.06	----	1.43	"	"
23.03	10.1	10.08	0.74	7.3	10	10	2.09	----	1.44	"	"
23.57	11.3	11.27	0.74	6.5	11	11	2.12	----	1.64	"	"
24.03	12.1	12.06	0.68	5.6	12	12	2.15	----	1.41	"	"
24.57	12.6	12.55	0.65	5.2	13	13	2.18	----	1.48	"	"
25.03	15.3	15.24	0.85	5.6	15	15	2.21	----	1.83	"	"
25.53	10.7	10.65	0.57	5.3	11	11	2.24	----	1.52	"	"
26.08	7.7	7.66	0.46	6.0	8	8	2.27	----	1.22	"	110-120
26.54	29.5	29.32	0.87	2.9	15	15	2.30	----	3.71	Clayey SILT to Silty CLAY	130-140
27.08	16.4	16.29	0.75	4.6	16	16	2.34	----	1.96	CLAY	120-130
27.53	23.0	22.83	1.13	4.9	23	23	2.37	----	2.84	"	130-140

PROJECT: 199 RIVER OAKS PARKWAY SITE
 LOCATION: San Jose CA
 PROJ. NO.: 7862.3.001.01(EGO-173)
 Terminated at 80.0 feet

CPT NO.: CPT-5
 DATE : 07-18-2007
 TIME : 13:29:49
 Groundwater measured at 11.0 feet

ENGEO, INC.
cpts by John Sarmiento & Associates

DEPTH (feet)	Qc (tsf)	Qc' (tsf)	Fs (tsf)	Rf (%)	SPT (N)	SPT' (N')	EffVtStr (ksf)	PHI (deg.)	SU (ksf)	SOIL BEHAVIOR TYPE	DENSITY RANGE (pcf)
28.06	13.9	13.79	1.05	7.6	14	14	2.40	---	1.62	"	120-130
28.52	13.9	13.78	0.87	6.3	14	14	2.43	---	1.62	"	"
29.06	7.7	7.63	0.44	5.7	8	8	2.46	---	1.18	"	110-120
29.50	8.9	8.81	0.47	5.3	9	9	2.48	---	1.41	"	"
30.04	9.4	9.27	0.47	5.0	9	9	2.51	---	1.26	"	"
30.58	10.4	10.14	0.79	7.6	10	10	2.55	---	1.42	"	120-130
31.03	51.1	49.26	1.89	3.7	26	25	2.58	---	6.56	Clayey SILT to Silty CLAY	130-140
31.55	51.0	48.52	1.94	3.8	26	24	2.62	---	6.54	"	"
32.04	48.1	45.20	1.67	3.5	24	23	2.65	---	6.15	"	"
32.56	21.2	19.66	1.27	6.0	21	20	2.69	---	2.56	CLAY	"
33.07	33.5	30.65	1.18	3.5	17	15	2.73	---	4.19	Clayey SILT to Silty CLAY	"
33.59	25.0	22.57	1.38	5.5	25	23	2.76	---	3.05	CLAY	"
34.00	86.9	77.58	1.39	1.6	29	26	2.79	37	---	Silty SAND to Sandy SILT	"
34.57	157.6	139.12	0.95	0.6	32	28	2.82	40	---	SAND	110-120
35.04	141.7	123.94	0.84	0.6	28	25	2.85	39	---	"	"
35.51	138.8	120.28	0.84	0.6	28	24	2.87	39	---	"	"
36.06	146.7	125.99	0.78	0.5	29	25	2.90	39	---	"	100-110
36.59	174.7	148.73	0.67	0.4	35	30	2.92	40	---	"	"
37.06	186.5	157.54	0.90	0.5	37	32	2.94	41	---	"	"
37.55	164.0	137.16	1.09	0.7	33	27	2.97	40	---	"	110-120
38.02	167.5	138.70	0.96	0.6	34	28	2.99	40	---	"	"
38.57	152.2	125.23	1.14	0.7	30	25	3.02	39	---	"	"
39.03	152.6	125.12	0.95	0.6	31	25	3.04	39	---	"	"
39.58	164.8	134.58	1.01	0.6	33	27	3.07	40	---	"	"
40.05	157.1	127.94	0.82	0.5	31	26	3.09	39	---	"	100-110
40.51	158.3	128.47	0.93	0.6	32	26	3.12	39	---	"	110-120
41.04	187.6	151.64	0.99	0.5	38	30	3.15	40	---	"	"
41.56	186.9	150.49	1.02	0.5	37	30	3.17	40	---	"	"
42.03	193.6	155.34	1.32	0.7	39	31	3.20	41	---	"	"
42.58	202.6	162.01	0.86	0.4	41	32	3.22	41	---	"	100-110
43.04	222.5	177.42	1.05	0.5	45	35	3.24	41	---	"	"
43.50	194.0	154.26	1.00	0.5	39	31	3.26	40	---	"	"
44.05	180.4	142.85	1.30	0.7	36	29	3.29	40	---	"	110-120
44.51	213.3	168.30	1.36	0.6	43	34	3.31	41	---	"	"
45.02	201.4	158.30	1.13	0.6	40	32	3.34	41	---	"	"
45.50	168.3	131.79	1.04	0.6	34	26	3.36	40	---	"	"
46.05	185.9	144.84	1.86	1.0	37	29	3.40	40	---	"	120-130
46.51	196.2	152.21	1.77	0.9	39	30	3.43	40	---	"	"
47.04	177.0	136.53	4.31	2.4	59	46	3.47	40	---	Silty SAND to Sandy SILT	130-140
47.56	182.6	140.17	2.08	1.1	37	28	3.50	40	---	SAND	120-130
48.06	290.0	221.57	2.80	1.0	58	44	3.53	43	---	"	"
48.53	250.6	190.47	2.94	1.2	50	38	3.56	42	---	"	130-140
49.01	175.4	132.71	1.47	0.8	35	27	3.59	40	---	"	120-130
49.57	90.4	67.98	2.46	2.7	36	27	3.64	---	11.65	Sandy SILT to Clayey SILT	130-140
50.05	235.2	175.93	4.45	1.9	47	35	3.67	41	---	SAND	"
50.57	317.3	236.13	3.51	1.1	63	47	3.70	43	---	"	120-130
51.04	251.0	185.96	2.57	1.0	50	37	3.73	42	---	"	"
51.53	247.7	182.63	2.80	1.1	50	37	3.76	41	---	"	"
52.03	204.4	150.09	1.09	0.5	41	30	3.79	40	---	"	110-120
52.51	234.0	170.88	3.04	1.3	47	34	3.82	41	---	"	130-140
53.05	321.4	233.46	2.62	0.8	64	47	3.86	43	---	"	120-130
53.52	238.2	172.34	1.55	0.7	48	34	3.88	41	---	"	110-120
54.02	191.0	137.62	1.20	0.6	38	28	3.91	40	---	"	"
54.51	196.9	141.06	2.94	1.5	39	28	3.94	40	---	"	130-140
55.08	239.6	170.83	1.65	0.7	48	34	3.97	41	---	"	110-120

PROJECT: 199 RIVER OAKS PARKWAY SITE
 LOCATION: San Jose CA
 PROJ. NO.: 7862.3.001.01(EGO-173)
 Terminated at 80.0 feet

CPT NO.: CPT-5
 DATE : 07-18-2007
 TIME : 13:29:49
 Groundwater measured at 11.0 feet

ENGEO, INC.
cpts by John Sarmiento & Associates

DEPTH (feet)	Qc (tsf)	Qc' (tsf)	Fs (tsf)	Rf (%)	SPT (N)	SPT' (N')	EffVtStr (ksf)	PHI (deg.)	SU (ksf)	SOIL BEHAVIOR TYPE	DENSITY RANGE (pcf)
55.55	240.9	171.07	1.62	0.7	48	34	4.00	41	---	"	"
56.09	247.1	174.76	2.81	1.1	49	35	4.03	41	---	"	120-130
56.53	181.0	127.51	2.33	1.3	36	26	4.06	39	----	"	130-140
57.06	237.3	166.51	2.07	0.9	47	33	4.10	41	----	"	120-130
57.58	257.8	180.19	2.37	0.9	52	36	4.13	41	----	"	"
58.01	230.0	160.23	1.94	0.8	46	32	4.16	41	----	"	"
58.57	230.8	160.20	1.79	0.8	46	32	4.19	41	----	"	110-120
59.01	249.7	172.74	1.98	0.8	50	35	4.21	41	----	"	120-130
59.53	244.5	168.47	1.93	0.8	49	34	4.25	41	----	"	"
60.05	179.0	122.92	1.35	0.8	36	25	4.27	39	----	"	110-120
60.58	182.8	125.10	1.19	0.7	37	25	4.30	39	----	"	"
61.02	195.3	133.12	2.59	1.3	39	27	4.33	40	----	"	130-140
61.54	263.3	178.63	3.13	1.2	53	36	4.37	41	----	"	"
62.06	339.3	229.24	3.28	1.0	68	46	4.40	43	----	"	120-130
62.54	256.6	172.61	3.42	1.3	51	35	4.44	41	----	"	130-140
63.06	210.1	140.66	3.42	1.6	42	28	4.48	40	----	"	"
63.55	275.2	183.52	2.55	0.9	55	37	4.51	42	----	"	120-130
64.04	281.6	187.06	2.64	0.9	56	37	4.54	42	----	"	"
64.54	214.5	141.91	2.47	1.2	43	28	4.57	40	----	"	"
65.06	153.3	100.93	3.24	2.1	51	34	4.61	38	----	Silty SAND to Sandy SILT	130-140
65.57	162.9	106.74	2.80	1.7	41	27	4.64	38	----	SAND to Silty SAND	"
66.08	142.3	92.80	1.91	1.3	36	23	4.68	38	----	"	"
66.51	147.6	95.86	1.94	1.3	37	24	4.71	38	----	"	"
67.02	210.0	135.82	2.47	1.2	42	27	4.74	40	----	SAND	120-130
67.52	297.1	191.35	2.88	1.0	59	38	4.78	42	----	"	"
68.04	239.9	153.95	1.69	0.7	48	31	4.80	40	----	"	110-120
68.50	272.1	173.95	2.57	0.9	54	35	4.83	41	----	"	120-130
69.03	209.8	133.63	1.59	0.8	42	27	4.86	40	----	"	110-120
69.53	195.0	123.76	1.37	0.7	39	25	4.89	39	----	"	"
70.06	212.3	134.15	1.91	0.9	42	27	4.92	40	----	"	120-130
70.57	237.2	149.23	2.02	0.9	47	30	4.95	40	----	"	"
71.01	244.2	153.16	1.52	0.6	49	31	4.97	40	----	"	110-120
71.53	210.0	131.15	1.75	0.8	42	26	5.01	40	----	"	120-130
72.09	253.6	157.81	2.27	0.9	51	32	5.04	41	----	"	"
72.53	192.7	119.57	2.25	1.2	39	24	5.07	39	----	"	"
73.06	179.7	111.12	2.01	1.1	36	22	5.10	39	----	"	"
73.57	260.6	160.59	2.38	0.9	52	32	5.13	41	----	"	"
74.00	253.2	155.59	1.99	0.8	51	31	5.16	41	----	"	"
74.52	212.8	130.39	1.14	0.5	43	26	5.19	40	----	"	110-120
75.05	148.1	90.37	2.52	1.7	37	23	5.23	37	----	SAND to Silty SAND	130-140
75.52	291.7	177.45	3.35	1.1	58	35	5.26	41	----	SAND	120-130
76.03	290.4	176.05	2.70	0.9	58	35	5.29	41	----	"	"
76.55	310.7	187.81	1.95	0.6	52	31	5.32	42	----	Gravelly SAND to SAND	110-120
77.09	323.8	195.01	2.96	0.9	65	39	5.35	42	----	SAND	120-130
77.58	278.2	167.08	1.64	0.6	56	33	5.38	41	----	"	110-120
78.59	18.0	10.74	0.52	2.9	9	5	5.44	---	1.75	Clayey SILT to Silty CLAY	120-130
79.06	99.6	59.19	1.60	1.6	33	20	5.47	35	----	Silty SAND to Sandy SILT	130-140
79.52	60.1	35.58	3.80	6.3	60	36	5.51	---	7.36	Very Stiff Fine Grained *	"
80.02	94.1	55.49	2.55	2.7	38	22	5.54	---	11.89	Sandy SILT to Clayey SILT	"

DEPTH = Sampling interval (~0.1 feet)

Qc = Tip bearing resistance TotStr = Total Stress using est. density**

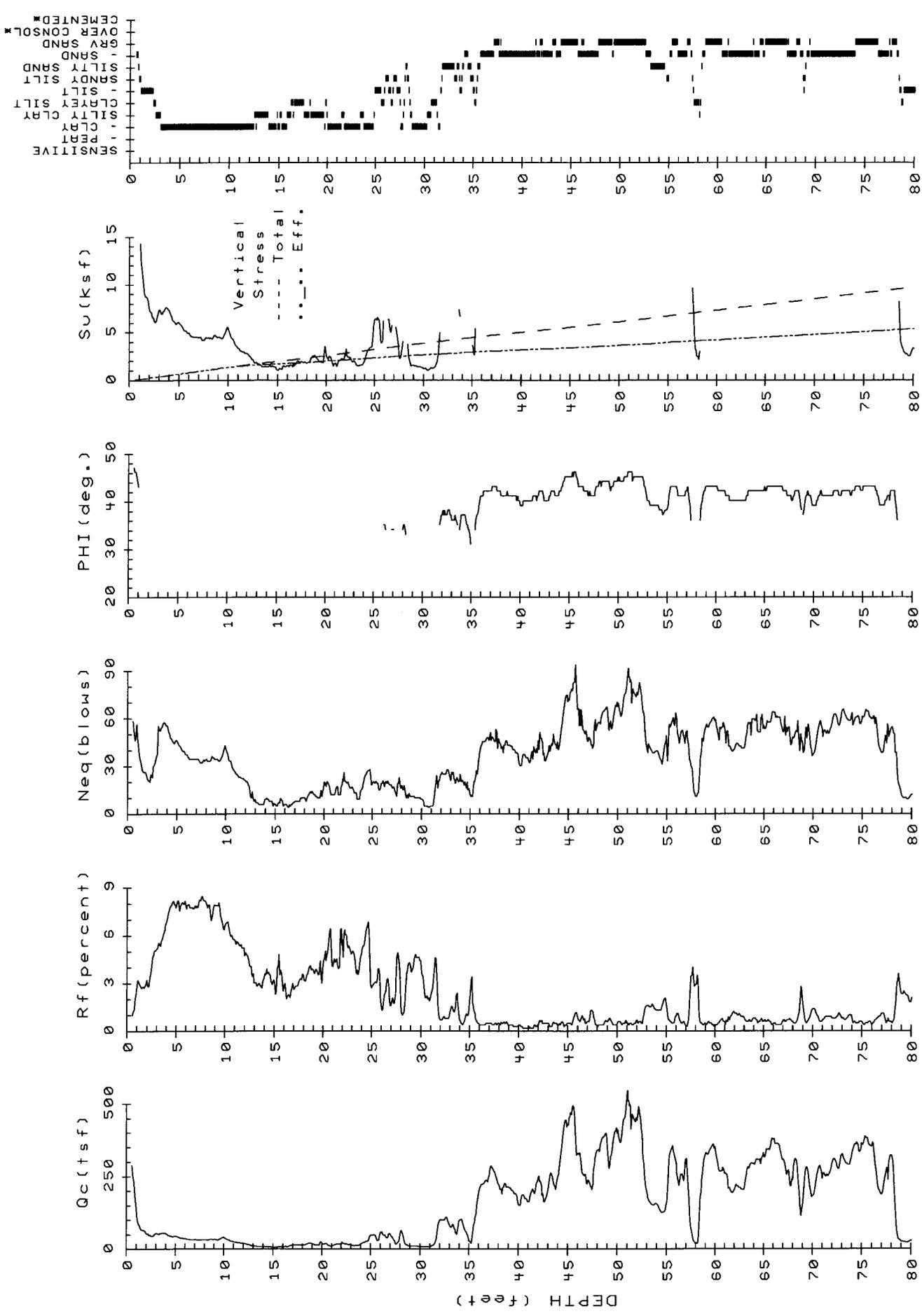
Fs = Sleeve friction resistance Phi = Soil friction angle*

Rf = Tip/Sleeve ratio Su = Undrained Soil Strength* (Nk=10 for Qc<9 tsf)

SPT = Equivalent Standard Penetration Test* (Nk=12 for Qc=9 to 12 tsf) (Nk=15 for Qc>12 tsf)

References: * Robertson and Campanella, 1988

** Olsen, 1989 *** Durgunoglu & Mitchell, 1975



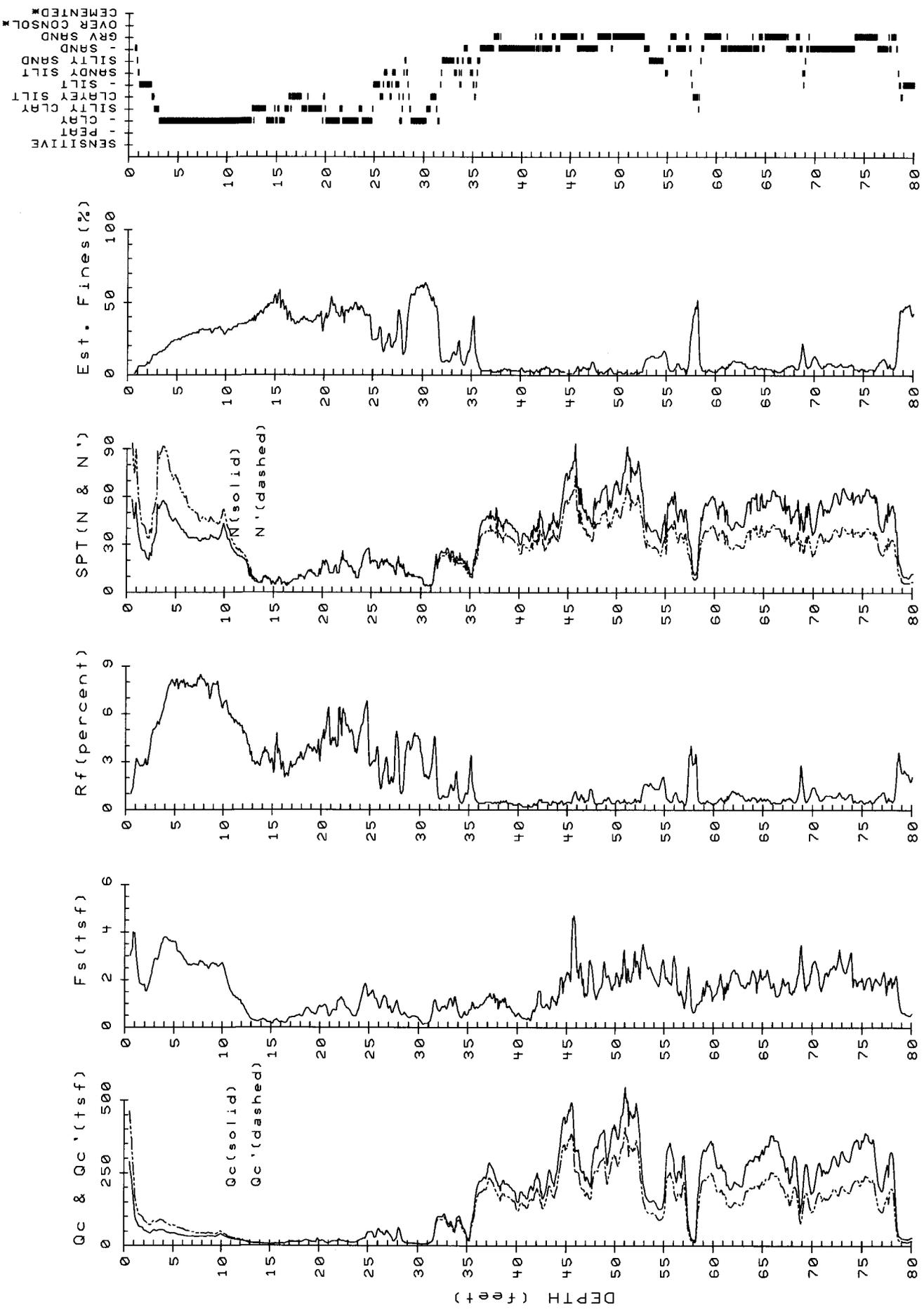
Terminated at 80.0 feet

Groundwater measured at 10.8 feet

PROJECT: 199 RIVER OAKS PARKWAY SITE
 LOCATION: San Jose CA
 PROJ. NO.: 7862.3.001.01(EG0-173)

CPT NO.: CPT-6
 DATE: 07-20-2007

ENGEQ, INC.
cpts by John Sarmiento & Associates



SEPTIMATIVE
 SAND
 SILT
 CLAY
 CLAY SILT
 SILT
 SANDY SILT
 SILT SAND
 SAND
 SAND
 GRV SAND
 COVER CONSOL
 CEMENTED*

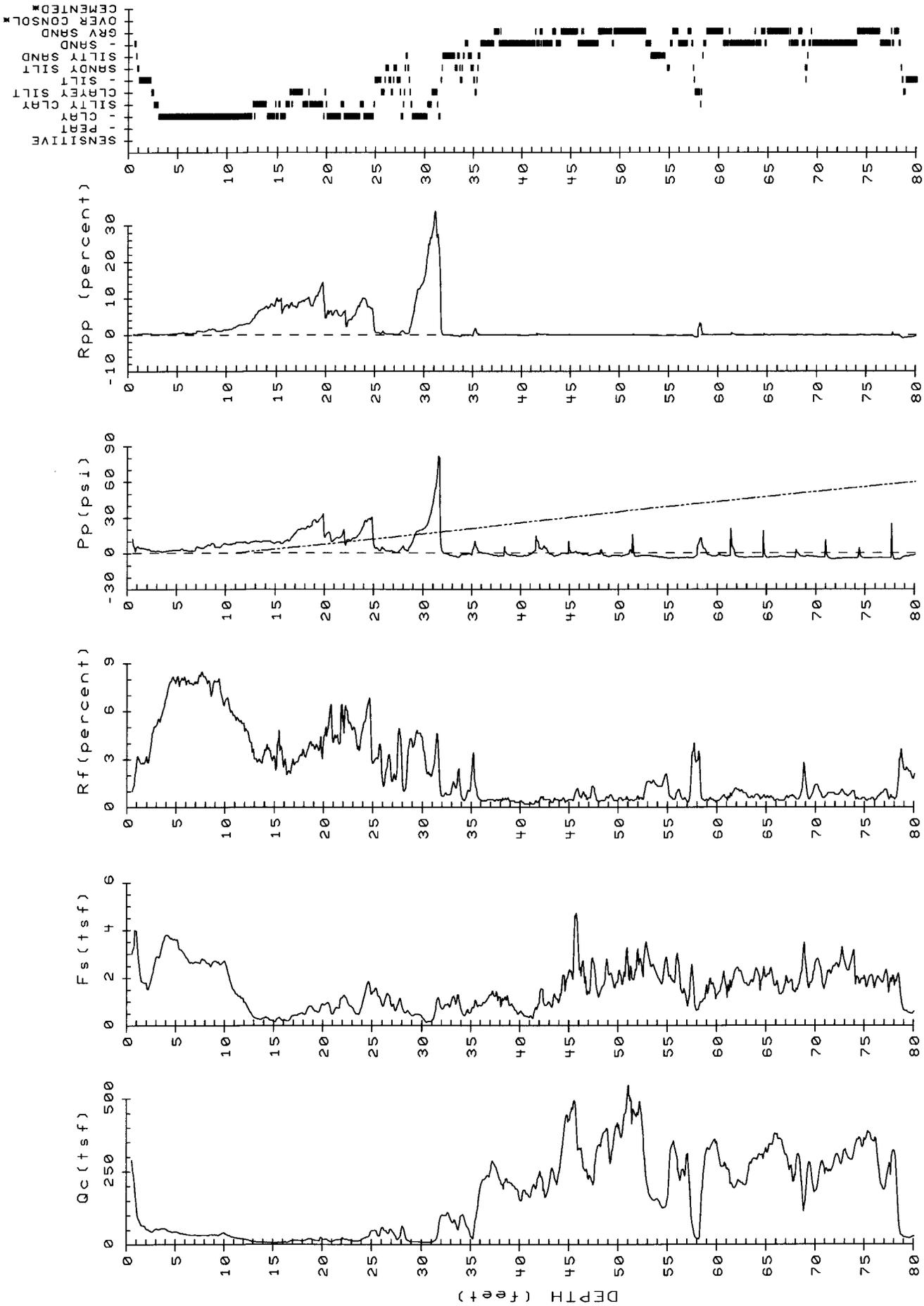
Groundwater measured at 10.8 feet

Terminated at 80.0 feet

PROJECT: 199 RIVER OAKS PARKWAY SITE
 LOCATION: San Jose CA
 PROJ. NO.: 7862.3.001.01(EGO-173)

CPT NO.: CPT-6
 DATE: 07-20-2007

ENGEO, INC.
cpts by John Sarmiento & Associates



Groundwater measured at 10.8 feet

Terminated at 80.0 feet

ENGEO, INC.
cpts by John Sarmiento & Associates
 CPT NO.: CPT-6
 DATE : 07-20-2007
 PROJECT: 199 RIVER OAKS PARKWAY SITE
 LOCATION: San Jose CA
 PROJ. NO.: 7862.3.001.01(EGO-173)

PROJECT: 199 RIVER OAKS PARKWAY SITE
 LOCATION: San Jose CA
 PROJ. NO.: 7862.3.001.01(EGO-173)
 Terminated at 80.0 feet

CPT NO.: CPT-6
 DATE : 07-20-2007
 TIME : 10:34:10
 Groundwater measured at 10.8 feet

ENGEO, INC.
cpts by John Sarmiento & Associates

DEPTH (feet)	Qc (tsf)	Qc' (tsf)	Fs (tsf)	Rf (%)	SPT (N)	SPT' (N')	EffVtStr (ksf)	PHI (deg.)	SU (ksf)	SOIL BEHAVIOR TYPE	DENSITY RANGE (pcf)
0.55	290.2	464.32	2.96	1.0	58	93	0.06	47	---	SAND	120-130
1.00	141.9	227.04	3.91	2.8	47	76	0.12	43	---	Silty SAND to Sandy SILT	130-140
1.52	67.5	108.00	1.83	2.7	27	43	0.20	---	8.99	Sandy SILT to Clayey SILT	"
2.02	55.8	89.28	1.77	3.2	22	36	0.26	---	7.42	"	"
2.51	46.3	74.08	1.91	4.1	23	37	0.33	---	6.15	Clayey SILT to Silty CLAY	"
3.01	55.4	88.64	2.83	5.1	37	59	0.40	---	7.36	Silty CLAY to CLAY	"
3.54	55.7	89.12	3.19	5.7	56	89	0.47	---	7.40	CLAY	"
4.07	53.1	84.96	3.74	7.0	53	85	0.54	---	7.04	"	"
4.51	46.1	73.76	3.60	7.8	46	74	0.60	---	6.11	"	"
5.04	44.5	71.20	3.53	7.9	45	71	0.67	---	5.89	"	"
5.57	39.0	62.40	3.13	8.0	39	62	0.74	---	5.15	"	"
6.01	37.4	59.79	2.86	7.6	37	60	0.80	---	4.93	"	"
6.55	33.8	51.60	2.61	7.7	34	52	0.87	---	4.45	"	"
7.00	34.1	49.95	2.62	7.7	34	50	0.94	---	4.48	"	"
7.56	31.9	44.50	2.68	8.4	32	45	1.01	---	4.19	"	"
8.02	33.7	45.91	2.68	8.0	34	46	1.07	---	4.42	"	"
8.58	35.5	46.97	2.44	6.9	36	47	1.15	---	4.66	"	"
9.07	34.2	44.06	2.66	7.8	34	44	1.21	---	4.48	"	"
9.54	35.1	44.13	2.53	7.2	35	44	1.28	---	4.59	"	"
10.09	38.7	47.27	2.61	6.7	39	47	1.35	---	5.07	"	"
10.55	31.1	37.05	1.85	5.9	31	37	1.41	---	4.05	"	"
11.02	25.4	29.85	1.42	5.6	25	30	1.45	---	3.29	"	"
11.59	22.3	25.76	1.20	5.4	22	26	1.49	---	2.87	"	"
12.07	19.9	22.71	0.97	4.9	20	23	1.52	---	2.55	"	"
12.56	15.2	17.18	0.61	4.0	10	11	1.55	---	1.91	Silty CLAY to CLAY	120-130
13.05	11.1	12.44	0.33	3.0	7	8	1.58	---	1.71	"	110-120
13.53	9.3	10.34	0.27	2.9	6	7	1.61	---	1.40	"	"
14.02	9.0	9.92	0.32	3.6	9	10	1.63	---	1.35	CLAY	"
14.57	7.8	8.53	0.27	3.5	8	9	1.65	---	1.37	"	100-110
15.02	6.0	6.52	0.18	3.0	6	7	1.67	---	1.00	"	"
15.53	9.7	10.45	0.34	3.5	10	10	1.70	---	1.45	"	110-120
16.07	8.7	9.30	0.26	3.0	6	6	1.72	---	1.53	Silty CLAY to CLAY	100-110
16.52	9.5	10.09	0.21	2.2	5	5	1.74	---	1.41	Clayey SILT to Silty CLAY	"
17.05	15.8	16.65	0.43	2.7	8	8	1.78	---	1.96	"	120-130
17.58	15.2	15.89	0.49	3.2	10	11	1.81	---	1.88	Silty CLAY to CLAY	"
18.03	14.8	15.38	0.48	3.2	10	10	1.84	---	1.82	"	"
18.58	20.3	20.92	0.81	4.0	14	14	1.87	---	2.55	"	"
19.05	18.0	18.42	0.65	3.6	12	12	1.90	---	2.24	"	"
19.58	15.1	15.34	0.55	3.6	10	10	1.93	---	1.85	"	"
20.02	20.2	20.36	0.88	4.4	20	20	1.97	---	2.52	CLAY	130-140
20.54	16.8	16.80	0.94	5.6	17	17	2.00	---	2.07	"	120-130
21.06	12.0	11.99	0.51	4.3	12	12	2.03	---	1.42	"	"
21.58	18.0	17.98	0.71	3.9	12	12	2.06	---	2.22	Silty CLAY to CLAY	"
22.04	26.0	25.95	1.20	4.6	26	26	2.10	---	3.28	CLAY	130-140
22.56	17.8	17.75	0.93	5.2	18	18	2.13	---	2.18	"	120-130
23.08	14.7	14.65	0.73	5.0	15	15	2.16	---	1.76	"	"
23.51	12.9	12.85	0.49	3.8	9	9	2.19	---	1.52	Silty CLAY to CLAY	"
24.02	18.0	17.92	0.92	5.1	18	18	2.22	---	2.20	CLAY	"
24.54	27.3	27.16	1.79	6.6	27	27	2.26	---	3.43	"	130-140
25.06	49.4	49.11	1.39	2.8	20	20	2.30	---	6.37	Sandy SILT to Clayey SILT	"
25.56	38.9	38.64	1.25	3.2	19	19	2.33	---	4.97	Clayey SILT to Silty CLAY	"
26.07	61.6	61.15	0.81	1.3	21	20	2.37	35	---	Silty SAND to Sandy SILT	120-130
26.58	41.3	40.97	1.32	3.2	21	20	2.40	---	5.28	Clayey SILT to Silty CLAY	130-140
27.07	47.2	46.79	0.90	1.9	16	16	2.44	34	---	Silty SAND to Sandy SILT	"
27.57	18.6	18.43	0.85	4.6	19	18	2.47	---	2.24	CLAY	120-130

PROJECT: 199 RIVER OAKS PARKWAY SITE
 LOCATION: San Jose CA
 PROJ. NO.: 7862.3.001.01(EGO-173)
 Terminated at 80.0 feet

CPT NO.: CPT-6
 DATE : 07-20-2007
 TIME : 10:34:10
 Groundwater measured at 10.8 feet

ENGEO, INC.
cpts by John Sarmiento & Associates

DEPTH (feet)	Qc (tsf)	Qc' (tsf)	Fs (tsf)	Rf (%)	SPT (N)	SPT' (N')	EffVtStr (ksf)	PHI (deg.)	SU (ksf)	SOIL BEHAVIOR TYPE	DENSITY RANGE (pcf)
28.07	65.4	64.73	0.71	1.1	16	16	2.50	35	---	SAND to Silty SAND	"
28.56	17.9	17.53	0.65	3.6	12	12	2.53	---	2.14	Silty CLAY to CLAY	"
29.02	11.0	10.69	0.41	3.7	11	11	2.56	---	1.52	CLAY	110-120
29.52	10.4	10.00	0.48	4.6	10	10	2.59	---	1.42	"	120-130
30.03	9.1	8.67	0.38	4.2	9	9	2.61	---	1.20	"	110-120
30.54	7.6	7.18	0.16	2.1	5	5	2.64	---	1.13	Silty CLAY to CLAY	100-110
31.06	9.4	8.82	0.22	2.3	5	4	2.66	---	1.24	Clayey SILT to Silty CLAY	"
31.58	24.2	22.40	1.09	4.5	24	22	2.70	---	2.96	CLAY	130-140
32.00	100.4	92.19	0.72	0.7	25	23	2.72	38	---	SAND to Silty SAND	110-120
32.51	101.6	92.23	0.86	0.8	25	23	2.75	38	---	"	120-130
33.01	84.1	75.47	0.99	1.2	21	19	2.78	36	---	"	"
33.58	67.0	59.22	1.07	1.6	22	20	2.82	35	----	Silty SAND to Sandy SILT	130-140
34.06	101.9	89.22	0.61	0.6	20	18	2.85	37	----	SAND	110-120
34.54	70.3	60.96	0.54	0.8	18	15	2.87	35	----	SAND to Silty SAND	"
35.03	29.2	25.03	0.56	1.9	12	10	2.90	---	3.60	Sandy SILT to Clayey SILT	120-130
35.58	95.5	80.76	1.02	1.1	24	20	2.94	37	----	SAND to Silty SAND	"
36.05	203.9	171.08	0.82	0.4	41	34	2.96	41	----	SAND	100-110
36.51	226.7	188.74	0.97	0.4	45	38	2.98	42	----	"	"
37.06	256.9	211.93	1.30	0.5	51	42	3.00	42	----	"	"
37.51	272.0	223.79	1.21	0.4	45	37	3.02	43	----	Gravelly SAND to SAND	"
38.02	221.1	181.22	1.21	0.5	44	36	3.05	41	----	SAND	110-120
38.52	214.5	175.17	1.20	0.6	43	35	3.07	41	----	"	"
39.04	213.3	173.64	0.84	0.4	43	35	3.10	41	----	"	100-110
39.57	194.3	157.79	0.64	0.3	39	32	3.11	41	----	"	90-100
40.01	156.7	126.99	0.56	0.4	31	25	3.13	39	----	"	"
40.54	186.4	150.78	0.40	0.2	37	30	3.14	40	----	"	85-90
41.04	162.2	130.90	0.39	0.2	32	26	3.16	40	----	"	90-100
41.54	200.7	161.59	0.63	0.3	40	32	3.17	41	----	"	"
42.08	252.7	202.63	1.39	0.6	51	41	3.20	42	----	"	110-120
42.51	190.3	152.20	0.92	0.5	38	30	3.22	40	----	"	100-110
43.04	212.5	169.40	0.98	0.5	43	34	3.24	41	----	"	"
43.55	230.0	182.64	1.33	0.6	46	37	3.27	41	----	"	110-120
44.06	258.2	204.39	1.09	0.4	43	34	3.29	42	----	Gravelly SAND to SAND	100-110
44.54	398.3	314.13	2.07	0.5	66	52	3.32	45	----	"	110-120
45.08	427.4	335.69	2.32	0.5	71	56	3.34	45	----	"	"
45.55	494.3	386.56	3.65	0.7	82	64	3.37	46	----	"	120-130
46.02	330.1	257.04	2.62	0.8	66	51	3.40	43	----	SAND	"
46.56	258.5	200.29	2.01	0.8	52	40	3.44	42	----	"	"
47.01	224.1	173.02	1.36	0.6	45	35	3.46	41	----	"	110-120
47.56	222.0	170.51	2.56	1.2	44	34	3.50	41	----	"	120-130
48.03	341.0	261.13	1.17	0.3	57	44	3.52	44	----	Gravelly SAND to SAND	100-110
48.51	382.6	292.09	1.65	0.4	64	49	3.54	44	----	"	"
49.02	351.8	267.48	2.18	0.6	59	45	3.56	44	----	"	110-120
49.53	345.3	261.47	1.80	0.5	58	44	3.59	44	----	"	"
50.01	399.6	301.65	1.95	0.5	67	50	3.61	44	----	"	100-110
50.56	425.8	320.28	2.00	0.5	71	53	3.63	45	----	"	"
51.03	539.5	404.58	2.54	0.5	90	67	3.65	46	----	"	"
51.53	465.5	347.93	1.90	0.4	78	58	3.67	45	----	"	"
52.04	444.2	330.64	3.17	0.7	74	55	3.70	45	----	"	110-120
52.54	379.8	281.56	2.02	0.5	63	47	3.73	44	----	"	"
53.06	190.4	140.33	2.98	1.6	38	28	3.76	40	----	SAND	130-140
53.57	153.4	112.40	2.54	1.7	38	28	3.80	39	----	SAND to Silty SAND	"
54.00	156.3	113.96	2.10	1.3	39	28	3.83	39	----	"	"
54.53	125.4	90.88	1.82	1.5	31	23	3.87	37	----	"	"
55.07	167.1	120.35	2.37	1.4	33	24	3.91	39	----	SAND	"

PROJECT: 199 RIVER OAKS PARKWAY SITE
 LOCATION: San Jose CA
 PROJ. NO.: 7862.3.001.01(EGO-173)
 Terminated at 80.0 feet

CPT NO.: CPT-6
 DATE : 07-20-2007
 TIME : 10:34:10
 Groundwater measured at 10.8 feet

ENGEO, INC.
cpts by John Sarmiento & Associates

DEPTH (feet)	Qc (tsf)	Qc' (tsf)	Fs (tsf)	Rf (%)	SPT (N)	SPT' (N')	EffVtStr (ksf)	PHI (deg.)	SU (ksf)	SOIL BEHAVIOR TYPE	DENSITY RANGE (pcf)
55.58	347.3	249.07	1.83	0.5	58	42	3.94	43	---	Gravelly SAND to SAND	110-120
56.01	296.7	211.86	2.99	1.0	59	42	3.96	42	---	SAND	120-130
56.53	257.6	183.13	1.35	0.5	52	37	3.99	41	---	"	110-120
57.04	311.4	220.86	0.81	0.3	52	37	4.01	43	---	Gravelly SAND to SAND	90-100
57.59	56.3	39.74	1.96	3.5	28	20	4.05	---	7.04	Clayey SILT to Silty CLAY	130-140
58.00	21.9	15.41	0.64	2.9	11	8	4.07	---	2.45	"	120-130
58.54	200.7	140.84	1.03	0.5	40	28	4.10	40	---	SAND	100-110
59.00	326.7	228.58	1.70	0.5	54	38	4.12	43	---	Gravelly SAND to SAND	110-120
59.55	348.6	243.21	1.72	0.5	58	41	4.15	43	---	"	100-110
60.09	331.1	230.35	1.29	0.4	55	38	4.17	43	---	"	"
60.54	266.7	185.01	1.80	0.7	53	37	4.19	42	---	SAND	110-120
61.07	264.8	183.19	1.16	0.4	44	31	4.21	41	---	Gravelly SAND to SAND	100-110
61.57	204.9	141.20	1.85	0.9	41	28	4.25	40	---	SAND	120-130
62.04	213.6	146.67	2.41	1.1	43	29	4.27	40	---	"	"
62.58	211.1	144.34	2.04	1.0	42	29	4.31	40	---	"	"
63.03	213.7	145.61	1.76	0.8	43	29	4.34	40	---	"	"
63.55	287.2	195.01	1.89	0.7	57	39	4.36	42	---	"	110-120
64.07	291.6	197.19	2.35	0.8	58	39	4.40	42	---	"	120-130
64.58	308.0	207.59	1.97	0.6	51	35	4.42	42	---	Gravelly SAND to SAND	110-120
65.06	316.5	212.63	2.06	0.7	53	35	4.45	42	---	"	"
65.58	341.3	228.50	2.17	0.6	57	38	4.48	43	---	"	"
66.01	376.4	251.42	1.72	0.5	63	42	4.49	43	---	"	100-110
66.51	360.4	240.08	1.29	0.4	60	40	4.52	43	---	"	"
67.02	310.9	206.40	2.07	0.7	52	34	4.54	42	---	"	110-120
67.54	272.4	180.20	1.91	0.7	54	36	4.57	41	---	SAND	"
68.06	285.0	187.87	1.56	0.5	48	31	4.60	42	---	Gravelly SAND to SAND	"
68.53	243.8	160.10	2.14	0.9	49	32	4.63	41	---	SAND	120-130
69.00	150.9	98.66	2.79	1.8	38	25	4.66	38	---	SAND to Silty SAND	130-140
69.55	263.4	171.56	1.77	0.7	53	34	4.69	41	---	SAND	110-120
70.00	184.0	119.33	2.59	1.4	37	24	4.72	39	---	"	130-140
70.54	274.2	177.06	2.38	0.9	55	35	4.76	41	---	"	120-130
71.07	261.6	168.29	1.77	0.7	52	34	4.78	41	---	"	110-120
71.55	251.0	160.83	2.14	0.9	50	32	4.81	41	---	"	120-130
72.00	294.2	187.81	2.46	0.8	59	38	4.84	42	---	"	"
72.53	281.0	178.59	2.64	0.9	56	36	4.88	41	---	"	"
73.06	327.1	206.98	2.50	0.8	65	41	4.91	42	---	"	"
73.50	296.4	186.85	2.44	0.8	59	37	4.94	42	---	"	"
74.02	331.1	207.96	2.42	0.7	55	35	4.96	42	---	Gravelly SAND to SAND	110-120
74.56	365.0	228.54	1.75	0.5	61	38	4.99	43	---	"	100-110
75.08	358.4	223.67	1.90	0.5	60	37	5.01	43	---	"	110-120
75.51	382.4	238.09	2.04	0.5	64	40	5.04	43	---	"	"
76.01	352.6	219.04	1.56	0.4	59	37	5.06	43	---	"	100-110
76.52	256.1	158.65	1.95	0.8	51	32	5.08	41	---	SAND	110-120
77.02	188.8	116.58	2.06	1.1	38	23	5.12	39	---	"	120-130
77.57	281.2	173.10	1.66	0.6	56	35	5.15	41	---	"	110-120
78.06	321.0	197.06	1.65	0.5	54	33	5.17	42	---	Gravelly SAND to SAND	"
78.54	66.2	40.49	1.97	3.0	26	16	5.21	---	8.20	Sandy SILT to Clayey SILT	130-140
79.05	26.9	16.40	0.63	2.3	11	7	5.24	---	2.95	"	120-130
79.56	23.7	14.40	0.53	2.2	9	6	5.27	---	2.52	"	"
80.07	29.1	17.62	0.60	2.1	12	7	5.30	---	3.24	"	"

DEPTH = Sampling interval (~0.1 feet)

Qc = Tip bearing resistance TotStr = Total Stress using est. density**

Fs = Sleeve friction resistance Phi = Soil friction angle*

Rf = Tip/Sleeve ratio Su = Undrained Soil Strength* (Nk=10 for Qc<9 tsf)

SPT = Equivalent Standard Penetration Test* (Nk=12 for Qc=9 to 12 tsf) (Nk=15 for Qc>12 tsf)

References: * Robertson and Campanella, 1988 ** Olsen, 1989 *** Durgunoglu & Mitchell, 1975

APPENDIX B

ENGEO INCORPORATED

Liquefaction Analysis Spreadsheets

Project Name: 199 River Oaks Parkway
 Project Number: 7862.3.001.01
 Date: 20-Jul-07
 CPT Number: CPT-1
 Depth to Groundwater: 11 ft

EQ Magnitude (M_w): 7.1
 PGA (g): 0.55
 MSF: 1.20

Cone	Depth (FT)	Water Table (FT)	Tip Resist. (TSF)	Sleeve Frict. (TSF)	γ (PCF)	Total Stress (PSF)	Effective Stress (PSF)	Norm. Tip Q _{tip}	Corr. Tip Q	Friction Ratio F	I _c	F.C. (%)	K _{CPT}	Δq _{CPT}	(Q _{tip}) ^{0.5}	Induced Stress Ratio	Liquef. Stress M7.5	Liquef. Stress M7.10	Factor of Safety	Comments
CPT-1	0.59	11	220.5	4.65	135	80	80	422.3	5533.4	2.11	1.6	3.9	0.00	0.0	422.3	0.358	7.084	8.501	23.78	Above W.T.
CPT-1	0.68	11	143.9	4.81	135	92	92	275.6	3132.8	3.34	1.7	7.0	0.05	15.3	290.9	0.358	2.370	2.845	7.96	Above W.T.
CPT-1	0.79	11	122.8	4.38	135	107	107	235.2	2300.9	3.57	1.8	7.6	0.07	17.6	252.8	0.358	1.583	1.899	5.31	Above W.T.
CPT-1	0.88	11	105.4	3.41	135	119	119	201.9	1772.7	3.24	1.7	7.0	0.05	11.2	213.1	0.358	0.980	1.176	3.29	Above W.T.
CPT-1	0.98	11	81.7	3.24	135	132	132	156.5	1233.6	3.97	1.9	9.4	0.12	20.8	177.3	0.358	0.598	0.718	2.01	Above W.T.
CPT-1	1.07	11	67.9	3.17	135	144	144	130.0	938.7	4.67	2.0	11.7	0.18	28.5	158.6	0.358	0.451	0.541	1.51	Above W.T.
CPT-1	1.18	11	49.4	2.86	135	159	159	94.6	619.0	5.80	2.1	15.7	0.29	37.8	132.4	0.358	0.296	0.355	0.99	Above W.T.
CPT-1	1.27	11	42.3	2.33	135	171	171	81.0	492.2	5.52	2.1	16.1	0.30	34.2	115.3	0.358	0.222	0.267	0.75	Above W.T.
CPT-1	1.36	11	36.6	1.88	135	184	184	70.1	397.5	5.15	2.1	16.4	0.30	30.6	100.7	0.358	0.175	0.210	0.59	Above W.T.
CPT-1	1.45	11	31.8	1.73	135	196	196	60.9	323.8	5.46	2.2	18.3	0.36	33.6	94.5	0.358	0.159	0.190	0.53	Above W.T.
CPT-1	1.54	11	29	1.61	135	208	208	55.5	277.9	5.57	2.2	19.6	0.39	35.5	91.0	0.358	0.150	0.180	0.50	Above W.T.
CPT-1	1.63	11	27.7	1.54	135	220	220	53.1	250.7	5.58	2.2	20.3	0.41	36.8	89.9	0.358	0.147	0.177	0.50	Above W.T.
CPT-1	1.72	11	29.4	1.51	135	232	232	56.3	252.1	5.16	2.2	19.3	0.38	34.6	90.9	0.358	0.150	0.180	0.50	Above W.T.
CPT-1	1.81	11	28.2	1.46	135	244	244	54.0	229.7	5.20	2.2	20.1	0.40	36.3	90.3	0.358	0.148	0.178	0.50	Above W.T.
CPT-1	1.9	11	25.9	1.32	135	257	257	49.6	200.9	5.12	2.3	20.9	0.42	36.5	86.2	0.358	0.139	0.167	0.47	Above W.T.
CPT-1	1.99	11	23.7	1.03	135	269	269	45.4	175.4	4.37	2.2	20.0	0.40	30.2	75.6	0.358	0.120	0.144	0.40	Above W.T.
CPT-1	2.08	11	23.5	0.83	135	281	281	45.0	166.3	3.55	2.2	17.9	0.34	23.7	68.7	0.358	0.110	0.132	0.37	Above W.T.
CPT-1	2.17	11	23.6	0.89	135	293	293	45.2	160.1	3.79	2.2	19.0	0.37	26.9	72.1	0.358	0.115	0.138	0.39	Above W.T.
CPT-1	2.34	11	20.3	0.94	135	316	316	38.9	127.5	4.67	2.3	23.7	0.50	38.6	77.5	0.358	0.123	0.148	0.41	Above W.T.
CPT-1	2.43	11	18.9	0.89	125	304	304	36.2	123.4	4.75	2.3	24.2	0.51	38.1	74.3	0.358	0.118	0.142	0.40	Above W.T.
CPT-1	2.53	11	18.6	0.9	125	316	316	35.6	116.6	4.88	2.4	25.2	0.54	41.5	77.2	0.358	0.123	0.147	0.41	Above W.T.
CPT-1	2.62	11	18.7	0.91	135	354	354	35.8	104.7	4.91	2.4	26.4	0.57	47.6	83.4	0.358	0.134	0.161	0.45	Above W.T.
CPT-1	2.72	11	19.1	0.9	135	367	367	36.6	103.0	4.76	2.4	26.1	0.56	47.2	83.8	0.358	0.135	0.162	0.45	Above W.T.
CPT-1	2.81	11	18.4	0.88	125	351	351	35.2	103.7	4.83	2.4	26.2	0.57	46.1	81.4	0.358	0.130	0.156	0.44	Above W.T.
CPT-1	2.91	11	17.9	0.86	125	364	364	34.3	97.4	4.85	2.4	27.0	0.59	48.8	83.0	0.358	0.133	0.160	0.45	Above W.T.
CPT-1	3.01	11	17.3	0.84	125	376	376	33.1	90.9	4.91	2.4	27.9	0.61	52.3	85.4	0.358	0.138	0.165	0.46	Above W.T.
CPT-1	3.11	11	18.4	0.84	125	389	389	35.2	93.6	4.61	2.4	26.7	0.58	48.6	83.9	0.358	0.135	0.162	0.45	Above W.T.
CPT-1	3.2	11	19.7	0.9	135	432	432	37.7	90.2	4.62	2.4	27.2	0.59	54.6	92.3	0.358	0.153	0.184	0.51	Above W.T.
CPT-1	3.3	11	21.4	0.97	135	446	446	41.0	95.0	4.58	2.4	26.4	0.57	54.9	95.9	0.358	0.162	0.194	0.54	Above W.T.
CPT-1	3.4	11	21.4	1.09	135	459	459	41.0	92.2	5.15	2.4	28.5	0.63	68.6	109.6	0.358	0.203	0.243	0.68	Above W.T.
CPT-1	3.5	11	20.4	1.17	135	473	473	39.1	85.3	5.80	2.5	31.2	0.70	90.5	129.6	0.358	0.282	0.339	0.95	Above W.T.
CPT-1	3.6	11	18.1	1.17	135	486	486	34.7	73.5	6.55	2.6	35.0	0.80	139.0	173.7	0.358	0.567	0.681	1.90	Above W.T.
CPT-1	3.7	11	16.1	1.16	135	500	500	30.8	63.4	7.32	2.7	38.9	0.80	123.3	154.2	0.358	0.421	0.505	1.41	Above W.T.
CPT-1	3.79	11	15.2	1.1	135	512	512	29.1	58.4	7.43	2.7	40.3	0.80	116.4	145.6	0.358	0.367	0.440	1.23	Above W.T.
CPT-1	3.89	11	15.1	1.07	135	525	525	28.8	56.5	7.21	2.7	40.3	0.80	115.3	144.2	0.358	0.359	0.430	1.20	Above W.T.
CPT-1	3.99	11	15	1.06	125	499	499	28.7	59.1	7.19	2.7	39.5	0.80	114.9	143.6	0.358	0.356	0.427	1.19	Above W.T.
CPT-1	4.09	11	15.8	1.07	135	552	552	29.4	56.2	6.89	2.7	39.5	0.80	117.7	147.1	0.358	0.376	0.451	1.26	Above W.T.
CPT-1	4.18	11	16	1.11	135	564	564	29.5	55.7	7.06	2.7	40.1	0.80	117.9	147.4	0.358	0.378	0.453	1.27	Above W.T.
CPT-1	4.29	11	16.8	1.14	135	579	579	30.5	57.0	6.90	2.7	39.4	0.80	122.2	152.7	0.358	0.411	0.494	1.38	Above W.T.
CPT-1	4.39	11	15.6	1.15	135	593	593	28.0	51.6	7.51	2.7	42.3	0.80	112.2	140.2	0.358	0.336	0.403	1.13	Above W.T.
CPT-1	4.49	11	14.4	1.14	135	606	606	25.6	46.5	8.09	2.8	45.3	0.80	102.4	128.0	0.358	0.275	0.330	0.92	Above W.T.
CPT-1	4.59	11	13.9	1.08	125	574	574	25.4	47.4	7.93	2.8	44.7	0.80	101.6	127.0	0.358	0.270	0.324	0.91	Above W.T.
CPT-1	4.69	11	13.4	1	125	586	586	24.2	44.7	7.63	2.8	44.9	0.80	96.9	121.1	0.358	0.245	0.294	0.82	Above W.T.
CPT-1	4.78	11	12.4	0.91	125	598	598	22.2	40.5	7.52	2.8	46.2	0.80	88.8	111.0	0.358	0.207	0.249	0.70	Above W.T.
CPT-1	4.89	11	11.5	0.83	125	611	611	20.4	36.6	7.41	2.8	47.7	0.80	81.4	101.8	0.358	0.178	0.214	0.60	Above W.T.
CPT-1	4.98	11	11.5	0.76	125	623	623	20.2	35.9	6.79	2.8	46.4	0.80	80.7	100.8	0.358	0.175	0.210	0.59	Above W.T.
CPT-1	5.08	11	11.6	0.7	125	635	635	20.1	35.5	6.20	2.8	44.9	0.80	80.6	100.7	0.358	0.175	0.210	0.59	Above W.T.
CPT-1	5.18	11	12.3	0.8	125	648	648	21.1	37.0	6.68	2.8	45.6	0.80	84.6	105.7	0.358	0.190	0.228	0.64	Above W.T.
CPT-1	5.28	11	13	0.9	125	660	660	22.1	38.4	7.10	2.8	46.1	0.80	88.6	110.7	0.358	0.206	0.247	0.69	Above W.T.
CPT-1	5.32	11	13.2	0.94	125	665	665	22.4	38.7	7.31	2.8	46.5	0.80	89.6	112.0	0.358	0.211	0.253	0.71	Above W.T.
CPT-1	5.42	11	14.6	0.99	125	678	678	24.5	42.1	6.94	2.8	44.1	0.80	98.2	122.7	0.358	0.252	0.302	0.85	Above W.T.
CPT-1	5.52	11	14.4	0.99	125	690	690	24.0	40.7	7.04	2.8	44.9	0.80	95.9	119.9	0.358	0.240	0.289	0.81	Above W.T.
CPT-1	5.62	11	14.2	0.97	125	703	703	23.4	39.4	7.00	2.8	45.4	0.80	93.8	117.2	0.358	0.230	0.276	0.77	Above W.T.
CPT-1	5.72	11	12.9	0.92	125	715	715	21.1	35.1	7.34	2.8	48.2	0.80	84.4	105.5	0.358	0.189	0.227	0.64	Above W.T.
CPT-1	5.81	11	12.2	0.85	125	726	726	19.8	32.6	7.18	2.9	49.1	0.80	79.2	99.0	0.358	0.170	0.204	0.57	Above W.T.
CPT-1	5.92	11	12.2	0.8	125	740	740	19.6	32.0	6.76	2.8	48.3	0.80	78.5	98.1	0.358	0.168	0.201	0.56	Above W.T.
CPT-1	6.01	11	12.1	0.8	125	751	751	19.3	31.2	6.82	2.9	48.9	0.80	77.3	96.6	0.358	0.164	0.197	0.55	Above W.T.
CPT-1	6.11	11	12.5	0.83	125	764	764	19.8	31.7	6.85	2.8	48.7	0.80	79.2	99.0	0.358	0.170	0.204	0.57	Above W.T.
CPT-1	6.21	11	13.4	0.9	125	776	776	21.0	33.5	6.92	2.8	47.9	0.80	84.2	105.2	0.358	0.188	0.226	0.63	Above W.T.
CPT-1	6.31	11	13.9	1.02	125	789	789	21.7	34.2	7.55	2.9	49.2	0.80	86.6	108.3	0.358	0.198	0.238	0.66	Above W.T.
CPT-1	6.41	11	14.2	1.09	125	801	801	21.9	34.4	7.90	2.9	50.0	0.80	87.8	109.7	0.358	0.203	0.244	0.68	Above W.T.
CPT-1	6.51	11	15	1.15	135	879	879	22.1	33.1	7.90	2.9	50.7	0.80	88.6	110.7	0.358	0.206	0.247	0.69	Above W.T.
CPT-1	6.61	11	14.7	1.19	135	892	892	21.5	31.9	8.35	2.9	52.4	0.80	86.1						

Project Name: 199 River Oaks Parkway
Project Number: 7862.3.001.01
Date: 20-Jul-07
CPT Number: CPT-1
Depth to Groundwater: 11 ft

EQ Magnitude (M_w): 7.1
PGA (g): 0.55
MSF: 1.20

Cone	Depth (FT)	Water Table (FT)	Tip Resist. (TSF)	Sleeve Frict. (TSF)	γ (PCF)	Total Stress (PSF)	Effective Stress (PSF)	Norm. Tip Q _{IN}	Corr. Tip Q	Friction Ratio F	Ic	F.C. (%)	K _{CPT}	Δq _{IN}	(q _{IN}) ₅₀	Induced Stress Ratio	Liquef. Stress M7.5	Liquef. Stress M7.10	Factor of Safety	Comments
CPT-1	7.3	11	14.2	0.96	125	913	913	20.6	30.1	6.99	2.9	50.0	0.80	82.3	102.8	0.358	0.181	0.217	0.61	Above W.T.
CPT-1	7.4	11	13.5	0.96	125	925	925	19.4	28.2	7.36	2.9	52.3	0.80	77.7	97.1	0.358	0.165	0.198	0.55	Above W.T.
CPT-1	7.49	11	13.6	0.94	125	936	936	19.4	28.0	7.16	2.9	51.8	0.80	77.8	97.2	0.358	0.166	0.199	0.56	Above W.T.
CPT-1	7.59	11	13.4	0.94	125	949	949	19.0	27.2	7.27	2.9	52.7	0.80	76.1	95.2	0.358	0.160	0.192	0.54	Above W.T.
CPT-1	7.69	11	13.6	0.96	125	961	961	19.2	27.3	7.32	2.9	52.8	0.80	76.8	96.0	0.358	0.162	0.195	0.54	Above W.T.
CPT-1	7.78	11	13.1	0.98	125	973	973	18.4	25.9	7.77	2.9	55.0	0.80	73.5	91.9	0.358	0.152	0.183	0.51	Above W.T.
CPT-1	7.88	11	13.5	1.01	125	985	985	18.8	26.4	7.76	2.9	54.6	0.80	75.3	94.1	0.358	0.157	0.189	0.53	Above W.T.
CPT-1	7.97	11	13.7	1.02	125	996	996	19.0	26.5	7.73	2.9	54.4	0.80	76.0	95.0	0.358	0.160	0.192	0.54	Above W.T.
CPT-1	8.07	11	13.8	1.03	125	1009	1009	19.0	26.3	7.75	2.9	54.6	0.80	76.0	95.1	0.358	0.160	0.192	0.54	Above W.T.
CPT-1	8.16	11	14	1	125	1020	1020	19.2	26.4	7.41	2.9	53.6	0.80	76.7	95.9	0.358	0.162	0.194	0.54	Above W.T.
CPT-1	8.25	11	14.5	0.99	125	1031	1031	19.8	27.1	7.08	2.9	52.3	0.80	79.0	98.8	0.358	0.170	0.204	0.57	Above W.T.
CPT-1	8.34	11	15.4	1.04	125	1043	1043	20.9	28.5	6.99	2.9	51.0	0.80	83.5	104.3	0.358	0.186	0.223	0.62	Above W.T.
CPT-1	8.44	11	15.9	1.1	135	1139	1139	20.6	26.9	7.18	2.9	52.7	0.80	82.4	103.0	0.358	0.182	0.218	0.61	Above W.T.
CPT-1	8.53	11	16	1.23	135	1152	1152	20.6	26.8	7.97	2.9	54.8	0.80	82.5	103.1	0.358	0.182	0.218	0.61	Above W.T.
CPT-1	8.62	11	16.4	1.29	135	1164	1164	21.0	27.2	8.16	2.9	55.0	0.80	84.1	105.2	0.358	0.188	0.226	0.63	Above W.T.
CPT-1	8.71	11	16.5	1.27	135	1176	1176	21.1	27.1	7.98	2.9	54.7	0.80	84.2	105.3	0.358	0.188	0.226	0.63	Above W.T.
CPT-1	8.8	11	16.2	1.23	135	1188	1188	20.6	26.3	7.88	2.9	55.0	0.80	82.3	102.8	0.358	0.181	0.217	0.61	Above W.T.
CPT-1	8.9	11	15.5	1.22	135	1202	1202	19.6	24.8	8.19	3.0	56.9	0.80	78.3	97.8	0.358	0.167	0.200	0.56	Above W.T.
CPT-1	8.99	11	15.5	1.21	135	1214	1214	19.5	24.5	8.12	3.0	57.0	0.80	77.9	97.3	0.358	0.166	0.199	0.56	Above W.T.
CPT-1	9.08	11	15.1	1.21	135	1226	1226	18.9	23.6	8.35	3.0	58.3	0.80	75.5	94.4	0.358	0.158	0.190	0.53	Above W.T.
CPT-1	9.17	11	15.7	1.21	135	1238	1238	19.5	24.4	8.02	3.0	56.8	0.80	78.1	97.6	0.358	0.167	0.200	0.56	Above W.T.
CPT-1	9.26	11	15.5	1.22	135	1250	1250	19.2	23.8	8.20	3.0	57.8	0.80	76.7	95.9	0.358	0.162	0.194	0.54	Above W.T.
CPT-1	9.35	11	15.9	1.2	135	1262	1262	19.6	24.2	7.86	3.0	56.6	0.80	78.3	97.9	0.358	0.167	0.201	0.56	Above W.T.
CPT-1	9.45	11	16.4	1.16	135	1276	1276	20.1	24.7	7.36	2.9	54.8	0.80	80.4	100.4	0.358	0.174	0.209	0.58	Above W.T.
CPT-1	9.53	11	16.7	1.18	135	1287	1287	20.4	25.0	7.35	2.9	54.6	0.80	81.5	101.9	0.358	0.178	0.214	0.60	Above W.T.
CPT-1	9.63	11	16.5	1.21	135	1300	1300	20.0	24.4	7.63	3.0	55.8	0.80	80.1	100.1	0.358	0.173	0.208	0.58	Above W.T.
CPT-1	9.72	11	16.7	1.19	135	1312	1312	20.2	24.4	7.42	3.0	55.2	0.80	80.7	100.9	0.358	0.175	0.210	0.59	Above W.T.
CPT-1	9.81	11	16.4	1.17	135	1324	1324	19.7	23.8	7.43	3.0	55.8	0.80	78.9	98.6	0.358	0.169	0.203	0.57	Above W.T.
CPT-1	9.9	11	16.5	1.18	135	1337	1337	19.7	23.7	7.45	3.0	55.9	0.80	79.0	98.7	0.358	0.170	0.203	0.57	Above W.T.
CPT-1	9.99	11	17.5	1.2	135	1349	1349	20.8	24.9	7.13	2.9	54.0	0.80	83.4	104.2	0.358	0.185	0.222	0.62	Above W.T.
CPT-1	10.08	11	17.6	1.26	135	1361	1361	20.9	24.9	7.45	2.9	54.9	0.80	83.5	104.4	0.350	0.186	0.223	0.64	Above W.T.
CPT-1	10.17	11	18.2	1.35	135	1373	1373	21.5	25.5	7.71	2.9	55.1	0.80	86.0	107.5	0.350	0.195	0.234	0.67	Above W.T.
CPT-1	10.26	11	18.5	1.44	135	1385	1385	21.7	25.7	8.09	3.0	55.9	0.80	87.0	108.7	0.350	0.200	0.240	0.68	Above W.T.
CPT-1	10.35	11	18.2	1.48	135	1397	1397	21.3	25.0	8.46	3.0	57.4	0.80	85.2	106.5	0.350	0.192	0.231	0.66	Above W.T.
CPT-1	10.44	11	18.3	1.47	135	1409	1409	21.3	25.0	8.35	3.0	57.2	0.80	85.3	106.6	0.350	0.193	0.231	0.66	Above W.T.
CPT-1	10.53	11	18.5	1.45	135	1422	1422	21.5	25.0	8.15	3.0	56.6	0.80	85.9	107.3	0.350	0.195	0.234	0.67	Above W.T.
CPT-1	10.62	11	19	1.42	135	1434	1434	22.0	25.5	7.77	3.0	55.3	0.80	87.8	109.8	0.350	0.203	0.244	0.70	Above W.T.
CPT-1	10.71	11	18.8	1.37	135	1446	1446	21.6	25.0	7.58	2.9	55.2	0.80	86.5	108.2	0.350	0.198	0.237	0.68	Above W.T.
CPT-1	10.8	11	19.2	1.32	135	1458	1458	22.0	25.3	7.15	2.9	53.8	0.80	88.0	110.0	0.350	0.204	0.245	0.70	Above W.T.
CPT-1	10.89	11	19.4	1.31	135	1470	1470	22.1	25.4	7.02	2.9	53.4	0.80	88.6	110.7	0.350	0.206	0.247	0.71	Above W.T.
CPT-1	10.98	11	20	1.32	135	1482	1482	22.7	26.0	6.85	2.9	52.4	0.80	90.9	113.6	0.350	0.216	0.260	0.74	Above W.T.
CPT-1	11.07	11	21.4	1.39	135	1494	1494	33.0	51.4	6.73	2.7	40.4	0.80	132.1	165.1	0.651	0.429	0.599	0.92	NonLiqfble.
CPT-1	11.15	11	22	1.51	135	1505	1505	33.8	52.5	7.11	2.7	41.1	0.80	135.3	169.2	0.651	0.530	0.636	0.98	NonLiqfble.
CPT-1	11.24	11	22.5	1.67	135	1517	1517	34.5	53.3	7.68	2.7	42.3	0.80	137.9	172.3	0.651	0.556	0.667	1.02	NonLiqfble.
CPT-1	11.33	11	23.2	1.75	135	1530	1530	35.4	54.5	7.80	2.7	42.2	0.80	141.6	177.0	0.651	0.595	0.714	1.10	NonLiqfble.
CPT-1	11.42	11	23.2	1.81	135	1542	1542	35.3	54.1	8.07	2.7	42.9	0.80	141.0	176.3	0.651	0.589	0.707	1.09	NonLiqfble.
CPT-1	11.51	11	23.9	1.81	135	1554	1554	36.2	55.3	7.83	2.7	42.0	0.80	144.7	180.9	0.651	0.630	0.756	1.16	NonLiqfble.
CPT-1	11.6	11	23.9	1.78	135	1566	1566	36.0	54.9	7.70	2.7	41.9	0.80	144.1	180.2	0.651	0.624	0.749	1.15	NonLiqfble.
CPT-1	11.69	11	24.3	1.77	135	1578	1578	36.5	55.4	7.53	2.7	41.3	0.80	146.0	182.5	0.651	0.645	0.774	1.19	NonLiqfble.
CPT-1	11.78	11	24.8	1.86	135	1590	1590	37.1	56.1	7.75	2.7	41.6	0.80	148.4	185.5	0.651	0.674	0.809	1.24	NonLiqfble.
CPT-1	11.86	11	25.3	1.93	135	1601	1601	37.7	56.9	7.88	2.7	41.7	0.80	150.9	188.6	0.651	0.704	0.845	1.30	NonLiqfble.
CPT-1	11.95	11	26.2	1.96	135	1613	1613	38.9	58.5	7.72	2.7	41.0	0.80	155.7	194.6	0.651	0.765	0.918	1.41	NonLiqfble.
CPT-1	12.12	11	27.9	1.97	135	1636	1636	41.2	61.5	7.27	2.7	39.2	0.80	164.6	205.8	0.651	0.890	1.068	1.64	NonLiqfble.
CPT-1	12.21	11	27.9	1.92	135	1648	1648	41.0	61.1	7.09	2.7	38.8	0.80	164.0	205.0	0.651	0.881	1.058	1.62	NonLiqfble.
CPT-1	12.29	11	27.3	1.86	135	1659	1659	40.0	59.3	7.03	2.7	39.1	0.80	160.0	199.9	0.651	0.823	0.988	1.52	NonLiqfble.
CPT-1	12.38	11	26.6	1.82	135	1671	1671	38.8	57.3	7.06	2.7	39.7	0.80	155.3	194.1	0.651	0.760	0.912	1.40	NonLiqfble.
CPT-1	12.47	11	26	1.77	135	1683	1683	37.8	55.6	7.04	2.7	40.1	0.80	151.2	189.0	0.651	0.708	0.850	1.30	NonLiqfble.
CPT-1	12.56	11	25.8	1.7	135	1696	1696	37.4	54.7	6.81	2.7	39.7	0.80	149.5	186.9	0.651	0.687	0.825	1.27	NonLiqfble.
CPT-1	12.64	11	25.7	1.66	135	1706	1706	37.1	54.1	6.68	2.7	39.5	0.80	148.5	185.6	0.651	0.675	0.810	1.24	NonLiqfble.
CPT-1	12.73	11	25	1.62	135	1719	1719	36.0	52.2	6.71	2.7	40.2	0.80	143.9	179.9	0.651	0.622	0.746	1.14	NonLiqfble.
CPT-1	12.81	11	24.8	1.59	135	1729	1729	35.0	51.5	6.64	2.7	40.2	0.80	142.3	177.9	0.651	0.604	0.724	1.11	NonLiqfble.
CPT-1	12.9	11	25.1	1.57	135	1742	1742	35.9	51.7	6.48	2.7	39.7	0.80	143.5	179					

Project Name: 199 River Oaks Parkway
Project Number: 7862.3.001.01
Date: 20-Jul-07
CPT Number: CPT-1
Depth to Groundwater: 11 ft

EQ Magnitude (M_w): 7.1
PGA (g): 0.55
MSF: 1.20

Cone	Depth (FT)	Water Table (FT)	Tip Resist. (TSF)	Sleeve Frict. (TSF)	γ (PCF)	Total Stress (PSF)	Effective Stress (PSF)	Norm. Tip Q _{ns}	Corr. Tip Q	Friction Ratio F	Ic	F.C. (%)	K _{CPT}	Δq _{ns}	(q _{ns}) _{ns}	Induced Stress Ratio	Liquef. Stress M7.5	Liquef. Stress M7.10	Factor of Safety	Comments
CPT-1	13.58	11	19.7	1.14	135	1833	986	27.5	38.1	6.07	2.8	43.4	0.80	109.8	137.3	0.651	0.320	0.385	0.59	NonLiqfble.
CPT-1	13.67	11	20	1.09	135	1845	992	27.8	38.4	5.71	2.7	42.2	0.80	111.1	138.9	0.651	0.329	0.395	0.61	NonLiqfble.
CPT-1	13.76	11	20	1.06	135	1858	999	27.7	38.2	5.56	2.7	41.8	0.80	110.7	138.4	0.651	0.327	0.392	0.60	NonLiqfble.
CPT-1	13.84	11	20.2	1.07	135	1868	1005	27.9	38.3	5.55	2.7	41.7	0.80	111.5	139.4	0.651	0.332	0.398	0.61	NonLiqfble.
CPT-1	13.93	11	20.3	1.09	135	1881	1011	27.9	38.3	5.63	2.7	42.0	0.80	111.7	139.6	0.651	0.333	0.400	0.61	NonLiqfble.
CPT-1	14.02	11	20.1	1.08	135	1893	1018	27.6	37.6	5.64	2.7	42.3	0.80	110.3	137.8	0.651	0.324	0.388	0.60	NonLiqfble.
CPT-1	14.11	11	20.7	1.05	135	1905	1024	28.3	38.5	5.32	2.7	40.9	0.80	113.2	141.5	0.651	0.343	0.412	0.63	NonLiqfble.
CPT-1	14.19	11	20.5	0.99	135	1916	1030	27.9	37.9	5.07	2.7	40.4	0.80	111.8	139.7	0.651	0.334	0.400	0.61	NonLiqfble.
CPT-1	14.28	11	19.6	0.94	135	1928	1037	26.6	35.9	5.04	2.7	41.2	0.80	106.5	133.2	0.651	0.300	0.360	0.55	NonLiqfble.
CPT-1	14.36	11	19.1	0.87	125	1795	899	27.9	40.5	4.78	2.7	38.4	0.80	111.5	139.4	0.700	0.332	0.398	0.57	NonLiqfble.
CPT-1	14.45	11	17.9	0.82	125	1806	905	26.0	37.6	4.82	2.7	39.7	0.80	104.2	130.2	0.700	0.285	0.342	0.49	NonLiqfble.
CPT-1	14.54	11	18.1	0.76	125	1818	910	26.2	37.8	4.42	2.7	38.2	0.80	105.0	131.2	0.700	0.290	0.348	0.50	NonLiqfble.
CPT-1	14.62	11	16.9	0.77	125	1828	915	24.4	34.9	4.82	2.7	40.9	0.80	97.8	122.2	0.700	0.250	0.300	0.43	NonLiqfble.
CPT-1	14.71	11	16.8	0.78	125	1839	921	24.2	34.5	4.91	2.7	41.4	0.80	96.9	121.1	0.700	0.245	0.294	0.42	NonLiqfble.
CPT-1	14.79	11	16.9	0.83	125	1849	926	24.3	34.5	5.20	2.7	42.3	0.80	97.2	121.5	0.700	0.247	0.296	0.42	NonLiqfble.
CPT-1	14.87	11	16.3	0.82	125	1859	931	23.4	33.0	5.33	2.8	43.5	0.80	93.5	116.9	0.700	0.228	0.274	0.39	NonLiqfble.
CPT-1	14.91	11	17.7	0.81	125	1864	933	25.3	35.9	4.83	2.7	40.5	0.80	101.4	126.7	0.700	0.269	0.323	0.46	NonLiqfble.
CPT-1	15	11	18.2	0.78	125	1875	939	26.0	36.8	4.52	2.7	39.0	0.80	103.9	129.9	0.700	0.284	0.341	0.49	NonLiqfble.
CPT-1	15.08	11	17.4	0.72	125	1885	944	24.8	34.9	4.38	2.7	39.4	0.80	99.1	123.9	0.700	0.257	0.308	0.44	NonLiqfble.
CPT-1	15.17	11	15.9	0.64	125	1896	950	22.6	31.5	4.28	2.7	40.7	0.80	90.3	112.9	0.700	0.214	0.256	0.37	NonLiqfble.
CPT-1	15.25	11	15.1	0.62	125	1906	955	21.4	29.6	4.38	2.7	42.1	0.80	85.5	106.9	0.700	0.194	0.232	0.33	NonLiqfble.
CPT-1	15.34	11	14.7	0.61	125	1918	960	20.8	28.6	4.44	2.7	43.0	0.80	83.0	103.8	0.700	0.184	0.221	0.32	NonLiqfble.
CPT-1	15.43	11	14.5	0.61	125	1929	966	20.4	28.0	4.51	2.8	43.6	0.80	81.7	102.1	0.700	0.179	0.215	0.31	NonLiqfble.
CPT-1	15.52	11	14.6	0.59	125	1940	972	20.5	28.0	4.33	2.7	42.9	0.80	82.0	102.5	0.700	0.180	0.216	0.31	NonLiqfble.
CPT-1	15.6	11	13.1	0.57	125	1950	977	18.3	24.8	4.70	2.8	46.5	0.80	73.4	91.7	0.700	0.152	0.182	0.26	NonLiqfble.
CPT-1	15.69	11	13.1	0.52	125	1961	982	18.3	24.7	4.29	2.8	45.1	0.80	73.2	91.4	0.700	0.151	0.181	0.26	NonLiqfble.
CPT-1	15.78	11	11.1	0.47	125	1973	988	15.5	20.5	4.65	2.9	50.0	0.80	61.8	77.3	0.700	0.123	0.147	0.21	NonLiqfble.
CPT-1	15.86	11	9.6	0.43	115	1824	834	14.5	20.8	4.95	2.9	50.8	0.80	58.2	72.7	0.766	0.116	0.139	0.18	NonLiqfble.
CPT-1	15.95	11	9.6	0.4	115	1834	839	14.5	20.7	4.61	2.9	49.6	0.80	58.0	72.5	0.766	0.115	0.139	0.18	NonLiqfble.
CPT-1	16.04	11	10.6	0.38	115	1845	844	16.0	22.9	3.93	2.8	45.0	0.80	63.9	79.8	0.766	0.127	0.153	0.20	NonLiqfble.
CPT-1	16.13	11	9.4	0.38	115	1855	848	14.1	20.0	4.49	2.9	49.9	0.80	56.5	70.6	0.766	0.113	0.135	0.18	NonLiqfble.
CPT-1	16.21	11	9.9	0.37	115	1864	853	14.8	21.0	4.13	2.8	47.4	0.80	59.3	74.2	0.766	0.118	0.142	0.18	NonLiqfble.
CPT-1	16.29	11	9.3	0.35	115	1873	857	13.9	19.5	4.19	2.9	49.2	0.80	55.6	69.5	0.766	0.111	0.133	0.17	NonLiqfble.
CPT-1	16.38	11	9.3	0.34	115	1884	862	13.9	19.4	4.07	2.8	48.8	0.80	55.5	69.3	0.766	0.111	0.133	0.17	NonLiqfble.
CPT-1	16.47	11	9.4	0.35	115	1894	866	14.0	19.5	4.14	2.9	49.0	0.80	55.9	69.9	0.766	0.112	0.134	0.18	NonLiqfble.
CPT-1	16.56	11	8.8	0.35	115	1904	871	13.0	18.0	4.46	2.9	51.9	0.80	52.2	65.2	0.766	0.106	0.127	0.17	NonLiqfble.
CPT-1	16.64	11	9	0.35	115	1914	875	13.3	18.4	4.35	2.9	51.0	0.80	53.2	66.6	0.766	0.107	0.129	0.17	NonLiqfble.
CPT-1	16.73	11	9	0.35	115	1924	880	13.3	18.3	4.35	2.9	51.2	0.80	53.1	66.4	0.766	0.107	0.129	0.17	NonLiqfble.
CPT-1	16.81	11	9	0.35	115	1933	884	13.2	18.2	4.36	2.9	51.3	0.80	53.0	66.2	0.766	0.107	0.128	0.17	NonLiqfble.
CPT-1	16.9	11	7.9	0.32	115	1944	889	11.6	15.6	4.62	3.0	55.6	0.80	46.4	58.0	0.766	0.098	0.118	0.15	NonLiqfble.
CPT-1	16.99	11	8.1	0.31	115	1954	894	11.9	15.9	4.35	2.9	54.0	0.80	47.4	59.3	0.766	0.099	0.119	0.16	NonLiqfble.
CPT-1	17.08	11	9.7	0.31	115	1964	898	14.2	19.4	3.56	2.8	46.6	0.80	56.6	70.8	0.766	0.113	0.136	0.18	NonLiqfble.
CPT-1	17.16	11	9	0.34	115	1973	903	13.1	17.7	4.24	2.9	51.3	0.80	52.4	65.5	0.766	0.106	0.127	0.17	NonLiqfble.
CPT-1	17.25	11	9.9	0.36	115	1984	907	14.4	19.6	4.04	2.8	48.5	0.80	57.5	71.9	0.766	0.115	0.137	0.18	NonLiqfble.
CPT-1	17.33	11	10.2	0.38	115	1993	912	14.8	20.2	4.13	2.8	48.3	0.80	59.1	73.9	0.766	0.118	0.141	0.18	NonLiqfble.
CPT-1	17.42	11	11.1	0.39	115	2003	916	16.0	22.0	3.86	2.8	45.5	0.80	64.2	80.2	0.766	0.128	0.154	0.20	NonLiqfble.
CPT-1	17.51	11	12.2	0.39	115	2014	921	17.6	24.3	3.48	2.7	42.0	0.80	70.4	87.9	0.766	0.143	0.172	0.22	NonLiqfble.
CPT-1	17.6	11	11.9	0.4	115	2024	926	17.1	23.5	3.67	2.8	43.5	0.80	68.5	85.6	0.766	0.138	0.166	0.22	NonLiqfble.
CPT-1	17.68	11	12.6	0.4	115	2033	930	18.1	24.9	3.45	2.7	41.5	0.80	72.3	90.4	0.766	0.149	0.178	0.23	NonLiqfble.
CPT-1	17.77	11	12.1	0.4	115	2044	935	17.3	23.7	3.61	2.7	43.0	0.80	69.3	86.6	0.766	0.140	0.168	0.22	NonLiqfble.
CPT-1	17.86	11	13.1	0.39	115	2054	939	18.7	25.7	3.23	2.7	39.9	0.80	74.8	93.5	0.766	0.156	0.187	0.24	NonLiqfble.
CPT-1	17.94	11	12	0.37	115	2063	944	17.1	23.2	3.37	2.7	42.4	0.80	68.4	85.5	0.766	0.138	0.166	0.22	NonLiqfble.
CPT-1	18.03	11	11.2	0.36	115	2073	948	15.9	21.4	3.54	2.8	44.6	0.80	63.7	79.6	0.766	0.127	0.152	0.20	NonLiqfble.
CPT-1	18.11	11	10.6	0.37	115	2083	953	15.0	20.1	3.87	2.8	47.3	0.80	60.1	75.1	0.766	0.119	0.143	0.19	NonLiqfble.
CPT-1	18.2	11	9.3	0.37	115	2093	957	13.2	17.2	4.48	2.9	52.9	0.80	52.6	65.8	0.766	0.106	0.128	0.17	NonLiqfble.
CPT-1	18.29	11	8.1	0.36	115	2103	962	11.4	14.6	5.11	3.0	58.8	0.80	45.7	57.1	0.766	0.097	0.117	0.15	NonLiqfble.
CPT-1	18.52	11	7.9	0.31	115	2130	974	11.1	14.0	4.54	3.0	57.6	0.80	44.3	55.4	0.766	0.096	0.115	0.15	NonLiqfble.
CPT-1	18.61	11	8.4	0.32	115	2140	979	11.7	15.0	4.37	3.0	55.4	0.80	47.0	58.7	0.766	0.099	0.119	0.15	NonLiqfble.
CPT-1	18.69	11	9.4	0.34	115	2149	983	13.1	16.9	4.08	2.9	51.6	0.80	52.5	65.6	0.766	0.106	0.127	0.17	NonLiqfble.
CPT-1	18.78	11	10.1	0.37	115	2160	988	14.1	18.3	4.10	2.9	50.2	0.80	56.2	70.3	0.766	0.112	0.135	0.18	NonLiqfble.
CPT-1	18.87	11	9.8	0.4	115	2170	993	13.6	17.6	4.59	2.9	52.9	0.80	54.4	68.1	0.766	0.109	0.131	0.17	NonLiqfble.
CPT-1	18.95	11	8.8	0.39	115	2179	997	12.2	15.5	5.06	3.0	57.4</								

Project Name: 199 River Oaks Parkway
Project Number: 7862.3.001.01
Date: 20-Jul-07
CPT Number: CPT-1
Depth to Groundwater: 11 ft

EQ Magnitude (M_w): 7.1
PGA (g): 0.55
MSF: 1.20

Cone	Depth (FT)	Water Table (FT)	Tip Resist. (TSF)	Sleeve Frict. (TSF)	Total Stress (PSF)	Effective Stress (PSF)	Norm. Tip Q _{tip}	Corr. Tip Q	Friction Ratio F	Ic	F.C. (%)	K _{CPT}	Δq _{tip}	(q _{tip}) ₀	Induced Stress Ratio	Liquef. Stress M7.5	Liquef. Stress M7.10	Factor of Safety	Comments	
CPT-1	19.64	11	16.7	0.58	125	2455	1229	20.8	25.2	3.75	2.7	42.5	0.80	83.4	104.2	0.700	0.185	0.222	0.32	NonLiqfble.
CPT-1	19.73	11	19.1	0.66	125	2466	1235	23.8	28.9	3.69	2.7	39.9	0.80	95.1	118.9	0.700	0.236	0.284	0.41	NonLiqfble.
CPT-1	19.82	11	21.2	0.73	125	2478	1241	26.3	32.2	3.66	2.7	37.9	0.80	105.3	131.7	0.700	0.292	0.351	0.50	NonLiqfble.
CPT-1	19.91	11	22.7	0.8	135	2688	1445	26.1	29.5	3.75	2.7	39.7	0.80	104.5	130.6	0.651	0.287	0.345	0.53	NonLiqfble.
CPT-1	19.99	11	23.1	0.86	135	2699	1451	26.5	30.0	3.95	2.7	40.3	0.80	106.1	132.7	0.651	0.297	0.357	0.55	NonLiqfble.
CPT-1	20.08	11	23.8	0.9	135	2711	1458	27.3	30.8	4.01	2.7	40.1	0.80	109.1	136.4	0.638	0.316	0.379	0.59	NonLiqfble.
CPT-1	20.16	11	25.6	0.94	135	2722	1464	29.3	33.1	3.88	2.7	38.3	0.80	117.1	146.4	0.638	0.372	0.446	0.70	NonLiqfble.
CPT-1	20.25	11	26.8	1.05	135	2734	1470	30.6	34.6	4.13	2.7	38.6	0.80	122.3	152.9	0.638	0.413	0.495	0.78	NonLiqfble.
CPT-1	20.34	11	26	1.12	135	2746	1477	29.6	33.3	4.55	2.7	40.7	0.80	118.4	148.0	0.638	0.382	0.458	0.72	NonLiqfble.
CPT-1	20.44	11	26.8	1.21	135	2759	1484	30.4	34.2	4.76	2.7	41.0	0.80	121.8	152.2	0.638	0.408	0.489	0.77	NonLiqfble.
CPT-1	20.54	11	26.7	1.41	135	2773	1491	30.3	33.9	5.57	2.8	43.8	0.80	121.0	151.3	0.638	0.402	0.482	0.76	NonLiqfble.
CPT-1	20.63	11	30.6	1.81	135	2785	1498	34.6	39.0	6.20	2.8	43.3	0.80	138.4	173.0	0.638	0.561	0.674	1.06	NonLiqfble.
CPT-1	20.72	11	38.5	2.22	135	2797	1504	43.4	49.3	5.98	2.7	39.0	0.80	173.7	217.2	0.638	1.032	1.239	1.94	NonLiqfble.
CPT-1	20.81	11	50.6	2.44	135	2809	1511	57.0	65.1	4.96	2.5	32.2	0.72	150.1	207.1	0.638	0.906	1.087	1.70	NonLiqfble.
CPT-1	20.9	11	41.9	2.4	135	2822	1517	47.1	53.3	5.93	2.6	37.7	0.80	188.3	235.3	0.638	1.292	1.550	2.43	NonLiqfble.
CPT-1	20.99	11	33.6	2.18	135	2834	1524	37.7	42.2	6.77	2.8	43.6	0.80	150.6	188.3	0.638	0.701	0.841	1.32	NonLiqfble.
CPT-1	21.08	11	24.9	1.8	135	2846	1530	27.8	30.7	7.67	2.9	51.5	0.80	111.4	139.2	0.638	0.331	0.397	0.62	NonLiqfble.
CPT-1	21.17	11	18.7	1.38	135	2858	1537	20.9	22.5	7.99	3.0	58.4	0.80	83.5	104.4	0.638	0.186	0.223	0.35	NonLiqfble.
CPT-1	21.26	11	16.4	1.06	135	2870	1543	18.3	19.4	7.08	3.0	59.0	0.80	73.1	91.3	0.638	0.151	0.181	0.28	NonLiqfble.
CPT-1	21.35	11	15.3	0.98	125	2669	1337	18.3	20.9	7.02	3.0	57.3	0.80	73.2	91.6	0.685	0.151	0.182	0.27	NonLiqfble.
CPT-1	21.43	11	14.6	0.97	125	2679	1342	17.4	19.8	7.32	3.0	59.3	0.80	69.8	87.2	0.685	0.142	0.170	0.25	NonLiqfble.
CPT-1	21.52	11	12.4	0.88	125	2690	1347	14.8	16.4	7.96	3.1	65.2	0.80	59.1	73.9	0.685	0.118	0.141	0.21	NonLiqfble.
CPT-1	21.59	11	11.7	0.8	125	2699	1352	13.9	15.3	7.73	3.1	66.1	0.80	55.7	69.6	0.685	0.111	0.134	0.20	NonLiqfble.
CPT-1	21.66	11	11.4	0.71	125	2708	1356	13.5	14.8	7.07	3.1	65.0	0.80	54.2	67.7	0.685	0.109	0.131	0.19	NonLiqfble.
CPT-1	21.75	11	10.2	0.59	125	2719	1362	12.1	13.0	6.67	3.1	66.9	0.80	48.4	60.5	0.685	0.101	0.121	0.18	NonLiqfble.
CPT-1	21.83	11	9.4	0.49	115	2510	1148	12.1	14.2	6.02	3.1	62.7	0.80	48.5	60.7	0.750	0.101	0.121	0.16	NonLiqfble.
CPT-1	21.92	11	8	0.45	115	2521	1153	10.3	11.7	6.68	3.2	69.5	0.80	41.2	51.5	0.750	0.093	0.111	0.15	NonLiqfble.
CPT-1	22.01	11	7.9	0.44	115	2531	1158	10.2	11.5	6.63	3.2	69.9	0.80	40.6	50.8	0.750	0.092	0.111	0.15	NonLiqfble.
CPT-1	22.09	11	8.1	0.47	115	2540	1162	10.4	11.8	6.88	3.2	70.0	0.80	41.6	52.0	0.750	0.093	0.112	0.15	NonLiqfble.
CPT-1	22.18	11	7.8	0.5	115	2551	1167	10.0	11.2	7.66	3.2	73.6	0.80	40.0	50.0	0.750	0.092	0.110	0.15	NonLiqfble.
CPT-1	22.27	11	9.1	0.53	115	2561	1171	11.6	13.3	6.78	3.1	66.6	0.80	46.5	58.2	0.750	0.098	0.118	0.16	NonLiqfble.
CPT-1	22.35	11	9	0.54	115	2570	1176	11.5	13.1	7.00	3.1	67.7	0.80	45.9	57.4	0.750	0.098	0.117	0.16	NonLiqfble.
CPT-1	22.44	11	9.4	0.55	125	2805	1405	11.0	11.4	6.88	3.2	70.8	0.80	43.9	54.9	0.685	0.095	0.114	0.17	NonLiqfble.
CPT-1	22.53	11	9.6	0.58	125	2816	1410	11.2	11.6	7.08	3.2	70.9	0.80	44.7	55.9	0.685	0.096	0.116	0.17	NonLiqfble.
CPT-1	22.63	11	10.6	0.64	125	2829	1417	12.3	13.0	6.97	3.1	67.9	0.80	49.3	61.6	0.685	0.102	0.122	0.18	NonLiqfble.
CPT-1	22.72	11	12.3	0.71	125	2840	1422	14.3	15.3	6.53	3.1	62.6	0.80	57.1	71.4	0.685	0.114	0.137	0.20	NonLiqfble.
CPT-1	22.82	11	13.4	0.83	125	2853	1429	15.5	16.8	6.93	3.0	61.8	0.80	62.0	77.6	0.685	0.123	0.148	0.22	NonLiqfble.
CPT-1	22.9	11	14.2	0.93	125	2863	1434	16.4	17.8	7.28	3.0	61.5	0.80	65.6	82.0	0.685	0.131	0.158	0.23	NonLiqfble.
CPT-1	23	11	14.4	1.02	125	2875	1440	16.6	18.0	7.87	3.1	62.8	0.80	66.4	83.0	0.685	0.133	0.160	0.23	NonLiqfble.
CPT-1	23.1	11	14.5	1.07	125	2888	1446	16.7	18.0	8.20	3.1	63.6	0.80	66.7	83.4	0.685	0.134	0.161	0.23	NonLiqfble.
CPT-1	23.19	11	14.2	1.09	125	2899	1452	16.3	17.6	8.55	3.1	65.2	0.80	65.2	81.5	0.685	0.130	0.156	0.23	NonLiqfble.
CPT-1	23.28	11	13.6	1.09	125	2910	1457	15.6	16.7	8.98	3.1	67.4	0.80	62.4	77.9	0.685	0.124	0.149	0.22	NonLiqfble.
CPT-1	23.38	11	12.4	1.06	125	2923	1464	14.2	14.9	9.69	3.2	71.8	0.80	56.7	70.9	0.685	0.113	0.136	0.20	NonLiqfble.
CPT-1	23.48	11	11.4	0.99	125	2935	1470	13.0	13.5	9.97	3.2	74.9	0.80	52.0	65.1	0.685	0.106	0.127	0.18	NonLiqfble.
CPT-1	23.58	11	10.4	0.89	125	2948	1476	11.8	12.1	9.97	3.3	77.7	0.80	47.4	59.2	0.685	0.099	0.119	0.17	NonLiqfble.
CPT-1	23.69	11	11	0.77	125	2961	1483	12.5	12.8	8.09	3.2	71.4	0.80	50.0	62.5	0.685	0.103	0.123	0.18	NonLiqfble.
CPT-1	23.8	11	11.5	0.74	125	2975	1490	13.0	13.4	7.39	3.1	68.3	0.80	52.1	65.2	0.685	0.106	0.127	0.19	NonLiqfble.
CPT-1	23.89	11	13.4	0.78	125	2986	1496	15.2	15.9	6.55	3.0	61.8	0.80	60.6	75.8	0.685	0.121	0.145	0.21	NonLiqfble.
CPT-1	23.98	11	14.6	0.84	125	2998	1501	16.5	17.4	6.41	3.0	59.3	0.80	66.0	82.4	0.685	0.132	0.159	0.23	NonLiqfble.
CPT-1	24.1	11	16.2	1.01	135	3254	1750	16.9	16.7	6.93	3.1	61.9	0.80	67.8	84.7	0.638	0.137	0.164	0.26	NonLiqfble.
CPT-1	24.21	11	17.5	1.19	135	3268	1758	18.3	18.0	7.50	3.0	61.8	0.80	73.1	91.3	0.638	0.151	0.181	0.28	NonLiqfble.
CPT-1	24.31	11	19	1.3	135	3282	1765	19.8	19.7	7.49	3.0	59.9	0.80	79.2	98.9	0.638	0.170	0.204	0.32	NonLiqfble.
CPT-1	24.4	11	18.6	1.36	135	3294	1771	19.3	19.1	8.02	3.0	61.9	0.80	77.3	96.7	0.638	0.164	0.197	0.31	NonLiqfble.
CPT-1	24.5	11	17.6	1.37	135	3308	1779	18.3	17.9	8.59	3.1	64.8	0.80	73.0	91.3	0.638	0.151	0.181	0.28	NonLiqfble.
CPT-1	24.6	11	17.9	1.3	135	3321	1786	18.5	18.2	8.01	3.1	63.0	0.80	74.1	92.7	0.638	0.154	0.185	0.29	NonLiqfble.
CPT-1	24.71	11	17	1.21	135	3336	1794	17.6	17.1	7.89	3.1	64.1	0.80	70.2	87.8	0.638	0.143	0.172	0.27	NonLiqfble.
CPT-1	24.83	11	16.3	0.96	125	3104	1554	18.1	19.0	6.51	3.0	57.8	0.80	72.4	90.4	0.685	0.149	0.179	0.26	NonLiqfble.
CPT-1	24.92	11	15.8	1.14	135	3364	1809	16.3	15.6	8.08	3.1	66.6	0.80	65.0	81.3	0.638	0.130	0.156	0.24	NonLiqfble.
CPT-1	25.02	11	15.4	1.12	135	3378	1816	15.8	15.1	8.17	3.1	67.7	0.80	63.2	79.0	0.638	0.126	0.151	0.24	NonLiqfble.
CPT-1	25.09	11	12.7	1.1	125	3136	1571	14.0	14.2	9.88	3.2	73.5	0.80	56.1	70.1	0.685	0.112	0.134	0.20	NonLiqfble.
CPT-1	25.18	11	20.8	1.15	135	3399	1828	21.3	20.9	6.02	2.9	54.3	0.80	85.1	106.4	0.638	0.192	0.231	0.36	NonLiqfble.
CPT-1	25.26	11	19.6	1.31	135	3410														

Project Name: 199 River Oaks Parkway
Project Number: 7862.3.001.01
Date: 20-Jul-07
CPT Number: CPT-1
Depth to Groundwater: 11 ft

EQ Magnitude (M_w): 7.1
PGA (g): 0.55
MSF: 1.20

Cone	Depth (FT)	Water Table (FT)	Tip Resist. (TSF)	Sleeve Frict. (TSF)	γ (PCF)	Total Stress (PSF)	Effective Stress (PSF)	Norm. Tip Q _{HIN}	Corr. Tip Q	Friction Ratio F	Ic	F.C. (%)	K _{CPT}	Δq _{HIN}	(q _{HIN}) ^{0.5}	Induced Stress Ratio	Liquef. Stress M7.5	Liquef. Stress M7.10	Factor of Safety	Comments
CPT-1	25.94	11	104.8	1.99	135	3502	1883	105.7	109.4	1.93	2.1	15.1	0.27	39.2	144.9	0.638	0.363	0.435	0.68	Liquefaction
CPT-1	26.03	11	120.1	1.86	135	3514	1890	120.9	125.2	1.57	2.0	12.2	0.19	28.8	149.7	0.638	0.392	0.470	0.74	Liquefaction
CPT-1	26.11	11	137.2	1.82	135	3525	1896	137.9	142.8	1.34	1.9	10.0	0.13	21.2	159.1	0.638	0.455	0.546	0.85	Liquefaction
CPT-1	26.19	11	150.2	1.78	125	3274	1639	162.3	181.2	1.20	1.8	7.6	0.07	12.2	174.5	0.685	0.574	0.689	1.01	Low F.S.
CPT-1	26.28	11	158.2	1.81	125	3285	1645	170.7	190.2	1.16	1.8	7.1	0.06	10.1	180.8	0.685	0.629	0.755	1.10	Low F.S.
CPT-1	26.36	11	158.3	1.77	125	3295	1650	170.5	189.8	1.13	1.7	7.0	0.05	9.4	179.9	0.685	0.622	0.746	1.09	Low F.S.
CPT-1	26.44	11	155.6	1.97	135	3569	1920	155.4	160.2	1.28	1.8	8.9	0.10	17.9	173.3	0.638	0.564	0.766	1.06	Low F.S.
CPT-1	26.54	11	146.7	1.65	125	3318	1661	157.5	174.5	1.14	1.8	7.5	0.07	11.3	168.8	0.685	0.527	0.633	0.92	Liquefaction
CPT-1	26.64	11	146.1	1.66	125	3330	1668	156.5	173.1	1.15	1.8	7.6	0.07	11.8	168.4	0.685	0.524	0.629	0.92	Liquefaction
CPT-1	26.73	11	137.6	1.67	125	3341	1673	147.2	162.4	1.23	1.8	8.5	0.09	15.1	162.3	0.685	0.477	0.573	0.84	Liquefaction
CPT-1	26.81	11	146.5	1.82	135	3619	1946	145.3	148.6	1.26	1.9	9.2	0.11	18.6	163.9	0.638	0.489	0.587	0.92	Liquefaction
CPT-1	26.91	11	154.5	1.81	125	3364	1685	164.7	181.4	1.18	1.8	7.5	0.07	12.0	176.7	0.685	0.593	0.712	1.04	Low F.S.
CPT-1	27	11	161.2	1.76	125	3375	1690	171.6	188.7	1.10	1.7	6.8	0.05	8.9	180.5	0.685	0.627	0.752	1.10	Low F.S.
CPT-1	27.1	11	154.8	1.79	125	3388	1696	164.4	180.4	1.17	1.8	7.5	0.07	11.7	176.1	0.685	0.588	0.706	1.03	Low F.S.
CPT-1	27.19	11	156.6	1.85	125	3399	1702	166.1	181.9	1.19	1.8	7.6	0.07	12.3	178.3	0.685	0.607	0.729	1.06	Low F.S.
CPT-1	27.28	11	161.6	1.73	125	3410	1708	171.1	187.2	1.08	1.7	6.8	0.05	8.5	179.6	0.685	0.619	0.743	1.08	Low F.S.
CPT-1	27.37	11	169.3	1.6	125	3421	1713	179.0	195.5	0.95	1.7	5.8	0.02	3.8	182.8	0.685	0.648	0.778	1.13	Low F.S.
CPT-1	27.47	11	180.2	1.84	125	3434	1720	190.1	207.5	1.03	1.7	5.9	0.02	4.7	194.8	0.685	0.768	0.921	1.34	NonLiqfble.
CPT-1	27.55	11	184.8	1.93	125	3444	1725	194.7	212.2	1.05	1.7	5.9	0.02	4.8	199.5	0.685	0.819	0.983	1.43	NonLiqfble.
CPT-1	27.64	11	192.9	1.81	125	3455	1730	202.9	220.9	0.95	1.6	5.1	0.00	0.4	203.4	0.685	0.862	1.034	1.51	NonLiqfble.
CPT-1	27.73	11	201.7	1.74	125	3466	1736	211.8	230.3	0.87	1.6	4.4	0.00	0.0	211.8	0.685	0.964	1.157	1.69	NonLiqfble.
CPT-1	27.87	11	207.2	1.94	125	3484	1745	217.0	235.4	0.94	1.6	4.7	0.00	0.0	217.0	0.685	1.031	1.237	1.81	NonLiqfble.
CPT-1	27.95	11	209.4	2.04	125	3494	1750	219.0	237.3	0.98	1.6	4.9	0.00	0.0	219.0	0.685	1.057	1.269	1.85	NonLiqfble.
CPT-1	28.02	11	209.6	1.87	125	3503	1754	219.0	236.9	0.90	1.6	4.5	0.00	0.0	219.0	0.685	1.056	1.268	1.85	NonLiqfble.
CPT-1	28.09	11	209.8	1.92	125	3511	1758	218.9	236.5	0.92	1.6	4.6	0.00	0.0	218.9	0.685	1.056	1.267	1.85	NonLiqfble.
CPT-1	28.17	11	212.3	1.73	125	3521	1763	221.2	238.7	0.82	1.6	4.0	0.00	0.0	221.2	0.685	1.087	1.304	1.90	NonLiqfble.
CPT-1	28.24	11	223.1	1.59	115	3248	1485	253.3	298.1	0.72	1.5	2.4	0.00	0.0	253.3	0.750	1.591	1.909	2.54	NonLiqfble.
CPT-1	28.31	11	229.8	1.65	115	3256	1489	260.6	306.3	0.72	1.5	2.3	0.00	0.0	260.6	0.750	1.725	2.070	2.76	NonLiqfble.
CPT-1	28.38	11	226.4	1.71	115	3264	1493	256.4	301.0	0.76	1.5	2.6	0.00	0.0	256.4	0.750	1.647	1.977	2.63	NonLiqfble.
CPT-1	28.46	11	220.6	1.33	115	3273	1497	249.5	292.4	0.61	1.4	1.8	0.00	0.0	249.5	0.750	1.524	1.829	2.44	NonLiqfble.
CPT-1	28.53	11	210.8	1.22	115	3281	1501	238.1	278.6	0.58	1.4	1.8	0.00	0.0	238.1	0.750	1.335	1.602	2.14	NonLiqfble.
CPT-1	28.6	11	197	1.33	115	3289	1504	222.2	259.6	0.68	1.5	2.7	0.00	0.0	222.2	0.750	1.101	1.321	1.76	NonLiqfble.
CPT-1	28.67	11	182.3	1.34	115	3297	1508	205.4	239.5	0.74	1.5	3.5	0.00	0.0	205.4	0.750	0.886	1.063	1.42	NonLiqfble.
CPT-1	28.78	11	161.2	1.07	115	3310	1514	181.3	210.7	0.67	1.6	3.6	0.00	0.0	181.3	0.750	0.634	0.761	1.01	Low F.S.
CPT-1	28.85	11	150.2	1.04	115	3318	1518	168.7	195.7	0.70	1.6	4.2	0.00	0.0	168.7	0.750	0.527	0.632	0.84	Liquefaction
CPT-1	28.93	11	124.5	1.12	125	3616	1811	128.0	135.4	0.91	1.8	7.8	0.07	10.3	138.3	0.685	0.326	0.391	0.57	Liquefaction
CPT-1	29	11	103.2	1.3	125	3625	1815	106.0	111.6	1.28	1.9	11.5	0.17	22.4	128.3	0.685	0.277	0.332	0.48	Liquefaction
CPT-1	29.08	11	79.2	1.41	135	3926	2111	75.4	73.1	1.83	2.2	18.5	0.36	42.4	117.9	0.638	0.232	0.279	0.44	Liquefaction
CPT-1	29.16	11	60	1.56	135	3937	2117	57.1	54.8	2.69	2.4	26.1	0.56	73.2	130.3	0.638	0.286	0.343	0.54	Liquefaction
CPT-1	29.23	11	46.2	1.51	135	3946	2122	43.9	41.7	3.41	2.5	32.9	0.75	128.6	172.4	0.638	0.557	0.668	1.05	Low F.S.
CPT-1	29.31	11	33.2	1.29	135	3957	2128	31.5	29.3	4.13	2.7	41.4	0.80	126.0	157.5	0.638	0.443	0.532	0.83	NonLiqfble.
CPT-1	29.39	11	23.3	1.26	135	3968	2134	22.1	20.0	5.91	2.9	54.9	0.80	88.3	110.4	0.638	0.205	0.246	0.39	NonLiqfble.
CPT-1	29.47	11	19	1.33	135	3978	2140	18.0	15.9	7.82	3.1	65.5	0.80	71.9	89.9	0.638	0.147	0.177	0.28	NonLiqfble.
CPT-1	29.54	11	20.9	1.37	135	3988	2145	19.7	17.6	7.25	3.0	61.6	0.80	79.0	98.7	0.638	0.170	0.203	0.32	NonLiqfble.
CPT-1	29.62	11	32.1	1.37	135	3999	2150	30.3	28.0	4.55	2.8	43.8	0.80	121.1	151.4	0.638	0.403	0.484	0.76	NonLiqfble.
CPT-1	29.7	11	43.1	1.45	135	4010	2156	40.6	38.1	3.53	2.6	34.7	0.79	156.3	196.9	0.638	0.790	0.948	1.49	NonLiqfble.
CPT-1	29.77	11	47.6	1.53	135	4019	2161	44.8	42.2	3.36	2.5	32.5	0.73	123.9	168.7	0.638	0.526	0.632	0.99	Liquefaction
CPT-1	29.85	11	49.8	1.58	135	4030	2167	46.8	44.1	3.31	2.5	31.7	0.71	115.6	162.4	0.638	0.479	0.574	0.90	Liquefaction
CPT-1	29.92	11	50.9	1.66	135	4039	2172	47.8	45.0	3.40	2.5	31.7	0.71	119.2	167.0	0.638	0.513	0.616	0.96	Liquefaction
CPT-1	30	11	48.2	1.78	135	4050	2178	45.2	42.4	3.85	2.6	34.4	0.79	165.0	210.2	0.612	0.944	1.132	1.85	NonLiqfble.
CPT-1	30.07	11	38.3	1.75	135	4059	2183	35.9	33.2	4.83	2.7	41.7	0.80	143.5	179.3	0.612	0.616	0.740	1.21	NonLiqfble.
CPT-1	30.15	11	29.1	1.55	135	4070	2189	27.2	24.7	5.73	2.9	50.0	0.80	108.9	136.1	0.612	0.314	0.377	0.62	NonLiqfble.
CPT-1	30.23	11	22.2	1.28	135	4081	2195	20.7	18.4	6.35	3.0	58.0	0.80	82.9	103.7	0.612	0.184	0.220	0.36	NonLiqfble.
CPT-1	30.3	11	16.6	1.19	135	4091	2200	15.5	13.2	8.18	3.2	70.9	0.80	61.9	77.4	0.612	0.123	0.148	0.24	NonLiqfble.
CPT-1	30.38	11	13.4	1.16	125	3798	1902	13.4	12.1	10.09	3.3	78.0	0.80	53.8	67.2	0.657	0.108	0.130	0.20	NonLiqfble.
CPT-1	30.46	11	11.5	1.14	125	3808	1907	11.5	10.1	11.88	3.4	87.0	0.80	46.1	57.6	0.657	0.098	0.117	0.18	NonLiqfble.
CPT-1	30.54	11	18.1	1.25	135	4123	2217	16.8	14.5	7.79	3.1	67.7	0.80	67.3	84.1	0.612	0.135	0.162	0.27	NonLiqfble.
CPT-1	30.62	11	24	1.36	135	4134	2223	22.3	19.7	6.20	3.0	56.0	0.80	89.1	111.4	0.612	0.208	0.250	0.41	NonLiqfble.
CPT-1	30.7	11	50.3	1.51	135	4145	2229	46.6	43.3	3.13	2.5	31.2	0.70	108.4	155.1	0.612	0.427	0.512	0.84	Liquefaction
CPT-1	30.78	11	71.3	1.65	135	4155	2235	66.0	61.9	2.38	2.3	23.1	0.48	62.0	128.0	0.612	0.275	0.330	0.54	Liquefaction
CPT-1	30.86	11	87.6	1.67	135	4166	2240	81.0	76.3	1.95	2.2	18.7	0.37	46.7	127.7	0.612	0.274	0.328	0.54	Liquefaction
CPT-1	30.94																			

Project Name:

199 River Oaks Parkway

Project Number:

7862.3.001.01

Date:

20-Jul-07

CPT Number:

CPT-1

Depth to Groundwater:

11 ft

EQ Magnitude (M_w): 7.1

PGA (g): 0.55

MSF: 1.20

Cone	Depth (FT)	Water Table (FT)	Tip Resist. (TSF)	Sleeve Frict. (TSF)	γ (PCF)	Total Stress (PSF)	Effective Stress (PSF)	Norm. Tip Q _{tip}	Corr. Tip Q	Friction Ratio F	Ic	F.C. (%)	K _{CPT}	Δq _{tip}	(q _{tip}) _{ns}	Induced Stress Ratio	Liquef. Stress M7.5	Liquef. Stress M7.10	Factor of Safety	Comments
CPT-1	31.59	11	46.4	2.25	135	4265	2293	42.4	38.6	5.08	2.7	40.1	0.80	169.6	212.0	0.612	0.966	1.159	1.89	NonLiqfble.
CPT-1	31.67	11	32.6	1.77	135	4275	2299	29.7	26.5	5.81	2.9	49.0	0.80	119.0	148.7	0.612	0.386	0.463	0.76	NonLiqfble.
CPT-1	31.76	11	21.1	1.27	135	4288	2306	19.2	16.4	6.70	3.0	61.5	0.80	76.9	96.1	0.612	0.163	0.195	0.32	NonLiqfble.
CPT-1	31.84	11	17.3	0.8	125	3980	1993	17.0	15.4	5.23	3.0	58.2	0.80	67.8	84.8	0.657	0.137	0.164	0.25	NonLiqfble.
CPT-1	31.93	11	15.8	0.57	125	3991	1999	15.5	13.8	4.13	3.0	56.2	0.80	61.9	77.3	0.657	0.123	0.148	0.22	NonLiqfble.
CPT-1	32.01	11	16.3	0.47	125	4001	2004	15.9	14.3	3.29	2.9	51.7	0.80	63.7	79.7	0.657	0.127	0.152	0.23	NonLiqfble.
CPT-1	32.09	11	16.6	0.43	125	4011	2009	16.2	14.5	2.95	2.9	49.5	0.80	64.8	81.0	0.657	0.129	0.155	0.24	NonLiqfble.
CPT-1	32.13	11	17.6	0.42	125	4016	2011	17.2	15.5	2.69	2.8	46.8	0.80	68.7	85.9	0.657	0.139	0.167	0.25	NonLiqfble.
CPT-1	32.21	11	18.2	0.41	125	4026	2016	17.7	16.0	2.53	2.8	45.2	0.80	70.9	88.7	0.657	0.145	0.174	0.26	NonLiqfble.
CPT-1	32.29	11	16.3	0.39	125	4036	2021	15.9	14.1	2.73	2.9	49.0	0.80	63.5	79.3	0.657	0.126	0.152	0.23	NonLiqfble.
CPT-1	32.38	11	15.3	0.38	125	4048	2027	14.9	13.1	2.86	2.9	51.3	0.80	59.5	74.3	0.657	0.118	0.142	0.22	NonLiqfble.
CPT-1	32.46	11	14.3	0.39	125	4058	2032	13.9	12.1	3.18	2.9	54.8	0.80	55.5	69.4	0.657	0.111	0.133	0.20	NonLiqfble.
CPT-1	32.55	11	13.6	0.4	125	4069	2038	13.2	11.3	3.46	3.0	57.7	0.80	52.7	65.9	0.657	0.107	0.128	0.19	NonLiqfble.
CPT-1	32.63	11	13.1	0.43	125	4079	2043	12.7	10.8	3.89	3.0	60.8	0.80	50.7	63.4	0.657	0.104	0.124	0.19	NonLiqfble.
CPT-1	32.72	11	12.7	0.47	125	4090	2048	12.3	10.4	4.41	3.1	64.1	0.80	49.1	61.4	0.657	0.102	0.122	0.19	NonLiqfble.
CPT-1	32.79	11	12.2	0.49	125	4099	2053	11.8	9.9	4.83	3.1	67.1	0.80	47.1	58.9	0.657	0.099	0.119	0.18	NonLiqfble.
CPT-1	32.88	11	11.7	0.5	125	4110	2058	11.3	9.4	5.18	3.2	69.9	0.80	45.1	56.4	0.657	0.097	0.116	0.18	NonLiqfble.
CPT-1	32.96	11	11.1	0.49	125	4120	2063	10.7	8.8	5.42	3.2	72.6	0.80	42.8	53.5	0.657	0.094	0.113	0.17	NonLiqfble.
CPT-1	33.05	11	11.1	0.48	125	4131	2069	10.7	8.7	5.31	3.2	72.3	0.80	42.7	53.4	0.657	0.094	0.113	0.17	NonLiqfble.
CPT-1	33.13	11	10.5	0.45	115	3810	1743	11.0	9.9	5.24	3.1	68.8	0.80	44.0	55.0	0.719	0.095	0.115	0.16	NonLiqfble.
CPT-1	33.22	11	9.8	0.42	115	3820	1747	10.3	9.0	5.32	3.2	71.4	0.80	41.0	51.3	0.719	0.093	0.111	0.15	NonLiqfble.
CPT-1	33.3	11	10	0.39	115	3830	1752	10.5	9.2	4.82	3.1	68.9	0.80	41.8	52.3	0.719	0.093	0.112	0.16	NonLiqfble.
CPT-1	33.39	11	9.1	0.34	115	3840	1756	9.5	8.2	4.74	3.2	71.7	0.80	38.0	47.5	0.719	0.090	0.108	0.15	NonLiqfble.
CPT-1	33.5	11	9	0.32	115	3853	1762	9.4	8.0	4.52	3.2	71.3	0.80	37.5	46.9	0.719	0.090	0.108	0.15	NonLiqfble.
CPT-1	33.59	11	9.4	0.33	115	3863	1767	9.8	8.4	4.42	3.2	69.5	0.80	39.1	48.9	0.719	0.091	0.109	0.15	NonLiqfble.
CPT-1	33.68	11	10.5	0.38	115	3873	1772	10.9	9.7	4.44	3.1	66.1	0.80	43.7	54.6	0.719	0.095	0.114	0.16	NonLiqfble.
CPT-1	33.77	11	11.5	0.49	125	4221	2114	10.9	8.9	5.22	3.2	71.5	0.80	43.8	54.7	0.657	0.095	0.114	0.17	NonLiqfble.
CPT-1	33.85	11	12.8	0.63	125	4231	2119	12.2	10.1	5.90	3.2	70.7	0.80	48.7	60.8	0.657	0.101	0.121	0.18	NonLiqfble.
CPT-1	33.94	11	14.6	0.73	125	4243	2125	13.9	11.7	5.85	3.1	66.7	0.80	55.4	69.3	0.657	0.111	0.133	0.20	NonLiqfble.
CPT-1	34.03	11	16.3	0.71	125	4254	2130	15.5	13.3	5.01	3.0	60.6	0.80	61.8	77.3	0.657	0.123	0.147	0.22	NonLiqfble.
CPT-1	34.12	11	18.5	0.64	125	4265	2136	17.5	15.3	3.91	2.9	53.0	0.80	70.1	87.6	0.657	0.142	0.171	0.26	NonLiqfble.
CPT-1	34.2	11	18.6	0.6	125	4275	2141	17.6	15.4	3.64	2.9	51.8	0.80	70.4	87.9	0.657	0.143	0.172	0.26	NonLiqfble.
CPT-1	34.29	11	16.6	0.6	125	4286	2147	15.7	13.5	4.15	3.0	56.9	0.80	62.7	78.4	0.657	0.125	0.150	0.23	NonLiqfble.
CPT-1	34.38	11	14.9	0.63	125	4298	2152	14.1	11.8	4.94	3.1	63.1	0.80	56.2	70.3	0.657	0.112	0.135	0.21	NonLiqfble.
CPT-1	34.47	11	14.7	0.72	125	4309	2158	13.8	11.6	5.74	3.1	66.5	0.80	55.4	69.2	0.657	0.111	0.133	0.20	NonLiqfble.
CPT-1	34.56	11	16.1	0.82	125	4320	2163	15.1	12.9	5.88	3.1	64.5	0.80	60.6	75.7	0.657	0.120	0.144	0.22	NonLiqfble.
CPT-1	34.65	11	17.2	0.96	125	4331	2169	16.2	13.9	6.39	3.1	64.5	0.80	64.6	80.8	0.657	0.129	0.155	0.24	NonLiqfble.
CPT-1	34.74	11	17.6	1.12	135	4690	2522	15.3	12.1	7.34	3.2	70.7	0.80	61.3	76.7	0.612	0.122	0.146	0.24	NonLiqfble.
CPT-1	34.83	11	19.9	1.05	135	4702	2529	17.3	13.9	5.98	3.1	63.1	0.80	69.3	86.6	0.612	0.140	0.168	0.28	NonLiqfble.
CPT-1	34.91	11	20.8	0.86	135	4713	2534	18.1	14.5	4.66	3.0	57.3	0.80	72.3	90.4	0.612	0.149	0.178	0.29	NonLiqfble.
CPT-1	35.04	11	24.8	0.78	135	4730	2544	21.5	17.6	3.48	2.8	48.1	0.80	86.1	107.6	0.612	0.196	0.235	0.38	NonLiqfble.
CPT-1	35.13	11	22.2	0.89	135	4743	2550	19.2	15.5	4.49	2.9	55.1	0.80	76.9	96.2	0.612	0.163	0.195	0.32	NonLiqfble.
CPT-1	35.21	11	20.1	1	135	4753	2556	17.4	13.9	5.64	3.1	62.0	0.80	69.6	87.0	0.612	0.141	0.169	0.28	NonLiqfble.
CPT-1	35.3	11	20.2	1	135	4766	2563	17.5	13.9	5.61	3.0	61.8	0.80	69.8	87.3	0.612	0.142	0.170	0.28	NonLiqfble.
CPT-1	35.38	11	22.2	0.91	135	4776	2569	19.2	15.4	4.59	3.0	55.7	0.80	76.7	95.8	0.612	0.162	0.194	0.32	NonLiqfble.
CPT-1	35.47	11	23.6	0.83	135	4788	2575	20.3	16.5	3.91	2.9	51.5	0.80	81.4	101.7	0.612	0.178	0.214	0.35	NonLiqfble.
CPT-1	35.56	11	21.6	0.8	125	4445	2226	20.0	17.4	4.13	2.9	51.3	0.80	80.1	100.2	0.657	0.173	0.208	0.32	NonLiqfble.
CPT-1	35.64	11	19.8	0.88	135	4811	2587	17.0	13.4	5.06	3.0	60.6	0.80	68.1	85.2	0.612	0.137	0.165	0.27	NonLiqfble.
CPT-1	35.73	11	19	1.04	135	4824	2594	16.3	12.8	6.27	3.1	66.0	0.80	65.3	81.6	0.612	0.131	0.157	0.26	NonLiqfble.
CPT-1	35.82	11	19.6	1.2	135	4836	2601	16.8	13.2	6.98	3.1	67.5	0.80	67.3	84.1	0.612	0.135	0.162	0.27	NonLiqfble.
CPT-1	35.9	11	23	1.25	135	4847	2606	19.7	15.8	6.08	3.0	60.5	0.80	78.8	98.6	0.612	0.169	0.203	0.33	NonLiqfble.
CPT-1	36	11	28.1	1.31	135	4860	2614	24.0	19.6	5.10	2.9	52.5	0.80	96.2	120.2	0.612	0.242	0.290	0.47	NonLiqfble.
CPT-1	36.08	11	36.1	1.43	135	4871	2619	30.9	25.7	4.25	2.8	44.2	0.80	123.4	154.3	0.612	0.422	0.506	0.83	NonLiqfble.
CPT-1	36.16	11	42.2	1.6	135	4882	2625	36.0	30.3	4.02	2.7	40.4	0.80	144.1	180.2	0.612	0.624	0.749	1.22	NonLiqfble.
CPT-1	36.25	11	44.1	1.79	135	4894	2632	37.6	31.6	4.30	2.7	40.7	0.80	150.5	188.1	0.612	0.699	0.838	1.37	NonLiqfble.
CPT-1	36.33	11	45.1	1.87	135	4905	2638	38.4	32.3	4.38	2.7	40.7	0.80	153.7	192.1	0.612	0.739	0.887	1.45	NonLiqfble.
CPT-1	36.42	11	44.6	1.89	135	4917	2644	38.0	31.9	4.48	2.7	41.3	0.80	151.8	189.8	0.612	0.715	0.858	1.40	NonLiqfble.
CPT-1	36.5	11	44.1	1.98	135	4928	2650	37.5	31.4	4.76	2.7	42.5	0.80	149.9	187.4	0.612	0.692	0.831	1.36	NonLiqfble.
CPT-1	36.59	11	42	2.02	135	4940	2656	35.7	29.7	5.11	2.8	44.6	0.80	142.6	178.3	0.612	0.607	0.728	1.19	NonLiqfble.
CPT-1	36.67	11	41.7	2.07	135	4950	2662	35.4	29.5	5.28	2.8	45.3	0.80	141.4	176.8	0.612	0.594	0.		

Project Name: 199 River Oaks Parkway
Project Number: 7862.3.001.01
Date: 20-Jul-07
CPT Number: CPT-1
Depth to Groundwater: 11 ft

EQ Magnitude (M_w): 7.1
PGA (g): 0.55
MSF: 1.20

Cone	Depth (FT)	Water Table (FT)	Tip Resist. (TSF)	Sleeve Frict. (TSF)	γ (PCF)	Total Stress (PSF)	Effective Stress (PSF)	Norm. Tip Q (KN)	Corr. Tip Q	Friction Ratio F	Ic	F.C. (%)	K _{CPT}	Δq _{IN}	(q _{IN}) ₅₀	Induced Stress Ratio	Liquef. Stress M7.5	Liquef. Stress M7.10	Factor of Safety	Comments
CPT-1	37.49	11	56.5	2.01	135	5061	2722	47.4	39.6	3.72	2.6	34.9	0.80	187.7	235.1	0.612	1.289	1.547	2.53	NonLiqfble.
CPT-1	37.57	11	57.7	2.07	135	5072	2728	48.3	40.4	3.75	2.6	34.7	0.79	185.6	234.0	0.612	1.271	1.525	2.49	NonLiqfble.
CPT-1	37.65	11	57.3	2.15	135	5083	2733	48.0	40.0	3.93	2.6	35.5	0.80	191.8	239.8	0.612	1.362	1.634	2.67	NonLiqfble.
CPT-1	37.74	11	56.5	2.22	135	5095	2740	47.2	39.4	4.11	2.6	36.5	0.80	188.9	236.1	0.612	1.305	1.565	2.56	NonLiqfble.
CPT-1	37.82	11	56.7	2.23	135	5106	2746	47.3	39.4	4.12	2.6	36.5	0.80	189.4	236.7	0.612	1.314	1.576	2.58	NonLiqfble.
CPT-1	37.9	11	57.2	2.18	135	5117	2752	47.7	39.7	3.99	2.6	35.9	0.80	190.8	238.6	0.612	1.343	1.611	2.63	NonLiqfble.
CPT-1	37.98	11	57.5	2.08	135	5127	2757	47.9	39.8	3.79	2.6	35.1	0.80	191.6	239.6	0.612	1.359	1.630	2.67	NonLiqfble.
CPT-1	38.06	11	56.6	2.09	135	5138	2763	47.1	39.1	3.87	2.6	35.7	0.80	188.4	235.6	0.612	1.296	1.555	2.54	NonLiqfble.
CPT-1	38.14	11	52.8	2.19	135	5149	2769	43.9	36.3	4.36	2.7	38.7	0.80	175.6	219.5	0.612	1.064	1.276	2.09	NonLiqfble.
CPT-1	38.22	11	47	2.26	135	5160	2775	39.0	32.0	5.09	2.8	43.3	0.80	156.2	195.2	0.612	0.772	0.926	1.51	NonLiqfble.
CPT-1	38.3	11	40.4	2.14	135	5171	2781	33.5	27.2	5.66	2.8	48.0	0.80	134.1	167.6	0.612	0.518	0.621	1.02	NonLiqfble.
CPT-1	38.38	11	35	2.05	135	5181	2786	29.0	23.3	6.33	2.9	53.1	0.80	116.0	145.1	0.612	0.364	0.437	0.71	NonLiqfble.
CPT-1	38.46	11	30.6	2.17	135	5192	2792	25.3	20.0	7.75	3.0	60.2	0.80	101.4	126.7	0.612	0.269	0.323	0.53	NonLiqfble.
CPT-1	38.52	11	27.6	2.1	135	5200	2797	22.8	17.9	8.40	3.1	64.4	0.80	91.3	114.2	0.612	0.218	0.262	0.43	NonLiqfble.
CPT-1	38.65	11	38.8	1.86	135	5218	2806	32.0	25.8	5.14	2.8	47.3	0.80	128.2	160.2	0.612	0.463	0.555	0.91	NonLiqfble.
CPT-1	38.73	11	48.6	1.91	135	5229	2812	40.1	32.7	4.15	2.7	39.6	0.80	160.4	200.5	0.612	0.830	0.996	1.63	NonLiqfble.
CPT-1	38.81	11	48.9	1.95	135	5239	2818	40.3	32.8	4.21	2.7	39.8	0.80	161.2	201.5	0.612	0.841	1.010	1.65	NonLiqfble.
CPT-1	38.89	11	49.1	2.03	135	5250	2823	40.4	32.9	4.37	2.7	40.3	0.80	161.7	202.2	0.612	0.848	1.018	1.66	NonLiqfble.
CPT-1	38.98	11	52.3	2.2	135	5262	2830	43.0	35.1	4.43	2.7	39.5	0.80	172.1	215.1	0.612	1.005	1.206	1.97	NonLiqfble.
CPT-1	39.06	11	45.6	2.43	135	5273	2836	37.5	30.3	5.66	2.8	46.1	0.80	149.9	187.3	0.612	0.691	0.830	1.36	NonLiqfble.
CPT-1	39.14	11	47.2	2.69	135	5284	2842	38.7	31.3	6.04	2.8	46.6	0.80	155.0	193.7	0.612	0.756	0.907	1.48	NonLiqfble.
CPT-1	39.22	11	57.7	2.84	135	5295	2847	47.3	38.7	5.16	2.7	40.4	0.80	189.2	236.6	0.612	1.311	1.573	2.57	NonLiqfble.
CPT-1	39.3	11	74.2	3.08	135	5306	2853	60.8	50.1	4.30	2.6	33.6	0.76	196.0	256.7	0.612	1.654	1.984	3.24	NonLiqfble.
CPT-1	39.37	11	83.3	3.2	135	5315	2858	68.2	56.4	3.97	2.5	30.8	0.69	150.6	218.8	0.612	1.054	1.265	2.07	NonLiqfble.
CPT-1	39.46	11	89.5	3.21	135	5327	2865	73.2	60.6	3.70	2.5	28.9	0.64	128.4	201.6	0.612	0.842	1.010	1.65	NonLiqfble.
CPT-1	39.53	11	92.5	3.25	135	5337	2870	75.5	62.6	3.62	2.4	28.2	0.62	122.4	198.0	0.612	0.802	0.962	1.57	NonLiqfble.
CPT-1	39.61	11	91	3.28	135	5347	2876	74.2	61.4	3.71	2.5	28.8	0.63	128.7	203.0	0.612	0.858	1.029	1.68	NonLiqfble.
CPT-1	39.69	11	91.5	3.43	135	5358	2881	74.6	61.6	3.86	2.5	29.2	0.65	136.9	211.5	0.612	0.959	1.151	1.88	NonLiqfble.
CPT-1	39.77	11	99.5	3.59	135	5369	2887	81.0	67.0	3.71	2.4	27.6	0.60	123.7	204.8	0.612	0.878	1.054	1.72	NonLiqfble.
CPT-1	39.85	11	110.5	3.7	135	5380	2893	89.9	74.5	3.43	2.4	25.4	0.54	107.0	196.9	0.612	0.790	0.948	1.55	NonLiqfble.
CPT-1	39.93	11	110.8	3.93	135	5391	2899	90.0	74.6	3.64	2.4	26.1	0.56	116.1	206.1	0.612	0.895	1.073	1.76	NonLiqfble.
CPT-1	40	11	108.3	4.1	135	5400	2904	87.9	72.7	3.88	2.4	27.3	0.59	128.9	216.9	0.565	1.028	1.234	2.18	NonLiqfble.
CPT-1	40.08	11	107.5	4.09	135	5411	2910	87.2	72.0	3.90	2.4	27.5	0.60	130.5	217.7	0.565	1.040	1.248	2.21	NonLiqfble.
CPT-1	40.16	11	108.7	4.04	135	5422	2916	88.1	72.7	3.81	2.4	27.0	0.59	125.7	213.8	0.565	0.989	1.186	2.10	NonLiqfble.
CPT-1	40.24	11	108.7	4.01	135	5432	2921	88.0	72.5	3.78	2.4	26.9	0.59	124.6	212.5	0.565	0.973	1.168	2.07	NonLiqfble.
CPT-1	40.31	11	107	3.88	135	5442	2927	86.5	71.2	3.72	2.4	26.9	0.59	122.4	208.9	0.565	0.928	1.114	1.97	NonLiqfble.
CPT-1	40.39	11	100.1	3.75	135	5453	2932	80.9	66.4	3.85	2.4	28.3	0.62	132.6	213.5	0.565	0.985	1.182	2.09	NonLiqfble.
CPT-1	40.46	11	92.9	3.59	135	5462	2937	75.0	61.4	3.98	2.5	29.7	0.66	145.6	220.6	0.565	1.079	1.295	2.29	NonLiqfble.
CPT-1	40.54	11	87	3.41	135	5473	2943	70.2	57.2	4.05	2.5	30.9	0.69	156.6	226.8	0.565	1.165	1.398	2.47	NonLiqfble.
CPT-1	40.62	11	87.4	3.45	135	5484	2949	70.4	57.4	4.08	2.5	30.9	0.69	158.5	228.9	0.565	1.195	1.434	2.54	NonLiqfble.
CPT-1	40.7	11	94.5	3.48	135	5495	2955	76.1	62.1	3.79	2.5	28.9	0.64	134.2	210.2	0.565	0.944	1.133	2.01	NonLiqfble.
CPT-1	40.77	11	102.5	3.39	135	5504	2960	82.4	67.4	3.40	2.4	26.4	0.57	110.2	192.6	0.565	0.745	0.894	1.58	NonLiqfble.
CPT-1	40.85	11	106.2	3.28	135	5515	2966	85.3	69.7	3.17	2.4	25.1	0.54	99.2	184.5	0.565	0.664	0.797	1.41	NonLiqfble.
CPT-1	40.92	11	115.1	3.14	135	5524	2971	92.4	75.6	2.80	2.3	22.7	0.47	82.6	175.0	0.565	0.579	0.694	1.23	Low F.S.
CPT-1	41	11	129.5	3	135	5535	2977	103.9	85.1	2.37	2.2	19.6	0.39	66.0	169.9	0.565	0.536	0.643	1.14	Low F.S.
CPT-1	41.08	11	146.6	2.72	135	5546	2982	117.5	96.4	1.89	2.1	16.1	0.30	49.4	166.8	0.565	0.512	0.614	1.09	Low F.S.
CPT-1	41.15	11	164.6	2.53	135	5555	2987	131.8	108.3	1.56	2.0	13.4	0.22	37.8	169.6	0.565	0.534	0.641	1.13	Low F.S.
CPT-1	41.22	11	191.4	2.45	135	5565	2993	153.1	126.0	1.30	1.9	10.7	0.15	27.3	180.4	0.565	0.626	0.751	1.33	NonLiqfble.
CPT-1	41.29	11	220.3	2.14	125	5161	2585	189.6	168.4	0.98	1.7	6.8	0.05	9.7	199.3	0.607	0.816	0.980	1.61	NonLiqfble.
CPT-1	41.36	11	248.9	2.06	125	5170	2589	214.0	190.2	0.84	1.7	5.2	0.01	1.2	215.2	0.607	1.007	1.209	1.99	NonLiqfble.
CPT-1	41.43	11	275	2.82	125	5179	2594	236.3	210.0	1.04	1.7	5.9	0.02	5.5	241.8	0.607	1.395	1.674	2.76	NonLiqfble.
CPT-1	41.5	11	296.5	2.99	125	5188	2598	254.5	226.2	1.02	1.7	5.4	0.01	2.5	257.0	0.607	1.659	1.991	3.28	NonLiqfble.
CPT-1	41.57	11	335.9	2.94	125	5196	2602	288.1	256.1	0.88	1.6	4.0	0.00	0.0	288.1	0.607	2.304	2.765	4.56	NonLiqfble.
CPT-1	41.64	11	340.3	2.85	125	5205	2607	291.6	259.0	0.84	1.6	3.7	0.00	0.0	291.6	0.607	2.387	2.864	4.72	NonLiqfble.
CPT-1	41.71	11	351.4	2.83	125	5214	2611	300.9	267.1	0.81	1.5	3.4	0.00	0.0	300.9	0.607	2.613	3.136	5.17	NonLiqfble.
CPT-1	41.77	11	363.6	2.96	125	5221	2615	311.1	276.0	0.82	1.5	3.3	0.00	0.0	311.1	0.607	2.881	3.457	5.70	NonLiqfble.
CPT-1	41.81	11	363.3	3.15	125	5226	2617	310.7	275.5	0.87	1.6	3.6	0.00	0.0	310.7	0.607	2.870	3.444	5.68	NonLiqfble.
CPT-1	41.88	11	362	3.38	125	5235	2622	309.3	274.0	0.94	1.6	4.0	0.00	0.0	309.3	0.607	2.833	3.399	5.60	NonLiqfble.
CPT-1	41.95	11	393.9	2.86	115	4824	2207	366.9	354.7	0.73	1.4	1.8	0.00	0.0	366.9	0.664	4.673	5.608	8.44	NonLiqfble.
CPT-1	42.02	11	419.3	2.95	115	4832	2210	390.2	377.1	0.71	1.4	1.4	0.00	0.0	390.2	0.664	5.606	6.728	10.13	NonLiqfble.
CPT-																				

Project Name: 199 River Oaks Parkway
Project Number: 7862.3.001.01
Date: 20-Jul-07
CPT Number: CPT-1
Depth to Groundwater: 11 ft

EQ Magnitude (M_w): 7.1
PGA (g): 0.55
MSF: 1.20

Cone	Depth (FT)	Water Table (FT)	Tip Resist. (TSF)	Sleeve Frict. (TSF)	γ (PCF)	Total Stress (PSF)	Effective Stress (PSF)	Norm. Tip $Q_{(N)}$	Corr. Tip Q	Friction Ratio F	I_c	F.C. (%)	K_{CPT}	$\Delta q_{(N)}$	$(q_{(N)})_{(F)}$	Induced Stress Ratio	Liquef. Stress M7.5	Liquef. Stress M7.10	Factor of Safety	Comments
CPT-1	42.65	11	421.2	3.49	125	5331	2670	356.7	313.4	0.83	1.5	2.8	0.00	0.0	356.7	0.607	4.299	5.159	8.50	NonLiqfble.
CPT-1	42.69	11	414.9	3.18	125	5336	2672	351.2	308.4	0.77	1.5	2.5	0.00	0.0	351.2	0.607	4.107	4.929	8.12	NonLiqfble.
CPT-1	42.73	11	404.1	3.05	125	5341	2675	341.9	300.0	0.76	1.5	2.6	0.00	0.0	341.9	0.607	3.796	4.555	7.51	NonLiqfble.
CPT-1	42.76	11	388.5	2.97	125	5345	2677	328.5	288.2	0.77	1.5	2.8	0.00	0.0	328.5	0.607	3.378	4.054	6.68	NonLiqfble.
CPT-1	42.8	11	378	2.79	115	4922	2251	348.6	333.5	0.74	1.4	2.1	0.00	0.0	348.6	0.664	4.019	4.823	7.26	NonLiqfble.
CPT-1	42.84	11	368.8	2.19	115	4927	2253	339.9	325.0	0.60	1.4	1.3	0.00	0.0	339.9	0.664	3.733	4.480	6.74	NonLiqfble.
CPT-1	42.88	11	362.3	2.12	115	4931	2255	333.8	318.9	0.59	1.4	1.3	0.00	0.0	333.8	0.664	3.538	4.246	6.39	NonLiqfble.
CPT-1	42.91	11	353.7	1.35	105	4506	1828	362.0	384.4	0.38	1.2	-0.6	0.00	0.0	362.0	0.749	4.490	5.389	7.19	NonLiqfble.
CPT-1	42.94	11	346.7	2.54	115	4938	2259	319.2	304.7	0.74	1.5	2.4	0.00	0.0	319.2	0.664	3.104	3.725	5.61	NonLiqfble.
CPT-1	43	11	332.7	2.78	125	5375	2692	280.6	245.1	0.84	1.6	4.0	0.00	0.0	280.6	0.607	2.134	2.561	4.22	NonLiqfble.
CPT-1	43.04	11	333.1	2.81	125	5380	2694	280.8	245.2	0.85	1.6	4.0	0.00	0.0	280.8	0.607	2.139	2.566	4.23	NonLiqfble.
CPT-1	43.08	11	317	2.81	125	5385	2697	267.1	233.0	0.89	1.6	4.5	0.00	0.0	267.1	0.607	1.852	2.222	3.66	NonLiqfble.
CPT-1	43.12	11	311.8	2.74	125	5390	2699	262.6	228.9	0.89	1.6	4.5	0.00	0.0	262.6	0.607	1.764	2.117	3.49	NonLiqfble.
CPT-1	43.16	11	308	2.57	125	5395	2702	259.3	225.9	0.84	1.6	4.3	0.00	0.0	259.3	0.607	1.701	2.041	3.36	NonLiqfble.
CPT-1	43.21	11	304.3	2.49	125	5401	2705	256.0	222.9	0.83	1.6	4.3	0.00	0.0	256.0	0.607	1.640	1.968	3.24	NonLiqfble.
CPT-1	43.27	11	305.8	1.91	115	4976	2276	280.5	266.4	0.63	1.5	2.3	0.00	0.0	280.5	0.664	2.132	2.558	3.85	NonLiqfble.
CPT-1	43.31	11	296.5	1.64	115	4981	2278	271.8	258.0	0.56	1.4	1.9	0.00	0.0	271.8	0.664	1.947	2.337	3.52	NonLiqfble.
CPT-1	43.34	11	280.7	1.58	115	4984	2280	257.2	244.0	0.57	1.5	2.2	0.00	0.0	257.2	0.664	1.663	1.995	3.00	NonLiqfble.
CPT-1	43.39	11	272.8	1.54	115	4990	2282	249.8	236.8	0.57	1.5	2.4	0.00	0.0	249.8	0.664	1.530	1.837	2.76	NonLiqfble.
CPT-1	43.43	11	261.8	1.74	115	4994	2284	239.7	226.9	0.67	1.5	3.3	0.00	0.0	239.7	0.664	1.360	1.632	2.46	NonLiqfble.
CPT-1	43.46	11	244.2	1.81	115	4998	2286	223.5	211.4	0.75	1.6	4.1	0.00	0.0	223.5	0.664	1.118	1.341	2.02	NonLiqfble.
CPT-1	43.5	11	229.3	1.66	115	5003	2288	209.7	198.2	0.73	1.6	4.3	0.00	0.0	209.7	0.664	0.938	1.126	1.69	NonLiqfble.
CPT-1	43.55	11	223.1	1.75	125	5444	2726	187.0	161.6	0.79	1.7	5.9	0.02	4.5	191.4	0.607	0.732	0.879	1.45	NonLiqfble.
CPT-1	43.58	11	224.7	1.82	125	5448	2728	188.2	162.7	0.82	1.7	6.0	0.03	5.2	193.4	0.607	0.753	0.904	1.49	NonLiqfble.
CPT-1	43.64	11	224.6	1.95	125	5455	2732	188.0	162.4	0.88	1.7	6.4	0.04	7.3	195.3	0.607	0.773	0.928	1.53	NonLiqfble.
CPT-1	43.7	11	224.5	1.94	125	5463	2736	187.8	162.1	0.87	1.7	6.4	0.04	7.2	195.0	0.607	0.770	0.924	1.52	NonLiqfble.
CPT-1	43.75	11	225.3	2.2	125	5469	2739	188.4	162.5	0.99	1.7	7.1	0.06	11.1	199.5	0.607	0.818	0.982	1.62	NonLiqfble.
CPT-1	43.78	11	236.6	2.26	125	5473	2741	197.7	170.6	0.97	1.7	6.6	0.04	9.1	206.8	0.607	0.903	1.084	1.79	NonLiqfble.
CPT-1	43.94	11	283.3	2.33	125	5493	2751	236.3	203.9	0.83	1.6	4.8	0.00	0.0	236.3	0.607	1.308	1.569	2.59	NonLiqfble.
CPT-1	43.98	11	278.2	2.57	125	5498	2753	232.0	200.0	0.93	1.7	5.5	0.01	3.3	235.3	0.607	1.292	1.550	2.55	NonLiqfble.
CPT-1	44.01	11	272.1	2.12	125	5501	2755	226.8	195.5	0.79	1.6	4.8	0.00	0.0	226.8	0.607	1.165	1.398	2.30	NonLiqfble.
CPT-1	44.04	11	263	1.89	115	5065	2317	239.1	224.8	0.73	1.6	3.6	0.00	0.0	239.1	0.664	1.351	1.621	2.44	NonLiqfble.
CPT-1	44.07	11	252.6	1.83	115	5068	2318	229.6	215.7	0.73	1.6	3.9	0.00	0.0	229.6	0.664	1.205	1.446	2.18	NonLiqfble.
CPT-1	44.1	11	259.8	2.07	125	5513	2761	216.3	186.1	0.81	1.6	5.1	0.00	0.8	217.1	0.607	1.032	1.238	2.04	NonLiqfble.
CPT-1	44.16	11	269	1.99	115	5078	2323	244.2	229.3	0.75	1.6	3.7	0.00	0.0	244.2	0.664	1.434	1.721	2.59	NonLiqfble.
CPT-1	44.19	11	268.8	1.89	115	5082	2324	243.9	229.0	0.71	1.5	3.5	0.00	0.0	243.9	0.664	1.430	1.716	2.58	NonLiqfble.
CPT-1	44.24	11	271.7	1.8	115	5088	2327	246.4	231.2	0.67	1.5	3.1	0.00	0.0	246.4	0.664	1.472	1.766	2.66	NonLiqfble.
CPT-1	44.27	11	272.2	1.8	115	5091	2329	246.8	231.5	0.67	1.5	3.1	0.00	0.0	246.8	0.664	1.478	1.774	2.67	NonLiqfble.
CPT-1	44.3	11	279.2	1.76	115	5095	2330	253.1	237.4	0.64	1.5	2.8	0.00	0.0	253.1	0.664	1.587	1.905	2.87	NonLiqfble.
CPT-1	44.35	11	299.3	1.82	115	5100	2333	271.1	254.3	0.61	1.5	2.4	0.00	0.0	271.1	0.664	1.934	2.320	3.49	NonLiqfble.
CPT-1	44.39	11	305.3	2.02	115	5105	2335	276.4	259.2	0.67	1.5	2.6	0.00	0.0	276.4	0.664	2.045	2.454	3.69	NonLiqfble.
CPT-1	44.44	11	301.3	2.85	125	5555	2782	249.9	214.5	0.95	1.7	5.3	0.01	1.9	251.8	0.607	1.565	1.878	3.10	NonLiqfble.
CPT-1	44.49	11	304.6	3.2	125	5561	2785	252.5	216.6	1.06	1.7	5.8	0.02	5.7	258.3	0.607	1.682	2.018	3.33	NonLiqfble.
CPT-1	44.52	11	306.2	2.98	125	5565	2787	253.8	217.6	0.98	1.7	5.4	0.01	2.5	256.3	0.607	1.645	1.974	3.25	NonLiqfble.
CPT-1	44.55	11	313	2.77	125	5569	2789	259.3	222.4	0.89	1.6	4.7	0.00	0.0	259.3	0.607	1.702	2.042	3.37	NonLiqfble.
CPT-1	44.59	11	316.5	2.62	125	5574	2791	262.1	224.7	0.84	1.6	4.3	0.00	0.0	262.1	0.607	1.755	2.106	3.47	NonLiqfble.
CPT-1	44.63	11	326.8	2.69	125	5579	2794	270.5	231.8	0.83	1.6	4.1	0.00	0.0	270.5	0.607	1.921	2.305	3.80	NonLiqfble.
CPT-1	44.66	11	254.5	2.83	125	5583	2796	210.6	180.0	1.12	1.8	7.2	0.06	13.5	224.1	0.607	1.126	1.351	2.23	NonLiqfble.
CPT-1	44.72	11	323.9	2.77	125	5590	2799	267.8	229.3	0.86	1.6	4.4	0.00	0.0	267.8	0.607	1.867	2.241	3.69	NonLiqfble.
CPT-1	44.76	11	331	1.98	115	5147	2354	298.5	278.9	0.60	1.4	1.9	0.00	0.0	298.5	0.664	2.553	3.063	4.61	NonLiqfble.
CPT-1	44.79	11	329.6	1.84	115	5151	2356	297.1	277.5	0.56	1.4	1.7	0.00	0.0	297.1	0.664	2.519	3.023	4.55	NonLiqfble.
CPT-1	44.85	11	332.5	2.27	115	5158	2359	299.5	279.6	0.69	1.5	2.4	0.00	0.0	299.5	0.664	2.579	3.095	4.66	NonLiqfble.
CPT-1	44.88	11	337.6	2.22	115	5161	2361	304.0	283.7	0.66	1.5	2.2	0.00	0.0	304.0	0.664	2.693	3.232	4.86	NonLiqfble.
CPT-1	44.93	11	333.1	2.19	115	5167	2363	299.8	279.6	0.66	1.5	2.3	0.00	0.0	299.8	0.664	2.586	3.103	4.67	NonLiqfble.
CPT-1	44.99	11	322.3	2.29	115	5174	2366	289.9	270.1	0.72	1.5	2.8	0.00	0.0	289.9	0.664	2.345	2.815	4.24	NonLiqfble.
CPT-1	45.06	11	291.8	2.38	125	5633	2821	240.4	204.8	0.82	1.6	4.7	0.00	0.0	240.4	0.607	1.372	1.646	2.71	NonLiqfble.
CPT-1	45.13	11	308.2	2.5	125	5641	2825	253.7	216.1	0.82	1.6	4.4	0.00	0.0	253.7	0.607	1.599	1.918	3.16	NonLiqfble.
CPT-1	45.21	11	302.8	2.25	115	5199	2378	271.7	252.4	0.75	1.5	3.3	0.00	0.0	271.7	0.664	1.945	2.334	3.51	NonLiqfble.
CPT-1	45.28	11	301.6	2.24	115	5207	2382	270.4	251.0	0.75	1.5	3.3	0.00	0.0	270.4	0.664	1.919	2.302	3.47	NonLiqfble.
CPT-1	45.35	11	310.9	2.26	115	5215	2385	278.5	258.4	0.73	1.5	3.1	0.00	0.0	278.5	0.664	2.089	2.507	3.77	NonLiqfble.
CPT-1	45.42	11	324.9	2.08	115	5223	2389	290.8	269.7	0.65	1.5	2.3	0.00							

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PGA (g): 0.55
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Cone	Depth (FT)	Water Table (FT)	Tip Resist. (TSF)	Sleeve Frict. (TSF)	Total Stress (PSF)	Effective Stress (PSF)	Norm. Tip Q _{tip}	Corr. Tip Q	Friction Ratio F	F.C. (%)	K _{CPT}	ΔQ _{tip}	Induced Stress Ratio	Liquef. Stress M7.5	Liquef. Stress M7.10	Factor of Safety	Comments			
CPT-1	46.04	11	269.7	2.2	125	5755	2882	219.8	185.1	0.82	1.7	5.3	0.01	1.7	221.5	0.607	1.091	1.309	2.16	NonLiqfble.
CPT-1	46.11	11	304	2.49	125	5764	2886	247.6	208.6	0.83	1.6	4.7	0.00	0.0	247.6	0.607	1.491	1.789	2.95	NonLiqfble.
CPT-1	46.17	11	321.8	2.55	125	5771	2890	261.9	220.6	0.80	1.6	4.2	0.00	0.0	261.9	0.607	1.751	2.101	3.46	NonLiqfble.
CPT-1	46.23	11	330.9	2.68	125	5779	2894	269.1	226.6	0.82	1.6	4.2	0.00	0.0	269.1	0.607	1.893	2.271	3.74	NonLiqfble.
CPT-1	46.27	11	332.5	2.77	125	5784	2897	270.3	227.5	0.84	1.6	4.3	0.00	0.0	270.3	0.607	1.917	2.300	3.79	NonLiqfble.
CPT-1	46.31	11	326	2.98	125	5789	2899	264.9	222.8	0.92	1.6	4.9	0.00	0.0	264.9	0.607	1.809	2.171	3.58	NonLiqfble.
CPT-1	46.35	11	316.2	3.26	125	5794	2902	256.8	215.9	1.04	1.7	5.7	0.02	5.2	262.0	0.607	1.753	2.103	3.47	NonLiqfble.
CPT-1	46.39	11	289.8	3.19	125	5799	2904	235.3	197.5	1.11	1.7	6.6	0.04	10.7	246.0	0.607	1.465	1.758	2.90	NonLiqfble.
CPT-1	46.43	11	277.4	3.31	135	6268	3371	209.1	162.7	1.21	1.8	8.4	0.09	20.5	229.6	0.565	1.206	1.447	2.56	NonLiqfble.
CPT-1	46.48	11	264.5	3.34	135	6275	3374	199.2	154.8	1.28	1.8	9.1	0.11	24.3	223.5	0.565	1.119	1.343	2.38	NonLiqfble.
CPT-1	46.53	11	252.9	3.17	135	6282	3378	190.4	147.8	1.27	1.9	9.3	0.12	25.0	215.4	0.565	1.009	1.211	2.14	NonLiqfble.
CPT-1	46.58	11	235.7	2.88	135	6288	3382	177.3	137.5	1.24	1.9	9.7	0.13	25.3	202.7	0.565	1.854	1.025	1.81	NonLiqfble.
CPT-1	46.63	11	225	2.62	125	5829	2919	182.2	152.1	1.18	1.8	8.6	0.10	19.6	201.8	0.607	0.845	1.014	1.67	NonLiqfble.
CPT-1	46.67	11	223.7	2.48	125	5834	2922	181.1	151.1	1.12	1.8	8.4	0.09	17.9	198.9	0.607	0.812	0.975	1.61	NonLiqfble.
CPT-1	46.71	11	223.9	2.41	125	5839	2924	181.2	151.1	1.09	1.8	8.2	0.08	16.7	197.9	0.607	0.801	0.961	1.58	NonLiqfble.
CPT-1	46.75	11	223.8	2.31	125	5844	2927	181.0	150.9	1.05	1.8	7.9	0.08	15.2	196.2	0.607	0.783	0.939	1.55	NonLiqfble.
CPT-1	46.79	11	225.7	2.16	125	5849	2929	182.5	152.1	0.97	1.8	7.4	0.06	12.4	194.9	0.607	0.768	0.922	1.52	NonLiqfble.
CPT-1	46.83	11	227.8	1.98	125	5854	2932	184.1	153.4	0.88	1.7	6.8	0.05	9.1	193.2	0.607	0.751	0.901	1.48	NonLiqfble.
CPT-1	46.87	11	229.1	1.75	115	5390	2465	201.9	183.6	0.77	1.6	5.0	0.00	0.0	201.9	0.664	0.845	1.014	1.53	NonLiqfble.
CPT-1	46.91	11	230.7	1.66	115	5395	2467	203.2	184.7	0.73	1.6	4.7	0.00	0.0	203.2	0.664	0.860	1.032	1.55	NonLiqfble.
CPT-1	46.96	11	229.1	1.62	115	5400	2470	201.7	183.2	0.72	1.6	4.6	0.00	0.0	201.7	0.664	0.843	1.012	1.52	NonLiqfble.
CPT-1	47	11	224.2	1.67	115	5405	2472	197.3	179.1	0.75	1.6	5.0	0.00	0.1	197.3	0.664	0.795	0.954	1.44	NonLiqfble.
CPT-1	47.05	11	220.2	1.81	125	5881	2945	177.5	147.5	0.83	1.7	6.7	0.05	8.4	186.0	0.607	0.678	0.814	1.34	NonLiqfble.
CPT-1	47.11	11	216.2	1.89	125	5889	2949	174.2	144.6	0.89	1.8	7.2	0.06	10.8	185.0	0.607	0.669	0.802	1.32	NonLiqfble.
CPT-1	47.17	11	217.4	1.92	125	5896	2953	175.0	145.2	0.90	1.8	7.2	0.06	11.0	186.0	0.607	0.679	0.815	1.34	NonLiqfble.
CPT-1	47.22	11	208.8	1.93	125	5903	2956	168.0	139.2	0.94	1.8	7.8	0.07	13.4	181.4	0.607	0.636	0.763	1.26	Low F.S.
CPT-1	47.28	11	207.3	1.88	125	5910	2960	166.7	138.0	0.92	1.8	7.7	0.07	13.0	179.7	0.607	0.620	0.744	1.23	Low F.S.
CPT-1	47.34	11	206	1.73	125	5918	2963	165.6	137.0	0.85	1.8	7.3	0.06	10.9	176.5	0.607	0.591	0.709	1.17	Low F.S.
CPT-1	47.4	11	204.1	1.52	115	5451	2493	178.8	161.5	0.75	1.7	5.6	0.02	3.0	181.8	0.664	0.639	0.767	1.15	Low F.S.
CPT-1	47.46	11	203.1	1.42	115	5458	2496	177.9	160.5	0.71	1.7	5.3	0.01	1.6	179.4	0.664	0.617	0.741	1.12	Low F.S.
CPT-1	47.52	11	201.4	1.37	115	5465	2500	176.3	158.9	0.69	1.7	5.3	0.01	1.2	177.5	0.664	0.600	0.720	1.08	Low F.S.
CPT-1	47.59	11	195.3	1.36	115	5473	2503	170.8	153.8	0.71	1.7	5.6	0.02	2.6	173.4	0.664	0.565	0.678	1.02	Low F.S.
CPT-1	47.65	11	197.1	1.4	115	5480	2506	172.3	155.0	0.72	1.7	5.6	0.02	2.9	175.1	0.664	0.580	0.696	1.05	Low F.S.
CPT-1	47.71	11	199.2	1.52	115	5487	2510	174.0	156.5	0.77	1.7	5.9	0.02	4.4	178.4	0.664	0.608	0.730	1.10	Low F.S.
CPT-1	47.77	11	201.3	1.77	125	5971	2990	161.1	132.6	0.89	1.8	7.8	0.07	13.0	174.1	0.607	0.571	0.685	1.13	Low F.S.
CPT-1	47.83	11	206.6	1.93	125	5979	2994	165.2	135.9	0.95	1.8	8.0	0.08	14.4	179.6	0.607	0.618	0.742	1.22	Low F.S.
CPT-1	47.9	11	209.7	1.91	125	5988	2999	167.6	137.8	0.92	1.8	7.7	0.07	13.3	180.8	0.607	0.630	0.756	1.25	Low F.S.
CPT-1	47.96	11	207.8	2.1	125	5995	3002	165.9	136.4	1.03	1.8	8.5	0.09	16.9	182.9	0.607	0.649	0.778	1.28	Low F.S.
CPT-1	48.02	11	209	2.25	125	6003	3006	166.8	137.0	1.09	1.8	8.8	0.10	19.1	185.9	0.607	0.677	0.813	1.34	NonLiqfble.
CPT-1	48.09	11	200.3	2.13	125	6011	3010	159.7	131.0	1.08	1.8	9.1	0.11	19.6	179.3	0.607	0.616	0.739	1.22	Low F.S.
CPT-1	48.16	11	212.8	1.93	125	6020	3015	169.6	139.1	0.92	1.8	7.7	0.07	13.0	182.5	0.607	0.646	0.775	1.28	Low F.S.
CPT-1	48.22	11	224.3	1.85	125	6028	3019	178.6	146.6	0.84	1.7	6.8	0.05	8.8	187.4	0.607	0.692	0.831	1.37	NonLiqfble.
CPT-1	48.29	11	227	1.94	125	6036	3023	180.6	148.1	0.87	1.7	6.9	0.05	9.6	190.3	0.607	0.721	0.865	1.42	NonLiqfble.
CPT-1	48.35	11	227.3	1.97	125	6044	3027	180.8	148.1	0.88	1.7	7.0	0.05	10.1	190.8	0.607	0.726	0.871	1.44	NonLiqfble.
CPT-1	48.38	11	222.2	1.93	125	6048	3029	176.7	144.7	0.88	1.8	7.1	0.06	10.7	187.4	0.607	0.692	0.830	1.37	NonLiqfble.
CPT-1	48.42	11	217.9	1.8	125	6053	3031	173.2	141.7	0.84	1.7	7.0	0.05	9.7	182.9	0.607	0.649	0.779	1.28	Low F.S.
CPT-1	48.49	11	215.1	1.62	115	5576	2551	186.4	166.4	0.76	1.7	5.5	0.01	2.5	188.8	0.664	0.706	0.847	1.28	Low F.S.
CPT-1	48.56	11	230.7	1.45	115	5584	2554	199.7	178.4	0.64	1.6	4.2	0.00	0.0	199.7	0.664	0.821	0.985	1.48	NonLiqfble.
CPT-1	48.64	11	244.1	1.58	115	5594	2558	211.2	188.6	0.65	1.6	4.1	0.00	0.0	211.2	0.664	0.956	1.147	1.73	NonLiqfble.
CPT-1	48.71	11	252	1.54	115	5602	2562	217.8	194.4	0.62	1.6	3.6	0.00	0.0	217.8	0.664	1.041	1.249	1.88	NonLiqfble.
CPT-1	48.78	11	257.9	1.57	115	5610	2566	222.8	198.8	0.62	1.5	3.5	0.00	0.0	222.8	0.664	1.108	1.330	2.00	NonLiqfble.
CPT-1	48.85	11	258.9	1.74	115	5618	2570	223.5	199.2	0.68	1.6	3.9	0.00	0.0	223.5	0.664	1.118	1.341	2.02	NonLiqfble.
CPT-1	48.93	11	259.7	1.54	115	5627	2574	224.0	199.5	0.60	1.5	3.4	0.00	0.0	224.0	0.664	1.125	1.350	2.03	NonLiqfble.
CPT-1	48.99	11	255.8	1.49	115	5634	2577	220.5	196.3	0.59	1.5	3.4	0.00	0.0	220.5	0.664	1.077	1.292	1.94	NonLiqfble.
CPT-1	49.07	11	238.8	1.35	115	5643	2581	205.7	182.8	0.57	1.6	3.6	0.00	0.0	205.7	0.664	0.889	1.067	1.61	NonLiqfble.
CPT-1	49.14	11	223.6	1.18	115	5651	2585	192.4	170.8	0.53	1.6	3.7	0.00	0.0	192.4	0.664	0.743	0.891	1.34	NonLiqfble.
CPT-1	49.21	11	224.9	1.27	115	5659	2588	193.4	171.5	0.57	1.6	4.0	0.00	0.0	193.4	0.664	0.753	0.903	1.36	NonLiqfble.
CPT-1	49.28	11	226.3	0.95	105	5174	2099	216.1	213.0	0.42	1.4	1.8	0.00	0.0	216.1	0.749	1.019	1.222	1.63	NonLiqfble.
CPT-1	49.35	11	225.1	0.94	105	5182	2102	214.8	211.6	0.42	1.4	1.8	0.00	0.0	214.8	0.749	1.002	1.202	1.60	NonLiqfble.
CPT-1	49.42	11	214.5	0.9	105	5189	2105	204.5	201.2	0.42	1.4	2.1	0.00	0.0	204.5	0.749	0.876	1.051	1.40	NonLiqfble.
CPT-1	49.49	11	196	0.88	105	5196	2108	186.8	183.4	0.46	1.5	2.7	0.00	0.0	186.8	0.749	0.686	0.823	1.10	Low F.S.

Project Name: 199 River Oaks Parkway
Project Number: 7862.3.001.01
Date: 20-Jul-07
CPT Number: CPT-1
Depth to Groundwater: 11 ft

EQ Magnitude (M_w): 7.1
PGA (g): 0.55
MSF: 1.20

Cone	Depth (FT)	Water Table (FT)	Tip Resist. (TSF)	Sleeve Frict. (TSF)	γ (PCF)	Total Stress (PSF)	Effective Stress (PSF)	Norm. Tip Q _{IN}	Corr. Tip Q	Friction Ratio F	I _c	F.C. (%)	K _{CPT}	Δq _{IN}	(q _{IN}) ₀	Induced Stress Ratio	Liquef. Stress M7.5	Liquef. Stress M7.10	Factor of Safety	Comments
CPT-1	50.13	11	195.6	1.49	115	5765	2637	166.7	146.1	0.77	1.7	6.4	0.04	6.2	172.9	0.586	0.561	0.673	1.15	Low F.S.
CPT-1	50.21	11	216.6	1.81	125	6276	3143	169.0	135.8	0.85	1.8	7.3	0.06	11.3	180.3	0.535	0.625	0.750	1.40	NonLiqfble.
CPT-1	50.27	11	235.9	2.44	125	6284	3147	184.0	147.9	1.05	1.8	8.1	0.08	16.4	200.3	0.535	0.828	0.993	1.86	NonLiqfble.
CPT-1	50.34	11	267.3	2.96	125	6293	3151	208.3	167.6	1.12	1.8	7.7	0.07	16.0	224.3	0.535	1.130	1.356	2.53	NonLiqfble.
CPT-1	50.41	11	284.7	2.77	125	6301	3156	221.7	178.4	0.98	1.7	6.5	0.04	9.2	230.9	0.535	1.225	1.470	2.75	NonLiqfble.
CPT-1	50.48	11	300.3	2.58	125	6310	3160	233.7	188.0	0.87	1.7	5.5	0.01	3.0	236.8	0.535	1.314	1.577	2.95	NonLiqfble.
CPT-1	50.55	11	288	2.6	125	6319	3164	224.0	180.0	0.91	1.7	6.0	0.03	6.2	230.2	0.535	1.214	1.457	2.72	NonLiqfble.
CPT-1	50.61	11	287.3	2.63	125	6326	3168	223.3	179.3	0.93	1.7	6.1	0.03	6.8	230.1	0.535	1.213	1.456	2.72	NonLiqfble.
CPT-1	50.68	11	295.3	2.49	125	6335	3173	229.4	184.1	0.85	1.7	5.5	0.01	3.1	232.5	0.535	1.248	1.498	2.80	NonLiqfble.
CPT-1	50.75	11	298.6	2.26	115	5836	2669	252.9	221.4	0.76	1.6	4.0	0.00	0.0	252.9	0.586	1.584	1.900	3.24	NonLiqfble.
CPT-1	50.81	11	290.6	2.12	115	5843	2673	245.9	215.2	0.74	1.6	3.9	0.00	0.0	245.9	0.586	1.464	1.756	3.00	NonLiqfble.
CPT-1	50.88	11	293.5	2.28	125	6360	3185	227.5	182.2	0.79	1.6	5.1	0.00	0.7	228.3	0.535	1.186	1.424	2.66	NonLiqfble.
CPT-1	50.95	11	284.9	2.12	115	5859	2680	240.8	210.3	0.75	1.6	4.1	0.00	0.0	240.8	0.586	1.378	1.654	2.82	NonLiqfble.
CPT-1	51.01	11	285.7	1.88	115	5866	2683	241.3	210.7	0.66	1.5	3.6	0.00	0.0	241.3	0.586	1.387	1.664	2.84	NonLiqfble.
CPT-1	51.08	11	289.9	1.74	115	5874	2687	244.7	213.5	0.61	1.5	3.1	0.00	0.0	244.7	0.586	1.443	1.731	2.95	NonLiqfble.
CPT-1	51.15	11	281.2	2.31	125	6394	3202	217.4	173.6	0.83	1.7	5.7	0.02	4.1	221.5	0.535	1.091	1.309	2.45	NonLiqfble.
CPT-1	51.22	11	278.8	2.4	125	6403	3206	215.4	171.8	0.87	1.7	6.0	0.03	6.0	221.4	0.535	1.089	1.307	2.44	NonLiqfble.
CPT-1	51.29	11	279.6	2.15	125	6411	3211	215.9	172.1	0.78	1.7	5.4	0.01	2.3	218.2	0.535	1.046	1.256	2.35	NonLiqfble.
CPT-1	51.35	11	290.4	2.28	125	6419	3215	224.1	178.6	0.79	1.7	5.3	0.01	1.8	225.9	0.535	1.151	1.382	2.58	NonLiqfble.
CPT-1	51.43	11	280.6	2.59	125	6429	3220	216.4	172.2	0.93	1.7	6.4	0.04	8.3	224.7	0.535	1.135	1.362	2.54	NonLiqfble.
CPT-1	51.49	11	279.8	2.33	125	6436	3223	215.6	171.5	0.84	1.7	5.8	0.02	4.9	220.6	0.535	1.078	1.294	2.42	NonLiqfble.
CPT-1	51.56	11	289.5	2.17	115	5929	2712	243.2	211.2	0.76	1.6	4.2	0.00	0.0	243.2	0.586	1.418	1.702	2.90	NonLiqfble.
CPT-1	51.63	11	300.5	2.1	115	5937	2716	252.3	219.0	0.71	1.6	3.6	0.00	0.0	252.3	0.586	1.574	1.888	3.22	NonLiqfble.
CPT-1	51.69	11	313.9	2.05	115	5944	2719	263.4	228.6	0.66	1.5	3.1	0.00	0.0	263.4	0.586	1.779	2.135	3.64	NonLiqfble.
CPT-1	51.76	11	346.4	2.38	115	5952	2723	290.5	252.2	0.69	1.5	2.9	0.00	0.0	290.5	0.586	2.359	2.831	4.83	NonLiqfble.
CPT-1	51.79	11	350.6	2.51	115	5956	2724	293.9	255.1	0.72	1.5	3.0	0.00	0.0	293.9	0.586	2.441	2.929	5.00	NonLiqfble.
CPT-1	51.87	11	354.9	2.59	115	5965	2728	297.3	257.9	0.74	1.5	3.1	0.00	0.0	297.3	0.586	2.523	3.028	5.17	NonLiqfble.
CPT-1	51.95	11	371.3	3.59	125	6494	3252	284.9	226.3	0.98	1.6	5.1	0.00	0.9	285.8	0.535	2.252	2.702	5.05	NonLiqfble.
CPT-1	52.02	11	355	4.45	135	7023	3777	252.8	186.1	1.27	1.8	7.8	0.08	20.6	273.4	0.499	1.980	2.376	4.77	NonLiqfble.
CPT-1	52.09	11	361.1	6.49	135	7032	3782	256.9	189.0	1.81	1.9	10.4	0.14	43.3	300.2	0.499	2.596	3.116	6.25	NonLiqfble.
CPT-1	52.16	11	382.8	7.42	135	7042	3787	272.2	200.2	1.96	1.9	10.6	0.15	48.3	320.5	0.499	3.141	3.770	7.56	NonLiqfble.
CPT-1	52.23	11	406.4	6.56	135	7051	3792	288.8	212.4	1.63	1.8	8.8	0.10	32.8	321.5	0.499	3.171	3.806	7.63	NonLiqfble.
CPT-1	52.3	11	410.7	6.65	135	7061	3797	291.6	214.4	1.63	1.8	8.8	0.10	32.8	324.4	0.499	3.255	3.906	7.83	NonLiqfble.
CPT-1	52.37	11	410.2	6.74	135	7070	3802	291.1	213.8	1.66	1.8	8.9	0.10	33.9	325.0	0.499	3.273	3.927	7.88	NonLiqfble.
CPT-1	52.43	11	382.6	6.81	135	7078	3806	271.3	199.1	1.80	1.9	10.0	0.13	41.6	313.0	0.499	2.931	3.517	7.05	NonLiqfble.
CPT-1	52.5	11	395	5.6	135	7088	3812	279.9	205.3	1.43	1.8	8.1	0.08	25.0	305.0	0.499	2.718	3.261	6.54	NonLiqfble.
CPT-1	52.56	11	387	4.54	135	7096	3816	274.1	200.9	1.18	1.7	6.9	0.05	14.9	289.0	0.499	2.325	2.790	5.60	NonLiqfble.
CPT-1	52.63	11	384.4	4.23	125	6579	3295	293.0	231.3	1.11	1.7	5.8	0.02	6.0	299.1	0.535	2.567	3.081	5.75	NonLiqfble.
CPT-1	52.69	11	380.5	4.16	125	6586	3298	289.9	228.6	1.10	1.7	5.8	0.02	6.1	296.0	0.535	2.493	2.991	5.59	NonLiqfble.
CPT-1	52.75	11	373.3	3.85	125	6594	3302	284.2	224.0	1.04	1.7	5.5	0.01	4.2	288.4	0.535	2.311	2.773	5.18	NonLiqfble.
CPT-1	52.81	11	364.6	3.59	125	6601	3306	277.5	218.5	0.99	1.7	5.4	0.01	3.1	280.5	0.535	2.133	2.559	4.78	NonLiqfble.
CPT-1	52.87	11	346.1	3.24	125	6609	3310	263.2	207.1	0.95	1.7	5.4	0.01	2.9	266.2	0.535	1.834	2.200	4.11	NonLiqfble.
CPT-1	52.93	11	337.2	3.02	125	6616	3313	256.3	201.5	0.90	1.7	5.3	0.01	2.2	258.5	0.535	1.687	2.024	3.78	NonLiqfble.
CPT-1	52.99	11	328.2	2.82	125	6624	3317	249.3	195.8	0.87	1.7	5.3	0.01	1.7	251.0	0.535	1.551	1.861	3.48	NonLiqfble.
CPT-1	53.05	11	320.9	2.54	125	6631	3321	243.6	191.2	0.80	1.6	5.0	0.00	0.0	243.6	0.535	1.425	1.710	3.19	NonLiqfble.
CPT-1	53.11	11	312.6	2.32	115	6108	2794	258.8	221.5	0.75	1.6	3.9	0.00	0.0	258.8	0.586	1.692	2.030	3.46	NonLiqfble.
CPT-1	53.16	11	303.8	2.21	115	6113	2796	251.4	215.0	0.73	1.6	3.9	0.00	0.0	251.4	0.586	1.557	1.869	3.19	NonLiqfble.
CPT-1	53.22	11	294.7	1.88	115	6120	2799	243.7	208.3	0.64	1.5	3.5	0.00	0.0	243.7	0.586	1.426	1.711	2.92	NonLiqfble.
CPT-1	53.27	11	287	1.88	115	6126	2802	237.2	202.6	0.66	1.6	3.7	0.00	0.0	237.2	0.586	1.322	1.586	2.71	NonLiqfble.
CPT-1	53.31	11	282.4	1.96	115	6131	2804	233.3	199.1	0.70	1.6	4.1	0.00	0.0	233.3	0.586	1.262	1.514	2.58	NonLiqfble.
CPT-1	53.35	11	282.1	2.07	115	6135	2806	233.0	198.8	0.74	1.6	4.4	0.00	0.0	233.0	0.586	1.256	1.508	2.57	NonLiqfble.
CPT-1	53.4	11	282.5	2.21	125	6675	3343	213.8	167.0	0.79	1.7	5.7	0.02	3.9	217.6	0.535	1.039	1.247	2.33	NonLiqfble.
CPT-1	53.44	11	284.7	2.24	125	6680	3345	215.4	168.1	0.80	1.7	5.7	0.02	3.8	219.2	0.535	1.059	1.271	2.37	NonLiqfble.
CPT-1	53.52	11	290.2	2.21	125	6690	3350	219.4	171.2	0.77	1.7	5.4	0.01	2.2	221.6	0.535	1.092	1.310	2.45	NonLiqfble.
CPT-1	53.59	11	295.4	2.01	115	6163	2819	243.4	207.3	0.69	1.6	3.8	0.00	0.0	243.4	0.586	1.422	1.706	2.91	NonLiqfble.
CPT-1	53.65	11	305.3	1.82	115	6170	2822	251.5	214.1	0.60	1.5	3.1	0.00	0.0	251.5	0.586	1.559	1.870	3.19	NonLiqfble.
CPT-1	53.7	11	311.7	1.72	115	6176	2825	256.6	218.4	0.56	1.5	2.7	0.00	0.0	256.6	0.586	1.651	1.982	3.38	NonLiqfble.
CPT-1	53.75	11	315.7	1.54	105	5644	2290	288.7	273.2	0.49	1.4	1.3	0.00	0.0	288.7	0.661	2.317	2.780	4.21	NonLiqfble.
CPT-1	53.8	11	308.5	1.41	105	5649	2292	282.0	266.6	0.46	1.4	1.1	0.00	0.0	282.0	0.661	2.165	2.597	3.93	NonLiqfble.
CPT-1	53.84	11	301.3	1.39	105	5653	2294	275.3	260.2	0.47	1.4	1.3	0.00	0.0	275.3	0.661	2.020	2.424	3.67	NonLiqfble.
CPT-1	53.87	11	295.7	1.39	105	5656	2295	270.1	255.1	0.47	1.4	1.4	0							

Project Name:	199 River Oaks Parkway
Project Number:	7862.3.001.01
Date:	20-Jul-07
CPT Number:	CPT-1
Depth to Groundwater:	11 ft

EQ Magnitude (M _w):	7.1
PGA (g):	0.55
MSF:	1.20

Cone	Depth (FT)	Water Table (FT)	Tip Resist. (TSF)	Sleeve Frict. (TSF)	γ (PCF)	Total Stress (PSF)	Effective Stress (PSF)	Norm. Tip Q _{IN}	Corr. Tip Q	Friction Ratio F	I _c	F.C. (%)	K _{CPT}	Δq _{IN}	(q _{IN}) ₀	Induced Stress Ratio	Liquef. Stress M7.5	Liquef. Stress M7.10	Factor of Safety	Comments
CPT-1	54.22	11	204.7	1.54	115	6235	2852	167.7	141.3	0.76	1.7	6.5	0.04	7.0	174.7	0.586	0.576	0.691	1.18	Low F.S.
CPT-1	54.26	11	193.4	1.53	115	6240	2854	158.4	133.3	0.80	1.8	7.2	0.06	9.7	168.1	0.586	0.522	0.626	1.07	Low F.S.
CPT-1	54.3	11	185.9	1.75	125	6788	3399	139.5	107.3	0.96	1.9	9.8	0.13	20.5	160.0	0.535	0.461	0.553	1.03	Low F.S.
CPT-1	54.35	11	180.9	2.23	135	7337	3946	126.0	89.8	1.26	2.0	13.2	0.22	35.5	161.5	0.499	0.472	0.566	1.14	Low F.S.
CPT-1	54.39	11	177	2.7	135	7343	3949	123.2	87.8	1.56	2.1	15.2	0.27	46.2	169.4	0.499	0.532	0.639	1.28	Low F.S.
CPT-1	54.43	11	173.7	2.69	135	7348	3952	120.9	86.0	1.58	2.1	15.5	0.28	47.3	168.2	0.499	0.523	0.627	1.26	Low F.S.
CPT-1	54.48	11	175.1	2.76	135	7355	3955	121.8	86.6	1.61	2.1	15.6	0.28	48.2	170.0	0.499	0.537	0.645	1.29	Low F.S.
CPT-1	54.51	11	186.9	2.8	135	7359	3957	130.0	92.6	1.53	2.1	14.6	0.25	44.5	174.5	0.499	0.574	0.689	1.38	NonLiqfble.
CPT-1	54.57	11	192.2	2.69	135	7367	3962	133.6	95.1	1.43	2.0	13.7	0.23	40.6	174.2	0.499	0.572	0.686	1.38	NonLiqfble.
CPT-1	54.61	11	198	2.79	135	7372	3965	137.6	98.0	1.44	2.0	13.5	0.23	40.5	178.1	0.499	0.605	0.726	1.46	NonLiqfble.
CPT-1	54.67	11	201.9	2.65	135	7380	3969	140.2	99.8	1.34	2.0	12.8	0.21	36.8	177.0	0.499	0.596	0.715	1.43	NonLiqfble.
CPT-1	54.74	11	210.3	2.39	125	6843	3427	157.2	120.7	1.16	1.9	10.2	0.14	25.1	182.3	0.535	0.643	0.772	1.44	NonLiqfble.
CPT-1	54.79	11	212.1	2.14	125	6849	3430	158.5	121.6	1.03	1.9	9.3	0.11	20.5	179.0	0.535	0.613	0.736	1.37	NonLiqfble.
CPT-1	54.85	11	218.6	1.65	115	6308	2885	178.1	149.3	0.77	1.7	6.2	0.03	5.7	183.8	0.586	0.657	0.789	1.35	NonLiqfble.
CPT-1	54.89	11	222.5	1.87	125	6861	3436	166.1	127.5	0.85	1.8	7.8	0.08	13.5	179.6	0.535	0.618	0.742	1.39	NonLiqfble.
CPT-1	54.92	11	230.9	1.84	125	6865	3438	172.3	132.3	0.81	1.8	7.2	0.06	11.0	183.3	0.535	0.653	0.783	1.46	NonLiqfble.
CPT-1	54.97	11	239.2	1.69	115	6322	2891	194.6	163.2	0.72	1.7	5.3	0.01	1.5	196.1	0.586	0.781	0.938	1.60	NonLiqfble.
CPT-1	55.01	11	244.8	1.55	115	6326	2894	199.1	166.9	0.64	1.6	4.6	0.00	0.0	199.1	0.586	0.814	0.977	1.67	NonLiqfble.
CPT-1	55.06	11	240.4	1.56	115	6332	2896	195.5	163.8	0.66	1.6	4.9	0.00	0.0	195.5	0.586	0.774	0.929	1.59	NonLiqfble.
CPT-1	55.1	11	232.8	1.6	115	6337	2898	189.2	158.4	0.70	1.7	5.3	0.01	1.6	190.8	0.586	0.726	0.872	1.49	NonLiqfble.
CPT-1	55.14	11	229.6	1.64	115	6341	2900	186.5	156.1	0.72	1.7	5.6	0.02	3.1	189.6	0.586	0.714	0.857	1.46	NonLiqfble.
CPT-1	55.18	11	212.3	1.85	125	6898	3454	158.0	120.9	0.89	1.8	8.4	0.09	15.8	173.9	0.535	0.569	0.683	1.28	Low F.S.
CPT-1	55.23	11	191.6	2.74	135	7456	4010	132.4	93.7	1.46	2.0	14.0	0.24	42.2	174.6	0.499	0.575	0.690	1.38	NonLiqfble.
CPT-1	55.31	11	174.6	3.39	135	7467	4016	120.6	85.1	1.98	2.2	17.8	0.34	62.2	182.8	0.499	0.648	0.778	1.56	NonLiqfble.
CPT-1	55.39	11	177.2	3.77	135	7478	4021	122.3	86.2	2.17	2.2	18.5	0.36	69.1	191.4	0.499	0.732	0.879	1.76	NonLiqfble.
CPT-1	55.47	11	166.8	3.76	135	7488	4027	115.0	80.9	2.31	2.2	19.8	0.40	75.1	190.1	0.499	0.719	0.863	1.73	NonLiqfble.
CPT-1	55.54	11	141.9	4.12	135	7498	4032	97.8	68.5	2.98	2.4	24.6	0.52	107.2	205.0	0.499	0.881	1.057	2.12	NonLiqfble.
CPT-1	55.61	11	154.4	4.03	135	7507	4037	106.3	74.6	2.68	2.3	22.3	0.46	91.5	197.8	0.499	0.800	0.960	1.92	NonLiqfble.
CPT-1	55.69	11	193.5	3.49	135	7518	4043	133.1	93.8	1.84	2.1	16.1	0.30	55.9	189.1	0.499	0.709	0.850	1.71	NonLiqfble.
CPT-1	55.76	11	220.2	3.15	135	7528	4048	151.4	106.9	1.46	2.0	12.9	0.21	40.3	191.8	0.499	0.736	0.883	1.77	NonLiqfble.
CPT-1	55.83	11	246.8	2.89	125	6979	3495	182.7	139.2	1.19	1.9	9.3	0.11	23.7	206.4	0.535	0.897	1.077	2.01	NonLiqfble.
CPT-1	55.9	11	274.1	2.74	125	6988	3499	202.7	154.6	1.01	1.8	7.5	0.07	14.8	217.5	0.535	1.037	1.245	2.32	NonLiqfble.
CPT-1	55.97	11	295.2	2.32	125	6996	3504	218.2	166.4	0.80	1.7	5.7	0.02	4.2	222.4	0.535	1.103	1.324	2.47	NonLiqfble.
CPT-1	56.04	11	311.7	2.4	125	7005	3508	230.3	175.6	0.78	1.7	5.3	0.01	1.8	232.0	0.535	1.242	1.490	2.78	NonLiqfble.
CPT-1	56.11	11	319.2	2.85	125	7014	3512	235.7	179.7	0.90	1.7	5.9	0.03	6.1	241.8	0.535	1.394	1.673	3.13	NonLiqfble.
CPT-1	56.18	11	336	3.78	125	7023	3517	247.9	189.0	1.14	1.7	7.0	0.05	14.2	262.1	0.535	1.754	2.105	3.93	NonLiqfble.
CPT-1	56.25	11	361.8	3.56	125	7031	3521	266.8	203.4	0.99	1.7	5.8	0.02	5.8	272.5	0.535	1.963	2.355	4.40	NonLiqfble.
CPT-1	56.32	11	392.8	3.46	125	7040	3526	289.4	220.7	0.89	1.6	4.7	0.00	0.0	289.4	0.535	2.335	2.802	5.23	NonLiqfble.
CPT-1	56.38	11	399.2	3.67	125	7048	3529	294.0	224.1	0.93	1.6	4.9	0.00	0.0	294.0	0.535	2.443	2.932	5.48	NonLiqfble.
CPT-1	56.45	11	401.1	3.77	125	7056	3534	295.2	224.9	0.95	1.6	5.0	0.00	0.0	295.2	0.535	2.473	2.968	5.54	NonLiqfble.
CPT-1	56.52	11	420.7	3.78	125	7065	3538	309.5	235.7	0.91	1.6	4.5	0.00	0.0	309.5	0.535	2.836	3.403	6.36	NonLiqfble.
CPT-1	56.58	11	436.7	3.58	125	7073	3542	321.1	244.5	0.83	1.6	3.9	0.00	0.0	321.1	0.535	3.158	3.789	7.08	NonLiqfble.
CPT-1	56.64	11	427.9	3.36	125	7080	3546	314.4	239.3	0.79	1.6	3.8	0.00	0.0	314.4	0.535	2.971	3.565	6.66	NonLiqfble.
CPT-1	56.71	11	419.6	3.27	125	7089	3550	308.1	234.3	0.79	1.6	3.8	0.00	0.0	308.1	0.535	2.801	3.361	6.28	NonLiqfble.
CPT-1	56.77	11	397.4	3.39	125	7096	3554	291.7	221.6	0.86	1.6	4.6	0.00	0.0	291.7	0.535	2.388	2.865	5.35	NonLiqfble.
CPT-1	56.84	11	375.3	3.36	125	7105	3558	275.3	208.9	0.90	1.6	5.1	0.00	0.0	275.3	0.535	2.039	2.447	4.57	NonLiqfble.
CPT-1	56.91	11	370.5	3.63	125	7114	3563	271.6	205.9	0.99	1.7	5.7	0.02	5.2	276.8	0.535	2.052	2.462	4.60	NonLiqfble.
CPT-1	56.97	11	376.5	2.99	125	7121	3566	275.8	209.1	0.80	1.6	4.5	0.00	0.0	275.8	0.535	2.032	2.438	4.55	NonLiqfble.
CPT-1	57.03	11	394.7	2.6	115	6558	3000	315.3	260.9	0.66	1.5	2.6	0.00	0.0	315.3	0.586	2.995	3.594	6.13	NonLiqfble.
CPT-1	57.09	11	400.4	2.36	115	6565	3003	319.7	264.4	0.59	1.4	2.1	0.00	0.0	319.7	0.586	3.119	3.743	6.38	NonLiqfble.
CPT-1	57.15	11	406.9	2.12	115	6572	3006	324.7	268.4	0.53	1.4	1.6	0.00	0.0	324.7	0.586	3.264	3.917	6.68	NonLiqfble.
CPT-1	57.2	11	399.9	2.47	115	6578	3009	319.0	263.5	0.62	1.5	2.3	0.00	0.0	319.0	0.586	3.099	3.718	6.34	NonLiqfble.
CPT-1	57.24	11	404	3.07	125	7155	3583	295.3	223.4	0.77	1.6	3.9	0.00	0.0	295.3	0.535	2.475	2.970	5.55	NonLiqfble.
CPT-1	57.28	11	399	3.17	125	7160	3586	291.5	220.5	0.80	1.6	4.2	0.00	0.0	291.5	0.535	2.385	2.861	5.34	NonLiqfble.
CPT-1	57.31	11	404.1	3.81	125	7164	3588	295.2	223.2	0.95	1.6	5.1	0.00	0.0	295.6	0.535	2.483	2.979	5.56	NonLiqfble.
CPT-1	57.35	11	413.5	4.38	125	7169	3590	302.0	228.3	1.07	1.7	5.6	0.02	4.9	306.9	0.535	2.767	3.321	6.20	NonLiqfble.
CPT-1	57.39	11	401.1	4.13	125	7174	3593	292.8	221.2	1.04	1.7	5.6	0.02	4.8	297.6	0.535	2.530	3.036	5.67	NonLiqfble.
CPT-1	57.42	11	395.3	3.79	125	7178	3594	288.5	217.9	0.97	1.7	5.3	0.01	2.1	290.6	0.535	2.363	2.835	5.30	NonLiqfble.
CPT-1	57.45	11	396.7	3.82	125	7181	3596	289.4	218.5	0.97	1.7	5.3	0.01	2.2	291.6	0.535	2.387	2.864	5.35	NonLiqfble.
CPT-1	57.5	11	404.4	3.65	125	7188	3600	294.9	222.6	0.91	1.6	4.8	0.00	0.0	294.9	0.535	2.466	2.959	5.53	NonLiqfble.
CPT-1	57.57	11	416.9</																	

Project Name: 199 River Oaks Parkway
Project Number: 7862.3.001.01
Date: 20-Jul-07
CPT Number: CPT-1
Depth to Groundwater: 11 ft

EQ Magnitude (M_w): 7.1
PGA (g): 0.55
MSF: 1.20

Cone	Depth (FT)	Water Table (FT)	Tip Resist. (TSF)	Sleeve Frict. (TSF)	γ (PCF)	Total Stress (PSF)	Effective Stress (PSF)	Norm. Tip Q _{tn}	Corr. Tip Q	Friction Ratio F	Ic	F.C. (%)	K _{CPT}	Δq _{tn}	(q _{tn}) _s	Induced Stress Ratio	Liquef. Stress M7.5	Liquef. Stress M7.10	Factor of Safety	Comments
CPT-1	57.97	11	345	1.98	115	6667	3049	273.4	224.0	0.58	1.5	2.7	0.00	0.0	273.4	0.586	1.980	2.376	4.05	NonLiqfble.
CPT-1	58.01	11	347.9	1.79	115	6671	3051	275.6	225.8	0.52	1.5	2.2	0.00	0.0	275.6	0.586	2.026	2.431	4.15	NonLiqfble.
CPT-1	58.05	11	345.6	2.48	115	6676	3053	273.7	224.1	0.72	1.6	3.7	0.00	0.0	273.7	0.586	1.986	2.383	4.07	NonLiqfble.
CPT-1	58.1	11	353.9	2.59	115	6682	3056	280.1	229.3	0.74	1.6	3.6	0.00	0.0	280.1	0.586	2.124	2.549	4.35	NonLiqfble.
CPT-1	58.15	11	349.9	2.47	115	6687	3059	278.8	226.5	0.71	1.5	3.5	0.00	0.0	278.8	0.586	2.053	2.463	4.20	NonLiqfble.
CPT-1	58.2	11	349	2.2	115	6693	3061	276.0	225.7	0.64	1.5	3.0	0.00	0.0	276.0	0.586	2.035	2.442	4.17	NonLiqfble.
CPT-1	58.23	11	343	1.99	115	6696	3063	271.2	221.7	0.59	1.5	2.8	0.00	0.0	271.2	0.586	1.934	2.321	3.96	NonLiqfble.
CPT-1	58.29	11	228.4	1.81	125	7286	3649	165.4	123.1	0.81	1.8	7.7	0.07	12.9	178.4	0.535	0.608	0.729	1.36	NonLiqfble.
CPT-1	58.34	11	351.3	1.67	105	6126	2485	308.3	280.1	0.48	1.4	1.1	0.00	0.0	308.3	0.661	2.806	3.367	5.09	NonLiqfble.
CPT-1	58.39	11	346.5	1.31	105	6131	2487	304.0	276.0	0.38	1.3	0.4	0.00	0.0	304.0	0.661	2.692	3.231	4.89	NonLiqfble.
CPT-1	58.45	11	317.2	1.81	115	6722	3074	250.3	204.1	0.58	1.5	3.1	0.00	0.0	250.3	0.586	1.538	1.846	3.15	NonLiqfble.
CPT-1	58.5	11	298.1	1.73	115	6728	3077	235.1	191.5	0.59	1.5	3.5	0.00	0.0	235.1	0.586	1.289	1.547	2.64	NonLiqfble.
CPT-1	58.55	11	285.6	1.45	105	6148	2494	250.2	226.4	0.51	1.5	2.2	0.00	0.0	250.2	0.661	1.537	1.844	2.79	NonLiqfble.
CPT-1	58.59	11	273.8	1.37	105	6152	2496	239.8	216.8	0.51	1.5	2.3	0.00	0.0	239.8	0.661	1.362	1.635	2.47	NonLiqfble.
CPT-1	58.62	11	265.8	1.36	115	6741	3083	209.4	170.1	0.52	1.6	3.6	0.00	0.0	209.4	0.586	0.934	1.121	1.91	NonLiqfble.
CPT-1	58.67	11	197.5	1.19	115	6747	3086	155.6	125.8	0.61	1.7	6.1	0.03	4.9	160.4	0.586	0.464	0.557	0.95	Liquefaction
CPT-1	58.73	11	241.8	0.82	95	5579	1915	241.8	249.6	0.34	1.3	0.5	0.00	0.0	241.8	0.781	1.395	1.673	2.14	NonLiqfble.
CPT-1	58.79	11	235.9	0.58	95	5585	1917	235.8	243.2	0.25	1.2	-0.1	0.00	0.0	235.8	0.781	1.299	1.559	1.99	NonLiqfble.
CPT-1	58.85	11	221.5	0.53	95	5591	1919	221.3	227.9	0.24	1.3	0.1	0.00	0.0	221.3	0.781	1.087	1.305	1.67	NonLiqfble.
CPT-1	58.91	11	187.6	0.51	95	5596	1920	187.3	192.4	0.28	1.4	1.0	0.00	0.0	187.3	0.781	0.691	0.829	1.06	Low F.S.
CPT-1	58.97	11	154	0.46	95	5602	1922	153.7	157.2	0.30	1.5	2.2	0.00	0.0	153.7	0.781	0.418	0.501	0.64	Liquefaction
CPT-1	59.05	11	108.8	0.89	115	6791	3106	85.4	67.8	0.84	2.0	12.9	0.21	23.0	108.4	0.586	0.198	0.238	0.41	Liquefaction
CPT-1	59.13	11	83.5	1.33	135	7983	4293	55.8	37.0	1.67	2.4	25.9	0.56	70.4	126.1	0.499	0.267	0.320	0.64	Liquefaction
CPT-1	59.2	11	63.9	1.55	135	7992	4298	42.6	27.9	2.59	2.6	35.4	0.80	170.6	213.2	0.499	0.982	1.178	2.36	NonLiqfble.
CPT-1	59.28	11	47.3	1.52	135	8003	4304	31.5	20.1	3.51	2.8	45.7	0.80	126.2	157.7	0.499	0.445	0.534	1.07	NonLiqfble.
CPT-1	59.35	11	31.9	1.5	135	8012	4309	21.3	12.9	5.38	3.1	62.6	0.80	85.1	106.3	0.499	0.192	0.230	0.46	NonLiqfble.
CPT-1	59.43	11	25.6	1.54	135	8023	4315	17.1	10.0	7.13	3.2	74.9	0.80	68.2	85.3	0.499	0.138	0.165	0.33	NonLiqfble.
CPT-1	59.5	11	24.9	1.36	135	8033	4320	16.6	9.7	6.51	3.2	73.9	0.80	66.3	82.9	0.499	0.133	0.160	0.32	NonLiqfble.
CPT-1	59.58	11	24.8	1.16	135	8043	4326	16.5	9.6	5.58	3.2	70.8	0.80	66.0	82.5	0.499	0.132	0.159	0.32	NonLiqfble.
CPT-1	59.65	11	27.6	1.03	135	8053	4331	18.4	10.9	4.37	3.1	62.8	0.80	73.4	91.8	0.499	0.152	0.182	0.37	NonLiqfble.
CPT-1	59.73	11	29.8	1.21	135	8064	4336	19.8	11.9	4.70	3.1	62.1	0.80	79.2	99.0	0.499	0.170	0.204	0.41	NonLiqfble.
CPT-1	59.8	11	35	1.31	135	8073	4341	23.2	14.3	4.23	3.0	56.0	0.80	93.0	116.2	0.499	0.226	0.271	0.54	NonLiqfble.
CPT-1	59.87	11	32.1	1.43	135	8082	4347	21.3	12.9	5.10	3.0	61.7	0.80	85.2	106.5	0.499	0.192	0.231	0.46	NonLiqfble.
CPT-1	59.94	11	29.4	1.48	135	8092	4352	19.5	11.6	5.84	3.1	66.8	0.80	78.0	97.5	0.499	0.166	0.199	0.40	NonLiqfble.
CPT-1	60.02	11	27.5	1.56	135	8103	4357	18.2	10.8	6.65	3.2	71.5	0.80	72.9	91.1	0.439	0.150	0.180	0.41	NonLiqfble.
CPT-1	60.1	11	27.1	1.7	135	8114	4363	18.0	10.6	7.38	3.2	74.3	0.80	71.8	89.8	0.439	0.147	0.177	0.40	NonLiqfble.
CPT-1	60.18	11	77.4	1.77	135	8124	4369	51.2	33.6	2.41	2.5	31.6	0.71	125.0	176.3	0.439	0.589	0.707	1.61	NonLiqfble.
CPT-1	60.26	11	150.7	1.89	135	8135	4375	99.7	67.0	1.29	2.1	16.3	0.30	42.8	142.5	0.439	0.349	0.419	0.96	Liquefaction
CPT-1	60.34	11	192	2.08	125	7543	3777	136.7	99.6	1.11	1.9	11.4	0.17	28.0	164.7	0.471	0.495	0.595	1.26	Low F.S.
CPT-1	60.42	11	221.2	2.15	125	7553	3782	157.4	114.9	0.99	1.9	9.5	0.12	21.4	178.7	0.471	0.611	0.733	1.56	NonLiqfble.
CPT-1	60.5	11	252.1	2.01	125	7563	3787	179.2	131.1	0.81	1.8	7.3	0.06	11.8	191.0	0.471	0.728	0.874	1.86	NonLiqfble.
CPT-1	60.59	11	296.7	1.97	115	6968	3187	230.0	183.9	0.67	1.6	4.3	0.00	0.0	230.0	0.516	1.211	1.453	2.82	NonLiqfble.
CPT-1	60.67	11	328.7	2.23	115	6977	3191	254.6	203.7	0.69	1.6	3.9	0.00	0.0	254.6	0.516	1.615	1.938	3.76	NonLiqfble.
CPT-1	60.75	11	339.5	2.19	115	6986	3195	262.8	210.2	0.65	1.5	3.5	0.00	0.0	262.8	0.516	1.768	2.121	4.11	NonLiqfble.
CPT-1	60.85	11	343	2.21	115	6998	3201	265.3	212.1	0.65	1.5	3.4	0.00	0.0	265.3	0.516	1.816	2.179	4.22	NonLiqfble.
CPT-1	60.93	11	314	2.49	125	7616	3814	222.5	162.6	0.80	1.7	5.9	0.02	5.4	227.9	0.471	1.181	1.417	3.01	NonLiqfble.
CPT-1	61.02	11	322.6	2.8	125	7628	3820	228.4	166.8	0.88	1.7	6.2	0.03	7.8	236.2	0.471	1.305	1.566	3.32	NonLiqfble.
CPT-1	61.11	11	341.3	2.71	125	7639	3825	241.4	176.4	0.80	1.7	5.4	0.01	2.7	244.2	0.471	1.434	1.721	3.65	NonLiqfble.
CPT-1	61.2	11	380.9	2.68	115	7038	3219	293.7	234.4	0.71	1.5	3.4	0.00	0.0	293.7	0.516	2.437	2.924	5.67	NonLiqfble.
CPT-1	61.29	11	401.3	2.73	115	7048	3224	309.2	246.7	0.69	1.5	3.0	0.00	0.0	309.2	0.516	2.830	3.396	6.58	NonLiqfble.
CPT-1	61.38	11	408.7	2.84	115	7059	3229	314.7	250.9	0.70	1.5	3.0	0.00	0.0	314.7	0.516	2.979	3.575	6.93	NonLiqfble.
CPT-1	61.46	11	417.2	2.95	115	7068	3233	321.0	255.8	0.71	1.5	3.0	0.00	0.0	321.0	0.516	3.157	3.789	7.35	NonLiqfble.
CPT-1	61.55	11	426.3	2.92	115	7078	3238	327.8	261.1	0.69	1.5	2.7	0.00	0.0	327.8	0.516	3.356	4.027	7.81	NonLiqfble.
CPT-1	61.64	11	410.7	3.09	125	7705	3859	289.3	210.8	0.76	1.6	4.2	0.00	0.0	289.3	0.471	2.331	2.798	5.94	NonLiqfble.
CPT-1	61.72	11	396	3.13	125	7715	3864	278.7	202.9	0.80	1.6	4.6	0.00	0.0	278.7	0.471	2.094	2.513	5.33	NonLiqfble.
CPT-1	61.81	11	391.9	3.12	125	7726	3869	275.7	200.5	0.80	1.6	4.7	0.00	0.0	275.7	0.471	2.028	2.434	5.17	NonLiqfble.
CPT-1	61.91	11	380.6	2.91	125	7739	3876	267.5	194.3	0.77	1.6	4.7	0.00	0.0	267.5	0.471	1.860	2.232	4.74	NonLiqfble.
CPT-1	61.99	11	373.1	2.65	115	7129	3261	285.9	226.6	0.72	1.5	3.6	0.00	0.0	285.9	0.516	2.253	2.704	5.24	NonLiqfble.
CPT-1	62.07	11	373.2	2.58	115	7138	3265	285.8	226.3	0.70	1.5	3.4	0.00	0.0	285.8	0.516	2.250	2.701	5.24	NonLiqfble.
CPT-1	62.14	11	372.8	2.53	115	7146	3269	285.3	225.8	0.69	1.5	3.4	0.00	0.0	285.3	0.516	2.240	2.688	5.21	NonLiqfble.
CPT-1	62.22	11	370.4	2.41	115	7155	3273	283.3	224.1	0.66	1.5	3.2	0.00	0.0	283.3	0.516	2.194	2.633	5.10	NonLiqfble.

Project Name: 199 River Oaks Parkway
Project Number: 7862.3.001.01
Date: 20-Jul-07
CPT Number: CPT-1
Depth to Groundwater: 11 ft

EQ Magnitude (M_w): 7.1
PGA (g): 0.55
MSF: 1.20

Cone	Depth (FT)	Water Table (FT)	Tip Resist. (TSF)	Sleeve Frict. (TSF)	γ (PCF)	Total Stress (PSF)	Effective Stress (PSF)	Norm. Tip Q _{IN}	Corr. Tip Q	Friction Ratio F	I _c	F.C. (%)	K _{CPT}	Δq _{IN}	(q _{IN}) _{cs}	Induced Stress Ratio	Liquef. Stress M7.5	Liquef. Stress M7.10	Factor of Safety	Comments
CPT-1	62.76	11	316.3	1.92	115	7217	3301	240.9	189.4	0.61	1.6	3.8	0.00	0.0	240.9	0.516	1.380	1.656	3.21	NonLiqfble.
CPT-1	62.81	11	314.4	1.63	115	7223	3304	239.3	188.1	0.52	1.5	3.1	0.00	0.0	239.3	0.516	1.355	1.626	3.15	NonLiqfble.
CPT-1	62.85	11	313.1	1.52	105	6599	2677	264.8	231.3	0.49	1.4	1.9	0.00	0.0	264.8	0.582	1.806	2.167	3.73	NonLiqfble.
CPT-1	62.92	11	316.9	1.07	95	5977	2051	306.2	305.9	0.34	1.2	-0.2	0.00	0.0	306.2	0.688	2.749	3.298	4.80	NonLiqfble.
CPT-1	62.97	11	312	1.33	105	6612	2683	263.6	230.1	0.43	1.4	1.5	0.00	0.0	263.6	0.582	1.783	2.139	3.68	NonLiqfble.
CPT-1	63.05	11	315.2	1.8	115	7251	3316	239.5	187.8	0.58	1.5	3.5	0.00	0.0	239.5	0.516	1.357	1.629	3.16	NonLiqfble.
CPT-1	63.13	11	330.2	1.71	115	7260	3321	250.7	196.6	0.52	1.5	2.9	0.00	0.0	250.7	0.516	1.546	1.855	3.60	NonLiqfble.
CPT-1	63.19	11	342.9	1.63	105	6635	2692	289.2	252.2	0.48	1.4	1.5	0.00	0.0	289.2	0.582	2.329	2.795	4.81	NonLiqfble.
CPT-1	63.22	11	347.7	1.48	105	6638	2693	293.1	255.6	0.43	1.4	1.1	0.00	0.0	293.1	0.582	2.423	2.907	5.00	NonLiqfble.
CPT-1	63.28	11	352.6	1.55	105	6644	2696	297.1	259.0	0.44	1.4	1.1	0.00	0.0	297.1	0.582	2.520	3.024	5.20	NonLiqfble.
CPT-1	63.32	11	352.2	1.59	105	6649	2697	296.7	258.6	0.46	1.4	1.2	0.00	0.0	296.7	0.582	2.509	3.011	5.18	NonLiqfble.
CPT-1	63.36	11	348.8	1.71	105	6653	2699	293.8	255.9	0.49	1.4	1.5	0.00	0.0	293.8	0.582	2.437	2.925	5.03	NonLiqfble.
CPT-1	63.39	11	347.3	1.99	115	7290	3334	263.2	206.0	0.58	1.5	3.1	0.00	0.0	263.2	0.516	1.775	2.130	4.13	NonLiqfble.
CPT-1	63.42	11	339	2.25	115	7293	3336	256.8	201.0	0.67	1.6	3.8	0.00	0.0	256.8	0.516	1.655	1.986	3.85	NonLiqfble.
CPT-1	63.45	11	355.3	2.48	115	7297	3337	269.1	210.6	0.71	1.6	3.8	0.00	0.0	269.1	0.516	1.892	2.271	4.40	NonLiqfble.
CPT-1	63.49	11	366.8	2.74	125	7936	3974	254.6	182.5	0.76	1.6	4.9	0.00	0.0	254.6	0.471	1.614	1.937	4.11	NonLiqfble.
CPT-1	63.53	11	366.4	2.77	125	7941	3977	254.2	182.2	0.76	1.6	5.0	0.00	0.0	254.2	0.471	1.608	1.929	4.10	NonLiqfble.
CPT-1	63.62	11	363.7	2.65	115	7316	3346	275.1	215.1	0.74	1.6	3.9	0.00	0.0	275.1	0.516	2.016	2.419	4.69	NonLiqfble.
CPT-1	63.7	11	354.1	2.5	115	7326	3351	267.7	209.1	0.71	1.6	3.9	0.00	0.0	267.7	0.516	1.863	2.236	4.33	NonLiqfble.
CPT-1	63.78	11	342.3	2.25	115	7335	3355	258.6	201.8	0.66	1.6	3.8	0.00	0.0	258.6	0.516	1.688	2.025	3.93	NonLiqfble.
CPT-1	63.86	11	336.5	1.82	115	7344	3359	254.0	198.1	0.55	1.5	3.0	0.00	0.0	254.0	0.516	1.605	1.926	3.73	NonLiqfble.
CPT-1	63.94	11	334.9	1.64	105	6714	2724	280.8	243.3	0.49	1.4	1.7	0.00	0.0	280.8	0.582	2.138	2.566	4.41	NonLiqfble.
CPT-1	64.02	11	312.6	1.55	105	6722	2727	261.9	226.7	0.50	1.4	2.1	0.00	0.0	261.9	0.582	1.752	2.101	3.61	NonLiqfble.
CPT-1	64.1	11	287	1.49	115	7372	3372	216.3	168.0	0.53	1.6	3.7	0.00	0.0	216.3	0.516	1.021	1.225	2.37	NonLiqfble.
CPT-1	64.18	11	266.2	1.32	105	6739	2734	222.8	192.2	0.50	1.5	2.9	0.00	0.0	222.8	0.582	1.108	1.329	2.29	NonLiqfble.
CPT-1	64.26	11	248	1.13	105	6747	2737	207.4	178.6	0.46	1.5	2.9	0.00	0.0	207.4	0.582	1.010	1.092	1.88	NonLiqfble.
CPT-1	64.34	11	231.9	1.03	105	6756	2741	193.8	166.7	0.45	1.5	3.2	0.00	0.0	193.8	0.582	0.757	0.908	1.56	NonLiqfble.
CPT-1	64.42	11	215.2	0.97	105	6764	2744	179.7	154.3	0.46	1.6	3.6	0.00	0.0	179.7	0.582	0.620	0.744	1.28	Low F.S.
CPT-1	64.5	11	198.2	0.93	105	6773	2748	165.4	141.7	0.48	1.6	4.3	0.00	0.0	165.4	0.582	0.501	0.601	1.03	Low F.S.
CPT-1	64.57	11	183.5	1.4	115	7426	3396	137.8	105.8	0.78	1.8	8.6	0.10	14.8	152.5	0.516	0.410	0.492	0.95	Liquefaction
CPT-1	64.65	11	173.6	1.76	125	8081	4047	119.4	83.8	1.04	2.0	12.4	0.20	29.5	148.9	0.471	0.387	0.464	0.99	Liquefaction
CPT-1	64.73	11	167.8	2.25	135	8739	4699	107.1	69.5	1.38	2.1	16.4	0.31	47.1	154.2	0.439	0.421	0.505	1.15	Low F.S.
CPT-1	64.81	11	124.6	2.5	135	8749	4705	79.5	51.1	2.05	2.3	24.0	0.51	81.6	161.1	0.439	0.469	0.563	1.28	Low F.S.
CPT-1	64.89	11	56	2.35	135	8760	4711	35.7	21.9	4.88	2.8	48.3	0.80	142.8	178.5	0.439	0.609	0.731	1.67	NonLiqfble.
CPT-1	64.97	11	32	2.01	135	8771	4717	20.4	11.7	7.28	3.2	71.3	0.80	81.5	101.9	0.439	0.178	0.214	0.49	NonLiqfble.
CPT-1	65.05	11	23.1	1.63	135	8782	4723	14.7	7.9	8.71	3.4	86.0	0.80	58.8	73.5	0.439	0.117	0.140	0.32	NonLiqfble.
CPT-1	65.14	11	20.1	1.48	135	8794	4729	12.8	6.6	9.43	3.4	93.2	0.80	51.2	63.9	0.439	0.104	0.125	0.29	NonLiqfble.
CPT-1	65.23	11	26.3	1.31	135	8806	4736	16.7	9.2	5.98	3.2	73.2	0.80	66.9	83.6	0.439	0.134	0.161	0.37	NonLiqfble.
CPT-1	65.32	11	25.6	1.32	135	8818	4742	16.3	8.9	6.23	3.2	75.0	0.80	65.1	81.3	0.439	0.130	0.156	0.36	NonLiqfble.
CPT-1	65.42	11	25.8	1.47	135	8832	4749	16.4	9.0	6.87	3.2	76.9	0.80	65.5	81.9	0.439	0.131	0.157	0.36	NonLiqfble.
CPT-1	65.5	11	25	1.7	135	8843	4755	15.9	8.7	8.26	3.3	82.2	0.80	63.4	79.3	0.439	0.126	0.152	0.35	NonLiqfble.
CPT-1	65.58	11	27.6	1.83	135	8853	4761	17.5	9.7	7.90	3.3	78.0	0.80	70.0	87.5	0.439	0.142	0.171	0.39	NonLiqfble.
CPT-1	65.66	11	58.5	1.69	135	8864	4767	37.1	22.7	3.13	2.7	41.7	0.80	148.3	185.4	0.439	0.672	0.807	1.84	NonLiqfble.
CPT-1	65.74	11	128.8	1.49	125	8218	4115	87.8	60.6	1.19	2.1	16.7	0.31	39.9	127.7	0.471	0.274	0.328	0.70	Liquefaction
CPT-1	65.8	11	182.1	1.35	115	7567	3461	135.4	103.0	0.76	1.8	8.7	0.10	14.7	150.1	0.516	0.395	0.474	0.92	Liquefaction
CPT-1	65.87	11	217	1.44	115	7575	3465	161.3	123.0	0.68	1.7	6.8	0.05	8.0	169.3	0.516	0.531	0.637	1.24	Low F.S.
CPT-1	65.91	11	237.2	1.51	115	7580	3467	176.3	134.6	0.65	1.7	6.0	0.03	4.6	180.9	0.516	0.630	0.757	1.47	NonLiqfble.
CPT-1	65.95	11	250.7	1.77	115	7584	3469	186.2	142.3	0.72	1.7	6.1	0.03	5.7	192.0	0.516	0.738	0.886	1.72	NonLiqfble.
CPT-1	65.99	11	260.4	1.86	115	7589	3471	193.4	147.8	0.72	1.7	5.9	0.03	5.0	198.4	0.516	0.806	0.967	1.87	NonLiqfble.
CPT-1	66.1	11	273.9	1.49	115	7602	3477	203.2	155.3	0.55	1.6	4.4	0.00	0.0	203.2	0.516	0.861	1.033	2.00	NonLiqfble.
CPT-1	66.19	11	286.4	1.96	115	7612	3482	212.4	162.3	0.69	1.6	5.2	0.00	0.9	213.3	0.516	0.982	1.179	2.28	NonLiqfble.
CPT-1	66.27	11	283.3	2.64	125	8284	4149	192.4	134.5	0.95	1.8	8.1	0.08	17.1	209.5	0.471	0.936	1.123	2.38	NonLiqfble.
CPT-1	66.35	11	294	3.04	125	8294	4154	199.6	139.5	1.05	1.8	8.5	0.09	20.3	219.9	0.471	1.069	1.282	2.72	NonLiqfble.
CPT-1	66.43	11	334.8	3.77	125	8304	4159	227.2	159.0	1.14	1.8	8.1	0.08	20.7	247.8	0.471	1.496	1.795	3.81	NonLiqfble.
CPT-1	66.51	11	374.2	4.55	135	8979	4829	235.6	153.1	1.23	1.8	8.9	0.10	27.3	262.9	0.439	1.770	2.124	4.84	NonLiqfble.
CPT-1	66.59	11	414.9	4.55	125	8324	4169	281.2	197.0	1.11	1.7	6.6	0.04	12.7	293.9	0.471	2.441	2.929	6.22	NonLiqfble.
CPT-1	66.67	11	449.6	5.27	135	9000	4840	282.8	183.8	1.18	1.8	7.5	0.07	19.8	302.6	0.439	2.656	3.188	7.27	NonLiqfble.
CPT-1	66.75	11	459.6	5.69	135	9011	4846	288.9	187.7	1.25	1.8	7.7	0.07	22.3	311.2	0.439	2.882	3.459	7.88	NonLiqfble.
CPT-1	66.83	11	459.6	5.62	135	9022	4852	288.7	187.5	1.23	1.8	7.6	0.07	21.6	310.3	0.439	2.859	3.431	7.82	NonLiqfble.
CPT-1	66.9	11	447	5.45	135	9032	4857	280.6	182.1	1.23	1.8	7.8	0.07	22.4	303.1	0.439	2.669	3.202	7.30	NonLiqfble.
CPT-1	66.98	11	438.2	5.15	135	9042	4863	274.9	178.3	1.19	1.8	7.7	0.07	21.0	296.0	0.439	2.491	2.990	6	

Project Name:	199 River Oaks Parkway
Project Number:	7862.3.001.01
Date:	20-Jul-07
CPT Number:	CPT-1
Depth to Groundwater:	11 ft

EQ Magnitude (M _w):	7.1
PGA (g):	0.55
MSF:	1.20

Cone	Depth (FT)	Water Table (FT)	Tip Resist. (TSF)	Sleeve Frict. (TSF)	γ (PCF)	Total Stress (PSF)	Effective Stress (PSF)	Norm. Tip Q _{tip}	Corr. Tip Q	Friction Ratio F	Ic	F.C. (%)	K _{CPT}	Δq _{tip}	(q _{tip}) _α	Induced Stress Ratio	Liquef. Stress M7.5	Liquef. Stress M7.10	Factor of Safety	Comments
CPT-1	67.49	11	417	3.17	125	8436	4225	280.7	195.3	0.77	1.6	4.6	0.00	0.0	280.7	0.471	2.137	2.564	5.44	NonLiqfble.
CPT-1	67.54	11	413.3	2.94	115	7767	3553	303.4	230.4	0.72	1.5	3.5	0.00	0.0	303.4	0.516	2.677	3.213	6.23	NonLiqfble.
CPT-1	67.58	11	407.8	2.65	115	7772	3555	299.3	227.2	0.66	1.5	3.1	0.00	0.0	299.3	0.516	2.573	3.087	5.98	NonLiqfble.
CPT-1	67.62	11	391.9	2.65	115	7776	3557	287.5	218.1	0.68	1.5	3.5	0.00	0.0	287.5	0.516	2.290	2.748	5.33	NonLiqfble.
CPT-1	67.65	11	375.1	2.54	115	7780	3558	275.1	208.6	0.68	1.6	3.7	0.00	0.0	275.1	0.516	2.017	2.420	4.69	NonLiqfble.
CPT-1	67.69	11	373	2.45	115	7784	3560	273.5	207.2	0.66	1.6	3.6	0.00	0.0	273.5	0.516	1.983	2.379	4.61	NonLiqfble.
CPT-1	67.72	11	273.8	2.47	125	8465	4239	184.0	127.1	0.92	1.8	8.3	0.09	17.5	201.5	0.471	0.841	1.009	2.14	NonLiqfble.
CPT-1	67.79	11	392.8	2.44	115	7796	3566	287.8	218.0	0.63	1.5	3.1	0.00	0.0	287.8	0.516	2.297	2.757	5.34	NonLiqfble.
CPT-1	67.83	11	373.1	2.42	115	7800	3568	273.3	206.9	0.66	1.6	3.6	0.00	0.0	273.3	0.516	1.978	2.374	4.60	NonLiqfble.
CPT-1	67.87	11	308.5	2.4	125	8484	4249	207.1	143.2	0.79	1.7	6.6	0.04	9.2	216.3	0.471	1.021	1.225	2.60	NonLiqfble.
CPT-1	67.93	11	382.5	2.24	115	7812	3573	280.0	211.8	0.59	1.5	3.0	0.00	0.0	280.0	0.516	2.121	2.545	4.93	NonLiqfble.
CPT-1	67.96	11	369.3	2.22	115	7815	3575	270.3	204.3	0.61	1.5	3.3	0.00	0.0	270.3	0.516	1.916	2.299	4.46	NonLiqfble.
CPT-1	68.02	11	384	2.34	115	7822	3578	280.9	212.4	0.62	1.5	3.2	0.00	0.0	280.9	0.516	2.141	2.569	4.98	NonLiqfble.
CPT-1	68.19	11	352	1.97	115	7842	3587	257.2	194.0	0.57	1.5	3.3	0.00	0.0	257.2	0.516	1.662	1.994	3.87	NonLiqfble.
CPT-1	68.23	11	354.3	1.95	115	7846	3589	258.8	195.2	0.56	1.5	3.2	0.00	0.0	258.8	0.516	1.691	2.030	3.93	NonLiqfble.
CPT-1	68.26	11	358.7	2.92	125	8533	4273	240.1	165.8	0.82	1.7	5.9	0.02	6.0	246.1	0.471	1.466	1.760	3.74	NonLiqfble.
CPT-1	68.31	11	364.9	2.72	125	8539	4276	244.2	168.6	0.75	1.7	5.4	0.01	2.3	246.5	0.471	1.473	1.767	3.75	NonLiqfble.
CPT-1	68.34	11	336.9	2.37	115	7859	3595	245.9	185.2	0.71	1.6	4.5	0.00	0.0	245.9	0.516	1.462	1.755	3.40	NonLiqfble.
CPT-1	68.39	11	342.1	2.87	125	8549	4281	228.8	157.8	0.85	1.7	6.4	0.04	8.8	237.6	0.471	1.327	1.592	3.38	NonLiqfble.
CPT-1	68.45	11	367.1	2.46	115	7872	3600	267.7	201.6	0.68	1.6	3.9	0.00	0.0	267.7	0.516	1.864	2.237	4.34	NonLiqfble.
CPT-1	68.49	11	369.8	2.93	125	8561	4287	247.1	170.4	0.80	1.7	5.6	0.02	4.1	251.2	0.471	1.554	1.865	3.96	NonLiqfble.
CPT-1	68.55	11	371.3	3.47	125	8569	4291	248.0	171.0	0.95	1.7	6.5	0.04	10.4	258.4	0.471	1.684	2.021	4.29	NonLiqfble.
CPT-1	68.6	11	367.8	3.65	125	8575	4294	245.6	169.2	1.00	1.7	6.9	0.05	13.3	258.9	0.471	1.694	2.032	4.31	NonLiqfble.
CPT-1	68.67	11	381.4	3.71	125	8584	4299	254.5	175.4	0.98	1.7	6.6	0.04	11.3	265.8	0.471	1.826	2.191	4.65	NonLiqfble.
CPT-1	68.75	11	434.8	2.71	115	7906	3616	316.4	238.2	0.63	1.5	2.8	0.00	0.0	316.4	0.516	3.025	3.629	7.04	NonLiqfble.
CPT-1	68.82	11	460.1	2.97	115	7914	3620	334.6	251.9	0.65	1.5	2.7	0.00	0.0	334.6	0.516	3.564	4.276	8.29	NonLiqfble.
CPT-1	68.89	11	485.8	3.34	115	7922	3624	353.1	265.8	0.69	1.5	2.7	0.00	0.0	353.1	0.516	4.174	5.009	9.71	NonLiqfble.
CPT-1	68.93	11	486.5	3.5	115	7927	3626	353.5	266.1	0.73	1.5	2.9	0.00	0.0	353.5	0.516	4.189	5.026	9.74	NonLiqfble.
CPT-1	68.98	11	479	3.27	115	7933	3628	347.9	261.7	0.69	1.5	2.7	0.00	0.0	347.9	0.516	3.997	4.797	9.30	NonLiqfble.
CPT-1	69.02	11	466.9	3.2	115	7937	3630	339.0	254.9	0.69	1.5	2.9	0.00	0.0	339.0	0.516	3.705	4.446	8.62	NonLiqfble.
CPT-1	69.06	11	467.7	3.2	115	7942	3633	339.5	255.2	0.69	1.5	2.8	0.00	0.0	339.5	0.516	3.720	4.464	8.65	NonLiqfble.
CPT-1	69.12	11	465	3.03	115	7949	3636	337.4	253.5	0.66	1.5	2.7	0.00	0.0	337.4	0.516	3.653	4.383	8.50	NonLiqfble.
CPT-1	69.18	11	443.4	3.76	125	8648	4331	294.8	202.7	0.86	1.6	5.0	0.00	0.0	294.8	0.471	2.463	2.955	6.27	NonLiqfble.
CPT-1	69.22	11	419.3	3.77	125	8653	4333	278.7	191.5	0.91	1.7	5.6	0.02	4.7	283.4	0.471	2.197	2.637	5.60	NonLiqfble.
CPT-1	69.26	11	410.6	3.76	125	8658	4336	272.8	187.3	0.93	1.7	5.8	0.02	6.3	279.2	0.471	2.103	2.524	5.36	NonLiqfble.
CPT-1	69.29	11	398.6	3.7	125	8661	4338	264.8	181.7	0.94	1.7	6.1	0.03	8.0	272.8	0.471	1.969	2.363	5.01	NonLiqfble.
CPT-1	69.35	11	367.9	4.12	125	8669	4341	244.3	167.4	1.13	1.8	7.7	0.07	19.4	263.7	0.471	1.785	2.142	4.55	NonLiqfble.
CPT-1	69.38	11	351.4	4.11	135	9366	5037	216.6	137.6	1.19	1.9	9.4	0.12	28.6	245.3	0.439	1.452	1.742	3.97	NonLiqfble.
CPT-1	69.42	11	325.1	3.64	125	8678	4346	215.8	147.6	1.13	1.8	8.6	0.10	22.9	238.6	0.471	1.344	1.613	3.42	NonLiqfble.
CPT-1	69.46	11	285.7	3.64	135	9377	5043	176.0	111.4	1.30	1.9	11.6	0.18	37.8	213.8	0.439	0.989	1.187	2.71	NonLiqfble.
CPT-1	69.51	11	262.4	3.65	135	9384	5046	161.6	102.1	1.42	2.0	13.0	0.21	44.2	205.9	0.439	0.891	1.069	2.44	NonLiqfble.
CPT-1	69.55	11	253.9	3.62	135	9389	5049	156.3	98.7	1.45	2.0	13.6	0.23	46.3	202.6	0.439	0.853	1.024	2.33	NonLiqfble.
CPT-1	69.59	11	246.9	3.6	135	9395	5052	152.0	95.8	1.49	2.0	14.0	0.24	48.1	200.1	0.439	0.825	0.990	2.26	NonLiqfble.
CPT-1	69.62	11	235.6	3.58	135	9399	5054	145.0	91.3	1.55	2.1	14.8	0.26	51.4	196.4	0.439	0.784	0.941	2.14	NonLiqfble.
CPT-1	69.67	11	222.8	3.54	135	9405	5058	137.1	86.2	1.62	2.1	15.7	0.29	55.1	192.2	0.439	0.740	0.888	2.02	NonLiqfble.
CPT-1	69.7	11	213.8	3.51	135	9410	5060	131.5	82.6	1.68	2.1	16.5	0.31	58.0	189.5	0.439	0.713	0.855	1.95	NonLiqfble.
CPT-1	69.75	11	212.9	3.43	135	9416	5064	130.9	82.2	1.65	2.1	16.3	0.30	56.8	187.7	0.439	0.695	0.834	1.90	NonLiqfble.
CPT-1	69.79	11	216.1	3.39	135	9422	5067	132.8	83.4	1.60	2.1	16.0	0.29	54.9	187.7	0.439	0.695	0.834	1.90	NonLiqfble.
CPT-1	69.96	11	231.6	3.73	135	9445	5079	142.2	89.3	1.64	2.1	15.5	0.28	55.5	197.7	0.439	0.799	0.959	2.19	NonLiqfble.
CPT-1	70	11	245.1	2.97	135	9450	5082	150.4	94.6	1.24	2.0	12.6	0.20	38.5	189.0	0.439	0.708	0.849	1.94	NonLiqfble.
CPT-1	70.08	11	256.3	2.85	125	8760	4387	169.3	114.8	1.13	1.9	10.4	0.14	28.5	197.8	0.471	0.800	0.960	2.04	NonLiqfble.
CPT-1	70.11	11	248.5	2.64	125	8764	4389	164.1	111.2	1.08	1.9	10.3	0.14	27.2	191.3	0.471	0.732	0.878	1.86	NonLiqfble.
CPT-1	70.14	11	251.7	2.44	125	8768	4391	166.2	112.6	0.99	1.9	9.6	0.12	23.4	189.6	0.471	0.713	0.856	1.82	NonLiqfble.
CPT-1	70.19	11	267.7	3.2	135	9476	5096	164.1	103.2	1.22	2.0	11.8	0.18	36.3	200.4	0.439	0.828	0.994	2.26	NonLiqfble.
CPT-1	70.23	11	280.5	3.69	135	9481	5099	171.9	108.1	1.34	2.0	12.1	0.19	40.3	212.2	0.439	0.968	1.162	2.65	NonLiqfble.
CPT-1	70.26	11	281.6	4.05	135	9485	5101	172.5	108.5	1.46	2.0	12.8	0.21	45.3	217.8	0.439	1.041	1.250	2.85	NonLiqfble.
CPT-1	70.34	11	291.8	4.52	135	9496	5107	178.7	112.4	1.57	2.0	13.1	0.22	49.3	228.0	0.439	1.182	1.419	3.23	NonLiqfble.
CPT-1	70.42	11	317.5	5.19	135	9507	5112	194.3	122.3	1.66	2.0	12.8	0.21	51.5	245.8	0.439	1.461	1.753	4.00	NonLiqfble.
CPT-1	70.49	11	327.2	5.04	135	9516	5118	200.1	126.0	1.56	2.0	12.1	0.19	46.9	247.1	0.439	1.483	1.779	4.05	NonLiqfble.
CPT-1	70.57	11	327.8	4.79	135	9527	5123	200.4	126.0	1.48	2.0	11.7	0.18	43.5	243.9	0.439	1.430	1.716	3.91	NonLiqfble.
CPT-1	70.64																			

Project Name:	199 River Oaks Parkway
Project Number:	7862.3.001.01
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CPT Number:	CPT-1
Depth to Groundwater:	11 ft

EQ Magnitude (M_w):	7.1
PGA (g):	0.55
MSF:	1.20

Cone	Depth (FT)	Water Table (FT)	Tip Resist. (TSF)	Sleeve Frict. (TSF)	γ (PCF)	Total Stress (PSF)	Effective Stress (PSF)	Norm. Tip Q_{IN}	Corr. Tip Q	Friction Ratio F	I_c	F.C. (%)	K_{CPT}	Δq_{IN}	$(q_{IN})_{cs}$	Induced Stress Ratio	Liquef. Stress M7.5	Liquef. Stress M7.10	Factor of Safety	Comments
CPT-1	71.09	11	364.9	2.57	115	8175	3739	261.1	192.9	0.71	1.6	4.3	0.00	0.0	261.1	0.516	1.735	2.082	4.04	NonLiqfble.
CPT-1	71.13	11	369.9	2.52	115	8180	3741	264.6	195.5	0.69	1.6	4.1	0.00	0.0	264.6	0.516	1.803	2.163	4.19	NonLiqfble.
CPT-1	71.19	11	385.3	2.82	115	8187	3745	275.5	203.5	0.74	1.6	4.2	0.00	0.0	275.5	0.516	2.025	2.429	4.71	NonLiqfble.
CPT-1	71.24	11	398.6	2.55	115	8193	3747	284.9	210.5	0.65	1.5	3.4	0.00	0.0	284.9	0.516	2.231	2.677	5.19	NonLiqfble.
CPT-1	71.28	11	400.2	2.49	115	8197	3749	286.0	211.2	0.63	1.5	3.3	0.00	0.0	286.0	0.516	2.255	2.706	5.25	NonLiqfble.
CPT-1	71.31	11	394.8	2.56	115	8201	3751	282.0	208.2	0.66	1.5	3.6	0.00	0.0	282.0	0.516	2.167	2.600	5.04	NonLiqfble.
CPT-1	71.35	11	403.3	2.66	115	8205	3753	288.0	212.6	0.67	1.5	3.5	0.00	0.0	288.0	0.516	2.303	2.763	5.36	NonLiqfble.
CPT-1	71.41	11	415.2	2.89	115	8212	3756	296.4	218.8	0.70	1.6	3.6	0.00	0.0	296.4	0.516	2.502	3.002	5.82	NonLiqfble.
CPT-1	71.48	11	417.9	2.94	115	8220	3760	298.2	220.0	0.71	1.6	3.7	0.00	0.0	298.2	0.516	2.546	3.055	5.92	NonLiqfble.
CPT-1	71.55	11	418.4	2.93	115	8228	3764	298.4	220.1	0.71	1.6	3.6	0.00	0.0	298.4	0.516	2.551	3.061	5.93	NonLiqfble.
CPT-1	71.63	11	424.1	3.09	115	8237	3768	302.3	222.8	0.74	1.6	3.8	0.00	0.0	302.3	0.516	2.649	3.179	6.16	NonLiqfble.
CPT-1	71.7	11	423.7	3.28	125	8963	4488	276.7	186.7	0.78	1.6	5.0	0.00	0.0	276.7	0.471	2.050	2.461	5.22	NonLiqfble.
CPT-1	71.76	11	424.2	3.29	125	8970	4492	276.9	186.8	0.78	1.6	5.0	0.00	0.0	276.9	0.471	2.055	2.466	5.23	NonLiqfble.
CPT-1	71.83	11	425.3	3.16	125	8979	4497	277.5	187.1	0.75	1.6	4.8	0.00	0.0	277.5	0.471	2.067	2.481	5.27	NonLiqfble.
CPT-1	71.9	11	415.1	3.32	125	8988	4501	270.7	182.4	0.81	1.7	5.3	0.01	2.0	272.7	0.471	1.965	2.358	5.01	NonLiqfble.
CPT-1	71.96	11	405.5	3.17	125	8995	4505	264.3	178.0	0.79	1.7	5.3	0.01	2.1	266.4	0.471	1.838	2.206	4.68	NonLiqfble.
CPT-1	72.02	11	404.3	3.17	125	9003	4508	263.5	177.3	0.79	1.7	5.3	0.01	2.3	265.8	0.471	1.826	2.191	4.65	NonLiqfble.
CPT-1	72.08	11	421.9	3.05	115	8289	3791	299.8	220.3	0.73	1.6	3.8	0.00	0.0	299.8	0.516	2.586	3.103	6.02	NonLiqfble.
CPT-1	72.12	11	426	2.94	115	8294	3794	302.6	222.3	0.70	1.5	3.5	0.00	0.0	302.6	0.516	2.658	3.189	6.18	NonLiqfble.
CPT-1	72.16	11	422.9	2.8	115	8298	3796	300.3	220.6	0.67	1.5	3.4	0.00	0.0	300.3	0.516	2.600	3.119	6.05	NonLiqfble.
CPT-1	72.2	11	424.4	2.67	115	8303	3798	301.3	221.2	0.64	1.5	3.1	0.00	0.0	301.3	0.516	2.624	3.149	6.10	NonLiqfble.
CPT-1	72.28	11	450.3	2.35	115	8312	3802	319.5	234.6	0.53	1.4	2.1	0.00	0.0	319.5	0.516	3.114	3.737	7.24	NonLiqfble.
CPT-1	72.32	11	459.8	2.3	105	7594	3081	362.5	295.9	0.50	1.4	1.1	0.00	0.0	362.5	0.582	4.508	5.410	9.30	NonLiqfble.
CPT-1	72.51	11	479.6	2.4	105	7614	3089	377.6	307.9	0.50	1.3	0.9	0.00	0.0	377.6	0.582	5.086	6.103	10.49	NonLiqfble.
CPT-1	72.55	11	459.7	2.45	115	8343	3816	325.6	238.6	0.54	1.4	2.1	0.00	0.0	325.6	0.516	3.290	3.948	7.65	NonLiqfble.
CPT-1	72.58	11	443.9	3.11	115	8347	3818	314.3	230.3	0.71	1.5	3.4	0.00	0.0	314.3	0.516	2.969	3.562	6.91	NonLiqfble.
CPT-1	72.84	11	384.9	5.16	135	9833	5288	231.6	143.6	1.36	1.9	10.0	0.13	36.0	267.6	0.439	1.861	2.234	5.09	NonLiqfble.
CPT-1	72.91	11	390.1	5.24	135	9843	5293	234.6	145.5	1.36	1.9	10.0	0.13	35.8	270.4	0.439	1.919	2.302	5.25	NonLiqfble.
CPT-1	72.98	11	390.9	4.13	125	9123	4569	253.0	169.1	1.07	1.8	7.3	0.06	16.7	269.7	0.471	1.905	2.286	4.85	NonLiqfble.
CPT-1	73.05	11	396.7	3.44	125	9131	4573	256.7	171.4	0.88	1.7	6.1	0.03	7.5	264.2	0.471	1.795	2.154	4.57	NonLiqfble.
CPT-1	73.12	11	397.1	2.7	115	8409	3846	280.2	204.2	0.69	1.6	3.9	0.00	0.0	280.2	0.516	2.125	2.550	4.94	NonLiqfble.
CPT-1	73.19	11	398.5	2.57	115	8417	3850	281.0	204.8	0.65	1.6	3.6	0.00	0.0	281.0	0.516	2.144	2.573	4.99	NonLiqfble.
CPT-1	73.25	11	411.2	2.78	115	8424	3853	289.8	211.2	0.68	1.6	3.7	0.00	0.0	289.8	0.516	2.345	2.814	5.45	NonLiqfble.
CPT-1	73.31	11	415.6	2.34	115	8431	3856	292.8	213.3	0.57	1.5	2.8	0.00	0.0	292.8	0.516	2.415	2.898	5.62	NonLiqfble.
CPT-1	73.34	11	413.3	2.24	115	8434	3858	291.2	212.0	0.55	1.5	2.7	0.00	0.0	291.2	0.516	2.375	2.850	5.53	NonLiqfble.
CPT-1	73.38	11	409.6	2.48	115	8439	3860	288.5	210.0	0.61	1.5	3.2	0.00	0.0	288.5	0.516	2.312	2.775	5.38	NonLiqfble.
CPT-1	73.45	11	415.8	2.58	115	8447	3863	292.7	213.0	0.63	1.5	3.3	0.00	0.0	292.7	0.516	2.412	2.894	5.61	NonLiqfble.
CPT-1	73.51	11	410.4	2.26	115	8454	3867	288.8	210.0	0.56	1.5	2.8	0.00	0.0	288.8	0.516	2.320	2.783	5.40	NonLiqfble.
CPT-1	73.55	11	397.6	1.91	105	7723	3133	310.8	251.2	0.49	1.4	1.5	0.00	0.0	310.8	0.582	2.872	3.446	5.93	NonLiqfble.
CPT-1	73.61	11	383.9	1.88	105	7729	3136	300.0	242.3	0.49	1.4	1.8	0.00	0.0	300.0	0.582	2.590	3.108	5.34	NonLiqfble.
CPT-1	73.7	11	365.6	1.58	105	7739	3140	285.5	230.3	0.44	1.4	1.6	0.00	0.0	285.5	0.582	2.244	2.693	4.63	NonLiqfble.
CPT-1	73.75	11	358.9	1.64	105	7744	3142	280.2	225.9	0.46	1.4	1.8	0.00	0.0	280.2	0.582	2.125	2.550	4.38	NonLiqfble.
CPT-1	73.8	11	345.2	1.76	115	8487	3882	242.4	175.6	0.52	1.5	3.4	0.00	0.0	242.4	0.516	1.405	1.686	3.27	NonLiqfble.
CPT-1	73.84	11	352.9	2.23	115	8492	3884	247.8	179.5	0.64	1.6	4.2	0.00	0.0	247.8	0.516	1.494	1.793	3.48	NonLiqfble.
CPT-1	73.89	11	334.2	2.83	125	9236	4626	215.0	142.4	0.86	1.8	7.1	0.06	12.7	227.8	0.471	1.179	1.414	3.00	NonLiqfble.
CPT-1	73.94	11	339.5	3.42	125	9243	4629	218.3	144.6	1.02	1.8	8.0	0.08	19.3	237.6	0.471	1.328	1.593	3.38	NonLiqfble.
CPT-1	73.97	11	330.2	3.62	125	9246	4631	212.3	140.6	1.11	1.8	8.8	0.10	23.9	236.2	0.471	1.305	1.566	3.32	NonLiqfble.
CPT-1	74.02	11	336.6	3.54	125	9253	4634	216.4	143.2	1.07	1.8	8.4	0.09	21.5	237.8	0.471	1.331	1.597	3.39	NonLiqfble.
CPT-1	74.1	11	285.7	3.8	135	10004	5380	170.4	104.3	1.35	2.0	12.5	0.20	42.7	213.1	0.439	0.981	1.177	2.68	NonLiqfble.
CPT-1	74.17	11	321.4	3.99	135	10013	5385	191.6	117.5	1.26	1.9	11.0	0.16	36.5	228.2	0.439	1.185	1.422	3.24	NonLiqfble.
CPT-1	74.24	11	336.2	4.23	135	10022	5390	200.4	122.8	1.28	1.9	10.7	0.15	36.3	236.7	0.439	1.313	1.575	3.59	NonLiqfble.
CPT-1	74.31	11	354	3.75	125	9289	4652	227.1	150.1	1.07	1.8	8.1	0.08	20.5	247.6	0.471	1.492	1.791	3.80	NonLiqfble.
CPT-1	74.38	11	361.7	3.41	125	9298	4656	231.9	153.3	0.96	1.8	7.2	0.06	14.8	246.7	0.471	1.477	1.772	3.76	NonLiqfble.
CPT-1	74.45	11	380.1	3.07	125	9306	4661	243.6	161.0	0.82	1.7	6.1	0.03	7.0	250.6	0.471	1.544	1.853	3.93	NonLiqfble.
CPT-1	74.51	11	377.8	2.73	115	8569	3919	264.0	190.5	0.73	1.6	4.5	0.00	0.0	264.0	0.516	1.792	2.150	4.17	NonLiqfble.
CPT-1	74.57	11	380	3.12	125	9321	4668	243.3	160.7	0.83	1.7	6.2	0.03	7.7	251.1	0.471	1.552	1.862	3.95	NonLiqfble.
CPT-1	74.61	11	381.6	3.43	125	9326	4671	244.3	161.3	0.91	1.7	6.6	0.04	11.2	255.5	0.471	1.631	1.957	4.15	NonLiqfble.
CPT-1	74.67	11	376.1	3.22	125	9334	4674	240.7	158.9	0.87	1.7	6.5	0.04	9.7	250.4	0.471	1.541	1.849	3.92	NonLiqfble.
CPT-1	74.71	11	368.7	2.83	125	9339	4677	235.9	155.6	0.78	1.7	6.0	0.03	6.4	242.3	0.471	1.403	1.683	3.57	NonLiqfble.
CPT-1	74.75	11	356.4	2.53	115	8596	3932	248.7	179.0	0.72	1.6	4.8	0.00	0.0	248.7	0.516	1.510	1.812	3.51	NonLiqfble.
CPT-1																				

Project Name: 199 River Oaks Parkway
Project Number: 7862.3.001.01
Date: 20-Jul-07
CPT Number: CPT-1
Depth to Groundwater: 11 ft

EQ Magnitude (M_w): 7.1
PGA (g): 0.55
MSF: 1.20

Cone	Depth (FT)	Water Table (FT)	Tip Resist. (TSF)	Sleeve Frict. (TSF)	γ (PCF)	Total Stress (PSF)	Effective Stress (PSF)	Norm. Tip Q_{IN}	Corr. Tip Q	Friction Ratio F	I_c	F.C. (%)	K_{CPT}	Δq_{IN}	$(q_{IN})_{cs}$	Induced Stress Ratio	Liquef. Stress M7.5	Liquef. Stress M7.10	Factor of Safety	Comments
CPT-1	75.13	11	220.1	4.23	135	10143	5454	130.4	78.8	1.97	2.2	18.4	0.36	73.0	203.4	0.439	0.863	1.035	2.36	NonLiqfble.
CPT-1	75.18	11	187	4.69	135	10149	5458	110.7	66.6	2.58	2.3	23.2	0.49	104.5	215.2	0.439	1.007	1.208	2.75	NonLiqfble.
CPT-1	75.24	11	135.5	3.97	135	10157	5462	80.2	47.7	3.04	2.5	29.4	0.65	150.7	230.9	0.439	1.225	1.470	3.35	NonLiqfble.
CPT-1	75.31	11	102.6	4.08	135	10167	5468	60.7	35.7	4.18	2.7	38.3	0.80	242.8	303.6	0.439	2.681	3.218	7.33	NonLiqfble.
CPT-1	75.37	11	101.8	4.28	135	10175	5472	60.2	35.3	4.43	2.7	39.3	0.80	240.9	301.1	0.439	2.618	3.142	7.16	NonLiqfble.
CPT-1	75.44	11	101.5	4.76	135	10184	5477	60.0	35.2	4.94	2.7	41.2	0.80	240.0	300.0	0.439	2.592	3.110	7.09	NonLiqfble.
CPT-1	75.49	11	143.4	4.51	135	10191	5481	84.8	50.4	3.26	2.5	29.6	0.66	162.1	246.8	0.439	1.478	1.774	4.04	NonLiqfble.
CPT-1	75.53	11	196.7	4.37	135	10197	5483	116.2	69.9	2.28	2.3	21.3	0.43	89.3	205.5	0.439	0.887	1.065	2.43	NonLiqfble.
CPT-1	75.56	11	208.2	4.28	135	10201	5486	123.0	74.0	2.11	2.2	19.8	0.40	80.4	203.4	0.439	0.862	1.035	2.36	NonLiqfble.
CPT-1	75.62	11	237.3	4.22	135	10209	5490	140.1	84.6	1.82	2.1	17.0	0.32	65.8	205.9	0.439	0.892	1.071	2.44	NonLiqfble.
CPT-1	75.67	11	267.4	4	135	10215	5494	157.9	95.4	1.53	2.0	14.3	0.25	51.8	209.6	0.439	0.937	1.124	2.56	NonLiqfble.
CPT-1	75.72	11	291.1	3.53	135	10222	5497	171.8	104.0	1.23	2.0	11.8	0.18	38.2	210.0	0.439	0.942	1.130	2.58	NonLiqfble.
CPT-1	75.76	11	305	3.22	125	9470	4743	193.8	126.6	1.07	1.9	9.3	0.11	25.1	218.9	0.471	1.055	1.266	2.69	NonLiqfble.
CPT-1	75.84	11	341.7	3.05	125	9480	4748	217.0	141.9	0.91	1.8	7.4	0.06	15.1	232.0	0.471	1.242	1.490	3.16	NonLiqfble.
CPT-1	75.87	11	347.9	2.91	125	9484	4749	220.9	144.4	0.85	1.7	6.9	0.05	12.0	232.9	0.471	1.255	1.506	3.20	NonLiqfble.
CPT-1	75.91	11	355.9	2.65	115	8730	3993	246.4	176.0	0.75	1.6	5.1	0.00	0.7	247.1	0.516	1.484	1.781	3.45	NonLiqfble.
CPT-1	75.95	11	358.5	2.64	115	8734	3995	248.2	177.2	0.75	1.6	5.0	0.00	0.1	248.3	0.516	1.503	1.804	3.50	NonLiqfble.
CPT-1	75.98	11	355.4	2.67	125	9498	4756	225.5	147.4	0.76	1.7	6.2	0.03	7.6	233.0	0.471	1.257	1.508	3.20	NonLiqfble.
CPT-1	76.03	11	300.4	2.55	125	9504	4759	190.5	124.2	0.86	1.8	8.1	0.08	16.9	207.4	0.471	0.910	1.092	2.32	NonLiqfble.
CPT-1	76.09	11	373.6	1.91	115	8750	4002	258.4	184.4	0.52	1.5	3.2	0.00	0.0	258.4	0.516	1.684	2.021	3.92	NonLiqfble.
CPT-1	76.13	11	360.9	1.98	115	8755	4004	249.5	178.0	0.56	1.6	3.6	0.00	0.0	249.5	0.516	1.525	1.830	3.55	NonLiqfble.
CPT-1	76.17	11	350.5	2.48	115	8760	4007	242.3	172.7	0.72	1.6	5.0	0.00	0.0	242.3	0.516	1.403	1.683	3.26	NonLiqfble.
CPT-1	76.21	11	341.9	2.52	115	8764	4009	236.3	168.3	0.75	1.7	5.3	0.01	2.0	238.3	0.516	1.338	1.606	3.11	NonLiqfble.
CPT-1	76.25	11	334	2.45	115	8769	4011	230.8	164.3	0.74	1.7	5.4	0.01	2.7	233.4	0.516	1.263	1.516	2.94	NonLiqfble.
CPT-1	76.29	11	326.8	2.21	115	8773	4013	225.7	160.6	0.69	1.6	5.2	0.00	1.0	226.7	0.516	1.163	1.396	2.71	NonLiqfble.
CPT-1	76.33	11	321.3	2.14	115	8778	4015	221.9	157.8	0.68	1.6	5.2	0.01	1.1	223.0	0.516	1.111	1.334	2.59	NonLiqfble.
CPT-1	76.36	11	315.3	2.05	115	8781	4017	217.7	154.7	0.66	1.6	5.2	0.01	1.1	218.8	0.516	1.054	1.265	2.45	NonLiqfble.
CPT-1	76.4	11	322.7	1.87	115	8786	4019	222.7	158.3	0.59	1.6	4.5	0.00	0.0	222.7	0.516	1.108	1.329	2.58	NonLiqfble.
CPT-1	76.44	11	331.3	1.99	115	8791	4021	228.6	162.5	0.61	1.6	4.5	0.00	0.0	228.6	0.516	1.191	1.429	2.77	NonLiqfble.
CPT-1	76.5	11	338.7	2.05	115	8798	4024	233.6	166.1	0.61	1.6	4.4	0.00	0.0	233.6	0.516	1.266	1.519	2.94	NonLiqfble.
CPT-1	76.54	11	350.5	2.01	115	8802	4026	241.7	171.9	0.58	1.6	4.0	0.00	0.0	241.7	0.516	1.393	1.672	3.24	NonLiqfble.
CPT-1	76.58	11	357.7	2	115	8807	4028	246.6	175.3	0.57	1.6	3.8	0.00	0.0	246.6	0.516	1.475	1.769	3.43	NonLiqfble.
CPT-1	76.61	11	322.1	2.05	115	8810	4030	222.0	157.6	0.65	1.6	5.0	0.00	0.0	222.0	0.516	1.098	1.317	2.55	NonLiqfble.
CPT-1	76.65	11	283.5	2.3	125	9581	4798	179.1	116.1	0.83	1.8	8.3	0.09	17.2	196.2	0.471	0.783	0.939	1.99	NonLiqfble.
CPT-1	76.7	11	368.5	2.63	115	8821	4034	253.8	180.4	0.72	1.6	4.8	0.00	0.0	253.8	0.516	1.601	1.921	3.32	NonLiqfble.
CPT-1	76.75	11	355.7	2.44	115	8826	4037	244.9	174.0	0.69	1.6	4.8	0.00	0.0	244.9	0.516	1.447	1.736	3.37	NonLiqfble.
CPT-1	76.79	11	339.9	2.27	115	8831	4039	234.0	166.0	0.68	1.6	4.9	0.00	0.0	234.0	0.516	1.272	1.526	2.96	NonLiqfble.
CPT-1	76.82	11	325.3	2.57	125	9603	4809	205.2	133.2	0.80	1.8	7.2	0.06	12.5	217.8	0.471	1.040	1.248	2.65	NonLiqfble.
CPT-1	76.86	11	319.3	2.7	125	9608	4811	201.4	130.7	0.86	1.8	7.7	0.07	15.5	216.9	0.471	1.029	1.235	2.62	NonLiqfble.
CPT-1	76.91	11	310.3	2.81	125	9614	4815	195.7	126.8	0.92	1.8	8.3	0.09	18.9	214.5	0.471	0.998	1.198	2.54	NonLiqfble.
CPT-1	76.94	11	304	2.83	125	9618	4816	191.7	124.2	0.95	1.8	8.6	0.10	20.5	212.2	0.471	0.968	1.162	2.47	NonLiqfble.
CPT-1	76.99	11	272	2.86	125	9624	4820	171.4	110.8	1.07	1.9	10.3	0.14	28.2	199.6	0.471	0.819	0.983	2.09	NonLiqfble.
CPT-1	77.04	11	292.7	2.73	125	9630	4823	184.4	119.3	0.95	1.8	8.9	0.10	21.6	206.0	0.471	0.893	1.072	2.27	NonLiqfble.
CPT-1	77.11	11	326.4	2.34	115	8868	4056	224.2	158.7	0.73	1.7	5.5	0.01	3.2	227.4	0.516	1.174	1.409	2.73	NonLiqfble.
CPT-1	77.18	11	347.1	1.76	115	8876	4060	238.4	168.7	0.51	1.6	3.6	0.00	0.0	238.4	0.516	1.339	1.607	3.12	NonLiqfble.
CPT-1	77.25	11	372.3	2.09	115	8884	4063	255.5	181.0	0.57	1.6	3.7	0.00	0.0	255.5	0.516	1.632	1.958	3.80	NonLiqfble.
CPT-1	77.3	11	387.8	1.67	105	8117	3293	295.7	233.0	0.44	1.4	1.5	0.00	0.0	295.7	0.582	2.484	2.981	5.13	NonLiqfble.
CPT-1	77.34	11	395.8	1.75	105	8121	3295	301.7	237.7	0.45	1.4	1.5	0.00	0.0	301.7	0.582	2.634	3.161	5.44	NonLiqfble.
CPT-1	77.37	11	398.9	1.87	105	8124	3296	304.0	239.5	0.47	1.4	1.7	0.00	0.0	304.0	0.582	2.693	3.232	5.56	NonLiqfble.
CPT-1	77.44	11	409.8	1.98	105	8131	3299	312.2	245.9	0.49	1.4	1.7	0.00	0.0	312.2	0.582	2.909	3.491	6.00	NonLiqfble.
CPT-1	77.47	11	414.9	2.14	115	8909	4075	284.4	201.4	0.52	1.5	2.8	0.00	0.0	284.4	0.516	2.219	2.663	5.16	NonLiqfble.
CPT-1	77.54	11	436.1	2.22	115	8917	4079	298.8	211.6	0.51	1.5	2.5	0.00	0.0	298.8	0.516	2.560	3.072	5.96	NonLiqfble.
CPT-1	77.57	11	433.4	2.34	115	8921	4080	296.9	210.2	0.55	1.5	2.8	0.00	0.0	296.9	0.516	2.513	3.016	5.85	NonLiqfble.
CPT-1	77.64	11	431.4	2.53	115	8929	4084	295.4	209.0	0.59	1.5	3.1	0.00	0.0	295.4	0.516	2.476	2.972	5.76	NonLiqfble.
CPT-1	77.68	11	428.3	2.67	115	8933	4086	293.2	207.4	0.63	1.5	3.4	0.00	0.0	293.2	0.516	2.423	2.908	5.64	NonLiqfble.
CPT-1	77.76	11	420.8	2.97	115	8942	4090	287.9	203.5	0.71	1.6	4.1	0.00	0.0	287.9	0.516	2.299	2.759	5.35	NonLiqfble.
CPT-1	77.82	11	415.5	2.88	115	8949	4093	284.2	200.7	0.70	1.6	4.0	0.00	0.0	284.2	0.516	2.214	2.656	5.15	NonLiqfble.
CPT-1	77.99	11	393.4	2.82	115	8969	4102	268.7	189.5	0.73	1.6	4.5	0.00	0.0	268.7	0.516	1.885	2.262	4.39	NonLiqfble.
CPT-1	78.02	11	379.7	2.75	115	8972	4104	259.3	182.8	0.73	1.6	4.8	0.00	0.0	259.3	0.516	1.702	2.042	3.96	NonLiqfble.

Project Name: 199 River Oaks Parkway
Project Number: 7862.3.001.01
Date: 20-Jul-07
CPT Number: CPT-2
Depth to Groundwater: 10.5 ft

EQ Magnitude (M_w): 7.1
PGA (g): 0.55
MSF: 1.20

Cone	Depth (FT)	Water Table (FT)	Tip Resist. (TSF)	Sleeve Frict. (TSF)	γ (PCF)	Total Stress (PSF)	Effective Stress (PSF)	Norm. Tip Q _{tip}	Corr. Tip Q	Friction Ratio F	F.C. (%)	K _{CPT}	Δq _{tip}	(q _{tip}) _{ns}	Induced Stress Ratio	Liquef. Stress M7.5	Liquef. Stress M7.10	Factor of Safety	Comments	
CPT-2	0.57	10.5	128.7	3.99	135	77	77	246.5	3342.6	3.10	1.7	6.4	0.04	9.2	255.7	0.358	1.635	1.962	5.49	Above W.T.
CPT-2	0.65	10.5	108.8	3.72	135	88	88	208.4	2477.7	3.42	1.8	7.2	0.06	13.0	221.4	0.358	1.089	1.307	3.66	Above W.T.
CPT-2	0.73	10.5	87.9	3.3	135	99	99	168.3	1782.1	3.76	1.8	8.3	0.09	16.2	184.6	0.358	0.665	0.798	2.23	Above W.T.
CPT-2	0.81	10.5	65.6	2.82	135	109	109	125.6	1198.3	4.30	1.9	10.3	0.14	20.5	146.2	0.358	0.370	0.445	1.24	Above W.T.
CPT-2	0.89	10.5	50.9	2.2	135	120	120	97.5	845.9	4.33	1.9	11.2	0.17	19.4	116.9	0.358	0.229	0.274	0.77	Above W.T.
CPT-2	0.97	10.5	30.9	2	135	131	131	59.2	470.7	6.49	2.2	18.4	0.36	33.1	92.2	0.358	0.153	0.184	0.51	Above W.T.
CPT-2	1.05	10.5	27.3	2.07	135	142	142	52.3	384.0	7.60	2.3	21.8	0.45	42.5	94.8	0.358	0.159	0.191	0.53	Above W.T.
CPT-2	1.13	10.5	31.3	1.93	135	153	153	59.9	409.2	6.18	2.2	18.5	0.36	34.0	93.9	0.358	0.157	0.188	0.53	Above W.T.
CPT-2	1.2	10.5	36.9	1.8	135	162	162	70.7	454.4	4.89	2.1	15.1	0.27	26.0	96.6	0.358	0.164	0.197	0.55	Above W.T.
CPT-2	1.28	10.5	41.3	1.81	135	173	173	79.1	476.8	4.39	2.0	13.6	0.23	23.6	102.7	0.358	0.181	0.217	0.61	Above W.T.
CPT-2	1.36	10.5	41.5	1.83	135	184	184	79.5	450.9	4.42	2.0	13.9	0.24	24.9	104.4	0.358	0.186	0.223	0.62	Above W.T.
CPT-2	1.43	10.5	38.1	1.76	135	193	193	73.0	393.6	4.63	2.1	15.2	0.27	27.2	100.2	0.358	0.174	0.208	0.58	Above W.T.
CPT-2	1.51	10.5	34.7	1.58	135	204	204	66.5	339.3	4.57	2.1	15.8	0.29	27.1	93.6	0.358	0.156	0.187	0.52	Above W.T.
CPT-2	1.59	10.5	30.4	1.42	135	215	215	58.2	282.1	4.69	2.1	17.3	0.33	28.5	86.7	0.358	0.141	0.169	0.47	Above W.T.
CPT-2	1.67	10.5	26.3	1.28	135	225	225	50.4	232.2	4.89	2.2	19.2	0.38	30.7	81.0	0.358	0.130	0.155	0.43	Above W.T.
CPT-2	1.74	10.5	22.7	1.14	135	235	235	43.5	192.2	5.05	2.3	21.1	0.43	32.6	76.1	0.358	0.121	0.145	0.41	Above W.T.
CPT-2	1.82	10.5	19.6	1.03	135	246	246	37.5	158.5	5.29	2.3	23.3	0.49	36.0	73.5	0.358	0.117	0.140	0.39	Above W.T.
CPT-2	1.9	10.5	16.4	0.94	125	238	238	31.4	137.0	5.77	2.4	25.9	0.56	39.8	71.2	0.358	0.114	0.136	0.38	Above W.T.
CPT-2	1.98	10.5	13.9	0.85	125	248	248	26.6	111.3	6.17	2.5	29.1	0.64	47.9	74.5	0.358	0.118	0.142	0.40	Above W.T.
CPT-2	2.06	10.5	12.5	0.68	125	258	258	23.9	96.0	5.50	2.5	29.0	0.64	42.5	66.4	0.358	0.107	0.129	0.36	Above W.T.
CPT-2	2.14	10.5	11.4	0.59	125	268	268	21.8	84.2	5.24	2.5	29.8	0.66	42.6	64.4	0.358	0.105	0.126	0.35	Above W.T.
CPT-2	2.22	10.5	10.1	0.5	125	278	278	19.3	71.8	5.02	2.5	31.1	0.70	44.4	63.7	0.358	0.104	0.125	0.35	Above W.T.
CPT-2	2.29	10.5	9.1	0.43	115	263	263	17.4	68.1	4.79	2.5	31.1	0.70	39.9	57.3	0.358	0.098	0.117	0.33	Above W.T.
CPT-2	2.33	10.5	9.5	0.44	115	268	268	18.2	69.9	4.70	2.5	30.4	0.68	38.5	56.7	0.358	0.097	0.116	0.33	Above W.T.
CPT-2	2.41	10.5	10.6	0.47	115	277	277	20.3	75.5	4.49	2.5	28.8	0.64	35.6	55.9	0.358	0.096	0.115	0.32	Above W.T.
CPT-2	2.5	10.5	10.1	0.48	115	288	288	19.3	69.2	4.82	2.5	30.9	0.69	43.5	62.9	0.358	0.103	0.124	0.35	Above W.T.
CPT-2	2.61	10.5	10.3	0.48	115	300	300	19.7	67.6	4.73	2.5	31.0	0.69	44.5	64.2	0.358	0.105	0.126	0.35	Above W.T.
CPT-2	2.69	10.5	10.1	0.46	115	309	309	19.3	64.3	4.63	2.5	31.3	0.70	45.5	64.8	0.358	0.105	0.126	0.35	Above W.T.
CPT-2	2.79	10.5	9	0.45	115	321	321	17.2	55.1	5.09	2.6	34.8	0.80	67.3	84.5	0.358	0.136	0.163	0.46	Above W.T.
CPT-2	2.87	10.5	7.9	0.46	115	330	330	15.1	46.9	5.95	2.7	39.7	0.80	60.5	75.7	0.358	0.120	0.144	0.40	Above W.T.
CPT-2	2.96	10.5	8.4	0.48	115	340	340	16.1	48.3	5.83	2.7	38.9	0.80	64.4	80.4	0.358	0.128	0.154	0.43	Above W.T.
CPT-2	3.05	10.5	9.3	0.47	115	351	351	17.8	52.0	5.15	2.6	35.8	0.80	71.2	89.1	0.358	0.146	0.175	0.49	Above W.T.
CPT-2	3.15	10.5	11	0.48	125	394	394	21.1	54.8	4.44	2.5	32.8	0.74	60.7	81.7	0.358	0.131	0.157	0.44	Above W.T.
CPT-2	3.23	10.5	12.9	0.5	125	404	404	24.7	62.9	3.94	2.5	29.3	0.65	45.4	70.1	0.358	0.112	0.134	0.38	Above W.T.
CPT-2	3.33	10.5	13.8	0.52	125	416	416	26.4	65.3	3.83	2.4	28.4	0.62	43.9	70.4	0.358	0.112	0.135	0.38	Above W.T.
CPT-2	3.42	10.5	13.3	0.52	125	428	428	25.5	61.2	3.97	2.5	29.7	0.66	49.5	75.0	0.358	0.119	0.143	0.40	Above W.T.
CPT-2	3.51	10.5	11.9	0.55	125	439	439	22.8	53.2	4.71	2.6	34.1	0.78	79.3	102.1	0.358	0.179	0.215	0.60	Above W.T.
CPT-2	3.6	10.5	10.6	0.62	125	450	450	20.3	46.1	5.98	2.7	40.0	0.80	81.2	101.5	0.358	0.177	0.213	0.60	Above W.T.
CPT-2	3.69	10.5	10.1	0.71	125	461	461	19.3	42.8	7.19	2.8	44.5	0.80	77.4	96.7	0.358	0.164	0.197	0.55	Above W.T.
CPT-2	3.78	10.5	10.6	0.8	125	473	473	20.3	43.8	7.72	2.8	45.4	0.80	81.2	101.5	0.358	0.177	0.213	0.60	Above W.T.
CPT-2	3.87	10.5	11.7	0.92	125	484	484	22.4	47.4	8.03	2.8	44.9	0.80	89.6	112.0	0.358	0.211	0.253	0.71	Above W.T.
CPT-2	3.96	10.5	12.7	1.03	125	495	495	24.3	50.3	8.27	2.8	44.5	0.80	97.3	121.6	0.358	0.247	0.297	0.83	Above W.T.
CPT-2	4.05	10.5	13.2	1.15	125	506	506	25.3	51.1	8.88	2.8	45.6	0.80	101.1	126.4	0.358	0.268	0.321	0.90	Above W.T.
CPT-2	4.14	10.5	14.9	1.26	135	559	559	27.6	52.3	8.62	2.8	44.7	0.80	110.3	137.9	0.358	0.324	0.389	1.09	Above W.T.
CPT-2	4.24	10.5	15.1	1.36	135	572	572	27.6	51.7	9.18	2.8	46.1	0.80	110.5	138.1	0.358	0.325	0.390	1.09	Above W.T.
CPT-2	4.33	10.5	15.8	1.41	135	585	585	28.6	53.0	9.09	2.8	45.5	0.80	114.4	143.0	0.358	0.352	0.422	1.18	Above W.T.
CPT-2	4.42	10.5	16.6	1.42	135	597	597	29.7	54.6	8.71	2.8	44.2	0.80	118.9	148.7	0.358	0.386	0.463	1.29	Above W.T.
CPT-2	4.51	10.5	16.5	1.42	135	609	609	29.3	53.2	8.77	2.8	44.8	0.80	117.0	146.3	0.358	0.371	0.445	1.25	Above W.T.
CPT-2	4.6	10.5	16.2	1.4	135	621	621	28.4	51.2	8.81	2.8	45.5	0.80	113.8	142.2	0.358	0.348	0.417	1.17	Above W.T.
CPT-2	4.69	10.5	16.5	1.38	135	633	633	28.7	51.1	8.53	2.8	44.9	0.80	114.8	143.5	0.358	0.355	0.425	1.19	Above W.T.
CPT-2	4.79	10.5	16.2	1.4	135	647	647	27.9	49.1	8.82	2.8	46.1	0.80	111.5	139.4	0.358	0.332	0.398	1.11	Above W.T.
CPT-2	4.87	10.5	16.3	1.4	135	657	657	27.8	48.6	8.77	2.8	46.2	0.80	111.3	139.1	0.358	0.330	0.396	1.11	Above W.T.
CPT-2	4.97	10.5	15.9	1.38	135	671	671	26.9	46.4	8.87	2.8	47.2	0.80	107.4	134.3	0.358	0.305	0.366	1.02	Above W.T.
CPT-2	5.05	10.5	15.4	1.34	135	682	682	25.8	44.2	8.90	2.8	48.0	0.80	103.2	129.0	0.358	0.280	0.336	0.94	Above W.T.
CPT-2	5.15	10.5	14.7	1.27	135	695	695	24.4	41.3	8.85	2.9	49.1	0.80	97.6	122.0	0.358	0.249	0.298	0.83	Above W.T.
CPT-2	5.24	10.5	14.5	1.2	135	707	707	23.9	40.0	8.48	2.8	48.8	0.80	95.4	119.3	0.358	0.238	0.285	0.80	Above W.T.
CPT-2	5.33	10.5	14.2	1.07	125	666	666	24.1	41.6	7.72	2.8	46.3	0.80	96.3	120.4	0.358	0.242	0.291	0.81	Above W.T.
CPT-2	5.42	10.5	14.1	1.03	125	678	678	23.7	40.6	7.48	2.8	46.1	0.80	94.8	118.5	0.358	0.235	0.282	0.79	Above W.T.
CPT-2	5.51	10.5	14.2	1.08	125	689	689	23.7	40.2	7.79	2.8	47.0	0.80	94.7	118.4	0.358	0.234	0.281	0.79	Above W.T.
CPT-2	5.59	10.5	13.2	1.13	125	699	699	21.8	36.8	8.79	2.9	50.9	0.80	87.4	109.2	0.358	0.201	0.241	0.68	Above W.T.
CPT-2	5.66	10.5	14.4	1.15	135	764	764	22.8	36.7	8.20	2.9	49.6	0.80	91.2	114.0	0.358	0.218	0.261	0.73	Above W.T.
CPT-2	5.76	10.5	14.6	1.15	135	778	778	22.9	36.5	8.09	2.9	49.4	0.80	91.6	114.5	0.358	0.220	0.264	0.74	Above W.T.
CPT-2																				

Project Name: 199 River Oaks Parkway
Project Number: 7862.3.001.01
Date: 20-Jul-07
CPT Number: CPT-2
Depth to Groundwater: 10.5 ft

EQ Magnitude (M_w): 7.1
PGA (g): 0.55
MSF: 1.20

Cone	Depth (FT)	Water Table (FT)	Tip Resist. (TSF)	Sleeve Frict. (TSF)	γ (PCF)	Total Stress (PSF)	Effective Stress (PSF)	Norm. Tip Q _{tip}	Corr. Tip Q	Friction Ratio F	Ic	F.C. (%)	K _{CPT}	Δq _{tip}	(q _{tip}) ₀	Induced Stress Ratio	Liquef. Stress M7.5	Liquef. Stress M7.10	Factor of Safety	Comments
CPT-2	6.47	10.5	15.4	1.3	135	873	873	22.8	34.2	8.69	2.9	52.0	0.80	91.2	114.0	0.358	0.218	0.261	0.73	Above W.T.
CPT-2	6.56	10.5	15.6	1.31	135	886	886	22.9	34.2	8.64	2.9	51.9	0.80	91.7	114.7	0.358	0.220	0.264	0.74	Above W.T.
CPT-2	6.65	10.5	14.7	1.31	135	898	898	21.5	31.7	9.19	2.9	54.5	0.80	85.9	107.3	0.358	0.195	0.234	0.65	Above W.T.
CPT-2	6.74	10.5	15.2	1.26	135	910	910	22.0	32.4	8.55	2.9	52.6	0.80	88.2	110.2	0.358	0.205	0.246	0.69	Above W.T.
CPT-2	6.84	10.5	14.8	1.21	135	923	923	21.3	31.0	8.44	2.9	53.2	0.80	85.2	106.5	0.358	0.192	0.231	0.65	Above W.T.
CPT-2	6.92	10.5	14.8	1.17	135	934	934	21.2	30.7	8.16	2.9	52.7	0.80	84.7	105.9	0.358	0.191	0.229	0.64	Above W.T.
CPT-2	7.01	10.5	14.8	1.14	135	946	946	21.1	30.3	7.96	2.9	52.5	0.80	84.2	105.3	0.358	0.188	0.226	0.63	Above W.T.
CPT-2	7.1	10.5	15	1.12	135	959	959	21.2	30.3	7.71	2.9	51.8	0.80	84.8	106.0	0.358	0.191	0.229	0.64	Above W.T.
CPT-2	7.19	10.5	14.6	1.12	135	971	971	20.5	29.1	7.94	2.9	53.2	0.80	82.0	102.5	0.358	0.180	0.216	0.60	Above W.T.
CPT-2	7.28	10.5	14.1	1.1	125	910	910	20.5	30.0	8.06	2.9	52.9	0.80	81.8	102.3	0.358	0.179	0.215	0.60	Above W.T.
CPT-2	7.37	10.5	13.9	1.08	125	921	921	20.0	29.2	8.04	2.9	53.4	0.80	80.1	100.2	0.358	0.174	0.208	0.58	Above W.T.
CPT-2	7.46	10.5	14.1	1.07	125	933	933	20.2	29.2	7.85	2.9	52.9	0.80	80.8	101.0	0.358	0.176	0.211	0.59	Above W.T.
CPT-2	7.55	10.5	14.1	1.05	125	944	944	20.1	28.9	7.70	2.9	52.7	0.80	80.3	100.4	0.358	0.174	0.209	0.58	Above W.T.
CPT-2	7.64	10.5	14.4	1.12	135	1031	1031	19.6	26.9	8.07	2.9	55.0	0.80	78.5	98.1	0.358	0.168	0.201	0.56	Above W.T.
CPT-2	7.75	10.5	14.7	1.15	135	1046	1046	19.9	27.1	8.11	2.9	55.0	0.80	79.5	99.4	0.358	0.171	0.206	0.58	Above W.T.
CPT-2	7.84	10.5	14.9	1.18	135	1058	1058	20.0	27.1	8.21	2.9	55.2	0.80	80.2	100.2	0.358	0.174	0.208	0.58	Above W.T.
CPT-2	7.93	10.5	14.7	1.16	135	1071	1071	19.7	26.5	8.19	3.0	55.6	0.80	78.6	98.3	0.358	0.168	0.202	0.56	Above W.T.
CPT-2	8.02	10.5	14.3	1.14	135	1083	1083	19.0	25.4	8.29	3.0	56.7	0.80	76.1	95.1	0.358	0.160	0.192	0.54	Above W.T.
CPT-2	8.11	10.5	14.6	1.18	135	1095	1095	19.3	25.7	8.40	3.0	56.7	0.80	77.2	96.5	0.358	0.164	0.196	0.55	Above W.T.
CPT-2	8.2	10.5	14.9	1.19	135	1107	1107	19.6	25.9	8.29	3.0	56.3	0.80	78.4	98.0	0.358	0.167	0.201	0.56	Above W.T.
CPT-2	8.25	10.5	15.4	1.2	135	1114	1114	20.2	26.6	8.08	3.0	55.2	0.80	80.8	101.0	0.358	0.176	0.211	0.59	Above W.T.
CPT-2	8.33	10.5	16.5	1.23	135	1125	1125	21.5	28.3	7.72	2.9	53.1	0.80	86.1	107.6	0.358	0.196	0.235	0.66	Above W.T.
CPT-2	8.42	10.5	17	1.28	135	1137	1137	22.1	28.9	7.79	2.9	52.9	0.80	88.2	110.3	0.358	0.205	0.246	0.69	Above W.T.
CPT-2	8.51	10.5	16.8	1.31	135	1149	1149	21.7	28.2	8.07	2.9	54.1	0.80	86.7	108.4	0.358	0.199	0.238	0.67	Above W.T.
CPT-2	8.61	10.5	16.4	1.26	135	1162	1162	21.0	27.2	7.97	2.9	54.5	0.80	84.2	105.2	0.358	0.188	0.226	0.63	Above W.T.
CPT-2	8.69	10.5	16.7	1.25	135	1173	1173	21.3	27.5	7.76	2.9	53.8	0.80	85.3	106.7	0.358	0.193	0.231	0.65	Above W.T.
CPT-2	8.78	10.5	16.2	1.23	135	1185	1185	20.6	26.3	7.88	2.9	54.9	0.80	82.4	102.9	0.358	0.181	0.218	0.61	Above W.T.
CPT-2	8.87	10.5	15.7	1.23	135	1197	1197	19.9	25.2	8.15	3.0	56.5	0.80	79.4	99.3	0.358	0.171	0.205	0.57	Above W.T.
CPT-2	8.98	10.5	16.4	1.26	135	1212	1212	20.6	26.0	7.98	3.0	55.4	0.80	82.4	103.0	0.358	0.182	0.218	0.61	Above W.T.
CPT-2	9.07	10.5	16.4	1.25	135	1224	1224	20.5	25.8	7.92	3.0	55.4	0.80	82.0	102.5	0.358	0.180	0.216	0.61	Above W.T.
CPT-2	9.16	10.5	16.5	1.27	135	1237	1237	20.5	25.7	8.00	3.0	55.7	0.80	82.1	102.6	0.358	0.181	0.217	0.61	Above W.T.
CPT-2	9.25	10.5	15.4	1.26	135	1249	1249	19.1	23.7	8.53	3.0	58.7	0.80	76.3	95.3	0.358	0.161	0.193	0.54	Above W.T.
CPT-2	9.34	10.5	15.3	1.23	135	1261	1261	18.9	23.3	8.38	3.0	58.7	0.80	75.4	94.3	0.358	0.158	0.189	0.53	Above W.T.
CPT-2	9.43	10.5	15.4	1.27	135	1273	1273	18.9	23.2	8.60	3.0	59.3	0.80	75.5	94.4	0.358	0.158	0.190	0.53	Above W.T.
CPT-2	9.52	10.5	16	1.3	135	1285	1285	19.5	23.9	8.47	3.0	58.3	0.80	78.1	97.6	0.358	0.167	0.200	0.56	Above W.T.
CPT-2	9.61	10.5	16.5	1.34	135	1297	1297	20.0	24.4	8.45	3.0	57.9	0.80	80.2	100.2	0.358	0.174	0.208	0.58	Above W.T.
CPT-2	9.7	10.5	17.2	1.42	135	1310	1310	20.8	25.3	8.58	3.0	57.5	0.80	83.2	104.0	0.358	0.185	0.221	0.62	Above W.T.
CPT-2	9.79	10.5	17.5	1.48	135	1322	1322	21.1	25.5	8.79	3.0	57.8	0.80	84.2	105.3	0.358	0.189	0.226	0.63	Above W.T.
CPT-2	9.88	10.5	18.2	1.55	135	1334	1334	21.8	26.3	8.84	3.0	57.3	0.80	87.2	109.0	0.358	0.201	0.241	0.67	Above W.T.
CPT-2	9.97	10.5	19	1.62	135	1346	1346	22.7	27.2	8.84	3.0	56.6	0.80	90.6	113.3	0.358	0.215	0.258	0.72	Above W.T.
CPT-2	10.06	10.5	19.5	1.68	135	1358	1358	23.2	27.7	8.93	3.0	56.5	0.80	92.6	115.8	0.350	0.224	0.269	0.77	Above W.T.
CPT-2	10.15	10.5	19.5	1.66	135	1370	1370	23.0	27.5	8.82	3.0	56.4	0.80	92.2	115.2	0.350	0.222	0.267	0.76	Above W.T.
CPT-2	10.23	10.5	18.8	1.61	135	1381	1381	22.1	26.2	8.89	3.0	57.5	0.80	88.5	110.7	0.350	0.206	0.247	0.71	Above W.T.
CPT-2	10.33	10.5	19.1	1.52	135	1395	1395	22.4	26.4	8.26	3.0	55.9	0.80	89.5	111.9	0.350	0.210	0.252	0.72	Above W.T.
CPT-2	10.41	10.5	18.8	1.44	135	1405	1405	21.9	25.7	7.96	3.0	55.6	0.80	87.8	109.7	0.350	0.203	0.243	0.69	Above W.T.
CPT-2	10.5	10.5	18.6	1.38	135	1418	1418	21.6	25.2	7.71	3.0	55.3	0.80	86.5	108.1	0.350	0.197	0.237	0.68	NonLiqfble.
CPT-2	10.59	10.5	18.4	1.39	135	1430	1430	20.9	24.6	7.86	2.8	45.0	0.80	116.1	145.2	0.651	0.365	0.437	0.67	NonLiqfble.
CPT-2	10.69	10.5	19.2	1.49	135	1443	1443	20.2	24.6	8.06	2.8	44.9	0.80	120.6	150.8	0.651	0.399	0.479	0.73	NonLiqfble.
CPT-2	10.77	10.5	19.7	1.58	135	1454	1454	20.8	24.8	8.33	2.8	45.2	0.80	123.3	154.1	0.651	0.420	0.505	0.77	NonLiqfble.
CPT-2	10.86	10.5	20.4	1.65	135	1466	1466	21.8	25.8	8.39	2.8	44.9	0.80	127.2	158.9	0.651	0.453	0.544	0.84	NonLiqfble.
CPT-2	10.95	10.5	22.4	1.76	135	1478	1478	23.8	28.8	8.13	2.7	43.0	0.80	139.0	173.8	0.651	0.568	0.682	1.05	NonLiqfble.
CPT-2	11.04	10.5	24.5	1.88	135	1490	1490	27.9	34.8	7.91	2.7	41.2	0.80	151.5	189.3	0.651	0.711	0.853	1.31	NonLiqfble.
CPT-2	11.13	10.5	25.2	1.96	135	1503	1503	28.8	36.5	8.02	2.7	41.2	0.80	155.2	193.9	0.651	0.758	0.910	1.40	NonLiqfble.
CPT-2	11.22	10.5	25.4	2.01	135	1515	1515	38.9	60.5	8.16	2.7	41.5	0.80	155.8	194.7	0.651	0.766	0.920	1.41	NonLiqfble.
CPT-2	11.3	10.5	25.8	2	135	1526	1526	39.4	61.0	7.99	2.7	41.0	0.80	157.6	197.1	0.651	0.792	0.950	1.46	NonLiqfble.
CPT-2	11.39	10.5	25.8	1.96	135	1538	1538	39.3	60.5	7.83	2.7	40.7	0.80	157.0	196.3	0.651	0.783	0.940	1.44	NonLiqfble.
CPT-2	11.48	10.5	25.6	1.94	135	1550	1550	38.3	59.5	7.81	2.7	40.9	0.80	155.2	194.0	0.651	0.759	0.911	1.40	NonLiqfble.
CPT-2	11.57	10.5	26.7	1.92	135	1562	1562	40.0	61.7	7.41	2.7	39.5	0.80	161.2	201.5	0.651	0.841	1.010	1.55	NonLiqfble.
CPT-2	11.67	10.5	26.8	1.9	135	1575	1575	40.3	61.4	7.30	2.7	39.3	0.80	161.1	201.4	0.651	0.840	1.008	1.55	NonLiqfble.
CPT-2	11.76	10.5	27.3	1.98	135	1588	1588	40.9	62.1	7.47	2.7	39.5	0.80	163.5	204.4	0.651	0.874	1.049	1.61	NonLiqfble.
CPT-2	11.85	10.5	28.1	2.02	135	1600	1600	41.9	63.4	7.40	2.7	39.0	0.80	167.7	209.6	0.651	0.936	1.123	1.72	NonLiqfble.
CPT-2	11.9	10.5	28.6																	

Project Name:

199 River Oaks Parkway

Project Number:

7862.3.001.01

Date:

20-Jul-07

CPT Number:

CPT-2

Depth to Groundwater:

10.5 ft

EQ Magnitude (M_w): 7.1

PGA (g): 0.55

MSF: 1.20

Cone	Depth (FT)	Water Table (FT)	Tip Resist. (TSF)	Sleeve Frict. (TSF)	γ (PCF)	Total Stress (PSF)	Effective Stress (PSF)	Norm. Tip Q _{t(N)}	Corr. Tip Q	Friction Ratio F	Ic	F.C. (%)	K _{CPT}	Δq _(N)	(q _{t(N)}) ^{0.5}	Induced Stress Ratio	Liquef. Stress M7.5	Liquef. Stress M7.10	Factor of Safety	Comments
CPT-2	12.59	10.5	21.2	1.49	135	1700	914	30.7	44.5	7.32	2.8	44.2	0.80	122.7	153.4	0.651	0.416	0.499	0.77	NonLiqfble.
CPT-2	12.67	10.5	20.6	1.42	135	1710	920	29.7	42.9	7.19	2.8	44.5	0.80	118.9	148.6	0.651	0.385	0.462	0.71	NonLiqfble.
CPT-2	12.76	10.5	20.7	1.39	135	1723	926	29.8	42.8	7.01	2.8	44.0	0.80	119.0	148.8	0.651	0.386	0.464	0.71	NonLiqfble.
CPT-2	12.85	10.5	20.5	1.3	135	1735	933	29.4	42.1	6.62	2.8	43.3	0.80	117.5	146.8	0.651	0.374	0.449	0.69	NonLiqfble.
CPT-2	12.94	10.5	20.3	1.23	135	1747	939	29.0	41.3	6.33	2.7	42.8	0.80	115.9	144.9	0.651	0.363	0.435	0.67	NonLiqfble.
CPT-2	13.02	10.5	20.2	1.19	135	1758	945	28.7	40.9	6.16	2.7	42.5	0.80	115.0	143.7	0.651	0.356	0.427	0.66	NonLiqfble.
CPT-2	13.11	10.5	18.8	1.12	135	1770	952	26.7	37.6	6.25	2.8	44.1	0.80	106.7	133.3	0.651	0.300	0.360	0.55	NonLiqfble.
CPT-2	13.2	10.5	17.3	1.08	135	1782	958	24.5	34.2	6.58	2.8	46.6	0.80	97.8	122.3	0.651	0.250	0.300	0.46	NonLiqfble.
CPT-2	13.29	10.5	16	1.07	135	1794	965	22.5	31.3	7.08	2.9	49.6	0.80	90.1	112.7	0.651	0.213	0.256	0.39	NonLiqfble.
CPT-2	13.38	10.5	14.6	1	125	1673	838	22.1	32.9	7.27	2.9	49.2	0.80	88.3	110.4	0.700	0.205	0.246	0.35	NonLiqfble.
CPT-2	13.47	10.5	14.5	0.94	125	1684	843	21.8	32.4	6.88	2.8	48.4	0.80	87.4	109.2	0.700	0.201	0.241	0.35	NonLiqfble.
CPT-2	13.55	10.5	13.9	0.9	125	1694	848	20.9	30.8	6.90	2.9	49.4	0.80	83.5	104.4	0.700	0.186	0.223	0.32	NonLiqfble.
CPT-2	13.64	10.5	14.4	0.84	125	1705	854	21.6	31.7	6.20	2.8	46.9	0.80	86.2	107.8	0.700	0.197	0.236	0.34	NonLiqfble.
CPT-2	13.73	10.5	15.6	0.8	125	1716	859	23.3	34.3	5.43	2.8	43.2	0.80	93.1	116.4	0.700	0.227	0.272	0.39	NonLiqfble.
CPT-2	13.82	10.5	16.7	0.8	125	1728	865	24.8	36.6	5.05	2.7	40.9	0.80	99.4	124.2	0.700	0.258	0.310	0.44	NonLiqfble.
CPT-2	13.91	10.5	16.3	0.81	125	1739	871	24.2	35.4	5.25	2.7	42.1	0.80	96.7	120.8	0.700	0.244	0.293	0.42	NonLiqfble.
CPT-2	13.99	10.5	16.2	0.79	125	1749	876	24.0	35.0	5.15	2.7	42.0	0.80	95.8	119.8	0.700	0.240	0.288	0.41	NonLiqfble.
CPT-2	14.08	10.5	15.7	0.74	125	1760	881	23.1	33.6	4.99	2.7	42.1	0.80	92.6	115.7	0.700	0.224	0.269	0.38	NonLiqfble.
CPT-2	14.17	10.5	15.1	0.66	125	1771	887	22.2	32.0	4.64	2.7	41.7	0.80	88.7	110.9	0.700	0.207	0.248	0.35	NonLiqfble.
CPT-2	14.26	10.5	14.5	0.61	125	1783	893	21.2	30.5	4.48	2.7	42.0	0.80	84.9	106.2	0.700	0.191	0.230	0.33	NonLiqfble.
CPT-2	14.35	10.5	14.1	0.52	125	1794	898	20.6	29.4	3.94	2.7	40.6	0.80	82.3	102.9	0.700	0.181	0.218	0.31	NonLiqfble.
CPT-2	14.44	10.5	13.5	0.44	125	1805	904	19.6	27.9	3.49	2.7	39.7	0.80	78.6	98.2	0.700	0.168	0.202	0.29	NonLiqfble.
CPT-2	14.52	10.5	13.2	0.4	125	1815	909	19.2	27.0	3.25	2.7	39.1	0.80	76.6	95.8	0.700	0.162	0.194	0.28	NonLiqfble.
CPT-2	14.61	10.5	12.3	0.4	115	1680	768	19.4	29.8	3.49	2.7	38.5	0.80	77.7	97.1	0.766	0.165	0.198	0.26	NonLiqfble.
CPT-2	14.7	10.5	12.2	0.4	115	1691	773	19.2	29.4	3.52	2.7	38.9	0.80	76.8	96.0	0.766	0.162	0.195	0.25	NonLiqfble.
CPT-2	14.79	10.5	12.3	0.41	115	1701	778	19.3	29.4	3.58	2.7	39.1	0.80	77.2	96.5	0.766	0.164	0.196	0.26	NonLiqfble.
CPT-2	14.88	10.5	11.6	0.45	125	1860	931	16.6	22.9	4.22	2.8	46.2	0.80	66.5	83.1	0.700	0.133	0.160	0.23	NonLiqfble.
CPT-2	14.97	10.5	11.1	0.48	125	1871	937	15.9	21.7	4.72	2.9	49.1	0.80	63.5	79.3	0.700	0.126	0.152	0.22	NonLiqfble.
CPT-2	15.06	10.5	10.7	0.49	125	1883	943	15.2	20.7	5.02	2.9	51.1	0.80	61.0	76.2	0.700	0.121	0.145	0.21	NonLiqfble.
CPT-2	15.15	10.5	10.4	0.47	115	1742	797	16.1	23.9	4.93	2.8	48.0	0.80	64.5	80.6	0.766	0.129	0.154	0.20	NonLiqfble.
CPT-2	15.24	10.5	9.4	0.46	115	1753	802	14.5	21.3	5.40	2.9	51.9	0.80	58.1	72.6	0.766	0.116	0.139	0.18	NonLiqfble.
CPT-2	15.33	10.5	9.4	0.41	115	1763	806	14.5	21.1	4.81	2.9	50.0	0.80	57.9	72.4	0.766	0.115	0.138	0.18	NonLiqfble.
CPT-2	15.41	10.5	9.1	0.34	115	1772	811	14.0	20.3	4.14	2.8	48.2	0.80	55.9	69.9	0.766	0.112	0.134	0.18	NonLiqfble.
CPT-2	15.52	10.5	7.9	0.31	115	1785	816	12.1	17.2	4.42	2.9	52.7	0.80	48.4	60.5	0.766	0.101	0.121	0.16	NonLiqfble.
CPT-2	15.61	10.5	7.6	0.32	115	1795	821	11.6	16.3	4.77	2.9	55.2	0.80	46.4	58.0	0.766	0.098	0.118	0.15	NonLiqfble.
CPT-2	15.7	10.5	10	0.31	115	1806	826	15.2	22.0	3.41	2.8	43.5	0.80	60.9	76.1	0.766	0.121	0.145	0.19	NonLiqfble.
CPT-2	15.79	10.5	9.8	0.31	115	1816	831	14.9	21.4	3.49	2.8	44.4	0.80	59.5	74.4	0.766	0.118	0.142	0.19	NonLiqfble.
CPT-2	15.88	10.5	8.5	0.31	115	1826	835	12.9	18.2	4.09	2.9	50.2	0.80	51.5	64.3	0.766	0.105	0.126	0.16	NonLiqfble.
CPT-2	15.97	10.5	8	0.3	115	1837	840	12.1	16.9	4.24	2.9	52.4	0.80	48.3	60.4	0.766	0.100	0.121	0.16	NonLiqfble.
CPT-2	16.05	10.5	7.8	0.27	105	1685	684	13.1	20.3	3.88	2.8	47.1	0.80	52.2	65.3	0.864	0.106	0.127	0.15	NonLiqfble.
CPT-2	16.15	10.5	8	0.26	105	1696	688	13.3	20.8	3.64	2.8	45.6	0.80	53.4	66.7	0.864	0.108	0.129	0.15	NonLiqfble.
CPT-2	16.23	10.5	7.9	0.26	105	1704	691	13.1	20.4	3.69	2.8	46.2	0.80	52.6	65.7	0.864	0.106	0.128	0.15	NonLiqfble.
CPT-2	16.33	10.5	7.9	0.26	105	1715	696	13.1	20.2	3.69	2.8	46.4	0.80	52.4	65.5	0.864	0.106	0.127	0.15	NonLiqfble.
CPT-2	16.42	10.5	7.9	0.25	105	1724	699	13.1	20.1	3.55	2.8	45.9	0.80	52.3	65.3	0.864	0.106	0.127	0.15	NonLiqfble.
CPT-2	16.5	10.5	7.2	0.23	105	1733	703	11.9	18.0	3.63	2.8	48.4	0.80	47.5	59.4	0.864	0.100	0.119	0.14	NonLiqfble.
CPT-2	16.59	10.5	7.1	0.2	105	1742	707	11.7	17.6	3.21	2.8	46.9	0.80	46.7	58.4	0.864	0.099	0.118	0.14	NonLiqfble.
CPT-2	16.69	10.5	7	0.19	105	1752	711	11.5	17.2	3.10	2.8	46.8	0.80	45.9	57.4	0.864	0.098	0.117	0.14	NonLiqfble.
CPT-2	16.77	10.5	6.7	0.19	105	1761	714	11.0	16.3	3.27	2.8	48.8	0.80	43.9	54.8	0.864	0.095	0.114	0.13	NonLiqfble.
CPT-2	16.86	10.5	6.9	0.22	105	1770	718	11.3	16.7	3.66	2.9	50.0	0.80	45.1	56.3	0.864	0.097	0.116	0.13	NonLiqfble.
CPT-2	16.95	10.5	7.1	0.27	105	1780	722	11.6	17.2	4.35	2.9	52.4	0.80	46.2	57.8	0.864	0.098	0.118	0.14	NonLiqfble.
CPT-2	17.04	10.5	7.8	0.3	115	1960	896	11.4	15.2	4.40	3.0	55.2	0.80	45.6	57.0	0.766	0.097	0.117	0.15	NonLiqfble.
CPT-2	17.13	10.5	8.3	0.3	115	1970	901	12.1	16.2	4.10	2.9	52.6	0.80	48.4	60.5	0.766	0.101	0.121	0.16	NonLiqfble.
CPT-2	17.22	10.5	7.9	0.26	105	1808	734	12.8	19.1	3.72	2.8	47.6	0.80	51.0	63.8	0.864	0.104	0.125	0.14	NonLiqfble.
CPT-2	17.31	10.5	7.3	0.24	105	1818	737	11.8	17.3	3.76	2.9	49.7	0.80	47.0	58.8	0.864	0.099	0.119	0.14	NonLiqfble.
CPT-2	17.4	10.5	7.6	0.24	105	1827	741	12.2	18.0	3.59	2.8	48.2	0.80	48.9	61.1	0.864	0.101	0.121	0.14	NonLiqfble.
CPT-2	17.48	10.5	8	0.23	105	1835	745	12.8	19.0	3.25	2.8	45.6	0.80	51.3	64.1	0.864	0.105	0.125	0.15	NonLiqfble.
CPT-2	17.58	10.5	8.2	0.24	105	1846	749	13.1	19.4	3.30	2.8	45.4	0.80	52.4	65.6	0.864	0.106	0.127	0.15	NonLiqfble.
CPT-2	17.67	10.5	8.3	0.26	105	1855	753	13.2	19.6	3.53	2.8	46.3	0.80	52.9	66.2	0.864	0.107	0.128	0.15	NonLiqfble.
CPT-2	17.75	10.5	9.3	0.28	115	2041	934	13.3	17.7	3.38	2.8	47.6	0.80	53.3	66.6	0.766	0.107	0.129	0.17	NonLiqfble.
CPT-2	17.84	10.5	10.4	0.3	115	2052	938	14.9	20.0	3.20	2.8									

Project Name: 199 River Oaks Parkway
Project Number: 7862.3.001.01
Date: 20-Jul-07
CPT Number: CPT-2
Depth to Groundwater: 10.5 ft

EQ Magnitude (M_w): 7.1
PGA (g): 0.55
MSF: 1.20

Cone	Depth (FT)	Water Table (FT)	Tip Resist. (TSF)	Sleeve Frict. (TSF)	Total Stress (PSF)	Effective Stress (PSF)	Norm. Tip Q _{HN}	Corr. Tip Q	Friction Ratio F	F.C. (%)	K _{CPT}	Δq _{CPT}	(q _{CPT}) ₉₅	Induced Stress Ratio	Liquef. Stress M7.5	Liquef. Stress M7.10	Factor of Safety	Comments		
CPT-2	18.8	10.5	20.8	0.95	135	2538	1365	24.6	28.6	4.86	2.8	44.5	0.80	98.5	123.2	0.651	0.254	0.305	0.47	NonLiqfble.
CPT-2	18.89	10.5	19	0.78	125	2361	1183	24.2	30.1	4.38	2.7	41.8	0.80	96.7	120.9	0.700	0.244	0.293	0.42	NonLiqfble.
CPT-2	18.97	10.5	17.2	0.66	125	2371	1188	21.8	27.0	4.12	2.7	42.8	0.80	87.4	109.2	0.700	0.201	0.241	0.34	NonLiqfble.
CPT-2	19.06	10.5	16	0.62	125	2383	1193	20.3	24.8	4.19	2.8	44.6	0.80	81.1	101.3	0.700	0.177	0.212	0.30	NonLiqfble.
CPT-2	19.15	10.5	15.3	0.61	125	2394	1199	19.3	23.5	4.33	2.8	46.1	0.80	77.3	96.7	0.700	0.164	0.197	0.28	NonLiqfble.
CPT-2	19.23	10.5	16.5	0.59	125	2404	1204	20.8	25.4	3.86	2.7	42.8	0.80	83.2	104.0	0.700	0.185	0.222	0.32	NonLiqfble.
CPT-2	19.32	10.5	17.9	0.58	125	2415	1209	22.5	27.6	3.47	2.7	39.8	0.80	90.1	112.6	0.700	0.213	0.255	0.36	NonLiqfble.
CPT-2	19.41	10.5	18.8	0.55	125	2426	1215	23.6	28.9	3.13	2.6	37.4	0.80	94.4	118.0	0.700	0.233	0.279	0.40	NonLiqfble.
CPT-2	19.49	10.5	17.9	0.51	125	2436	1220	22.4	27.3	3.06	2.7	38.0	0.80	89.7	112.1	0.700	0.211	0.253	0.36	NonLiqfble.
CPT-2	19.58	10.5	18.1	0.48	125	2448	1226	22.6	27.5	2.84	2.6	36.9	0.80	90.5	113.1	0.700	0.215	0.257	0.37	NonLiqfble.
CPT-2	19.67	10.5	18.5	0.47	125	2459	1231	23.1	28.0	2.72	2.6	36.0	0.80	92.3	115.3	0.700	0.223	0.267	0.38	NonLiqfble.
CPT-2	19.76	10.5	18.7	0.51	125	2470	1237	23.3	28.2	2.92	2.6	36.9	0.80	93.1	116.3	0.700	0.226	0.272	0.39	NonLiqfble.
CPT-2	19.85	10.5	20.1	0.56	125	2481	1243	24.9	30.3	2.97	2.6	35.9	0.80	99.8	124.7	0.700	0.261	0.313	0.45	NonLiqfble.
CPT-2	19.94	10.5	20.9	0.6	125	2493	1248	25.9	31.5	3.05	2.6	35.7	0.80	103.5	129.4	0.700	0.282	0.338	0.48	NonLiqfble.
CPT-2	20.02	10.5	21.3	0.66	125	2503	1253	26.3	32.0	3.29	2.6	36.5	0.80	105.3	131.6	0.685	0.292	0.351	0.51	NonLiqfble.
CPT-2	20.11	10.5	21.4	0.71	125	2514	1259	26.4	32.0	3.52	2.6	37.5	0.80	105.6	131.9	0.685	0.294	0.352	0.51	NonLiqfble.
CPT-2	20.2	10.5	21.9	0.78	125	2525	1265	26.9	32.6	3.78	2.7	38.2	0.80	107.8	134.7	0.685	0.307	0.369	0.54	NonLiqfble.
CPT-2	20.28	10.5	22.6	0.84	135	2738	1472	25.8	28.8	3.96	2.7	41.0	0.80	103.1	128.9	0.638	0.279	0.335	0.52	NonLiqfble.
CPT-2	20.38	10.5	23.1	0.96	135	2751	1480	26.3	29.4	4.42	2.7	42.4	0.80	105.1	131.4	0.638	0.291	0.349	0.55	NonLiqfble.
CPT-2	20.47	10.5	26	1.08	135	2763	1486	29.5	33.1	4.39	2.7	40.3	0.80	118.0	147.5	0.638	0.379	0.454	0.71	NonLiqfble.
CPT-2	20.55	10.5	27.7	1.17	135	2774	1492	31.4	35.3	4.45	2.7	39.4	0.80	125.5	156.9	0.638	0.439	0.527	0.83	NonLiqfble.
CPT-2	20.64	10.5	29.1	1.22	135	2786	1498	32.9	37.0	4.40	2.7	38.5	0.80	131.6	164.5	0.638	0.494	0.592	0.93	NonLiqfble.
CPT-2	20.73	10.5	29.9	1.26	135	2799	1505	33.7	37.9	4.42	2.7	38.2	0.80	134.9	168.6	0.638	0.526	0.631	0.99	NonLiqfble.
CPT-2	20.81	10.5	29.2	1.26	135	2809	1511	32.9	36.8	4.53	2.7	39.1	0.80	131.5	164.3	0.638	0.493	0.591	0.93	NonLiqfble.
CPT-2	20.9	10.5	29.1	1.29	135	2822	1517	32.7	36.5	4.66	2.7	39.6	0.80	130.7	163.4	0.638	0.486	0.583	0.91	NonLiqfble.
CPT-2	20.98	10.5	30.2	1.37	135	2832	1523	33.9	37.8	4.76	2.7	39.4	0.80	135.4	169.3	0.638	0.531	0.637	1.00	NonLiqfble.
CPT-2	21.07	10.5	33.1	1.5	135	2844	1530	37.0	41.4	4.74	2.7	37.9	0.80	148.1	185.1	0.638	0.670	0.804	1.26	NonLiqfble.
CPT-2	21.15	10.5	38.3	1.76	135	2855	1535	42.8	48.0	4.77	2.6	35.8	0.80	171.1	213.8	0.638	0.989	1.187	1.86	NonLiqfble.
CPT-2	21.24	10.5	40	1.93	135	2867	1542	44.6	50.0	5.00	2.6	35.9	0.80	178.3	222.8	0.638	1.109	1.331	2.09	NonLiqfble.
CPT-2	21.32	10.5	43.3	1.88	135	2878	1548	48.2	54.1	4.49	2.6	33.2	0.75	145.9	194.0	0.638	0.759	0.911	1.43	NonLiqfble.
CPT-2	21.41	10.5	39.9	1.84	135	2890	1554	44.3	49.5	4.78	2.6	35.4	0.80	177.1	221.4	0.638	1.089	1.307	2.05	NonLiqfble.
CPT-2	21.49	10.5	32	1.84	135	2901	1560	35.4	39.1	6.02	2.7	42.8	0.80	141.8	177.2	0.638	0.598	0.717	1.12	NonLiqfble.
CPT-2	21.57	10.5	28.1	1.83	135	2912	1566	31.1	34.0	6.87	2.8	47.5	0.80	124.3	155.3	0.638	0.429	0.514	0.81	NonLiqfble.
CPT-2	21.66	10.5	24.9	1.49	135	2924	1573	27.5	29.8	6.36	2.8	48.5	0.80	109.9	137.4	0.638	0.321	0.385	0.60	NonLiqfble.
CPT-2	21.74	10.5	21.3	1.32	135	2935	1578	23.5	25.1	6.66	2.9	52.5	0.80	93.8	117.3	0.638	0.230	0.276	0.43	NonLiqfble.
CPT-2	21.77	10.5	22.2	1.28	135	2939	1581	24.4	26.2	6.17	2.9	50.3	0.80	97.7	122.2	0.638	0.250	0.299	0.47	NonLiqfble.
CPT-2	21.86	10.5	22.4	1.22	135	2951	1587	24.6	26.4	5.83	2.9	49.1	0.80	98.4	123.0	0.638	0.253	0.304	0.48	NonLiqfble.
CPT-2	21.94	10.5	21.1	1.19	135	2962	1593	23.1	24.6	6.07	2.9	51.2	0.80	92.5	115.7	0.638	0.224	0.269	0.42	NonLiqfble.
CPT-2	22.02	10.5	21.8	1.17	135	2973	1599	23.9	25.4	5.76	2.9	49.6	0.80	95.4	119.3	0.638	0.238	0.285	0.45	NonLiqfble.
CPT-2	22.11	10.5	21.9	1.13	135	2985	1605	23.9	25.4	5.54	2.8	48.9	0.80	95.7	119.6	0.638	0.239	0.287	0.45	NonLiqfble.
CPT-2	22.19	10.5	20	1.04	135	2996	1611	21.8	23.0	5.62	2.9	51.1	0.80	87.2	109.0	0.638	0.200	0.241	0.38	NonLiqfble.
CPT-2	22.28	10.5	17.4	0.95	125	2785	1395	20.4	22.9	5.93	2.9	52.1	0.80	81.5	101.9	0.685	0.178	0.214	0.31	NonLiqfble.
CPT-2	22.37	10.5	15.3	0.87	125	2796	1400	17.9	19.8	6.26	3.0	56.1	0.80	71.6	89.4	0.685	0.147	0.176	0.26	NonLiqfble.
CPT-2	22.45	10.5	15.5	0.83	125	2806	1405	18.1	20.1	5.89	2.9	54.7	0.80	72.4	90.5	0.685	0.149	0.179	0.26	NonLiqfble.
CPT-2	22.54	10.5	14.5	0.8	125	2818	1411	16.9	18.5	6.11	3.0	57.1	0.80	67.6	84.4	0.685	0.136	0.163	0.24	NonLiqfble.
CPT-2	22.63	10.5	14.8	0.79	125	2829	1417	17.2	18.9	5.90	3.0	56.0	0.80	68.8	86.0	0.685	0.139	0.167	0.24	NonLiqfble.
CPT-2	22.71	10.5	15	0.79	125	2839	1422	17.4	19.1	5.82	3.0	55.5	0.80	69.6	87.0	0.685	0.141	0.170	0.25	NonLiqfble.
CPT-2	22.8	10.5	16.1	0.83	125	2850	1427	18.6	20.6	5.66	2.9	53.4	0.80	74.6	93.2	0.685	0.155	0.186	0.27	NonLiqfble.
CPT-2	22.89	10.5	17.9	0.9	125	2861	1433	20.7	23.0	5.46	2.9	50.6	0.80	82.8	103.4	0.685	0.183	0.220	0.32	NonLiqfble.
CPT-2	22.97	10.5	17.7	0.98	135	3101	1668	19.0	19.4	6.07	3.0	56.0	0.80	75.9	94.8	0.638	0.159	0.191	0.30	NonLiqfble.
CPT-2	23.06	10.5	18.4	1.07	135	3113	1674	19.7	20.1	6.35	3.0	56.1	0.80	78.7	98.4	0.638	0.169	0.202	0.32	NonLiqfble.
CPT-2	23.14	10.5	18.3	1.12	135	3124	1680	19.5	19.9	6.69	3.0	57.3	0.80	78.1	97.7	0.638	0.167	0.200	0.31	NonLiqfble.
CPT-2	23.23	10.5	18.1	1.13	135	3136	1686	19.3	19.6	6.84	3.0	58.1	0.80	77.1	96.4	0.638	0.163	0.196	0.31	NonLiqfble.
CPT-2	23.31	10.5	17.8	1.13	135	3147	1692	18.9	19.2	6.96	3.0	58.9	0.80	75.7	94.7	0.638	0.159	0.191	0.30	NonLiqfble.
CPT-2	23.4	10.5	16.7	1.1	135	3159	1699	17.7	17.8	7.28	3.0	61.4	0.80	70.9	88.6	0.638	0.145	0.174	0.27	NonLiqfble.
CPT-2	23.49	10.5	16.4	1.03	135	3171	1705	17.4	17.4	6.95	3.0	61.1	0.80	69.5	86.9	0.638	0.141	0.169	0.27	NonLiqfble.
CPT-2	23.58	10.5	15.9	0.97	125	2948	1476	18.1	19.5	6.72	3.0	57.8	0.80	72.4	90.5	0.685	0.149	0.179	0.26	NonLiqfble.
CPT-2	23.68	10.5	16.5	0.94	125	2960	1482	18.8	20.3	6.26	3.0	55.7	0.80	75.0	93.8	0.685	0.157	0.188	0.27	NonLiqfble.
CPT-2	23.77	10.5	17.8	0.98	135	3209	1726	18.7	18.8	6.05	3.0	56.6	0.80	75.0	93.7	0.638	0.157	0.188	0.29	NonLiqfble.
CPT-2	23.86	10.5	18.3	1.02	135	3221	1732	19.2	19.3	6.11	3.0	56.3	0.80	77.0	96.2	0.638	0.163	0.195	0.31	NonLiqfble.
CPT-2	23.95	10.5	18.5	1.06	135	3233	1739	19.4	19.4	6.										

Project Name: 199 River Oaks Parkway
Project Number: 7862.3.001.01
Date: 20-Jul-07
CPT Number: CPT-2
Depth to Groundwater: 10.5 ft

EQ Magnitude (M_w): 7.1
PGA (g): 0.55
MSF: 1.20

Cone	Depth (FT)	Water Table (FT)	Tip Resist. (TSF)	Sleeve Frict. (TSF)	γ (PCF)	Total Stress (PSF)	Effective Stress (PSF)	Norm. Tip Q _{IN}	Corr. Tip Q	Friction Ratio F	I _c	F.C. (%)	K _{CPT}	Δq _{IN}	(q _{IN}) ₅	Induced Stress Ratio	Liquef. Stress M7.5	Liquef. Stress M7.10	Factor of Safety	Comments
CPT-2	24.78	10.5	18.4	0.7	125	3098	1551	20.4	21.7	4.15	2.8	46.9	0.80	81.8	102.2	0.685	0.179	0.215	0.31	NonLiqfble.
CPT-2	24.88	10.5	17.2	0.75	125	3110	1557	19.1	20.1	4.79	2.9	50.9	0.80	76.3	95.3	0.685	0.161	0.193	0.28	NonLiqfble.
CPT-2	24.97	10.5	15.5	0.76	125	3121	1563	17.2	17.8	5.45	3.0	55.7	0.80	68.6	85.8	0.685	0.139	0.166	0.24	NonLiqfble.
CPT-2	25.02	10.5	12.1	0.75	125	3128	1566	13.4	13.4	7.12	3.1	67.4	0.80	53.5	66.9	0.685	0.108	0.129	0.19	NonLiqfble.
CPT-2	25.1	10.5	18.1	0.73	125	3138	1571	20.0	21.0	4.42	2.8	48.6	0.80	79.9	99.9	0.685	0.173	0.207	0.30	NonLiqfble.
CPT-2	25.19	10.5	17.4	0.75	125	3149	1577	19.2	20.1	4.74	2.9	50.7	0.80	76.7	95.9	0.685	0.162	0.194	0.28	NonLiqfble.
CPT-2	25.29	10.5	17.7	0.76	125	3161	1583	19.5	20.4	4.72	2.9	50.4	0.80	77.9	97.3	0.685	0.166	0.199	0.29	NonLiqfble.
CPT-2	25.38	10.5	18.5	0.77	125	3173	1589	20.3	21.3	4.55	2.8	48.9	0.80	81.2	101.5	0.685	0.177	0.213	0.31	NonLiqfble.
CPT-2	25.47	10.5	17.8	0.88	125	3184	1594	19.5	20.3	5.43	2.9	52.9	0.80	78.0	97.5	0.685	0.166	0.200	0.29	NonLiqfble.
CPT-2	25.56	10.5	17.4	0.97	135	3451	1856	17.7	16.9	6.19	3.0	59.3	0.80	70.7	88.4	0.638	0.144	0.173	0.27	NonLiqfble.
CPT-2	25.66	10.5	19	1.06	135	3464	1863	19.3	18.5	6.14	3.0	57.2	0.80	77.0	96.3	0.638	0.163	0.196	0.31	NonLiqfble.
CPT-2	25.75	10.5	21.7	1.13	135	3476	1869	22.0	21.3	5.66	2.9	52.7	0.80	87.8	109.8	0.638	0.203	0.244	0.38	NonLiqfble.
CPT-2	25.84	10.5	22.6	1.2	135	3488	1876	22.8	22.2	5.75	2.9	52.2	0.80	91.3	114.2	0.638	0.218	0.262	0.41	NonLiqfble.
CPT-2	25.93	10.5	22.8	1.21	135	3501	1883	23.0	22.4	5.75	2.9	52.1	0.80	92.0	115.0	0.638	0.221	0.266	0.42	NonLiqfble.
CPT-2	26.03	10.5	23	1.19	135	3514	1890	23.1	22.5	5.60	2.9	51.5	0.80	92.6	115.7	0.638	0.224	0.269	0.42	NonLiqfble.
CPT-2	26.12	10.5	22.3	1.21	135	3526	1896	22.4	21.7	5.89	2.9	53.2	0.80	89.6	112.0	0.638	0.211	0.253	0.40	NonLiqfble.
CPT-2	26.21	10.5	22.4	1.23	135	3538	1903	22.5	21.7	5.96	2.9	53.4	0.80	89.9	112.3	0.638	0.212	0.254	0.40	NonLiqfble.
CPT-2	26.3	10.5	22.9	1.22	135	3551	1909	22.9	22.1	5.78	2.9	52.4	0.80	91.7	114.7	0.638	0.220	0.264	0.41	NonLiqfble.
CPT-2	26.4	10.5	22.2	1.12	135	3564	1917	22.2	21.3	5.49	2.9	52.2	0.80	88.7	110.9	0.638	0.207	0.248	0.39	NonLiqfble.
CPT-2	26.49	10.5	20.7	1.07	135	3576	1923	20.7	19.7	5.66	2.9	54.4	0.80	82.6	103.3	0.638	0.182	0.219	0.34	NonLiqfble.
CPT-2	26.58	10.5	19.8	1.06	135	3588	1930	19.7	18.7	5.89	3.0	56.2	0.80	78.9	98.6	0.638	0.169	0.203	0.32	NonLiqfble.
CPT-2	26.67	10.5	19.6	1.06	135	3600	1936	19.5	18.4	5.96	3.0	56.8	0.80	78.0	97.4	0.638	0.166	0.199	0.31	NonLiqfble.
CPT-2	26.77	10.5	18.9	1.11	135	3614	1944	18.8	17.6	6.49	3.0	59.4	0.80	75.0	93.8	0.638	0.157	0.188	0.29	NonLiqfble.
CPT-2	26.86	10.5	18.6	1.31	135	3626	1950	18.4	17.2	7.80	3.1	63.7	0.80	73.7	92.1	0.638	0.153	0.183	0.29	NonLiqfble.
CPT-2	26.95	10.5	21.2	1.67	135	3638	1957	21.0	19.8	8.62	3.1	62.7	0.80	83.9	104.9	0.638	0.187	0.225	0.35	NonLiqfble.
CPT-2	27.04	10.5	26.7	1.9	135	3650	1963	26.4	25.3	7.64	2.9	55.1	0.80	105.5	131.8	0.638	0.293	0.352	0.55	NonLiqfble.
CPT-2	27.13	10.5	33.7	1.92	135	3663	1970	33.2	32.3	6.02	2.8	46.0	0.80	132.9	166.1	0.638	0.506	0.608	0.95	NonLiqfble.
CPT-2	27.22	10.5	44.3	1.81	135	3675	1976	43.6	43.0	4.26	2.6	35.7	0.80	174.4	218.0	0.638	1.044	1.252	1.96	NonLiqfble.
CPT-2	27.31	10.5	55.4	1.74	135	3687	1983	54.4	54.0	3.25	2.5	28.6	0.63	93.1	147.5	0.638	0.379	0.454	0.71	Liquefaction
CPT-2	27.4	10.5	57.2	1.84	135	3699	1989	56.1	55.6	3.32	2.5	28.5	0.63	95.0	151.1	0.638	0.401	0.481	0.75	Liquefaction
CPT-2	27.49	10.5	54.5	1.98	135	3711	1996	53.4	52.7	3.76	2.5	30.9	0.69	120.2	173.6	0.638	0.567	0.680	1.07	Low F.S.
CPT-2	27.58	10.5	47.9	2.11	135	3723	2002	46.8	46.0	4.58	2.6	35.8	0.80	187.3	234.2	0.638	1.274	1.529	2.40	NonLiqfble.
CPT-2	27.67	10.5	41.8	2.22	135	3735	2009	40.8	39.7	5.56	2.7	41.2	0.80	163.2	204.0	0.638	0.870	1.044	1.64	NonLiqfble.
CPT-2	27.76	10.5	41.9	2.3	135	3748	2015	40.8	39.7	5.75	2.7	41.7	0.80	163.3	204.2	0.638	0.872	1.046	1.64	NonLiqfble.
CPT-2	27.85	10.5	46.1	2.29	135	3760	2022	44.9	43.7	5.18	2.7	38.5	0.80	179.4	224.3	0.638	1.129	1.355	2.12	NonLiqfble.
CPT-2	27.93	10.5	49.7	2.18	135	3771	2028	48.3	47.1	4.56	2.6	35.3	0.80	193.2	241.5	0.638	1.389	1.667	2.61	NonLiqfble.
CPT-2	28.02	10.5	50.1	2.12	135	3783	2034	48.6	47.4	4.40	2.6	34.7	0.79	186.7	235.3	0.638	1.291	1.550	2.43	NonLiqfble.
CPT-2	28.11	10.5	57.8	2.15	135	3795	2041	56.0	54.8	3.85	2.5	30.7	0.69	123.0	179.0	0.638	0.613	0.736	1.15	Low F.S.
CPT-2	28.2	10.5	61.4	2.17	135	3807	2047	59.4	58.1	3.65	2.5	29.2	0.65	108.7	168.1	0.638	0.522	0.626	0.98	Liquefaction
CPT-2	28.28	10.5	57.3	2.21	135	3818	2053	55.3	53.9	3.99	2.5	31.5	0.71	133.2	188.6	0.638	0.704	0.844	1.32	NonLiqfble.
CPT-2	28.37	10.5	60.3	2.21	135	3830	2060	58.1	56.7	3.79	2.5	30.1	0.67	117.5	175.7	0.638	0.584	0.701	1.10	Low F.S.
CPT-2	28.43	10.5	56.7	2.14	135	3838	2064	54.6	53.1	3.91	2.5	31.4	0.70	130.2	184.8	0.638	0.667	0.800	1.25	Low F.S.
CPT-2	28.52	10.5	59.3	2.16	135	3850	2071	57.0	55.4	3.76	2.5	30.3	0.68	118.5	175.5	0.638	0.583	0.700	1.10	Low F.S.
CPT-2	28.61	10.5	44.9	2.03	135	3862	2077	43.1	41.4	4.72	2.7	37.9	0.80	172.4	215.5	0.638	1.011	1.213	1.90	NonLiqfble.
CPT-2	28.7	10.5	33.7	1.78	135	3875	2084	32.3	30.5	5.60	2.8	45.8	0.80	129.2	161.5	0.638	0.472	0.566	0.89	NonLiqfble.
CPT-2	28.79	10.5	24.9	1.62	135	3887	2090	23.8	22.0	7.06	3.0	56.4	0.80	95.3	119.2	0.638	0.237	0.285	0.45	NonLiqfble.
CPT-2	28.88	10.5	22	1.55	135	3899	2097	21.0	19.1	7.73	3.0	61.1	0.80	84.1	105.1	0.638	0.188	0.226	0.35	NonLiqfble.
CPT-2	28.97	10.5	25.3	1.46	135	3911	2103	24.1	22.2	6.25	2.9	53.8	0.80	96.6	120.7	0.638	0.243	0.292	0.46	NonLiqfble.
CPT-2	29.05	10.5	27.5	1.42	135	3922	2109	26.2	24.2	5.56	2.9	49.9	0.80	104.8	131.0	0.638	0.289	0.347	0.54	NonLiqfble.
CPT-2	29.14	10.5	25.2	1.42	135	3934	2116	24.0	22.0	6.11	2.9	53.6	0.80	95.9	119.9	0.638	0.240	0.288	0.45	NonLiqfble.
CPT-2	29.22	10.5	23.5	1.39	135	3945	2121	22.3	20.3	6.46	3.0	56.2	0.80	89.3	111.6	0.638	0.209	0.251	0.39	NonLiqfble.
CPT-2	29.31	10.5	27.4	1.32	135	3957	2128	26.0	23.9	5.19	2.8	48.9	0.80	104.0	129.9	0.638	0.284	0.341	0.53	NonLiqfble.
CPT-2	29.4	10.5	26	1.29	135	3969	2134	24.6	22.5	5.37	2.9	50.7	0.80	98.5	123.1	0.638	0.254	0.304	0.48	NonLiqfble.
CPT-2	29.48	10.5	21.4	1.19	135	3980	2140	20.2	18.1	6.13	3.0	57.6	0.80	81.0	101.2	0.638	0.176	0.212	0.33	NonLiqfble.
CPT-2	29.57	10.5	18.2	1.09	135	3992	2147	17.2	15.1	6.73	3.1	63.5	0.80	68.7	85.9	0.638	0.139	0.167	0.26	NonLiqfble.
CPT-2	29.66	10.5	16.7	0.97	125	3708	1857	17.0	16.0	6.53	3.0	61.6	0.80	67.8	84.8	0.685	0.137	0.164	0.24	NonLiqfble.
CPT-2	29.75	10.5	17.3	0.89	125	3719	1862	17.5	16.6	5.76	3.0	58.4	0.80	70.2	87.7	0.685	0.143	0.171	0.25	NonLiqfble.
CPT-2	29.83	10.5	16.4	0.85	125	3729	1867	16.6	15.6	5.85	3.0	60.0	0.80	66.4	83.0	0.685	0.133	0.160	0.23	NonLiqfble.
CPT-2	29.92	10.5	16	0.92	125	3740	1873	16.2	15.1	6.51	3.1	62.9	0.80	64.7	80.9	0.685	0.129	0.155	0.23	NonLiqfble.
CPT-2	30.01	10.5	15.3	1.31	135	4051	2179	14.3	12.2	9.87	3.3	77.3	0.80	57.4	71.7	0.612	0.114	0.137	0.22	NonLiqfble.
CPT-2	30.09	10.5	22.1	1.75	135	4062	2185	20.7	18.4											

Project Name:

199 River Oaks Parkway

Project Number:

7862.3.001.01

Date:

20-Jul-07

CPT Number:

CPT-2

Depth to Groundwater:

10.5 ft

EQ Magnitude (M_w):

7.1

PGA (g):

0.55

MSF:

1.20

Conc	Depth (FT)	Water Table (FT)	Tip Resist. (TSF)	Sleeve Frict. (TSF)	γ (PCF)	Total Stress (PSF)	Effective Stress (PSF)	Norm. Tip $Q_{(N)}$	Corr. Tip Q	Friction Ratio F	I_c	F.C. (%)	K_{cpt}	$\Delta q_{(N)}$	$(q_{(N)})_s$	Induced Stress Ratio	Liquef. Stress M7.5	Liquef. Stress M7.10	Factor of Safety	Comments
CPT-2	30.88	10.5	46.8	1.74	135	4169	2242	43.2	39.9	3.89	2.6	35.5	0.80	173.0	216.2	0.612	1.020	1.224	2.00	NonLiqfble.
CPT-2	30.97	10.5	31.9	1.4	135	4181	2248	29.4	26.5	4.70	2.8	45.3	0.80	117.7	147.2	0.612	0.376	0.452	0.74	NonLiqfble.
CPT-2	31.06	10.5	21	1.04	135	4193	2255	19.3	16.8	5.50	3.0	57.2	0.80	77.4	96.7	0.612	0.164	0.197	0.32	NonLiqfble.
CPT-2	31.14	10.5	16.3	0.71	125	3893	1949	16.2	14.7	4.95	3.0	58.1	0.80	64.6	80.8	0.657	0.129	0.155	0.24	NonLiqfble.
CPT-2	31.23	10.5	15.5	0.57	125	3904	1955	15.3	13.9	4.21	3.0	56.5	0.80	61.4	76.7	0.657	0.122	0.146	0.22	NonLiqfble.
CPT-2	31.32	10.5	14.7	0.58	125	3915	1961	14.5	13.0	4.55	3.0	59.4	0.80	58.1	72.6	0.657	0.116	0.139	0.21	NonLiqfble.
CPT-2	31.41	10.5	16.3	0.65	125	3926	1966	16.1	14.6	4.53	3.0	56.7	0.80	64.3	80.4	0.657	0.128	0.154	0.23	NonLiqfble.
CPT-2	31.49	10.5	17.1	0.71	125	3936	1971	16.9	15.3	4.69	3.0	56.2	0.80	67.4	84.3	0.657	0.136	0.163	0.25	NonLiqfble.
CPT-2	31.58	10.5	17.1	0.76	125	3948	1977	16.8	15.3	5.02	3.0	57.5	0.80	67.3	84.1	0.657	0.135	0.162	0.25	NonLiqfble.
CPT-2	31.66	10.5	19.2	0.8	125	3958	1982	18.9	17.4	4.65	2.9	53.3	0.80	75.5	94.4	0.657	0.158	0.190	0.29	NonLiqfble.
CPT-2	31.75	10.5	18.5	0.83	125	3969	1988	18.2	16.6	5.03	3.0	55.7	0.80	72.6	90.8	0.657	0.150	0.179	0.27	NonLiqfble.
CPT-2	31.84	10.5	18.5	0.82	125	3980	1993	18.1	16.6	4.97	3.0	55.6	0.80	72.5	90.7	0.657	0.149	0.179	0.27	NonLiqfble.
CPT-2	31.93	10.5	18.7	0.79	125	3991	1999	18.3	16.7	4.73	2.9	54.5	0.80	73.2	91.5	0.657	0.151	0.182	0.28	NonLiqfble.
CPT-2	32.01	10.5	18.1	0.8	125	4001	2004	17.7	16.1	4.97	3.0	56.2	0.80	70.8	88.5	0.657	0.144	0.173	0.26	NonLiqfble.
CPT-2	32.1	10.5	18.4	0.83	125	4013	2009	18.0	16.3	5.06	3.0	56.3	0.80	71.8	89.8	0.657	0.147	0.177	0.27	NonLiqfble.
CPT-2	32.19	10.5	19	0.84	125	4024	2015	18.5	16.9	4.94	2.9	55.1	0.80	74.1	92.6	0.657	0.154	0.185	0.28	NonLiqfble.
CPT-2	32.28	10.5	18.3	0.82	125	4035	2021	17.8	16.1	5.04	3.0	56.4	0.80	71.2	89.1	0.657	0.146	0.175	0.27	NonLiqfble.
CPT-2	32.36	10.5	17.6	0.8	125	4045	2026	17.1	15.4	5.14	3.0	57.8	0.80	68.4	85.5	0.657	0.138	0.166	0.25	NonLiqfble.
CPT-2	32.45	10.5	16.6	0.78	125	4056	2031	16.1	14.3	5.35	3.0	60.2	0.80	64.5	80.6	0.657	0.129	0.154	0.24	NonLiqfble.
CPT-2	32.54	10.5	16.4	0.74	125	4068	2037	15.9	14.1	5.15	3.0	59.8	0.80	63.6	79.5	0.657	0.127	0.152	0.23	NonLiqfble.
CPT-2	32.63	10.5	16.2	0.69	125	4079	2043	15.7	13.9	4.87	3.0	59.2	0.80	62.7	78.4	0.657	0.125	0.150	0.23	NonLiqfble.
CPT-2	32.72	10.5	15.6	0.66	125	4090	2048	15.1	13.2	4.87	3.0	60.2	0.80	60.3	75.4	0.657	0.120	0.144	0.22	NonLiqfble.
CPT-2	32.81	10.5	15.2	0.64	125	4101	2054	14.7	12.8	4.87	3.0	61.0	0.80	58.7	73.4	0.657	0.117	0.140	0.21	NonLiqfble.
CPT-2	32.9	10.5	15.3	0.65	125	4113	2060	14.8	12.9	4.91	3.0	61.0	0.80	59.0	73.8	0.657	0.117	0.141	0.21	NonLiqfble.
CPT-2	32.99	10.5	15.7	0.76	125	4124	2065	15.1	13.2	5.57	3.1	62.9	0.80	60.5	75.6	0.657	0.120	0.144	0.22	NonLiqfble.
CPT-2	33.08	10.5	16.7	1.08	135	4466	2402	14.9	12.0	7.47	3.2	71.2	0.80	59.6	74.6	0.612	0.119	0.142	0.23	NonLiqfble.
CPT-2	33.17	10.5	20.2	1.56	135	4478	2408	18.0	14.9	8.69	3.2	69.3	0.80	72.0	90.1	0.612	0.148	0.177	0.29	NonLiqfble.
CPT-2	33.26	10.5	27.2	2.04	135	4490	2415	24.2	20.7	8.18	3.0	60.6	0.80	96.9	121.1	0.612	0.245	0.294	0.48	NonLiqfble.
CPT-2	33.35	10.5	35.5	2.39	135	4502	2421	31.6	27.5	7.19	2.9	52.3	0.80	126.3	157.8	0.612	0.446	0.535	0.87	NonLiqfble.
CPT-2	33.44	10.5	38.8	2.57	135	4514	2428	34.5	30.1	7.03	2.9	50.2	0.80	137.8	172.3	0.612	0.555	0.667	1.09	NonLiqfble.
CPT-2	33.52	10.5	38.3	2.55	135	4525	2434	34.0	29.6	7.08	2.9	50.6	0.80	135.9	169.8	0.612	0.536	0.643	1.05	NonLiqfble.
CPT-2	33.61	10.5	45.3	2.44	135	4537	2440	40.1	35.3	5.67	2.8	43.5	0.80	160.5	200.6	0.612	0.831	0.997	1.63	NonLiqfble.
CPT-2	33.7	10.5	58.2	2.37	135	4550	2447	51.5	45.7	4.24	2.6	34.7	0.79	196.8	248.3	0.612	1.504	1.805	2.95	NonLiqfble.
CPT-2	33.79	10.5	61.7	2.4	135	4562	2453	54.5	48.4	4.04	2.6	33.1	0.75	164.7	219.2	0.612	1.060	1.272	2.08	NonLiqfble.
CPT-2	33.88	10.5	62.1	2.46	135	4574	2460	54.8	48.6	4.11	2.6	33.3	0.76	170.6	225.4	0.612	1.145	1.374	2.25	NonLiqfble.
CPT-2	33.97	10.5	62.5	2.49	135	4586	2466	55.1	48.8	4.14	2.6	33.4	0.76	172.1	227.2	0.612	1.171	1.405	2.30	NonLiqfble.
CPT-2	34.06	10.5	63.8	2.41	135	4598	2473	56.1	49.7	3.92	2.5	32.3	0.73	151.6	207.7	0.612	0.913	1.096	1.79	NonLiqfble.
CPT-2	34.15	10.5	66.5	2.36	135	4610	2479	58.4	51.8	3.68	2.5	30.9	0.69	130.6	189.0	0.612	0.708	0.849	1.39	NonLiqfble.
CPT-2	34.23	10.5	66	2.44	135	4621	2485	57.9	51.2	3.83	2.5	31.6	0.71	141.8	199.7	0.612	0.821	0.985	1.61	NonLiqfble.
CPT-2	34.32	10.5	62.9	2.48	135	4633	2492	55.1	48.6	4.09	2.6	33.3	0.76	170.0	225.2	0.612	1.142	1.370	2.24	NonLiqfble.
CPT-2	34.41	10.5	57.2	2.4	135	4645	2498	50.1	43.9	4.37	2.6	35.8	0.80	200.3	250.4	0.612	1.539	1.847	3.02	NonLiqfble.
CPT-2	34.5	10.5	50.6	2.21	135	4658	2505	44.2	38.5	4.58	2.7	38.5	0.80	176.9	221.2	0.612	1.086	1.304	2.13	NonLiqfble.
CPT-2	34.58	10.5	42.8	2.01	135	4668	2511	37.4	32.2	4.97	2.7	42.7	0.80	149.5	186.9	0.612	0.687	0.824	1.35	NonLiqfble.
CPT-2	34.67	10.5	35.7	2	135	4680	2517	31.1	26.5	6.00	2.9	49.6	0.80	124.5	155.7	0.612	0.431	0.517	0.85	NonLiqfble.
CPT-2	34.76	10.5	30.6	2.11	135	4693	2524	26.7	22.4	7.47	3.0	57.1	0.80	106.6	133.3	0.612	0.300	0.360	0.59	NonLiqfble.
CPT-2	34.84	10.5	28.3	2.22	135	4703	2529	24.6	20.5	8.56	3.0	61.8	0.80	98.5	123.1	0.612	0.253	0.304	0.50	NonLiqfble.
CPT-2	34.92	10.5	30.8	2.28	135	4714	2535	26.8	22.4	8.02	3.0	58.5	0.80	107.1	133.8	0.612	0.303	0.363	0.59	NonLiqfble.
CPT-2	34.98	10.5	44.6	2.23	135	4722	2540	38.7	33.3	5.28	2.8	43.2	0.80	154.9	193.6	0.612	0.755	0.906	1.48	NonLiqfble.
CPT-2	35.07	10.5	56	2.16	135	4734	2546	48.6	42.1	4.03	2.6	35.1	0.80	194.2	242.8	0.612	1.411	1.693	2.77	NonLiqfble.
CPT-2	35.16	10.5	68.4	2.25	135	4747	2553	59.2	51.7	3.41	2.5	29.8	0.66	116.8	176.0	0.612	0.587	0.704	1.15	Low F.S.
CPT-2	35.25	10.5	70.6	2.42	135	4759	2559	61.1	53.3	3.55	2.5	30.0	0.67	122.4	183.4	0.612	0.654	0.785	1.28	Low F.S.
CPT-2	35.33	10.5	64.8	2.54	135	4770	2565	56.0	48.6	4.07	2.6	33.2	0.75	170.3	226.2	0.612	1.157	1.388	2.27	NonLiqfble.
CPT-2	35.42	10.5	56.7	2.48	135	4782	2571	48.9	42.2	4.57	2.6	37.0	0.80	195.7	244.6	0.612	1.441	1.729	2.83	NonLiqfble.
CPT-2	35.5	10.5	51.3	2.18	135	4793	2577	44.2	37.9	4.46	2.7	38.3	0.80	176.9	221.1	0.612	1.085	1.302	2.13	NonLiqfble.
CPT-2	35.59	10.5	51	1.86	135	4805	2584	43.9	37.6	3.83	2.6	36.1	0.80	175.6	219.5	0.612	1.063	1.276	2.09	NonLiqfble.
CPT-2	35.67	10.5	53.1	2.01	135	4815	2590	45.7	39.1	3.97	2.6	36.0	0.80	182.6	228.3	0.612	1.186	1.424	2.33	NonLiqfble.
CPT-2	35.76	10.5	48.9	2.3	135	4828	2596	42.0	35.8	4.95	2.7	40.9	0.80	168.0	210.0	0.612	0.941	1.129	1.85	NonLiqfble.
CPT-2	35.84	10.5	52.6	2.17	135	4838	2602	45.1	38.6	4.32	2.6	37.6	0.80	180.5	225.6	0.612	1.148	1.377	2.25	NonLiqfble.
CPT-2	35.																			

Project Name: 199 River Oaks Parkway
Project Number: 7862.3.001.01
Date: 20-Jul-07
CPT Number: CPT-2
Depth to Groundwater: 10.5 ft

EQ Magnitude (M_w): 7.1
PGA (g): 0.55
MSF: 1.20

Cone	Depth (FT)	Water Table (FT)	Tip Resist. (TSF)	Sleeve Frict. (TSF)	γ (PCF)	Total Stress (PSF)	Effective Stress (PSF)	Norm. Tip Q _{IN}	Corr. Tip Q	Friction Ratio F	Ic	F.C. (%)	K _{CPT}	ΔQ _{IN}	(Q _T) _{IN}	Induced Stress Ratio	Liquef. Stress M7.5	Liquef. Stress M7.10	Factor of Safety	Comments
CPT-2	36.82	10.5	244.1	1.86	115	4234	1937	242.7	249.8	0.77	1.5	3.4	0.00	0.0	242.7	0.719	1.409	1.691	2.35	NonLiqfble.
CPT-2	36.9	10.5	235.8	2.24	125	4613	2310	214.7	202.1	0.96	1.7	5.6	0.02	3.7	218.3	0.657	1.048	1.258	1.91	NonLiqfble.
CPT-2	36.97	10.5	227.8	2.51	125	4621	2314	207.2	194.8	1.11	1.7	6.7	0.05	10.0	217.1	0.657	1.032	1.239	1.89	NonLiqfble.
CPT-2	37.05	10.5	223.6	2.19	125	4631	2319	203.1	190.7	0.99	1.7	6.1	0.03	6.3	209.5	0.657	0.935	1.122	1.71	NonLiqfble.
CPT-2	37.13	10.5	227.8	2.02	125	4641	2324	206.7	193.9	0.90	1.7	5.5	0.01	2.7	209.4	0.657	0.934	1.121	1.71	NonLiqfble.
CPT-2	37.21	10.5	202.6	1.92	125	4651	2329	183.7	171.9	0.96	1.7	6.6	0.04	8.0	191.6	0.657	0.734	0.881	1.34	NonLiqfble.
CPT-2	37.28	10.5	197.1	1.93	125	4660	2334	178.5	166.8	0.99	1.7	6.9	0.05	9.7	188.2	0.657	0.700	0.840	1.28	Low F.S.
CPT-2	37.36	10.5	184.5	1.45	115	4296	1965	182.1	185.5	0.80	1.6	5.1	0.00	0.4	182.5	0.719	0.646	0.775	1.08	Low F.S.
CPT-2	37.44	10.5	177.7	1.02	115	4306	1969	175.2	178.2	0.58	1.6	3.8	0.00	0.0	175.2	0.719	0.580	0.696	0.97	Liquefaction
CPT-2	37.52	10.5	181.1	0.9	105	3940	1598	198.2	224.0	0.50	1.4	2.2	0.00	0.0	198.2	0.811	0.804	0.965	1.19	Low F.S.
CPT-2	37.59	10.5	185.9	0.75	105	3947	1601	203.3	229.6	0.41	1.4	1.3	0.00	0.0	203.3	0.811	0.861	1.033	1.27	Low F.S.
CPT-2	37.67	10.5	183	0.88	105	3955	1605	199.9	225.5	0.49	1.4	2.0	0.00	0.0	199.9	0.811	0.823	0.987	1.22	Low F.S.
CPT-2	37.75	10.5	164.5	0.89	115	4341	1986	161.5	163.4	0.55	1.6	4.1	0.00	0.0	161.5	0.719	0.472	0.566	0.79	Liquefaction
CPT-2	37.82	10.5	140.8	1.04	115	4349	1989	138.1	139.3	0.75	1.7	6.5	0.04	5.7	143.9	0.719	0.357	0.428	0.60	Liquefaction
CPT-2	37.9	10.5	116.1	1.31	125	4738	2373	104.3	95.8	1.15	2.0	12.0	0.19	24.0	128.2	0.657	0.276	0.331	0.50	Liquefaction
CPT-2	37.98	10.5	96.2	1.11	125	4748	2378	86.3	78.9	1.18	2.0	13.9	0.24	27.1	113.4	0.657	0.216	0.259	0.39	Liquefaction
CPT-2	38.06	10.5	81	1.5	135	5138	2763	67.4	56.7	1.91	2.3	21.8	0.45	54.8	122.3	0.612	0.250	0.300	0.49	Liquefaction
CPT-2	38.14	10.5	61.2	2.04	135	5149	2769	50.9	42.3	3.48	2.5	33.0	0.75	149.8	200.7	0.612	0.832	0.998	1.63	NonLiqfble.
CPT-2	38.22	10.5	48.1	2.27	135	5160	2775	40.0	32.8	4.99	2.7	42.5	0.80	159.8	199.8	0.612	0.821	0.986	1.61	NonLiqfble.
CPT-2	38.29	10.5	48.1	2.45	135	5169	2780	39.9	32.7	5.38	2.8	43.8	0.80	159.7	199.6	0.612	0.819	0.983	1.61	NonLiqfble.
CPT-2	38.37	10.5	40.6	2.46	135	5180	2786	33.7	27.3	6.47	2.9	50.4	0.80	134.6	168.3	0.612	0.523	0.628	1.03	NonLiqfble.
CPT-2	38.45	10.5	50.4	2.34	135	5191	2791	41.7	34.2	4.90	2.7	41.5	0.80	167.0	208.7	0.612	0.925	1.110	1.82	NonLiqfble.
CPT-2	38.53	10.5	80.3	2.39	135	5202	2797	66.4	55.5	3.08	2.4	27.6	0.60	100.6	167.1	0.612	0.514	0.616	1.01	Low F.S.
CPT-2	38.61	10.5	99	2.54	135	5212	2803	81.8	68.7	2.64	2.3	23.1	0.48	76.3	158.1	0.612	0.448	0.537	0.88	Liquefaction
CPT-2	38.69	10.5	116.2	2.62	135	5223	2809	95.9	80.8	2.31	2.2	19.8	0.40	62.8	158.7	0.612	0.452	0.542	0.89	Liquefaction
CPT-2	38.77	10.5	132.2	2.54	135	5234	2815	109.0	92.0	1.96	2.1	16.9	0.32	50.5	159.6	0.612	0.458	0.549	0.90	Liquefaction
CPT-2	38.85	10.5	153.9	2.31	135	5245	2821	126.8	107.2	1.53	2.0	13.2	0.22	35.8	162.6	0.612	0.480	0.576	0.94	Liquefaction
CPT-2	38.92	10.5	194.8	2.53	135	5254	2826	160.3	136.0	1.32	1.9	10.2	0.14	25.9	186.2	0.612	0.681	0.817	1.34	NonLiqfble.
CPT-2	39	10.5	245.4	2.29	125	4875	2441	217.3	199.0	0.94	1.7	5.6	0.02	3.6	220.9	0.657	1.083	1.300	1.98	NonLiqfble.
CPT-2	39.07	10.5	291.4	1.9	115	4493	2055	281.2	281.3	0.66	1.5	2.2	0.00	0.0	281.2	0.719	2.149	2.579	3.59	NonLiqfble.
CPT-2	39.14	10.5	323.7	2.28	115	4501	2059	312.1	312.1	0.71	1.4	2.1	0.00	0.0	312.1	0.719	2.908	3.490	4.85	NonLiqfble.
CPT-2	39.22	10.5	333.5	2.05	115	4510	2063	321.3	321.0	0.62	1.4	1.5	0.00	0.0	321.3	0.719	3.164	3.797	5.28	NonLiqfble.
CPT-2	39.29	10.5	338.5	1.92	115	4518	2067	325.8	325.3	0.57	1.4	1.1	0.00	0.0	325.8	0.719	3.296	3.955	5.50	NonLiqfble.
CPT-2	39.37	10.5	344.3	1.77	115	4528	2071	331.0	330.2	0.52	1.3	0.8	0.00	0.0	331.0	0.719	3.454	4.145	5.76	NonLiqfble.
CPT-2	39.45	10.5	323.4	1.92	115	4537	2075	310.6	309.4	0.60	1.4	1.5	0.00	0.0	310.6	0.719	2.867	3.441	4.79	NonLiqfble.
CPT-2	39.52	10.5	321.9	2.03	115	4545	2079	308.9	307.4	0.64	1.4	1.7	0.00	0.0	308.9	0.719	2.822	3.386	4.71	NonLiqfble.
CPT-2	39.6	10.5	320.2	1.75	115	4554	2083	307.0	305.1	0.55	1.4	1.2	0.00	0.0	307.0	0.719	2.770	3.324	4.62	NonLiqfble.
CPT-2	39.67	10.5	312.6	1.84	115	4562	2087	299.4	297.3	0.59	1.4	1.6	0.00	0.0	299.4	0.719	2.576	3.092	4.30	NonLiqfble.
CPT-2	39.75	10.5	321.4	1.69	115	4571	2091	307.5	305.1	0.53	1.4	1.1	0.00	0.0	307.5	0.719	2.785	3.342	4.65	NonLiqfble.
CPT-2	39.82	10.5	330.3	1.81	115	4579	2095	315.8	313.1	0.55	1.4	1.2	0.00	0.0	315.8	0.719	3.008	3.610	5.02	NonLiqfble.
CPT-2	39.89	10.5	331.4	1.98	115	4587	2098	316.6	313.6	0.60	1.4	1.5	0.00	0.0	316.6	0.719	3.030	3.636	5.06	NonLiqfble.
CPT-2	39.97	10.5	335.2	2.46	115	4597	2102	319.9	316.6	0.74	1.5	2.3	0.00	0.0	319.9	0.719	3.123	3.748	5.21	NonLiqfble.
CPT-2	40.04	10.5	343.4	2.59	125	5005	2507	306.1	271.9	0.76	1.5	3.0	0.00	0.0	300.1	0.607	2.594	3.113	5.13	NonLiqfble.
CPT-2	40.11	10.5	335	2.5	115	4613	2110	319.1	315.2	0.75	1.5	2.3	0.00	0.0	319.1	0.664	3.102	3.723	5.60	NonLiqfble.
CPT-2	40.19	10.5	340.8	2.63	125	5024	2516	297.3	268.8	0.78	1.5	3.2	0.00	0.0	297.3	0.607	2.523	3.028	4.99	NonLiqfble.
CPT-2	40.26	10.5	329.6	2.73	125	5033	2520	287.3	259.5	0.83	1.6	3.6	0.00	0.0	287.3	0.607	2.285	2.741	4.52	NonLiqfble.
CPT-2	40.33	10.5	334	2.9	125	5041	2525	290.8	262.5	0.87	1.6	3.8	0.00	0.0	290.8	0.607	2.368	2.842	4.68	NonLiqfble.
CPT-2	40.4	10.5	337.4	2.51	115	4646	2125	320.2	315.2	0.75	1.5	2.3	0.00	0.0	320.2	0.664	3.134	3.761	5.66	NonLiqfble.
CPT-2	40.47	10.5	345.7	2.69	125	5059	2533	300.5	270.8	0.78	1.5	3.2	0.00	0.0	300.5	0.607	2.604	3.125	5.15	NonLiqfble.
CPT-2	40.54	10.5	338	2.85	125	5068	2538	293.6	264.3	0.85	1.6	3.7	0.00	0.0	293.6	0.607	2.433	2.919	4.81	NonLiqfble.
CPT-2	40.61	10.5	339.6	2.6	125	5076	2542	294.7	265.1	0.77	1.5	3.2	0.00	0.0	294.7	0.607	2.460	2.952	4.87	NonLiqfble.
CPT-2	40.67	10.5	341.5	2.3	115	4677	2139	323.1	317.0	0.68	1.4	1.9	0.00	0.0	323.1	0.664	3.216	3.859	5.81	NonLiqfble.
CPT-2	40.74	10.5	348.7	2.25	115	4685	2143	329.6	323.1	0.65	1.4	1.7	0.00	0.0	329.6	0.664	3.409	4.091	6.16	NonLiqfble.
CPT-2	40.8	10.5	337.6	2.02	115	4692	2146	318.9	312.3	0.60	1.4	1.5	0.00	0.0	318.9	0.664	3.095	3.714	5.59	NonLiqfble.
CPT-2	40.86	10.5	338.5	1.95	115	4699	2149	319.5	312.7	0.58	1.4	1.3	0.00	0.0	319.5	0.664	3.112	3.735	5.62	NonLiqfble.
CPT-2	40.92	10.5	335	1.23	105	4297	1743	351.1	381.7	0.37	1.2	-0.6	0.00	0.0	351.1	0.749	4.104	4.925	6.58	NonLiqfble.
CPT-2	40.98	10.5	327.2	1.26	105	4303	1746	342.6	372.2	0.39	1.2	-0.5	0.00	0.0	342.6	0.749	3.821	4.585	6.12	NonLiqfble.
CPT-2	41.02	10.5	316.1	1.27	105	4307	1747	330.9	359.2	0.40	1.2	-0.2	0.00	0.0	330.9	0.749	3.448	4.138	5.52	NonLiqfble.
CPT-2	41.06	10.5	315.7	1.32	105	4311	1749	330.3	358.4	0.42	1.2	-0.1	0.00	0.0	330.3	0.749	3.431	4.117	5.50	NonLiqfble.
CPT-2	41.09	10.5	317.4	1.34	105	4314	1750	331.9	360.0	0.43	1.2	-0.1	0.00	0.0	331.9	0.749	3.481	4.177	5.58	NonLiqfble.
CPT-2	41.15	10.5	311.5	1.32	105	4321														

Project Name: 199 River Oaks Parkway
Project Number: 7862.3.001.01
Date: 20-Jul-07
CPT Number: CPT-2
Depth to Groundwater: 10.5 ft

EQ Magnitude (M_w): 7.1
PGA (g): 0.55
MSF: 1.20

Cone	Depth (FT)	Water Table (FT)	Tip Resist. (TSF)	Sleeve Frict. (TSF)	Total Stress (PSF)	Effective Stress (PSF)	Norm. Tip Q _{tip}	Corr. Tip Q	Friction Ratio F	F.C. (%)	K _{CPT}	Δq _{tip}	(q _{tip}) _{vs}	Induced Stress Ratio	Liquef. Stress M7.5	Liquef. Stress M7.10	Factor of Safety	Comments		
CPT-2	41.73	10.5	243.8	2.41	125	5216	2612	208.7	184.6	1.00	1.7	6.4	0.04	8.0	216.7	0.607	1.026	1.231	2.03	NonLiqfble.
CPT-2	41.81	10.5	242.2	2.53	125	5226	2617	207.1	183.0	1.06	1.7	6.8	0.05	10.2	217.3	0.607	1.035	1.242	2.05	NonLiqfble.
CPT-2	41.87	10.5	264.1	2.45	125	5234	2621	225.7	199.4	0.94	1.7	5.6	0.02	3.5	229.2	0.607	1.200	1.440	2.37	NonLiqfble.
CPT-2	41.95	10.5	269.5	2.19	125	5244	2626	230.1	203.2	0.82	1.6	4.8	0.00	0.0	230.1	0.607	1.213	1.456	2.40	NonLiqfble.
CPT-2	42.01	10.5	258.3	2.28	125	5251	2630	220.4	194.4	0.89	1.7	5.4	0.01	2.6	223.0	0.607	1.111	1.333	2.20	NonLiqfble.
CPT-2	42.08	10.5	260.1	2.71	125	5260	2634	221.7	195.4	1.05	1.7	6.4	0.04	8.3	230.1	0.607	1.213	1.455	2.40	NonLiqfble.
CPT-2	42.14	10.5	256.5	2.93	125	5268	2638	218.5	192.4	1.15	1.7	7.0	0.05	12.4	231.0	0.607	1.226	1.471	2.42	NonLiqfble.
CPT-2	42.21	10.5	260.7	2.57	125	5276	2642	221.9	195.2	1.00	1.7	6.0	0.03	6.3	228.2	0.607	1.185	1.422	2.34	NonLiqfble.
CPT-2	42.27	10.5	265.9	2.41	125	5284	2646	226.2	198.9	0.92	1.7	5.5	0.01	2.8	228.9	0.607	1.196	1.435	2.37	NonLiqfble.
CPT-2	42.34	10.5	266.1	2.12	125	5293	2650	226.2	198.7	0.80	1.6	4.8	0.00	0.0	226.2	0.607	1.156	1.387	2.29	NonLiqfble.
CPT-2	42.4	10.5	258.8	2.38	125	5300	2654	219.8	192.9	0.93	1.7	5.7	0.02	4.2	224.0	0.607	1.125	1.351	2.23	NonLiqfble.
CPT-2	42.47	10.5	255.1	3.22	135	5733	3083	201.0	163.5	1.28	1.8	8.7	0.10	22.0	223.1	0.565	1.112	1.334	2.36	NonLiqfble.
CPT-2	42.53	10.5	255.4	3.38	135	5742	3088	201.1	163.5	1.34	1.8	9.0	0.11	24.3	225.4	0.565	1.145	1.374	2.43	NonLiqfble.
CPT-2	42.59	10.5	268.9	2.78	125	5324	2666	227.9	199.6	1.04	1.7	6.2	0.03	7.5	235.3	0.607	1.292	1.550	2.56	NonLiqfble.
CPT-2	42.64	10.5	277.6	2.29	125	5330	2669	235.1	205.9	0.83	1.6	4.8	0.00	0.0	235.1	0.607	1.288	1.546	2.55	NonLiqfble.
CPT-2	42.68	10.5	277.5	2.43	125	5335	2672	234.9	205.6	0.88	1.6	5.1	0.00	0.5	235.4	0.607	1.294	1.552	2.56	NonLiqfble.
CPT-2	42.74	10.5	257.7	2.39	125	5343	2676	218.0	190.6	0.94	1.7	5.8	0.02	4.9	222.9	0.607	1.110	1.332	2.19	NonLiqfble.
CPT-2	42.8	10.5	258.5	2.27	125	5350	2679	218.5	190.9	0.89	1.7	5.5	0.01	3.0	221.5	0.607	1.091	1.309	2.16	NonLiqfble.
CPT-2	42.86	10.5	257.4	2.04	125	5358	2683	217.4	189.8	0.80	1.6	5.0	0.00	0.0	217.4	0.607	1.036	1.243	2.05	NonLiqfble.
CPT-2	42.92	10.5	253.7	1.4	115	4936	2258	233.6	222.5	0.56	1.5	2.6	0.00	0.0	233.6	0.664	1.266	1.519	2.29	NonLiqfble.
CPT-2	42.99	10.5	231.1	1.25	115	4944	2261	212.6	202.1	0.55	1.5	2.9	0.00	0.0	212.6	0.664	0.974	1.169	1.76	NonLiqfble.
CPT-2	43.06	10.5	231.9	1.84	125	5383	2696	195.4	170.0	0.80	1.7	5.6	0.02	3.4	198.8	0.607	0.811	0.973	1.60	NonLiqfble.
CPT-2	43.13	10.5	231.1	1.33	115	4960	2269	212.3	201.5	0.58	1.5	3.2	0.00	0.0	212.3	0.664	0.970	1.164	1.75	NonLiqfble.
CPT-2	43.2	10.5	247	1.61	115	4968	2272	226.7	215.1	0.66	1.5	3.4	0.00	0.0	226.7	0.664	1.164	1.396	2.10	NonLiqfble.
CPT-2	43.28	10.5	236.2	2.18	125	5410	2709	198.5	172.3	0.93	1.7	6.4	0.04	7.6	206.2	0.607	0.895	1.074	1.77	NonLiqfble.
CPT-2	43.35	10.5	209.5	2.52	135	5852	3147	163.4	131.2	1.22	1.9	9.9	0.13	24.7	188.1	0.565	0.699	0.839	1.48	NonLiqfble.
CPT-2	43.42	10.5	199.9	2.45	135	5862	3152	155.8	124.9	1.24	1.9	10.4	0.14	26.4	182.2	0.565	0.642	0.771	1.36	NonLiqfble.
CPT-2	43.5	10.5	195.2	2.41	135	5873	3158	152.0	121.7	1.25	1.9	10.7	0.15	27.2	179.1	0.565	0.615	0.738	1.31	NonLiqfble.
CPT-2	43.58	10.5	193.3	2.07	125	5448	2728	161.9	139.7	1.09	1.8	8.7	0.10	17.6	179.6	0.607	0.618	0.742	1.22	Low F.S.
CPT-2	43.65	10.5	210.1	1.9	125	5456	2732	175.9	151.7	0.92	1.7	7.1	0.06	10.3	186.1	0.607	0.680	0.816	1.34	NonLiqfble.
CPT-2	43.73	10.5	227.3	2.19	125	5466	2737	190.1	164.0	0.98	1.7	6.9	0.05	10.4	200.5	0.607	0.829	0.995	1.64	NonLiqfble.
CPT-2	43.8	10.5	235.8	2.43	125	5475	2742	197.0	169.9	1.04	1.8	7.1	0.06	11.9	208.9	0.607	0.928	1.114	1.84	NonLiqfble.
CPT-2	43.88	10.5	236	2.49	125	5485	2747	197.0	169.8	1.07	1.8	7.3	0.06	12.8	209.8	0.607	0.939	1.127	1.86	NonLiqfble.
CPT-2	43.96	10.5	249.1	2.65	125	5495	2752	207.8	179.0	1.08	1.7	7.0	0.05	11.8	219.5	0.607	1.064	1.277	2.10	NonLiqfble.
CPT-2	44.03	10.5	256.9	2.48	125	5504	2756	214.1	184.3	0.98	1.7	6.2	0.03	7.4	221.5	0.607	1.090	1.308	2.16	NonLiqfble.
CPT-2	44.1	10.5	265.7	2.2	125	5513	2761	221.3	190.4	0.84	1.6	5.2	0.01	1.2	222.5	0.607	1.104	1.325	2.18	NonLiqfble.
CPT-2	44.18	10.5	269.7	3.29	135	5964	3207	208.4	166.2	1.23	1.8	8.4	0.09	20.5	228.9	0.565	1.195	1.434	2.54	NonLiqfble.
CPT-2	44.25	10.5	266.8	1.9	115	5089	2328	242.0	227.0	0.72	1.5	3.6	0.00	0.0	242.0	0.664	1.397	1.677	2.52	NonLiqfble.
CPT-2	44.33	10.5	262.9	2.55	125	5541	2775	218.4	187.4	0.98	1.7	6.2	0.03	7.1	225.4	0.607	1.146	1.375	2.27	NonLiqfble.
CPT-2	44.4	10.5	286.5	2.8	125	5550	2779	237.8	204.1	0.99	1.7	5.7	0.02	4.8	242.5	0.607	1.407	1.688	2.78	NonLiqfble.
CPT-2	44.47	10.5	250.2	2.66	125	5559	2784	207.5	177.7	1.08	1.7	7.0	0.05	12.0	219.5	0.607	1.063	1.276	2.10	NonLiqfble.
CPT-2	44.52	10.5	214.3	2.53	125	5565	2787	177.6	151.7	1.20	1.8	8.8	0.10	19.8	197.4	0.607	0.795	0.954	1.57	NonLiqfble.
CPT-2	44.6	10.5	261.2	2.21	125	5575	2792	216.3	185.0	0.86	1.7	5.5	0.01	2.8	219.1	0.607	1.058	1.270	2.09	NonLiqfble.
CPT-2	44.68	10.5	270.5	1.53	115	5138	2350	244.1	227.9	0.57	1.5	2.6	0.00	0.0	244.1	0.664	1.433	1.720	2.59	NonLiqfble.
CPT-2	44.76	10.5	274.9	1.12	105	4700	1907	275.4	285.8	0.41	1.3	0.5	0.00	0.0	275.4	0.749	2.024	2.428	3.24	NonLiqfble.
CPT-2	44.84	10.5	265	0.98	105	4708	1910	265.3	274.9	0.37	1.3	0.4	0.00	0.0	265.3	0.749	1.816	2.180	2.91	NonLiqfble.
CPT-2	44.91	10.5	248.8	1.16	105	4716	1913	248.9	257.5	0.47	1.4	1.3	0.00	0.0	248.9	0.749	1.514	1.816	2.43	NonLiqfble.
CPT-2	45	10.5	245.1	1.44	115	5175	2367	220.4	204.8	0.59	1.5	3.2	0.00	0.0	220.4	0.664	1.076	1.291	1.94	NonLiqfble.
CPT-2	45.07	10.5	243.5	1.69	115	5183	2371	218.8	203.2	0.70	1.6	4.0	0.00	0.0	218.8	0.664	1.054	1.265	1.90	NonLiqfble.
CPT-2	45.16	10.5	235.6	2.11	125	5645	2827	193.9	164.6	0.91	1.7	6.5	0.04	8.0	201.9	0.607	0.846	1.015	1.67	NonLiqfble.
CPT-2	45.25	10.5	236.6	2.41	125	5656	2833	194.5	165.0	1.03	1.8	7.2	0.06	12.4	206.9	0.607	0.904	1.084	1.79	NonLiqfble.
CPT-2	45.34	10.5	257.2	2.28	125	5668	2838	211.2	179.2	0.90	1.7	5.9	0.02	5.4	216.6	0.607	1.025	1.230	2.03	NonLiqfble.
CPT-2	45.41	10.5	259.8	2.08	125	5676	2843	213.2	180.7	0.81	1.7	5.3	0.01	1.9	215.1	0.607	1.005	1.206	1.99	NonLiqfble.
CPT-2	45.52	10.5	250.3	1.42	115	5235	2394	223.8	206.8	0.57	1.5	3.0	0.00	0.0	223.8	0.664	1.123	1.347	2.03	NonLiqfble.
CPT-2	45.61	10.5	245.3	1.25	115	5245	2399	219.1	202.2	0.52	1.5	2.7	0.00	0.0	219.1	0.664	1.058	1.270	1.91	NonLiqfble.
CPT-2	45.7	10.5	224.9	1.1	105	4799	1947	223.0	228.5	0.49	1.4	2.0	0.00	0.0	223.0	0.749	1.112	1.334	1.78	NonLiqfble.
CPT-2	45.79	10.5	205.8	1.05	105	4808	1951	203.9	208.5	0.52	1.5	2.6	0.00	0.0	203.9	0.749	0.868	1.042	1.39	NonLiqfble.
CPT-2	45.89	10.5	180.9	0.99	115	5277	2414	161.1	147.6	0.56	1.6	4.7	0.00	0.0	161.1	0.664	0.469	0.563	0.85	Liquefaction
CPT-2	45.97	10.5	175.4	1.11	115	5287	2418	156.1	142.8	0.64	1.7	5.6	0.01	2.3	158.4	0.664	0.450	0.540	0.81	Liquefaction
CPT-2	46.06	10.5	172.9	1.13	115	5297	2423	153.7	140.5	0.66	1.7	5.8	0.02	3.4	157.1	0.664	0.441	0.529	0.80	Liquefaction
CPT-2	46.16	10.5																		

Project Name:	199 River Oaks Parkway
Project Number:	7862.3.001.01
Date:	20-Jul-07
CPT Number:	CPT-2
Depth to Groundwater:	10.5 ft

EQ Magnitude (M_w):	7.1
PGA (g):	0.55
MSF:	1.20

Cone	Depth (FT)	Water Table (FT)	Tip Resist. (TSF)	Sleeve Frict. (TSF)	γ (PCF)	Total Stress (PSF)	Effective Stress (PSF)	Norm. Tip Q_{IN}	Corr. Tip Q	Friction Ratio F	I_c	F.C. (%)	K_{CPT}	Δq_{IN}	$(q_{IN})_{50}$	Induced Stress Ratio	Liquef. Stress M7.5	Liquef. Stress M7.10	Factor of Safety	Comments
CPT-2	46.94	10.5	362.4	2.85	125	5868	2938	292.5	244.6	0.79	1.6	3.7	0.00	0.0	292.5	0.607	2.408	2.889	4.76	NonLiqfble.
CPT-2	47.03	10.5	398	2.94	125	5879	2944	320.9	268.3	0.74	1.5	3.0	0.00	0.0	320.9	0.607	3.154	3.785	6.24	NonLiqfble.
CPT-2	47.13	10.5	417.7	3.07	115	5420	2479	367.1	334.7	0.74	1.4	2.1	0.00	0.0	367.1	0.664	4.679	5.615	8.45	NonLiqfble.
CPT-2	47.22	10.5	428.2	3.48	125	5903	2956	344.6	287.6	0.82	1.5	3.1	0.00	0.0	344.6	0.607	3.886	4.663	7.68	NonLiqfble.
CPT-2	47.3	10.5	429.9	3.99	125	5913	2961	345.7	288.3	0.93	1.6	3.7	0.00	0.0	345.7	0.607	3.921	4.706	7.76	NonLiqfble.
CPT-2	47.39	10.5	431.5	4.09	125	5924	2967	346.6	288.8	0.95	1.6	3.8	0.00	0.0	346.6	0.607	3.953	4.744	7.82	NonLiqfble.
CPT-2	47.49	10.5	421.4	4.51	125	5936	2973	338.2	281.4	1.08	1.6	4.6	0.00	0.0	338.2	0.607	3.676	4.412	7.27	NonLiqfble.
CPT-2	47.56	10.5	407.8	4.21	125	5945	2977	327.0	271.8	1.04	1.6	4.6	0.00	0.0	327.0	0.607	3.332	3.998	6.59	NonLiqfble.
CPT-2	47.63	10.5	405.8	4.27	125	5954	2982	325.2	270.1	1.06	1.6	4.7	0.00	0.0	325.2	0.607	3.277	3.933	6.48	NonLiqfble.
CPT-2	47.7	10.5	427	4.58	125	5963	2986	341.9	283.9	1.08	1.6	4.6	0.00	0.0	341.9	0.607	3.797	4.556	7.51	NonLiqfble.
CPT-2	47.77	10.5	450.2	4.19	125	5971	2990	360.2	299.0	0.94	1.6	3.6	0.00	0.0	360.2	0.607	4.427	5.312	8.75	NonLiqfble.
CPT-2	47.83	10.5	470.5	3.98	125	5979	2994	376.2	312.2	0.85	1.5	3.0	0.00	0.0	376.2	0.607	5.032	6.039	9.95	NonLiqfble.
CPT-2	47.89	10.5	479.9	4.32	125	5986	2998	383.5	318.0	0.91	1.5	3.2	0.00	0.0	383.5	0.607	5.325	6.390	10.53	NonLiqfble.
CPT-2	47.95	10.5	479.3	4.41	125	5994	3002	382.8	317.2	0.93	1.5	3.3	0.00	0.0	382.8	0.607	5.296	6.355	10.47	NonLiqfble.
CPT-2	48	10.5	450.2	4.51	125	6000	3005	359.3	297.5	1.01	1.6	4.0	0.00	0.0	359.3	0.607	4.395	5.275	8.69	NonLiqfble.
CPT-2	48.04	10.5	430.4	4.38	125	6005	3007	343.4	284.1	1.02	1.6	4.3	0.00	0.0	343.4	0.607	3.846	4.615	7.61	NonLiqfble.
CPT-2	48.09	10.5	418.7	3.59	125	6011	3010	333.9	276.1	0.86	1.5	3.5	0.00	0.0	333.9	0.607	3.542	4.250	7.00	NonLiqfble.
CPT-2	48.16	10.5	396.5	4.28	125	6020	3015	316.0	260.9	1.09	1.6	5.0	0.00	0.3	316.2	0.607	3.021	3.625	5.97	NonLiqfble.
CPT-2	48.24	10.5	372.3	3.96	125	6030	3020	296.4	244.5	1.07	1.7	5.3	0.01	2.1	298.6	0.607	2.555	3.066	5.05	NonLiqfble.
CPT-2	48.32	10.5	359.9	3.82	125	6040	3025	286.3	235.9	1.07	1.7	5.4	0.01	3.4	289.7	0.607	2.342	2.810	4.63	NonLiqfble.
CPT-2	48.39	10.5	344.7	3.48	125	6049	3029	274.0	225.5	1.02	1.7	5.4	0.01	2.8	276.9	0.607	2.054	2.465	4.06	NonLiqfble.
CPT-2	48.46	10.5	324.8	3.65	125	6058	3034	258.0	212.0	1.13	1.7	6.4	0.04	9.7	267.7	0.607	1.864	2.237	3.69	NonLiqfble.
CPT-2	48.54	10.5	312.3	3.72	135	6553	3524	230.2	175.3	1.20	1.8	7.9	0.08	19.0	249.2	0.565	1.519	1.823	3.23	NonLiqfble.
CPT-2	48.61	10.5	303.2	5.42	135	6562	3529	223.3	169.9	1.81	1.9	11.1	0.16	43.3	266.7	0.565	1.843	2.212	3.91	NonLiqfble.
CPT-2	48.68	10.5	288.1	5.84	135	6572	3534	212.0	161.1	2.05	2.0	12.6	0.20	53.6	265.6	0.565	1.823	2.187	3.87	NonLiqfble.
CPT-2	48.75	10.5	278.2	5.69	135	6581	3539	204.6	155.3	2.07	2.0	12.9	0.21	54.8	259.4	0.565	1.703	2.044	3.62	NonLiqfble.
CPT-2	48.82	10.5	283	5.69	135	6591	3544	208.0	157.8	2.03	2.0	12.6	0.20	53.3	261.3	0.565	1.739	2.087	3.69	NonLiqfble.
CPT-2	48.88	10.5	267.2	5.98	135	6599	3549	196.3	148.7	2.27	2.0	14.1	0.24	62.8	259.1	0.565	1.698	2.037	3.61	NonLiqfble.
CPT-2	48.94	10.5	274.8	5.75	135	6607	3553	201.7	152.8	2.12	2.0	13.2	0.22	56.9	258.7	0.565	1.689	2.027	3.59	NonLiqfble.
CPT-2	49	10.5	274.4	5.59	135	6615	3557	201.3	152.3	2.06	2.0	13.0	0.21	54.9	256.2	0.565	1.643	1.972	3.49	NonLiqfble.
CPT-2	49.04	10.5	271.5	5.05	135	6620	3560	199.1	150.6	1.88	2.0	12.3	0.20	48.3	247.3	0.565	1.487	1.785	3.16	NonLiqfble.
CPT-2	49.07	10.5	272.6	5.17	135	6624	3562	199.8	151.1	1.92	2.0	12.4	0.20	49.6	249.4	0.565	1.524	1.828	3.24	NonLiqfble.
CPT-2	49.12	10.5	265.5	4.11	135	6631	3566	194.5	147.0	1.57	1.9	11.0	0.16	36.9	231.4	0.565	1.232	1.479	2.62	NonLiqfble.
CPT-2	49.17	10.5	264	4.05	135	6638	3570	193.3	146.0	1.55	1.9	10.9	0.16	36.5	229.8	0.565	1.209	1.451	2.57	NonLiqfble.
CPT-2	49.21	10.5	261.8	4.13	135	6643	3573	191.6	144.6	1.60	1.9	11.2	0.17	38.3	229.9	0.565	1.211	1.453	2.57	NonLiqfble.
CPT-2	49.24	10.5	260.6	4.45	135	6647	3575	190.7	143.9	1.73	2.0	11.9	0.18	43.3	234.0	0.565	1.271	1.526	2.70	NonLiqfble.
CPT-2	49.28	10.5	256.7	4.67	135	6653	3578	187.8	141.6	1.84	2.0	12.6	0.20	47.7	235.5	0.565	1.295	1.554	2.75	NonLiqfble.
CPT-2	49.31	10.5	256.4	4.73	135	6657	3580	187.5	141.3	1.87	2.0	12.7	0.21	48.7	236.2	0.565	1.306	1.567	2.77	NonLiqfble.
CPT-2	49.34	10.5	252.4	4.65	135	6661	3582	184.5	139.0	1.87	2.0	12.8	0.21	48.9	233.4	0.565	1.262	1.515	2.68	NonLiqfble.
CPT-2	49.38	10.5	261.2	4.28	135	6666	3585	190.9	143.8	1.66	1.9	11.6	0.18	40.8	231.6	0.565	1.236	1.483	2.62	NonLiqfble.
CPT-2	49.44	10.5	268.6	3.95	135	6674	3589	196.2	147.7	1.49	1.9	10.5	0.15	34.0	230.1	0.565	1.214	1.456	2.58	NonLiqfble.
CPT-2	49.5	10.5	283.9	4.01	135	6683	3594	207.2	156.1	1.43	1.9	9.8	0.13	30.7	237.9	0.565	1.332	1.599	2.83	NonLiqfble.
CPT-2	49.55	10.5	290.9	4.02	135	6689	3597	212.2	159.8	1.40	1.9	9.5	0.12	29.0	241.2	0.565	1.386	1.663	2.94	NonLiqfble.
CPT-2	49.6	10.5	297.6	3.93	135	6696	3601	217.0	163.4	1.34	1.8	9.0	0.11	26.1	243.1	0.565	1.417	1.700	3.01	NonLiqfble.
CPT-2	49.64	10.5	299.1	3.95	135	6701	3604	218.0	164.1	1.34	1.8	9.0	0.11	26.1	244.1	0.565	1.432	1.718	3.04	NonLiqfble.
CPT-2	49.69	10.5	300.6	3.87	135	6708	3607	219.0	164.7	1.30	1.8	8.8	0.10	24.7	243.6	0.565	1.425	1.710	3.03	NonLiqfble.
CPT-2	49.76	10.5	318	4.08	135	6718	3613	231.5	174.1	1.30	1.8	8.4	0.09	23.1	254.6	0.565	1.615	1.938	3.43	NonLiqfble.
CPT-2	49.8	10.5	313.5	3.89	135	6723	3615	228.1	171.5	1.25	1.8	8.3	0.09	21.8	250.0	0.565	1.532	1.839	3.25	NonLiqfble.
CPT-2	49.85	10.5	307.5	3.65	135	6730	3619	223.6	168.0	1.20	1.8	8.1	0.08	20.2	243.9	0.565	1.429	1.714	3.03	NonLiqfble.
CPT-2	49.88	10.5	304.6	3.48	125	6235	3122	238.5	193.0	1.15	1.7	7.0	0.05	13.5	252.0	0.607	1.567	1.881	3.10	NonLiqfble.
CPT-2	49.91	10.5	299.3	3.45	125	6239	3124	234.3	189.5	1.16	1.8	7.2	0.06	14.4	248.7	0.607	1.510	1.812	2.99	NonLiqfble.
CPT-2	49.99	10.5	311.5	3.41	125	6249	3129	243.6	197.0	1.11	1.7	6.6	0.04	11.0	254.6	0.607	1.615	1.938	3.19	NonLiqfble.
CPT-2	50.04	10.5	322.5	3.26	125	6255	3133	252.1	203.8	1.02	1.7	5.9	0.03	6.5	258.6	0.535	1.688	2.026	3.78	NonLiqfble.

Project Name: 199 River Oaks Parkway
Project Number: 7862.3.001.01
Date: 20-Jul-07
CPT Number: CPT-3
Depth to Groundwater: 11.3 ft

EQ Magnitude (M_w): 7.1
PGA (g): 0.55
MSF: 1.20

Cone	Depth (FT)	Water Table (FT)	Tip Resist. (TSF)	Sleeve Frict. (TSF)	γ (PCF)	Total Stress (PSF)	Effective Stress (PSF)	Norm. Tip Q _{tip}	Corr. Tip Q	Friction Ratio F	Ic	F.C. (%)	K _{CPT}	Δq _{tip}	(Q _{tip}) _{0.5}	Induced Stress Ratio	Liquef. Stress M7.5	Liquef. Stress M7.10	Factor of Safety	Comments
CPT-3	0.51	11.3	210.6	4.93	135	69	69	403.3	6114.1	2.34	1.6	4.7	0.00	0.0	403.3	0.358	6.182	7.419	20.75	Above W.T.
CPT-3	0.6	11.3	193.7	4.74	135	81	81	371.0	4779.7	2.45	1.6	4.7	0.00	0.0	371.0	0.358	4.828	5.794	16.21	Above W.T.
CPT-3	0.68	11.3	174.5	4.5	135	92	92	334.2	3799.2	2.58	1.6	5.0	0.00	0.0	334.2	0.358	3.551	4.262	11.92	Above W.T.
CPT-3	0.77	11.3	152.1	4.26	135	104	104	291.3	2924.2	2.80	1.7	5.5	0.01	4.1	295.4	0.358	2.477	2.973	8.32	Above W.T.
CPT-3	0.85	11.3	133.7	4.21	135	115	115	256.1	2328.3	3.15	1.7	6.5	0.04	10.9	266.9	0.358	1.849	2.219	6.21	Above W.T.
CPT-3	0.94	11.3	106.2	3.87	135	127	127	203.4	1672.1	3.65	1.8	8.1	0.08	18.3	221.7	0.358	1.094	1.313	3.67	Above W.T.
CPT-3	1.02	11.3	88.1	3.28	135	138	138	168.7	1278.1	3.73	1.8	8.7	0.10	18.6	187.4	0.358	0.692	0.830	2.32	Above W.T.
CPT-3	1.11	11.3	60.8	2.71	135	150	150	116.4	810.1	4.46	2.0	11.7	0.18	25.3	141.8	0.358	0.345	0.414	1.16	Above W.T.
CPT-3	1.19	11.3	43.4	2.45	135	161	161	83.1	539.1	5.66	2.1	16.0	0.29	34.5	117.7	0.358	0.232	0.278	0.78	Above W.T.
CPT-3	1.27	11.3	27	2.02	135	171	171	51.7	313.8	7.51	2.3	22.9	0.48	47.4	99.1	0.358	0.170	0.205	0.57	Above W.T.
CPT-3	1.35	11.3	21.6	1.63	135	182	182	41.4	235.9	7.58	2.4	25.2	0.54	48.2	89.6	0.358	0.147	0.176	0.49	Above W.T.
CPT-3	1.43	11.3	19.3	1.33	135	193	193	37.0	198.9	6.93	2.4	25.2	0.54	43.3	80.3	0.358	0.128	0.154	0.43	Above W.T.
CPT-3	1.51	11.3	16.5	1.1	135	204	204	31.6	160.8	6.71	2.4	26.6	0.58	43.2	74.8	0.358	0.119	0.143	0.40	Above W.T.
CPT-3	1.6	11.3	15.7	1	125	200	200	30.1	155.9	6.41	2.4	26.2	0.57	39.4	69.4	0.358	0.111	0.133	0.37	Above W.T.
CPT-3	1.68	11.3	14.8	0.95	125	210	210	28.3	139.9	6.46	2.4	27.4	0.60	42.2	70.6	0.358	0.113	0.135	0.38	Above W.T.
CPT-3	1.76	11.3	13.9	0.92	125	220	220	26.6	125.3	6.67	2.5	29.0	0.64	47.6	74.2	0.358	0.118	0.142	0.40	Above W.T.
CPT-3	1.84	11.3	11.4	0.87	125	230	230	21.8	98.1	7.71	2.6	34.1	0.78	76.0	97.9	0.358	0.167	0.201	0.56	Above W.T.
CPT-3	1.92	11.3	10.3	0.63	125	240	240	19.7	84.8	6.19	2.5	32.2	0.73	52.6	72.4	0.358	0.115	0.138	0.39	Above W.T.
CPT-3	2	11.3	9.8	0.49	115	230	230	18.8	84.2	5.06	2.5	29.3	0.65	34.5	53.2	0.358	0.094	0.113	0.32	Above W.T.
CPT-3	2.09	11.3	9.7	0.59	125	261	261	18.6	73.2	5.54	2.5	32.3	0.73	50.1	68.7	0.358	0.110	0.132	0.37	Above W.T.
CPT-3	2.17	11.3	10.8	0.58	125	271	271	20.7	78.6	5.44	2.5	31.2	0.70	47.9	68.6	0.358	0.110	0.132	0.37	Above W.T.
CPT-3	2.25	11.3	12.4	0.61	125	281	281	23.7	87.1	4.98	2.5	28.6	0.63	40.5	64.2	0.358	0.105	0.126	0.35	Above W.T.
CPT-3	2.33	11.3	11.6	0.61	125	291	291	22.2	78.6	5.33	2.5	30.8	0.69	49.4	71.6	0.358	0.114	0.137	0.38	Above W.T.
CPT-3	2.42	11.3	12.4	0.56	125	303	303	23.7	80.9	4.57	2.4	28.2	0.62	38.9	62.6	0.358	0.103	0.123	0.35	Above W.T.
CPT-3	2.5	11.3	12.9	0.51	125	313	313	24.7	81.5	4.00	2.4	26.3	0.57	32.7	57.4	0.358	0.098	0.117	0.33	Above W.T.
CPT-3	2.59	11.3	13.6	0.49	125	324	324	26.0	83.0	3.65	2.4	24.9	0.53	29.5	55.6	0.358	0.096	0.115	0.32	Above W.T.
CPT-3	2.67	11.3	14.5	0.53	125	334	334	27.8	85.9	3.70	2.4	24.7	0.53	30.8	58.6	0.358	0.099	0.118	0.33	Above W.T.
CPT-3	2.76	11.3	16.9	0.58	125	345	345	32.4	96.9	3.47	2.3	22.6	0.47	28.7	61.0	0.358	0.101	0.121	0.34	Above W.T.
CPT-3	2.84	11.3	17.4	0.62	125	355	355	33.3	97.0	3.60	2.3	23.0	0.48	31.0	64.3	0.358	0.105	0.126	0.35	Above W.T.
CPT-3	2.93	11.3	18.5	0.64	125	366	366	35.4	100.0	3.49	2.3	22.4	0.46	30.6	66.1	0.358	0.107	0.128	0.36	Above W.T.
CPT-3	3.01	11.3	16.6	0.63	125	376	376	31.8	87.2	3.84	2.4	25.0	0.53	36.5	68.3	0.358	0.110	0.132	0.37	Above W.T.
CPT-3	3.1	11.3	14.6	0.6	125	388	388	28.0	74.3	4.16	2.4	28.0	0.61	44.3	72.3	0.358	0.115	0.138	0.39	Above W.T.
CPT-3	3.19	11.3	12.9	0.55	125	399	399	24.7	63.7	4.33	2.5	30.4	0.68	52.3	77.0	0.358	0.122	0.147	0.41	Above W.T.
CPT-3	3.27	11.3	10.7	0.51	125	409	409	20.5	51.3	4.86	2.6	35.1	0.80	82.0	102.5	0.358	0.180	0.216	0.60	Above W.T.
CPT-3	3.36	11.3	8.7	0.5	115	386	386	16.7	44.0	5.88	2.7	40.5	0.80	66.6	83.3	0.358	0.134	0.161	0.45	Above W.T.
CPT-3	3.45	11.3	8.2	0.5	115	397	397	15.7	40.3	6.25	2.7	42.9	0.80	62.8	78.5	0.358	0.125	0.150	0.42	Above W.T.
CPT-3	3.54	11.3	8	0.5	115	407	407	15.3	38.3	6.41	2.8	44.3	0.80	61.3	76.6	0.358	0.122	0.146	0.41	Above W.T.
CPT-3	3.62	11.3	7	0.49	115	416	416	13.4	32.6	7.21	2.9	49.2	0.80	53.6	67.0	0.358	0.108	0.130	0.36	Above W.T.
CPT-3	3.71	11.3	5.9	0.48	115	427	427	11.3	26.6	8.44	3.0	56.1	0.80	45.2	56.5	0.358	0.097	0.116	0.32	Above W.T.
CPT-3	3.8	11.3	6.4	0.45	115	437	437	12.3	28.3	7.28	2.9	52.0	0.80	49.0	61.3	0.358	0.101	0.122	0.34	Above W.T.
CPT-3	3.89	11.3	6.5	0.41	115	447	447	12.4	28.0	6.53	2.9	50.1	0.80	49.8	62.2	0.358	0.102	0.123	0.34	Above W.T.
CPT-3	3.97	11.3	6.7	0.42	115	457	457	12.8	28.3	6.49	2.9	49.8	0.80	51.3	64.2	0.358	0.105	0.125	0.35	Above W.T.
CPT-3	4.06	11.3	6.9	0.46	115	467	467	13.2	28.5	6.90	2.9	50.8	0.80	52.9	66.1	0.358	0.107	0.128	0.36	Above W.T.
CPT-3	4.15	11.3	7.5	0.51	115	477	477	14.4	30.4	7.02	2.9	49.9	0.80	57.5	71.8	0.358	0.114	0.137	0.38	Above W.T.
CPT-3	4.24	11.3	8.6	0.58	125	530	530	16.3	31.4	6.96	2.9	49.2	0.80	65.4	81.7	0.358	0.131	0.157	0.44	Above W.T.
CPT-3	4.32	11.3	8.9	0.65	125	540	540	16.8	31.9	7.53	2.9	50.4	0.80	67.0	83.8	0.358	0.135	0.162	0.45	Above W.T.
CPT-3	4.41	11.3	8.8	0.69	125	551	551	16.4	30.9	8.09	2.9	52.4	0.80	65.6	82.0	0.358	0.131	0.158	0.44	Above W.T.
CPT-3	4.5	11.3	8	0.73	125	563	563	14.8	27.4	9.46	3.0	57.9	0.80	59.0	73.8	0.358	0.117	0.141	0.39	Above W.T.
CPT-3	4.61	11.3	8.1	0.72	125	576	576	14.8	27.1	9.22	3.0	57.6	0.80	59.1	73.8	0.358	0.117	0.141	0.39	Above W.T.
CPT-3	4.7	11.3	7.4	0.69	125	588	588	13.4	24.2	9.71	3.0	61.0	0.80	53.4	66.8	0.358	0.108	0.129	0.36	Above W.T.
CPT-3	4.79	11.3	8.4	0.65	125	599	599	15.0	27.0	8.02	2.9	54.8	0.80	60.1	75.1	0.358	0.119	0.143	0.40	Above W.T.
CPT-3	4.87	11.3	8.1	0.62	125	609	609	14.4	25.6	7.95	3.0	55.7	0.80	57.5	71.8	0.358	0.114	0.137	0.38	Above W.T.
CPT-3	4.96	11.3	8.2	0.61	125	620	620	14.4	25.4	7.73	3.0	55.2	0.80	57.6	72.0	0.358	0.115	0.138	0.39	Above W.T.
CPT-3	5.05	11.3	8.6	0.61	125	631	631	15.0	26.2	7.36	2.9	53.7	0.80	59.9	74.9	0.358	0.119	0.143	0.40	Above W.T.
CPT-3	5.14	11.3	8.4	0.38	115	591	591	15.1	27.4	4.69	2.8	44.6	0.80	60.5	75.6	0.358	0.120	0.144	0.40	Above W.T.
CPT-3	5.22	11.3	8.5	0.47	115	600	600	15.2	27.3	5.73	2.8	48.2	0.80	60.7	75.9	0.358	0.121	0.145	0.41	Above W.T.
CPT-3	5.31	11.3	8.2	0.48	115	611	611	14.5	25.8	6.08	2.9	50.3	0.80	58.1	72.6	0.358	0.116	0.139	0.39	Above W.T.
CPT-3	5.39	11.3	8.5	0.49	115	620	620	14.9	26.4	5.98	2.9	49.6	0.80	59.8	74.7	0.358	0.119	0.142	0.40	Above W.T.
CPT-3	5.43	11.3	8.5	0.52	115	624	624	14.9	26.2	6.35	2.9	50.8	0.80	59.5	74.4	0.358	0.118	0.142	0.40	Above W.T.
CPT-3	5.51	11.3	10.9	0.59	125	689	689	18.2	30.6	5.59	2.8	45.6	0.80	72.7	90.9	0.358	0.150	0.180	0.50	Above W.T.
CPT-3	5.6	11.3	11.6	0.68	125	700	700	19.2	32.1	6.04	2.8	46.2	0.80	76.7	95.9	0.358	0.162	0.194	0.54	Above W.T.
CPT-3	5.68	11.3	12.8	0.76	125	710	710	21.0	35.0	6.11	2.8	44.9	0.80	84.1	105.1	0.358	0.188	0.226	0.63	Above W.T.
CPT-3	5.77	11.3	12.5	0.83	125															

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Cone	Depth (FT)	Water Table (FT)	Tip Resist. (TSF)	Sleeve Frict. (TSF)	γ (PCF)	Total Stress (PSF)	Effective Stress (PSF)	Norm. Tip Q _{tn}	Corr. Tip Q	Friction Ratio F	I _c	F.C. (%)	K _{CPT}	Δq _{tn}	(q _{tn}) ₅₀	Induced Stress Ratio	Liquef. Stress M7.5	Liquef. Stress M7.10	Factor of Safety	Comments
CPT-3	6.36	11.3	14	0.93	125	795	795	21.7	34.2	6.84	2.8	47.3	0.80	86.9	108.6	0.358	0.199	0.239	0.67	Above W.T.
CPT-3	6.44	11.3	13.6	0.99	125	805	805	21.0	32.8	7.50	2.9	49.9	0.80	83.9	104.9	0.358	0.187	0.225	0.63	Above W.T.
CPT-3	6.53	11.3	13.6	1.05	125	816	816	20.8	32.3	7.96	2.9	51.3	0.80	83.3	104.1	0.358	0.185	0.222	0.62	Above W.T.
CPT-3	6.6	11.3	13.5	1.1	125	825	825	20.6	31.7	8.41	2.9	52.7	0.80	82.3	102.8	0.358	0.181	0.217	0.61	Above W.T.
CPT-3	6.69	11.3	13.6	1.12	125	836	836	20.6	31.5	8.50	2.9	53.0	0.80	82.3	102.9	0.358	0.181	0.218	0.61	Above W.T.
CPT-3	6.79	11.3	14	1.13	135	917	917	20.2	29.5	8.34	2.9	53.9	0.80	80.9	101.2	0.358	0.176	0.212	0.59	Above W.T.
CPT-3	6.88	11.3	13.9	1.12	125	860	860	20.7	31.3	8.31	2.9	52.7	0.80	83.0	103.7	0.358	0.184	0.220	0.62	Above W.T.
CPT-3	6.97	11.3	14.1	1.12	125	871	871	20.9	31.4	8.20	2.9	52.4	0.80	83.6	104.5	0.358	0.186	0.223	0.62	Above W.T.
CPT-3	7.05	11.3	14.3	1.13	135	952	952	20.3	29.0	8.17	2.9	53.8	0.80	81.1	101.4	0.358	0.177	0.212	0.59	Above W.T.
CPT-3	7.14	11.3	14.6	1.16	135	964	964	20.6	29.3	8.22	2.9	53.7	0.80	82.3	102.9	0.358	0.181	0.218	0.61	Above W.T.
CPT-3	7.22	11.3	14.3	1.18	135	975	975	20.0	28.3	8.54	2.9	55.2	0.80	80.2	100.2	0.358	0.174	0.208	0.58	Above W.T.
CPT-3	7.31	11.3	14.1	1.19	135	987	987	19.6	27.6	8.75	3.0	56.2	0.80	78.6	98.2	0.358	0.168	0.202	0.56	Above W.T.
CPT-3	7.39	11.3	14.4	1.19	135	998	998	19.9	27.9	8.56	3.0	55.5	0.80	79.8	99.7	0.358	0.172	0.207	0.58	Above W.T.
CPT-3	7.48	11.3	15.1	1.17	135	1010	1010	20.8	28.9	8.02	2.9	53.5	0.80	83.2	104.0	0.358	0.184	0.221	0.62	Above W.T.
CPT-3	7.56	11.3	15.1	1.15	135	1021	1021	20.7	28.6	7.88	2.9	53.4	0.80	82.7	103.4	0.358	0.183	0.219	0.61	Above W.T.
CPT-3	7.65	11.3	14.2	1.14	135	1033	1033	19.3	26.5	8.33	3.0	56.0	0.80	77.3	96.7	0.358	0.164	0.197	0.55	Above W.T.
CPT-3	7.74	11.3	14.1	1.14	135	1045	1045	19.1	26.0	8.40	3.0	56.5	0.80	76.3	95.4	0.358	0.161	0.193	0.54	Above W.T.
CPT-3	7.82	11.3	14.1	1.13	135	1056	1056	19.0	25.7	8.33	3.0	56.5	0.80	75.9	94.9	0.358	0.160	0.191	0.54	Above W.T.
CPT-3	7.91	11.3	13.7	1.1	125	989	989	19.1	26.7	8.33	3.0	55.8	0.80	76.3	95.3	0.358	0.161	0.193	0.54	Above W.T.
CPT-3	7.99	11.3	13.3	1.06	125	999	999	18.4	25.6	8.28	3.0	56.5	0.80	73.7	92.1	0.358	0.153	0.183	0.51	Above W.T.
CPT-3	8.07	11.3	13.4	1.02	125	1009	1009	18.5	25.6	7.91	3.0	55.6	0.80	73.8	92.3	0.358	0.153	0.184	0.51	Above W.T.
CPT-3	8.16	11.3	13.2	0.95	125	1020	1020	18.1	24.9	7.49	2.9	55.0	0.80	72.3	90.4	0.358	0.149	0.178	0.50	Above W.T.
CPT-3	8.25	11.3	13	0.88	125	1031	1031	17.7	24.2	7.05	2.9	54.4	0.80	70.8	88.6	0.358	0.145	0.174	0.49	Above W.T.
CPT-3	8.34	11.3	12.9	0.89	125	1043	1043	17.5	23.7	7.19	2.9	55.2	0.80	69.9	87.4	0.358	0.142	0.171	0.48	Above W.T.
CPT-3	8.44	11.3	14.1	0.95	125	1055	1055	19.0	25.7	7.00	2.9	53.0	0.80	76.0	95.0	0.358	0.160	0.192	0.54	Above W.T.
CPT-3	8.53	11.3	14.4	1.02	125	1066	1066	19.3	26.0	7.36	2.9	53.8	0.80	77.2	96.5	0.358	0.164	0.196	0.55	Above W.T.
CPT-3	8.56	11.3	14.4	1.05	125	1070	1070	19.3	25.9	7.57	2.9	54.5	0.80	77.0	96.3	0.358	0.163	0.196	0.55	Above W.T.
CPT-3	8.65	11.3	15.2	1.12	135	1168	1168	19.5	25.0	7.66	3.0	55.4	0.80	77.8	97.3	0.358	0.166	0.199	0.56	Above W.T.
CPT-3	8.74	11.3	15.6	1.14	135	1180	1180	19.9	25.4	7.60	2.9	54.9	0.80	79.5	99.4	0.358	0.171	0.205	0.57	Above W.T.
CPT-3	8.83	11.3	15.3	1.12	135	1192	1192	19.4	24.7	7.62	3.0	55.5	0.80	77.6	96.9	0.358	0.165	0.198	0.55	Above W.T.
CPT-3	8.92	11.3	15	1.11	135	1204	1204	18.9	23.9	7.71	3.0	56.4	0.80	75.7	94.6	0.358	0.159	0.190	0.53	Above W.T.
CPT-3	9.02	11.3	14.6	1.09	125	1128	1128	19.0	24.9	7.77	3.0	55.8	0.80	76.1	95.1	0.358	0.160	0.192	0.54	Above W.T.
CPT-3	9.11	11.3	14.3	1.06	125	1139	1139	18.5	24.1	7.72	3.0	56.3	0.80	74.2	92.7	0.358	0.154	0.185	0.52	Above W.T.
CPT-3	9.2	11.3	14.6	1.06	125	1150	1150	18.8	24.4	7.56	3.0	55.6	0.80	75.3	94.2	0.358	0.158	0.189	0.53	Above W.T.
CPT-3	9.29	11.3	14.6	1.07	125	1161	1161	18.7	24.1	7.63	3.0	56.0	0.80	75.0	93.7	0.358	0.157	0.188	0.53	Above W.T.
CPT-3	9.38	11.3	14.9	1.07	125	1173	1173	19.0	24.4	7.48	3.0	55.4	0.80	76.2	95.2	0.358	0.160	0.192	0.54	Above W.T.
CPT-3	9.47	11.3	15.9	1.07	135	1278	1278	19.5	23.9	7.01	2.9	54.5	0.80	77.8	97.3	0.358	0.166	0.199	0.56	Above W.T.
CPT-3	9.56	11.3	16	1.11	135	1291	1291	19.5	23.8	7.23	3.0	55.2	0.80	77.9	97.4	0.358	0.166	0.199	0.56	Above W.T.
CPT-3	9.65	11.3	16.7	1.17	135	1303	1303	20.2	24.6	7.29	2.9	54.7	0.80	81.0	101.2	0.358	0.176	0.212	0.59	Above W.T.
CPT-3	9.75	11.3	16.8	1.21	135	1316	1316	20.3	24.5	7.50	3.0	55.3	0.80	81.0	101.3	0.358	0.177	0.212	0.59	Above W.T.
CPT-3	9.84	11.3	16.9	1.24	135	1328	1328	20.3	24.4	7.64	3.0	55.8	0.80	81.2	101.4	0.358	0.177	0.212	0.59	Above W.T.
CPT-3	9.93	11.3	17.2	1.28	135	1341	1341	20.6	24.7	7.74	3.0	55.9	0.80	82.2	102.8	0.358	0.181	0.217	0.61	Above W.T.
CPT-3	10.02	11.3	18	1.3	135	1353	1353	21.4	25.6	7.50	2.9	54.5	0.80	85.7	107.1	0.350	0.194	0.233	0.66	Above W.T.
CPT-3	10.11	11.3	18.8	1.32	135	1365	1365	22.3	26.5	7.29	2.9	53.2	0.80	89.1	111.3	0.350	0.208	0.250	0.71	Above W.T.
CPT-3	10.2	11.3	20.2	1.37	135	1377	1377	23.8	28.3	7.02	2.9	51.3	0.80	95.3	119.1	0.350	0.237	0.284	0.81	Above W.T.
CPT-3	10.29	11.3	20.6	1.43	135	1389	1389	24.2	28.6	7.18	2.9	51.5	0.80	96.7	120.9	0.350	0.244	0.293	0.84	Above W.T.
CPT-3	10.38	11.3	19.2	1.45	135	1401	1401	22.4	26.4	7.84	2.9	54.8	0.80	89.8	112.2	0.350	0.211	0.254	0.72	Above W.T.
CPT-3	10.47	11.3	19	1.45	135	1413	1413	22.1	25.9	7.93	3.0	55.4	0.80	88.4	110.6	0.350	0.206	0.247	0.70	Above W.T.
CPT-3	10.56	11.3	19.6	1.43	135	1426	1426	22.7	26.5	7.57	2.9	54.0	0.80	90.9	113.6	0.350	0.216	0.259	0.74	Above W.T.
CPT-3	10.65	11.3	19.5	1.44	135	1438	1438	22.5	26.1	7.67	2.9	54.5	0.80	90.0	112.5	0.350	0.212	0.255	0.73	Above W.T.
CPT-3	10.74	11.3	19.5	1.48	135	1450	1450	22.4	25.9	7.88	3.0	55.3	0.80	89.6	112.0	0.350	0.211	0.253	0.72	Above W.T.
CPT-3	10.83	11.3	21.3	1.5	135	1462	1462	24.4	28.1	7.29	2.9	52.1	0.80	97.5	121.9	0.350	0.248	0.298	0.85	Above W.T.
CPT-3	10.92	11.3	23.5	1.57	135	1474	1474	26.8	30.9	6.90	2.9	49.3	0.80	107.1	133.9	0.350	0.303	0.364	1.04	Above W.T.
CPT-3	11.01	11.3	25.2	1.67	135	1486	1486	28.6	32.9	6.83	2.8	48.0	0.80	114.4	143.0	0.350	0.352	0.422	1.21	Above W.T.
CPT-3	11.1	11.3	26.5	1.74	135	1499	1499	30.0	34.4	6.76	2.8	47.0	0.80	119.8	149.8	0.350	0.392	0.471	1.34	Above W.T.
CPT-3	11.19	11.3	26.8	1.85	135	1511	1511	30.2	34.5	7.10	2.8	47.9	0.80	120.7	150.8	0.350	0.399	0.479	1.37	Above W.T.
CPT-3	11.27	11.3	27.3	1.91	135	1521	1521	30.6	34.9	7.20	2.8	48.0	0.80	122.5	153.1	0.350	0.414	0.497	1.42	Above W.T.
CPT-3	11.36	11.3	28.1	1.91	135	1534	825	42.8	66.3	6.99	2.6	37.4	0.80	171.2	214.1	0.651	0.992	1.191	1.83	NonLiqfble.
CPT-3	11.45	11.3	28	1.91	135	1546	831	42.5	65.5	7.02	2.6	37.7	0.80	170.0	212.5	0.651	0.972	1.166	1.79	NonLiqfble.
CPT-3	11.54	11.3	28.6	1.92	135	1558	838	43.2	66.4	6.90	2.6	37.2	0.80	172.9	216.2	0.651	1.019	1.223	1.88	NonLiqfble.
CPT-3	11.63	11.3	28.3	1.94	135	1570	844	42.6	65.1	7.05	2.6	37.8	0.80	170.5	213.1	0.651	0.980	1.175	1.80	NonLiqfble.
CPT-3	11.72	11.3	27.6	2	135	1582	851	41.4	63.0											

Project Name: 199 River Oaks Parkway
Project Number: 7862.3.001.01
Date: 20-Jul-07
CPT Number: CPT-3
Depth to Groundwater: 11.3 ft

EQ Magnitude (M_w): 7.1
PGA (g): 0.55
MSF: 1.20

Cone	Depth (FT)	Water Table (FT)	Tip Resist. (TSF)	Sleeve Frict. (TSF)	γ (PCF)	Total Stress (PSF)	Effective Stress (PSF)	Norm. Tip Q _{ts}	Corr. Tip Q	Friction Ratio F	Ic	F.C. (%)	K _{CPT}	Δq _{ts}	(q _{ts}) _{ts}	Induced Stress Ratio	Liquef. Stress M7.5	Liquef. Stress M7.10	Factor of Safety	Comments
CPT-3	12.43	11.3	23.3	1.38	135	1678	902	33.9	49.8	6.14	2.7	39.4	0.80	135.7	169.7	0.651	0.534	0.641	0.98	NonLiqfble.
CPT-3	12.52	11.3	22.5	1.24	135	1690	909	32.7	47.6	5.73	2.7	38.8	0.80	130.6	163.3	0.651	0.485	0.582	0.89	NonLiqfble.
CPT-3	12.6	11.3	22.2	1.16	135	1701	915	32.1	46.7	5.43	2.7	38.3	0.80	128.5	160.6	0.651	0.465	0.558	0.86	NonLiqfble.
CPT-3	12.69	11.3	22.1	1.14	135	1713	921	31.9	46.1	5.37	2.7	38.3	0.80	127.4	159.3	0.651	0.456	0.547	0.84	NonLiqfble.
CPT-3	12.78	11.3	22.3	1.12	135	1725	928	32.0	46.2	5.22	2.6	37.8	0.80	128.1	160.2	0.651	0.462	0.554	0.85	NonLiqfble.
CPT-3	12.87	11.3	22	1.09	135	1737	934	31.5	45.2	5.16	2.7	37.9	0.80	126.0	157.5	0.651	0.443	0.532	0.82	NonLiqfble.
CPT-3	12.96	11.3	21.2	1.07	135	1750	941	30.2	43.2	5.26	2.7	38.9	0.80	121.0	151.2	0.651	0.401	0.482	0.74	NonLiqfble.
CPT-3	13.05	11.3	20.4	1.03	135	1762	947	29.0	41.2	5.28	2.7	39.7	0.80	116.0	145.0	0.651	0.363	0.436	0.67	NonLiqfble.
CPT-3	13.13	11.3	18.9	0.98	135	1773	953	26.8	37.8	5.44	2.7	41.6	0.80	107.1	133.9	0.651	0.303	0.364	0.56	NonLiqfble.
CPT-3	13.22	11.3	18.3	0.94	135	1785	960	25.8	36.3	5.40	2.7	42.2	0.80	103.4	129.2	0.651	0.281	0.337	0.52	NonLiqfble.
CPT-3	13.31	11.3	18.1	0.89	125	1664	833	27.4	41.4	5.15	2.7	39.2	0.80	109.7	137.2	0.700	0.320	0.384	0.55	NonLiqfble.
CPT-3	13.4	11.3	18	0.81	125	1675	839	27.2	40.9	4.72	2.7	38.0	0.80	108.8	136.0	0.700	0.314	0.376	0.54	NonLiqfble.
CPT-3	13.49	11.3	17.5	0.74	125	1686	844	26.3	39.4	4.44	2.6	37.6	0.80	105.4	131.7	0.700	0.293	0.351	0.50	NonLiqfble.
CPT-3	13.58	11.3	15.8	0.72	125	1698	850	23.7	35.2	4.82	2.7	40.8	0.80	94.8	118.6	0.700	0.235	0.282	0.40	NonLiqfble.
CPT-3	13.66	11.3	15.2	0.7	125	1708	855	22.7	33.5	4.88	2.7	41.8	0.80	91.0	113.7	0.700	0.217	0.260	0.37	NonLiqfble.
CPT-3	13.75	11.3	15.6	0.67	125	1719	861	23.3	34.2	4.55	2.7	40.3	0.80	93.1	116.3	0.700	0.226	0.272	0.39	NonLiqfble.
CPT-3	13.84	11.3	16.6	0.62	125	1730	866	24.7	36.3	3.94	2.6	37.1	0.80	98.7	123.4	0.700	0.255	0.306	0.44	NonLiqfble.
CPT-3	13.93	11.3	16.6	0.58	125	1741	872	24.6	36.1	3.69	2.6	36.2	0.80	98.4	123.0	0.700	0.253	0.304	0.43	NonLiqfble.
CPT-3	14.02	11.3	16.5	0.57	125	1753	878	24.4	35.6	3.65	2.6	36.3	0.80	97.5	121.8	0.700	0.248	0.298	0.43	NonLiqfble.
CPT-3	14.11	11.3	15.2	0.58	125	1764	883	22.4	32.4	4.05	2.7	39.4	0.80	89.5	111.9	0.700	0.210	0.252	0.36	NonLiqfble.
CPT-3	14.2	11.3	15.5	0.61	125	1775	889	22.7	32.9	4.17	2.7	39.6	0.80	91.0	113.7	0.700	0.217	0.260	0.37	NonLiqfble.
CPT-3	14.29	11.3	16.1	0.62	125	1786	895	23.6	34.0	4.08	2.7	38.7	0.80	94.2	117.8	0.700	0.232	0.278	0.40	NonLiqfble.
CPT-3	14.37	11.3	16.7	0.66	125	1796	900	24.4	35.1	4.18	2.7	38.5	0.80	97.4	121.8	0.700	0.248	0.298	0.43	NonLiqfble.
CPT-3	14.46	11.3	16.3	0.67	125	1808	905	23.7	34.0	4.35	2.7	39.7	0.80	94.8	118.5	0.700	0.235	0.282	0.40	NonLiqfble.
CPT-3	14.56	11.3	15.6	0.65	125	1820	911	22.6	32.2	4.42	2.7	40.9	0.80	90.4	113.0	0.700	0.214	0.257	0.37	NonLiqfble.
CPT-3	14.64	11.3	14.9	0.6	125	1830	916	21.5	30.5	4.29	2.7	41.3	0.80	86.1	107.7	0.700	0.196	0.235	0.34	NonLiqfble.
CPT-3	14.75	11.3	13.5	0.55	125	1844	923	19.4	27.2	4.37	2.8	43.6	0.80	77.8	97.2	0.700	0.165	0.198	0.28	NonLiqfble.
CPT-3	14.85	11.3	13.5	0.52	125	1856	930	19.4	27.0	4.14	2.7	42.8	0.80	77.5	96.9	0.700	0.165	0.197	0.28	NonLiqfble.
CPT-3	14.95	11.3	12.9	0.57	125	1869	936	18.5	25.6	4.76	2.8	46.2	0.80	73.8	92.3	0.700	0.153	0.184	0.26	NonLiqfble.
CPT-3	15.04	11.3	12.1	0.57	125	1880	942	17.3	23.7	5.11	2.8	48.8	0.80	69.0	86.3	0.700	0.140	0.168	0.24	NonLiqfble.
CPT-3	15.13	11.3	11.3	0.54	125	1891	947	16.1	21.9	5.22	2.9	50.7	0.80	64.3	80.3	0.700	0.128	0.154	0.22	NonLiqfble.
CPT-3	15.16	11.3	13.3	0.52	125	1895	949	18.9	26.0	4.21	2.8	43.8	0.80	75.6	94.4	0.700	0.158	0.190	0.27	NonLiqfble.
CPT-3	15.26	11.3	11.9	0.49	125	1908	955	16.8	22.9	4.48	2.8	47.2	0.80	67.4	84.2	0.700	0.136	0.163	0.23	NonLiqfble.
CPT-3	15.34	11.3	11.5	0.45	125	1918	960	16.2	21.9	4.27	2.8	47.2	0.80	64.9	81.2	0.700	0.130	0.156	0.22	NonLiqfble.
CPT-3	15.43	11.3	10.1	0.39	115	1774	812	15.5	22.7	4.23	2.8	46.4	0.80	62.0	77.6	0.766	0.123	0.148	0.19	NonLiqfble.
CPT-3	15.52	11.3	8.9	0.38	115	1785	816	13.6	19.6	4.75	2.9	51.2	0.80	54.5	68.1	0.766	0.109	0.131	0.17	NonLiqfble.
CPT-3	15.61	11.3	8.3	0.36	115	1795	821	12.7	18.0	4.86	2.9	53.4	0.80	50.7	63.4	0.766	0.104	0.124	0.16	NonLiqfble.
CPT-3	15.7	11.3	7.9	0.33	115	1806	826	12.0	16.9	4.72	2.9	54.1	0.80	48.1	60.1	0.766	0.100	0.120	0.16	NonLiqfble.
CPT-3	15.79	11.3	7.8	0.31	115	1816	831	11.8	16.6	4.50	2.9	53.7	0.80	47.4	59.2	0.766	0.099	0.119	0.16	NonLiqfble.
CPT-3	15.88	11.3	8.2	0.27	105	1667	676	13.8	21.8	3.67	2.8	44.9	0.80	55.2	69.0	0.864	0.111	0.133	0.15	NonLiqfble.
CPT-3	15.97	11.3	7.3	0.24	105	1677	680	12.2	19.0	3.71	2.8	47.7	0.80	49.0	61.2	0.864	0.101	0.122	0.14	NonLiqfble.
CPT-3	16.06	11.3	6.7	0.22	105	1686	684	11.2	17.1	3.76	2.9	50.0	0.80	44.8	56.0	0.864	0.096	0.116	0.13	NonLiqfble.
CPT-3	16.15	11.3	6.4	0.19	105	1696	688	10.7	16.1	3.42	2.9	49.7	0.80	42.7	53.4	0.864	0.094	0.113	0.13	NonLiqfble.
CPT-3	16.24	11.3	5.9	0.18	105	1705	692	9.8	14.6	3.57	2.9	52.5	0.80	39.3	49.1	0.864	0.091	0.109	0.13	NonLiqfble.
CPT-3	16.33	11.3	6.1	0.16	95	1551	532	11.6	20.0	3.01	2.8	43.4	0.80	46.3	57.8	1.021	0.098	0.118	0.12	NonLiqfble.
CPT-3	16.41	11.3	5.7	0.16	95	1559	535	10.8	18.4	3.25	2.8	46.2	0.80	43.1	53.9	1.021	0.095	0.113	0.11	NonLiqfble.
CPT-3	16.51	11.3	5.9	0.18	105	1734	703	9.7	14.3	3.58	2.9	53.0	0.80	38.9	48.7	0.864	0.091	0.109	0.13	NonLiqfble.
CPT-3	16.6	11.3	5.9	0.2	105	1743	707	9.7	14.2	3.98	2.9	54.9	0.80	38.8	48.5	0.864	0.091	0.109	0.13	NonLiqfble.
CPT-3	16.69	11.3	6.4	0.23	105	1752	711	10.5	15.5	4.16	2.9	53.8	0.80	42.0	52.5	0.864	0.093	0.112	0.13	NonLiqfble.
CPT-3	16.78	11.3	6.1	0.24	105	1762	715	10.0	14.6	4.60	3.0	56.9	0.80	39.9	49.9	0.864	0.092	0.110	0.13	NonLiqfble.
CPT-3	16.87	11.3	7.4	0.25	105	1771	719	12.1	18.1	3.84	2.9	49.2	0.80	48.3	60.4	0.864	0.100	0.121	0.14	NonLiqfble.
CPT-3	16.95	11.3	7.3	0.28	105	1780	722	11.9	17.7	4.37	2.9	51.8	0.80	47.5	59.4	0.864	0.100	0.119	0.14	NonLiqfble.
CPT-3	17.04	11.3	7.3	0.32	115	1960	896	10.7	14.1	5.06	3.0	59.5	0.80	42.7	53.3	0.766	0.094	0.113	0.15	NonLiqfble.
CPT-3	17.13	11.3	7.4	0.33	115	1970	901	10.8	14.2	5.14	3.0	59.6	0.80	43.1	53.9	0.766	0.095	0.114	0.15	NonLiqfble.
CPT-3	17.22	11.3	8.7	0.37	115	1980	906	12.6	17.0	4.80	2.9	54.4	0.80	50.6	63.2	0.766	0.104	0.124	0.16	NonLiqfble.
CPT-3	17.31	11.3	9.4	0.44	115	1991	911	13.6	18.5	5.24	2.9	54.2	0.80	54.5	68.2	0.766	0.109	0.131	0.17	NonLiqfble.
CPT-3	17.4	11.3	9.9	0.57	125	2175	1089	13.1	16.2	6.47	3.0	61.2	0.80	52.5	65.6	0.700	0.106	0.128	0.18	NonLiqfble.
CPT-3	17.49	11.3	11.9	0.67	125	2186	1095	15.7	19.7	6.20	3.0	56.0	0.80	62.9	78.7	0.700	0.125	0.150	0.21	NonLiqfble.
CPT-3	17.58	11.3	14.2	0.74	125	2198	1101	18.7	23.8	5.65	2.9	50.5	0.80	74.9	93.6	0.700	0.156	0.188	0.27	NonLiqfble.
CPT-3	17.67	11.3	14.5	0.76	125	2209	1106	19.1	24.2	5.67	2.9	50.3	0.80	76.3	95.4	0.700	0.161	0.193	0.28	NonLiqfble.
CPT-3	17.76	11.3	11.8	0.73	125	2220	1112	15.5	19.2	6.83	3.0	58.5	0.80	61.9	77.4	0.700	0.123	0.148		

Project Name:	199 River Oaks Parkway
Project Number:	7862.3.001.01
Date:	20-Jul-07
CPT Number:	CPT-3
Depth to Groundwater:	11.3 ft

EQ Magnitude (M _w):	7.1
PGA (g):	0.55
MSF:	1.20

Cone	Depth (FT)	Water Table (FT)	Tip Resist. (TSF)	Sleeve Frict. (TSF)	Total Stress (PSF)	Effective Stress (PSF)	Norm. Tip Q _{tip} (PSF)	Corr. Tip Q (PSF)	Friction Ratio F	F.C. (%)	K _{CPT}	Δq _{tip}	(q _{tip}) _{ns}	Induced Stress Ratio	Liquef. Stress M7.5	Liquef. Stress M7.10	Factor of Safety	Comments		
CPT-3	18.48	11.3	106.6	1.98	135	2495	1342	127.3	157.0	1.88	2.0	12.0	0.19	29.2	156.5	0.651	0.437	0.524	0.80	Liquefaction
CPT-3	18.57	11.3	118.2	2.05	135	2507	1348	140.9	173.4	1.75	1.9	10.7	0.15	25.3	166.1	0.651	0.506	0.608	0.93	Liquefaction
CPT-3	18.65	11.3	111.8	2.13	135	2518	1354	132.9	163.2	1.93	2.0	11.9	0.18	30.1	163.0	0.651	0.483	0.580	0.89	Liquefaction
CPT-3	18.74	11.3	111.8	2.09	135	2530	1361	132.6	162.4	1.89	2.0	11.8	0.18	29.4	162.0	0.651	0.475	0.570	0.88	Liquefaction
CPT-3	18.82	11.3	104.1	2.05	135	2541	1366	123.2	150.5	1.99	2.0	12.8	0.21	32.5	155.7	0.651	0.431	0.517	0.79	Liquefaction
CPT-3	18.91	11.3	89.3	2.39	135	2553	1373	105.5	128.2	2.72	2.1	17.1	0.32	50.5	155.9	0.651	0.433	0.519	0.80	Liquefaction
CPT-3	19	11.3	76	2.58	135	2565	1379	89.5	108.3	3.45	2.3	21.4	0.44	69.9	159.4	0.651	0.457	0.548	0.84	Liquefaction
CPT-3	19.09	11.3	62.7	2.36	135	2577	1386	73.7	88.6	3.84	2.4	24.9	0.53	83.2	156.9	0.651	0.439	0.527	0.81	Liquefaction
CPT-3	19.17	11.3	43.1	2.16	135	2588	1392	50.5	60.1	5.17	2.6	33.9	0.77	169.6	220.1	0.651	1.072	1.286	1.97	NonLiqfble.
CPT-3	19.26	11.3	30.7	1.88	135	2600	1398	35.9	42.0	6.39	2.7	42.7	0.80	143.7	179.6	0.651	0.619	0.743	1.14	NonLiqfble.
CPT-3	19.34	11.3	31.8	1.6	135	2611	1404	37.1	43.4	5.25	2.7	38.8	0.80	148.5	185.7	0.651	0.675	0.810	1.20	NonLiqfble.
CPT-3	19.43	11.3	31.4	1.31	135	2623	1411	36.6	42.6	4.35	2.6	36.1	0.80	146.3	182.9	0.651	0.649	0.779	1.24	NonLiqfble.
CPT-3	19.51	11.3	22.8	1.1	135	2634	1416	26.5	30.3	5.12	2.8	44.3	0.80	106.0	132.5	0.651	0.296	0.356	0.55	NonLiqfble.
CPT-3	19.6	11.3	16.5	0.98	125	2450	1227	20.6	24.9	6.42	2.9	52.0	0.80	82.4	103.1	0.700	0.182	0.218	0.31	NonLiqfble.
CPT-3	19.68	11.3	15.5	0.94	125	2460	1232	19.3	23.2	6.59	2.9	53.9	0.80	77.3	96.6	0.700	0.164	0.197	0.28	NonLiqfble.
CPT-3	19.76	11.3	17	0.87	125	2470	1237	21.1	25.5	5.52	2.8	48.8	0.80	84.6	105.7	0.700	0.190	0.228	0.33	NonLiqfble.
CPT-3	19.85	11.3	15.7	0.8	125	2481	1243	19.5	23.3	5.53	2.9	50.6	0.80	77.9	97.4	0.700	0.166	0.199	0.28	NonLiqfble.
CPT-3	19.93	11.3	14.6	0.73	125	2491	1248	18.1	21.4	5.47	2.9	52.0	0.80	72.3	90.4	0.700	0.149	0.179	0.26	NonLiqfble.
CPT-3	20.02	11.3	14	0.64	125	2503	1253	17.3	20.3	5.02	2.9	51.5	0.80	69.2	86.5	0.685	0.140	0.168	0.25	NonLiqfble.
CPT-3	20.1	11.3	13.6	0.62	125	2513	1258	16.8	19.6	5.02	2.9	52.2	0.80	67.1	83.9	0.685	0.135	0.162	0.24	NonLiqfble.
CPT-3	20.18	11.3	13	0.69	125	2523	1263	16.0	18.6	5.88	3.0	56.3	0.80	64.0	80.0	0.685	0.128	0.153	0.22	NonLiqfble.
CPT-3	20.26	11.3	17.2	0.81	125	2533	1268	21.1	25.1	5.08	2.8	47.6	0.80	84.5	105.7	0.685	0.190	0.228	0.33	NonLiqfble.
CPT-3	20.35	11.3	22.6	0.93	135	2747	1477	25.7	28.7	4.38	2.7	42.7	0.80	102.9	128.6	0.638	0.278	0.334	0.52	NonLiqfble.
CPT-3	20.43	11.3	27.3	1.15	135	2758	1483	31.0	34.9	4.44	2.7	39.6	0.80	124.1	155.1	0.638	0.427	0.512	0.80	NonLiqfble.
CPT-3	20.52	11.3	32.1	1.4	135	2770	1490	36.4	41.2	4.56	2.6	37.4	0.80	145.6	181.9	0.638	0.640	0.768	1.20	NonLiqfble.
CPT-3	20.62	11.3	31.2	1.51	135	2784	1497	35.3	39.8	5.07	2.7	39.6	0.80	141.1	176.4	0.638	0.591	0.709	1.11	NonLiqfble.
CPT-3	20.7	11.3	29.9	1.51	135	2795	1503	33.7	37.9	5.30	2.7	41.1	0.80	135.0	168.7	0.638	0.527	0.632	0.99	NonLiqfble.
CPT-3	20.79	11.3	29.9	1.48	135	2807	1509	33.7	37.7	5.19	2.7	40.8	0.80	134.7	168.4	0.638	0.524	0.629	0.99	NonLiqfble.
CPT-3	20.88	11.3	30.8	1.54	135	2819	1516	34.6	38.8	5.24	2.7	40.6	0.80	138.5	173.1	0.638	0.562	0.674	1.06	NonLiqfble.
CPT-3	20.97	11.3	31.9	1.65	135	2831	1522	35.8	40.0	5.41	2.7	40.6	0.80	143.1	178.9	0.638	0.612	0.735	1.15	NonLiqfble.
CPT-3	21.07	11.3	31.3	1.64	135	2844	1530	35.0	39.0	5.49	2.7	41.2	0.80	140.1	175.1	0.638	0.579	0.695	1.09	NonLiqfble.
CPT-3	21.16	11.3	28.3	1.6	135	2857	1536	31.6	35.0	5.95	2.8	44.5	0.80	126.4	158.0	0.638	0.447	0.536	0.84	NonLiqfble.
CPT-3	21.25	11.3	24.1	1.54	135	2869	1543	26.8	29.4	6.79	2.9	50.0	0.80	107.4	134.2	0.638	0.305	0.366	0.57	NonLiqfble.
CPT-3	21.34	11.3	22.5	1.33	135	2881	1549	25.0	27.2	6.32	2.9	50.0	0.80	100.0	125.1	0.638	0.262	0.314	0.49	NonLiqfble.
CPT-3	21.43	11.3	22.4	1.2	135	2893	1556	24.8	26.9	5.73	2.8	48.4	0.80	99.4	124.2	0.638	0.258	0.310	0.49	NonLiqfble.
CPT-3	21.53	11.3	22.8	1.25	135	2907	1563	25.2	27.3	5.86	2.8	48.6	0.80	100.9	126.2	0.638	0.267	0.320	0.50	NonLiqfble.
CPT-3	21.62	11.3	21.6	1.27	135	2919	1570	23.9	25.7	6.31	2.9	51.1	0.80	95.4	119.3	0.638	0.238	0.285	0.45	NonLiqfble.
CPT-3	21.71	11.3	21.3	1.21	135	2931	1576	23.5	25.2	6.10	2.9	50.9	0.80	93.9	117.4	0.638	0.230	0.276	0.43	NonLiqfble.
CPT-3	21.9	11.3	21.3	1.17	135	2957	1590	23.4	24.9	5.90	2.9	50.4	0.80	93.5	116.9	0.638	0.228	0.274	0.43	NonLiqfble.
CPT-3	21.99	11.3	22.7	1.07	135	2969	1596	24.9	26.6	5.04	2.8	46.4	0.80	99.4	124.3	0.638	0.259	0.310	0.49	NonLiqfble.
CPT-3	22.08	11.3	23.6	1	135	2981	1603	25.8	27.6	4.52	2.8	43.9	0.80	103.2	129.0	0.638	0.279	0.335	0.53	NonLiqfble.
CPT-3	22.17	11.3	23.3	0.99	135	2993	1610	25.4	27.1	4.54	2.8	44.3	0.80	101.6	127.1	0.638	0.271	0.325	0.51	NonLiqfble.
CPT-3	22.27	11.3	23.2	1.05	135	3006	1617	25.2	26.8	4.84	2.8	45.5	0.80	101.0	126.2	0.638	0.267	0.320	0.50	NonLiqfble.
CPT-3	22.36	11.3	23.8	1.08	135	3019	1623	25.8	27.5	4.85	2.8	45.1	0.80	103.4	129.2	0.638	0.281	0.337	0.53	NonLiqfble.
CPT-3	22.45	11.3	22.4	1.17	135	3031	1630	24.3	25.6	5.60	2.9	49.0	0.80	97.1	121.4	0.638	0.246	0.296	0.46	NonLiqfble.
CPT-3	22.54	11.3	21.7	1.2	135	3043	1636	23.5	24.7	5.95	2.9	50.8	0.80	93.9	117.4	0.638	0.230	0.276	0.43	NonLiqfble.
CPT-3	22.64	11.3	23.9	1.28	135	3056	1644	25.8	27.2	5.72	2.8	48.2	0.80	103.2	129.0	0.638	0.279	0.335	0.53	NonLiqfble.
CPT-3	22.73	11.3	27.8	1.43	135	3069	1650	29.9	31.8	5.44	2.8	44.5	0.80	119.8	149.7	0.638	0.392	0.471	0.74	NonLiqfble.
CPT-3	22.82	11.3	31.2	1.52	135	3081	1657	33.5	35.8	5.12	2.7	41.5	0.80	134.2	167.7	0.638	0.519	0.622	0.98	NonLiqfble.
CPT-3	22.91	11.3	28	1.52	135	3093	1663	30.0	31.8	5.75	2.8	45.5	0.80	120.2	150.2	0.638	0.395	0.474	0.74	NonLiqfble.
CPT-3	23	11.3	25.2	1.5	135	3105	1670	27.0	28.3	6.34	2.9	49.4	0.80	107.9	134.9	0.638	0.308	0.370	0.58	NonLiqfble.
CPT-3	23.1	11.3	22.6	1.34	135	3119	1677	24.1	25.1	6.37	2.9	51.7	0.80	96.6	120.7	0.638	0.244	0.292	0.46	NonLiqfble.
CPT-3	23.19	11.3	20.3	1.21	135	3131	1684	21.6	22.2	6.46	2.9	54.4	0.80	86.6	108.2	0.638	0.198	0.237	0.37	NonLiqfble.
CPT-3	23.29	11.3	19.2	1.12	135	3144	1691	20.4	20.8	6.35	3.0	55.4	0.80	81.7	102.1	0.638	0.179	0.215	0.34	NonLiqfble.
CPT-3	23.37	11.3	18.4	1.03	135	3155	1697	19.5	19.8	6.12	3.0	55.7	0.80	78.2	97.7	0.638	0.167	0.200	0.31	NonLiqfble.
CPT-3	23.47	11.3	18.9	0.97	135	3168	1704	20.0	20.3	5.60	2.9	53.5	0.80	80.1	100.2	0.638	0.173	0.208	0.33	NonLiqfble.
CPT-3	23.56	11.3	17.7	0.96	135	3181	1710	18.7	18.8	5.96	3.0	56.3	0.80	74.9	93.6	0.638	0.156	0.188	0.29	NonLiqfble.
CPT-3	23.65	11.3	19.7	1.12	135	3193	1717	20.8	21.1	6.19	2.9	54.6	0.80	83.2	104.0	0.638	0.185	0.222	0.35	NonLiqfble.
CPT-3	23.74	11.3	22.3	1.64	135	3205	1724	23.5	24.0	7.92	3.0	56.9	0.80	94.0	117.5	0.638	0.231	0.277	0.43	NonLiqfble.
CPT-3	23.84	11.3	35.9	2.23	135	3218	1731	37.8	39.6	6.50	2.8	43.9	0.80	151.0	188.8	0.638	0.706	0.847	1.33	NonLiqfble.

Project Name:	199 River Oaks Parkway
Project Number:	7862.3.001.01
Date:	20-Jul-07
CPT Number:	CPT-3
Depth to Groundwater:	11.3 ft

EQ Magnitude (M _w):	7.1
PGA (g):	0.55
MSF:	1.20

Cone	Depth (FT)	Water Table (FT)	Tip Resist. (TSF)	Sleeve Frict. (TSF)	Total Stress (PCF)	Effective Stress (PSF)	Norm. Tip Q _{IN}	Corr. Tip Q	Friction Ratio F	F.C. (%)	K _{CPT}	ΔQ _{IN}	(Q _{IN}) ₅₀	Induced Stress Ratio	Liquef. Stress M7.5	Liquef. Stress M7.10	Factor of Safety	Comments		
CPT-3	24.74	11.3	78.6	2.19	135	3340	1796	81.1	85.6	2.85	2.3	21.5	0.44	64.2	145.3	0.638	0.365	0.438	0.69	Liquefaction
CPT-3	24.82	11.3	75.8	2.2	135	3351	1802	78.1	82.2	2.97	2.3	22.5	0.47	68.2	146.4	0.638	0.372	0.446	0.70	Liquefaction
CPT-3	24.93	11.3	74.5	2.21	135	3366	1810	76.6	80.4	3.04	2.3	23.0	0.48	70.7	147.3	0.638	0.377	0.452	0.71	Liquefaction
CPT-3	25.02	11.3	73.5	2.21	135	3378	1816	75.5	79.0	3.08	2.3	23.3	0.49	72.3	147.8	0.638	0.380	0.456	0.71	Liquefaction
CPT-3	25.11	11.3	72.4	2.18	135	3390	1823	74.2	77.5	3.08	2.3	23.6	0.50	72.9	147.1	0.638	0.376	0.451	0.71	Liquefaction
CPT-3	25.19	11.3	71.6	2.11	135	3401	1829	73.3	76.4	3.02	2.3	23.5	0.49	71.3	144.6	0.638	0.361	0.433	0.68	Liquefaction
CPT-3	25.28	11.3	71.2	2.06	135	3413	1835	72.7	75.7	2.96	2.3	23.4	0.49	69.9	142.7	0.638	0.350	0.420	0.66	Liquefaction
CPT-3	25.37	11.3	71.5	2.01	135	3425	1842	72.9	75.7	2.88	2.3	23.0	0.48	67.5	140.4	0.638	0.338	0.405	0.63	Liquefaction
CPT-3	25.45	11.3	73.7	1.94	135	3436	1848	75.0	77.9	2.70	2.3	21.9	0.45	61.9	136.9	0.638	0.319	0.382	0.60	Liquefaction
CPT-3	25.54	11.3	74.7	1.83	135	3448	1854	75.9	78.7	2.51	2.3	21.0	0.43	56.7	132.6	0.638	0.297	0.356	0.56	Liquefaction
CPT-3	25.63	11.3	75.2	1.7	135	3460	1861	76.3	78.9	2.31	2.2	20.1	0.40	51.5	127.8	0.638	0.274	0.329	0.52	Liquefaction
CPT-3	25.71	11.3	74.4	1.54	135	3471	1867	75.3	77.8	2.12	2.2	19.3	0.38	46.7	122.0	0.638	0.249	0.299	0.47	Liquefaction
CPT-3	25.8	11.3	74.4	1.41	135	3483	1873	75.2	77.5	1.94	2.2	18.5	0.36	42.3	117.5	0.638	0.231	0.277	0.43	Liquefaction
CPT-3	25.88	11.3	76.9	1.4	135	3494	1879	77.6	80.0	1.86	2.2	17.8	0.34	40.1	117.7	0.638	0.232	0.278	0.44	Liquefaction
CPT-3	25.97	11.3	78.5	1.47	135	3506	1885	79.1	81.4	1.92	2.2	17.9	0.34	41.3	120.4	0.638	0.242	0.291	0.46	Liquefaction
CPT-3	26.06	11.3	81	1.49	135	3518	1892	81.5	83.7	1.88	2.2	17.4	0.33	40.3	121.8	0.638	0.248	0.297	0.47	Liquefaction
CPT-3	26.14	11.3	84.4	1.48	135	3529	1898	84.8	87.1	1.79	2.1	16.5	0.31	37.8	122.5	0.638	0.251	0.301	0.47	Liquefaction
CPT-3	26.22	11.3	87.8	1.54	135	3540	1904	88.0	90.3	1.79	2.1	16.2	0.30	37.5	125.5	0.638	0.264	0.317	0.50	Liquefaction
CPT-3	26.31	11.3	90.5	1.45	135	3552	1910	90.6	92.9	1.63	2.1	15.1	0.27	33.5	124.1	0.638	0.258	0.309	0.48	Liquefaction
CPT-3	26.4	11.3	97.4	1.48	135	3564	1917	97.3	99.7	1.55	2.0	14.0	0.24	30.7	128.1	0.638	0.275	0.330	0.52	Liquefaction
CPT-3	26.49	11.3	99.1	1.52	135	3576	1923	98.9	101.2	1.56	2.0	13.9	0.24	31.0	129.9	0.638	0.284	0.340	0.53	Liquefaction
CPT-3	26.6	11.3	102.4	1.51	135	3591	1931	102.0	104.1	1.50	2.0	13.4	0.22	29.3	131.2	0.638	0.290	0.348	0.55	Liquefaction
CPT-3	26.69	11.3	103.1	1.43	135	3603	1938	102.5	104.5	1.41	2.0	12.8	0.21	27.0	129.5	0.638	0.282	0.339	0.53	Liquefaction
CPT-3	26.78	11.3	104.8	1.43	135	3615	1944	104.0	105.9	1.39	2.0	12.6	0.20	26.4	130.4	0.638	0.286	0.343	0.54	Liquefaction
CPT-3	26.87	11.3	106.2	1.44	135	3627	1951	105.2	107.0	1.38	2.0	12.4	0.20	26.1	131.3	0.638	0.290	0.349	0.55	Liquefaction
CPT-3	26.98	11.3	109.4	1.45	135	3642	1959	108.2	109.8	1.35	2.0	12.0	0.19	25.1	133.2	0.638	0.300	0.360	0.56	Liquefaction
CPT-3	27.06	11.3	113.1	1.39	125	3383	1694	120.2	131.5	1.25	1.9	10.1	0.14	18.8	139.0	0.685	0.330	0.396	0.58	Liquefaction
CPT-3	27.17	11.3	118.3	1.42	125	3396	1701	125.5	137.1	1.22	1.9	9.6	0.12	17.5	143.0	0.685	0.352	0.423	0.62	Liquefaction
CPT-3	27.25	11.3	121.1	1.45	125	3406	1706	128.3	139.9	1.21	1.9	9.4	0.12	17.2	145.5	0.685	0.366	0.439	0.64	Liquefaction
CPT-3	27.36	11.3	124	1.46	125	3420	1713	131.1	142.7	1.19	1.8	9.2	0.11	16.4	147.5	0.685	0.378	0.454	0.66	Liquefaction
CPT-3	27.45	11.3	124.8	1.55	125	3431	1718	131.7	143.2	1.26	1.9	9.5	0.12	18.0	149.8	0.685	0.392	0.471	0.69	Liquefaction
CPT-3	27.56	11.3	122.3	1.64	135	3721	2001	119.6	120.3	1.36	1.9	11.4	0.17	24.6	144.2	0.638	0.359	0.431	0.67	Liquefaction
CPT-3	27.67	11.3	124.7	1.6	135	3735	2009	121.7	122.2	1.30	1.9	10.9	0.16	22.9	144.6	0.638	0.361	0.434	0.68	Liquefaction
CPT-3	27.76	11.3	121.7	1.56	135	3748	2015	118.6	118.9	1.30	1.9	11.1	0.16	23.3	141.9	0.638	0.346	0.415	0.65	Liquefaction
CPT-3	27.84	11.3	121	1.57	135	3758	2021	117.8	117.8	1.32	1.9	11.3	0.17	23.8	141.6	0.638	0.344	0.413	0.65	Liquefaction
CPT-3	27.93	11.3	119.6	1.43	125	3491	1748	125.1	134.8	1.21	1.9	9.7	0.13	17.9	143.0	0.685	0.352	0.423	0.62	Liquefaction
CPT-3	28.01	11.3	123	1.33	125	3501	1753	128.5	138.2	1.10	1.8	8.8	0.10	14.6	143.1	0.685	0.352	0.423	0.62	Liquefaction
CPT-3	28.09	11.3	119.9	1.12	125	3511	1758	125.1	134.3	0.95	1.8	8.1	0.08	11.2	136.3	0.685	0.316	0.379	0.55	Liquefaction
CPT-3	28.18	11.3	115.6	1.1	125	3523	1764	120.4	129.0	0.97	1.8	8.5	0.09	12.3	132.8	0.685	0.298	0.357	0.52	Liquefaction
CPT-3	28.26	11.3	119.8	1.14	125	3533	1769	124.6	133.4	0.97	1.8	8.2	0.09	11.8	136.4	0.685	0.316	0.379	0.55	Liquefaction
CPT-3	28.34	11.3	121.6	1.13	125	3543	1774	126.3	135.0	0.94	1.8	8.0	0.08	11.0	137.4	0.685	0.321	0.385	0.56	Liquefaction
CPT-3	28.38	11.3	118.5	1.11	125	3548	1777	123.0	131.3	0.95	1.8	8.3	0.09	11.7	134.7	0.685	0.307	0.369	0.54	Liquefaction
CPT-3	28.43	11.3	115.5	1.1	125	3554	1780	119.8	127.7	0.97	1.8	8.6	0.09	12.6	132.4	0.685	0.296	0.355	0.52	Liquefaction
CPT-3	28.52	11.3	116.4	1.02	125	3565	1785	119.7	127.4	0.91	1.8	8.2	0.09	11.3	131.0	0.685	0.289	0.347	0.51	Liquefaction
CPT-3	28.6	11.3	112.1	0.93	115	3289	1504	126.5	146.8	0.84	1.7	6.8	0.05	6.3	132.8	0.750	0.298	0.357	0.48	Liquefaction
CPT-3	28.69	11.3	111.9	0.83	115	3299	1509	126.0	146.1	0.75	1.7	6.2	0.03	4.2	130.2	0.750	0.285	0.343	0.46	Liquefaction
CPT-3	28.77	11.3	109.8	0.68	115	3309	1513	123.5	142.9	0.63	1.7	5.4	0.01	1.5	125.0	0.750	0.262	0.314	0.42	Liquefaction
CPT-3	28.86	11.3	108.7	0.56	105	3030	1229	135.6	174.3	0.52	1.5	3.5	0.00	0.0	135.6	0.846	0.312	0.375	0.44	Liquefaction
CPT-3	28.94	11.3	103.5	0.52	105	3039	1233	129.0	165.4	0.51	1.6	3.7	0.00	0.0	129.0	0.846	0.280	0.335	0.40	Liquefaction
CPT-3	29.03	11.3	92.2	0.55	105	3048	1237	114.7	146.6	0.61	1.6	5.1	0.00	0.4	115.1	0.846	0.222	0.266	0.31	Liquefaction
CPT-3	29.11	11.3	78.6	0.64	115	3348	1531	87.9	100.4	0.83	1.9	9.4	0.12	11.8	99.7	0.750	0.172	0.206	0.28	Liquefaction
CPT-3	29.19	11.3	63.4	0.75	125	3649	1827	64.9	67.4	1.22	2.1	15.7	0.29	26.1	91.0	0.685	0.150	0.180	0.26	Liquefaction
CPT-3	29.28	11.3	46.1	0.85	135	3953	2126	43.7	41.5	1.93	2.4	25.9	0.56	55.0	98.7	0.638	0.169	0.203	0.32	Liquefaction
CPT-3	29.37	11.3	32.5	0.82	135	3965	2132	30.8	28.6	2.69	2.6	35.5	0.80	123.2	154.0	0.638	0.419	0.503	0.79	NonLiqfble.
CPT-3	29.45	11.3	24.8	0.71	125	3681	1844	25.3	24.9	3.09	2.7	39.8	0.80	101.1	126.4	0.685	0.268	0.321	0.47	NonLiqfble.
CPT-3	29.54	11.3	19.6	0.57	125	3693	1849	19.9	19.2	3.21	2.8	45.2	0.80	79.8	99.7	0.685	0.172	0.207	0.30	NonLiqfble.
CPT-3	29.62	11.3	15.6	0.44	125	3703	1854	15.9	14.8	3.20	2.9	50.4	0.80	63.4	79.3	0.685	0.126	0.152	0.22	NonLiqfble.
CPT-3	29.71	11.3	16.9	0.46	125	3714	1860	17.1	16.2	3.06	2.8	47.9	0.80	68.6	85.7	0.685	0.139	0.166	0.24	NonLiqfble.
CPT-3	29.8	11.3	18.1	0.65	125	3725	1865	18.3	17.4	4.00	2.9	50.7	0.80	73.3	91.7	0.685	0.152	0.182	0.27	NonLiqfble.
CPT-3	29.88	11.3	21.5	0.79	125	3735	1870	21.8	21.0	4.02	2.8	47.1	0.80	87.0	108.8	0.685	0.200	0.240	0.35	NonLiqfble.
CPT-3	29.97	11.3	22.6	0.86	135	4046	2176	21.2	18.9	4.18	2.9									

Project Name:	199 River Oaks Parkway
Project Number:	7862.3.001.01
Date:	20-Jul-07
CPT Number:	CPT-3
Depth to Groundwater:	11.3 ft

EQ Magnitude (M _w):	7.1
PGA (g):	0.55
MSF:	1.20

Cone	Depth (FT)	Water Table (FT)	Tip Resist. (TSF)	Sleeve Frict. (TSF)	γ (PCF)	Total Stress (PSF)	Effective Stress (PSF)	Norm. Tip Q _{tip}	Corr. Tip Q	Friction Ratio F	Ic	F.C. (%)	K _{CPT}	Δq _{tip}	(q _{tip}) ₂₅	Induced Stress Ratio	Liquef. Stress M7.5	Liquef. Stress M7.10	Factor of Safety	Comments
CPT-3	30.75	11.3	11.9	0.56	125	3844	1925	11.9	10.4	5.61	3.1	68.9	0.80	47.5	59.3	0.657	0.099	0.119	0.18	NonLiqfble.
CPT-3	30.84	11.3	11.6	0.53	125	3855	1931	11.6	10.0	5.48	3.2	69.3	0.80	46.2	57.8	0.657	0.098	0.118	0.18	NonLiqfble.
CPT-3	30.93	11.3	11.2	0.5	125	3866	1936	11.1	9.6	5.40	3.2	70.2	0.80	44.5	55.7	0.657	0.096	0.115	0.18	NonLiqfble.
CPT-3	31.04	11.3	10.3	0.51	125	3880	1943	10.2	8.6	6.10	3.2	75.6	0.80	40.9	51.1	0.657	0.092	0.111	0.17	NonLiqfble.
CPT-3	31.15	11.3	11	0.54	125	3894	1950	10.9	9.3	5.97	3.2	73.1	0.80	43.6	54.5	0.657	0.095	0.114	0.17	NonLiqfble.
CPT-3	31.24	11.3	11.1	0.55	125	3905	1956	11.0	9.4	6.01	3.2	73.0	0.80	43.9	54.9	0.657	0.095	0.114	0.17	NonLiqfble.
CPT-3	31.35	11.3	11.3	0.56	125	3919	1963	11.2	9.5	6.00	3.2	72.5	0.80	44.6	55.8	0.657	0.096	0.115	0.18	NonLiqfble.
CPT-3	31.44	11.3	11.4	0.58	125	3930	1968	11.2	9.6	6.15	3.2	72.8	0.80	45.0	56.2	0.657	0.097	0.116	0.18	NonLiqfble.
CPT-3	31.55	11.3	11.3	0.48	125	3944	1975	11.1	9.4	5.15	3.2	69.6	0.80	44.5	55.6	0.657	0.096	0.115	0.18	NonLiqfble.
CPT-3	31.65	11.3	11	0.49	125	3956	1981	10.8	9.1	5.43	3.2	71.6	0.80	43.3	54.1	0.657	0.095	0.114	0.17	NonLiqfble.
CPT-3	31.76	11.3	10.7	0.48	125	3970	1988	10.5	8.8	5.51	3.2	72.9	0.80	42.0	52.5	0.657	0.093	0.112	0.17	NonLiqfble.
CPT-3	31.83	11.3	9.3	0.47	115	3660	1674	9.9	8.9	6.29	3.2	75.3	0.80	39.8	49.7	0.719	0.091	0.110	0.15	NonLiqfble.
CPT-3	31.89	11.3	11.1	0.45	115	3667	1677	11.9	11.0	4.86	3.1	64.5	0.80	47.4	59.3	0.719	0.099	0.119	0.17	NonLiqfble.
CPT-3	31.98	11.3	10.8	0.43	115	3678	1682	11.5	10.6	4.80	3.1	65.1	0.80	46.1	57.6	0.719	0.098	0.117	0.16	NonLiqfble.
CPT-3	32.08	11.3	10.6	0.43	115	3689	1687	11.3	10.4	4.91	3.1	66.2	0.80	45.2	56.5	0.719	0.097	0.116	0.16	NonLiqfble.
CPT-3	32.17	11.3	10.6	0.39	115	3700	1692	11.3	10.3	4.46	3.1	64.5	0.80	45.1	56.4	0.719	0.097	0.116	0.16	NonLiqfble.
CPT-3	32.26	11.3	10.3	0.35	115	3710	1697	10.9	9.9	4.14	3.1	64.1	0.80	43.8	54.7	0.719	0.095	0.114	0.16	NonLiqfble.
CPT-3	32.35	11.3	9.7	0.34	115	3720	1702	10.3	9.2	4.34	3.1	66.9	0.80	41.2	51.4	0.719	0.093	0.111	0.15	NonLiqfble.
CPT-3	32.45	11.3	9.5	0.34	115	3732	1707	10.1	8.9	4.45	3.1	68.1	0.80	40.2	50.3	0.719	0.092	0.110	0.15	NonLiqfble.
CPT-3	32.54	11.3	9.6	0.35	115	3742	1712	10.2	9.0	4.53	3.1	68.2	0.80	40.6	50.8	0.719	0.092	0.111	0.15	NonLiqfble.
CPT-3	32.63	11.3	10.3	0.41	115	3752	1716	10.9	9.8	4.87	3.1	67.5	0.80	43.5	54.4	0.719	0.095	0.114	0.16	NonLiqfble.
CPT-3	32.72	11.3	11.9	0.51	125	4090	2048	11.5	9.6	5.18	3.2	69.2	0.80	46.0	57.5	0.657	0.098	0.117	0.18	NonLiqfble.
CPT-3	32.82	11.3	13.4	0.72	125	4103	2055	12.9	11.0	6.34	3.2	69.9	0.80	51.7	64.7	0.657	0.105	0.126	0.19	NonLiqfble.
CPT-3	32.91	11.3	14.8	0.94	125	4114	2060	14.3	12.4	7.38	3.2	70.3	0.80	57.1	71.3	0.657	0.114	0.137	0.21	NonLiqfble.
CPT-3	33	11.3	18.8	1.11	135	4455	2396	16.8	13.8	6.70	3.1	65.5	0.80	67.2	84.0	0.612	0.135	0.162	0.27	NonLiqfble.
CPT-3	33.09	11.3	22.9	1.23	135	4467	2402	20.4	17.2	5.95	3.0	58.2	0.80	81.8	102.2	0.612	0.179	0.215	0.35	NonLiqfble.
CPT-3	33.19	11.3	26.2	1.16	135	4481	2410	23.4	19.9	4.84	2.9	51.3	0.80	93.4	116.8	0.612	0.228	0.274	0.45	NonLiqfble.
CPT-3	33.28	11.3	32.2	1.08	135	4493	2416	28.7	24.8	3.61	2.7	42.2	0.80	114.6	143.3	0.612	0.354	0.424	0.69	NonLiqfble.
CPT-3	33.38	11.3	38.1	1.25	135	4506	2423	33.9	29.6	3.49	2.7	38.6	0.80	135.5	169.3	0.612	0.531	0.638	1.04	NonLiqfble.
CPT-3	33.47	11.3	38	1.41	135	4518	2430	33.7	29.4	3.95	2.7	40.6	0.80	134.9	168.6	0.612	0.526	0.631	1.03	NonLiqfble.
CPT-3	33.56	11.3	34.2	1.41	135	4531	2436	30.3	26.2	4.42	2.8	44.4	0.80	121.3	151.6	0.612	0.404	0.485	0.79	NonLiqfble.
CPT-3	33.65	11.3	29.2	1.3	135	4543	2443	25.8	22.0	4.83	2.9	49.2	0.80	103.4	129.2	0.612	0.281	0.337	0.55	NonLiqfble.
CPT-3	33.74	11.3	24.3	1.16	135	4555	2450	21.5	18.0	5.27	2.9	54.9	0.80	85.9	107.4	0.612	0.195	0.234	0.38	NonLiqfble.
CPT-3	33.83	11.3	21.2	1.04	135	4567	2456	18.7	15.4	5.50	3.0	59.1	0.80	74.9	93.6	0.612	0.156	0.187	0.31	NonLiqfble.
CPT-3	33.93	11.3	18.9	0.94	135	4581	2463	16.7	13.5	5.66	3.1	62.7	0.80	66.6	83.3	0.612	0.134	0.161	0.26	NonLiqfble.
CPT-3	34.02	11.3	17.3	0.92	125	4253	2130	16.4	14.2	6.06	3.1	62.8	0.80	65.6	82.0	0.657	0.131	0.158	0.24	NonLiqfble.
CPT-3	34.11	11.3	17.1	0.95	125	4264	2135	16.2	14.0	6.35	3.1	64.1	0.80	64.8	81.0	0.657	0.129	0.155	0.24	NonLiqfble.
CPT-3	34.2	11.3	16.5	0.95	125	4275	2141	15.6	13.4	6.61	3.1	66.0	0.80	62.4	78.0	0.657	0.124	0.149	0.23	NonLiqfble.
CPT-3	34.29	11.3	15.6	0.96	125	4286	2147	14.7	12.5	7.13	3.2	69.2	0.80	58.9	73.7	0.657	0.117	0.141	0.21	NonLiqfble.
CPT-3	34.38	11.3	15.4	0.82	125	4298	2152	14.5	12.3	6.19	3.1	66.7	0.80	58.1	72.6	0.657	0.116	0.139	0.21	NonLiqfble.
CPT-3	34.47	11.3	17.1	0.85	125	4309	2158	16.1	13.8	4.35	3.0	57.1	0.80	64.4	80.5	0.657	0.129	0.154	0.23	NonLiqfble.
CPT-3	34.56	11.3	18.1	0.81	125	4320	2163	17.0	14.7	3.83	2.9	53.5	0.80	68.1	85.1	0.657	0.137	0.165	0.25	NonLiqfble.
CPT-3	34.65	11.3	16.4	0.85	125	4331	2169	15.4	13.1	4.57	3.0	59.2	0.80	61.6	77.0	0.657	0.123	0.147	0.22	NonLiqfble.
CPT-3	34.74	11.3	14.6	0.81	125	4343	2175	13.7	11.4	6.52	3.2	69.6	0.80	54.8	68.5	0.657	0.110	0.132	0.20	NonLiqfble.
CPT-3	34.83	11.3	15.1	1.06	125	4354	2180	14.1	11.8	8.20	3.2	73.7	0.80	56.6	70.7	0.657	0.113	0.136	0.21	NonLiqfble.
CPT-3	34.92	11.3	16.8	1.09	135	4714	2535	14.6	11.4	7.55	3.2	72.8	0.80	58.4	73.0	0.612	0.116	0.139	0.23	NonLiqfble.
CPT-3	35	11.3	20.2	1.04	135	4725	2541	17.5	14.0	5.83	3.1	62.3	0.80	70.1	87.7	0.612	0.143	0.171	0.28	NonLiqfble.
CPT-3	35.08	11.3	29.5	0.98	135	4736	2547	25.6	21.3	3.61	2.8	45.0	0.80	102.3	127.9	0.612	0.274	0.329	0.54	NonLiqfble.
CPT-3	35.17	11.3	32.7	0.96	135	4748	2553	28.3	23.7	3.17	2.7	41.0	0.80	113.3	141.6	0.612	0.344	0.413	0.67	NonLiqfble.
CPT-3	35.26	11.3	38	0.95	135	4760	2560	32.9	27.8	2.67	2.6	35.9	0.80	131.4	164.3	0.612	0.493	0.591	0.97	NonLiqfble.
CPT-3	35.35	11.3	38.9	1.05	135	4772	2566	33.6	28.4	2.88	2.6	36.5	0.80	134.4	168.0	0.612	0.521	0.625	1.02	NonLiqfble.
CPT-3	35.45	11.3	33.4	1.33	135	4786	2574	28.8	24.1	4.29	2.8	45.5	0.80	115.2	144.0	0.612	0.358	0.429	0.70	NonLiqfble.
CPT-3	35.53	11.3	27.7	1.57	135	4797	2579	23.9	19.6	6.21	3.0	56.2	0.80	95.5	119.3	0.612	0.238	0.286	0.47	NonLiqfble.
CPT-3	35.63	11.3	34.1	1.68	135	4810	2587	29.3	24.5	5.30	2.8	48.8	0.80	117.3	146.7	0.612	0.373	0.448	0.73	NonLiqfble.
CPT-3	35.72	11.3	38.3	1.72	135	4822	2593	32.9	27.7	4.79	2.8	44.8	0.80	131.6	164.5	0.612	0.494	0.593	0.97	NonLiqfble.
CPT-3	35.8	11.3	59.9	1.9	135	4833	2599	51.4	44.2	3.31	2.5	31.6	0.71	126.2	177.6	0.612	0.601	0.721	1.18	Low F.S.
CPT-3	35.89	11.3	65	2.06	135	4845	2606	55.7	48.0	3.29	2.5	30.4	0.68	117.4	173.1	0.612	0.562	0.675	1.10	Low F.S.
CPT-3	35.98	11.3	62.6	2.04	135	4857	2612	53.6	46.1	3.39	2.5	31.4	0.70	127.7	181.3	0.612	0.634	0.761	1.24	Low F.S.
CPT-3	36.07	11.3	57.7	2.03	135	4869	2619	49.3	42.2	3.67	2.6	33.8	0.77	163.5	212.8	0.612	0.976	1.172	1.92	NonLiqfble.
CPT-3	36.16	11.3	49.6	1.95	135	4882	2625	42.4	35.9	4.14	2.7	38.0	0.80	169.4	211.8	0.612	0.963	1.156	1.89	NonLiqfble.
CPT-3	36.26	11.3	39.7																	

Project Name: 199 River Oaks Parkway
Project Number: 7862.3.001.01
Date: 20-Jul-07
CPT Number: CPT-3
Depth to Groundwater: 11.3 ft

EQ Magnitude (M_w): 7.1
PGA (g): 0.55
MSF: 1.20

Cone	Depth (FT)	Water Table (FT)	Tip Resist. (TSF)	Sleeve Frict. (TSF)	γ (PCF)	Total Stress (PSF)	Effective Stress (PSF)	Norm. Tip Q _{IN}	Corr. Tip Q	Friction Ratio F	Ic	F.C. (%)	K _{CPT}	Δq _{IN}	(q _{IN}) _{0.5}	Induced Stress Ratio	Liquef. Stress M7.5	Liquef. Stress M7.10	Factor of Safety	Comments
CPT-3	37.09	11.3	51.4	1.91	135	5007	2693	43.3	36.3	3.91	2.6	37.0	0.80	173.4	216.7	0.612	1.026	1.232	2.01	NonLiqfble.
CPT-3	37.18	11.3	45.2	2.09	135	5019	2699	38.1	31.6	4.90	2.7	42.8	0.80	152.3	190.3	0.612	0.721	0.865	1.42	NonLiqfble.
CPT-3	37.27	11.3	44.4	2.2	135	5031	2706	37.3	30.9	5.25	2.8	44.4	0.80	149.4	186.7	0.612	0.686	0.823	1.35	NonLiqfble.
CPT-3	37.35	11.3	52.1	2.24	135	5042	2712	43.8	36.6	4.52	2.7	39.1	0.80	175.1	218.9	0.612	1.055	1.266	2.07	NonLiqfble.
CPT-3	37.44	11.3	60.2	2.26	135	5054	2718	50.5	42.4	3.92	2.6	34.6	0.79	191.3	241.8	0.612	1.395	1.675	2.74	NonLiqfble.
CPT-3	37.53	11.3	67.9	2.32	135	5067	2725	56.9	48.0	3.55	2.5	31.4	0.71	136.6	193.6	0.612	0.754	0.905	1.48	NonLiqfble.
CPT-3	37.61	11.3	69.8	2.38	135	5077	2730	58.4	49.2	3.54	2.5	31.0	0.69	133.2	191.6	0.612	0.734	0.881	1.44	NonLiqfble.
CPT-3	37.7	11.3	65.5	2.38	135	5090	2737	54.8	46.0	3.78	2.5	32.9	0.75	160.6	215.4	0.612	1.009	1.211	1.98	NonLiqfble.
CPT-3	37.79	11.3	66.5	2.3	135	5102	2744	55.5	46.6	3.60	2.5	32.0	0.72	144.1	199.6	0.612	0.820	0.984	1.61	NonLiqfble.
CPT-3	37.87	11.3	68.2	2.16	135	5112	2749	56.9	47.7	3.29	2.5	30.5	0.68	121.0	177.9	0.612	0.604	0.724	1.18	Low F.S.
CPT-3	37.96	11.3	70.2	1.96	135	5125	2756	58.5	49.1	2.90	2.4	28.4	0.63	97.8	156.3	0.612	0.435	0.522	0.85	Liquefaction
CPT-3	38.04	11.3	68.7	1.95	135	5135	2762	57.2	47.9	2.95	2.5	29.0	0.64	101.9	159.1	0.612	0.455	0.546	0.89	Liquefaction
CPT-3	38.13	11.3	59.8	2.03	135	5148	2768	49.7	41.3	3.55	2.6	33.6	0.76	160.2	209.9	0.612	0.940	1.128	1.84	NonLiqfble.
CPT-3	38.22	11.3	49.7	1.95	135	5160	2775	41.3	33.9	4.14	2.7	38.9	0.80	165.1	206.4	0.612	0.898	1.077	1.76	NonLiqfble.
CPT-3	38.3	11.3	41.2	1.75	135	5171	2781	34.2	27.8	4.53	2.8	43.8	0.80	136.7	170.9	0.612	0.544	0.653	1.07	NonLiqfble.
CPT-3	38.39	11.3	35.1	1.65	135	5183	2787	29.1	23.3	5.08	2.9	49.0	0.80	116.4	145.5	0.612	0.366	0.439	0.72	NonLiqfble.
CPT-3	38.48	11.3	29.3	1.51	135	5195	2794	24.3	19.1	5.66	2.9	54.9	0.80	97.0	121.3	0.612	0.246	0.295	0.48	NonLiqfble.
CPT-3	38.52	11.3	33.7	1.48	135	5200	2797	27.9	22.2	4.76	2.8	48.8	0.80	111.5	139.4	0.612	0.332	0.398	0.65	NonLiqfble.
CPT-3	38.61	11.3	31.2	1.48	135	5212	2803	25.8	20.4	5.18	2.9	52.0	0.80	103.1	128.9	0.612	0.279	0.335	0.55	NonLiqfble.
CPT-3	38.7	11.3	28.9	1.51	135	5225	2810	23.9	18.7	5.74	3.0	55.7	0.80	95.4	119.3	0.612	0.238	0.285	0.47	NonLiqfble.
CPT-3	38.78	11.3	26.6	1.62	135	5235	2815	21.9	17.0	6.76	3.0	60.9	0.80	87.7	109.7	0.612	0.203	0.243	0.40	NonLiqfble.
CPT-3	38.87	11.3	23.1	1.89	135	5247	2822	19.0	14.5	9.23	3.2	71.4	0.80	76.1	95.1	0.612	0.160	0.192	0.31	NonLiqfble.
CPT-3	38.96	11.3	28.5	2.18	135	5260	2828	23.4	18.3	8.43	3.1	63.9	0.80	93.8	117.2	0.612	0.230	0.276	0.45	NonLiqfble.
CPT-3	39.04	11.3	41.3	2.44	135	5270	2834	33.9	27.3	6.31	2.9	50.0	0.80	135.8	169.7	0.612	0.535	0.642	1.05	NonLiqfble.
CPT-3	39.12	11.3	54	2.79	135	5281	2840	44.3	36.2	5.43	2.7	42.3	0.80	177.3	221.7	0.612	1.093	1.312	2.14	NonLiqfble.
CPT-3	39.21	11.3	92.9	3.04	135	5293	2847	76.2	63.4	3.37	2.4	27.1	0.59	109.1	185.3	0.612	0.672	0.806	1.32	NonLiqfble.
CPT-3	39.29	11.3	150.9	3.08	135	5304	2852	123.6	103.9	2.08	2.1	16.3	0.30	53.3	177.0	0.612	0.595	0.714	1.17	Low F.S.
CPT-3	39.37	11.3	207.7	3.03	135	5315	2858	170.0	143.4	1.48	1.9	10.7	0.15	30.4	200.4	0.612	0.829	0.994	1.63	NonLiqfble.
CPT-3	39.45	11.3	234.5	3.35	135	5326	2864	191.7	161.8	1.44	1.9	9.7	0.12	27.3	219.0	0.612	1.057	1.268	2.07	NonLiqfble.
CPT-3	39.53	11.3	269.5	4.1	135	5337	2870	220.1	185.9	1.54	1.8	9.2	0.11	27.9	248.0	0.612	1.498	1.798	2.94	NonLiqfble.
CPT-3	39.61	11.3	300.5	5.19	135	5347	2876	245.2	207.0	1.74	1.9	9.5	0.12	33.4	278.6	0.612	2.091	2.510	4.10	NonLiqfble.
CPT-3	39.69	11.3	346.5	5.41	135	5358	2881	282.4	238.5	1.57	1.8	7.9	0.08	23.6	306.1	0.612	2.746	3.295	5.39	NonLiqfble.
CPT-3	39.76	11.3	369	5.42	135	5368	2887	300.5	253.7	1.48	1.8	7.1	0.06	18.0	318.5	0.612	3.086	3.703	6.05	NonLiqfble.
CPT-3	39.84	11.3	410.5	6.03	135	5378	2892	334.0	281.9	1.48	1.7	6.6	0.04	14.7	348.6	0.612	4.020	4.824	7.89	NonLiqfble.
CPT-3	39.91	11.3	415	6.21	135	5388	2897	337.3	284.5	1.51	1.7	6.7	0.04	15.6	352.9	0.612	4.168	5.001	8.18	NonLiqfble.
CPT-3	39.99	11.3	431.4	4.95	135	5399	2903	350.3	295.2	1.15	1.6	4.8	0.00	0.0	350.3	0.612	4.078	4.894	8.00	NonLiqfble.
CPT-3	40.06	11.3	438.5	4.3	125	5008	2508	383.1	347.6	0.99	1.5	3.3	0.00	0.0	383.1	0.607	5.310	6.372	10.50	NonLiqfble.
CPT-3	40.14	11.3	418.7	4.03	125	5018	2513	365.5	331.1	0.97	1.5	3.3	0.00	0.0	365.5	0.607	4.620	5.543	9.14	NonLiqfble.
CPT-3	40.21	11.3	395.5	3.97	125	5026	2517	344.9	312.1	1.01	1.6	3.8	0.00	0.0	344.9	0.607	3.896	4.675	7.70	NonLiqfble.
CPT-3	40.29	11.3	356.8	3.44	125	5036	2522	310.9	280.8	0.97	1.6	4.1	0.00	0.0	310.9	0.607	2.874	3.448	5.68	NonLiqfble.
CPT-3	40.36	11.3	327.9	3.37	125	5045	2527	285.4	257.5	1.04	1.6	4.8	0.00	0.0	285.4	0.607	2.243	2.691	4.44	NonLiqfble.
CPT-3	40.44	11.3	311.8	2.78	125	5055	2532	271.1	244.2	1.00	1.6	4.3	0.00	0.0	271.1	0.607	1.934	2.321	3.82	NonLiqfble.
CPT-3	40.51	11.3	298.8	2.79	125	5064	2536	259.6	233.6	0.94	1.6	4.8	0.00	0.0	259.6	0.607	1.707	2.049	3.38	NonLiqfble.
CPT-3	40.59	11.3	278.2	3.39	135	5480	2947	224.2	186.9	1.23	1.8	7.6	0.07	16.8	241.0	0.565	1.382	1.658	2.94	NonLiqfble.
CPT-3	40.66	11.3	252.9	3.73	135	5489	2952	203.7	169.4	1.49	1.9	9.6	0.12	28.4	232.1	0.565	1.243	1.492	2.64	NonLiqfble.
CPT-3	40.73	11.3	249.2	3.68	135	5499	2957	200.5	166.6	1.49	1.9	9.7	0.13	28.9	229.4	0.565	1.202	1.443	2.55	NonLiqfble.
CPT-3	40.81	11.3	254.4	3.67	135	5509	2963	204.5	169.8	1.46	1.9	9.4	0.12	27.3	231.8	0.565	1.238	1.486	2.63	NonLiqfble.
CPT-3	40.88	11.3	256.1	3.23	135	5519	2968	205.7	170.6	1.27	1.8	8.4	0.09	20.6	226.3	0.565	1.158	1.390	2.46	NonLiqfble.
CPT-3	40.94	11.3	272.9	2.94	125	5118	2563	235.9	210.9	1.09	1.7	6.1	0.03	7.3	243.2	0.607	1.417	1.701	2.80	NonLiqfble.
CPT-3	41.01	11.3	297	3.19	125	5126	2567	256.5	229.3	1.08	1.7	5.7	0.02	4.6	261.1	0.607	1.734	2.081	3.43	NonLiqfble.
CPT-3	41.08	11.3	300.9	2.85	125	5135	2572	259.6	231.9	0.96	1.6	4.9	0.00	0.0	259.6	0.607	1.707	2.049	3.38	NonLiqfble.
CPT-3	41.13	11.3	298.5	3.05	125	5141	2575	257.4	229.8	1.03	1.7	5.4	0.01	2.5	259.9	0.607	1.712	2.054	3.39	NonLiqfble.
CPT-3	41.17	11.3	296.5	3.27	125	5146	2577	255.5	228.0	1.11	1.7	5.8	0.02	5.9	261.4	0.607	1.742	2.090	3.44	NonLiqfble.
CPT-3	41.22	11.3	296.7	3.22	125	5153	2580	255.6	227.9	1.09	1.7	5.8	0.02	5.2	260.8	0.607	1.729	2.075	3.42	NonLiqfble.
CPT-3	41.28	11.3	278.1	3.14	125	5160	2584	239.4	213.2	1.14	1.7	6.4	0.04	9.0	248.3	0.607	1.504	1.805	2.98	NonLiqfble.
CPT-3	41.33	11.3	267.9	3.05	125	5166	2587	230.4	205.0	1.15	1.7	6.6	0.04	10.5	240.9	0.607	1.380	1.656	2.73	NonLiqfble.
CPT-3	41.37	11.3	263.5	2.66	125	5171	2590	226.6	201.4	1.02	1.7	6.0	0.03	6.2	232.8	0.607	1.253	1.503	2.48	NonLiqfble.
CPT-3	41.41	11.3	254.7	2.29	125	5176	2592	218.9	194.4	0.91	1.7	5.5	0.01	3.2	222.1	0.607	1.098	1.318	2.17	NonLiqfble.
CPT-3	41.44	11.3	252.8	2.37	125	5180	2594	217.2	192.8	0.95	1.7	5.8	0.02	4.8	222.0	0.607	1.098	1.317	2.17	NonLiqfble.
CPT-3	41.48	11.3	253.5	2.49	125	5185	2597	217.7	193.2	0.99	1.7	6.1	0.03	6.4	224.1	0.607	1.127	1.352	2.23	NonLiqfble.
CPT-3																				

Project Name: 199 River Oaks Parkway
Project Number: 7862.3.001.01
Date: 20-Jul-07
CPT Number: CPT-3
Depth to Groundwater: 11.3 ft

EQ Magnitude (M_w): 7.1
PGA (g): 0.55
MSF: 1.20

Cone	Depth (FT)	Water Table (FT)	Tip Resist. (TSF)	Sleeve Frict. (TSF)	γ (PCF)	Total Stress (PSF)	Effective Stress (PSF)	Norm. Tip Q _{ns}	Corr. Tip Q	Friction Ratio F	I _c	F.C. (%)	K _{CPT}	ΔQ _{ns}	(Q _{ns}) _{ns}	Induced Stress Ratio	Liquef. Stress M7.5	Liquef. Stress M7.10	Factor of Safety	Comments
CPT-3	42.17	11.3	198.3	1.94	125	5271	2640	168.9	148.2	0.99	1.8	7.7	0.07	13.1	182.0	0.607	0.640	0.768	1.27	Low F.S.
CPT-3	42.24	11.3	193.4	2.15	125	5280	2644	164.6	144.2	1.13	1.8	8.7	0.10	18.0	182.6	0.607	0.646	0.775	1.28	Low F.S.
CPT-3	42.32	11.3	184.5	1.9	125	5290	2649	156.8	137.2	1.04	1.8	8.5	0.09	16.4	173.2	0.607	0.563	0.676	1.11	Low F.S.
CPT-3	42.39	11.3	170.3	2.04	125	5299	2654	144.6	126.3	1.22	1.9	10.2	0.14	23.2	167.9	0.607	0.520	0.624	1.03	Low F.S.
CPT-3	42.46	11.3	170.3	2.12	135	5732	3083	134.2	108.6	1.27	2.0	11.7	0.18	29.0	163.2	0.565	0.484	0.581	1.03	Low F.S.
CPT-3	42.52	11.3	163.6	2.03	135	5740	3087	128.8	104.1	1.26	2.0	12.0	0.19	29.5	158.4	0.565	0.449	0.539	0.95	Liquefaction
CPT-3	42.6	11.3	161.9	1.88	125	5325	2667	137.2	119.4	1.18	1.9	10.4	0.14	23.1	160.3	0.607	0.463	0.555	0.92	Liquefaction
CPT-3	42.66	11.3	158.8	1.82	125	5333	2671	134.5	116.9	1.17	1.9	10.5	0.15	23.0	157.4	0.607	0.443	0.531	0.88	Liquefaction
CPT-3	42.73	11.3	155.2	1.62	125	5341	2675	131.3	114.0	1.06	1.9	10.0	0.13	20.3	151.6	0.607	0.404	0.485	0.80	Liquefaction
CPT-3	42.8	11.3	156.6	1.58	125	5350	2679	132.4	114.9	1.03	1.9	9.7	0.13	19.1	151.5	0.607	0.403	0.484	0.80	Liquefaction
CPT-3	42.87	11.3	170.6	1.54	125	5359	2684	144.1	125.1	0.92	1.8	8.4	0.09	14.3	158.4	0.607	0.449	0.539	0.89	Liquefaction
CPT-3	42.93	11.3	186.5	1.58	125	5366	2687	157.4	136.7	0.86	1.8	7.4	0.06	10.6	168.1	0.607	0.521	0.626	1.03	Low F.S.
CPT-3	42.99	11.3	211	1.82	125	5374	2691	178.0	154.7	0.87	1.7	6.7	0.04	8.3	186.2	0.607	0.681	0.817	1.35	NonLiqfble.
CPT-3	43.05	11.3	223.3	2.5	125	5381	2695	188.2	163.7	1.13	1.8	7.9	0.08	15.8	204.0	0.607	0.869	1.043	1.72	NonLiqfble.
CPT-3	43.1	11.3	225.8	2.54	125	5388	2698	190.2	165.3	1.14	1.8	7.9	0.08	15.7	205.9	0.607	0.892	1.071	1.76	NonLiqfble.
CPT-3	43.15	11.3	235	2.47	125	5394	2701	197.8	171.9	1.06	1.8	7.2	0.06	12.2	210.1	0.607	0.942	1.130	1.86	NonLiqfble.
CPT-3	43.19	11.3	242.2	3.46	135	5831	3136	189.2	152.6	1.45	1.9	10.1	0.14	29.7	218.9	0.565	1.056	1.267	2.24	NonLiqfble.
CPT-3	43.23	11.3	251.5	3.27	135	5836	3138	196.4	158.3	1.32	1.8	9.1	0.11	24.3	220.8	0.565	1.080	1.297	2.29	NonLiqfble.
CPT-3	43.27	11.3	254.2	3.09	135	5841	3141	198.4	159.9	1.23	1.8	8.6	0.10	21.0	219.5	0.565	1.063	1.276	2.26	NonLiqfble.
CPT-3	43.31	11.3	243	3.04	135	5847	3144	189.6	152.6	1.27	1.8	9.1	0.11	23.4	213.0	0.565	0.978	1.174	2.08	NonLiqfble.
CPT-3	43.36	11.3	243.6	2.96	135	5854	3148	190.0	152.8	1.23	1.8	8.9	0.10	22.1	212.0	0.565	0.966	1.160	2.05	NonLiqfble.
CPT-3	43.4	11.3	255.9	2.98	125	5425	2717	214.8	186.3	1.18	1.8	7.3	0.06	14.3	229.1	0.607	1.198	1.438	2.37	NonLiqfble.
CPT-3	43.45	11.3	269.7	2.92	125	5431	2720	226.3	196.2	1.09	1.7	6.6	0.04	9.9	236.1	0.607	1.305	1.566	2.58	NonLiqfble.
CPT-3	43.48	11.3	268.7	2.82	125	5435	2722	225.3	195.4	0.99	1.7	6.0	0.03	6.0	231.3	0.607	1.231	1.477	2.43	NonLiqfble.
CPT-3	43.52	11.3	284	2.56	125	5440	2724	238.1	206.4	0.91	1.7	5.2	0.01	1.4	239.5	0.607	1.358	1.629	2.68	NonLiqfble.
CPT-3	43.55	11.3	296.8	2.5	125	5444	2726	248.7	215.6	0.85	1.6	4.6	0.00	0.0	248.7	0.607	1.511	1.813	2.99	NonLiqfble.
CPT-3	43.58	11.3	305.4	2.4	125	5448	2728	255.8	221.8	0.79	1.6	4.1	0.00	0.0	255.8	0.607	1.637	1.965	3.24	NonLiqfble.
CPT-3	43.62	11.3	310.5	2.38	125	5453	2731	260.0	225.3	0.77	1.6	3.9	0.00	0.0	260.0	0.607	1.714	2.057	3.39	NonLiqfble.
CPT-3	43.66	11.3	314.4	2.38	125	5458	2733	263.1	228.0	0.76	1.6	3.8	0.00	0.0	263.1	0.607	1.774	2.129	3.51	NonLiqfble.
CPT-3	43.69	11.3	318.1	2.43	125	5461	2735	266.1	230.5	0.77	1.6	3.8	0.00	0.0	266.1	0.607	1.833	2.200	3.63	NonLiqfble.
CPT-3	43.73	11.3	315.5	2.44	125	5466	2737	263.8	228.4	0.78	1.6	3.9	0.00	0.0	263.8	0.607	1.788	2.146	3.54	NonLiqfble.
CPT-3	43.77	11.3	311.4	2.24	115	5034	2302	284.0	268.2	0.73	1.5	2.8	0.00	0.0	284.0	0.664	2.209	2.651	3.99	NonLiqfble.
CPT-3	43.83	11.3	304.1	2.31	125	5479	2744	254.0	219.6	0.77	1.6	4.0	0.00	0.0	254.0	0.607	1.604	1.925	3.17	NonLiqfble.
CPT-3	43.88	11.3	309	2.5	125	5485	2747	258.0	222.9	0.82	1.6	4.3	0.00	0.0	258.0	0.607	1.676	2.012	3.32	NonLiqfble.
CPT-3	43.94	11.3	318.9	2.84	125	5493	2751	266.0	229.8	0.90	1.6	4.6	0.00	0.0	266.0	0.607	1.831	2.197	3.62	NonLiqfble.
CPT-3	43.98	11.3	332.1	3.02	125	5498	2753	276.9	239.2	0.92	1.6	4.5	0.00	0.0	276.9	0.607	2.055	2.466	4.06	NonLiqfble.
CPT-3	44.03	11.3	346	3.18	125	5504	2756	288.4	249.0	0.93	1.6	4.4	0.00	0.0	288.4	0.607	2.310	2.772	4.57	NonLiqfble.
CPT-3	44.08	11.3	373	2.99	125	5510	2759	310.7	268.2	0.81	1.5	3.3	0.00	0.0	310.7	0.607	2.869	3.443	5.67	NonLiqfble.
CPT-3	44.12	11.3	373.6	1.85	105	4633	1880	377.1	394.9	0.50	1.3	0.1	0.00	0.0	377.1	0.749	5.065	6.078	8.12	NonLiqfble.
CPT-3	44.16	11.3	369	1.99	115	5078	2323	335.0	315.4	0.54	1.4	1.1	0.00	0.0	335.0	0.664	3.576	4.291	6.46	NonLiqfble.
CPT-3	44.19	11.3	375.9	2.93	125	5524	2766	312.7	269.7	0.79	1.5	3.2	0.00	0.0	312.7	0.607	2.924	3.509	5.78	NonLiqfble.
CPT-3	44.25	11.3	392.9	3.06	125	5531	2770	326.6	281.6	0.78	1.5	3.0	0.00	0.0	326.6	0.607	3.321	3.985	6.57	NonLiqfble.
CPT-3	44.3	11.3	402.1	3.09	125	5538	2773	334.1	287.9	0.77	1.5	2.8	0.00	0.0	334.1	0.607	3.548	4.257	7.02	NonLiqfble.
CPT-3	44.34	11.3	424.4	3.11	115	5099	2332	384.5	361.6	0.74	1.4	1.8	0.00	0.0	384.5	0.664	5.367	6.440	9.69	NonLiqfble.
CPT-3	44.37	11.3	444.5	3.14	115	5103	2334	402.6	378.6	0.71	1.4	1.5	0.00	0.0	402.6	0.664	6.148	7.377	11.10	NonLiqfble.
CPT-3	44.42	11.3	461.7	3.26	115	5108	2336	417.9	392.9	0.71	1.4	1.3	0.00	0.0	417.9	0.664	6.868	8.242	12.41	NonLiqfble.
CPT-3	44.47	11.3	479	3.3	115	5114	2339	433.3	407.2	0.69	1.4	1.1	0.00	0.0	433.3	0.664	7.648	9.177	13.81	NonLiqfble.
CPT-3	44.52	11.3	487.6	3.21	115	5120	2342	440.9	414.1	0.66	1.3	0.9	0.00	0.0	440.9	0.664	8.049	9.659	14.54	NonLiqfble.
CPT-3	44.56	11.3	486.8	3	115	5124	2344	439.9	413.0	0.62	1.3	0.7	0.00	0.0	439.9	0.664	7.999	9.599	14.45	NonLiqfble.
CPT-3	44.6	11.3	491.7	3.05	115	5129	2346	444.2	416.8	0.62	1.3	0.7	0.00	0.0	444.2	0.664	8.230	9.876	14.87	NonLiqfble.
CPT-3	44.64	11.3	505.4	2.5	105	4687	1902	507.1	528.8	0.50	1.2	-0.7	0.00	0.0	507.1	0.749	12.207	14.648	19.56	NonLiqfble.
CPT-3	44.67	11.3	506.8	3.44	115	5137	2350	457.5	429.0	0.68	1.3	0.9	0.00	0.0	457.5	0.664	8.983	10.780	16.23	NonLiqfble.
CPT-3	44.71	11.3	502.9	3.7	125	5589	2799	415.9	357.2	0.74	1.4	1.8	0.00	0.0	415.9	0.607	6.771	8.126	13.39	NonLiqfble.
CPT-3	44.74	11.3	502.4	3.67	115	5145	2353	453.1	424.6	0.73	1.4	1.2	0.00	0.0	453.1	0.664	8.733	10.479	15.77	NonLiqfble.
CPT-3	44.81	11.3	515.3	3.55	115	5153	2357	464.4	434.9	0.69	1.3	0.9	0.00	0.0	464.4	0.664	9.395	11.274	16.97	NonLiqfble.
CPT-3	44.85	11.3	526.8	3.43	115	5158	2359	474.6	444.2	0.65	1.3	0.6	0.00	0.0	474.6	0.664	10.019	12.023	18.10	NonLiqfble.
CPT-3	44.88	11.3	518.4	3.74	115	5161	2361	466.8	436.8	0.73	1.4	1.1	0.00	0.0	466.8	0.664	9.542	11.450	17.23	NonLiqfble.
CPT-3	44.92	11.3	506.1	3.25	115	5166	2363	455.6	426.0	0.65	1.3	0.7	0.00	0.0	455.6	0.664	8.872	10.647	16.03	NonLiqfble.
CPT-3	44.97	11.3	549.1	3.91	115	5172	2365	494.0	461.9	0.72	1.3	0.9	0.00	0.0	494.0	0.664	11.290	13.549	20.39	NonLiqfble.
CPT-3	45.01	11.3	539	4.01	125	5626	2818	444.3	3											

Project Name: 199 River Oaks Parkway
Project Number: 7862.3.001.01
Date: 20-Jul-07
CPT Number: CPT-3
Depth to Groundwater: 11.3 ft

EQ Magnitude (M_w): 7.1
PGA (g): 0.55
MSF: 1.20

Cone	Depth (FT)	Water Table (FT)	Tip Resist. (TSF)	Sleeve Frict. (TSF)	γ (PCF)	Total Stress (PSF)	Effective Stress (PSF)	Norm. Tip Q _{tip}	Corr. Tip Q	Friction Ratio F	F.C. (%)	K _{CPT}	Δq _{tip}	(q _{tip}) ^{0.5}	Induced Stress Ratio	Liquef. Stress M7.5	Liquef. Stress M7.10	Factor of Safety	Comments	
CPT-3	45.62	11.3	537.8	3.6	115	5246	2400	480.4	445.9	0.67	1.3	0.7	0.00	0.0	480.4	0.664	10.388	12.466	18.76	NonLiqfble.
CPT-3	45.67	11.3	521.8	3.52	115	5252	2402	465.8	432.1	0.68	1.3	0.9	0.00	0.0	465.8	0.664	9.480	11.376	17.12	NonLiqfble.
CPT-3	45.72	11.3	488.9	3.23	115	5258	2405	436.2	404.2	0.66	1.4	1.0	0.00	0.0	436.2	0.664	7.799	9.359	14.09	NonLiqfble.
CPT-3	45.76	11.3	475.1	3.25	115	5262	2407	423.7	392.4	0.69	1.4	1.2	0.00	0.0	423.7	0.664	7.154	8.585	12.92	NonLiqfble.
CPT-3	45.79	11.3	453	3.06	115	5266	2409	403.9	373.8	0.68	1.4	1.3	0.00	0.0	403.9	0.664	6.206	7.447	11.21	NonLiqfble.
CPT-3	45.83	11.3	451.3	2.83	115	5270	2411	402.2	372.1	0.63	1.4	1.1	0.00	0.0	402.2	0.664	6.130	7.355	11.07	NonLiqfble.
CPT-3	45.9	11.3	449.7	2.85	115	5279	2414	400.4	370.2	0.64	1.4	1.1	0.00	0.0	400.4	0.664	6.052	7.262	10.93	NonLiqfble.
CPT-3	45.95	11.3	423.2	2.69	115	5284	2417	376.6	347.9	0.64	1.4	1.3	0.00	0.0	376.6	0.664	5.049	6.059	9.12	NonLiqfble.
CPT-3	45.98	11.3	413.7	2.15	115	5288	2419	368.1	339.8	0.52	1.3	0.7	0.00	0.0	368.1	0.664	4.717	5.661	8.52	NonLiqfble.
CPT-3	46.02	11.3	392.5	2.3	115	5292	2421	349.1	322.0	0.59	1.4	1.3	0.00	0.0	349.1	0.664	4.035	4.842	7.29	NonLiqfble.
CPT-3	46.05	11.3	375.1	2.08	115	5296	2422	333.5	307.4	0.56	1.4	1.3	0.00	0.0	333.5	0.664	3.529	4.234	6.37	NonLiqfble.
CPT-3	46.11	11.3	361.9	2.01	115	5303	2425	321.5	296.1	0.56	1.4	1.4	0.00	0.0	321.5	0.664	3.171	3.805	5.73	NonLiqfble.
CPT-3	46.18	11.3	371	2.04	115	5311	2429	329.4	303.2	0.55	1.4	1.3	0.00	0.0	329.4	0.664	3.403	4.083	6.15	NonLiqfble.
CPT-3	46.22	11.3	363.9	1.82	105	4853	1969	358.8	367.0	0.50	1.3	0.3	0.00	0.0	358.8	0.749	4.377	5.252	7.01	NonLiqfble.
CPT-3	46.26	11.3	357.3	1.83	115	5320	2433	316.9	291.4	0.52	1.4	1.2	0.00	0.0	316.9	0.664	3.040	3.648	5.49	NonLiqfble.
CPT-3	46.29	11.3	355.4	2.06	115	5323	2435	315.1	289.6	0.58	1.4	1.7	0.00	0.0	315.1	0.664	2.991	3.589	5.40	NonLiqfble.
CPT-3	46.33	11.3	350.1	2.17	115	5328	2437	310.3	285.0	0.62	1.4	2.0	0.00	0.0	310.3	0.664	2.859	3.430	5.16	NonLiqfble.
CPT-3	46.37	11.3	342.4	2.3	115	5333	2439	303.3	278.5	0.68	1.5	2.4	0.00	0.0	303.3	0.664	2.676	3.211	4.83	NonLiqfble.
CPT-3	46.41	11.3	339	2.53	115	5337	2441	300.2	275.4	0.75	1.5	2.9	0.00	0.0	300.2	0.664	2.596	3.115	4.69	NonLiqfble.
CPT-3	46.49	11.3	335.7	3.01	125	5811	2910	272.3	228.6	0.90	1.6	4.7	0.00	0.0	272.3	0.607	1.957	2.349	3.87	NonLiqfble.
CPT-3	46.56	11.3	341.6	3.41	125	5820	2915	276.8	232.3	1.01	1.6	5.2	0.00	1.2	278.1	0.607	2.080	2.496	4.11	NonLiqfble.
CPT-3	46.64	11.3	338.7	3.47	125	5830	2920	274.3	229.9	1.03	1.7	5.4	0.01	2.7	277.0	0.607	2.056	2.467	4.07	NonLiqfble.
CPT-3	46.71	11.3	342.2	2.96	125	5839	2924	276.9	232.0	0.87	1.6	4.4	0.00	0.0	276.9	0.607	2.054	2.465	4.06	NonLiqfble.
CPT-3	46.77	11.3	337.8	2.79	125	5846	2928	273.2	228.7	0.83	1.6	4.2	0.00	0.0	273.2	0.607	1.975	2.370	3.91	NonLiqfble.
CPT-3	46.84	11.3	328	2.53	125	5855	2932	265.0	221.6	0.78	1.6	4.1	0.00	0.0	265.0	0.607	1.811	2.174	3.58	NonLiqfble.
CPT-3	46.89	11.3	320.4	2.15	115	5392	2466	282.3	257.5	0.68	1.5	2.7	0.00	0.0	282.3	0.664	2.172	2.606	3.92	NonLiqfble.
CPT-3	46.93	11.3	311.9	2.1	115	5397	2469	274.7	250.4	0.68	1.5	2.9	0.00	0.0	274.7	0.664	2.007	2.409	3.63	NonLiqfble.
CPT-3	46.97	11.3	300.5	2.13	115	5402	2471	264.5	241.0	0.72	1.5	3.3	0.00	0.0	264.5	0.664	1.801	2.162	3.25	NonLiqfble.
CPT-3	47	11.3	293.9	2.08	115	5405	2472	258.6	235.5	0.71	1.5	3.4	0.00	0.0	258.6	0.664	1.689	2.027	3.05	NonLiqfble.
CPT-3	47.07	11.3	274.2	2.04	115	5413	2476	241.1	219.2	0.75	1.6	3.9	0.00	0.0	241.1	0.664	1.384	1.660	2.50	NonLiqfble.
CPT-3	47.11	11.3	264.7	1.99	115	5418	2478	232.7	211.4	0.76	1.6	4.2	0.00	0.0	232.7	0.664	1.251	1.501	2.26	NonLiqfble.
CPT-3	47.19	11.3	256.6	2.13	125	5899	2954	206.6	171.7	0.84	1.7	5.8	0.02	4.6	211.2	0.607	0.956	1.147	1.89	NonLiqfble.
CPT-3	47.26	11.3	249.7	2.35	125	5908	2958	200.9	166.7	0.95	1.7	6.7	0.05	9.6	210.4	0.607	0.946	1.136	1.87	NonLiqfble.
CPT-3	47.32	11.3	237.3	2.76	125	5915	2962	190.8	158.2	1.18	1.8	8.4	0.09	18.9	209.6	0.607	0.937	1.124	1.85	NonLiqfble.
CPT-3	47.36	11.3	215.6	2.68	135	6394	3438	160.9	123.5	1.26	1.9	10.6	0.15	28.4	189.2	0.565	0.710	0.852	1.51	NonLiqfble.
CPT-3	47.42	11.3	211.1	2.88	135	6402	3443	157.4	120.7	1.39	1.9	11.5	0.17	33.0	190.4	0.565	0.722	0.867	1.53	NonLiqfble.
CPT-3	47.49	11.3	201.1	3.52	135	6411	3448	149.9	114.7	1.78	2.0	14.0	0.24	47.2	197.1	0.565	0.792	0.950	1.68	NonLiqfble.
CPT-3	47.56	11.3	191.5	3.79	135	6421	3453	142.6	109.0	2.01	2.1	15.6	0.28	55.9	198.5	0.565	0.808	0.969	1.72	NonLiqfble.
CPT-3	47.61	11.3	170.6	4.14	135	6427	3456	127.0	96.8	2.47	2.2	18.7	0.37	73.5	200.4	0.565	0.829	0.995	1.76	NonLiqfble.
CPT-3	47.68	11.3	170.9	4.47	135	6437	3462	127.1	96.8	2.67	2.2	19.5	0.39	80.6	207.7	0.565	0.913	1.096	1.94	NonLiqfble.
CPT-3	47.75	11.3	169.2	4.76	135	6446	3467	125.7	95.7	2.87	2.2	20.5	0.41	88.5	214.2	0.565	0.994	1.193	2.11	NonLiqfble.
CPT-3	47.81	11.3	165.1	4.59	135	6454	3471	122.6	93.2	2.84	2.2	20.6	0.42	87.6	210.2	0.565	0.944	1.133	2.00	NonLiqfble.
CPT-3	47.85	11.3	156.8	4.63	135	6460	3474	116.4	88.4	3.01	2.3	21.9	0.45	95.4	211.8	0.565	0.964	1.157	2.05	NonLiqfble.
CPT-3	47.92	11.3	156.9	4.69	135	6469	3479	116.4	88.3	3.05	2.3	22.0	0.45	97.0	213.4	0.565	0.984	1.181	2.09	NonLiqfble.
CPT-3	47.99	11.3	155.2	4.71	135	6479	3484	115.0	87.2	3.10	2.3	22.3	0.46	99.2	214.3	0.565	0.995	1.194	2.11	NonLiqfble.
CPT-3	48.02	11.3	140.8	4.7	135	6483	3486	104.3	78.9	3.42	2.4	24.6	0.52	115.1	219.4	0.565	1.062	1.275	2.26	NonLiqfble.
CPT-3	48.11	11.3	153	4.7	135	6495	3493	113.3	85.7	3.14	2.3	22.7	0.47	101.3	214.5	0.565	0.998	1.198	2.12	NonLiqfble.
CPT-3	48.17	11.3	151.1	4.7	135	6503	3497	111.8	84.5	3.18	2.3	23.0	0.48	103.3	215.1	0.565	1.005	1.206	2.13	NonLiqfble.
CPT-3	48.23	11.3	149.8	4.67	135	6511	3501	110.8	83.7	3.19	2.3	23.1	0.48	103.9	214.6	0.565	0.999	1.199	2.12	NonLiqfble.
CPT-3	48.28	11.3	148.9	4.67	135	6518	3505	110.0	83.1	3.21	2.3	23.3	0.49	104.9	214.9	0.565	1.003	1.204	2.13	NonLiqfble.
CPT-3	48.33	11.3	149	4.67	135	6525	3509	110.1	83.0	3.20	2.3	23.3	0.49	104.9	214.9	0.565	1.003	1.204	2.13	NonLiqfble.
CPT-3	48.37	11.3	150.3	4.64	135	6530	3512	111.0	83.7	3.16	2.3	23.0	0.48	102.7	213.7	0.565	0.987	1.185	2.10	NonLiqfble.
CPT-3	48.42	11.3	151.6	4.63	135	6537	3515	111.9	84.4	3.12	2.3	22.8	0.47	101.2	213.0	0.565	0.979	1.175	2.08	NonLiqfble.
CPT-3	48.46	11.3	152.1	4.67	135	6542	3518	112.2	84.6	3.14	2.3	22.8	0.48	101.8	214.0	0.565	0.992	1.190	2.11	NonLiqfble.
CPT-3	48.51	11.3	151.7	4.64	135	6549	3522	111.8	84.3	3.13	2.3	22.8	0.48	101.5	213.3	0.565	0.983	1.179	2.09	NonLiqfble.
CPT-3	48.57	11.3	149.7	4.61	135	6557	3526	110.3	83.0	3.15	2.3	23.1	0.48	102.8	213.1	0.565	0.979	1.175	2.08	NonLiqfble.
CPT-3	48.63	11.3	147	4.65	135	6565	3531	108.2	81.4	3.24	2.3	23.6	0.50	107.0	215.2	0.565	1.007	1.208	2.14	NonLiqfble.
CPT-3	48.69	11.3	146.1	3.91	135	6573	3535	107.5	80.8	2.74	2.3	21.7	0.45	86.7	194.2	0.565	0.761	0.913	1.62	NonLiqfble.
CPT-3	48.75	11.3	141.4	2.9	135	6581	3539	104.0	78.0	2.10	2.2	19.2	0.38	63.6	167.6	0.565	0.517	0.621	1.10	Low F.S.
CPT-3	48.82	11.3	136.8	3.01	135	6591	3544	100.5	75.3	2.25	2.2	20.3	0.41	69.6	170.2	0.565	0.538	0.646		

Project Name: 199 River Oaks Parkway
Project Number: 7862.3.001.01
Date: 20-Jul-07
CPT Number: CPT-3
Depth to Groundwater: 11.3 ft

EQ Magnitude (M_w): 7.1
PGA (g): 0.55
MSF: 1.20

Cone	Depth (FT)	Water Table (FT)	Tip Resist. (TSF)	Sleeve Frict. (TSF)	γ (PCF)	Total Stress (PSF)	Effective Stress (PSF)	Norm. Tip q_{cIN}	Corr. Tip Q	Friction Ratio F	Ic	F.C. (%)	K_{CPT}	Δq_{cIN}	$(q_{cIN})_s$	Induced Stress Ratio	Liquef. Stress M7.5	Liquef. Stress M7.10	Factor of Safety	Comments
CPT-3	49.59	11.3	137	1.61	125	6199	3104	107.6	86.2	1.20	2.0	13.2	0.22	30.4	138.0	0.607	0.324	0.389	0.64	Liquefaction
CPT-3	49.67	11.3	153.4	2.04	135	6705	3606	111.8	83.2	1.36	2.1	14.6	0.26	38.3	150.1	0.565	0.394	0.473	0.84	Liquefaction
CPT-3	49.75	11.3	149.3	2.66	135	6716	3612	108.7	80.8	1.82	2.2	17.4	0.33	54.1	162.8	0.565	0.481	0.578	1.02	Low F.S.
CPT-3	49.82	11.3	149.6	3.11	135	6726	3617	108.8	80.8	2.13	2.2	19.0	0.37	64.7	173.6	0.565	0.566	0.680	1.20	Low F.S.
CPT-3	49.9	11.3	151.7	3.46	135	6737	3623	110.3	81.9	2.33	2.2	19.8	0.40	72.1	182.3	0.565	0.644	0.773	1.37	NonLiqfble.
CPT-3	49.98	11.3	146.7	3.69	135	6747	3629	106.6	79.0	2.57	2.3	21.3	0.43	81.8	188.3	0.565	0.701	0.841	1.49	NonLiqfble.
CPT-3	50.06	11.3	145.3	3.79	135	6758	3634	105.5	78.1	2.67	2.3	21.8	0.45	85.8	191.2	0.499	0.730	0.876	1.76	NonLiqfble.

Project Name: 199 River Oaks Parkway
Project Number: 7862.3.001.01
Date: 20-Jul-07
CPT Number: CPT-4
Depth to Groundwater: 10.8 ft

EQ Magnitude (M_w): 7.1
PGA (g): 0.55
MSF: 1.20

Cone	Depth (FT)	Water Table (FT)	Tip Resist. (TSF)	Sleeve Frict. (TSF)	γ (PCF)	Total Stress (PSF)	Effective Stress (PSF)	Norm. Tip Q _{ts}	Corr. Tip Q	Friction Ratio F	F.C. (%)	K _{CPT}	Δq _{ts}	(q _{ts}) _{ts}	Induced Stress Ratio	Liquef. Stress M7.5	Liquef. Stress M7.10	Factor of Safety	Comments	
CPT-4	0.55	10.8	474.6	10.04	135	74	74	909.0	#####	2.12	1.7	5.6	0.02	14.5	923.5	0.358	73.328	87.994	246.14	Above W.T.
CPT-4	0.62	10.8	380.5	8.15	135	84	84	728.7	9087.2	2.14	1.6	4.8	0.00	0.0	728.7	0.358	36.071	43.285	121.08	Above W.T.
CPT-4	0.7	10.8	312.1	5.84	135	95	95	597.7	6601.5	1.87	1.5	3.3	0.00	0.0	597.7	0.358	19.941	23.930	66.94	Above W.T.
CPT-4	0.78	10.8	255	4.6	135	105	105	488.4	4840.3	1.80	1.5	2.7	0.00	0.0	488.4	0.358	10.913	13.096	36.63	Above W.T.
CPT-4	0.87	10.8	173.7	4.1	135	117	117	332.7	2955.6	2.36	1.6	4.2	0.00	0.0	332.7	0.358	3.504	4.205	11.76	Above W.T.
CPT-4	0.95	10.8	118.2	3.38	135	128	128	226.4	1841.5	2.86	1.7	5.9	0.02	5.7	232.0	0.358	1.242	1.490	4.17	Above W.T.
CPT-4	1.03	10.8	77.6	2.46	135	139	139	148.6	1114.7	3.17	1.8	7.5	0.07	10.8	159.5	0.358	0.457	0.549	1.53	Above W.T.
CPT-4	1.11	10.8	53.4	2.17	135	150	150	102.3	711.4	4.07	1.9	11.2	0.16	20.1	122.4	0.358	0.250	0.301	0.84	Above W.T.
CPT-4	1.18	10.8	37.6	2.09	135	159	159	72.0	470.9	5.57	2.1	16.5	0.31	31.8	103.8	0.358	0.184	0.221	0.62	Above W.T.
CPT-4	1.26	10.8	33.1	1.95	135	170	170	63.4	388.0	5.91	2.2	18.3	0.35	34.7	98.1	0.358	0.168	0.201	0.56	Above W.T.
CPT-4	1.33	10.8	29.9	1.91	135	180	180	57.3	331.9	6.41	2.2	20.3	0.41	39.5	96.8	0.358	0.164	0.197	0.55	Above W.T.
CPT-4	1.41	10.8	25.5	1.89	135	190	190	48.8	266.8	7.44	2.3	23.9	0.51	50.0	98.8	0.358	0.170	0.204	0.57	Above W.T.
CPT-4	1.48	10.8	21.2	1.73	135	200	200	40.6	211.1	8.20	2.4	27.3	0.60	59.8	100.4	0.358	0.174	0.209	0.58	Above W.T.
CPT-4	1.56	10.8	17.1	1.46	135	211	211	32.7	161.3	8.59	2.5	30.5	0.68	70.2	102.9	0.358	0.181	0.218	0.61	Above W.T.
CPT-4	1.63	10.8	14.3	1.2	135	220	220	27.4	128.9	8.46	2.5	32.6	0.74	76.4	103.8	0.358	0.184	0.221	0.62	Above W.T.
CPT-4	1.71	10.8	11.7	1.03	125	214	214	22.4	108.4	8.88	2.6	35.4	0.80	89.6	112.0	0.358	0.211	0.253	0.71	Above W.T.
CPT-4	1.79	10.8	9.9	0.79	125	224	224	19.0	87.5	8.07	2.6	36.3	0.80	75.8	94.8	0.358	0.159	0.191	0.53	Above W.T.
CPT-4	1.88	10.8	10.2	0.53	125	235	235	19.5	85.8	5.26	2.5	29.6	0.66	37.4	56.9	0.358	0.097	0.117	0.33	Above W.T.
CPT-4	1.97	10.8	11.2	0.56	125	246	246	21.5	89.9	5.06	2.4	28.5	0.63	36.0	57.5	0.358	0.098	0.117	0.33	Above W.T.
CPT-4	2.05	10.8	12.9	0.61	125	256	256	24.7	99.6	4.78	2.4	26.5	0.57	33.3	58.0	0.358	0.098	0.118	0.33	Above W.T.
CPT-4	2.13	10.8	16.5	0.63	125	266	266	31.6	122.9	3.85	2.3	21.5	0.44	24.9	56.5	0.358	0.097	0.116	0.32	Above W.T.
CPT-4	2.22	10.8	15.1	0.61	125	278	278	28.9	107.8	4.08	2.3	23.5	0.50	28.4	57.3	0.358	0.097	0.117	0.33	Above W.T.
CPT-4	2.31	10.8	13.9	0.58	125	289	289	26.6	95.2	4.22	2.4	25.3	0.54	31.5	58.1	0.358	0.098	0.118	0.33	Above W.T.
CPT-4	2.4	10.8	12.5	0.58	125	300	300	23.9	82.3	4.70	2.4	28.4	0.63	40.0	64.0	0.358	0.104	0.125	0.35	Above W.T.
CPT-4	2.49	10.8	12.3	0.59	125	311	311	23.6	78.0	4.86	2.5	29.6	0.66	44.9	68.5	0.358	0.110	0.132	0.37	Above W.T.
CPT-4	2.58	10.8	11.8	0.61	125	323	323	22.6	72.1	5.24	2.5	31.7	0.71	55.9	78.5	0.358	0.125	0.150	0.42	Above W.T.
CPT-4	2.67	10.8	11.3	0.62	125	334	334	21.6	66.7	5.57	2.6	33.6	0.76	70.1	91.8	0.358	0.152	0.182	0.51	Above W.T.
CPT-4	2.76	10.8	10.7	0.63	125	345	345	20.5	61.0	5.98	2.6	36.0	0.80	82.0	102.5	0.358	0.180	0.216	0.60	Above W.T.
CPT-4	2.85	10.8	9.8	0.62	125	356	356	18.8	54.0	6.44	2.7	39.0	0.80	75.1	93.8	0.358	0.157	0.188	0.53	Above W.T.
CPT-4	2.94	10.8	9.8	0.62	125	368	368	18.8	52.3	6.45	2.7	39.4	0.80	75.1	93.8	0.358	0.157	0.188	0.53	Above W.T.
CPT-4	3.04	10.8	9.2	0.6	125	380	380	17.6	47.4	6.66	2.7	41.5	0.80	70.5	88.1	0.358	0.144	0.172	0.48	Above W.T.
CPT-4	3.14	10.8	8	0.59	115	361	361	15.3	43.3	7.55	2.8	45.2	0.80	61.3	76.6	0.358	0.122	0.146	0.41	Above W.T.
CPT-4	3.24	10.8	7.4	0.56	115	373	373	14.2	38.7	7.76	2.8	47.6	0.80	56.7	70.9	0.358	0.113	0.136	0.38	Above W.T.
CPT-4	3.34	10.8	7.3	0.54	115	384	384	14.0	37.0	7.60	2.8	48.0	0.80	55.9	69.9	0.358	0.112	0.134	0.38	Above W.T.
CPT-4	3.44	10.8	7.7	0.52	115	396	396	14.7	37.9	6.93	2.8	45.8	0.80	59.0	73.7	0.358	0.117	0.141	0.39	Above W.T.
CPT-4	3.53	10.8	7.7	0.52	115	406	406	14.7	36.9	6.94	2.8	46.3	0.80	59.0	73.7	0.358	0.117	0.141	0.39	Above W.T.
CPT-4	3.63	10.8	8.3	0.52	115	417	417	15.9	38.7	6.43	2.8	44.1	0.80	63.6	79.5	0.358	0.127	0.152	0.43	Above W.T.
CPT-4	3.72	10.8	7.9	0.52	115	428	428	15.1	35.9	6.77	2.8	46.3	0.80	60.5	75.7	0.358	0.120	0.144	0.40	Above W.T.
CPT-4	3.81	10.8	8.3	0.51	115	438	438	15.9	36.9	6.31	2.8	44.6	0.80	63.6	79.5	0.358	0.127	0.152	0.43	Above W.T.
CPT-4	3.9	10.8	9.6	0.53	125	488	488	18.4	38.4	5.66	2.7	42.0	0.80	73.5	91.9	0.358	0.152	0.183	0.51	Above W.T.
CPT-4	4	10.8	10.3	0.56	125	500	500	19.7	40.2	5.57	2.7	41.0	0.80	78.9	98.6	0.358	0.169	0.203	0.57	Above W.T.
CPT-4	4.09	10.8	10.5	0.6	125	511	511	20.1	40.1	5.86	2.7	41.9	0.80	80.4	100.5	0.358	0.175	0.209	0.59	Above W.T.
CPT-4	4.18	10.8	10.9	0.64	125	523	523	20.9	40.7	6.02	2.7	42.1	0.80	83.5	104.3	0.358	0.186	0.223	0.62	Above W.T.
CPT-4	4.27	10.8	11.5	0.67	125	534	534	21.8	42.1	5.96	2.7	41.4	0.80	87.1	108.9	0.358	0.200	0.240	0.67	Above W.T.
CPT-4	4.36	10.8	12.1	0.7	125	545	545	22.7	43.4	5.92	2.7	40.8	0.80	90.7	113.4	0.358	0.216	0.259	0.72	Above W.T.
CPT-4	4.45	10.8	12.9	0.75	125	556	556	23.9	45.4	5.94	2.7	40.2	0.80	95.7	119.7	0.358	0.239	0.287	0.80	Above W.T.
CPT-4	4.55	10.8	13.4	0.78	125	569	569	24.6	46.1	5.95	2.7	40.0	0.80	98.3	122.9	0.358	0.253	0.303	0.85	Above W.T.
CPT-4	4.64	10.8	13.5	0.83	125	580	580	24.5	45.5	6.28	2.7	41.1	0.80	98.1	122.6	0.358	0.252	0.302	0.84	Above W.T.
CPT-4	4.73	10.8	13.7	0.87	125	591	591	24.7	45.3	6.49	2.7	41.7	0.80	98.6	123.3	0.358	0.254	0.305	0.85	Above W.T.
CPT-4	4.82	10.8	13.9	0.88	125	603	603	24.8	45.1	6.47	2.7	41.8	0.80	99.1	123.9	0.358	0.257	0.308	0.86	Above W.T.
CPT-4	4.91	10.8	13.7	0.89	125	614	614	24.2	43.6	6.65	2.7	42.8	0.80	96.8	121.0	0.358	0.245	0.294	0.82	Above W.T.
CPT-4	5	10.8	13.3	0.82	125	625	625	23.3	41.5	6.31	2.7	42.6	0.80	93.1	116.4	0.358	0.227	0.272	0.76	Above W.T.
CPT-4	5.09	10.8	13.9	0.8	125	636	636	24.1	42.7	5.89	2.7	41.0	0.80	96.4	120.6	0.358	0.243	0.292	0.82	Above W.T.
CPT-4	5.18	10.8	13.9	0.77	125	648	648	23.9	41.9	5.67	2.7	40.6	0.80	95.6	119.5	0.358	0.239	0.286	0.80	Above W.T.
CPT-4	5.28	10.8	13.8	0.75	125	660	660	23.5	40.8	5.57	2.7	40.8	0.80	94.0	117.5	0.358	0.231	0.277	0.78	Above W.T.
CPT-4	5.35	10.8	13.8	0.79	125	669	669	23.3	40.3	5.87	2.7	41.9	0.80	93.4	116.7	0.358	0.228	0.274	0.77	Above W.T.
CPT-4	5.43	10.8	13.8	0.85	125	679	679	23.2	39.6	6.31	2.8	43.4	0.80	92.7	115.9	0.358	0.225	0.270	0.75	Above W.T.
CPT-4	5.52	10.8	14.6	0.89	125	690	690	24.3	41.3	6.24	2.7	42.5	0.80	97.3	121.6	0.358	0.247	0.297	0.83	Above W.T.
CPT-4	5.61	10.8	14.3	0.91	125	701	701	23.6	39.8	6.52	2.8	43.9	0.80	94.5	118.1	0.358	0.233	0.280	0.78	Above W.T.
CPT-4	5.7	10.8	13.8	0.94	125	713	713	22.6	37.7	6.99	2.8	46.1	0.80	90.5	113.1	0.358	0.215	0.257	0.72	Above W.T.
CPT-4	5.79	10.8	13.6	0.94	125	724	724	22.1	36.6	7.10	2.8	46.9	0.80	88.5	110.6	0.358	0.206	0.247	0.69	Above W.T.
CPT-4	5.88	10.8	13.5	0.93	125	735	735	21.8	35.7	7.08	2.8	47.2	0.80	87.1	108.9	0.358	0.200	0.240	0.67	Above W.T.
CPT-4																				

Project Name:	199 River Oaks Parkway
Project Number:	7862.3.001.01
Date:	20-Jul-07
CPT Number:	CPT-4
Depth to Groundwater:	10.8 ft

EQ Magnitude (M_w):	7.1
PGA (g):	0.55
MSF:	1.20

Cone	Depth (FT)	Water Table (FT)	Tip Resist. (TSF)	Sleeve Frict. (TSF)	γ (PCF)	Total Stress (PSF)	Effective Stress (PSF)	Norm. Tip Q_{TIN}	Corr. Tip Q	Friction Ratio F	I_c	F.C. (%)	K_{CPT}	Δq_{CIN}	$(q_{TIN})_{90}$	Induced Stress Ratio	Liquef. Stress M7.5	Liquef. Stress M7.10	Factor of Safety	Comments
CPT-4	6.58	10.8	15	1.18	135	888	888	22.0	32.8	8.11	2.9	51.4	0.80	88.1	110.1	0.358	0.204	0.245	0.69	Above W.T.
CPT-4	6.67	10.8	15	1.2	135	900	900	21.9	32.3	8.25	2.9	52.0	0.80	87.5	109.4	0.358	0.202	0.242	0.68	Above W.T.
CPT-4	6.76	10.8	14.9	1.18	135	913	913	21.6	31.6	8.17	2.9	52.2	0.80	86.3	107.9	0.358	0.197	0.236	0.66	Above W.T.
CPT-4	6.85	10.8	15.1	1.16	135	925	925	21.7	31.6	7.92	2.9	51.6	0.80	86.9	108.6	0.358	0.199	0.239	0.67	Above W.T.
CPT-4	6.93	10.8	14.8	1.15	135	936	936	21.2	30.6	8.02	2.9	52.4	0.80	84.7	105.9	0.358	0.190	0.228	0.64	Above W.T.
CPT-4	7.02	10.8	14.6	1.16	135	948	948	20.8	29.8	8.21	2.9	53.4	0.80	83.0	103.8	0.358	0.184	0.221	0.62	Above W.T.
CPT-4	7.11	10.8	14.1	1.16	135	960	960	19.9	28.4	8.52	2.9	55.1	0.80	79.7	99.6	0.358	0.175	0.206	0.58	Above W.T.
CPT-4	7.2	10.8	14.5	1.17	135	972	972	20.3	28.8	8.35	2.9	54.4	0.80	81.4	101.7	0.358	0.178	0.214	0.60	Above W.T.
CPT-4	7.29	10.8	14.5	1.17	135	984	984	20.2	28.5	8.35	2.9	54.6	0.80	80.9	101.1	0.358	0.176	0.211	0.59	Above W.T.
CPT-4	7.38	10.8	14.6	1.12	135	996	996	20.2	28.3	7.94	2.9	53.7	0.80	81.0	101.2	0.358	0.176	0.212	0.59	Above W.T.
CPT-4	7.46	10.8	14.2	1.08	125	933	933	20.3	29.4	7.86	2.9	52.8	0.80	81.4	101.7	0.358	0.178	0.213	0.60	Above W.T.
CPT-4	7.55	10.8	13.9	1.04	125	944	944	19.8	28.4	7.75	2.9	53.1	0.80	79.2	99.0	0.358	0.170	0.204	0.57	Above W.T.
CPT-4	7.64	10.8	13.6	1	125	955	955	19.3	27.5	7.62	2.9	53.4	0.80	77.0	96.3	0.358	0.163	0.196	0.55	Above W.T.
CPT-4	7.73	10.8	13.5	0.98	125	966	966	19.0	26.9	7.53	2.9	53.6	0.80	76.0	95.0	0.358	0.160	0.192	0.54	Above W.T.
CPT-4	7.82	10.8	14	0.95	125	978	978	19.6	27.6	7.03	2.9	51.8	0.80	78.4	98.0	0.358	0.167	0.201	0.56	Above W.T.
CPT-4	7.91	10.8	13.5	0.92	125	989	989	18.8	26.3	7.07	2.9	52.8	0.80	75.1	93.9	0.358	0.157	0.188	0.53	Above W.T.
CPT-4	7.99	10.8	13.9	0.92	125	999	999	19.2	26.8	6.87	2.9	51.9	0.80	77.0	96.2	0.358	0.163	0.195	0.55	Above W.T.
CPT-4	8.08	10.8	13.9	0.92	125	1010	1010	19.1	26.5	6.87	2.9	52.1	0.80	76.5	95.7	0.358	0.161	0.194	0.54	Above W.T.
CPT-4	8.17	10.8	14	0.94	125	1021	1021	19.2	26.4	6.97	2.9	52.5	0.80	76.7	95.8	0.358	0.162	0.194	0.54	Above W.T.
CPT-4	8.26	10.8	14.1	0.97	125	1033	1033	19.2	26.3	7.14	2.9	53.0	0.80	76.8	96.0	0.358	0.162	0.195	0.54	Above W.T.
CPT-4	8.35	10.8	14	1	125	1044	1044	19.0	25.8	7.42	2.9	54.1	0.80	75.8	94.8	0.358	0.159	0.191	0.53	Above W.T.
CPT-4	8.43	10.8	14.5	1.03	125	1054	1054	19.5	26.5	7.37	2.9	53.5	0.80	78.2	97.7	0.358	0.167	0.200	0.56	Above W.T.
CPT-4	8.52	10.8	15	1.05	125	1065	1065	20.1	27.2	7.26	2.9	52.7	0.80	80.4	100.6	0.358	0.175	0.209	0.59	Above W.T.
CPT-4	8.6	10.8	15.6	1.04	135	1161	1161	20.0	25.9	6.92	2.9	52.7	0.80	80.1	100.2	0.358	0.173	0.208	0.58	Above W.T.
CPT-4	8.69	10.8	15.7	1.03	125	1086	1086	20.8	27.9	6.80	2.9	50.9	0.80	83.4	104.2	0.358	0.185	0.222	0.62	Above W.T.
CPT-4	8.77	10.8	15.1	1.02	125	1096	1096	20.0	26.5	7.01	2.9	52.5	0.80	79.8	99.8	0.358	0.172	0.207	0.58	Above W.T.
CPT-4	8.86	10.8	14.4	0.99	125	1108	1108	18.9	25.0	7.15	2.9	54.0	0.80	75.7	94.7	0.358	0.159	0.191	0.53	Above W.T.
CPT-4	8.95	10.8	15.1	0.97	125	1119	1119	19.8	26.0	6.67	2.9	51.9	0.80	79.0	98.8	0.358	0.170	0.204	0.57	Above W.T.
CPT-4	9.04	10.8	15.2	0.99	125	1130	1130	19.8	25.9	6.76	2.9	52.3	0.80	79.1	98.9	0.358	0.170	0.204	0.57	Above W.T.
CPT-4	9.13	10.8	15.1	1.01	125	1141	1141	19.6	25.5	6.95	2.9	53.1	0.80	78.2	97.8	0.358	0.167	0.200	0.56	Above W.T.
CPT-4	9.21	10.8	15.4	1.03	125	1151	1151	19.9	25.7	6.95	2.9	52.9	0.80	79.4	99.3	0.358	0.171	0.205	0.57	Above W.T.
CPT-4	9.3	10.8	15	1.05	125	1163	1163	19.2	24.8	7.28	2.9	54.5	0.80	77.0	96.2	0.358	0.163	0.195	0.55	Above W.T.
CPT-4	9.39	10.8	15.1	1.06	125	1174	1174	19.3	24.7	7.30	2.9	54.7	0.80	77.1	96.4	0.358	0.163	0.196	0.55	Above W.T.
CPT-4	9.48	10.8	15.9	1.09	135	1280	1280	19.4	23.8	7.14	2.9	54.9	0.80	77.8	97.2	0.358	0.165	0.199	0.56	Above W.T.
CPT-4	9.57	10.8	16.7	1.15	135	1292	1292	20.3	24.8	7.16	2.9	54.2	0.80	81.3	101.6	0.358	0.178	0.213	0.60	Above W.T.
CPT-4	9.66	10.8	16.4	1.22	135	1304	1304	19.9	24.1	7.75	3.0	56.3	0.80	79.5	99.4	0.358	0.171	0.205	0.57	Above W.T.
CPT-4	9.75	10.8	16.6	1.24	135	1316	1316	20.0	24.2	7.78	3.0	56.3	0.80	80.1	100.1	0.358	0.173	0.208	0.58	Above W.T.
CPT-4	9.84	10.8	17.6	1.25	135	1328	1328	21.1	25.5	7.38	2.9	54.3	0.80	84.5	105.6	0.358	0.190	0.228	0.64	Above W.T.
CPT-4	9.92	10.8	18	1.26	135	1339	1339	21.5	25.9	7.27	2.9	53.7	0.80	86.1	107.6	0.358	0.196	0.235	0.66	Above W.T.
CPT-4	10.01	10.8	19	1.28	135	1351	1351	22.6	27.1	6.99	2.9	52.0	0.80	90.5	113.1	0.350	0.214	0.257	0.73	Above W.T.
CPT-4	10.1	10.8	19.7	1.32	135	1364	1364	23.3	27.9	6.94	2.9	51.3	0.80	93.4	116.7	0.350	0.228	0.273	0.78	Above W.T.
CPT-4	10.18	10.8	20.4	1.4	135	1374	1374	24.1	28.7	7.10	2.9	51.3	0.80	96.3	120.4	0.350	0.242	0.291	0.83	Above W.T.
CPT-4	10.27	10.8	20.2	1.47	135	1386	1386	23.7	28.1	7.54	2.9	52.8	0.80	94.9	118.7	0.350	0.235	0.283	0.81	Above W.T.
CPT-4	10.36	10.8	20.3	1.52	135	1399	1399	23.8	28.0	7.75	2.9	53.4	0.80	95.0	118.8	0.350	0.236	0.283	0.81	Above W.T.
CPT-4	10.44	10.8	20.6	1.54	135	1409	1409	24.0	28.2	7.74	2.9	53.2	0.80	96.0	120.0	0.350	0.241	0.289	0.83	Above W.T.
CPT-4	10.53	10.8	21	1.57	135	1422	1422	24.4	28.5	7.74	2.9	53.0	0.80	97.5	121.8	0.350	0.248	0.298	0.85	Above W.T.
CPT-4	10.62	10.8	20.8	1.59	135	1434	1434	24.0	28.0	7.92	2.9	53.8	0.80	96.1	120.2	0.350	0.241	0.290	0.83	Above W.T.
CPT-4	10.7	10.8	21.7	1.59	135	1445	1445	25.0	29.0	7.58	2.9	52.3	0.80	99.9	124.9	0.350	0.261	0.313	0.89	Above W.T.
CPT-4	10.79	10.8	23	1.6	135	1457	1457	26.4	30.6	7.18	2.9	50.3	0.80	105.5	131.8	0.350	0.293	0.352	1.00	Above W.T.
CPT-4	10.88	10.8	24	1.63	135	1469	1469	27.4	31.8	7.01	2.7	39.1	0.80	149.5	186.8	0.651	0.686	0.824	1.26	NonLiqfble.
CPT-4	10.96	10.8	25	1.64	135	1480	1480	28.8	33.8	6.76	2.7	38.0	0.80	155.1	193.9	0.651	0.758	0.909	1.40	NonLiqfble.
CPT-4	11.05	10.8	26	1.67	135	1492	1492	30.2	35.8	6.61	2.6	37.2	0.80	160.7	200.8	0.651	0.833	1.000	1.53	NonLiqfble.
CPT-4	11.13	10.8	27.1	1.74	135	1503	1503	31.7	37.8	6.60	2.6	36.7	0.80	166.9	208.6	0.651	0.924	1.108	1.70	NonLiqfble.
CPT-4	11.22	10.8	27.7	1.78	135	1515	1515	33.1	39.8	6.61	2.6	36.5	0.80	169.9	212.3	0.651	0.970	1.164	1.79	NonLiqfble.
CPT-4	11.3	10.8	27.4	1.8	135	1526	1526	34.5	41.8	6.76	2.6	37.2	0.80	167.4	209.3	0.651	0.932	1.119	1.72	NonLiqfble.
CPT-4	11.39	10.8	27.1	1.81	135	1538	1538	35.9	43.8	6.87	2.6	37.7	0.80	164.9	206.2	0.651	0.895	1.074	1.65	NonLiqfble.
CPT-4	11.47	10.8	27.1	1.8	135	1548	1548	37.3	45.8	6.84	2.6	37.7	0.80	164.4	205.4	0.651	0.886	1.064	1.63	NonLiqfble.
CPT-4	11.56	10.8	26.3	1.77	135	1561	1561	38.7	47.8	6.94	2.7	38.5	0.80	158.9	198.6	0.651	0.809	0.970	1.49	NonLiqfble.
CPT-4	11.65	10.8	25.7	1.76	135	1573	1573	40.1	49.8	7.06	2.7	39.3	0.80	154.7	193.3	0.651	0.752	0.902	1.39	NonLiqfble.
CPT-4	11.74	10.8	25.3	1.68	135	1585	1585	41.5	51.8	6.86	2.7	39.1	0.80	151.7	189.6	0.651	0.714	0.856	1.31	NonLiqfble.
CPT-4	11.82	10.8	24.1	1.59	135	1596	1596	43.0	53.8	6.82	2.7	39.9	0.80	144.0	180.0	0.651	0.622	0.747		

Project Name: 199 River Oaks Parkway
Project Number: 7862.3.001.01
Date: 20-Jul-07
CPT Number: CPT-4
Depth to Groundwater: 10.8 ft

EQ Magnitude (M_w): 7.1
PGA (g): 0.55
MSF: 1.20

Cone	Depth (FT)	Water Table (FT)	Tip Resist. (TSF)	Sleeve Frict. (TSF)	γ (PCF)	Total Stress (PSF)	Effective Stress (PSF)	Norm. Tip Q_{IN}	Corr. Tip Q	Friction Ratio F	I_c	F.C. (%)	K_{CPT}	Δq_{IN}	$(q_{IN})_{IN}$	Induced Stress Ratio	Liquef. Stress M7.5	Liquef. Stress M7.10	Factor of Safety	Comments
CPT-4	12.62	10.8	16.7	0.91	125	1578	790	26.0	40.3	5.72	2.7	41.4	0.80	104.0	130.0	0.700	0.284	0.341	0.49	NonLiqfble.
CPT-4	12.7	10.8	16.3	0.85	125	1588	795	25.3	39.0	5.48	2.7	41.2	0.80	101.2	126.5	0.700	0.268	0.322	0.46	NonLiqfble.
CPT-4	12.8	10.8	16.1	0.74	125	1600	801	24.9	38.2	4.84	2.7	39.5	0.80	99.5	124.4	0.700	0.259	0.311	0.44	NonLiqfble.
CPT-4	12.89	10.8	15.3	0.66	125	1611	807	23.6	35.9	4.55	2.7	39.5	0.80	94.3	117.8	0.700	0.232	0.279	0.40	NonLiqfble.
CPT-4	12.97	10.8	14	0.61	125	1621	812	21.5	32.5	4.63	2.7	41.4	0.80	86.0	107.5	0.700	0.195	0.235	0.34	NonLiqfble.
CPT-4	13.06	10.8	13.1	0.58	125	1633	818	20.0	30.0	4.72	2.7	43.1	0.80	80.2	100.2	0.700	0.174	0.208	0.30	NonLiqfble.
CPT-4	13.15	10.8	12.2	0.55	125	1644	823	18.6	27.6	4.83	2.8	45.0	0.80	74.4	93.0	0.700	0.155	0.186	0.27	NonLiqfble.
CPT-4	13.23	10.8	11.5	0.52	125	1654	828	17.5	25.8	4.87	2.8	46.4	0.80	69.9	87.4	0.700	0.142	0.171	0.24	NonLiqfble.
CPT-4	13.32	10.8	11.1	0.5	125	1665	834	16.8	24.6	4.87	2.8	47.2	0.80	67.3	84.1	0.700	0.135	0.162	0.23	NonLiqfble.
CPT-4	13.4	10.8	10.5	0.49	125	1675	839	15.9	23.0	5.07	2.9	49.2	0.80	63.4	79.3	0.700	0.126	0.152	0.22	NonLiqfble.
CPT-4	13.48	10.8	10.1	0.46	115	1550	709	16.6	26.3	4.93	2.8	46.2	0.80	66.4	83.0	0.766	0.133	0.160	0.21	NonLiqfble.
CPT-4	13.57	10.8	9.6	0.43	115	1561	714	15.7	24.7	4.88	2.8	47.2	0.80	62.9	78.6	0.766	0.125	0.150	0.20	NonLiqfble.
CPT-4	13.65	10.8	9.1	0.39	115	1570	718	14.9	23.2	4.69	2.8	47.8	0.80	59.4	74.3	0.766	0.118	0.142	0.19	NonLiqfble.
CPT-4	13.74	10.8	8.5	0.36	115	1580	723	13.8	21.3	4.67	2.9	49.3	0.80	55.3	69.2	0.766	0.111	0.133	0.17	NonLiqfble.
CPT-4	13.82	10.8	7.5	0.35	115	1589	727	12.2	18.4	5.22	2.9	54.2	0.80	48.7	60.9	0.766	0.101	0.121	0.16	NonLiqfble.
CPT-4	13.91	10.8	6.6	0.33	105	1461	593	11.9	19.8	5.62	2.9	54.1	0.80	47.5	59.3	0.864	0.099	0.119	0.14	NonLiqfble.
CPT-4	13.99	10.8	6.6	0.3	105	1469	596	11.8	19.7	5.11	2.9	52.5	0.80	47.3	59.1	0.864	0.099	0.119	0.14	NonLiqfble.
CPT-4	14.08	10.8	6	0.28	105	1478	600	10.7	17.5	5.32	3.0	55.6	0.80	42.9	53.6	0.864	0.094	0.113	0.13	NonLiqfble.
CPT-4	14.17	10.8	5.3	0.26	105	1488	604	9.4	15.1	5.71	3.0	60.3	0.80	37.8	47.2	0.864	0.090	0.108	0.12	NonLiqfble.
CPT-4	14.25	10.8	5	0.25	105	1496	607	8.9	14.0	5.88	3.1	62.6	0.80	35.5	44.4	0.864	0.088	0.106	0.12	NonLiqfble.
CPT-4	14.34	10.8	5.6	0.25	105	1506	611	9.9	15.9	5.16	3.0	57.2	0.80	39.7	49.6	0.864	0.091	0.110	0.13	NonLiqfble.
CPT-4	14.42	10.8	5.7	0.26	105	1514	614	10.1	16.1	5.26	3.0	57.3	0.80	40.2	50.3	0.864	0.092	0.110	0.13	NonLiqfble.
CPT-4	14.51	10.8	5.8	0.26	105	1524	618	10.2	16.3	5.16	3.0	56.6	0.80	40.8	51.0	0.864	0.092	0.111	0.13	NonLiqfble.
CPT-4	14.59	10.8	5.8	0.26	105	1532	622	10.2	16.2	5.17	3.0	56.8	0.80	40.7	50.9	0.864	0.092	0.111	0.13	NonLiqfble.
CPT-4	14.68	10.8	6	0.28	105	1541	625	10.5	16.7	5.35	3.0	56.8	0.80	42.0	52.5	0.864	0.093	0.112	0.13	NonLiqfble.
CPT-4	14.77	10.8	6.1	0.3	105	1551	629	10.6	16.9	5.63	3.0	57.5	0.80	42.6	53.2	0.864	0.094	0.113	0.13	NonLiqfble.
CPT-4	14.86	10.8	6.9	0.29	105	1560	633	12.0	19.3	4.74	2.9	51.5	0.80	48.0	60.0	0.864	0.100	0.120	0.14	NonLiqfble.
CPT-4	14.94	10.8	6.6	0.35	115	1718	786	10.3	14.6	6.10	3.1	62.3	0.80	41.2	51.5	0.766	0.093	0.111	0.15	NonLiqfble.
CPT-4	15.03	10.8	7	0.38	115	1728	791	10.9	15.5	6.19	3.0	61.2	0.80	43.6	54.5	0.766	0.095	0.114	0.15	NonLiqfble.
CPT-4	15.11	10.8	6.2	0.36	115	1738	795	9.6	13.4	6.75	3.1	66.4	0.80	38.5	48.1	0.766	0.090	0.108	0.14	NonLiqfble.
CPT-4	15.15	10.8	7.3	0.35	115	1742	797	11.3	16.1	5.44	3.0	57.9	0.80	45.3	56.6	0.766	0.097	0.116	0.15	NonLiqfble.
CPT-4	15.23	10.8	7	0.33	115	1751	801	10.8	15.3	5.39	3.0	58.9	0.80	43.3	54.1	0.766	0.095	0.114	0.15	NonLiqfble.
CPT-4	15.32	10.8	7.2	0.31	115	1762	806	11.1	15.7	4.91	3.0	56.5	0.80	44.4	55.5	0.766	0.096	0.115	0.15	NonLiqfble.
CPT-4	15.4	10.8	7	0.3	105	1617	656	12.0	18.9	4.85	2.9	52.4	0.80	47.8	59.8	0.864	0.100	0.120	0.14	NonLiqfble.
CPT-4	15.49	10.8	6.3	0.28	105	1626	660	10.7	16.6	5.10	3.0	56.0	0.80	42.9	53.7	0.864	0.094	0.113	0.13	NonLiqfble.
CPT-4	15.58	10.8	6.8	0.27	105	1636	664	11.5	18.0	4.51	2.9	52.1	0.80	46.2	57.7	0.864	0.098	0.117	0.14	NonLiqfble.
CPT-4	15.66	10.8	5.9	0.26	105	1644	667	10.0	15.2	5.12	3.0	58.0	0.80	40.0	50.0	0.864	0.092	0.110	0.13	NonLiqfble.
CPT-4	15.75	10.8	5.9	0.25	105	1654	671	10.0	15.1	4.93	3.0	57.4	0.80	39.9	49.8	0.864	0.092	0.110	0.13	NonLiqfble.
CPT-4	15.84	10.8	5.5	0.23	105	1663	675	9.3	13.8	4.93	3.0	59.4	0.80	37.1	46.3	0.864	0.089	0.107	0.12	NonLiqfble.
CPT-4	15.92	10.8	5.1	0.22	105	1672	678	8.6	12.6	5.16	3.1	62.5	0.80	34.3	42.8	0.864	0.087	0.105	0.12	NonLiqfble.
CPT-4	16	10.8	5.2	0.22	105	1680	682	8.7	12.8	5.05	3.0	61.7	0.80	34.9	43.6	0.864	0.088	0.105	0.12	NonLiqfble.
CPT-4	16.09	10.8	4.9	0.22	105	1689	685	8.2	11.8	5.43	3.1	65.0	0.80	32.8	40.9	0.864	0.086	0.104	0.12	NonLiqfble.
CPT-4	16.17	10.8	5.1	0.24	105	1698	689	8.5	12.3	5.65	3.1	64.7	0.80	34.0	42.5	0.864	0.087	0.105	0.12	NonLiqfble.
CPT-4	16.26	10.8	6.2	0.22	105	1707	693	10.3	15.4	4.12	2.9	53.7	0.80	41.2	51.5	0.864	0.093	0.111	0.13	NonLiqfble.
CPT-4	16.35	10.8	6	0.21	105	1717	697	9.9	14.8	4.08	2.9	54.6	0.80	39.8	49.7	0.864	0.091	0.110	0.13	NonLiqfble.
CPT-4	16.43	10.8	5.1	0.19	95	1561	536	9.6	16.1	4.40	2.9	54.0	0.80	38.6	48.2	1.021	0.090	0.109	0.11	NonLiqfble.
CPT-4	16.52	10.8	4.7	0.18	95	1569	539	8.9	14.5	4.60	3.0	57.0	0.80	35.4	44.3	1.021	0.088	0.106	0.10	NonLiqfble.
CPT-4	16.6	10.8	4	0.17	95	1577	541	7.5	11.9	5.29	3.1	64.4	0.80	30.1	37.6	1.021	0.085	0.102	0.10	NonLiqfble.
CPT-4	16.69	10.8	4.4	0.19	95	1586	544	8.3	13.3	5.27	3.0	61.7	0.80	33.0	41.3	1.021	0.087	0.104	0.10	NonLiqfble.
CPT-4	16.77	10.8	4.8	0.21	105	1761	714	7.9	11.0	5.36	3.1	66.6	0.80	31.4	39.3	0.864	0.086	0.103	0.12	NonLiqfble.
CPT-4	16.86	10.8	5.6	0.27	105	1770	718	9.1	13.1	5.73	3.1	63.5	0.80	36.6	45.7	0.864	0.089	0.107	0.12	NonLiqfble.
CPT-4	16.95	10.8	6.7	0.3	105	1780	722	10.9	16.1	5.16	3.0	56.9	0.80	43.6	54.5	0.864	0.095	0.114	0.13	NonLiqfble.
CPT-4	17.03	10.8	8.5	0.32	115	1958	896	12.4	16.8	4.26	2.9	52.5	0.80	49.7	62.1	0.766	0.102	0.123	0.16	NonLiqfble.
CPT-4	17.12	10.8	8.2	0.34	115	1969	901	12.0	16.0	4.71	3.0	55.3	0.80	47.8	59.8	0.766	0.100	0.120	0.16	NonLiqfble.
CPT-4	17.21	10.8	6.4	0.33	105	1807	733	10.3	15.0	6.00	3.0	61.4	0.80	41.4	51.7	0.864	0.093	0.111	0.13	NonLiqfble.
CPT-4	17.29	10.8	5.3	0.3	105	1815	737	8.5	11.9	6.83	3.2	69.5	0.80	34.2	42.7	0.864	0.087	0.105	0.12	NonLiqfble.
CPT-4	17.38	10.8	4.3	0.26	105	1825	740	6.9	9.1	7.68	3.3	79.0	0.80	27.7	34.6	0.864	0.084	0.101	0.12	NonLiqfble.
CPT-4	17.46	10.8	4	0.23	95	1659	569	7.3	11.1	7.25	3.2	72.5	0.80	29.3	36.7	1.021	0.085	0.102	0.10	NonLiqfble.
CPT-4	17.55	10.8	3.4	0.22	95	1667	572	6.2	9.0	8.57	3.3	82.1	0.80	24.9	31.1	1.021	0.083	0.099	0.10	NonLiqfble.
CPT-4	17.63	10.8	3.2	0.21	95	1675	575	5.8	8.2	8.89	3.4	85.5	0.80	23.4	29.2	1.021	0.082	0.099	0.10	NonLiqfble.
CPT-4	17.72	10.8	3.5	0.19	95	1683	578	6.4	9.2	7.15	3.3	77.2	0.80	25.5	31.9	1.021	0.083	0.100	0.10	NonLiqfble.
CPT-4	17.8	10.8	2.9	0.18	95	1691	580	5.3												

Project Name: 199 River Oaks Parkway
Project Number: 7862.3.001.01
Date: 20-Jul-07
CPT Number: CPT-4
Depth to Groundwater: 10.8 ft

EQ Magnitude (M_w): 7.1
PGA (g): 0.55
MSF: 1.20

Cone	Depth (FT)	Water Table (FT)	Tip Resist. (TSF)	Sleeve Frict. (TSF)	Total Stress (PSF)	Effective Stress (PSF)	Norm. Tip Q _{tip}	Corr. Tip Q	Friction Ratio F	F.C. (%)	K _{CPT}	Δq _{tip}	(q _{tip}) _{ns}	Induced Stress Ratio	Liquef. Stress M7.5	Liquef. Stress M7.10	Factor of Safety	Comments		
CPT-4	18.46	10.8	37.6	1.41	135	2492	1340	44.9	54.2	3.88	2.5	31.0	0.69	101.9	146.8	0.651	0.374	0.449	0.69	Liquefaction
CPT-4	18.54	10.8	38.6	1.5	135	2503	1346	46.0	55.5	4.02	2.5	31.2	0.70	106.9	152.9	0.651	0.412	0.495	0.76	Liquefaction
CPT-4	18.63	10.8	36.9	1.49	135	2515	1353	43.9	52.7	4.18	2.5	32.5	0.73	120.6	164.5	0.651	0.494	0.593	0.91	Liquefaction
CPT-4	18.71	10.8	33.2	1.39	135	2526	1358	39.4	47.0	4.35	2.6	34.7	0.79	150.4	189.8	0.651	0.716	0.859	1.32	NonLiqfble.
CPT-4	18.79	10.8	28.1	1.2	135	2537	1364	33.3	39.3	4.47	2.6	37.8	0.80	133.2	166.4	0.651	0.509	0.611	0.94	NonLiqfble.
CPT-4	18.88	10.8	24.2	1	135	2549	1371	28.6	33.4	4.36	2.7	40.0	0.80	114.4	143.0	0.651	0.352	0.422	0.65	NonLiqfble.
CPT-4	18.96	10.8	21.3	0.87	135	2560	1376	25.1	29.1	4.35	2.7	42.3	0.80	100.5	125.6	0.651	0.264	0.317	0.49	NonLiqfble.
CPT-4	19.04	10.8	18.7	0.8	125	2380	1192	23.7	29.4	4.57	2.7	43.0	0.80	94.8	118.5	0.700	0.235	0.282	0.40	NonLiqfble.
CPT-4	19.13	10.8	18	0.75	125	2391	1198	22.8	28.1	4.46	2.8	43.4	0.80	91.0	113.8	0.700	0.217	0.260	0.37	NonLiqfble.
CPT-4	19.21	10.8	17	0.69	125	2401	1203	21.4	26.3	4.37	2.8	44.2	0.80	85.8	107.2	0.700	0.195	0.234	0.33	NonLiqfble.
CPT-4	19.3	10.8	16.2	0.64	125	2413	1208	20.4	24.8	4.27	2.8	44.9	0.80	81.6	102.0	0.700	0.179	0.214	0.31	NonLiqfble.
CPT-4	19.38	10.8	15.2	0.62	125	2423	1213	19.1	23.1	4.43	2.8	46.9	0.80	76.4	95.5	0.700	0.161	0.193	0.28	NonLiqfble.
CPT-4	19.47	10.8	15.4	0.62	125	2434	1219	19.3	23.3	4.37	2.8	46.5	0.80	77.2	96.5	0.700	0.164	0.196	0.28	NonLiqfble.
CPT-4	19.55	10.8	16	0.64	125	2444	1224	20.0	24.1	4.33	2.8	45.6	0.80	80.0	100.1	0.700	0.173	0.208	0.30	NonLiqfble.
CPT-4	19.65	10.8	16.6	0.68	125	2456	1230	20.7	25.0	4.42	2.8	45.3	0.80	82.8	103.5	0.700	0.183	0.220	0.31	NonLiqfble.
CPT-4	19.73	10.8	17.1	0.7	125	2466	1235	21.3	25.7	4.41	2.8	44.8	0.80	85.2	106.4	0.700	0.192	0.231	0.33	NonLiqfble.
CPT-4	19.82	10.8	18	0.7	125	2478	1241	22.4	27.0	4.18	2.7	43.0	0.80	89.4	111.8	0.700	0.210	0.252	0.36	NonLiqfble.
CPT-4	19.91	10.8	17.2	0.71	125	2489	1246	21.3	25.6	4.45	2.8	45.0	0.80	85.3	106.6	0.700	0.193	0.231	0.33	NonLiqfble.
CPT-4	20	10.8	19.1	0.75	125	2500	1252	23.6	28.5	4.20	2.7	42.1	0.80	94.5	118.1	0.685	0.233	0.280	0.41	NonLiqfble.
CPT-4	20.08	10.8	22	0.73	125	2510	1257	27.2	33.0	3.52	2.6	37.0	0.80	108.6	135.8	0.685	0.313	0.375	0.55	NonLiqfble.
CPT-4	20.17	10.8	19.6	0.69	125	2521	1263	24.1	29.0	3.76	2.7	40.1	0.80	96.5	120.7	0.685	0.243	0.292	0.43	NonLiqfble.
CPT-4	20.26	10.8	17.3	0.65	125	2533	1268	21.3	25.3	4.05	2.8	43.7	0.80	85.0	106.3	0.685	0.192	0.230	0.34	NonLiqfble.
CPT-4	20.35	10.8	14.4	0.61	125	2544	1274	17.7	20.6	4.65	2.9	49.9	0.80	70.6	88.3	0.685	0.144	0.173	0.25	NonLiqfble.
CPT-4	20.43	10.8	12.6	0.52	125	2554	1279	15.4	17.7	4.59	2.9	52.7	0.80	61.7	77.1	0.685	0.123	0.147	0.21	NonLiqfble.
CPT-4	20.54	10.8	11.4	0.44	115	2362	1080	15.2	18.9	4.31	2.9	50.3	0.80	60.7	75.9	0.750	0.121	0.145	0.19	NonLiqfble.
CPT-4	20.63	10.8	10.3	0.39	115	2372	1085	13.7	16.8	4.28	2.9	52.6	0.80	54.7	68.4	0.750	0.110	0.132	0.18	NonLiqfble.
CPT-4	20.71	10.8	9.2	0.35	115	2382	1089	12.2	14.7	4.37	3.0	55.9	0.80	48.8	61.0	0.750	0.101	0.121	0.16	NonLiqfble.
CPT-4	20.8	10.8	7.4	0.3	105	2184	886	10.9	14.2	4.76	3.0	58.1	0.80	43.5	54.4	0.846	0.095	0.114	0.13	NonLiqfble.
CPT-4	20.88	10.8	6.5	0.26	105	2192	889	9.5	12.1	4.81	3.1	62.0	0.80	38.1	47.7	0.846	0.090	0.108	0.13	NonLiqfble.
CPT-4	20.96	10.8	6.6	0.24	105	2201	893	9.7	12.3	4.36	3.0	59.9	0.80	38.7	48.3	0.846	0.090	0.109	0.13	NonLiqfble.
CPT-4	21.05	10.8	6.5	0.22	105	2210	897	9.5	12.0	4.08	3.0	59.2	0.80	38.0	47.5	0.846	0.090	0.108	0.13	NonLiqfble.
CPT-4	21.13	10.8	5.9	0.22	105	2219	900	8.6	10.6	4.59	3.1	64.3	0.80	34.4	43.0	0.846	0.087	0.105	0.12	NonLiqfble.
CPT-4	21.22	10.8	5.1	0.24	105	2228	904	7.4	8.8	6.02	3.2	74.6	0.80	29.7	37.1	0.846	0.085	0.102	0.12	NonLiqfble.
CPT-4	21.3	10.8	6.5	0.35	115	2450	1120	8.5	9.4	6.64	3.2	75.0	0.80	34.0	42.5	0.750	0.087	0.105	0.14	NonLiqfble.
CPT-4	21.39	10.8	8.3	0.49	115	2460	1125	10.8	12.6	6.93	3.1	68.5	0.80	43.3	54.1	0.750	0.095	0.114	0.15	NonLiqfble.
CPT-4	21.47	10.8	9.8	0.54	125	2684	1344	11.7	12.6	6.38	3.1	66.8	0.80	46.8	58.5	0.685	0.099	0.118	0.17	NonLiqfble.
CPT-4	21.56	10.8	10.2	0.6	125	2695	1350	12.1	13.1	6.78	3.1	67.0	0.80	48.6	60.7	0.685	0.101	0.121	0.18	NonLiqfble.
CPT-4	21.64	10.8	12.8	0.65	125	2705	1355	15.2	16.9	5.68	3.0	57.6	0.80	60.9	76.1	0.685	0.121	0.145	0.21	NonLiqfble.
CPT-4	21.72	10.8	14	0.66	125	2715	1360	16.6	18.6	5.22	2.9	54.0	0.80	66.4	83.1	0.685	0.133	0.160	0.23	NonLiqfble.
CPT-4	21.81	10.8	13	0.69	125	2726	1365	15.4	17.0	5.93	3.0	58.3	0.80	61.6	77.0	0.685	0.122	0.147	0.21	NonLiqfble.
CPT-4	21.89	10.8	12.9	0.76	125	2736	1370	15.2	16.8	6.59	3.0	60.7	0.80	61.0	76.2	0.685	0.121	0.145	0.21	NonLiqfble.
CPT-4	21.98	10.8	14.5	0.8	125	2748	1376	17.1	19.1	6.09	3.0	56.4	0.80	68.4	85.5	0.685	0.138	0.166	0.24	NonLiqfble.
CPT-4	22.06	10.8	14.6	0.83	125	2758	1381	17.2	19.1	6.28	3.0	56.9	0.80	68.8	86.0	0.685	0.139	0.167	0.24	NonLiqfble.
CPT-4	22.14	10.8	15.8	0.89	125	2768	1386	18.6	20.8	6.17	2.9	54.9	0.80	74.3	92.8	0.685	0.154	0.185	0.27	NonLiqfble.
CPT-4	22.23	10.8	15.1	0.91	125	2779	1392	17.7	19.7	6.64	3.0	57.4	0.80	70.8	88.6	0.685	0.145	0.173	0.25	NonLiqfble.
CPT-4	22.31	10.8	16.2	0.92	125	2789	1397	19.0	21.2	6.21	2.9	54.6	0.80	75.9	94.8	0.685	0.159	0.191	0.28	NonLiqfble.
CPT-4	22.4	10.8	17.3	0.92	125	2800	1402	20.2	22.7	5.79	2.9	51.9	0.80	80.9	101.1	0.685	0.176	0.211	0.31	NonLiqfble.
CPT-4	22.48	10.8	15.3	0.93	125	2810	1407	17.8	19.7	6.69	3.0	57.5	0.80	71.4	89.2	0.685	0.146	0.175	0.26	NonLiqfble.
CPT-4	22.56	10.8	15.3	0.93	125	2820	1412	17.8	19.7	6.70	3.0	57.6	0.80	71.3	89.1	0.685	0.146	0.175	0.26	NonLiqfble.
CPT-4	22.64	10.8	15.2	0.94	125	2830	1417	17.7	19.4	6.82	3.0	58.2	0.80	70.7	88.3	0.685	0.144	0.173	0.25	NonLiqfble.
CPT-4	22.73	10.8	15.4	0.92	125	2841	1423	17.9	19.6	6.58	3.0	57.3	0.80	71.5	89.3	0.685	0.146	0.176	0.26	NonLiqfble.
CPT-4	22.81	10.8	14.4	0.9	125	2851	1428	16.7	18.2	6.94	3.0	60.0	0.80	66.7	83.4	0.685	0.134	0.161	0.23	NonLiqfble.
CPT-4	22.91	10.8	13.8	0.85	125	2864	1434	15.9	17.2	6.87	3.0	61.0	0.80	63.8	79.7	0.685	0.127	0.153	0.22	NonLiqfble.
CPT-4	23	10.8	14	0.79	125	2875	1440	16.1	17.4	6.29	3.0	58.9	0.80	64.6	80.7	0.685	0.129	0.155	0.23	NonLiqfble.
CPT-4	23.1	10.8	14.3	0.76	125	2888	1446	16.5	17.8	5.91	3.0	57.3	0.80	65.8	82.3	0.685	0.132	0.158	0.23	NonLiqfble.
CPT-4	23.2	10.8	14.4	0.77	125	2900	1452	16.5	17.8	5.95	3.0	57.4	0.80	66.1	82.7	0.685	0.133	0.159	0.23	NonLiqfble.
CPT-4	23.29	10.8	14.1	0.8	125	2911	1458	16.2	17.3	6.33	3.0	59.2	0.80	64.6	80.8	0.685	0.129	0.155	0.23	NonLiqfble.
CPT-4	23.39	10.8	14	0.81	125	2924	1464	16.0	17.1	6.46	3.0	59.9	0.80	64.0	80.0	0.685	0.128	0.153	0.22	NonLiqfble.
CPT-4	23.48	10.8	14	0.83	125	2935	1470	16.0	17.0	6.62	3.0	60.5	0.80	63.9	79.9	0.685	0.127	0.153	0.22	NonLiqfble.
CPT-4	23.58	10.8	13.3	0.83	125	2948	1476	15.1	16.0	7.02	3.1	63.1	0.80	60.6	75.7	0.685	0.120	0.144	0.21	NonLiqfble.
CPT-4	23.67	10.8	13.1	0.78	125	2959	1482	14.9	15.7	6.71	3.1	62.6	0.80	59.6	74.5	0.685	0.118	0.142	0.21	

Project Name:	199 River Oaks Parkway
Project Number:	7862.3.001.01
Date:	20-Jul-07
CPT Number:	CPT-4
Depth to Groundwater:	10.8 ft

EQ Magnitude (M _w):	7.1
PGA (g):	0.55
MSF:	1.20

Cone	Depth (FT)	Water Table (FT)	Tip Resist. (TSF)	Sleeve Frict. (TSF)	γ (PCF)	Total Stress (PSF)	Effective Stress (PSF)	Norm. Tip Q _{tip}	Corr. Tip Q	Friction Ratio F	I _c	F.C. (%)	K _{CR1}	ΔQ _{tip}	(Q _{tip}) ^{0.5}	Induced Stress Ratio	Liquef. Stress M7.5	Liquef. Stress M7.10	Factor of Safety	Comments
CPT-4	24.59	10.8	15.7	0.73	125	3074	1539	17.5	18.4	5.15	2.9	54.0	0.80	70.0	87.5	0.685	0.142	0.171	0.25	NonLiqfble.
CPT-4	24.69	10.8	18.5	0.82	125	3086	1546	20.6	21.9	4.84	2.9	49.3	0.80	82.4	102.9	0.685	0.181	0.218	0.32	NonLiqfble.
CPT-4	24.78	10.8	18.2	1.03	135	3345	1799	18.8	18.4	6.23	3.0	57.6	0.80	75.1	93.9	0.638	0.157	0.188	0.30	NonLiqfble.
CPT-4	24.88	10.8	19	1.12	135	3359	1806	19.6	19.2	6.47	3.0	57.5	0.80	78.2	97.8	0.638	0.167	0.200	0.31	NonLiqfble.
CPT-4	24.94	10.8	16.3	1.17	135	3367	1811	16.8	16.1	8.01	3.1	65.7	0.80	67.0	83.8	0.638	0.135	0.162	0.25	NonLiqfble.
CPT-4	25.05	10.8	22.5	1.26	135	3382	1819	23.1	22.9	6.06	2.9	52.6	0.80	92.3	115.4	0.638	0.223	0.268	0.42	NonLiqfble.
CPT-4	25.14	10.8	23.1	1.29	135	3394	1825	23.7	23.4	6.03	2.9	52.0	0.80	94.6	118.3	0.638	0.234	0.281	0.44	NonLiqfble.
CPT-4	25.24	10.8	24.4	1.32	135	3407	1832	24.9	24.8	5.82	2.9	50.3	0.80	99.8	124.7	0.638	0.260	0.312	0.49	NonLiqfble.
CPT-4	25.33	10.8	25.4	1.4	135	3420	1839	25.9	25.8	5.91	2.9	49.8	0.80	103.7	129.6	0.638	0.282	0.339	0.53	NonLiqfble.
CPT-4	25.42	10.8	26.7	1.49	135	3432	1845	27.2	27.1	5.96	2.9	49.1	0.80	108.8	136.0	0.638	0.314	0.377	0.59	NonLiqfble.
CPT-4	25.51	10.8	27.1	1.54	135	3444	1852	27.6	27.4	6.07	2.9	49.1	0.80	110.2	137.8	0.638	0.323	0.388	0.61	NonLiqfble.
CPT-4	25.61	10.8	25.1	1.49	135	3457	1859	25.5	25.1	6.38	2.9	51.7	0.80	101.9	127.3	0.638	0.272	0.326	0.51	NonLiqfble.
CPT-4	25.7	10.8	23.7	1.6	135	3470	1866	24.0	23.5	7.28	3.0	55.6	0.80	96.0	120.0	0.638	0.241	0.289	0.45	NonLiqfble.
CPT-4	25.8	10.8	23.7	1.82	135	3483	1873	24.0	23.4	8.29	3.0	58.3	0.80	95.8	119.8	0.638	0.240	0.288	0.45	NonLiqfble.
CPT-4	25.89	10.8	26.8	1.9	135	3495	1880	27.0	26.6	7.58	2.9	53.9	0.80	108.2	135.2	0.638	0.310	0.372	0.58	NonLiqfble.
CPT-4	25.98	10.8	36.5	1.81	135	3507	1886	36.8	36.8	5.21	2.7	41.3	0.80	147.1	183.9	0.638	0.658	0.790	1.24	NonLiqfble.
CPT-4	26.07	10.8	50.4	1.64	135	3519	1893	50.7	51.4	3.37	2.5	29.8	0.66	99.3	150.0	0.638	0.394	0.472	0.74	Liquefaction
CPT-4	26.16	10.8	58.7	1.52	135	3532	1899	58.9	59.9	2.67	2.4	24.9	0.53	66.5	125.4	0.638	0.264	0.316	0.50	Liquefaction
CPT-4	26.25	10.8	64.8	1.5	135	3544	1906	64.9	66.1	2.38	2.3	22.4	0.46	56.1	121.1	0.638	0.245	0.294	0.46	Liquefaction
CPT-4	26.34	10.8	70.8	1.62	135	3556	1912	70.8	72.2	2.35	2.3	21.2	0.43	54.1	125.0	0.638	0.262	0.314	0.49	Liquefaction
CPT-4	26.43	10.8	73.5	1.85	135	3568	1919	73.4	74.7	2.58	2.3	21.9	0.45	60.3	133.7	0.638	0.302	0.363	0.57	Liquefaction
CPT-4	26.52	10.8	76	2.12	135	3580	1925	75.8	77.1	2.86	2.3	22.7	0.47	68.1	143.9	0.638	0.357	0.428	0.67	Liquefaction
CPT-4	26.61	10.8	78.7	2.3	135	3592	1932	78.3	79.6	2.99	2.3	22.9	0.48	71.8	150.1	0.638	0.395	0.474	0.74	Liquefaction
CPT-4	26.7	10.8	81.5	2.42	135	3605	1938	81.0	82.2	3.04	2.3	22.7	0.47	72.9	153.8	0.638	0.419	0.502	0.79	Liquefaction
CPT-4	26.79	10.8	85.9	2.53	135	3617	1945	85.2	86.4	3.01	2.3	22.1	0.46	71.5	156.7	0.638	0.438	0.525	0.82	Liquefaction
CPT-4	26.88	10.8	89.9	2.67	135	3629	1951	89.0	90.2	3.03	2.3	21.7	0.45	71.8	160.8	0.638	0.467	0.560	0.88	Liquefaction
CPT-4	26.97	10.8	93.3	2.73	135	3641	1958	92.3	93.4	2.98	2.3	21.2	0.43	70.1	162.4	0.638	0.478	0.574	0.90	Liquefaction
CPT-4	27.05	10.8	94.9	2.71	135	3652	1964	93.7	94.7	2.91	2.3	20.7	0.42	68.0	161.7	0.638	0.473	0.568	0.89	Liquefaction
CPT-4	27.14	10.8	94.7	2.69	135	3664	1970	93.3	94.2	2.90	2.3	20.7	0.42	67.7	161.0	0.638	0.468	0.562	0.88	Liquefaction
CPT-4	27.23	10.8	94	2.6	135	3676	1977	92.5	93.2	2.82	2.2	20.6	0.42	65.7	158.2	0.638	0.448	0.538	0.84	Liquefaction
CPT-4	27.31	10.8	93.3	2.53	135	3687	1983	91.7	92.2	2.77	2.2	20.4	0.41	64.3	156.0	0.638	0.433	0.520	0.81	Liquefaction
CPT-4	27.4	10.8	95.1	2.52	135	3699	1989	93.3	93.7	2.70	2.2	20.0	0.40	62.4	155.7	0.638	0.431	0.517	0.81	Liquefaction
CPT-4	27.49	10.8	97.4	2.61	135	3711	1996	95.4	95.7	2.73	2.2	19.9	0.40	63.2	158.6	0.638	0.451	0.541	0.85	Liquefaction
CPT-4	27.57	10.8	97.3	2.83	135	3722	2002	95.2	95.3	2.97	2.3	20.9	0.42	70.2	165.3	0.638	0.500	0.600	0.94	Liquefaction
CPT-4	27.66	10.8	95.1	3	135	3734	2008	92.9	92.8	3.22	2.3	22.1	0.46	78.3	171.1	0.638	0.546	0.655	1.03	Low F.S.
CPT-4	27.74	10.8	91.2	3.08	135	3745	2014	88.9	88.7	3.45	2.3	23.5	0.49	86.5	175.4	0.638	0.582	0.698	1.09	Low F.S.
CPT-4	27.83	10.8	86.3	3.09	135	3757	2020	84.0	83.5	3.66	2.4	24.9	0.53	95.0	179.0	0.638	0.613	0.736	1.15	Low F.S.
CPT-4	27.91	10.8	81.9	2.77	135	3768	2026	79.6	78.9	3.46	2.4	24.8	0.53	89.3	168.9	0.638	0.528	0.634	0.99	Liquefaction
CPT-4	28	10.8	78.3	2.52	135	3780	2033	76.0	75.1	3.30	2.4	24.8	0.53	84.8	160.8	0.638	0.467	0.560	0.88	Liquefaction
CPT-4	28.08	10.8	76.1	2.49	135	3791	2039	73.7	72.8	3.36	2.4	25.3	0.54	87.7	161.4	0.638	0.471	0.566	0.89	Liquefaction
CPT-4	28.16	10.8	77.5	2.4	135	3802	2044	75.0	73.9	3.17	2.4	24.5	0.52	81.2	156.2	0.638	0.434	0.521	0.82	Liquefaction
CPT-4	28.24	10.8	77.7	2.37	135	3812	2050	75.1	73.9	3.13	2.3	24.3	0.51	79.7	154.8	0.638	0.425	0.510	0.80	Liquefaction
CPT-4	28.32	10.8	79.8	2.42	135	3823	2056	77.0	75.7	3.11	2.3	23.9	0.51	78.6	155.7	0.638	0.431	0.517	0.81	Liquefaction
CPT-4	28.41	10.8	81.7	2.5	135	3835	2063	78.7	77.3	3.13	2.3	23.8	0.50	79.3	158.0	0.638	0.447	0.536	0.84	Liquefaction
CPT-4	28.49	10.8	83.6	2.61	135	3846	2068	80.4	78.9	3.20	2.3	23.8	0.50	81.1	161.5	0.638	0.472	0.566	0.89	Liquefaction
CPT-4	28.57	10.8	85.3	2.75	135	3857	2074	81.9	80.4	3.30	2.3	24.0	0.51	84.3	166.3	0.638	0.508	0.609	0.95	Liquefaction
CPT-4	28.66	10.8	85.9	2.84	135	3869	2081	82.4	80.7	3.38	2.3	24.3	0.51	87.3	169.7	0.638	0.534	0.641	1.00	Low F.S.
CPT-4	28.75	10.8	83.2	2.9	135	3881	2087	79.7	77.8	3.57	2.4	25.4	0.54	94.8	174.5	0.638	0.574	0.689	1.08	Low F.S.
CPT-4	28.83	10.8	80.8	2.92	135	3892	2093	77.3	75.3	3.70	2.4	26.2	0.57	101.0	178.2	0.638	0.607	0.728	1.14	Low F.S.
CPT-4	28.92	10.8	77.6	2.9	135	3904	2100	74.1	72.0	3.83	2.4	27.2	0.59	107.9	182.0	0.638	0.641	0.769	1.20	Low F.S.
CPT-4	29	10.8	71	2.82	135	3915	2105	67.7	65.6	4.08	2.5	29.2	0.65	124.1	191.8	0.638	0.737	0.884	1.38	NonLiqfble.
CPT-4	29.08	10.8	61	2.61	135	3926	2111	58.1	55.9	4.42	2.5	32.5	0.73	159.7	217.8	0.638	1.041	1.249	1.96	NonLiqfble.
CPT-4	29.17	10.8	45	2.27	135	3938	2118	42.8	40.6	5.28	2.7	39.9	0.80	171.1	213.9	0.638	0.990	1.189	1.86	NonLiqfble.
CPT-4	29.26	10.8	30.3	1.78	135	3950	2124	28.8	26.7	6.28	2.9	50.3	0.80	115.1	143.8	0.638	0.357	0.428	0.67	NonLiqfble.
CPT-4	29.34	10.8	21.6	1.34	135	3961	2130	20.5	18.4	6.83	3.0	59.4	0.80	81.9	102.4	0.638	0.180	0.216	0.34	NonLiqfble.
CPT-4	29.43	10.8	15.4	1	125	3679	1842	15.7	14.7	7.37	3.1	66.1	0.80	62.8	78.5	0.685	0.125	0.150	0.22	NonLiqfble.
CPT-4	29.52	10.8	13.3	0.81	125	3690	1848	13.5	12.4	7.07	3.2	69.3	0.80	54.1	67.7	0.685	0.109	0.131	0.19	NonLiqfble.
CPT-4	29.61	10.8	12.5	0.64	125	3701	1854	12.7	11.5	6.01	3.1	67.7	0.80	50.8	63.5	0.685	0.104	0.125	0.18	NonLiqfble.
CPT-4	29.69	10.8	11.2	0.55	125	3711	1859	11.4	10.1	5.89	3.2	70.7	0.80	45.5	56.8	0.685	0.097	0.116	0.17	NonLiqfble.
CPT-4	29.78	10.8	10.2	0.51	125	3723	1864	10.3	8.9	6.12	3.2	74.6	0.80	41.3	51.7	0.685	0.093	0.111	0.16	NonLiqfble.
CPT-4	29.87	10.8	9	0.49	115	3435	1571	9.9	9.3	6.73										

Project Name:	199 River Oaks Parkway
Project Number:	7862.3.001.01
Date:	20-Jul-07
CPT Number:	CPT-4
Depth to Groundwater:	10.8 ft

EQ Magnitude (M _w):	7.1
PGA (g):	0.55
MSF:	1.20

Cone	Depth (FT)	Water Table (FT)	Tip Resist. (TSF)	Sleeve Frict. (TSF)	γ (PCF)	Total Stress (PSF)	Effective Stress (PSF)	Norm. Tip Q _{tip}	Corr. Tip Q	Friction Ratio F	Ic	F.C. (%)	K _{corr}	Δq _{tip}	(q _{tip}) ^{0.5}	Induced Stress Ratio	Liquef. Stress M7.5	Liquef. Stress M7.10	Factor of Safety	Comments
CPT-4	30.67	10.8	8.5	0.48	115	3527	1613	9.3	8.3	7.13	3.3	79.8	0.80	37.0	46.3	0.719	0.089	0.107	0.15	NonLiqfble.
CPT-4	30.76	10.8	8.6	0.48	115	3537	1618	9.4	8.4	7.03	3.3	79.2	0.80	37.4	46.8	0.719	0.090	0.107	0.15	NonLiqfble.
CPT-4	30.85	10.8	8.5	0.48	115	3548	1623	9.2	8.3	7.14	3.3	80.1	0.80	36.9	46.2	0.719	0.089	0.107	0.15	NonLiqfble.
CPT-4	30.94	10.8	9.9	0.51	125	3868	1937	9.8	8.2	6.40	3.3	77.9	0.80	39.4	49.2	0.657	0.091	0.109	0.17	NonLiqfble.
CPT-4	31.03	10.8	10.4	0.52	125	3879	1942	10.3	8.7	6.15	3.2	75.4	0.80	41.3	51.6	0.657	0.093	0.111	0.17	NonLiqfble.
CPT-4	31.12	10.8	10	0.54	125	3890	1948	9.9	8.3	6.70	3.3	78.7	0.80	39.7	49.6	0.657	0.091	0.110	0.17	NonLiqfble.
CPT-4	31.22	10.8	9.8	0.59	125	3903	1954	9.7	8.0	7.52	3.3	82.1	0.80	38.8	48.5	0.657	0.091	0.109	0.17	NonLiqfble.
CPT-4	31.31	10.8	10.8	0.63	125	3914	1960	10.7	9.0	7.12	3.3	77.7	0.80	42.7	53.4	0.657	0.094	0.113	0.17	NonLiqfble.
CPT-4	31.4	10.8	11.7	0.69	125	3925	1966	11.5	9.9	7.09	3.2	75.1	0.80	46.2	57.7	0.657	0.098	0.117	0.18	NonLiqfble.
CPT-4	31.49	10.8	11.7	0.69	125	3936	1971	11.5	9.9	7.09	3.2	75.2	0.80	46.1	57.6	0.657	0.098	0.117	0.18	NonLiqfble.
CPT-4	31.56	10.8	13.1	0.68	125	3945	1976	12.9	11.3	6.11	3.1	68.6	0.80	51.6	64.5	0.657	0.105	0.126	0.19	NonLiqfble.
CPT-4	31.65	10.8	12.7	0.68	125	3956	1981	12.5	10.8	6.34	3.2	70.4	0.80	49.9	62.4	0.657	0.103	0.123	0.19	NonLiqfble.
CPT-4	31.75	10.8	12.5	0.71	125	3969	1988	12.3	10.6	6.75	3.2	72.3	0.80	49.1	61.3	0.657	0.101	0.122	0.19	NonLiqfble.
CPT-4	31.84	10.8	12.7	0.77	125	3980	1993	12.4	10.7	7.19	3.2	73.3	0.80	49.8	62.2	0.657	0.102	0.123	0.19	NonLiqfble.
CPT-4	31.94	10.8	13.9	0.94	125	3993	1999	13.6	11.9	7.90	3.2	72.7	0.80	54.4	68.0	0.657	0.109	0.131	0.20	NonLiqfble.
CPT-4	32.03	10.8	18	1.17	135	4324	2325	16.3	13.6	7.39	3.1	67.9	0.80	65.3	81.7	0.612	0.131	0.157	0.26	NonLiqfble.
CPT-4	32.12	10.8	24.1	1.45	135	4336	2332	21.8	18.8	6.61	3.0	58.3	0.80	87.3	109.2	0.612	0.201	0.241	0.39	NonLiqfble.
CPT-4	32.22	10.8	29.1	1.63	135	4350	2339	26.3	23.0	6.05	2.9	52.5	0.80	105.3	131.6	0.612	0.292	0.351	0.57	NonLiqfble.
CPT-4	32.31	10.8	29.9	1.71	135	4362	2346	27.0	23.6	6.17	2.9	52.3	0.80	108.0	135.1	0.612	0.309	0.371	0.61	NonLiqfble.
CPT-4	32.4	10.8	27.2	1.67	135	4374	2352	24.5	21.3	6.68	3.0	55.9	0.80	98.2	122.7	0.612	0.252	0.302	0.49	NonLiqfble.
CPT-4	32.49	10.8	24.5	1.53	135	4386	2359	22.1	18.9	6.86	3.0	58.9	0.80	88.3	110.4	0.612	0.205	0.246	0.40	NonLiqfble.
CPT-4	32.58	10.8	23.7	1.32	135	4398	2365	21.3	18.2	6.14	3.0	57.6	0.80	85.3	106.6	0.612	0.193	0.231	0.38	NonLiqfble.
CPT-4	32.68	10.8	21.4	1.17	135	4412	2373	19.2	16.2	6.10	3.0	60.0	0.80	76.9	96.1	0.612	0.163	0.195	0.32	NonLiqfble.
CPT-4	32.77	10.8	18.4	1.14	135	4424	2379	16.5	13.6	7.04	3.1	66.9	0.80	66.0	82.5	0.612	0.132	0.159	0.26	NonLiqfble.
CPT-4	32.87	10.8	15.4	1.11	135	4437	2386	13.8	11.0	8.42	3.2	76.1	0.80	55.2	69.0	0.612	0.111	0.133	0.22	NonLiqfble.
CPT-4	32.96	10.8	18	1.07	135	4450	2393	16.1	13.2	6.78	3.1	66.9	0.80	64.4	80.5	0.612	0.129	0.154	0.25	NonLiqfble.
CPT-4	33.05	10.8	24.5	1.15	135	4462	2399	21.9	18.6	5.16	2.9	53.9	0.80	87.5	109.4	0.612	0.202	0.242	0.40	NonLiqfble.
CPT-4	33.14	10.8	24.2	1.15	135	4474	2406	21.6	18.2	5.24	2.9	54.5	0.80	86.3	107.9	0.612	0.197	0.236	0.39	NonLiqfble.
CPT-4	33.24	10.8	20.5	1.07	135	4487	2413	18.3	15.1	5.86	3.0	60.7	0.80	73.0	91.3	0.612	0.151	0.181	0.30	NonLiqfble.
CPT-4	33.32	10.8	16.8	0.95	125	4165	2086	16.1	14.1	6.46	3.1	64.3	0.80	64.4	80.5	0.657	0.128	0.154	0.23	NonLiqfble.
CPT-4	33.42	10.8	13.9	0.77	125	4178	2092	13.3	11.3	6.52	3.2	69.9	0.80	53.2	66.5	0.657	0.107	0.129	0.20	NonLiqfble.
CPT-4	33.51	10.8	12.9	0.7	125	4189	2098	12.3	10.3	6.48	3.2	72.1	0.80	49.3	61.6	0.657	0.102	0.122	0.19	NonLiqfble.
CPT-4	33.6	10.8	12.9	0.7	125	4200	2103	12.3	10.3	6.48	3.2	72.2	0.80	49.2	61.5	0.657	0.102	0.122	0.19	NonLiqfble.
CPT-4	33.69	10.8	11.9	0.72	125	4211	2109	11.3	9.3	7.35	3.3	77.6	0.80	45.4	56.7	0.657	0.097	0.116	0.18	NonLiqfble.
CPT-4	33.78	10.8	12.9	0.78	125	4223	2115	12.3	10.2	7.23	3.2	74.7	0.80	49.1	61.4	0.657	0.101	0.122	0.19	NonLiqfble.
CPT-4	33.87	10.8	12.7	0.82	125	4234	2120	12.1	10.0	7.75	3.2	76.9	0.80	48.3	60.3	0.657	0.100	0.121	0.18	NonLiqfble.
CPT-4	33.97	10.8	13.1	0.85	125	4246	2127	12.4	10.3	7.74	3.2	76.0	0.80	49.7	62.1	0.657	0.102	0.123	0.19	NonLiqfble.
CPT-4	34.05	10.8	13.5	0.91	125	4256	2132	12.8	10.7	8.00	3.2	75.8	0.80	51.2	64.0	0.657	0.104	0.125	0.19	NonLiqfble.
CPT-4	34.14	10.8	15.2	1.02	125	4268	2137	14.4	12.2	7.81	3.2	71.8	0.80	57.5	71.9	0.657	0.115	0.138	0.21	NonLiqfble.
CPT-4	34.24	10.8	16.5	1.22	135	4622	2486	14.5	11.4	8.60	3.2	75.7	0.80	57.9	72.4	0.612	0.115	0.138	0.23	NonLiqfble.
CPT-4	34.33	10.8	18.7	1.47	135	4635	2492	16.4	13.1	8.97	3.2	73.1	0.80	65.6	81.9	0.612	0.131	0.157	0.26	NonLiqfble.
CPT-4	34.42	10.8	29.5	1.6	135	4647	2499	25.8	21.7	5.89	2.9	53.1	0.80	103.3	129.1	0.612	0.280	0.336	0.55	NonLiqfble.
CPT-4	34.51	10.8	40.3	1.59	135	4659	2505	35.2	30.3	4.19	2.7	41.0	0.80	140.9	176.1	0.612	0.588	0.706	1.15	NonLiqfble.
CPT-4	34.6	10.8	34.1	1.66	135	4671	2512	29.8	25.3	5.23	2.8	48.0	0.80	119.1	148.8	0.612	0.387	0.464	0.76	NonLiqfble.
CPT-4	34.68	10.8	26	1.45	135	4682	2518	22.7	18.8	6.13	3.0	56.8	0.80	90.7	113.4	0.612	0.215	0.259	0.42	NonLiqfble.
CPT-4	34.79	10.8	28	1.15	135	4697	2526	24.4	20.3	4.48	2.9	49.5	0.80	97.5	121.9	0.612	0.248	0.298	0.49	NonLiqfble.
CPT-4	34.88	10.8	25.6	1.13	135	4709	2532	22.3	18.4	4.86	2.9	53.0	0.80	89.0	111.3	0.612	0.208	0.250	0.41	NonLiqfble.
CPT-4	34.98	10.8	21.5	1.11	135	4722	2540	18.7	15.1	5.80	3.0	60.6	0.80	74.7	93.3	0.612	0.156	0.187	0.31	NonLiqfble.
CPT-4	35.07	10.8	21.9	1.19	135	4734	2546	19.0	15.3	6.09	3.0	61.2	0.80	76.0	94.9	0.612	0.160	0.192	0.31	NonLiqfble.
CPT-4	35.16	10.8	25.4	1.37	135	4747	2553	22.0	18.0	5.95	3.0	57.1	0.80	88.0	110.0	0.612	0.204	0.244	0.40	NonLiqfble.
CPT-4	35.25	10.8	28.2	1.39	135	4759	2559	24.4	20.2	5.38	2.9	52.9	0.80	97.6	122.0	0.612	0.249	0.298	0.49	NonLiqfble.
CPT-4	35.34	10.8	37.2	1.45	135	4771	2566	32.1	27.1	4.17	2.7	42.9	0.80	128.5	160.7	0.612	0.466	0.559	0.91	NonLiqfble.
CPT-4	35.43	10.8	43.5	1.57	135	4783	2572	37.5	31.9	3.82	2.7	38.7	0.80	150.1	187.6	0.612	0.694	0.833	1.36	NonLiqfble.
CPT-4	35.52	10.8	44.3	1.58	135	4795	2579	38.2	32.5	3.77	2.7	38.2	0.80	152.7	190.8	0.612	0.726	0.872	1.43	NonLiqfble.
CPT-4	35.61	10.8	42.9	1.59	135	4807	2585	36.9	31.3	3.93	2.7	39.5	0.80	147.7	184.6	0.612	0.665	0.798	1.30	NonLiqfble.
CPT-4	35.71	10.8	36.8	1.69	135	4821	2593	31.6	26.5	4.91	2.8	46.0	0.80	126.5	158.1	0.612	0.448	0.537	0.88	NonLiqfble.
CPT-4	35.79	10.8	34.7	1.89	135	4832	2598	29.8	24.8	5.85	2.9	50.3	0.80	119.1	148.9	0.612	0.387	0.465	0.76	NonLiqfble.
CPT-4	35.88	10.8	32.2	2.21	135	4844	2605	27.6	22.9	7.42	3.0	56.6	0.80	110.4	138.0	0.612	0.325	0.389	0.64	NonLiqfble.
CPT-4	35.98	10.8	42.8	2.48	135	4857	2612	36.6	30.9	6.14	2.8	47.2	0.80	146.6	183.2	0.612	0.652	0.782	1.28	NonLiqfble.
CPT-4	36.07	10.8	54.9	2.59	135	4869	2619	46.9	40.1	4.94	2.7	39.1	0.80	187.8	234.7	0.612	1.282	1.539	2.52	NonLiqfble.
CPT-4	36.15	10.8																		

Project Name: 199 River Oaks Parkway
Project Number: 7862.3.001.01
Date: 20-Jul-07
CPT Number: CPT-4
Depth to Groundwater: 10.8 ft

EQ Magnitude (M_w): 7.1
PGA (g): 0.55
MSF: 1.20

Cone	Depth (FT)	Water Table (FT)	Tip Resist. (TSF)	Sleeve Frict. (TSF)	γ (PCF)	Total Stress (PSF)	Effective Stress (PSF)	Norm. Tip Q _{tip}	Corr. Tip Q	Friction Ratio F	Ic	F.C. (%)	K _{CPT}	ΔQ _{tip}	(Q _{tip}) _{ns}	Induced Stress Ratio	Liquef. Stress M7.5	Liquef. Stress M7.10	Factor of Safety	Comments
CPT-4	36.93	10.8	88	2.41	135	4986	2681	74.4	63.8	2.82	2.4	24.8	0.53	83.0	157.3	0.612	0.442	0.531	0.87	Liquefaction
CPT-4	37.04	10.8	77.6	1.92	135	5000	2689	65.5	55.8	2.56	2.4	25.2	0.54	76.8	142.3	0.612	0.348	0.417	0.68	Liquefaction
CPT-4	37.13	10.8	65.4	1.71	135	5013	2696	55.1	46.6	2.72	2.4	28.3	0.62	90.9	146.0	0.612	0.369	0.443	0.72	Liquefaction
CPT-4	37.22	10.8	54.1	1.77	135	5025	2702	45.5	38.2	3.43	2.6	34.3	0.78	163.8	209.3	0.612	0.933	1.119	1.83	NonLiqfble.
CPT-4	37.3	10.8	43.8	1.8	135	5036	2708	36.8	30.5	4.36	2.7	41.6	0.80	147.3	184.1	0.612	0.661	0.793	1.30	NonLiqfble.
CPT-4	37.39	10.8	31.6	1.86	135	5048	2715	26.5	21.4	6.40	2.9	54.9	0.80	106.1	132.7	0.612	0.297	0.357	0.58	NonLiqfble.
CPT-4	37.48	10.8	22.9	1.68	135	5060	2721	19.2	15.0	8.25	3.1	68.1	0.80	76.8	96.0	0.612	0.162	0.195	0.32	NonLiqfble.
CPT-4	37.56	10.8	22	1.61	135	5071	2727	18.4	14.3	8.27	3.2	69.3	0.80	73.7	92.2	0.612	0.153	0.183	0.30	NonLiqfble.
CPT-4	37.65	10.8	21.1	1.58	135	5083	2733	17.7	13.6	8.51	3.2	71.1	0.80	70.6	88.3	0.612	0.144	0.173	0.28	NonLiqfble.
CPT-4	37.73	10.8	21.8	1.54	135	5094	2739	23.5	18.6	6.03	3.0	56.7	0.80	94.0	117.5	0.612	0.231	0.277	0.45	NonLiqfble.
CPT-4	37.82	10.8	28.8	1.46	135	5106	2746	24.0	19.1	5.56	2.9	54.6	0.80	96.2	120.2	0.612	0.242	0.290	0.47	NonLiqfble.
CPT-4	37.9	10.8	20.2	1.29	135	5117	2752	16.8	12.8	7.31	3.2	69.2	0.80	67.4	84.2	0.612	0.136	0.163	0.27	NonLiqfble.
CPT-4	37.99	10.8	25	1.36	135	5129	2758	20.8	16.3	6.06	3.0	59.8	0.80	83.3	104.1	0.612	0.185	0.222	0.36	NonLiqfble.
CPT-4	38.03	10.8	29	1.44	135	5134	2761	24.1	19.1	5.45	2.9	54.2	0.80	96.6	120.7	0.612	0.244	0.292	0.48	NonLiqfble.
CPT-4	38.1	10.8	30.3	1.54	135	5144	2766	25.2	20.0	5.55	2.9	53.6	0.80	100.8	126.0	0.612	0.266	0.319	0.52	NonLiqfble.
CPT-4	38.19	10.8	39.8	1.78	135	5156	2773	33.1	26.8	4.78	2.8	45.3	0.80	132.3	165.4	0.612	0.500	0.601	0.98	NonLiqfble.
CPT-4	38.28	10.8	72.5	1.91	135	5168	2779	60.2	50.3	2.73	2.4	27.4	0.60	89.2	149.3	0.612	0.390	0.468	0.76	Liquefaction
CPT-4	38.36	10.8	110.6	1.9	135	5179	2785	91.7	77.5	1.76	2.2	17.5	0.33	46.1	137.8	0.612	0.323	0.388	0.63	Liquefaction
CPT-4	38.44	10.8	139.9	1.89	135	5189	2791	115.9	98.4	1.38	2.0	13.1	0.22	32.2	148.1	0.612	0.382	0.458	0.75	Liquefaction
CPT-4	38.53	10.8	161	1.97	135	5202	2797	133.2	113.2	1.24	1.9	11.2	0.17	26.4	159.5	0.612	0.458	0.549	0.90	Liquefaction
CPT-4	38.61	10.8	200	2.33	125	4826	2417	178.0	163.4	1.18	1.8	8.2	0.08	16.4	194.4	0.657	0.764	0.916	1.40	NonLiqfble.
CPT-4	38.69	10.8	215.9	2.44	125	4836	2422	191.9	176.2	1.14	1.8	7.5	0.07	13.6	205.6	0.657	0.888	1.066	1.62	NonLiqfble.
CPT-4	38.77	10.8	237.8	2.39	125	4846	2427	211.2	193.9	1.02	1.7	6.2	0.03	6.9	218.1	0.657	1.045	1.254	1.91	NonLiqfble.
CPT-4	38.85	10.8	247.7	2.27	125	4856	2432	219.8	201.6	0.93	1.7	5.4	0.01	2.6	222.4	0.657	1.103	1.323	2.02	NonLiqfble.
CPT-4	38.93	10.8	255.6	1.87	115	4477	2048	247.1	247.4	0.74	1.5	3.3	0.00	0.0	247.1	0.719	1.484	1.781	2.48	NonLiqfble.
CPT-4	39.01	10.8	260.5	1.55	115	4486	2052	251.6	251.6	0.60	1.5	2.3	0.00	0.0	251.6	0.719	1.562	1.874	2.61	NonLiqfble.
CPT-4	39.09	10.8	264.8	1.41	115	4495	2056	255.5	255.3	0.54	1.4	1.8	0.00	0.0	255.5	0.719	1.631	1.958	2.72	NonLiqfble.
CPT-4	39.17	10.8	270.3	2.03	115	4505	2060	260.6	260.1	0.76	1.5	3.2	0.00	0.0	260.6	0.719	1.725	2.070	2.88	NonLiqfble.
CPT-4	39.26	10.8	286.9	2.6	125	4908	2458	253.2	231.4	0.91	1.6	4.7	0.00	0.0	253.2	0.657	1.590	1.908	2.90	NonLiqfble.
CPT-4	39.34	10.8	305.2	2.75	125	4918	2463	269.1	245.8	0.91	1.6	4.3	0.00	0.0	269.1	0.657	1.892	2.270	3.46	NonLiqfble.
CPT-4	39.42	10.8	308.5	3.01	125	4928	2468	271.7	247.9	0.98	1.6	4.7	0.00	0.0	271.7	0.657	1.946	2.335	3.56	NonLiqfble.
CPT-4	39.5	10.8	288.6	3.09	125	4938	2473	253.9	231.3	1.08	1.7	5.6	0.02	4.1	258.0	0.657	1.677	2.013	3.06	NonLiqfble.
CPT-4	39.58	10.8	295.9	2.85	125	4948	2478	260.1	236.8	0.97	1.6	4.9	0.00	0.0	260.1	0.657	1.716	2.060	3.14	NonLiqfble.
CPT-4	39.66	10.8	296.3	2.4	125	4958	2483	260.2	236.6	0.82	1.6	4.0	0.00	0.0	260.2	0.657	1.718	2.062	3.14	NonLiqfble.
CPT-4	39.74	10.8	301.8	2.13	115	4570	2090	288.8	286.5	0.71	1.5	2.5	0.00	0.0	288.8	0.719	2.321	2.785	3.87	NonLiqfble.
CPT-4	39.82	10.8	303.9	2.4	125	4978	2493	266.3	241.7	0.80	1.6	3.7	0.00	0.0	266.3	0.657	1.837	2.204	3.36	NonLiqfble.
CPT-4	39.89	10.8	302.3	2.42	125	4986	2497	264.7	240.0	0.81	1.6	3.8	0.00	0.0	264.7	0.657	1.805	2.166	3.30	NonLiqfble.
CPT-4	39.97	10.8	300.9	2.11	115	4597	2102	287.1	283.9	0.71	1.5	2.5	0.00	0.0	287.1	0.719	2.282	2.738	3.81	NonLiqfble.
CPT-4	40.07	10.8	317.4	2.21	115	4608	2108	302.5	298.9	0.70	1.5	2.3	0.00	0.0	302.5	0.664	2.654	3.185	4.79	NonLiqfble.
CPT-4	40.14	10.8	295.4	2.2	115	4616	2111	281.3	277.5	0.75	1.5	2.9	0.00	0.0	281.3	0.664	2.150	2.580	3.88	NonLiqfble.
CPT-4	40.22	10.8	290.5	2.43	125	5028	2518	253.3	228.7	0.84	1.6	4.3	0.00	0.0	253.3	0.607	1.592	1.910	3.15	NonLiqfble.
CPT-4	40.3	10.8	273	2.36	125	5038	2523	237.8	214.3	0.87	1.6	4.8	0.00	0.0	237.8	0.607	1.331	1.597	2.63	NonLiqfble.
CPT-4	40.38	10.8	250.4	2.5	125	5048	2528	217.9	196.0	1.01	1.7	6.1	0.03	6.5	224.4	0.607	1.131	1.357	2.24	NonLiqfble.
CPT-4	40.45	10.8	228.9	2.2	125	5056	2532	199.0	178.7	0.97	1.7	6.4	0.04	7.7	206.8	0.607	0.902	1.083	1.78	NonLiqfble.
CPT-4	40.53	10.8	220.1	1.92	125	5066	2537	191.2	171.4	0.88	1.7	6.1	0.03	5.8	197.0	0.607	0.791	0.949	1.56	NonLiqfble.
CPT-4	40.61	10.8	215.6	1.9	125	5076	2542	187.1	167.6	0.89	1.7	6.3	0.03	6.7	193.8	0.607	0.757	0.908	1.50	NonLiqfble.
CPT-4	40.68	10.8	218	1.59	115	4678	2140	206.2	201.5	0.74	1.6	4.3	0.00	0.0	206.2	0.664	0.895	1.074	1.62	NonLiqfble.
CPT-4	40.76	10.8	230.9	1.58	115	4687	2144	218.2	213.1	0.69	1.6	3.7	0.00	0.0	218.2	0.664	1.046	1.255	1.89	NonLiqfble.
CPT-4	40.83	10.8	240.3	2.88	135	5512	2964	193.1	160.2	1.21	1.8	8.5	0.09	19.8	212.9	0.565	0.978	1.173	2.08	NonLiqfble.
CPT-4	40.9	10.8	248.4	2.85	125	5113	2560	214.8	192.0	1.16	1.7	7.1	0.05	12.5	227.3	0.607	1.172	1.406	2.32	NonLiqfble.
CPT-4	40.98	10.8	258.3	2.83	125	5123	2565	223.1	199.3	1.11	1.7	6.6	0.04	9.6	232.8	0.607	1.253	1.503	2.48	NonLiqfble.
CPT-4	41.05	10.8	257.6	2.85	125	5131	2570	222.3	198.4	1.12	1.7	6.6	0.04	10.2	232.5	0.607	1.249	1.499	2.47	NonLiqfble.
CPT-4	41.12	10.8	249.9	2.85	125	5140	2574	215.5	192.1	1.15	1.7	7.0	0.05	12.3	227.8	0.607	1.179	1.415	2.33	NonLiqfble.
CPT-4	41.15	10.8	244.2	2.87	135	5555	2987	195.5	161.6	1.19	1.8	8.3	0.09	18.9	214.3	0.565	0.996	1.195	2.11	NonLiqfble.
CPT-4	41.21	10.8	239.4	2.9	135	5563	2992	191.5	158.1	1.23	1.8	8.6	0.10	20.6	212.1	0.565	0.968	1.161	2.06	NonLiqfble.
CPT-4	41.29	10.8	238.3	2.93	135	5574	2998	190.4	157.1	1.24	1.8	8.8	0.10	21.4	211.9	0.565	0.965	1.158	2.05	NonLiqfble.
CPT-4	41.4	10.8	234.9	1.87	125	5175	2592	201.9	179.2	0.80	1.7	5.3	0.01	1.9	203.8	0.607	0.867	1.040	1.71	NonLiqfble.
CPT-4	41.5	10.8	222.3	1.7	115	4773	2183	208.2	201.4	0.77	1.6	4.5	0.00	0.0	208.2	0.664	0.919	1.103	1.66	NonLiqfble.
CPT-4	41.58	10.8	215.8	1.4	115	4782	2187	201.9	195.1	0.66	1.6	3.9	0.00	0.0	201.9	0.664	0.845	1.014	1.53	NonLiqfble.
CPT-4	41.66	10.8	206.6	1.24	115	4791	2191	193.1	186.3	0.61	1.6	3.8	0.00	0.0	193.1	0.664	0.750	0.900	1.35	NonLiqfble.
CPT-4	41.74	10.8	191.7	1.14	115	4														

Project Name:	199 River Oaks Parkway
Project Number:	7862.3.001.01
Date:	20-Jul-07
CPT Number:	CPT-4
Depth to Groundwater:	10.8 ft

EQ Magnitude (M _w):	7.1
PGA (g):	0.55
MSF:	1.20

Cone	Depth (FT)	Water Table (FT)	Tip Resist. (TSF)	Sleeve Frict. (TSF)	Total Stress (PSF)	Effective Stress (PSF)	Norm. Tip Q _{tip}	Corr. Tip Q	Friction Ratio F	Ic	F.C. (%)	K _{CPT}	Δq _{tip}	(q _{tip}) _{0.5}	Induced Stress Ratio	Liquef. Stress M7.5	Liquef. Stress M7.10	Factor of Safety	Comments	
CPT-4	42.45	10.8	167.4	1.67	125	5306	2657	142.1	123.9	1.01	1.8	9.1	0.11	17.3	159.4	0.607	0.457	0.548	0.90	Liquefaction
CPT-4	42.53	10.8	157.2	1.85	125	5316	2662	133.3	116.0	1.20	1.9	10.7	0.15	24.0	157.3	0.607	0.442	0.530	0.87	Liquefaction
CPT-4	42.61	10.8	169.9	2.01	125	5326	2667	143.9	125.3	1.20	1.9	10.2	0.14	23.0	166.9	0.607	0.512	0.615	1.01	Low F.S.
CPT-4	42.69	10.8	180.6	1.76	125	5336	2672	152.9	133.1	0.99	1.8	8.4	0.09	15.3	168.2	0.607	0.522	0.627	1.03	Low F.S.
CPT-4	42.76	10.8	217.6	1.96	125	5345	2677	184.0	160.5	0.91	1.7	6.7	0.04	8.7	192.7	0.607	0.745	0.894	1.47	NonLiqfble.
CPT-4	42.84	10.8	250	2.31	125	5355	2682	211.2	184.4	0.93	1.7	6.0	0.03	5.7	217.0	0.607	1.030	1.236	2.04	NonLiqfble.
CPT-4	42.92	10.8	268.7	2.35	125	5365	2687	226.8	197.9	0.88	1.7	5.3	0.01	1.8	228.6	0.607	1.190	1.429	2.35	NonLiqfble.
CPT-4	42.99	10.8	267.8	1.95	115	4944	2261	246.4	234.6	0.73	1.5	3.5	0.00	0.0	246.4	0.664	1.471	1.766	2.66	NonLiqfble.
CPT-4	43.07	10.8	265.1	1.91	115	4953	2265	243.7	231.8	0.73	1.5	3.5	0.00	0.0	243.7	0.664	1.426	1.711	2.58	NonLiqfble.
CPT-4	43.15	10.8	253.1	2.15	125	5394	2701	213.1	185.3	0.86	1.7	5.5	0.01	2.9	215.9	0.607	1.016	1.220	2.01	NonLiqfble.
CPT-4	43.22	10.8	258.8	2.04	125	5403	2706	217.7	189.2	0.80	1.6	5.0	0.00	0.0	217.7	0.607	1.039	1.247	2.06	NonLiqfble.
CPT-4	43.3	10.8	255	2.3	125	5413	2711	214.3	186.1	0.91	1.7	5.8	0.02	4.7	219.0	0.607	1.057	1.268	2.09	NonLiqfble.
CPT-4	43.38	10.8	243.7	2.46	125	5423	2716	204.6	177.4	1.02	1.7	6.7	0.05	10.0	214.6	0.607	0.999	1.199	1.98	NonLiqfble.
CPT-4	43.45	10.8	253.7	2.49	125	5431	2720	212.8	184.5	0.99	1.7	6.3	0.04	7.9	220.7	0.607	1.080	1.296	2.14	NonLiqfble.
CPT-4	43.53	10.8	254.5	2.45	125	5441	2725	213.3	184.7	0.97	1.7	6.2	0.03	7.2	220.5	0.607	1.077	1.292	2.13	NonLiqfble.
CPT-4	43.61	10.8	256.2	2.58	125	5451	2730	214.5	185.6	1.02	1.7	6.5	0.04	8.7	223.2	0.607	1.114	1.337	2.20	NonLiqfble.
CPT-4	43.7	10.8	255.7	2.22	125	5463	2736	213.9	184.9	0.88	1.7	5.6	0.02	3.7	217.6	0.607	1.038	1.245	2.05	NonLiqfble.
CPT-4	43.77	10.8	257.4	1.72	115	5034	2302	234.7	221.3	0.67	1.5	3.4	0.00	0.0	234.7	0.664	1.283	1.539	2.32	NonLiqfble.
CPT-4	43.86	10.8	256.2	0.99	105	4605	1868	259.3	271.7	0.39	1.3	0.6	0.00	0.0	259.3	0.749	1.702	2.042	2.73	NonLiqfble.
CPT-4	43.94	10.8	267.3	1.23	105	4614	1872	270.3	283.0	0.46	1.4	0.9	0.00	0.0	270.3	0.749	1.917	2.300	3.07	NonLiqfble.
CPT-4	44.02	10.8	273.9	1.5	115	5062	2315	249.1	234.3	0.55	1.5	2.3	0.00	0.0	249.1	0.664	1.517	1.820	2.74	NonLiqfble.
CPT-4	44.09	10.8	281.4	1.58	115	5070	2319	255.7	240.4	0.57	1.5	2.3	0.00	0.0	255.7	0.664	1.634	1.961	2.95	NonLiqfble.
CPT-4	44.16	10.8	257.6	1.59	115	5078	2323	233.9	219.5	0.62	1.5	3.1	0.00	0.0	233.9	0.664	1.269	1.523	2.29	NonLiqfble.
CPT-4	44.24	10.8	273.7	1.7	115	5088	2327	248.3	233.0	0.63	1.5	2.8	0.00	0.0	248.3	0.664	1.503	1.803	2.71	NonLiqfble.
CPT-4	44.33	10.8	273	1.72	115	5098	2332	247.4	231.9	0.64	1.5	2.9	0.00	0.0	247.4	0.664	1.488	1.785	2.69	NonLiqfble.
CPT-4	44.41	10.8	266.3	1.54	115	5107	2336	241.1	225.7	0.58	1.5	2.7	0.00	0.0	241.1	0.664	1.383	1.660	2.50	NonLiqfble.
CPT-4	44.49	10.8	261	2.07	125	5561	2785	216.4	185.4	0.80	1.6	5.1	0.00	0.8	217.2	0.607	1.032	1.239	2.04	NonLiqfble.
CPT-4	44.57	10.8	269.9	2.41	125	5571	2790	223.6	191.4	0.90	1.7	5.6	0.02	3.6	227.1	0.607	1.170	1.404	2.31	NonLiqfble.
CPT-4	44.65	10.8	261.3	1.87	115	5135	2349	235.9	220.2	0.72	1.6	3.7	0.00	0.0	235.9	0.664	1.301	1.561	2.35	NonLiqfble.
CPT-4	44.74	10.8	268.6	1.63	115	5145	2353	242.3	226.0	0.61	1.5	2.9	0.00	0.0	242.3	0.664	1.402	1.683	2.53	NonLiqfble.
CPT-4	44.82	10.8	235.5	1.53	115	5154	2358	212.2	197.5	0.66	1.6	3.8	0.00	0.0	212.2	0.664	0.969	1.163	1.75	NonLiqfble.
CPT-4	44.9	10.8	239.2	1.38	115	5164	2362	215.4	200.3	0.58	1.5	3.3	0.00	0.0	215.4	0.664	1.009	1.211	1.82	NonLiqfble.
CPT-4	44.98	10.8	222.7	1.35	115	5173	2366	200.3	186.0	0.61	1.6	3.8	0.00	0.0	200.3	0.664	0.828	0.993	1.49	NonLiqfble.
CPT-4	45.06	10.8	192.5	1.39	115	5182	2370	173.0	160.2	0.73	1.7	5.5	0.01	2.4	175.4	0.664	0.581	0.698	1.05	Low F.S.
CPT-4	45.14	10.8	160.6	1.78	125	5643	2826	132.2	111.6	1.13	1.9	10.6	0.15	23.2	155.4	0.607	0.429	0.515	0.85	Liquefaction
CPT-4	45.23	10.8	106.5	2.33	135	6106	3284	81.3	63.0	2.25	2.3	22.3	0.46	69.9	151.3	0.565	0.402	0.482	0.85	Liquefaction
CPT-4	45.31	10.8	59.8	2.27	135	6117	3290	45.6	34.5	4.00	2.7	38.2	0.80	182.5	228.1	0.565	1.184	1.420	2.51	NonLiqfble.
CPT-4	45.4	10.8	42.4	1.93	135	6129	3296	32.3	23.9	4.91	2.8	48.0	0.80	129.3	161.6	0.565	0.472	0.567	1.00	NonLiqfble.
CPT-4	45.48	10.8	24	1.52	135	6140	3302	18.3	12.7	7.26	3.2	69.3	0.80	73.1	91.4	0.565	0.151	0.181	0.32	NonLiqfble.
CPT-4	45.57	10.8	16	1.32	135	6152	3308	12.2	7.8	10.21	3.4	90.4	0.80	48.7	60.9	0.565	0.101	0.121	0.21	NonLiqfble.
CPT-4	45.66	10.8	17.3	1.48	135	6164	3315	13.1	8.6	10.41	3.4	88.2	0.80	52.6	65.7	0.565	0.106	0.128	0.23	NonLiqfble.
CPT-4	45.74	10.8	22.4	2.01	135	6175	3321	17.0	11.6	10.41	3.3	79.8	0.80	68.0	85.0	0.565	0.137	0.165	0.29	NonLiqfble.
CPT-4	45.82	10.8	88.3	2.73	135	6186	3327	67.0	51.2	3.20	2.5	29.2	0.65	121.7	188.7	0.565	0.705	0.846	1.50	NonLiqfble.
CPT-4	45.91	10.8	154.3	3.66	135	6198	3333	116.9	90.7	2.42	2.2	19.1	0.38	71.0	187.9	0.565	0.697	0.837	1.48	NonLiqfble.
CPT-4	45.98	10.8	214.6	3.97	135	6207	3338	162.5	126.7	1.88	2.0	13.6	0.23	48.7	211.2	0.565	0.956	1.147	2.03	NonLiqfble.
CPT-4	46.06	10.8	264.8	3.7	135	6218	3344	200.4	156.4	1.41	1.9	9.7	0.13	29.0	229.3	0.565	1.202	1.442	2.55	NonLiqfble.
CPT-4	46.14	10.8	293.2	3.74	135	6229	3350	221.7	173.1	1.29	1.8	8.4	0.09	22.1	243.8	0.565	1.427	1.713	3.03	NonLiqfble.
CPT-4	46.22	10.8	292.8	3.89	135	6240	3356	221.2	172.6	1.34	1.8	8.7	0.10	24.3	245.4	0.565	1.455	1.746	3.09	NonLiqfble.
CPT-4	46.29	10.8	303.1	3.86	135	6249	3361	228.8	178.4	1.29	1.8	8.2	0.09	21.3	250.1	0.565	1.535	1.842	3.26	NonLiqfble.
CPT-4	46.37	10.8	296.7	3.05	125	5796	2903	241.0	202.3	1.04	1.7	6.1	0.03	7.1	248.1	0.607	1.500	1.800	2.97	NonLiqfble.
CPT-4	46.44	10.8	307.3	2.58	125	5805	2907	249.4	209.3	0.85	1.6	4.8	0.00	0.0	249.4	0.607	1.522	1.827	3.01	NonLiqfble.
CPT-4	46.52	10.8	334.6	2.32	115	5350	2447	296.0	271.2	0.70	1.5	2.6	0.00	0.0	296.0	0.664	2.491	2.989	4.50	NonLiqfble.
CPT-4	46.59	10.8	368.8	2.75	125	5824	2917	298.8	250.8	0.75	1.5	3.3	0.00	0.0	298.8	0.607	2.561	3.073	5.06	NonLiqfble.
CPT-4	46.67	10.8	390.2	3.09	125	5834	2922	315.9	265.0	0.80	1.5	3.3	0.00	0.0	315.9	0.607	3.011	3.613	5.95	NonLiqfble.
CPT-4	46.75	10.8	419.5	3.47	125	5844	2927	339.3	284.6	0.83	1.5	3.2	0.00	0.0	339.3	0.607	3.712	4.455	7.34	NonLiqfble.
CPT-4	46.82	10.8	435.1	3.36	125	5853	2931	351.6	294.8	0.78	1.5	2.8	0.00	0.0	351.6	0.607	4.124	4.949	8.16	NonLiqfble.
CPT-4	46.9	10.8	425.9	3.17	125	5863	2936	343.9	288.0	0.75	1.5	2.7	0.00	0.0	343.9	0.607	3.863	4.636	7.64	NonLiqfble.
CPT-4	46.98	10.8	402.5	3.28	125	5873	2941	324.7	271.6	0.82	1.5	3.4	0.00	0.0	324.7	0.607	3.265	3.918	6.46	NonLiqfble.
CPT-4	47.05	10.8	372.7	3.06	125	5881	2945	300.5	251.0	0.83	1.6	3.8	0.00	0.0	300.5	0.607	2.603	3.124	5.15	NonLiqfble.
CPT-4	47.13	10.8	339.2	2.77	125	5891	2950	273.2	227.8	0.82	1.6	4.2	0.00	0.0	273.2					

Project Name: 199 River Oaks Parkway
Project Number: 7862.3.001.01
Date: 20-Jul-07
CPT Number: CPT-4
Depth to Groundwater: 10.8 ft

EQ Magnitude (M_w): 7.1
PGA (g): 0.55
MSF: 1.20

Cone	Depth (FT)	Water Table (FT)	Tip Resist. (TSF)	Sleeve Frict. (TSF)	Total Stress (PCF)	Effective Stress (PSF)	Norm. Tip (PSF)	Corr. Tip (Q)	Friction Ratio (F)	F.C. (%)	K _{CPT}	Δq _{IN}	(q _{IN}) ₀	Induced Stress Ratio	Liquef. Stress M7.5	Liquef. Stress M7.10	Factor of Safety	Comments		
CPT-4	47.86	10.8	219.8	2.51	125	5983	2996	175.7	144.7	1.16	1.8	8.9	0.10	20.2	195.9	0.607	0.779	0.935	1.54	NonLiqfble.
CPT-4	47.94	10.8	196.2	2.32	125	5993	3001	156.7	128.7	1.20	1.9	9.9	0.13	23.8	180.6	0.607	0.627	0.753	1.24	Low F.S.
CPT-4	48.02	10.8	180.9	1.93	125	6003	3006	144.4	118.3	1.08	1.9	9.9	0.13	21.6	166.0	0.607	0.505	0.606	1.00	Liquefaction
CPT-4	48.1	10.8	184.6	2.83	135	6494	3492	136.7	103.8	1.56	2.0	13.7	0.23	41.4	178.1	0.565	0.605	0.726	1.28	Low F.S.
CPT-4	48.17	10.8	187.4	3.89	135	6503	3497	138.7	105.3	2.11	2.1	16.3	0.30	60.1	198.8	0.565	0.811	0.973	1.72	NonLiqfble.
CPT-4	48.25	10.8	192.8	4.49	135	6514	3503	142.5	108.2	2.37	2.1	17.2	0.33	69.1	211.6	0.565	0.961	1.153	2.04	NonLiqfble.
CPT-4	48.32	10.8	194	3.72	135	6523	3508	143.3	108.7	1.95	2.1	15.3	0.27	54.2	197.5	0.565	0.797	0.956	1.69	NonLiqfble.
CPT-4	48.4	10.8	138.2	3.12	135	6534	3514	102.0	76.8	2.31	2.2	20.4	0.41	71.1	173.1	0.565	0.563	0.675	1.20	Low F.S.
CPT-4	48.48	10.8	124.3	3.14	135	6545	3520	91.7	68.7	2.59	2.3	22.9	0.48	83.9	175.5	0.565	0.583	0.700	1.24	Low F.S.
CPT-4	48.55	10.8	176.2	2.94	135	6554	3525	129.9	98.1	1.70	2.1	15.0	0.27	47.0	176.8	0.565	0.594	0.713	1.26	Low F.S.
CPT-4	48.62	10.8	247.8	2.82	125	6078	3044	196.5	160.8	1.15	1.8	8.1	0.08	17.8	214.4	0.607	0.996	1.195	1.97	NonLiqfble.
CPT-4	48.68	10.8	270.5	2.52	125	6085	3047	214.4	175.5	0.94	1.7	6.3	0.04	7.9	222.3	0.607	1.102	1.322	2.18	NonLiqfble.
CPT-4	48.75	10.8	290.4	3.14	125	6094	3052	230.0	188.2	1.09	1.7	6.8	0.05	11.6	241.6	0.607	1.392	1.671	2.75	NonLiqfble.
CPT-4	48.81	10.8	302.8	3.49	125	6101	3056	239.7	196.1	1.16	1.7	7.0	0.05	13.2	252.9	0.607	1.585	1.902	3.13	NonLiqfble.
CPT-4	48.87	10.8	318	3.45	125	6109	3059	251.6	205.8	1.10	1.7	6.3	0.03	9.1	260.6	0.607	1.727	2.072	3.42	NonLiqfble.
CPT-4	48.94	10.8	336.5	3.39	125	6118	3064	266.0	217.6	1.02	1.7	5.6	0.02	4.1	270.1	0.607	1.912	2.294	3.78	NonLiqfble.
CPT-4	48.98	10.8	347.4	3.51	125	6123	3066	274.5	224.5	1.02	1.7	5.4	0.01	3.1	277.6	0.607	2.069	2.482	4.09	NonLiqfble.
CPT-4	49.03	10.8	329	3.34	125	6129	3069	259.8	212.3	1.02	1.7	5.7	0.02	5.2	265.1	0.607	1.812	2.174	3.58	NonLiqfble.
CPT-4	49.09	10.8	330	3.78	125	6136	3073	260.5	212.7	1.16	1.7	6.5	0.04	10.5	271.0	0.607	1.931	2.317	3.82	NonLiqfble.
CPT-4	49.15	10.8	338.3	4.12	135	6635	3568	247.8	187.7	1.23	1.8	7.6	0.07	18.3	266.1	0.565	1.833	2.199	3.89	NonLiqfble.
CPT-4	49.21	10.8	329	3.82	135	6643	3573	240.8	182.2	1.17	1.8	7.4	0.07	16.8	257.7	0.565	1.671	2.005	3.55	NonLiqfble.
CPT-4	49.27	10.8	332.9	3.31	125	6159	3084	262.3	213.8	1.00	1.7	5.6	0.02	4.1	266.4	0.607	1.838	2.206	3.64	NonLiqfble.
CPT-4	49.33	10.8	333.6	3.01	125	6166	3088	262.7	214.0	0.91	1.6	5.0	0.00	0.3	262.9	0.607	1.770	2.124	3.50	NonLiqfble.
CPT-4	49.4	10.8	320.6	2.81	125	6175	3092	252.2	205.3	0.89	1.6	5.1	0.00	0.7	252.9	0.607	1.585	1.902	3.13	NonLiqfble.
CPT-4	49.47	10.8	301.2	2.82	125	6184	3097	236.8	192.4	0.95	1.7	5.8	0.02	5.3	242.1	0.607	1.400	1.680	2.77	NonLiqfble.
CPT-4	49.53	10.8	303.8	2.71	125	6191	3101	238.7	193.9	0.90	1.7	5.5	0.01	3.3	242.0	0.607	1.398	1.678	2.77	NonLiqfble.
CPT-4	49.6	10.8	301.9	2.53	125	6200	3105	237.1	192.4	0.85	1.7	5.2	0.01	1.4	238.4	0.607	1.340	1.609	2.65	NonLiqfble.
CPT-4	49.67	10.8	302.6	2.37	125	6209	3109	237.4	192.6	0.79	1.6	4.9	0.00	0.0	237.4	0.607	1.325	1.590	2.62	NonLiqfble.
CPT-4	49.74	10.8	302.8	1.97	115	5720	2616	259.0	229.2	0.66	1.5	3.1	0.00	0.0	259.0	0.664	1.696	2.035	3.06	NonLiqfble.
CPT-4	49.81	10.8	306.8	1.9	115	5728	2620	262.3	231.9	0.63	1.5	2.8	0.00	0.0	262.3	0.664	1.757	2.109	3.17	NonLiqfble.
CPT-4	49.88	10.8	305	1.99	115	5736	2624	260.5	230.2	0.66	1.5	3.1	0.00	0.0	260.5	0.664	1.725	2.070	3.12	NonLiqfble.
CPT-4	49.95	10.8	298.8	2.05	115	5744	2627	255.1	225.2	0.69	1.5	3.4	0.00	0.0	255.1	0.664	1.623	1.948	2.93	NonLiqfble.
CPT-4	50.02	10.8	304.7	2.12	115	5752	2631	259.9	229.3	0.70	1.5	3.4	0.00	0.0	259.9	0.586	1.713	2.055	3.51	NonLiqfble.
CPT-4	50.09	10.8	310.1	2.12	115	5760	2635	264.3	233.1	0.69	1.5	3.3	0.00	0.0	264.3	0.586	1.798	2.157	3.68	NonLiqfble.
CPT-4	50.16	10.8	309.9	1.97	115	5768	2638	264.0	232.6	0.64	1.5	2.9	0.00	0.0	264.0	0.586	1.791	2.149	3.67	NonLiqfble.
CPT-4	50.22	10.8	300.9	2.1	115	5775	2642	256.2	225.5	0.70	1.5	3.5	0.00	0.0	256.2	0.586	1.643	1.972	3.36	NonLiqfble.
CPT-4	50.29	10.8	295.7	1.77	115	5783	2645	251.6	221.3	0.60	1.5	2.9	0.00	0.0	251.6	0.586	1.560	1.873	3.19	NonLiqfble.
CPT-4	50.36	10.8	271.6	1.51	115	5791	2649	230.9	202.8	0.56	1.5	3.0	0.00	0.0	230.9	0.586	1.225	1.470	2.51	NonLiqfble.
CPT-4	50.43	10.8	253.2	1.17	105	5295	2148	239.0	233.2	0.47	1.4	1.7	0.00	0.0	239.0	0.661	1.350	1.620	2.45	NonLiqfble.
CPT-4	50.5	10.8	229.4	1.11	105	5303	2151	216.4	210.7	0.49	1.5	2.3	0.00	0.0	216.4	0.661	1.022	1.227	1.86	NonLiqfble.
CPT-4	50.57	10.8	209.6	1.09	115	5816	2660	177.8	155.3	0.53	1.6	4.2	0.00	0.0	177.8	0.586	0.603	0.723	1.23	Low F.S.
CPT-4	50.64	10.8	183	1.08	115	5824	2664	155.1	135.2	0.60	1.7	5.6	0.02	2.4	157.5	0.586	0.444	0.532	0.91	Liquefaction
CPT-4	50.69	10.8	140.2	1.19	125	6336	3173	108.9	86.3	0.87	1.9	10.9	0.16	20.5	129.4	0.535	0.282	0.338	0.63	Liquefaction
CPT-4	50.77	10.8	136.1	1.41	125	6346	3178	105.6	83.6	1.06	2.0	12.6	0.20	26.9	132.5	0.535	0.296	0.356	0.66	Liquefaction
CPT-4	50.86	10.8	115.9	1.73	135	6866	3692	83.5	60.9	1.54	2.2	18.8	0.37	48.9	132.4	0.499	0.296	0.355	0.71	Liquefaction
CPT-4	50.94	10.8	113.2	2.09	135	6877	3698	81.4	59.3	1.90	2.3	21.2	0.43	62.3	143.7	0.499	0.356	0.427	0.86	Liquefaction
CPT-4	51.02	10.8	124	2.3	135	6888	3704	89.1	65.1	1.91	2.2	20.2	0.41	60.9	150.0	0.499	0.394	0.473	0.95	Liquefaction
CPT-4	51.1	10.8	145.4	2.29	135	6899	3710	104.4	76.5	1.61	2.1	16.9	0.32	48.4	152.9	0.499	0.412	0.495	0.99	Liquefaction
CPT-4	51.18	10.8	164.6	2.16	135	6909	3716	118.1	86.7	1.34	2.0	14.1	0.24	37.7	155.8	0.499	0.432	0.518	1.04	Low F.S.
CPT-4	51.25	10.8	187.5	2.1	125	6406	3208	144.8	114.8	1.14	1.9	10.4	0.15	24.6	169.5	0.535	0.533	0.639	1.19	Low F.S.
CPT-4	51.33	10.8	212.6	1.94	125	6416	3213	164.1	130.3	0.93	1.8	8.2	0.08	15.1	179.2	0.535	0.615	0.738	1.38	NonLiqfble.
CPT-4	51.41	10.8	231.5	1.69	115	5912	2704	194.8	169.0	0.74	1.7	5.2	0.01	1.3	196.1	0.586	0.781	0.937	1.60	NonLiqfble.
CPT-4	51.48	10.8	247.1	1.82	115	5920	2708	207.8	180.2	0.75	1.6	4.9	0.00	0.0	207.8	0.586	0.914	1.097	1.87	NonLiqfble.
CPT-4	51.56	10.8	258.2	1.98	115	5929	2712	216.9	188.1	0.78	1.6	4.9	0.00	0.0	216.9	0.586	1.029	1.235	2.11	NonLiqfble.
CPT-4	51.63	10.8	271.4	2.36	125	6454	3232	208.9	165.9	0.88	1.7	6.3	0.03	7.4	216.3	0.535	1.021	1.225	2.29	NonLiqfble.
CPT-4	51.71	10.8	284.8	2.19	125	6464	3237	219.0	173.9	0.78	1.7	5.3	0.01	2.0	221.0	0.535	1.084	1.301	2.43	NonLiqfble.
CPT-4	51.79	10.8	300.8	3.3	125	6474	3242	231.1	183.5	1.11	1.7	7.0	0.05	13.4	244.5	0.535	1.439	1.727	3.23	NonLiqfble.
CPT-4	51.86	10.8	316.3	3.33	125	6483	3246	242.9	192.8	1.06	1.7	6.5	0.04	10.1	253.0	0.535	1.586	1.904	3.56	NonLiqfble.
CPT-4	51.93	10.8	320.6	3.52	125	6491	3251	246.0	195.2	1.11	1.7	6.7	0.04	11.6	257.6	0.535	1.670	2.004	3.74	NonLiqfble.
CPT-4	52	10.8	336.1	3.29	125	6500	3255	257.7	204.4	0.99	1.7	5.7	0.02	5.2	262.9	0.535	1.770	2.124	3.97	NonLiqfble.
CPT-4	52.07	10.8	332	2.67	125	65														

Project Name:	199 River Oaks Parkway
Project Number:	7862.3.001.01
Date:	20-Jul-07
CPT Number:	CPT-4
Depth to Groundwater:	10.8 ft

EQ Magnitude (M_w):	7.1
PGA (g):	0.55
MSF:	1.20

Cone	Depth (FT)	Water Table (FT)	Tip Resist. (TSF)	Sleeve Frict. (TSF)	γ (PCF)	Total Stress (PSF)	Effective Stress (PSF)	Norm. Tip Q_{tip} (IN)	Corr. Tip Q	Friction Ratio F	I_c	F.C. (%)	K_{CPT}	ΔQ_{IN}	$(Q_{IN})_{IN}$	Induced Stress Ratio	Liquef. Stress M7.5	Liquef. Stress M7.10	Factor of Safety	Comments
CPT-4	52.76	10.8	292.2	2.6	125	6595	3303	222.5	174.9	0.90	1.7	6.1	0.03	6.7	229.1	0.535	1.199	1.438	2.69	NonLiqfble.
CPT-4	52.84	10.8	293.4	2.49	125	6605	3308	223.2	175.3	0.86	1.7	5.8	0.02	4.9	228.2	0.535	1.185	1.421	2.65	NonLiqfble.
CPT-4	52.92	10.8	277.8	2.7	125	6615	3313	211.2	165.6	0.98	1.7	6.9	0.05	11.5	222.7	0.535	1.107	1.328	2.48	NonLiqfble.
CPT-4	52.99	10.8	256.6	2.7	125	6624	3317	194.9	152.6	1.07	1.8	8.0	0.08	16.7	211.6	0.535	0.961	1.154	2.15	NonLiqfble.
CPT-4	53.07	10.8	246	2.69	125	6634	3322	186.7	146.0	1.11	1.8	8.5	0.09	19.3	206.0	0.535	0.893	1.072	2.00	NonLiqfble.
CPT-4	53.15	10.8	250	2.25	125	6644	3327	189.6	148.2	0.91	1.8	7.2	0.06	11.8	201.4	0.535	0.840	1.008	1.88	NonLiqfble.
CPT-4	53.22	10.8	248.6	2.22	125	6653	3332	188.4	147.2	0.91	1.8	7.2	0.06	11.7	200.1	0.535	0.826	0.991	1.85	NonLiqfble.
CPT-4	53.3	10.8	253.5	2.21	125	6663	3337	192.0	149.9	0.88	1.7	6.9	0.05	10.4	202.5	0.535	0.852	1.022	1.91	NonLiqfble.
CPT-4	53.37	10.8	258.4	2.08	125	6671	3341	195.6	152.6	0.82	1.7	6.4	0.04	7.4	203.0	0.535	0.858	1.030	1.92	NonLiqfble.
CPT-4	53.45	10.8	269.7	2.04	115	6147	2811	222.6	189.6	0.77	1.6	4.8	0.00	0.0	222.6	0.586	1.105	1.326	2.26	NonLiqfble.
CPT-4	53.52	10.8	269	2.27	125	6690	3350	203.3	158.5	0.85	1.7	6.4	0.04	7.8	211.2	0.535	0.956	1.147	2.14	NonLiqfble.
CPT-4	53.59	10.8	275.5	2.51	125	6699	3355	208.1	162.2	0.92	1.7	6.7	0.04	9.8	217.9	0.535	1.042	1.251	2.34	NonLiqfble.
CPT-4	53.67	10.8	278.9	2.38	125	6709	3360	210.5	164.0	0.86	1.7	6.2	0.03	7.2	217.8	0.535	1.040	1.248	2.33	NonLiqfble.
CPT-4	53.74	10.8	281.9	2.71	125	6718	3364	212.7	165.5	0.97	1.7	6.9	0.05	11.2	223.8	0.535	1.123	1.348	2.52	NonLiqfble.
CPT-4	53.81	10.8	274.7	2.62	125	6726	3369	207.1	161.0	0.97	1.7	7.0	0.05	11.7	218.8	0.535	1.054	1.264	2.36	NonLiqfble.
CPT-4	53.88	10.8	258.3	2.9	125	6735	3373	194.6	151.1	1.14	1.8	8.4	0.09	19.7	214.3	0.535	0.995	1.194	2.23	NonLiqfble.
CPT-4	53.96	10.8	252.2	2.16	125	6745	3378	189.9	147.3	0.87	1.7	6.9	0.05	10.4	200.2	0.535	0.827	0.992	1.85	NonLiqfble.
CPT-4	54.03	10.8	265.3	2.34	125	6754	3382	199.6	154.8	0.89	1.7	6.8	0.05	10.0	209.6	0.535	0.936	1.124	2.10	NonLiqfble.
CPT-4	54.1	10.8	292.2	2.36	125	6763	3387	219.7	170.5	0.82	1.7	5.7	0.02	4.2	223.9	0.535	1.124	1.349	2.52	NonLiqfble.
CPT-4	54.17	10.8	295.1	2.36	125	6771	3391	221.7	172.0	0.81	1.7	5.6	0.02	3.6	225.4	0.535	1.145	1.374	2.57	NonLiqfble.
CPT-4	54.25	10.8	269.2	2.46	125	6781	3396	202.1	156.5	0.93	1.7	6.9	0.05	11.0	213.1	0.535	0.980	1.176	2.20	NonLiqfble.
CPT-4	54.34	10.8	295.3	2.63	125	6793	3402	221.5	171.6	0.90	1.7	6.2	0.03	7.4	228.9	0.535	1.196	1.435	2.68	NonLiqfble.
CPT-4	54.42	10.8	325	2.72	125	6803	3407	243.6	188.7	0.85	1.7	5.3	0.01	2.1	245.7	0.535	1.459	1.751	3.27	NonLiqfble.
CPT-4	54.49	10.8	322.4	3.08	125	6811	3411	241.5	187.0	0.97	1.7	6.1	0.03	7.3	248.9	0.535	1.513	1.816	3.39	NonLiqfble.
CPT-4	54.57	10.8	340.7	3.3	125	6821	3416	255.0	197.4	0.98	1.7	5.9	0.02	6.1	261.1	0.535	1.736	2.083	3.89	NonLiqfble.
CPT-4	54.65	10.8	368.3	3.63	125	6831	3421	275.5	213.2	0.99	1.7	5.5	0.01	4.1	279.6	0.535	2.112	2.535	4.73	NonLiqfble.
CPT-4	54.73	10.8	377	3.53	125	6841	3426	281.8	218.0	0.94	1.6	5.1	0.00	1.1	282.9	0.535	2.185	2.622	4.90	NonLiqfble.
CPT-4	54.8	10.8	385	4.79	135	7398	3978	267.1	191.6	1.26	1.8	7.6	0.07	19.9	286.9	0.499	2.277	2.733	5.48	NonLiqfble.
CPT-4	54.88	10.8	376.4	5.29	135	7409	3984	260.9	187.0	1.42	1.8	8.6	0.10	27.7	288.6	0.499	2.315	2.777	5.57	NonLiqfble.
CPT-4	54.95	10.8	374	5.08	135	7418	3989	259.1	185.6	1.37	1.8	8.4	0.09	25.8	284.9	0.499	2.231	2.677	5.37	NonLiqfble.
CPT-4	55.03	10.8	395.1	5.54	135	7429	3995	273.5	195.8	1.42	1.8	8.3	0.09	26.3	299.8	0.499	2.586	3.103	6.22	NonLiqfble.
CPT-4	55.1	10.8	352.9	5.29	135	7439	4000	244.1	174.5	1.51	1.9	9.5	0.12	33.4	277.6	0.499	2.069	2.483	4.98	NonLiqfble.
CPT-4	55.17	10.8	343.3	4.78	135	7448	4005	237.3	169.5	1.41	1.8	9.2	0.11	29.7	267.0	0.499	1.850	2.220	4.45	NonLiqfble.
CPT-4	55.25	10.8	356.7	4.17	135	7459	4011	246.4	175.9	1.18	1.8	7.7	0.07	19.2	265.6	0.499	1.823	2.188	4.39	NonLiqfble.
CPT-4	55.32	10.8	341	3.29	125	6915	3463	253.5	194.9	0.97	1.7	5.9	0.02	6.4	259.9	0.535	1.713	2.056	3.84	NonLiqfble.
CPT-4	55.38	10.8	349.7	2.96	125	6923	3467	259.9	199.7	0.85	1.6	5.1	0.00	0.4	260.3	0.535	1.720	2.065	3.86	NonLiqfble.
CPT-4	55.45	10.8	370.6	3.66	125	6931	3471	275.2	211.4	1.00	1.7	5.6	0.02	4.5	279.7	0.535	2.115	2.539	4.74	NonLiqfble.
CPT-4	55.52	10.8	392.3	4.09	125	6940	3476	291.2	223.7	1.05	1.7	5.6	0.02	4.8	296.0	0.535	2.492	2.990	5.59	NonLiqfble.
CPT-4	55.58	10.8	412.5	3.77	125	6948	3479	306.0	235.0	0.92	1.6	4.6	0.00	0.0	306.0	0.535	2.744	3.293	6.15	NonLiqfble.
CPT-4	55.61	10.8	424.4	3.41	125	6951	3481	314.7	241.7	0.81	1.6	3.8	0.00	0.0	314.7	0.535	2.979	3.575	6.68	NonLiqfble.
CPT-4	55.66	10.8	433.6	3.17	115	6401	2928	350.6	293.9	0.74	1.5	2.5	0.00	0.0	350.6	0.586	4.089	4.906	8.37	NonLiqfble.
CPT-4	55.71	10.8	432	3.08	115	6407	2930	349.2	292.5	0.72	1.5	2.4	0.00	0.0	349.2	0.586	4.039	4.847	8.27	NonLiqfble.
CPT-4	55.76	10.8	399.2	3.37	125	6970	3491	295.6	226.6	0.85	1.6	4.4	0.00	0.0	295.6	0.535	2.483	2.980	5.57	NonLiqfble.
CPT-4	55.81	10.8	401.2	3.18	125	6976	3494	297.0	227.6	0.80	1.6	4.1	0.00	0.0	297.0	0.535	2.516	3.019	5.64	NonLiqfble.
CPT-4	55.85	10.8	335.1	3.45	125	6981	3496	248.0	189.6	1.04	1.7	6.5	0.04	10.1	258.0	0.535	1.678	2.013	3.76	NonLiqfble.
CPT-4	55.92	10.8	401.7	3.88	125	6990	3501	297.1	227.4	0.97	1.6	5.1	0.00	0.7	297.8	0.535	2.536	3.043	5.68	NonLiqfble.
CPT-4	55.99	10.8	404	3.75	125	6999	3505	298.6	228.4	0.94	1.6	4.9	0.00	0.0	298.6	0.535	2.555	3.067	5.73	NonLiqfble.
CPT-4	56.05	10.8	395.1	3.04	125	7006	3509	291.8	223.1	0.78	1.6	4.0	0.00	0.0	291.8	0.535	2.392	2.870	5.36	NonLiqfble.
CPT-4	56.09	10.8	380	2.99	125	7011	3511	280.6	214.4	0.79	1.6	4.3	0.00	0.0	280.6	0.535	2.134	2.561	4.78	NonLiqfble.
CPT-4	56.25	10.8	374.6	4.08	125	7031	3521	276.2	210.7	1.10	1.7	6.2	0.03	9.1	285.3	0.535	2.241	2.689	5.02	NonLiqfble.
CPT-4	56.31	10.8	365.9	3.82	125	7039	3525	269.6	205.5	1.05	1.7	6.1	0.03	8.0	277.7	0.535	2.071	2.485	4.64	NonLiqfble.
CPT-4	56.35	10.8	368.5	4.53	135	7607	4091	252.1	178.2	1.24	1.8	8.0	0.08	21.7	273.7	0.499	1.987	2.385	4.78	NonLiqfble.
CPT-4	56.42	10.8	398.6	4.67	135	7617	4096	272.5	192.7	1.18	1.8	7.2	0.06	16.7	289.2	0.499	2.330	2.796	5.61	NonLiqfble.
CPT-4	56.48	10.8	353.6	4.44	135	7625	4100	241.6	170.5	1.27	1.8	8.4	0.09	24.0	265.6	0.499	1.823	2.188	4.39	NonLiqfble.
CPT-4	56.54	10.8	332.3	4.23	135	7633	4105	226.9	160.0	1.29	1.8	8.9	0.10	26.4	253.4	0.499	1.593	1.911	3.83	NonLiqfble.
CPT-4	56.59	10.8	285.8	4.08	135	7640	4108	195.1	137.2	1.45	1.9	10.8	0.16	36.1	231.2	0.499	1.229	1.475	2.96	NonLiqfble.
CPT-4	56.66	10.8	298.6	3.61	135	7649	4114	203.7	143.3	1.22	1.9	9.3	0.12	26.5	230.2	0.499	1.215	1.458	2.92	NonLiqfble.
CPT-4	56.72	10.8	290.8	3.05	125	7090	3551	213.5	161.7	1.06	1.8	7.6	0.07	15.6	229.1	0.535	1.199	1.439	2.69	NonLiqfble.
CPT-4	56.79	10.8	287.3	2.48	125	7099	3555	210.8	159.6	0.87	1.7	6.5	0.04	8.7	219.5	0.535	1.063	1.276	2.38	NonLiqfble.
CPT-4	56.85	10.8	276	2.05	115	6538	2990	220.8	182.3											

Project Name: 199 River Oaks Parkway
Project Number: 7862.3.001.01
Date: 20-Jul-07
CPT Number: CPT-4
Depth to Groundwater: 10.8 ft

EQ Magnitude (M_w): 7.1
PGA (g): 0.55
MSF: 1.20

Cone	Depth (FT)	Water Table (FT)	Tip Resist. (TSF)	Sleeve Frict. (TSF)	γ (PCF)	Total Stress (PSF)	Effective Stress (PSF)	Norm. Tip Q _{tip}	Corr. Tip Q	Friction Ratio F	Ic	F.C. (%)	K _{CPT}	Δq _{tip}	(q _{tip}) _{ns}	Induced Stress Ratio	Liquef. Stress M7.5	Liquef. Stress M7.10	Factor of Safety	Comments
CPT-4	57.42	10.8	220.5	1.94	125	7178	3594	160.9	120.6	0.89	1.8	8.5	0.09	16.5	177.4	0.535	0.599	0.719	1.34	NonLiqfble.
CPT-4	57.47	10.8	224.4	1.85	125	7184	3598	163.7	122.7	0.84	1.8	8.0	0.08	14.1	177.8	0.535	0.603	0.723	1.35	NonLiqfble.
CPT-4	57.53	10.8	229.4	1.77	115	6616	3026	182.5	149.4	0.78	1.7	6.3	0.03	6.5	188.9	0.586	0.707	0.848	1.45	NonLiqfble.
CPT-4	57.6	10.8	229.5	1.74	115	6624	3030	182.4	149.2	0.77	1.7	6.2	0.03	6.0	188.4	0.586	0.702	0.843	1.44	NonLiqfble.
CPT-4	57.67	10.8	216	1.51	115	6632	3033	171.6	140.2	0.71	1.7	6.2	0.03	5.5	177.1	0.586	0.597	0.716	1.22	Low F.S.
CPT-4	57.73	10.8	220.3	1.55	115	6639	3037	174.9	142.8	0.71	1.7	6.1	0.03	5.2	180.1	0.586	0.623	0.748	1.28	Low F.S.
CPT-4	57.77	10.8	202.8	1.56	115	6644	3039	161.0	131.2	0.78	1.8	7.1	0.06	9.6	170.6	0.586	0.542	0.650	1.11	Low F.S.
CPT-4	57.8	10.8	201.5	1.57	115	6647	3040	159.9	130.3	0.79	1.8	7.2	0.06	10.1	170.0	0.586	0.537	0.645	1.10	Low F.S.
CPT-4	57.88	10.8	200.5	1.85	125	7235	3623	145.7	108.6	0.94	1.9	9.6	0.12	20.3	166.0	0.535	0.506	0.607	1.13	Low F.S.
CPT-4	57.97	10.8	213.1	1.96	125	7246	3629	154.8	115.4	0.94	1.8	9.1	0.11	19.0	173.7	0.535	0.568	0.681	1.27	Low F.S.
CPT-4	58.04	10.8	243.8	1.88	115	6675	3053	193.1	157.5	0.78	1.7	5.9	0.03	5.0	198.1	0.586	0.803	0.963	1.64	NonLiqfble.
CPT-4	58.12	10.8	263.5	2.17	125	7265	3638	191.1	142.8	0.84	1.7	6.9	0.05	10.3	201.5	0.535	0.841	1.009	1.88	NonLiqfble.
CPT-4	58.19	10.8	256.4	2.24	125	7274	3643	185.9	138.7	0.89	1.8	7.5	0.07	13.0	198.9	0.535	0.812	0.974	1.82	NonLiqfble.
CPT-4	58.27	10.8	257.7	2.25	125	7284	3648	186.7	139.2	0.89	1.8	7.4	0.06	12.9	199.6	0.535	0.820	0.984	1.84	NonLiqfble.
CPT-4	58.35	10.8	260.4	2.4	125	7294	3653	188.5	140.5	0.93	1.8	7.7	0.07	14.6	203.1	0.535	0.859	1.031	1.93	NonLiqfble.
CPT-4	58.43	10.8	244	2.37	125	7304	3658	176.5	131.4	0.99	1.8	8.5	0.09	18.1	194.6	0.535	0.765	0.919	1.72	NonLiqfble.
CPT-4	58.51	10.8	242.2	2.34	125	7314	3663	175.1	130.2	0.98	1.8	8.5	0.09	18.1	193.2	0.535	0.751	0.901	1.68	NonLiqfble.
CPT-4	58.58	10.8	242.4	2.41	125	7323	3667	175.1	130.2	1.01	1.8	8.7	0.10	19.2	194.3	0.535	0.762	0.915	1.71	NonLiqfble.
CPT-4	58.66	10.8	252	2.37	125	7333	3672	182.0	135.2	0.95	1.8	8.1	0.08	16.3	198.2	0.535	0.804	0.965	1.80	NonLiqfble.
CPT-4	58.73	10.8	265.1	2.23	125	7341	3676	191.3	142.2	0.85	1.7	7.1	0.06	11.2	202.5	0.535	0.852	1.023	1.91	NonLiqfble.
CPT-4	58.81	10.8	273.7	2.84	125	7351	3682	197.4	146.6	1.05	1.8	8.1	0.08	18.0	215.4	0.535	1.009	1.211	2.26	NonLiqfble.
CPT-4	58.88	10.8	279	2.63	125	7360	3686	201.1	149.3	0.96	1.8	7.4	0.06	13.9	214.9	0.535	1.003	1.204	2.25	NonLiqfble.
CPT-4	58.96	10.8	286.1	2.47	125	7370	3691	206.0	153.0	0.87	1.7	6.7	0.05	10.1	216.1	0.535	1.019	1.222	2.28	NonLiqfble.
CPT-4	59.03	10.8	285.8	2.19	125	7379	3695	205.7	152.6	0.78	1.7	6.1	0.03	6.2	211.9	0.535	0.965	1.158	2.16	NonLiqfble.
CPT-4	59.1	10.8	273.3	1.95	115	6797	3109	214.5	173.6	0.72	1.6	5.0	0.00	0.0	214.5	0.586	0.997	1.197	2.04	NonLiqfble.
CPT-4	59.18	10.8	264.5	1.83	115	6806	3113	207.4	167.7	0.70	1.6	5.0	0.00	0.1	207.5	0.586	0.911	1.094	1.87	NonLiqfble.
CPT-4	59.26	10.8	235.8	1.59	115	6815	3117	184.8	149.0	0.68	1.7	5.6	0.02	3.0	187.8	0.586	0.696	0.835	1.42	NonLiqfble.
CPT-4	59.34	10.8	213	1.35	115	6824	3121	166.8	134.2	0.64	1.7	6.0	0.03	4.4	171.2	0.586	0.546	0.656	1.12	Low F.S.
CPT-4	59.41	10.8	202.3	1.21	115	6832	3125	158.3	127.2	0.61	1.7	6.0	0.03	4.4	162.8	0.586	0.481	0.577	0.98	Liquefaction
CPT-4	59.5	10.8	184.4	1.23	115	6843	3130	144.2	115.6	0.68	1.8	7.2	0.06	9.1	153.3	0.586	0.415	0.498	0.85	Liquefaction
CPT-4	59.58	10.8	174.1	1.48	125	7448	3730	124.7	91.3	0.87	1.9	10.5	0.15	21.3	146.0	0.535	0.370	0.444	0.83	Liquefaction
CPT-4	59.66	10.8	177.3	1.94	125	7458	3735	126.9	92.9	1.12	2.0	12.0	0.19	29.4	156.3	0.535	0.435	0.522	0.98	Liquefaction
CPT-4	59.74	10.8	180.3	2.48	135	8065	4337	119.8	81.2	1.41	2.1	15.1	0.27	44.1	163.8	0.499	0.489	0.587	1.18	Low F.S.
CPT-4	59.82	10.8	198.2	2.67	135	8076	4343	131.6	89.4	1.38	2.0	14.0	0.24	41.5	173.1	0.499	0.563	0.675	1.35	NonLiqfble.
CPT-4	59.9	10.8	221.6	2.44	125	7488	3750	158.3	116.1	1.12	1.9	10.2	0.14	25.7	184.1	0.535	0.660	0.792	1.48	NonLiqfble.
CPT-4	59.98	10.8	240.2	2.22	125	7498	3755	171.5	125.9	0.94	1.8	8.5	0.09	17.5	189.1	0.535	0.708	0.850	1.59	NonLiqfble.
CPT-4	60.06	10.8	248	2.39	125	7508	3760	177.0	129.9	0.98	1.8	8.5	0.09	18.3	195.3	0.471	0.773	0.927	1.97	NonLiqfble.
CPT-4	60.13	10.8	259.6	2.27	125	7516	3764	185.1	135.9	0.89	1.8	7.6	0.07	13.8	199.0	0.471	0.812	0.975	2.07	NonLiqfble.
CPT-4	60.21	10.8	270.1	2.19	125	7526	3769	192.5	141.3	0.82	1.7	6.9	0.05	10.3	202.8	0.471	0.856	1.027	2.18	NonLiqfble.
CPT-4	60.29	10.8	256	2.02	125	7536	3774	182.3	133.6	0.80	1.8	7.1	0.06	11.0	193.3	0.471	0.752	0.902	1.91	NonLiqfble.
CPT-4	60.37	10.8	243.8	1.83	115	6943	3175	189.3	151.3	0.76	1.7	6.1	0.03	5.5	194.8	0.516	0.767	0.921	1.78	NonLiqfble.
CPT-4	60.45	10.8	248.3	1.99	125	7556	3784	176.6	129.2	0.81	1.8	7.4	0.07	12.3	188.9	0.471	0.707	0.849	1.80	NonLiqfble.
CPT-4	60.52	10.8	248.6	2.14	125	7565	3789	176.7	129.2	0.87	1.8	7.9	0.08	14.6	191.3	0.471	0.731	0.878	1.86	NonLiqfble.
CPT-4	60.6	10.8	258.8	2.11	125	7575	3794	183.8	134.4	0.83	1.8	7.3	0.06	11.9	195.7	0.471	0.777	0.933	1.98	NonLiqfble.
CPT-4	60.68	10.8	264.1	2.09	125	7585	3799	187.5	137.0	0.80	1.7	7.0	0.05	10.4	197.9	0.471	0.801	0.961	2.04	NonLiqfble.
CPT-4	60.76	10.8	272.6	2.22	125	7595	3804	193.4	141.3	0.83	1.7	6.9	0.05	10.5	203.9	0.471	0.868	1.042	2.21	NonLiqfble.
CPT-4	60.84	10.8	276.7	2.28	125	7605	3809	196.2	143.2	0.84	1.7	6.9	0.05	10.5	206.7	0.471	0.901	1.081	2.30	NonLiqfble.
CPT-4	60.92	10.8	273.4	1.99	115	7006	3204	211.3	168.4	0.74	1.7	5.2	0.01	1.4	212.7	0.516	0.975	1.170	2.27	NonLiqfble.
CPT-4	61	10.8	265.4	1.9	115	7015	3209	205.0	163.2	0.73	1.7	5.3	0.01	1.9	206.9	0.516	0.904	1.085	2.10	NonLiqfble.
CPT-4	61.08	10.8	249.1	1.86	115	7024	3213	192.3	152.8	0.76	1.7	6.0	0.03	5.1	197.4	0.516	0.795	0.954	1.85	NonLiqfble.
CPT-4	61.15	10.8	242.1	2.11	125	7644	3828	171.2	124.4	0.89	1.8	8.2	0.09	16.0	187.2	0.471	0.690	0.828	1.76	NonLiqfble.
CPT-4	61.2	10.8	234.5	2.05	125	7650	3831	165.8	120.4	0.89	1.8	8.5	0.09	16.9	182.6	0.471	0.647	0.776	1.65	NonLiqfble.
CPT-4	61.28	10.8	230.9	2.03	125	7660	3836	163.1	118.3	0.89	1.8	8.6	0.10	17.5	180.6	0.471	0.628	0.753	1.60	NonLiqfble.
CPT-4	61.36	10.8	262.4	2.16	125	7670	3841	185.2	134.6	0.84	1.8	7.3	0.06	12.2	197.5	0.471	0.796	0.955	2.03	NonLiqfble.
CPT-4	61.44	10.8	296.6	2.2	115	7066	3232	223.7	177.6	0.77	1.6	5.1	0.00	0.8	224.5	0.516	1.132	1.359	2.63	NonLiqfble.
CPT-4	61.52	10.8	304.7	2.15	115	7075	3236	234.4	186.1	0.71	1.6	4.5	0.00	0.0	234.4	0.516	1.277	1.533	2.97	NonLiqfble.
CPT-4	61.61	10.8	313.5	2.15	115	7085	3241	241.0	191.2	0.69	1.6	4.3	0.00	0.0	241.0	0.516	1.381	1.657	3.21	NonLiqfble.
CPT-4	61.69	10.8	312.6	2.15	115	7094	3245	240.1	190.4	0.70	1.6	4.3	0.00	0.0	240.1	0.516	1.367	1.641	3.18	NonLiqfble.
CPT-4	61.76	10.8	309.5	2.43	125	7720	3866	217.8	158.0	0.80	1.7	6.0	0.03	6.1	223.9	0.471	1.123	1.348	2.86	NonLiqfble.
CPT-4	61.85	10.8	300.8	2.42	125	7731	3872	211.5	153.3	0.81	1.7	6.3	0.04	7.8	219.3	0.471	1.061	1.273	2.70	NonLiqfble.
CPT-4	61.																			

Project Name: 199 River Oaks Parkway
Project Number: 7862.3.001.01
Date: 20-Jul-07
CPT Number: CPT-4
Depth to Groundwater: 10.8 ft

EQ Magnitude (M_w): 7.1
PGA (g): 0.55
MSF: 1.20

Cone	Depth (FT)	Water Table (FT)	Tip Resist. (TSF)	Sleeve Frict. (TSF)	γ (PCF)	Total Stress (PSF)	Effective Stress (PSF)	Norm. Tip Q _{tip}	Corr. Tip Q	Friction Ratio F	Ic	F.C. (%)	K _{CPT}	ΔQ _{tip}	(Q _{tip}) ^{0.5}	Induced Stress Ratio	Liquef. Stress M7.5	Liquef. Stress M7.10	Factor of Safety	Comments
CPT-4	62.63	10.8	283	2.44	125	7829	3921	197.8	142.3	0.87	1.8	7.2	0.06	12.4	210.1	0.471	0.943	1.132	2.40	NonLiqfble.
CPT-4	62.71	10.8	300.5	2.44	125	7839	3926	209.8	151.0	0.82	1.7	6.5	0.04	8.6	218.5	0.471	1.050	1.260	2.67	NonLiqfble.
CPT-4	62.79	10.8	303.4	2.53	125	7849	3931	211.7	152.3	0.84	1.7	6.6	0.04	9.3	221.0	0.471	1.084	1.301	2.76	NonLiqfble.
CPT-4	62.86	10.8	297.3	2.63	125	7858	3935	207.4	149.0	0.90	1.7	7.1	0.05	12.0	219.4	0.471	1.062	1.274	2.70	NonLiqfble.
CPT-4	62.94	10.8	300.5	2.84	125	7868	3940	209.5	150.5	0.96	1.8	7.4	0.06	14.2	223.7	0.471	1.121	1.345	2.85	NonLiqfble.
CPT-4	63	10.8	304.2	3.04	125	7875	3944	211.9	152.2	1.01	1.8	7.6	0.07	16.1	228.1	0.471	1.183	1.420	3.01	NonLiqfble.
CPT-4	63.07	10.8	301.2	3.52	135	8514	4579	194.8	129.6	1.19	1.9	9.8	0.13	28.6	223.4	0.439	1.117	1.340	3.05	NonLiqfble.
CPT-4	63.14	10.8	314.1	3.42	125	7893	3953	218.6	156.9	1.10	1.8	8.0	0.08	19.0	237.6	0.471	1.327	1.592	3.38	NonLiqfble.
CPT-4	63.21	10.8	329.4	3.15	125	7901	3957	229.1	164.4	0.97	1.7	6.9	0.05	12.1	241.2	0.471	1.386	1.663	3.53	NonLiqfble.
CPT-4	63.27	10.8	343	3.51	125	7909	3961	238.5	171.1	1.04	1.7	7.0	0.05	13.8	252.2	0.471	1.572	1.887	4.00	NonLiqfble.
CPT-4	63.33	10.8	349.6	4.05	135	8550	4598	225.6	150.2	1.17	1.8	8.7	0.10	24.7	250.2	0.439	1.537	1.845	4.21	NonLiqfble.
CPT-4	63.37	10.8	346	3.94	125	7921	3967	240.4	172.4	1.15	1.8	7.7	0.07	18.5	258.8	0.471	1.693	2.031	4.31	NonLiqfble.
CPT-4	63.41	10.8	352.8	3.84	125	7926	3969	245.0	175.7	1.10	1.8	7.3	0.06	15.8	260.8	0.471	1.729	2.075	4.40	NonLiqfble.
CPT-4	63.46	10.8	366.4	2.33	115	7298	3338	277.5	217.3	0.64	1.5	3.3	0.00	0.0	277.5	0.516	2.067	2.480	4.81	NonLiqfble.
CPT-4	63.5	10.8	376.1	3.31	125	7938	3975	261.0	187.2	0.89	1.7	5.6	0.02	4.5	265.5	0.471	1.820	2.185	4.64	NonLiqfble.
CPT-4	63.53	10.8	371.1	3.29	125	7941	3977	257.5	184.5	0.90	1.7	5.8	0.02	5.3	262.8	0.471	1.767	2.121	4.50	NonLiqfble.
CPT-4	63.57	10.8	363.3	3.6	125	7946	3979	252.0	180.5	1.00	1.7	6.5	0.04	10.7	262.7	0.471	1.765	2.118	4.50	NonLiqfble.
CPT-4	63.6	10.8	356.4	3.75	125	7950	3981	247.1	177.0	1.06	1.7	7.0	0.05	14.0	261.1	0.471	1.736	2.083	4.42	NonLiqfble.
CPT-4	63.64	10.8	358.1	3.68	125	7955	3984	248.2	177.7	1.04	1.7	6.8	0.05	12.8	261.0	0.471	1.734	2.081	4.42	NonLiqfble.
CPT-4	63.67	10.8	357.6	3.72	125	7959	3986	247.8	177.4	1.05	1.7	6.9	0.05	13.4	261.2	0.471	1.738	2.086	4.43	NonLiqfble.
CPT-4	63.7	10.8	356.6	3.84	125	7963	3988	247.1	176.8	1.09	1.8	7.2	0.06	15.1	262.2	0.471	1.756	2.107	4.47	NonLiqfble.
CPT-4	63.74	10.8	357	3.88	125	7968	3990	247.3	176.9	1.10	1.8	7.2	0.06	15.5	262.8	0.471	1.768	2.122	4.50	NonLiqfble.
CPT-4	63.77	10.8	347.8	3.6	125	7971	3992	240.9	172.2	1.05	1.7	7.1	0.06	14.1	255.0	0.471	1.622	1.946	4.13	NonLiqfble.
CPT-4	63.81	10.8	338.4	3.54	125	7976	3995	234.3	167.4	1.06	1.8	7.3	0.06	15.5	249.7	0.471	1.528	1.834	3.89	NonLiqfble.
CPT-4	63.88	10.8	371.2	3.61	125	7985	3999	256.8	183.6	0.98	1.7	6.3	0.04	9.3	266.2	0.471	1.834	2.200	4.67	NonLiqfble.
CPT-4	63.94	10.8	383.3	3.49	125	7993	4003	265.1	189.4	0.92	1.7	5.8	0.02	5.4	270.5	0.471	1.921	2.305	4.89	NonLiqfble.
CPT-4	64.02	10.8	382.1	3.6	125	8003	4008	264.1	188.6	0.95	1.7	6.0	0.03	7.0	271.1	0.471	1.933	2.320	4.92	NonLiqfble.
CPT-4	64.08	10.8	385.9	3.71	125	8010	4011	266.6	190.3	0.97	1.7	6.0	0.03	7.6	274.2	0.471	1.997	2.396	5.09	NonLiqfble.
CPT-4	64.13	10.8	372.3	4.07	125	8016	4015	257.1	183.4	1.11	1.7	7.0	0.05	14.7	271.8	0.471	1.948	2.337	4.96	NonLiqfble.
CPT-4	64.18	10.8	341.9	4.21	135	8664	4659	219.2	144.8	1.25	1.9	9.4	0.12	28.9	248.1	0.439	1.499	1.799	4.10	NonLiqfble.
CPT-4	64.24	10.8	393.7	3.91	125	8030	4021	271.6	193.7	1.00	1.7	6.1	0.03	8.4	280.0	0.471	2.122	2.547	5.41	NonLiqfble.
CPT-4	64.31	10.8	406.7	3.71	125	8039	4026	280.5	200.0	0.92	1.7	5.5	0.01	3.5	284.0	0.471	2.209	2.651	5.63	NonLiqfble.
CPT-4	64.38	10.8	400.9	3.55	125	8048	4030	276.3	196.9	0.89	1.7	5.4	0.01	2.9	279.2	0.471	2.103	2.524	5.36	NonLiqfble.
CPT-4	64.45	10.8	382	3.82	125	8056	4035	263.1	187.3	1.01	1.7	6.4	0.04	9.9	273.0	0.471	1.973	2.368	5.03	NonLiqfble.
CPT-4	64.51	10.8	359.3	3.59	125	8064	4038	247.4	175.9	1.01	1.7	6.7	0.05	12.0	259.4	0.471	1.703	2.043	4.34	NonLiqfble.
CPT-4	64.59	10.8	367.4	3.62	125	8074	4043	252.8	179.7	1.00	1.7	6.5	0.04	10.7	263.5	0.471	1.781	2.137	4.54	NonLiqfble.
CPT-4	64.65	10.8	372.6	3.65	125	8081	4047	256.3	182.1	0.99	1.7	6.4	0.04	10.0	266.2	0.471	1.835	2.202	4.67	NonLiqfble.
CPT-4	64.7	10.8	365	3.43	125	8088	4050	250.9	178.2	0.95	1.7	6.3	0.03	9.0	259.9	0.471	1.713	2.055	4.36	NonLiqfble.
CPT-4	64.74	10.8	359.5	3.29	125	8093	4053	247.1	175.3	0.93	1.7	6.2	0.03	8.4	255.5	0.471	1.631	1.957	4.15	NonLiqfble.
CPT-4	64.78	10.8	347.7	3.36	125	8098	4055	238.9	169.4	0.98	1.7	6.8	0.05	11.8	250.7	0.471	1.545	1.854	3.93	NonLiqfble.
CPT-4	64.84	10.8	350	3.38	125	8105	4059	240.4	170.4	0.98	1.7	6.7	0.05	11.6	251.9	0.471	1.567	1.881	3.99	NonLiqfble.
CPT-4	64.92	10.8	353.9	3.57	125	8115	4064	242.9	172.1	1.02	1.7	6.9	0.05	13.1	256.0	0.471	1.641	1.969	4.18	NonLiqfble.
CPT-4	64.99	10.8	353.2	3.23	125	8124	4068	242.3	171.6	0.93	1.7	6.4	0.04	9.1	251.4	0.471	1.558	1.870	3.97	NonLiqfble.
CPT-4	65.07	10.8	350.9	3.16	125	8134	4073	240.6	170.2	0.91	1.7	6.3	0.04	8.8	249.3	0.471	1.522	1.826	3.88	NonLiqfble.
CPT-4	65.14	10.8	348	2.99	125	8143	4078	238.4	168.6	0.87	1.7	6.1	0.03	7.3	245.7	0.471	1.460	1.752	3.72	NonLiqfble.
CPT-4	65.21	10.8	336.9	2.74	125	8151	4082	230.7	163.0	0.82	1.7	6.0	0.03	6.4	237.1	0.471	1.320	1.584	3.36	NonLiqfble.
CPT-4	65.28	10.8	336.4	2.72	125	8160	4087	230.2	162.6	0.82	1.7	6.0	0.03	6.3	236.6	0.471	1.311	1.573	3.34	NonLiqfble.
CPT-4	65.35	10.8	333.2	2.56	125	8169	4091	227.9	160.8	0.78	1.7	5.8	0.02	4.9	232.9	0.471	1.254	1.505	3.19	NonLiqfble.
CPT-4	65.42	10.8	326.2	2.57	125	8178	4095	223.0	157.2	0.80	1.7	6.1	0.03	6.5	229.5	0.471	1.205	1.446	3.07	NonLiqfble.
CPT-4	65.48	10.8	323.1	2.51	125	8185	4099	220.8	155.6	0.79	1.7	6.1	0.03	6.4	227.2	0.471	1.171	1.405	2.98	NonLiqfble.
CPT-4	65.54	10.8	319.2	2.36	115	7537	3447	237.9	182.9	0.75	1.6	4.9	0.00	0.0	237.9	0.516	1.332	1.598	3.10	NonLiqfble.
CPT-4	65.6	10.8	322.2	2.33	115	7544	3451	240.0	184.5	0.73	1.6	4.7	0.00	0.0	240.0	0.516	1.366	1.639	3.18	NonLiqfble.
CPT-4	65.64	10.8	322.4	2.37	115	7549	3453	240.1	184.5	0.74	1.6	4.8	0.00	0.0	240.1	0.516	1.367	1.640	3.18	NonLiqfble.
CPT-4	65.67	10.8	319.4	2.68	125	8209	4111	218.0	153.3	0.85	1.7	6.6	0.04	9.5	227.5	0.471	1.175	1.410	2.99	NonLiqfble.
CPT-4	65.71	10.8	307.1	2.94	125	8214	4113	209.5	147.3	0.97	1.8	7.6	0.07	15.6	225.1	0.471	1.141	1.370	2.91	NonLiqfble.
CPT-4	65.75	10.8	302.3	2.76	125	8219	4116	206.2	144.8	0.93	1.8	7.4	0.06	14.3	220.4	0.471	1.076	1.292	2.74	NonLiqfble.
CPT-4	65.79	10.8	301.7	2.63	125	8224	4118	205.7	144.5	0.88	1.8	7.2	0.06	12.7	218.4	0.471	1.048	1.258	2.67	NonLiqfble.
CPT-4	65.86	10.8	307.1	2.48	125	8233	4123	209.3	146.9	0.82	1.7	6.6	0.04	9.5	218.8	0.471	1.054	1.264	2.68	NonLiqfble.
CPT-4	65.92	10.8	312.4	2.18	115	7581	3467	232.1	177.9	0.71	1.6	4.7	0.00	0.0	232.1	0.516	1.243	1.492	2.89	NonLiqfble.
CPT-4	65.98	10.8	295.2	2.25	125	8248	4130	201.0	140.9	0.77	1.7	6.6	0.04	8.9	209.8	0.471	0.939	1.127	2.39	NonLiqf

Project Name:	199 River Oaks Parkway
Project Number:	7862.3.001.01
Date:	20-Jul-07
CPT Number:	CPT-4
Depth to Groundwater:	10.8 ft

EQ Magnitude (M _w):	7.1
PGA (g):	0.55
MSF:	1.20

Cone	Depth (FT)	Water Table (FT)	Tip Resist. (TSF)	Sleeve Frict. (TSF)	γ (PCF)	Total Stress (PSF)	Effective Stress (PSF)	Norm. Tip Q _{tip}	Corr. Tip Q	Friction Ratio F	Ic	F.C. (%)	K _{CPT}	Δq _{tip}	(Q _{tip}) _{0.5}	Induced Stress Ratio	Liquef. Stress M7.5	Liquef. Stress M7.10	Factor of Safety	Comments
CPT-4	66.44	10.8	296.5	2.6	125	8305	4159	201.2	140.5	0.89	1.8	7.4	0.06	13.7	214.9	0.471	1.003	1.203	2.55	NonLiqfble.
CPT-4	66.54	10.8	327.1	2.45	115	7652	3500	241.9	184.6	0.76	1.6	4.9	0.00	0.0	241.9	0.516	1.397	1.676	3.25	NonLiqfble.
CPT-4	66.62	10.8	320.4	2.25	115	7661	3504	236.8	180.6	0.71	1.6	4.7	0.00	0.0	236.8	0.516	1.315	1.578	3.06	NonLiqfble.
CPT-4	66.69	10.8	302.9	2.11	115	7669	3508	223.8	170.4	0.71	1.6	5.0	0.00	0.0	223.8	0.516	1.122	1.346	2.61	NonLiqfble.
CPT-4	66.77	10.8	279.9	2.04	115	7679	3512	206.7	157.1	0.74	1.7	5.7	0.02	3.7	210.4	0.516	0.946	1.135	2.20	NonLiqfble.
CPT-4	66.85	10.8	273	2.12	125	8356	4185	184.6	128.4	0.79	1.8	7.3	0.06	12.1	196.8	0.471	0.788	0.946	2.01	NonLiqfble.
CPT-4	66.93	10.8	272.8	2.22	125	8366	4190	184.4	128.2	0.83	1.8	7.6	0.07	13.7	198.1	0.471	0.803	0.963	2.04	NonLiqfble.
CPT-4	67	10.8	280.5	2.1	115	7705	3524	206.7	156.9	0.76	1.7	5.8	0.02	4.6	211.3	0.516	0.958	1.149	2.23	NonLiqfble.
CPT-4	67.08	10.8	277.8	2.36	125	8385	4199	187.6	130.3	0.86	1.8	7.7	0.07	14.7	202.3	0.471	0.850	1.020	2.16	NonLiqfble.
CPT-4	67.16	10.8	281.7	2.72	125	8395	4204	190.1	132.0	0.98	1.8	8.4	0.09	19.0	209.1	0.471	0.931	1.117	2.37	NonLiqfble.
CPT-4	67.23	10.8	285.1	3.01	125	8404	4209	192.3	133.4	1.07	1.8	8.9	0.10	22.4	214.7	0.471	1.000	1.200	2.55	NonLiqfble.
CPT-4	67.3	10.8	295	2.93	125	8413	4213	198.9	138.0	1.01	1.8	8.3	0.09	19.1	217.9	0.471	1.042	1.251	2.65	NonLiqfble.
CPT-4	67.38	10.8	265.6	2.69	125	8423	4218	178.9	123.9	1.03	1.8	9.2	0.11	22.5	201.4	0.471	0.840	1.008	2.14	NonLiqfble.
CPT-4	67.45	10.8	248.9	2.95	135	9106	4897	155.6	99.8	1.21	2.0	12.0	0.19	35.8	191.4	0.439	0.732	0.879	2.00	NonLiqfble.
CPT-4	67.53	10.8	243	2.88	135	9117	4903	151.8	97.2	1.21	2.0	12.2	0.19	36.3	188.1	0.439	0.699	0.839	1.91	NonLiqfble.
CPT-4	67.6	10.8	248.1	2.66	125	8450	4232	166.9	115.2	1.09	1.9	10.1	0.14	26.4	193.3	0.471	0.751	0.901	1.91	NonLiqfble.
CPT-4	67.67	10.8	260.4	3.03	125	8459	4236	175.1	120.9	1.18	1.9	10.3	0.14	28.9	204.0	0.471	0.869	1.043	2.21	NonLiqfble.
CPT-4	67.74	10.8	259.6	2.91	125	8468	4241	174.4	120.4	1.14	1.9	10.1	0.14	27.4	201.8	0.471	0.844	1.013	2.15	NonLiqfble.
CPT-4	67.81	10.8	249.3	2.75	125	8476	4245	167.4	115.4	1.12	1.9	10.3	0.14	27.6	195.0	0.471	0.770	0.923	1.96	NonLiqfble.
CPT-4	67.89	10.8	232.6	2.75	135	9165	4929	145.0	92.5	1.21	2.0	12.6	0.20	37.2	182.2	0.439	0.642	0.771	1.76	NonLiqfble.
CPT-4	67.96	10.8	227.6	2.62	125	8495	4254	152.7	105.0	1.17	1.9	11.4	0.17	31.3	184.0	0.471	0.659	0.791	1.68	NonLiqfble.
CPT-4	68.04	10.8	226.5	2.44	125	8505	4259	151.9	104.3	1.10	1.9	10.9	0.16	28.6	180.5	0.471	0.627	0.752	1.60	NonLiqfble.
CPT-4	68.11	10.8	244	2.25	125	8514	4264	163.5	112.4	0.94	1.9	9.3	0.11	21.2	184.7	0.471	0.666	0.800	1.70	NonLiqfble.
CPT-4	68.18	10.8	250	2.07	125	8523	4268	167.4	115.1	0.84	1.8	8.5	0.09	17.1	184.5	0.471	0.664	0.797	1.69	NonLiqfble.
CPT-4	68.25	10.8	260	2.28	125	8531	4272	174.0	119.7	0.89	1.8	8.5	0.09	18.1	192.1	0.471	0.739	0.887	1.88	NonLiqfble.
CPT-4	68.49	10.8	274.2	2.85	125	8561	4287	183.2	125.9	1.06	1.9	9.2	0.11	23.3	206.6	0.471	0.900	1.080	2.29	NonLiqfble.
CPT-4	68.57	10.8	297.2	3.01	125	8571	4292	198.5	136.4	1.03	1.8	8.5	0.09	20.3	218.8	0.471	1.054	1.265	2.68	NonLiqfble.
CPT-4	68.65	10.8	315.4	3.19	125	8581	4297	210.5	144.7	1.03	1.8	8.1	0.08	18.7	229.2	0.471	1.200	1.440	3.06	NonLiqfble.
CPT-4	68.73	10.8	333.7	3.42	125	8591	4302	222.6	153.1	1.04	1.8	7.8	0.07	17.8	240.4	0.471	1.371	1.646	3.49	NonLiqfble.
CPT-4	68.81	10.8	344.7	3.34	125	8601	4308	229.8	158.0	0.98	1.8	7.2	0.06	14.4	244.2	0.471	1.435	1.722	3.65	NonLiqfble.
CPT-4	68.88	10.8	350.3	4.09	135	9299	5001	216.7	138.2	1.18	1.9	9.3	0.12	28.3	245.1	0.439	1.449	1.738	3.96	NonLiqfble.
CPT-4	68.96	10.8	343.9	4.21	135	9310	5006	212.7	135.5	1.24	1.9	9.8	0.13	31.3	244.0	0.439	1.430	1.716	3.91	NonLiqfble.
CPT-4	69.03	10.8	341	4.06	135	9319	5012	210.8	134.2	1.21	1.9	9.7	0.12	30.1	240.8	0.439	1.379	1.655	3.77	NonLiqfble.
CPT-4	69.12	10.8	347.1	4.3	135	9331	5018	214.4	136.4	1.26	1.9	9.8	0.13	31.8	246.2	0.439	1.468	1.761	4.01	NonLiqfble.
CPT-4	69.19	10.8	368	4.4	135	9341	5023	227.2	144.6	1.21	1.8	9.2	0.11	28.5	255.6	0.439	1.634	1.961	4.47	NonLiqfble.
CPT-4	69.26	10.8	388.5	5.29	135	9350	5028	239.7	152.6	1.38	1.9	9.7	0.13	34.6	274.3	0.439	1.999	2.398	5.47	NonLiqfble.
CPT-4	69.34	10.8	404.6	4.65	135	9361	5034	249.5	158.8	1.16	1.8	8.3	0.09	23.8	273.3	0.439	1.978	2.374	5.41	NonLiqfble.
CPT-4	69.41	10.8	394.6	4.43	125	8676	4345	261.9	179.6	1.14	1.8	7.3	0.06	17.3	279.3	0.471	2.105	2.527	5.36	NonLiqfble.
CPT-4	69.48	10.8	427.7	4.21	125	8685	4349	283.8	194.6	0.99	1.7	6.0	0.03	8.1	291.9	0.471	2.393	2.872	6.10	NonLiqfble.
CPT-4	69.54	10.8	411	4.08	125	8693	4353	272.6	186.8	1.00	1.7	6.3	0.04	10.1	282.6	0.471	2.179	2.615	5.55	NonLiqfble.
CPT-4	69.61	10.8	415	4.06	125	8701	4358	275.1	188.4	0.99	1.7	6.2	0.03	9.1	284.1	0.471	2.213	2.656	5.64	NonLiqfble.
CPT-4	69.68	10.8	399.7	3.48	125	8710	4362	264.8	181.2	0.88	1.7	5.8	0.02	5.5	270.3	0.471	1.916	2.300	4.88	NonLiqfble.
CPT-4	69.74	10.8	388	3	125	8718	4366	256.9	175.7	0.78	1.7	5.3	0.01	2.1	259.0	0.471	1.697	2.036	4.32	NonLiqfble.
CPT-4	69.8	10.8	388	3.14	125	8725	4369	256.8	175.5	0.82	1.7	5.5	0.01	3.8	260.6	0.471	1.727	2.072	4.40	NonLiqfble.
CPT-4	69.87	10.8	373.8	3.62	125	8734	4374	247.3	168.9	0.98	1.7	6.8	0.05	12.4	259.7	0.471	1.709	2.051	4.35	NonLiqfble.
CPT-4	69.94	10.8	375.8	3.73	125	8743	4378	248.5	169.6	1.00	1.7	6.9	0.05	13.4	261.9	0.471	1.750	2.100	4.46	NonLiqfble.
CPT-4	70	10.8	362.5	3.78	125	8750	4382	239.6	163.4	1.06	1.8	7.5	0.07	16.8	256.4	0.471	1.647	1.977	4.20	NonLiqfble.
CPT-4	70.07	10.8	354.4	3.7	125	8759	4386	234.1	159.5	1.06	1.8	7.6	0.07	17.6	251.7	0.471	1.563	1.875	3.98	NonLiqfble.
CPT-4	70.13	10.8	337	3.63	125	8766	4390	222.5	151.5	1.09	1.8	8.2	0.08	20.5	243.0	0.471	1.415	1.698	3.60	NonLiqfble.
CPT-4	70.19	10.8	338.3	3.51	125	8774	4394	223.3	151.9	1.05	1.8	7.9	0.08	18.7	242.0	0.471	1.398	1.678	3.56	NonLiqfble.
CPT-4	70.24	10.8	334.4	3.25	125	8780	4397	220.6	150.0	0.98	1.8	7.6	0.07	16.3	236.9	0.471	1.317	1.580	3.35	NonLiqfble.
CPT-4	70.28	10.8	327	3.01	125	8785	4400	215.7	146.6	0.93	1.8	7.4	0.06	14.7	230.4	0.471	1.218	1.462	3.10	NonLiqfble.
CPT-4	70.32	10.8	314.9	2.65	125	8790	4402	207.7	141.0	0.85	1.8	7.1	0.06	12.5	220.2	0.471	1.073	1.287	2.73	NonLiqfble.
CPT-4	70.37	10.8	306.6	2.42	125	8796	4405	202.1	137.1	0.80	1.7	7.0	0.05	11.1	213.2	0.471	0.982	1.178	2.50	NonLiqfble.
CPT-4	70.41	10.8	300.1	2.45	125	8801	4408	197.8	134.1	0.83	1.8	7.3	0.06	12.9	210.7	0.471	0.950	1.139	2.42	NonLiqfble.
CPT-4	70.45	10.8	296.4	2.48	125	8806	4410	195.3	132.4	0.85	1.8	7.5	0.07	14.1	209.4	0.471	0.934	1.121	2.38	NonLiqfble.
CPT-4	70.49	10.8	292.4	2.55	125	8811	4413	192.6	130.5	0.89	1.8	7.9	0.08	16.0	208.6	0.471	0.924	1.108	2.35	NonLiqfble.
CPT-4	70.53	10.8	295	2.55	125	8816	4415	194.3	131.6	0.88	1.8	7.8	0.07	15.4	209.7	0.471	0.937	1.125	2.39	NonLiqfble.
CPT-4	70.58	10.8	301.3	2.34	125	8823	4418	198.3	134.3	0.79	1.7	7.0	0.05	11.2	209.5	0.471	0.935	1.122	2.38	NonLiqfble.
CPT-4	70.61	10.8	304.9	2.19	115	8120	3714	218.9	161.9	0.										

Project Name:	199 River Oaks Parkway
Project Number:	7862.3.001.01
Date:	20-Jul-07
CPT Number:	CPT-4
Depth to Groundwater:	10.8 ft

EQ Magnitude (M _w):	7.1
PGA (g):	0.55
MSF:	1.20

Cone	Depth (FT)	Water Table (FT)	Tip Resist. (TSF)	Sleeve Frict. (TSF)	γ (PCF)	Total Stress (PSF)	Effective Stress (PSF)	Norm. Tip Q _{tip} (PSF)	Corr. Tip Q (PSF)	Friction Ratio F	I _c	F.C. (%)	K _{corr}	Δq _{0.1N}	(q _{tip}) ^{0.5}	Induced Stress Ratio	Liquef. Stress M7.5	Liquef. Stress M7.10	Factor of Safety	Comments
CPT-4	71.15	10.8	360.3	3.44	125	8894	4454	236.2	159.7	0.97	1.7	7.1	0.05	13.7	249.9	0.471	1.532	1.838	3.90	NonLiqfble.
CPT-4	71.23	10.8	380.4	3.92	125	8904	4459	249.3	168.6	1.04	1.8	7.2	0.06	15.4	264.7	0.471	1.804	2.165	4.59	NonLiqfble.
CPT-4	71.31	10.8	374.2	4.18	125	8914	4464	245.1	165.6	1.13	1.8	7.8	0.07	19.8	264.9	0.471	1.808	2.170	4.61	NonLiqfble.
CPT-4	71.39	10.8	368.5	4.68	135	9638	5183	224.0	140.3	1.29	1.9	9.8	0.13	33.0	257.0	0.439	1.658	1.990	4.54	NonLiqfble.
CPT-4	71.47	10.8	335.1	4.9	135	9648	5189	203.5	127.3	1.48	1.9	11.6	0.18	43.7	247.2	0.439	1.485	1.782	4.06	NonLiqfble.
CPT-4	71.54	10.8	301.9	5.3	135	9658	5194	183.3	114.3	1.78	2.0	14.0	0.24	58.2	241.5	0.439	1.390	1.669	3.80	NonLiqfble.
CPT-4	71.62	10.8	290.5	4.99	135	9669	5200	176.3	109.8	1.75	2.0	14.2	0.25	57.3	233.6	0.439	1.265	1.518	3.46	NonLiqfble.
CPT-4	71.7	10.8	267.5	4.53	135	9680	5205	162.2	100.9	1.72	2.1	14.8	0.26	57.7	219.9	0.439	1.069	1.283	2.92	NonLiqfble.
CPT-4	71.77	10.8	260.8	3.93	135	9689	5211	158.1	98.2	1.54	2.0	14.1	0.24	50.4	208.5	0.439	0.923	1.107	2.52	NonLiqfble.
CPT-4	71.85	10.8	261	3.79	135	9700	5216	158.1	98.2	1.48	2.0	13.7	0.23	48.2	206.3	0.439	0.897	1.076	2.45	NonLiqfble.
CPT-4	71.92	10.8	280.2	2.88	125	8990	4502	182.7	122.4	1.04	1.9	9.4	0.12	24.1	206.8	0.471	0.903	1.083	2.30	NonLiqfble.
CPT-4	71.99	10.8	315.2	2.56	125	8999	4507	205.4	137.8	0.82	1.7	7.1	0.06	12.1	217.5	0.471	1.037	1.244	2.64	NonLiqfble.
CPT-4	72.06	10.8	336.9	2.45	115	8287	3790	239.4	175.5	0.74	1.6	5.0	0.00	0.0	239.5	0.516	1.357	1.629	3.16	NonLiqfble.
CPT-4	72.13	10.8	351.5	2.78	125	9016	4515	228.9	153.6	0.80	1.7	6.2	0.03	7.8	236.6	0.471	1.312	1.575	3.34	NonLiqfble.
CPT-4	72.17	10.8	340.4	2.91	125	9021	4518	221.6	148.6	0.87	1.7	6.9	0.05	11.7	233.2	0.471	1.260	1.512	3.21	NonLiqfble.
CPT-4	72.24	10.8	357.4	2.94	125	9030	4522	232.5	156.0	0.83	1.7	6.3	0.04	8.7	241.2	0.471	1.385	1.662	3.53	NonLiqfble.
CPT-4	72.3	10.8	380.7	2.86	125	9038	4526	247.6	166.2	0.76	1.7	5.5	0.01	3.2	250.8	0.471	1.547	1.857	3.94	NonLiqfble.
CPT-4	72.34	10.8	377.8	3.02	125	9043	4528	245.6	164.8	0.81	1.7	5.9	0.02	5.8	251.4	0.471	1.558	1.869	3.97	NonLiqfble.
CPT-4	72.44	10.8	373.5	3.27	125	9055	4535	242.7	162.7	0.89	1.7	6.4	0.04	9.7	252.4	0.471	1.575	1.890	4.01	NonLiqfble.
CPT-4	72.52	10.8	374.7	3.47	125	9065	4540	243.3	163.0	0.94	1.7	6.7	0.05	11.9	252.2	0.471	1.626	1.952	4.14	NonLiqfble.
CPT-4	72.6	10.8	375.6	3.14	125	9075	4545	243.8	163.2	0.85	1.7	6.2	0.03	7.8	251.5	0.471	1.560	1.872	3.97	NonLiqfble.
CPT-4	72.67	10.8	380.9	2.96	125	9084	4549	247.1	165.4	0.79	1.7	5.7	0.02	4.6	251.7	0.471	1.563	1.876	3.98	NonLiqfble.
CPT-4	72.75	10.8	386.4	2.95	125	9094	4554	250.5	167.6	0.77	1.7	5.5	0.01	3.5	254.0	0.471	1.604	1.925	4.09	NonLiqfble.
CPT-4	72.82	10.8	378.4	2.77	115	8374	3830	267.5	195.3	0.74	1.6	4.5	0.00	0.0	267.5	0.516	1.860	2.233	4.33	NonLiqfble.
CPT-4	72.9	10.8	377.7	2.91	125	9113	4564	244.6	163.5	0.78	1.7	5.7	0.02	4.7	249.4	0.471	1.522	1.826	3.88	NonLiqfble.
CPT-4	72.97	10.8	378.7	2.98	125	9121	4568	245.2	163.7	0.80	1.7	5.8	0.02	5.4	250.6	0.471	1.543	1.852	3.93	NonLiqfble.
CPT-4	73.04	10.8	373.6	3.02	125	9130	4572	241.7	161.4	0.82	1.7	6.0	0.03	6.9	248.7	0.471	1.510	1.812	3.85	NonLiqfble.
CPT-4	73.11	10.8	363.5	2.98	125	9139	4577	235.1	156.8	0.83	1.7	6.3	0.03	8.4	243.5	0.471	1.423	1.708	3.63	NonLiqfble.
CPT-4	73.19	10.8	362.1	2.84	125	9149	4582	234.1	156.0	0.79	1.7	6.1	0.03	7.0	241.1	0.471	1.383	1.660	3.52	NonLiqfble.
CPT-4	73.25	10.8	359.6	2.64	115	8424	3853	253.5	184.4	0.74	1.6	4.8	0.00	0.0	253.5	0.516	1.595	1.914	3.71	NonLiqfble.
CPT-4	73.32	10.8	352.6	2.84	125	9165	4590	227.7	151.6	0.82	1.7	6.4	0.04	8.9	236.6	0.471	1.312	1.575	3.34	NonLiqfble.
CPT-4	73.39	10.8	347.9	2.66	125	9174	4594	224.6	149.4	0.77	1.7	6.2	0.03	7.6	232.2	0.471	1.244	1.492	3.17	NonLiqfble.
CPT-4	73.45	10.8	345.4	2.33	115	8447	3863	243.1	176.5	0.68	1.6	4.6	0.00	0.0	243.1	0.516	1.417	1.700	3.30	NonLiqfble.
CPT-4	73.51	10.8	337.3	2.23	115	8454	3867	237.3	172.2	0.67	1.6	4.7	0.00	0.0	237.3	0.516	1.323	1.588	3.08	NonLiqfble.
CPT-4	73.55	10.8	331.1	2.06	115	8458	3869	232.9	168.9	0.63	1.6	4.5	0.00	0.0	232.9	0.516	1.255	1.506	2.92	NonLiqfble.
CPT-4	73.58	10.8	323.7	2.01	115	8462	3870	227.7	165.0	0.63	1.6	4.6	0.00	0.0	227.7	0.516	1.177	1.413	2.74	NonLiqfble.
CPT-4	73.62	10.8	314.9	2.02	115	8466	3872	221.4	160.4	0.65	1.6	4.9	0.00	0.0	221.4	0.516	1.089	1.307	2.53	NonLiqfble.
CPT-4	73.65	10.8	313.8	1.96	115	8470	3874	220.6	159.7	0.63	1.6	4.8	0.00	0.0	220.6	0.516	1.078	1.294	2.51	NonLiqfble.
CPT-4	73.7	10.8	311.1	1.8	115	8476	3877	218.6	158.2	0.59	1.6	4.5	0.00	0.0	218.6	0.516	1.052	1.262	2.45	NonLiqfble.
CPT-4	73.75	10.8	306.2	1.68	115	8481	3879	215.1	155.6	0.56	1.6	4.4	0.00	0.0	215.1	0.516	1.006	1.207	2.34	NonLiqfble.
CPT-4	73.8	10.8	298.2	1.41	105	7749	3144	232.7	187.2	0.48	1.5	2.8	0.00	0.0	232.7	0.582	1.252	1.502	2.58	NonLiqfble.
CPT-4	73.85	10.8	286.5	1.33	105	7754	3146	223.5	179.6	0.47	1.5	3.0	0.00	0.0	223.5	0.582	1.118	1.342	2.31	NonLiqfble.
CPT-4	73.91	10.8	276.5	1.35	105	7761	3149	215.6	173.1	0.50	1.5	3.3	0.00	0.0	215.6	0.582	1.012	1.214	2.09	NonLiqfble.
CPT-4	73.96	10.8	262.8	1.41	115	8505	3890	184.4	132.9	0.55	1.7	5.2	0.01	1.2	185.6	0.516	0.674	0.809	1.57	NonLiqfble.
CPT-4	73.99	10.8	256.9	1.47	115	8509	3892	180.2	129.8	0.58	1.7	5.7	0.02	3.4	183.5	0.516	0.655	0.786	1.52	NonLiqfble.
CPT-4	74.03	10.8	247.5	1.55	115	8513	3894	173.5	124.9	0.64	1.7	6.4	0.04	6.6	180.1	0.516	0.624	0.748	1.45	NonLiqfble.
CPT-4	74.06	10.8	240.4	1.59	115	8517	3896	168.5	121.2	0.67	1.7	6.9	0.05	8.8	177.3	0.516	0.598	0.718	1.39	NonLiqfble.
CPT-4	74.1	10.8	233.9	1.61	115	8522	3898	163.9	117.8	0.70	1.8	7.3	0.06	10.5	174.5	0.516	0.574	0.689	1.33	NonLiqfble.
CPT-4	74.13	10.8	228.6	1.59	115	8525	3899	160.2	115.0	0.71	1.8	7.5	0.07	11.4	171.6	0.516	0.550	0.660	1.28	Low F.S.
CPT-4	74.17	10.8	225.7	1.46	115	8530	3901	158.1	113.5	0.66	1.8	7.2	0.06	9.9	168.0	0.516	0.521	0.625	1.21	Low F.S.
CPT-4	74.2	10.8	226.3	1.44	115	8533	3903	158.5	113.7	0.65	1.8	7.1	0.06	9.4	167.9	0.516	0.520	0.624	1.21	Low F.S.
CPT-4	74.26	10.8	213.9	1.68	125	9283	4649	137.3	90.0	0.80	1.9	10.1	0.14	21.6	158.9	0.471	0.453	0.543	1.15	Low F.S.
CPT-4	74.32	10.8	212.5	1.85	125	9290	4652	136.3	89.3	0.89	1.9	10.8	0.16	25.0	161.3	0.471	0.471	0.565	1.20	Low F.S.
CPT-4	74.37	10.8	214.8	1.88	125	9296	4656	137.7	90.2	0.89	1.9	10.8	0.15	25.0	162.7	0.471	0.481	0.577	1.22	Low F.S.
CPT-4	74.41	10.8	222.2	1.78	125	9301	4658	142.4	93.4	0.82	1.9	9.9	0.13	21.5	163.9	0.471	0.490	0.588	1.25	Low F.S.
CPT-4	74.44	10.8	229.5	1.68	115	8561	3916	160.5	115.0	0.75	1.8	7.8	0.07	12.8	173.3	0.516	0.564	0.677	1.31	NonLiqfble.
CPT-4	74.49	10.8	239.9	1.59	115	8566	3918	167.7	120.2	0.67	1.7	6.9	0.05	9.1	176.7	0.516	0.593	0.712	1.38	NonLiqfble.
CPT-4	74.56	10.8	250.9	1.41	115	8574	3922	175.3	125.7	0.57	1.7	5.8	0.02	3.9	179.2	0.516	0.615	0.738	1.43	NonLiqfble.
CPT-4	74.62	10.8	265.7	1.36	115	8581	3925	185.6	133.1	0.52	1.6	5.0	0.00	0.1	185.7	0.516	0.675	0.810	1.57	NonLiqfble.
CPT-4	74.66	10.8	264.6	1.48	115	8586	3927	184.7	132.5											

Project Name: 199 River Oaks Parkway
Project Number: 7862.3.001.01
Date: 20-Jul-07
CPT Number: CPT-4
Depth to Groundwater: 10.8 ft

EQ Magnitude (M_w): 7.1
PGA (g): 0.55
MSF: 1.20

Cone	Depth (FT)	Water Table (FT)	Tip Resist. (TSF)	Sleeve Fric. (TSF)	γ (PCF)	Total Stress (PSF)	Effective Stress (PSF)	Norm. Tip Q _{tip}	Corr. Tip Q	Friction Ratio F	Ic	F.C. (%)	K _{CPT}	ΔQ _{tip}	(Q _{tip}) ^{0.5}	Induced Stress Ratio	Liquef. Stress M7.5	Liquef. Stress M7.10	Factor of Safety	Comments
CPT-4	75.21	10.8	228.6	2.54	125	9401	4708	145.8	95.1	1.13	2.0	12.0	0.19	33.2	179.0	0.471	0.613	0.736	1.56	NonLiqfble.
CPT-4	75.3	10.8	218	2.86	135	10166	5467	129.0	77.9	1.34	2.1	15.1	0.27	47.6	176.6	0.439	0.592	0.711	1.62	NonLiqfble.
CPT-4	75.37	10.8	222.4	3.2	135	10175	5472	131.5	79.4	1.47	2.1	15.7	0.29	52.5	184.0	0.439	0.660	0.792	1.80	NonLiqfble.
CPT-4	75.45	10.8	258.5	3.7	135	10186	5478	152.8	92.5	1.46	2.0	14.2	0.24	49.6	202.4	0.439	0.851	1.021	2.33	NonLiqfble.
CPT-4	75.53	10.8	322.7	3.8	135	10197	5483	190.7	115.8	1.20	1.9	10.7	0.15	34.4	225.1	0.439	1.140	1.369	3.12	NonLiqfble.
CPT-4	75.6	10.8	394.2	3.71	125	9450	4733	250.7	164.5	0.95	1.7	6.8	0.05	12.5	263.3	0.471	1.777	2.132	4.53	NonLiqfble.
CPT-4	75.67	10.8	441.4	4.17	125	9459	4737	280.6	184.3	0.95	1.7	6.1	0.03	8.7	289.3	0.471	2.331	2.797	5.94	NonLiqfble.
CPT-4	75.74	10.8	445.6	4.21	125	9468	4741	283.1	185.9	0.95	1.7	6.1	0.03	8.3	291.5	0.471	2.383	2.860	6.07	NonLiqfble.
CPT-4	75.8	10.8	446.1	4.23	125	9475	4745	283.4	186.0	0.96	1.7	6.1	0.03	8.5	291.9	0.471	2.392	2.870	6.09	NonLiqfble.
CPT-4	75.87	10.8	456.2	4.4	125	9484	4749	289.6	190.0	0.97	1.7	6.1	0.03	8.5	298.1	0.471	2.544	3.052	6.48	NonLiqfble.
CPT-4	75.93	10.8	443.2	4.22	125	9491	4753	281.3	184.4	0.96	1.7	6.2	0.03	9.0	290.3	0.471	2.355	2.826	6.00	NonLiqfble.
CPT-4	76	10.8	440.4	4.08	125	9500	4758	279.4	183.1	0.94	1.7	6.0	0.03	8.0	287.4	0.471	2.288	2.746	5.83	NonLiqfble.
CPT-4	76.06	10.8	442.9	4.05	125	9508	4761	280.8	184.0	0.92	1.7	5.9	0.03	7.3	288.1	0.471	2.304	2.765	5.87	NonLiqfble.
CPT-4	76.12	10.8	440.9	3.64	125	9515	4765	279.5	183.0	0.83	1.7	5.4	0.01	3.1	282.6	0.471	2.179	2.615	5.55	NonLiqfble.
CPT-4	76.16	10.8	436	3.3	125	9520	4768	276.3	180.8	0.77	1.6	5.0	0.00	0.2	276.5	0.471	2.046	2.456	5.21	NonLiqfble.
CPT-4	76.2	10.8	429.4	2.96	115	8763	4008	296.8	212.0	0.70	1.6	3.7	0.00	0.0	296.8	0.516	2.511	3.013	5.84	NonLiqfble.
CPT-4	76.25	10.8	424.8	2.92	115	8769	4011	293.5	209.6	0.69	1.6	3.8	0.00	0.0	293.5	0.516	2.431	2.917	5.65	NonLiqfble.
CPT-4	76.29	10.8	420.6	3.1	125	9536	4776	266.3	174.1	0.75	1.6	5.1	0.00	0.8	267.1	0.471	1.852	2.223	4.72	NonLiqfble.
CPT-4	76.33	10.8	422.1	3.21	125	9541	4778	267.2	174.6	0.77	1.7	5.3	0.01	1.8	269.0	0.471	1.890	2.269	4.82	NonLiqfble.
CPT-4	76.37	10.8	419.5	3.26	125	9546	4781	265.5	173.4	0.79	1.7	5.4	0.01	2.9	268.4	0.471	1.878	2.253	4.78	NonLiqfble.
CPT-4	76.41	10.8	420	3.39	125	9551	4783	265.7	173.5	0.82	1.7	5.6	0.02	4.3	270.0	0.471	1.911	2.294	4.87	NonLiqfble.
CPT-4	76.44	10.8	422.6	3.57	125	9555	4785	267.3	174.6	0.85	1.7	5.8	0.02	5.9	273.2	0.471	1.977	2.372	5.04	NonLiqfble.
CPT-4	76.5	10.8	426.9	3.59	125	9563	4789	269.9	176.2	0.85	1.7	5.7	0.02	5.4	275.3	0.471	2.020	2.425	5.15	NonLiqfble.
CPT-4	76.54	10.8	430.2	3.72	125	9568	4791	271.9	177.5	0.87	1.7	5.8	0.02	6.3	278.2	0.471	2.082	2.499	5.30	NonLiqfble.
CPT-4	76.58	10.8	424.4	3.77	125	9573	4794	268.2	175.0	0.90	1.7	6.1	0.03	7.9	276.1	0.471	2.038	2.446	5.19	NonLiqfble.
CPT-4	76.61	10.8	419.5	3.79	125	9576	4796	265.0	172.9	0.91	1.7	6.2	0.03	9.1	274.2	0.471	1.996	2.396	5.08	NonLiqfble.
CPT-4	76.67	10.8	410.4	3.95	125	9584	4800	259.2	168.9	0.97	1.7	6.8	0.05	12.7	271.9	0.471	1.950	2.340	4.97	NonLiqfble.
CPT-4	76.74	10.8	423.9	4.16	125	9593	4804	267.6	174.4	0.99	1.7	6.7	0.04	12.5	280.1	0.471	2.124	2.549	5.41	NonLiqfble.
CPT-4	76.78	10.8	414.5	4.08	125	9598	4806	261.6	170.4	1.00	1.7	6.8	0.05	13.5	275.1	0.471	2.015	2.418	5.13	NonLiqfble.
CPT-4	76.84	10.8	411.9	4.1	125	9605	4810	259.9	169.2	1.01	1.7	6.9	0.05	14.2	274.1	0.471	1.995	2.394	5.08	NonLiqfble.
CPT-4	76.9	10.8	407.9	4.08	125	9613	4814	257.2	167.4	1.01	1.7	7.0	0.05	14.8	272.1	0.471	1.953	2.343	4.97	NonLiqfble.
CPT-4	76.94	10.8	395.7	3.94	125	9618	4816	249.5	162.2	1.01	1.8	7.2	0.06	15.6	265.1	0.471	1.813	2.176	4.62	NonLiqfble.
CPT-4	77	10.8	357.7	3.88	125	9625	4820	225.4	146.4	1.10	1.8	8.4	0.09	22.8	248.2	0.471	1.502	1.802	3.82	NonLiqfble.
CPT-4	77.06	10.8	398.5	3.97	125	9633	4824	251.0	163.2	1.01	1.8	7.2	0.06	15.5	266.5	0.471	1.841	2.209	4.69	NonLiqfble.

Project Name: 199 River Oaks Parkway
Project Number: 7862.3.001.01
Date: 20-Jul-07
CPT Number: CPT-5
Depth to Groundwater: 11 ft

EQ Magnitude (M_w): 7.1
PGA (g): 0.55
MSF: 1.20

Cone	Depth (FT)	Water Table (FT)	Tip Resist. (TSF)	Sleeve Frict. (TSF)	γ (PCF)	Total Stress (PSF)	Effective Stress (PSF)	Norm. Tip Q _{IN}	Corr. Tip Q	Friction Ratio F	Ic	F.C. (%)	K _{CPT}	ΔQ _{IN}	(Q _{IN}) _{0.5}	Induced Stress Ratio	Liquef. Stress M7.5	Liquef. Stress M7.10	Factor of Safety	Comments
CPT-5	0.55	11	266.6	11.4	140	77	77	510.6	6920.8	4.28	1.9	10.1	0.14	80.5	591.1	0.358	19.284	23.141	64.73	Above W.T.
CPT-5	0.63	11	211	9.81	140	88	88	404.1	4781.6	4.65	1.9	10.4	0.14	67.6	471.7	0.358	9.844	11.812	33.04	Above W.T.
CPT-5	0.71	11	178	7.6	140	99	99	340.9	3579.0	4.27	1.9	9.3	0.11	44.0	384.9	0.358	5.381	6.458	18.06	Above W.T.
CPT-5	0.8	11	133.9	6.17	140	112	112	256.4	2389.1	4.61	1.9	10.1	0.13	40.0	296.5	0.358	2.503	3.004	8.40	Above W.T.
CPT-5	0.89	11	96.6	5.89	140	125	125	185.0	1548.9	6.10	2.0	13.6	0.23	55.4	240.4	0.358	1.372	1.647	4.61	Above W.T.
CPT-5	0.98	11	79.5	5.49	140	137	137	152.3	1157.4	6.91	2.1	15.8	0.29	61.6	213.9	0.358	0.990	1.188	3.32	Above W.T.
CPT-5	1.06	11	66	4.74	135	143	143	126.4	921.0	7.19	2.1	17.0	0.32	59.3	185.7	0.358	0.676	0.811	2.27	Above W.T.
CPT-5	1.14	11	56.1	4.24	135	154	154	107.4	727.7	7.57	2.2	18.5	0.36	60.6	168.0	0.358	0.521	0.625	1.75	Above W.T.
CPT-5	1.22	11	51.2	3.8	135	165	165	98.1	620.5	7.43	2.2	18.9	0.37	58.1	156.1	0.358	0.434	0.521	1.46	Above W.T.
CPT-5	1.3	11	44.6	3.42	135	176	176	85.4	507.0	7.68	2.2	20.4	0.41	59.4	144.9	0.358	0.363	0.435	1.22	Above W.T.
CPT-5	1.38	11	43.8	3.18	135	186	186	83.9	469.0	7.28	2.2	20.0	0.40	56.1	140.0	0.358	0.335	0.402	1.13	Above W.T.
CPT-5	1.46	11	41.7	3.05	135	197	197	79.9	422.0	7.33	2.2	20.7	0.42	57.7	137.5	0.358	0.322	0.386	1.08	Above W.T.
CPT-5	1.54	11	42.1	3	135	208	208	80.6	403.8	7.14	2.2	20.6	0.42	57.5	138.2	0.358	0.325	0.390	1.09	Above W.T.
CPT-5	1.62	11	43.1	2.97	135	219	219	82.5	393.0	6.91	2.2	20.3	0.41	56.9	139.5	0.358	0.332	0.399	1.12	Above W.T.
CPT-5	1.7	11	43.7	2.93	135	230	230	83.7	379.7	6.72	2.2	20.1	0.40	56.6	140.3	0.358	0.337	0.404	1.13	Above W.T.
CPT-5	1.78	11	42.6	2.89	135	240	240	81.6	353.4	6.80	2.3	20.7	0.42	59.0	140.6	0.358	0.338	0.406	1.14	Above W.T.
CPT-5	1.87	11	41.8	2.75	135	252	252	80.1	330.0	6.60	2.3	20.7	0.42	58.0	138.0	0.358	0.325	0.389	1.09	Above W.T.
CPT-5	1.94	11	41.1	2.71	135	262	262	78.7	312.7	5.15	2.2	17.8	0.34	40.9	119.6	0.358	0.239	0.287	0.80	Above W.T.
CPT-5	2.03	11	37.1	2.09	135	274	274	71.1	269.6	5.65	2.2	20.0	0.40	47.4	118.5	0.358	0.235	0.282	0.79	Above W.T.
CPT-5	2.11	11	33.4	2.05	135	285	285	64.0	233.4	6.16	2.3	22.2	0.46	54.5	118.5	0.358	0.235	0.282	0.79	Above W.T.
CPT-5	2.16	11	34.2	2.12	135	292	292	65.5	233.5	6.23	2.3	22.4	0.46	56.6	122.1	0.358	0.249	0.299	0.84	Above W.T.
CPT-5	2.27	11	35.2	2.1	135	306	306	67.4	228.6	5.99	2.3	22.0	0.45	56.0	123.4	0.358	0.255	0.306	0.86	Above W.T.
CPT-5	2.36	11	32.8	2.09	135	319	319	62.8	204.8	6.40	2.3	23.8	0.50	63.4	126.2	0.358	0.267	0.320	0.90	Above W.T.
CPT-5	2.44	11	32	2.08	135	329	329	61.3	193.2	6.53	2.4	24.6	0.52	67.2	128.5	0.358	0.277	0.333	0.93	Above W.T.
CPT-5	2.53	11	31.8	2.12	135	342	342	60.9	185.1	6.70	2.4	25.3	0.54	72.4	133.3	0.358	0.300	0.360	1.01	Above W.T.
CPT-5	2.62	11	31.4	2.15	135	354	354	60.1	176.5	6.89	2.4	26.2	0.57	78.2	138.3	0.358	0.326	0.391	1.09	Above W.T.
CPT-5	2.71	11	31.4	2.19	135	366	366	60.1	170.6	7.02	2.4	26.8	0.58	83.4	143.6	0.358	0.355	0.426	1.19	Above W.T.
CPT-5	2.8	11	32.4	2.25	135	378	378	62.1	170.4	6.99	2.4	26.7	0.58	85.6	147.6	0.358	0.379	0.455	1.27	Above W.T.
CPT-5	2.88	11	33.3	2.34	135	389	389	63.8	170.2	7.07	2.4	26.9	0.58	89.8	153.6	0.358	0.417	0.500	1.40	Above W.T.
CPT-5	2.98	11	34.6	2.46	135	402	402	66.3	170.9	7.15	2.4	27.0	0.59	94.7	161.0	0.358	0.468	0.562	1.57	Above W.T.
CPT-5	3.07	11	37.6	2.55	135	414	414	72.0	180.4	6.82	2.4	25.8	0.56	90.2	162.2	0.358	0.477	0.573	1.60	Above W.T.
CPT-5	3.16	11	38.8	2.58	135	427	427	74.3	180.8	6.69	2.4	25.5	0.55	90.0	164.3	0.358	0.492	0.591	1.65	Above W.T.
CPT-5	3.25	11	39.3	2.6	135	439	439	75.3	178.1	6.65	2.4	25.6	0.55	91.7	167.0	0.358	0.513	0.616	1.72	Above W.T.
CPT-5	3.34	11	38.3	2.7	135	451	451	73.4	168.8	7.09	2.4	27.0	0.59	104.7	178.1	0.358	0.605	0.726	2.03	Above W.T.
CPT-5	3.44	11	37.6	2.72	135	464	464	72.0	160.9	7.28	2.4	27.9	0.61	113.1	185.1	0.358	0.670	0.804	2.25	Above W.T.
CPT-5	3.53	11	38.1	2.72	135	477	477	73.0	158.8	7.18	2.4	27.8	0.61	113.5	186.5	0.358	0.683	0.820	2.29	Above W.T.
CPT-5	3.62	11	37.9	2.77	135	489	489	72.6	154.0	7.36	2.4	28.5	0.63	121.7	194.3	0.358	0.762	0.915	2.56	Above W.T.
CPT-5	3.72	11	36.9	2.78	135	502	502	70.7	145.9	7.59	2.5	29.5	0.65	133.5	204.2	0.358	0.871	1.046	2.92	Above W.T.
CPT-5	3.81	11	35.6	2.82	135	514	514	68.2	137.4	7.98	2.5	30.9	0.69	153.4	221.5	0.358	1.091	1.309	3.66	Above W.T.
CPT-5	3.91	11	36.3	2.83	135	528	528	69.1	136.5	7.85	2.5	30.7	0.69	151.8	220.9	0.358	1.082	1.299	3.63	Above W.T.
CPT-5	4	11	35.3	2.83	135	540	540	66.5	129.7	8.08	2.5	31.7	0.71	165.9	232.3	0.358	1.246	1.495	4.18	Above W.T.
CPT-5	4.1	11	34.4	2.8	135	554	554	64.0	123.2	8.21	2.5	32.5	0.74	178.0	241.9	0.358	1.397	1.676	4.69	Above W.T.
CPT-5	4.19	11	34.5	2.74	135	566	566	63.5	120.9	8.01	2.5	32.3	0.73	171.7	235.2	0.358	1.290	1.548	4.33	Above W.T.
CPT-5	4.28	11	34.5	2.74	135	579	579	62.7	118.1	8.01	2.5	32.6	0.74	176.0	238.7	0.358	1.345	1.614	4.51	Above W.T.
CPT-5	4.38	11	32.8	2.69	135	591	591	59.0	109.9	8.28	2.6	34.0	0.77	201.9	260.9	0.358	1.731	2.078	5.81	Above W.T.
CPT-5	4.48	11	31.9	2.62	135	605	605	56.8	104.4	8.29	2.6	34.6	0.79	214.1	270.8	0.358	1.928	2.313	6.47	Above W.T.
CPT-5	4.57	11	31.5	2.61	135	617	617	55.5	101.1	8.37	2.6	35.2	0.80	222.0	277.4	0.358	2.066	2.479	6.94	Above W.T.
CPT-5	4.67	11	30.9	2.57	135	630	630	53.8	97.0	8.40	2.6	35.7	0.80	215.4	269.2	0.358	1.895	2.274	6.36	Above W.T.
CPT-5	4.76	11	30	2.54	135	643	643	51.8	92.3	8.56	2.6	36.6	0.80	207.1	258.9	0.358	1.694	2.033	5.69	Above W.T.
CPT-5	4.85	11	29.7	2.52	135	655	655	50.8	89.7	8.58	2.6	37.1	0.80	203.1	253.9	0.358	1.603	1.923	5.38	Above W.T.
CPT-5	4.94	11	29.2	2.48	135	667	667	49.5	86.5	8.59	2.6	37.5	0.80	197.9	247.4	0.358	1.488	1.785	4.99	Above W.T.
CPT-5	5.04	11	28.4	2.36	135	680	680	47.6	82.4	8.41	2.6	37.8	0.80	190.6	238.2	0.358	1.337	1.604	4.49	Above W.T.
CPT-5	5.13	11	27.8	2.33	135	693	693	46.2	79.2	8.49	2.7	38.5	0.80	184.9	231.1	0.358	1.228	1.473	4.12	Above W.T.
CPT-5	5.22	11	28.1	2.21	135	705	705	46.3	78.7	7.96	2.6	37.4	0.80	185.3	231.6	0.358	1.235	1.482	4.15	Above W.T.
CPT-5	5.31	11	28.7	2.23	135	717	717	46.9	79.0	7.87	2.6	37.1	0.80	187.6	234.5	0.358	1.279	1.535	4.29	Above W.T.
CPT-5	5.39	11	28.7	2.33	135	728	728	46.6	77.9	8.22	2.7	38.1	0.80	186.2	232.8	0.358	1.253	1.503	4.21	Above W.T.
CPT-5	5.45	11	28.8	2.37	135	736	736	46.5	77.3	8.34	2.7	38.5	0.80	185.8	232.3	0.358	1.246	1.495	4.18	Above W.T.
CPT-5	5.55	11	28.1	2.44	135	749	749	44.9	74.0	8.80	2.7	40.0	0.80	179.7	224.6	0.358	1.133	1.360	3.80	Above W.T.
CPT-5	5.64	11	27.4	2.4	135	761	761	43.4	70.9	8.88	2.7	40.8	0.80	173.8	217.2	0.358	1.033	1.240	3.47	Above W.T.
CPT-5	5.73	11	27.9	2.35	135	774	774	43.9	71.1	8.54	2.7	40.0	0.80	175.6	219.5	0.358	1.063	1.276	3.57	Above W.T.
CPT-5	5.82	11	27.8	2.33	135	786	786	43.4	69.7	8.50	2.7	40.2	0.80	173.6	217.0	0.358	1.030	1.236	3.46	Above W.T.
CPT-5	5.91	11	26.1	2.27	135	798	798	40.4	64.4	8.83	2.7	42.1	0.80	161.7	202.1	0.358	0.848	1.018	2.85	Above W.T.
CPT-5	6.01	11	25.4</																	

Project Name:	199 River Oaks Parkway
Project Number:	7862.3.001.01
Date:	20-Jul-07
CPT Number:	CPT-5
Depth to Groundwater:	11 ft

EQ Magnitude (M _w):	7.1
PGA (g):	0.55
MSF:	1.20

Cone	Depth (FT)	Water Table (FT)	Tip Resist. (TSF)	Sleeve Frict. (TSF)	γ (PCF)	Total Stress (PSF)	Effective Stress (PSF)	Norm. Tip Q _{tip} (PSF)	Corr. Tip Q (PSF)	Friction Ratio F	I _c	F.C. (%)	K _{crp}	Δq _{IN}	(q _{IN}) ₀	Induced Stress Ratio	Liquef. Stress M7.5	Liquef. Stress M7.10	Factor of Safety	Comments
CPT-5	6.66	11	23.7	2.1	135	899	899	34.6	51.7	9.03	2.8	45.8	0.80	138.3	172.9	0.358	0.561	0.673	1.88	Above W.T.
CPT-5	6.76	11	24.1	2.12	135	913	913	34.9	51.8	8.97	2.8	45.6	0.80	139.6	174.5	0.358	0.574	0.689	1.93	Above W.T.
CPT-5	6.86	11	24.8	2.13	135	926	926	35.7	52.5	8.75	2.8	44.9	0.80	142.6	178.3	0.358	0.607	0.728	2.04	Above W.T.
CPT-5	6.95	11	23.4	2.16	135	938	938	33.4	48.9	9.42	2.8	47.5	0.80	133.7	167.1	0.358	0.514	0.617	1.73	Above W.T.
CPT-5	7.05	11	23.3	2.19	135	952	952	33.0	47.9	9.60	2.8	48.2	0.80	132.2	165.2	0.358	0.499	0.599	1.68	Above W.T.
CPT-5	7.14	11	24.5	2.23	135	964	964	34.5	49.8	9.28	2.8	46.9	0.80	138.1	172.6	0.358	0.559	0.670	1.87	Above W.T.
CPT-5	7.24	11	25.3	2.32	135	977	977	35.4	50.7	9.35	2.8	46.8	0.80	141.6	177.0	0.358	0.596	0.715	2.00	Above W.T.
CPT-5	7.33	11	26.7	2.37	135	990	990	37.1	52.9	9.04	2.8	45.4	0.80	148.5	185.7	0.358	0.675	0.810	2.27	Above W.T.
CPT-5	7.42	11	27	2.38	135	1002	1002	37.3	52.9	8.98	2.8	45.3	0.80	149.3	186.6	0.358	0.685	0.821	2.30	Above W.T.
CPT-5	7.52	11	26.5	2.35	135	1015	1015	36.4	51.2	9.04	2.8	46.0	0.80	145.6	182.0	0.358	0.640	0.768	2.15	Above W.T.
CPT-5	7.61	11	26	2.31	135	1027	1027	35.5	49.6	9.06	2.8	46.5	0.80	142.0	177.5	0.358	0.600	0.720	2.01	Above W.T.
CPT-5	7.7	11	26.4	2.27	135	1040	1040	35.8	49.8	8.77	2.8	45.8	0.80	143.3	179.1	0.358	0.615	0.738	2.06	Above W.T.
CPT-5	7.79	11	26.7	2.28	135	1052	1052	36.0	49.8	8.71	2.8	45.7	0.80	144.1	180.1	0.358	0.623	0.748	2.09	Above W.T.
CPT-5	7.89	11	26.5	2.26	135	1065	1065	35.5	48.7	8.70	2.8	46.0	0.80	142.1	177.6	0.358	0.601	0.722	2.02	Above W.T.
CPT-5	7.98	11	26.5	2.26	135	1077	1077	35.3	48.2	8.71	2.8	46.2	0.80	141.3	176.6	0.358	0.592	0.711	1.99	Above W.T.
CPT-5	8.07	11	26.8	2.25	135	1089	1089	35.5	48.2	8.57	2.8	45.9	0.80	142.1	177.6	0.358	0.601	0.721	2.02	Above W.T.
CPT-5	8.17	11	26.9	2.24	135	1103	1103	35.4	47.8	8.50	2.8	45.9	0.80	141.8	177.2	0.358	0.597	0.717	2.01	Above W.T.
CPT-5	8.26	11	27.6	2.24	135	1115	1115	36.2	48.5	8.28	2.8	45.1	0.80	144.7	180.8	0.358	0.630	0.756	2.11	Above W.T.
CPT-5	8.35	11	27.2	2.31	135	1127	1127	35.4	47.2	8.67	2.8	46.4	0.80	141.8	177.2	0.358	0.598	0.717	2.01	Above W.T.
CPT-5	8.45	11	27.6	2.35	135	1141	1141	35.8	47.4	8.69	2.8	46.4	0.80	143.0	178.8	0.358	0.611	0.734	2.05	Above W.T.
CPT-5	8.56	11	28.9	2.33	135	1156	1156	37.2	49.0	8.23	2.8	44.8	0.80	148.8	186.0	0.358	0.678	0.814	2.28	Above W.T.
CPT-5	8.65	11	29.2	2.33	135	1168	1168	37.4	49.0	8.14	2.8	44.6	0.80	149.5	186.9	0.358	0.688	0.825	2.31	Above W.T.
CPT-5	8.75	11	29.4	2.32	135	1181	1181	37.4	48.8	8.05	2.8	44.5	0.80	149.7	187.1	0.358	0.689	0.827	2.31	Above W.T.
CPT-5	8.84	11	29.6	2.34	135	1193	1193	37.5	48.6	8.07	2.8	44.6	0.80	150.0	187.4	0.358	0.693	0.831	2.32	Above W.T.
CPT-5	8.93	11	30.2	2.34	135	1206	1206	38.1	49.1	7.91	2.8	44.1	0.80	152.2	190.3	0.358	0.721	0.865	2.42	Above W.T.
CPT-5	9.03	11	30	2.32	135	1219	1219	37.6	48.2	7.89	2.8	44.3	0.80	150.4	188.0	0.358	0.698	0.837	2.34	Above W.T.
CPT-5	9.12	11	30	2.3	135	1231	1231	37.4	47.7	7.83	2.8	44.3	0.80	149.6	187.0	0.358	0.689	0.826	2.31	Above W.T.
CPT-5	9.21	11	29.4	2.24	135	1243	1243	36.5	46.3	7.78	2.8	44.7	0.80	145.9	182.4	0.358	0.644	0.773	2.16	Above W.T.
CPT-5	9.31	11	29.6	2.23	135	1257	1257	36.5	46.1	7.70	2.8	44.6	0.80	146.1	182.7	0.358	0.647	0.776	2.17	Above W.T.
CPT-5	9.4	11	31	2.26	135	1269	1269	38.1	47.8	7.44	2.8	43.3	0.80	152.3	190.4	0.358	0.722	0.866	2.42	Above W.T.
CPT-5	9.49	11	32.9	2.38	135	1281	1281	40.2	50.3	7.38	2.7	42.4	0.80	160.9	201.1	0.358	0.836	1.003	2.81	Above W.T.
CPT-5	9.59	11	34.6	2.49	135	1295	1295	42.1	52.4	7.33	2.7	41.7	0.80	168.3	210.4	0.358	0.946	1.135	3.17	Above W.T.
CPT-5	9.68	11	36.1	2.63	135	1307	1307	43.7	54.2	7.42	2.7	41.4	0.80	174.8	218.5	0.358	1.050	1.260	3.52	Above W.T.
CPT-5	9.77	11	36.5	2.68	135	1319	1319	44.0	54.3	7.48	2.7	41.5	0.80	175.9	219.9	0.358	1.069	1.282	3.59	Above W.T.
CPT-5	9.87	11	35.9	2.65	135	1332	1332	43.0	52.9	7.52	2.7	42.0	0.80	172.1	215.2	0.358	1.006	1.208	3.38	Above W.T.
CPT-5	9.96	11	34.3	2.59	135	1345	1345	40.9	50.0	7.70	2.8	43.3	0.80	163.7	204.6	0.358	0.877	1.052	2.94	Above W.T.
CPT-5	10.05	11	32.9	2.48	135	1357	1357	39.1	47.5	7.70	2.8	44.1	0.80	156.3	195.4	0.350	0.774	0.929	2.65	Above W.T.
CPT-5	10.14	11	31.5	2.35	135	1369	1369	37.3	45.0	7.63	2.8	44.8	0.80	149.0	186.3	0.350	0.681	0.817	2.33	Above W.T.
CPT-5	10.24	11	28.9	2.17	135	1382	1382	34.0	40.8	7.69	2.8	46.5	0.80	136.0	170.0	0.350	0.537	0.645	1.84	Above W.T.
CPT-5	10.33	11	26.7	2.01	135	1395	1395	31.3	37.3	7.73	2.8	48.2	0.80	125.1	156.4	0.350	0.436	0.523	1.49	Above W.T.
CPT-5	10.42	11	23.9	1.81	135	1407	1407	27.9	33.0	7.80	2.9	50.5	0.80	111.5	139.4	0.350	0.332	0.398	1.14	Above W.T.
CPT-5	10.51	11	22.9	1.61	135	1419	1419	26.6	31.3	7.26	2.9	50.1	0.80	106.4	133.0	0.350	0.299	0.359	1.02	Above W.T.
CPT-5	10.6	11	20.7	1.44	135	1431	1431	23.9	27.9	7.21	2.9	52.0	0.80	95.8	119.7	0.350	0.240	0.287	0.82	Above W.T.
CPT-5	10.7	11	20	1.25	135	1445	1445	23.0	26.7	6.48	2.9	50.9	0.80	92.1	115.1	0.350	0.222	0.266	0.76	Above W.T.
CPT-5	10.79	11	19.4	1.15	135	1457	1457	22.2	25.6	6.16	2.9	50.7	0.80	89.0	111.2	0.350	0.208	0.249	0.71	Above W.T.
CPT-5	10.88	11	17.3	1.04	135	1469	1469	19.8	22.5	6.28	2.9	53.5	0.80	79.0	98.8	0.350	0.170	0.203	0.58	Above W.T.
CPT-5	10.98	11	16.7	0.97	125	1373	1373	19.7	23.3	6.06	2.9	52.2	0.80	78.9	98.6	0.350	0.169	0.203	0.58	Above W.T.
CPT-5	11.08	11	15.7	0.9	125	1385	694	26.1	43.3	6.00	2.7	41.1	0.80	104.3	130.4	0.700	0.286	0.344	0.49	NonLiqfble.
CPT-5	11.17	11	16.1	0.84	125	1396	699	26.6	44.0	5.45	2.7	39.2	0.80	106.6	133.2	0.700	0.300	0.360	0.51	NonLiqfble.
CPT-5	11.27	11	15.8	0.83	125	1409	706	26.0	42.8	5.50	2.7	39.8	0.80	104.1	130.1	0.700	0.285	0.342	0.49	NonLiqfble.
CPT-5	11.36	11	15.2	0.78	125	1420	711	24.9	40.7	5.38	2.7	40.2	0.80	99.8	124.7	0.700	0.260	0.312	0.45	NonLiqfble.
CPT-5	11.45	11	14.7	0.63	125	1431	717	24.0	39.0	4.51	2.7	38.0	0.80	96.1	120.1	0.700	0.241	0.289	0.41	NonLiqfble.
CPT-5	11.55	11	14.3	0.65	125	1444	723	23.3	37.5	4.79	2.7	39.6	0.80	93.1	116.3	0.700	0.226	0.272	0.39	NonLiqfble.
CPT-5	11.64	11	13.4	0.65	125	1455	729	21.7	34.8	5.13	2.7	42.0	0.80	86.9	108.6	0.700	0.199	0.239	0.34	NonLiqfble.
CPT-5	11.7	11	14.6	0.63	125	1463	732	23.6	37.9	4.54	2.7	38.6	0.80	94.4	118.0	0.700	0.233	0.279	0.40	NonLiqfble.
CPT-5	11.8	11	13.2	0.59	125	1475	739	21.3	33.7	4.73	2.7	41.2	0.80	85.0	106.3	0.700	0.192	0.230	0.33	NonLiqfble.
CPT-5	11.9	11	12.1	0.52	125	1488	745	19.4	30.5	4.58	2.7	42.4	0.80	77.6	97.0	0.700	0.165	0.198	0.28	NonLiqfble.
CPT-5	12	11	10.8	0.48	125	1500	751	17.2	26.7	4.78	2.8	45.4	0.80	69.0	86.2	0.700	0.140	0.167	0.24	NonLiqfble.
CPT-5	12.1	11	10.2	0.44	115	1392	636	17.7	29.9	4.63	2.7	42.9	0.80	70.8	88.5	0.766	0.144	0.173	0.23	NonLiqfble.
CPT-5	12.2	11	9.9	0.44	115	1403	642	17.1	28.7	4.78	2.8	44.2	0.80	68.4	85.5	0.766	0.138	0.166	0.22	NonLiqfble.
CPT-5	12.3	11	10	0.47	115	1415	647	17.2	28.7	5.06	2.8	45.1	0.80	68.8	86.0	0.766	0.139	0.167	0.22	NonLiqfble.
CPT-5	12.4	11	10.3	0																

Project Name: 199 River Oaks Parkway
Project Number: 7862.3.001.01
Date: 20-Jul-07
CPT Number: CPT-5
Depth to Groundwater: 11 ft

EQ Magnitude (M_w): 7.1
PGA (g): 0.55
MSF: 1.20

Cone	Depth (FT)	Water Table (FT)	Tip Resist. (TSF)	Sleeve Frict. (TSF)	γ (PCF)	Total Stress (PSF)	Effective Stress (PSF)	Norm. Tip Q _{tn}	Corr. Tip Q	Friction Ratio F	Ic	F.C. (%)	K _{CPT}	Δq _{tn}	(q _{tn}) ₂₅	Induced Stress Ratio	Liquef. Stress M7.5	Liquef. Stress M7.10	Factor of Safety	Comments
CPT-5	13.2	11	7.5	0.32	115	1518	694	12.5	19.4	4.75	2.9	51.4	0.80	49.8	62.3	0.766	0.102	0.123	0.16	NonLiqfble.
CPT-5	13.3	11	7.6	0.3	115	1530	700	12.6	19.5	4.39	2.9	49.9	0.80	50.3	62.9	0.766	0.103	0.124	0.16	NonLiqfble.
CPT-5	13.4	11	7.7	0.28	105	1407	571	14.1	24.5	4.00	2.8	44.1	0.80	56.4	70.5	0.864	0.113	0.135	0.16	NonLiqfble.
CPT-5	13.5	11	8.5	0.27	105	1418	575	15.5	27.1	3.47	2.7	40.0	0.80	62.0	77.5	0.864	0.123	0.148	0.17	NonLiqfble.
CPT-5	13.6	11	8.9	0.29	115	1564	715	14.6	22.7	3.57	2.8	43.7	0.80	58.2	72.8	0.766	0.116	0.139	0.18	NonLiqfble.
CPT-5	13.69	11	9.5	0.34	115	1574	720	15.5	24.2	3.90	2.8	43.9	0.80	62.0	77.4	0.766	0.123	0.148	0.19	NonLiqfble.
CPT-5	13.79	11	9.8	0.38	115	1586	725	15.9	24.8	4.22	2.8	44.7	0.80	63.7	79.6	0.766	0.127	0.152	0.20	NonLiqfble.
CPT-5	13.88	11	9.9	0.38	115	1596	730	16.0	24.9	4.18	2.8	44.4	0.80	64.1	80.2	0.766	0.128	0.153	0.20	NonLiqfble.
CPT-5	13.98	11	9.6	0.38	115	1608	735	15.5	23.9	4.32	2.8	45.8	0.80	62.0	77.4	0.766	0.123	0.148	0.19	NonLiqfble.
CPT-5	14.07	11	8.9	0.36	115	1618	740	14.3	21.9	4.45	2.8	48.0	0.80	57.3	71.6	0.766	0.114	0.137	0.18	NonLiqfble.
CPT-5	14.17	11	8.2	0.34	115	1630	745	13.1	19.8	4.60	2.9	50.5	0.80	52.6	65.7	0.766	0.106	0.128	0.17	NonLiqfble.
CPT-5	14.27	11	8	0.31	115	1641	751	12.8	19.1	4.32	2.9	50.1	0.80	51.1	63.9	0.766	0.104	0.125	0.16	NonLiqfble.
CPT-5	14.36	11	7.1	0.31	115	1651	755	11.3	16.6	4.94	3.0	55.4	0.80	45.2	56.5	0.766	0.097	0.116	0.15	NonLiqfble.
CPT-5	14.46	11	6.9	0.29	105	1518	616	12.2	19.9	4.72	2.9	50.8	0.80	48.7	60.8	0.864	0.101	0.121	0.14	NonLiqfble.
CPT-5	14.56	11	6.5	0.29	105	1529	620	11.4	18.5	5.06	2.9	53.6	0.80	45.7	57.1	0.864	0.097	0.117	0.14	NonLiqfble.
CPT-5	14.65	11	6	0.27	105	1538	624	10.5	16.8	5.16	3.0	56.0	0.80	42.0	52.5	0.864	0.093	0.112	0.13	NonLiqfble.
CPT-5	14.75	11	5.4	0.28	105	1549	628	9.4	14.7	6.05	3.1	62.0	0.80	37.7	47.1	0.864	0.090	0.108	0.12	NonLiqfble.
CPT-5	14.84	11	5.4	0.26	105	1558	632	9.4	14.6	5.63	3.0	60.7	0.80	37.6	47.0	0.864	0.090	0.108	0.12	NonLiqfble.
CPT-5	14.94	11	5.1	0.24	105	1569	636	8.8	13.6	5.56	3.1	62.2	0.80	35.4	44.2	0.864	0.088	0.106	0.12	NonLiqfble.
CPT-5	15.03	11	4.7	0.1	95	1428	490	9.0	16.3	2.51	2.8	44.8	0.80	36.0	45.0	1.021	0.088	0.106	0.10	NonLiqfble.
CPT-5	15.13	11	4.5	0.07	88	1331	387	8.6	19.8	1.83	2.6	36.9	0.80	34.5	43.1	1.204	0.087	0.105	0.09	NonLiqfble.
CPT-5	15.22	11	4.2	0.08	95	1446	496	8.0	14.0	2.30	2.8	46.6	0.80	32.2	40.2	1.021	0.086	0.103	0.10	NonLiqfble.
CPT-5	15.26	11	2.6	0.08	88	1343	391	5.0	9.9	4.15	3.1	64.3	0.80	19.9	24.9	1.204	0.081	0.098	0.08	NonLiqfble.
CPT-5	15.36	11	2.5	0.07	88	1352	393	4.8	9.3	3.84	3.1	64.4	0.80	19.2	23.9	1.204	0.081	0.098	0.08	NonLiqfble.
CPT-5	15.44	11	4.3	0.07	88	1359	395	8.2	18.3	1.93	2.7	39.0	0.80	32.9	41.2	1.204	0.086	0.104	0.09	NonLiqfble.
CPT-5	15.53	11	4.7	0.06	88	1367	398	9.0	20.2	1.49	2.6	34.1	0.78	31.6	40.6	1.204	0.086	0.103	0.09	Liquefaction
CPT-5	15.62	11	4.6	0.06	88	1375	400	8.8	19.6	1.53	2.6	35.0	0.80	35.2	44.0	1.204	0.088	0.106	0.09	Liquefaction
CPT-5	15.72	11	4.6	0.09	95	1493	512	8.8	15.0	2.34	2.8	45.4	0.80	35.2	44.0	1.021	0.088	0.106	0.10	NonLiqfble.
CPT-5	15.82	11	4.4	0.1	95	1503	516	8.4	14.1	2.74	2.9	49.0	0.80	33.7	42.1	1.021	0.087	0.104	0.10	NonLiqfble.
CPT-5	15.91	11	4.7	0.12	95	1511	519	9.0	15.2	3.04	2.9	49.1	0.80	36.0	45.0	1.021	0.088	0.106	0.10	NonLiqfble.
CPT-5	16	11	4.7	0.15	95	1520	522	9.0	15.1	3.81	2.9	52.9	0.80	36.0	45.0	1.021	0.088	0.106	0.10	NonLiqfble.
CPT-5	16.1	11	5.2	0.15	95	1530	525	9.9	16.9	3.38	2.8	48.6	0.80	39.7	49.7	1.021	0.091	0.110	0.11	NonLiqfble.
CPT-5	16.19	11	5.5	0.16	95	1538	528	10.5	17.9	3.38	2.8	47.4	0.80	41.9	52.4	1.021	0.093	0.112	0.11	NonLiqfble.
CPT-5	16.29	11	4.9	0.17	95	1548	531	9.3	15.5	4.12	2.9	53.6	0.80	37.2	46.5	1.021	0.089	0.107	0.11	NonLiqfble.
CPT-5	16.38	11	5.1	0.22	105	1720	698	8.4	12.1	5.19	3.1	63.4	0.80	33.8	42.2	0.864	0.087	0.104	0.12	NonLiqfble.
CPT-5	16.47	11	5.6	0.22	105	1729	702	9.3	13.5	4.65	3.0	58.9	0.80	37.0	46.3	0.864	0.089	0.107	0.12	NonLiqfble.
CPT-5	16.56	11	6.3	0.22	105	1739	705	10.4	15.4	4.05	2.9	53.5	0.80	41.5	51.9	0.864	0.093	0.112	0.13	NonLiqfble.
CPT-5	16.66	11	5.5	0.21	105	1749	710	9.0	13.0	4.54	3.0	59.3	0.80	36.1	45.2	0.864	0.089	0.106	0.12	NonLiqfble.
CPT-5	16.75	11	5	0.18	95	1591	546	9.4	15.4	4.28	2.9	54.5	0.80	37.4	46.8	1.021	0.090	0.107	0.11	NonLiqfble.
CPT-5	16.85	11	4.7	0.14	95	1601	549	8.8	14.2	3.59	2.9	53.2	0.80	35.1	43.9	1.021	0.088	0.105	0.10	NonLiqfble.
CPT-5	16.94	11	5	0.15	95	1609	552	9.3	15.2	3.58	2.9	51.7	0.80	37.2	46.5	1.021	0.089	0.107	0.11	NonLiqfble.
CPT-5	17.04	11	5.1	0.15	95	1619	556	9.5	15.4	3.50	2.9	51.0	0.80	37.9	47.3	1.021	0.090	0.108	0.11	NonLiqfble.
CPT-5	17.1	11	4.8	0.17	95	1625	557	8.9	14.3	4.26	3.0	56.0	0.80	35.6	44.5	1.021	0.088	0.106	0.10	NonLiqfble.
CPT-5	17.2	11	7.5	0.22	105	1806	733	12.1	18.0	3.34	2.8	47.1	0.80	48.5	60.6	0.864	0.101	0.121	0.14	NonLiqfble.
CPT-5	17.29	11	8.5	0.27	105	1815	737	13.7	20.6	3.56	2.8	45.4	0.80	54.8	68.5	0.864	0.110	0.132	0.15	NonLiqfble.
CPT-5	17.38	11	9.3	0.31	115	1999	914	13.5	18.2	3.73	2.8	48.7	0.80	53.8	67.3	0.766	0.108	0.130	0.17	NonLiqfble.
CPT-5	17.47	11	10.6	0.35	115	2009	919	15.3	20.9	3.65	2.8	45.6	0.80	61.2	76.5	0.766	0.122	0.146	0.19	NonLiqfble.
CPT-5	17.56	11	11.3	0.37	115	2019	924	16.3	22.3	3.60	2.8	44.1	0.80	65.1	81.3	0.766	0.130	0.156	0.20	NonLiqfble.
CPT-5	17.66	11	11.9	0.39	115	2031	929	17.1	23.4	3.58	2.7	43.1	0.80	68.3	85.4	0.766	0.138	0.166	0.22	NonLiqfble.
CPT-5	17.75	11	12.7	0.42	125	2219	1111	16.7	20.9	3.62	2.8	45.5	0.80	66.7	83.3	0.700	0.134	0.161	0.23	NonLiqfble.
CPT-5	17.85	11	13.4	0.53	125	2231	1117	17.5	22.0	4.31	2.8	47.3	0.80	70.2	87.7	0.700	0.143	0.171	0.24	NonLiqfble.
CPT-5	17.94	11	13.7	0.55	125	2243	1123	17.9	22.4	4.37	2.8	47.2	0.80	71.5	89.4	0.700	0.147	0.176	0.25	NonLiqfble.
CPT-5	18.03	11	14.1	0.57	125	2254	1129	18.4	23.0	4.39	2.8	46.8	0.80	73.5	91.8	0.700	0.152	0.182	0.26	NonLiqfble.
CPT-5	18.12	11	14.9	0.58	125	2265	1134	19.4	24.3	4.21	2.8	45.1	0.80	77.4	96.8	0.700	0.164	0.197	0.28	NonLiqfble.
CPT-5	18.21	11	14.9	0.58	125	2276	1140	19.3	24.1	4.21	2.8	45.2	0.80	77.2	96.5	0.700	0.164	0.196	0.28	NonLiqfble.
CPT-5	18.31	11	15.2	0.6	125	2289	1146	19.6	24.5	4.27	2.8	45.1	0.80	78.6	98.2	0.700	0.168	0.202	0.29	NonLiqfble.
CPT-5	18.4	11	15.5	0.6	125	2300	1152	20.0	24.9	4.18	2.8	44.5	0.80	79.9	99.9	0.700	0.173	0.207	0.30	NonLiqfble.
CPT-5	18.5	11	15.9	0.63	125	2313	1158	20.4	25.5	4.27	2.8	44.4	0.80	81.8	102.2	0.700	0.179	0.215	0.31	NonLiqfble.
CPT-5	18.59	11	16	0.68	125	2324	1164	20.5	25.5	4.58	2.8	45.6	0.80	82.1	102.6	0.700	0.180	0.217	0.31	NonLiqfble.
CPT-5	18.68	11	16.7	0.73	125	2335	1169	21.4	26.6	4.70	2.8	45.2	0.80	85.5	106.8	0.700	0.193	0.232	0.33	NonLiqfble.
CPT-5	18.78	11	17.4	0.72	125	2348	1176	22.2	27.6	4.44	2.8	43.6	0.80	88.8	111.0	0.700	0.207	0.249	0.36	NonLiqfble.
CPT-5	18.87	11	17.3	0.73	125	2359	1181	22.0	27.3	4.53	2.8	44.1	0.80	88.1	110.1	0.700	0.204	0.245	0.35	NonLiqfble.
CPT-5	18.96																			

Project Name: 199 River Oaks Parkway
Project Number: 7862.3.001.01
Date: 20-Jul-07
CPT Number: CPT-5
Depth to Groundwater: 11 ft

EQ Magnitude (M_w): 7.1
PGA (g): 0.55
MSF: 1.20

Cone	Depth (FT)	Water Table (FT)	Tip Resist. (TSF)	Sleeve Frict. (TSF)	γ (PCF)	Total Stress (PSF)	Effective Stress (PSF)	Norm. Tip Q _{tip}	Corr. Tip Q	Friction Ratio F	I _c	F.C. (%)	K _{crit}	Δq _{0.5}	(Q _{0.5}) ^{0.5}	Induced Stress Ratio	Liquef. Stress M7.5	Liquef. Stress M7.10	Factor of Safety	Comments
CPT-5	19.62	11	15.7	0.79	125	2453	1228	19.6	23.6	5.46	2.9	50.1	0.80	78.4	98.0	0.700	0.168	0.201	0.29	NonLiqfble.
CPT-5	19.71	11	21	0.9	135	2661	1431	24.3	27.5	4.58	2.8	44.2	0.80	97.2	121.4	0.651	0.247	0.296	0.45	NonLiqfble.
CPT-5	19.8	11	19.1	0.91	135	2673	1437	22.0	24.7	5.12	2.8	48.0	0.80	88.2	110.2	0.651	0.204	0.245	0.38	NonLiqfble.
CPT-5	19.89	11	16.6	0.86	125	2486	1245	20.6	24.7	5.60	2.9	49.7	0.80	82.3	102.9	0.700	0.181	0.218	0.31	NonLiqfble.
CPT-5	19.99	11	13.4	0.72	125	2499	1251	16.6	19.4	5.93	3.0	55.5	0.80	66.3	82.9	0.700	0.133	0.160	0.23	NonLiqfble.
CPT-5	20.08	11	10.8	0.6	125	2510	1257	13.3	15.2	6.29	3.1	62.0	0.80	53.3	66.6	0.685	0.108	0.129	0.19	NonLiqfble.
CPT-5	20.17	11	10	0.55	125	2521	1263	12.3	13.8	6.29	3.1	64.2	0.80	49.3	61.6	0.685	0.102	0.122	0.18	NonLiqfble.
CPT-5	20.26	11	10.6	0.61	125	2533	1268	13.0	14.7	6.54	3.1	63.5	0.80	52.1	65.1	0.685	0.106	0.127	0.19	NonLiqfble.
CPT-5	20.36	11	13.2	0.67	125	2545	1275	16.2	18.7	5.62	3.0	55.3	0.80	64.7	80.9	0.685	0.129	0.155	0.23	NonLiqfble.
CPT-5	20.45	11	13.3	0.68	125	2556	1280	16.3	18.8	5.66	3.0	55.3	0.80	65.1	81.3	0.685	0.130	0.156	0.23	NonLiqfble.
CPT-5	20.54	11	13.7	0.74	125	2568	1286	16.7	19.3	5.96	3.0	55.7	0.80	66.9	83.6	0.685	0.134	0.161	0.24	NonLiqfble.
CPT-5	20.63	11	13	0.72	125	2579	1291	15.8	18.1	6.15	3.0	57.7	0.80	63.3	79.1	0.685	0.126	0.151	0.22	NonLiqfble.
CPT-5	20.73	11	13.2	0.69	125	2591	1298	16.0	18.3	5.80	3.0	56.3	0.80	64.1	80.2	0.685	0.128	0.153	0.22	NonLiqfble.
CPT-5	20.82	11	10.3	0.64	125	2603	1303	12.5	13.8	7.11	3.1	66.8	0.80	49.9	62.4	0.685	0.103	0.123	0.18	NonLiqfble.
CPT-5	20.91	11	8	0.55	115	2405	1100	10.6	12.4	8.09	3.2	72.3	0.80	42.2	52.8	0.750	0.094	0.112	0.15	NonLiqfble.
CPT-5	21	11	7.3	0.44	115	2415	1105	9.6	11.0	7.22	3.2	72.7	0.80	38.4	48.1	0.750	0.090	0.108	0.14	NonLiqfble.
CPT-5	21.09	11	6.9	0.42	115	2425	1109	9.1	10.2	7.39	3.2	75.1	0.80	36.3	45.3	0.750	0.089	0.106	0.14	NonLiqfble.
CPT-5	21.18	11	6.3	0.47	115	2436	1114	8.3	9.1	9.25	3.3	83.5	0.80	33.0	41.3	0.750	0.087	0.104	0.14	NonLiqfble.
CPT-5	21.28	11	8.4	0.59	125	2660	1332	10.1	10.6	8.35	3.2	76.9	0.80	40.3	50.3	0.685	0.092	0.110	0.16	NonLiqfble.
CPT-5	21.37	11	9	0.77	125	2671	1338	10.8	11.5	10.05	3.3	79.3	0.80	43.1	53.8	0.685	0.095	0.113	0.17	NonLiqfble.
CPT-5	21.46	11	9.7	1	125	2683	1343	11.6	12.4	11.96	3.3	81.5	0.80	46.3	57.9	0.685	0.098	0.118	0.17	NonLiqfble.
CPT-5	21.55	11	10.9	0.96	125	2694	1349	13.0	14.2	10.05	3.2	73.9	0.80	51.9	64.9	0.685	0.105	0.127	0.18	NonLiqfble.
CPT-5	21.64	11	12.5	0.95	125	2705	1355	14.9	16.5	8.52	3.1	66.6	0.80	59.4	74.3	0.685	0.118	0.142	0.21	NonLiqfble.
CPT-5	21.75	11	14.2	0.92	125	2719	1362	16.8	18.9	7.17	3.0	59.9	0.80	67.4	84.2	0.685	0.135	0.163	0.24	NonLiqfble.
CPT-5	21.84	11	11	0.87	125	2730	1367	13.0	14.1	9.03	3.2	71.6	0.80	52.1	65.1	0.685	0.106	0.127	0.18	NonLiqfble.
CPT-5	21.94	11	9.7	0.78	125	2743	1373	11.5	12.1	9.37	3.2	76.2	0.80	45.8	57.3	0.685	0.097	0.117	0.17	NonLiqfble.
CPT-5	22.02	11	8.9	0.75	125	2753	1378	10.5	10.9	9.97	3.3	80.4	0.80	42.0	52.4	0.685	0.093	0.112	0.16	NonLiqfble.
CPT-5	22.12	11	11.7	0.7	125	2765	1385	13.8	14.9	6.78	3.1	64.0	0.80	55.0	68.8	0.685	0.110	0.132	0.19	NonLiqfble.
CPT-5	22.21	11	13	0.71	125	2776	1390	15.3	16.7	6.11	3.0	59.3	0.80	61.0	76.3	0.685	0.121	0.146	0.21	NonLiqfble.
CPT-5	22.3	11	10.4	0.74	125	2788	1396	12.2	12.9	8.22	3.2	71.6	0.80	48.7	60.9	0.685	0.101	0.121	0.18	NonLiqfble.
CPT-5	22.39	11	11.5	0.77	125	2799	1402	13.4	14.4	7.62	3.1	67.3	0.80	53.8	67.2	0.685	0.108	0.130	0.19	NonLiqfble.
CPT-5	22.48	11	10.6	0.72	125	2810	1407	12.4	13.1	7.83	3.2	70.2	0.80	49.5	61.8	0.685	0.102	0.122	0.18	NonLiqfble.
CPT-5	22.57	11	10	0.68	125	2821	1413	11.6	12.2	7.92	3.2	72.2	0.80	46.6	58.2	0.685	0.098	0.118	0.17	NonLiqfble.
CPT-5	22.67	11	9.9	0.66	125	2834	1419	11.5	11.9	7.78	3.2	72.3	0.80	46.0	57.5	0.685	0.098	0.117	0.17	NonLiqfble.
CPT-5	22.76	11	9.7	0.66	125	2845	1425	11.2	11.6	7.97	3.2	73.6	0.80	45.0	56.2	0.685	0.097	0.116	0.17	NonLiqfble.
CPT-5	22.85	11	9.9	0.69	125	2856	1430	11.5	11.8	8.15	3.2	73.5	0.80	45.8	57.3	0.685	0.097	0.117	0.17	NonLiqfble.
CPT-5	22.94	11	10.4	0.72	125	2868	1436	12.0	12.5	8.03	3.2	71.9	0.80	48.0	60.0	0.685	0.100	0.120	0.18	NonLiqfble.
CPT-5	23.03	11	10.1	0.74	125	2879	1442	11.6	12.0	8.55	3.2	74.3	0.80	46.6	58.2	0.685	0.098	0.118	0.17	NonLiqfble.
CPT-5	23.12	11	10	0.71	125	2890	1447	11.5	11.8	8.30	3.2	74.0	0.80	46.0	57.5	0.685	0.098	0.117	0.17	NonLiqfble.
CPT-5	23.22	11	9.7	0.68	125	2903	1454	11.1	11.3	8.24	3.2	74.9	0.80	44.5	55.7	0.685	0.096	0.115	0.17	NonLiqfble.
CPT-5	23.3	11	9.9	0.64	125	2913	1459	11.3	11.6	7.58	3.2	72.5	0.80	45.4	56.7	0.685	0.097	0.116	0.17	NonLiqfble.
CPT-5	23.4	11	9.9	0.66	125	2925	1465	11.3	11.5	7.82	3.2	73.3	0.80	45.3	56.6	0.685	0.097	0.116	0.17	NonLiqfble.
CPT-5	23.49	11	10.9	0.71	125	2936	1470	12.4	12.8	7.53	3.2	69.8	0.80	49.7	62.2	0.685	0.102	0.123	0.18	NonLiqfble.
CPT-5	23.57	11	11.3	0.74	125	2946	1475	12.9	13.3	7.53	3.1	68.9	0.80	51.5	64.4	0.685	0.105	0.126	0.18	NonLiqfble.
CPT-5	23.66	11	11.4	0.75	125	2958	1481	13.0	13.4	7.56	3.1	68.8	0.80	51.8	64.8	0.685	0.105	0.126	0.18	NonLiqfble.
CPT-5	23.76	11	12.2	0.73	125	2970	1487	13.8	14.4	6.81	3.1	64.9	0.80	55.4	69.2	0.685	0.111	0.133	0.19	NonLiqfble.
CPT-5	23.85	11	12.3	0.72	125	2981	1493	13.9	14.5	6.66	3.1	64.3	0.80	55.7	69.6	0.685	0.111	0.134	0.20	NonLiqfble.
CPT-5	23.94	11	12.4	0.7	125	2993	1499	14.0	14.5	6.42	3.1	63.4	0.80	56.1	70.1	0.685	0.112	0.134	0.20	NonLiqfble.
CPT-5	24.03	11	12.1	0.68	125	3004	1504	13.7	14.1	6.42	3.1	64.2	0.80	54.6	68.3	0.685	0.110	0.131	0.19	NonLiqfble.
CPT-5	24.12	11	11.5	0.69	125	3015	1510	12.9	13.2	6.91	3.1	67.2	0.80	51.8	64.7	0.685	0.105	0.126	0.18	NonLiqfble.
CPT-5	24.21	11	11.9	0.7	125	3026	1516	13.4	13.7	6.74	3.1	65.8	0.80	53.5	66.9	0.685	0.108	0.129	0.19	NonLiqfble.
CPT-5	24.3	11	11.8	0.68	125	3038	1521	13.2	13.5	6.61	3.1	65.8	0.80	53.0	66.2	0.685	0.107	0.128	0.19	NonLiqfble.
CPT-5	24.39	11	12.1	0.65	125	3049	1527	13.5	13.8	6.15	3.1	63.7	0.80	54.2	67.7	0.685	0.109	0.131	0.19	NonLiqfble.
CPT-5	24.49	11	12.2	0.64	125	3061	1533	13.6	13.9	6.00	3.1	63.1	0.80	54.5	68.2	0.685	0.109	0.131	0.19	NonLiqfble.
CPT-5	24.57	11	12.6	0.65	125	3071	1538	14.1	14.4	5.88	3.1	61.9	0.80	56.2	70.3	0.685	0.112	0.135	0.20	NonLiqfble.
CPT-5	24.67	11	12.2	0.64	125	3084	1544	13.6	13.8	6.01	3.1	63.3	0.80	54.3	67.9	0.685	0.109	0.131	0.19	NonLiqfble.
CPT-5	24.76	11	11.8	0.62	125	3095	1550	13.1	13.2	6.05	3.1	64.5	0.80	52.5	65.6	0.685	0.106	0.127	0.19	NonLiqfble.
CPT-5	24.85	11	13.3	0.69	125	3106	1556	14.8	15.1	5.87	3.0	60.8	0.80	59.0	73.8	0.685	0.117	0.141	0.21	NonLiqfble.
CPT-5	24.94	11	14	0.77	125	3118	1561	15.5	15.9	6.19	3.0	60.6	0.80	62.0	77.5	0.685	0.123	0.148	0.22	NonLiqfble.
CPT-5	25.03	11	15.3	0.85	125	3129	1567	16.9	17.5	6.19	3.0	58.5	0.80	67.6	84.6	0.685	0.136	0.163	0.24	NonLiqfble.
CPT-5	25.12	11	15.1	0.88	125	3140	1573	16.7	17.2	6.50	3.0	59.9	0.80	66.6	83.3	0.685	0.134	0.161	0.23	NonLiqfble.
CPT-5	25.34	11	13.6	0.75	125	3168	1586	14.9	15.											

Project Name:	199 River Oaks Parkway
Project Number:	7862.3.001.01
Date:	20-Jul-07
CPT Number:	CPT-5
Depth to Groundwater:	11 ft

EQ Magnitude (M _w):	7.1
PGA (g):	0.55
MSF:	1.20

Cone	Depth (FT)	Water Table (FT)	Tip Resist. (TSF)	Sleeve Frict. (TSF)	γ (PCF)	Total Stress (PSF)	Effective Stress (PSF)	Norm. Tip Q _{tip}	Corr. Tip Q	Friction Ratio F	Ic	F.C. (%)	K _{CPT}	ΔQ _{tip}	(Q _{tip}) ^{0.5}	Induced Stress Ratio	Liquef. Stress M7.5	Liquef. Stress M7.10	Factor of Safety	Comments
CPT-5	26.08	11	7.7	0.46	115	2999	1372	9.1	9.0	7.42	3.3	78.6	0.80	36.4	45.5	0.750	0.089	0.106	0.14	NonLiqfble.
CPT-5	26.17	11	9.3	0.53	125	3271	1638	10.1	9.4	6.92	3.2	76.0	0.80	40.2	50.3	0.685	0.092	0.110	0.16	NonLiqfble.
CPT-5	26.26	11	9.6	0.65	125	3283	1644	10.4	9.7	8.17	3.3	78.9	0.80	41.4	51.8	0.685	0.093	0.112	0.16	NonLiqfble.
CPT-5	26.35	11	13.9	0.72	125	3294	1650	15.0	14.8	5.88	3.0	61.2	0.80	59.9	74.9	0.685	0.119	0.143	0.21	NonLiqfble.
CPT-5	26.44	11	23.3	0.77	135	3569	1920	23.3	22.4	3.58	2.8	43.9	0.80	93.1	116.3	0.638	0.226	0.272	0.43	NonLiqfble.
CPT-5	26.54	11	29.5	0.87	135	3583	1927	29.4	28.7	3.14	2.6	37.6	0.80	117.6	147.0	0.638	0.376	0.451	0.71	NonLiqfble.
CPT-5	26.62	11	29.4	0.94	135	3594	1933	29.3	28.6	3.41	2.7	38.9	0.80	117.0	146.3	0.638	0.371	0.446	0.70	NonLiqfble.
CPT-5	26.72	11	27.4	0.95	135	3607	1940	27.2	26.4	3.71	2.7	41.5	0.80	108.9	136.1	0.638	0.314	0.377	0.59	NonLiqfble.
CPT-5	26.8	11	26.5	0.84	135	3618	1946	26.3	25.4	3.40	2.7	40.9	0.80	105.1	131.4	0.638	0.291	0.349	0.55	NonLiqfble.
CPT-5	26.89	11	23.1	0.74	125	3361	1683	24.6	25.4	3.45	2.7	41.1	0.80	98.5	123.2	0.685	0.254	0.305	0.44	NonLiqfble.
CPT-5	26.98	11	19.6	0.73	125	3373	1689	20.9	21.2	4.08	2.8	47.1	0.80	83.5	104.3	0.685	0.186	0.223	0.33	NonLiqfble.
CPT-5	27.08	11	16.4	0.75	125	3385	1695	17.4	17.3	5.10	2.9	55.1	0.80	69.7	87.1	0.685	0.142	0.170	0.25	NonLiqfble.
CPT-5	27.16	11	13.8	0.82	125	3395	1700	14.6	14.2	6.78	3.1	65.1	0.80	58.6	73.2	0.685	0.117	0.140	0.20	NonLiqfble.
CPT-5	27.26	11	13.3	0.9	125	3408	1706	14.1	13.6	7.76	3.1	69.1	0.80	56.3	70.4	0.685	0.112	0.135	0.20	NonLiqfble.
CPT-5	27.34	11	15.8	0.93	125	3418	1711	16.7	16.5	6.60	3.0	61.2	0.80	66.8	83.6	0.685	0.134	0.161	0.24	NonLiqfble.
CPT-5	27.44	11	19.2	1.01	135	3704	1992	18.8	17.4	5.82	3.0	57.5	0.80	75.3	94.1	0.638	0.158	0.189	0.30	NonLiqfble.
CPT-5	27.53	11	23	1.13	135	3717	1999	22.5	21.1	5.35	2.9	51.8	0.80	90.0	112.5	0.638	0.213	0.255	0.40	NonLiqfble.
CPT-5	27.62	11	25.5	1.2	135	3729	2005	24.9	23.6	5.08	2.8	48.8	0.80	99.7	124.6	0.638	0.260	0.312	0.49	NonLiqfble.
CPT-5	27.71	11	25.7	1.21	135	3741	2012	25.1	23.7	5.08	2.8	48.7	0.80	100.3	125.4	0.638	0.263	0.316	0.49	NonLiqfble.
CPT-5	27.8	11	23.6	1.13	135	3753	2018	23.0	21.5	5.20	2.9	51.0	0.80	91.9	114.9	0.638	0.221	0.265	0.42	NonLiqfble.
CPT-5	27.88	11	20.4	1.09	135	3764	2024	19.8	18.3	5.89	3.0	56.6	0.80	79.4	99.2	0.638	0.171	0.205	0.32	NonLiqfble.
CPT-5	27.97	11	15.9	1.07	135	3776	2031	15.4	13.8	7.64	3.1	68.3	0.80	61.8	77.2	0.638	0.123	0.147	0.23	NonLiqfble.
CPT-5	28.06	11	13.9	1.05	125	3508	1757	14.5	13.8	8.65	3.2	71.0	0.80	58.0	72.6	0.685	0.116	0.139	0.20	NonLiqfble.
CPT-5	28.15	11	13.5	1.02	125	3519	1762	14.1	13.3	8.69	3.2	72.1	0.80	56.3	70.4	0.685	0.112	0.135	0.20	NonLiqfble.
CPT-5	28.24	11	14.9	1.01	125	3530	1768	15.5	14.9	7.69	3.1	66.7	0.80	62.0	77.5	0.685	0.123	0.148	0.22	NonLiqfble.
CPT-5	28.29	11	16.7	1.01	135	3819	2054	16.1	14.4	6.83	3.1	64.9	0.80	64.5	80.6	0.638	0.129	0.154	0.24	NonLiqfble.
CPT-5	28.35	11	18.6	1	135	3827	2058	17.9	16.2	5.99	3.0	59.6	0.80	71.8	89.7	0.638	0.147	0.177	0.28	NonLiqfble.
CPT-5	28.43	11	16.3	0.95	125	3554	1780	16.9	16.3	6.54	3.0	61.2	0.80	67.6	84.5	0.685	0.136	0.163	0.24	NonLiqfble.
CPT-5	28.52	11	13.9	0.87	125	3565	1785	14.4	13.6	7.18	3.1	67.4	0.80	57.6	72.0	0.685	0.115	0.138	0.20	NonLiqfble.
CPT-5	28.61	11	12	0.78	125	3576	1791	12.4	11.4	7.64	3.2	73.1	0.80	49.6	62.0	0.685	0.102	0.123	0.18	NonLiqfble.
CPT-5	28.7	11	10.6	0.7	125	3588	1797	10.9	9.8	7.95	3.3	77.9	0.80	43.8	54.7	0.685	0.095	0.114	0.17	NonLiqfble.
CPT-5	28.79	11	10.3	0.62	125	3599	1802	10.6	9.4	7.29	3.3	77.0	0.80	42.5	53.1	0.685	0.094	0.113	0.16	NonLiqfble.
CPT-5	28.88	11	8.7	0.58	125	3610	1808	9.0	7.6	8.12	3.4	85.4	0.80	35.8	44.8	0.685	0.088	0.106	0.15	NonLiqfble.
CPT-5	28.97	11	8.1	0.49	115	3332	1524	9.1	8.4	7.62	3.3	81.0	0.80	36.3	45.4	0.750	0.089	0.106	0.14	NonLiqfble.
CPT-5	29.06	11	7.7	0.44	115	3342	1529	8.6	7.9	7.30	3.3	82.0	0.80	34.5	43.1	0.750	0.087	0.105	0.14	NonLiqfble.
CPT-5	29.14	11	7.4	0.42	115	3351	1533	8.3	7.5	7.34	3.3	83.7	0.80	33.1	41.4	0.750	0.087	0.104	0.14	NonLiqfble.
CPT-5	29.24	11	7.4	0.42	115	3363	1538	8.3	7.4	7.35	3.3	83.8	0.80	33.0	41.3	0.750	0.087	0.104	0.14	NonLiqfble.
CPT-5	29.32	11	7.5	0.42	115	3372	1542	8.4	7.5	7.22	3.3	83.0	0.80	33.4	41.8	0.750	0.087	0.104	0.14	NonLiqfble.
CPT-5	29.41	11	7.7	0.44	115	3382	1547	8.6	7.8	7.32	3.3	82.5	0.80	34.3	42.8	0.750	0.087	0.105	0.14	NonLiqfble.
CPT-5	29.5	11	8.9	0.47	115	3393	1552	9.9	9.3	6.53	3.2	75.0	0.80	39.5	49.4	0.750	0.091	0.109	0.15	NonLiqfble.
CPT-5	29.59	11	8.8	0.48	115	3403	1556	9.8	9.1	6.76	3.2	76.2	0.80	39.0	48.8	0.750	0.091	0.109	0.15	NonLiqfble.
CPT-5	29.68	11	9.5	0.49	115	3413	1561	10.5	10.0	6.29	3.2	72.3	0.80	42.1	52.6	0.750	0.094	0.112	0.15	NonLiqfble.
CPT-5	29.77	11	9.5	0.5	115	3424	1566	10.5	9.9	6.42	3.2	72.8	0.80	42.0	52.5	0.750	0.093	0.112	0.15	NonLiqfble.
CPT-5	29.86	11	9.7	0.49	115	3434	1571	10.7	10.2	6.14	3.2	71.3	0.80	42.8	53.5	0.750	0.094	0.113	0.15	NonLiqfble.
CPT-5	29.95	11	9.8	0.48	115	3444	1575	10.8	10.3	5.94	3.2	70.4	0.80	43.2	54.0	0.750	0.095	0.114	0.15	NonLiqfble.
CPT-5	30.04	11	9.4	0.47	115	3455	1580	10.3	9.7	6.13	3.2	72.4	0.80	41.4	51.7	0.719	0.093	0.111	0.15	NonLiqfble.
CPT-5	30.13	11	9.4	0.46	115	3465	1585	10.3	9.7	6.00	3.2	72.1	0.80	41.3	51.7	0.719	0.093	0.111	0.15	NonLiqfble.
CPT-5	30.22	11	9.7	0.46	115	3475	1590	10.6	10.0	5.78	3.2	70.4	0.80	42.6	53.2	0.719	0.094	0.113	0.16	NonLiqfble.
CPT-5	30.31	11	10	0.47	115	3486	1594	11.0	10.4	5.69	3.2	69.2	0.80	43.8	54.8	0.719	0.095	0.114	0.16	NonLiqfble.
CPT-5	30.4	11	9.6	0.52	125	3800	1903	9.6	8.1	6.75	3.3	79.5	0.80	38.5	48.1	0.657	0.090	0.108	0.17	NonLiqfble.
CPT-5	30.49	11	9.7	0.61	125	3811	1909	9.7	8.2	7.83	3.3	82.6	0.80	38.9	48.6	0.657	0.091	0.109	0.17	NonLiqfble.
CPT-5	30.58	11	10.4	0.79	125	3823	1914	10.4	8.9	9.31	3.3	84.4	0.80	41.6	52.0	0.657	0.093	0.112	0.17	NonLiqfble.
CPT-5	30.67	11	15.5	0.93	125	3834	1920	15.5	14.1	6.85	3.1	65.4	0.80	61.9	77.4	0.657	0.123	0.148	0.22	NonLiqfble.
CPT-5	30.76	11	29.2	1.13	135	4153	2233	27.0	24.3	4.17	2.8	44.9	0.80	108.1	135.2	0.612	0.310	0.372	0.61	NonLiqfble.
CPT-5	30.85	11	42.7	1.45	135	4165	2240	39.5	36.3	3.57	2.6	35.7	0.80	157.9	197.4	0.612	0.795	0.954	1.56	NonLiqfble.
CPT-5	30.94	11	48.8	1.7	135	4177	2246	45.1	41.6	3.64	2.6	33.9	0.77	151.2	196.3	0.612	0.783	0.940	1.54	NonLiqfble.
CPT-5	31.03	11	51.1	1.89	135	4189	2253	47.1	43.5	3.86	2.6	34.0	0.78	162.3	209.4	0.612	0.934	1.120	1.83	NonLiqfble.
CPT-5	31.11	11	52.3	1.97	135	4200	2259	48.2	44.4	3.92	2.6	34.0	0.77	164.3	212.4	0.612	0.971	1.166	1.91	NonLiqfble.
CPT-5	31.2	11	53.9	2	135	4212	2265	49.6	45.7	3.86	2.6	33.3	0.76	153.6	203.1	0.612	0.859	1.031	1.69	NonLiqfble.
CPT-5	31.29	11	54.1	2.02	135	4224	2272	49.7	45.8	3.89	2.6	33.4	0.76	155.7	205.3	0.612	0.885	1.062	1.74	NonLiqfble.
CPT-5	31.38	11	52.8	2	135	4236	2278	48.4	44.5	3.95	2.6	34.0	0.78	166.8	215.2	0.612	1.007	1.209	1.98	NonLiqfble.

Project Name: 199 River Oaks Parkway
Project Number: 7862.3.001.01
Date: 20-Jul-07
CPT Number: CPT-5
Depth to groundwater: 11 ft

EQ Magnitude (M_w): 7.1
PGA (g): 0.55
MSF: 1.20

Cone	Depth (FT)	Water Table (FT)	Tip Resist. (TSF)	Sleeve Frict. (TSF)	γ (PCF)	Total Stress (PSF)	Effective Stress (PSF)	Norm. Tip q_{tIN}	Corr. Tip Q	Friction Ratio F	I_c	F.C. (%)	K_{CPT}	Δq_{tIN}	$(q_{tIN})_{0.5}$	Induced Stress Ratio	Liquef. Stress M7.5	Liquef. Stress M7.10	Factor of Safety	Comments
CPT-5	32.13	11	44.4	1.62	135	4338	2333	40.2	36.2	3.84	2.6	36.8	0.80	160.9	201.1	0.612	0.837	1.004	1.64	NonLiqfble.
CPT-5	32.22	11	38.8	1.55	135	4350	2339	35.1	31.3	4.23	2.7	40.6	0.80	140.4	175.5	0.612	0.583	0.699	1.14	NonLiqfble.
CPT-5	32.3	11	32.2	1.5	135	4361	2345	29.1	25.6	5.00	2.8	47.0	0.80	116.4	145.5	0.612	0.366	0.440	0.72	NonLiqfble.
CPT-5	32.39	11	26.4	1.49	135	4373	2352	23.8	20.6	6.15	2.9	55.0	0.80	95.3	119.1	0.612	0.237	0.285	0.47	NonLiqfble.
CPT-5	32.47	11	22.4	1.45	135	4383	2357	20.2	17.1	7.18	3.1	62.0	0.80	80.7	100.9	0.612	0.176	0.211	0.34	NonLiqfble.
CPT-5	32.56	11	21.2	1.27	135	4396	2364	19.1	16.1	6.68	3.1	62.0	0.80	76.3	95.4	0.612	0.161	0.193	0.32	NonLiqfble.
CPT-5	32.65	11	24.4	1.15	135	4408	2370	21.9	18.7	5.18	2.9	53.8	0.80	87.7	109.6	0.612	0.203	0.243	0.40	NonLiqfble.
CPT-5	32.73	11	26.7	1.18	135	4419	2376	24.0	20.6	4.82	2.9	50.5	0.80	95.9	119.8	0.612	0.240	0.288	0.47	NonLiqfble.
CPT-5	32.82	11	26	1.24	135	4431	2383	23.3	20.0	5.21	2.9	52.5	0.80	93.2	116.5	0.612	0.227	0.273	0.45	NonLiqfble.
CPT-5	32.9	11	24.9	1.26	135	4442	2389	22.3	19.0	5.56	2.9	54.8	0.80	89.2	111.5	0.612	0.209	0.251	0.41	NonLiqfble.
CPT-5	32.99	11	28.7	1.22	135	4454	2395	25.7	22.1	4.61	2.8	48.3	0.80	102.6	128.3	0.612	0.276	0.332	0.54	NonLiqfble.
CPT-5	33.07	11	33.5	1.18	135	4464	2401	29.9	26.0	3.77	2.7	42.0	0.80	119.7	149.6	0.612	0.391	0.469	0.77	NonLiqfble.
CPT-5	33.16	11	30.5	1.21	135	4477	2407	27.2	23.5	4.28	2.8	46.0	0.80	108.8	136.0	0.612	0.314	0.377	0.62	NonLiqfble.
CPT-5	33.25	11	25.6	1.24	135	4489	2414	22.8	19.3	5.31	2.9	53.5	0.80	91.2	114.0	0.612	0.218	0.261	0.43	NonLiqfble.
CPT-5	33.33	11	23	1.24	135	4500	2420	20.5	17.1	5.98	3.0	58.3	0.80	81.8	102.3	0.612	0.180	0.215	0.35	NonLiqfble.
CPT-5	33.41	11	24	1.26	135	4510	2426	21.3	17.9	5.79	3.0	56.8	0.80	85.3	106.6	0.612	0.193	0.231	0.38	NonLiqfble.
CPT-5	33.5	11	25.2	1.27	135	4523	2432	22.4	18.9	5.54	2.9	54.8	0.80	89.4	111.8	0.612	0.210	0.252	0.41	NonLiqfble.
CPT-5	33.59	11	25	1.38	135	4535	2439	22.2	18.6	6.07	3.0	56.8	0.80	88.6	110.8	0.612	0.206	0.248	0.40	NonLiqfble.
CPT-5	33.67	11	27.5	1.56	135	4545	2444	24.3	20.6	6.18	2.9	55.1	0.80	97.3	121.7	0.612	0.248	0.297	0.49	NonLiqfble.
CPT-5	33.75	11	33.8	1.65	135	4556	2450	29.9	25.7	5.23	2.8	47.7	0.80	119.5	149.4	0.612	0.390	0.468	0.77	NonLiqfble.
CPT-5	33.84	11	43.4	1.63	135	4568	2457	38.3	33.5	3.96	2.7	38.5	0.80	153.2	191.6	0.612	0.734	0.880	1.44	NonLiqfble.
CPT-5	33.92	11	59.3	1.4	135	4579	2463	52.3	46.3	2.46	2.4	27.2	0.59	75.9	128.2	0.612	0.276	0.331	0.54	Liquefaction
CPT-5	34	11	86.9	1.39	135	4590	2468	76.5	68.5	1.64	2.2	18.2	0.35	41.5	118.1	0.612	0.233	0.280	0.46	Liquefaction
CPT-5	34.09	11	114.2	1.49	135	4602	2475	100.4	90.4	1.33	2.0	13.6	0.23	30.0	130.5	0.612	0.287	0.344	0.56	Liquefaction
CPT-5	34.16	11	138	1.48	125	4270	2138	130.6	127.0	1.09	1.9	9.4	0.12	17.3	147.8	0.657	0.380	0.457	0.70	Liquefaction
CPT-5	34.25	11	156.6	1.46	125	4281	2144	148.0	144.0	0.95	1.8	7.6	0.07	11.0	159.0	0.657	0.454	0.544	0.83	Liquefaction
CPT-5	34.33	11	154.6	1.37	125	4291	2149	145.9	141.8	0.90	1.8	7.4	0.06	9.9	155.9	0.657	0.432	0.519	0.79	Liquefaction
CPT-5	34.41	11	157.5	1.27	115	3957	1810	162.0	171.8	0.82	1.7	5.7	0.02	2.9	164.9	0.719	0.497	0.596	0.83	Liquefaction
CPT-5	34.49	11	156.5	1.15	115	3966	1814	160.8	170.3	0.74	1.7	5.2	0.01	1.0	161.8	0.719	0.474	0.568	0.79	Liquefaction
CPT-5	34.57	11	157.6	0.95	115	3976	1818	161.7	171.1	0.61	1.6	4.3	0.00	0.0	161.7	0.719	0.473	0.568	0.79	Liquefaction
CPT-5	34.65	11	157.6	0.92	115	3985	1823	161.5	170.7	0.59	1.6	4.1	0.00	0.0	161.5	0.719	0.472	0.566	0.79	Liquefaction
CPT-5	34.74	11	155	0.77	105	3648	1480	176.3	206.9	0.50	1.5	2.5	0.00	0.0	176.3	0.811	0.590	0.707	0.87	Liquefaction
CPT-5	34.82	11	148.5	0.61	105	3656	1483	168.7	197.7	0.42	1.4	2.1	0.00	0.0	168.7	0.811	0.527	0.632	0.78	Liquefaction
CPT-5	34.9	11	147.9	0.88	115	4014	1836	151.0	158.9	0.60	1.6	4.6	0.00	0.0	151.0	0.719	0.400	0.481	0.67	Liquefaction
CPT-5	34.96	11	142.1	0.91	115	4020	1839	145.0	152.3	0.65	1.7	5.2	0.01	0.8	145.8	0.719	0.368	0.442	0.61	Liquefaction
CPT-5	35.04	11	141.7	0.84	115	4030	1843	144.4	151.5	0.60	1.6	4.9	0.00	0.0	144.4	0.719	0.360	0.432	0.60	Liquefaction
CPT-5	35.12	11	145.9	0.69	105	3688	1496	165.0	192.5	0.48	1.5	2.7	0.00	0.0	165.0	0.811	0.498	0.598	0.74	Liquefaction
CPT-5	35.2	11	144	0.67	105	3696	1500	162.7	189.5	0.47	1.5	2.7	0.00	0.0	162.7	0.811	0.481	0.577	0.71	Liquefaction
CPT-5	35.31	11	143.8	0.83	115	4061	1857	146.0	152.6	0.59	1.6	4.7	0.00	0.0	146.0	0.719	0.369	0.443	0.62	Liquefaction
CPT-5	35.4	11	146.5	0.83	115	4071	1862	148.5	155.1	0.57	1.6	4.5	0.00	0.0	148.5	0.719	0.385	0.462	0.64	Liquefaction
CPT-5	35.51	11	138.8	0.84	115	4084	1868	140.5	146.4	0.61	1.6	5.2	0.01	0.7	141.2	0.719	0.342	0.410	0.57	Liquefaction
CPT-5	35.59	11	141.7	1.06	115	4093	1872	143.3	149.1	0.76	1.7	6.1	0.03	4.4	147.7	0.719	0.380	0.456	0.63	Liquefaction
CPT-5	35.69	11	143.2	0.87	115	4104	1877	144.6	150.3	0.62	1.6	5.0	0.00	0.2	144.8	0.719	0.362	0.435	0.60	Liquefaction
CPT-5	35.78	11	142.2	0.74	105	3757	1524	159.4	184.0	0.53	1.5	3.3	0.00	0.0	159.4	0.811	0.456	0.548	0.68	Liquefaction
CPT-5	35.86	11	142.5	0.69	105	3765	1528	159.5	184.0	0.49	1.5	3.0	0.00	0.0	159.5	0.811	0.458	0.549	0.68	Liquefaction
CPT-5	35.96	11	144.9	0.74	105	3776	1532	162.0	186.6	0.52	1.5	3.1	0.00	0.0	162.0	0.811	0.475	0.570	0.70	Liquefaction
CPT-5	36.06	11	146.7	0.78	105	3786	1536	163.8	188.5	0.54	1.5	3.2	0.00	0.0	163.8	0.811	0.488	0.586	0.72	Liquefaction
CPT-5	36.15	11	151.4	0.64	105	3796	1540	168.8	194.1	0.43	1.5	2.2	0.00	0.0	168.8	0.811	0.527	0.633	0.78	Liquefaction
CPT-5	36.24	11	157.1	0.71	105	3805	1544	174.9	201.0	0.46	1.5	2.3	0.00	0.0	174.9	0.811	0.578	0.694	0.86	Liquefaction
CPT-5	36.33	11	157.6	0.7	105	3815	1548	175.3	201.1	0.45	1.5	2.2	0.00	0.0	175.3	0.811	0.581	0.697	0.86	Liquefaction
CPT-5	36.41	11	162.3	0.74	105	3823	1551	180.3	206.7	0.46	1.5	2.2	0.00	0.0	180.3	0.811	0.625	0.750	0.93	Liquefaction
CPT-5	36.5	11	166.4	0.69	105	3833	1555	184.6	211.5	0.42	1.4	1.8	0.00	0.0	184.6	0.811	0.665	0.798	0.98	Liquefaction
CPT-5	36.59	11	174.7	0.67	105	3842	1559	193.6	221.6	0.39	1.4	1.3	0.00	0.0	193.6	0.811	0.755	0.906	1.12	Low F.S.
CPT-5	36.69	11	177.5	0.86	105	3852	1563	196.4	224.6	0.49	1.4	2.1	0.00	0.0	196.4	0.811	0.785	0.942	1.16	Low F.S.
CPT-5	36.78	11	183.6	1.04	115	4230	1935	182.6	187.5	0.57	1.5	3.5	0.00	0.0	182.6	0.719	0.647	0.776	1.08	Low F.S.
CPT-5	36.87	11	193	0.93	105	3871	1571	213.1	243.2	0.49	1.4	1.7	0.00	0.0	213.1	0.811	0.980	1.176	1.45	NonLiqfble.
CPT-5	36.96	11	188.2	0.91	105	3881	1574	207.5	236.5	0.49	1.4	1.8	0.00	0.0	207.5	0.811	0.911	1.093	1.35	NonLiqfble.
CPT-5	37.06	11	186.5	0.9	105	3891	1579	205.4	233.7	0.49	1.4	1.9	0.00	0.0	205.4	0.811	0.886	1.063	1.31	NonLiqfble.
CPT-5	37.15	11	182.8	0.98	115	4272	1954	180.9	184.8	0.54	1.5	3.4	0.00	0.0	180.9	0.719	0.631	0.757	1.05	Low F.S.
CPT-5	37.26	11	183.6	1.05	115	4285	1960	181.5	185.1	0.58	1.6	3.6	0.00	0.0	181.5	0.719	0.636	0.763	1.06	Low F.S.
CPT-5	37.35	11	170.7	1.28	115	4295	1965	168.5	171.5	0.76	1.7	5.3	0.01	1.3	169.8	0.719	0.536	0.643	0.89	Liquefaction
CPT-5	37.46	11	165.8	1.07	115															

Project Name:	199 River Oaks Parkway
Project Number:	7862.3.001.01
Date:	20-Jul-07
CPT Number:	CPT-5
Depth to Groundwater:	11 ft

EQ Magnitude (M _w):	7.1
PGA (g):	0.55
MSF:	1.20

Cone	Depth (FT)	Water Table (FT)	Tip Resist. (TSF)	Sleeve Frict. (TSF)	γ (PCF)	Total Stress (PSF)	Effective Stress (PSF)	Norm. Tip Q _{IN}	Corr. Tip Q	Friction Ratio F	I _c	F.C. (%)	K _{CPT}	Δq _{IN}	(q _{IN}) ₀	Induced Stress Ratio	Liquef. Stress M7.5	Liquef. Stress M7.10	Factor of Safety	Comments
CPT-5	38.1	11	164.4	0.92	115	4382	2004	160.7	161.8	0.57	1.6	4.3	0.00	0.0	160.7	0.719	0.466	0.559	0.78	Liquefaction
CPT-5	38.18	11	160	0.84	105	4009	1626	173.6	194.2	0.53	1.5	3.0	0.00	0.0	173.6	0.811	0.566	0.680	0.84	Liquefaction
CPT-5	38.26	11	159.4	0.75	105	4017	1630	172.8	193.1	0.48	1.5	2.6	0.00	0.0	172.8	0.811	0.559	0.671	0.83	Liquefaction
CPT-5	38.34	11	158.1	1	115	4409	2017	154.0	154.5	0.64	1.6	5.1	0.00	0.3	154.3	0.719	0.422	0.506	0.70	Liquefaction
CPT-5	38.57	11	152.2	1.14	115	4436	2029	147.8	147.8	0.76	1.7	6.2	0.03	4.8	152.7	0.719	0.411	0.493	0.69	Liquefaction
CPT-5	38.64	11	148.9	1.26	125	4830	2419	132.5	121.1	0.86	1.8	8.2	0.09	12.5	144.9	0.657	0.363	0.436	0.66	Liquefaction
CPT-5	38.72	11	149.9	1.39	125	4840	2424	133.2	121.6	0.94	1.8	8.7	0.10	14.8	148.0	0.657	0.382	0.458	0.70	Liquefaction
CPT-5	38.8	11	148.4	1.38	125	4850	2429	131.7	120.1	0.95	1.8	8.9	0.10	15.1	146.9	0.657	0.375	0.450	0.68	Liquefaction
CPT-5	38.88	11	148.9	1.25	125	4860	2434	132.1	120.3	0.85	1.8	8.2	0.09	12.4	144.5	0.657	0.360	0.433	0.66	Liquefaction
CPT-5	38.96	11	149.3	1.07	115	4480	2049	144.3	143.5	0.73	1.7	6.1	0.03	4.6	148.9	0.719	0.387	0.464	0.65	Liquefaction
CPT-5	39.03	11	152.6	0.95	115	4488	2053	147.4	146.4	0.63	1.7	5.3	0.01	1.3	148.6	0.719	0.385	0.462	0.64	Liquefaction
CPT-5	39.11	11	157.2	0.81	105	4107	1666	168.5	186.2	0.52	1.5	3.2	0.00	0.0	168.5	0.811	0.525	0.630	0.78	Liquefaction
CPT-5	39.19	11	164.2	0.76	105	4115	1669	175.8	194.2	0.47	1.5	2.6	0.00	0.0	175.8	0.811	0.586	0.703	0.87	Liquefaction
CPT-5	39.27	11	168	0.73	105	4123	1673	179.7	198.3	0.44	1.5	2.2	0.00	0.0	179.7	0.811	0.620	0.744	0.92	Liquefaction
CPT-5	39.34	11	168.2	0.68	105	4131	1676	179.8	198.2	0.41	1.4	2.0	0.00	0.0	179.8	0.811	0.620	0.744	0.92	Liquefaction
CPT-5	39.42	11	171.2	0.93	115	4533	2073	164.5	162.9	0.55	1.6	4.1	0.00	0.0	164.5	0.719	0.494	0.593	0.82	Liquefaction
CPT-5	39.5	11	168.8	0.98	115	4543	2078	162.0	160.2	0.59	1.6	4.5	0.00	0.0	162.0	0.719	0.476	0.571	0.79	Liquefaction
CPT-5	39.58	11	164.8	1.01	115	4552	2082	158.0	156.1	0.62	1.6	4.9	0.00	0.0	158.0	0.719	0.447	0.536	0.75	Liquefaction
CPT-5	39.65	11	160.8	1.04	115	4560	2086	154.1	152.0	0.66	1.7	5.3	0.01	1.1	155.2	0.719	0.428	0.513	0.71	Liquefaction
CPT-5	39.73	11	151.2	1.01	115	4569	2090	144.7	142.5	0.68	1.7	5.8	0.02	3.3	148.0	0.719	0.382	0.458	0.64	Liquefaction
CPT-5	39.81	11	152	0.97	115	4578	2094	145.3	142.9	0.65	1.7	5.6	0.02	2.3	147.7	0.719	0.379	0.455	0.63	Liquefaction
CPT-5	39.89	11	153.3	0.89	115	4587	2098	146.4	143.9	0.59	1.6	5.1	0.00	0.4	146.8	0.719	0.374	0.449	0.62	Liquefaction
CPT-5	39.97	11	155.6	0.84	105	4197	1703	165.0	180.2	0.55	1.5	3.5	0.00	0.0	165.0	0.811	0.498	0.597	0.74	Liquefaction
CPT-5	40.05	11	157.1	0.82	105	4205	1706	166.4	181.6	0.53	1.5	3.3	0.00	0.0	166.4	0.749	0.509	0.610	0.81	Liquefaction
CPT-5	40.12	11	155.6	0.82	105	4213	1709	164.7	179.5	0.53	1.5	3.4	0.00	0.0	164.7	0.749	0.495	0.594	0.79	Liquefaction
CPT-5	40.21	11	153.1	0.79	105	4222	1713	161.9	176.2	0.52	1.5	3.5	0.00	0.0	161.9	0.749	0.474	0.569	0.76	Liquefaction
CPT-5	40.28	11	152.9	0.81	105	4229	1716	161.5	175.7	0.54	1.6	3.6	0.00	0.0	161.5	0.749	0.472	0.566	0.76	Liquefaction
CPT-5	40.36	11	155.5	0.87	115	4641	2123	147.7	144.2	0.57	1.6	4.9	0.00	0.0	147.7	0.664	0.379	0.455	0.69	Liquefaction
CPT-5	40.43	11	158.3	0.89	115	4649	2127	150.2	146.6	0.57	1.6	4.8	0.00	0.0	150.2	0.664	0.395	0.474	0.71	Liquefaction
CPT-5	40.51	11	158.3	0.93	115	4659	2131	150.0	146.3	0.60	1.6	5.1	0.00	0.2	150.3	0.664	0.396	0.475	0.71	Liquefaction
CPT-5	40.58	11	155.3	0.92	115	4667	2135	147.1	143.3	0.60	1.7	5.2	0.01	0.9	147.9	0.664	0.381	0.457	0.69	Liquefaction
CPT-5	40.66	11	157.3	0.85	105	4269	1732	165.4	179.1	0.55	1.5	3.6	0.00	0.0	165.4	0.749	0.501	0.601	0.80	Liquefaction
CPT-5	40.74	11	160.7	0.82	105	4278	1736	168.8	182.6	0.52	1.5	3.2	0.00	0.0	168.8	0.749	0.527	0.633	0.84	Liquefaction
CPT-5	40.81	11	165.1	0.85	105	4285	1739	173.3	187.4	0.52	1.5	3.1	0.00	0.0	173.3	0.749	0.564	0.676	0.90	Liquefaction
CPT-5	40.89	11	171.4	1.18	115	4702	2151	161.7	157.1	0.70	1.7	5.4	0.01	1.7	163.4	0.664	0.485	0.583	0.88	Liquefaction
CPT-5	40.97	11	182	1.21	115	4712	2155	171.5	166.7	0.67	1.6	4.9	0.00	0.0	171.5	0.664	0.549	0.659	0.99	Liquefaction
CPT-5	41.04	11	187.6	0.99	115	4720	2159	176.7	171.5	0.53	1.6	3.7	0.00	0.0	176.7	0.664	0.593	0.711	1.07	Low F.S.
CPT-5	41.12	11	187.9	1.05	115	4729	2163	176.8	171.5	0.57	1.6	3.9	0.00	0.0	176.8	0.664	0.594	0.713	1.07	Low F.S.
CPT-5	41.2	11	175.5	1.03	115	4738	2167	164.9	159.7	0.59	1.6	4.5	0.00	0.0	164.9	0.664	0.497	0.597	0.90	Liquefaction
CPT-5	41.24	11	154.9	1.07	115	4743	2169	145.5	140.6	0.70	1.7	6.1	0.03	4.3	149.9	0.664	0.393	0.472	0.71	Liquefaction
CPT-5	41.32	11	169.6	1.15	115	4752	2173	159.2	153.8	0.69	1.7	5.4	0.01	1.9	161.0	0.664	0.468	0.562	0.85	Liquefaction
CPT-5	41.4	11	172.8	0.94	115	4761	2178	162.0	156.5	0.55	1.6	4.3	0.00	0.0	162.0	0.664	0.476	0.571	0.86	Liquefaction
CPT-5	41.48	11	186.2	0.96	105	4355	1767	193.8	208.2	0.52	1.5	2.6	0.00	0.0	193.8	0.749	0.757	0.908	1.21	Low F.S.
CPT-5	41.56	11	186.9	1.02	115	4779	2186	174.9	168.7	0.55	1.6	3.9	0.00	0.0	174.9	0.664	0.578	0.693	1.04	Low F.S.
CPT-5	41.64	11	186.2	1.08	115	4789	2190	174.1	167.8	0.59	1.6	4.2	0.00	0.0	174.1	0.664	0.571	0.685	1.03	Low F.S.
CPT-5	41.72	11	184.5	0.99	115	4798	2194	172.3	165.9	0.54	1.6	3.9	0.00	0.0	172.3	0.664	0.556	0.667	1.00	Low F.S.
CPT-5	41.8	11	182.7	1.13	115	4807	2199	170.5	163.9	0.63	1.6	4.6	0.00	0.0	170.5	0.664	0.541	0.649	0.98	Liquefaction
CPT-5	41.87	11	189.2	1.35	115	4815	2202	176.4	169.6	0.72	1.6	5.1	0.00	0.5	176.9	0.664	0.595	0.714	1.07	Low F.S.
CPT-5	41.95	11	192.6	1.33	115	4824	2207	179.4	172.3	0.70	1.6	4.9	0.00	0.0	179.4	0.664	0.617	0.740	1.11	Low F.S.
CPT-5	42.03	11	193.6	1.32	115	4833	2211	180.2	172.9	0.69	1.6	4.8	0.00	0.0	180.2	0.664	0.624	0.749	1.13	Low F.S.
CPT-5	42.11	11	184.9	1.4	115	4843	2215	171.9	164.7	0.77	1.7	5.6	0.02	2.7	174.6	0.664	0.575	0.690	1.04	Low F.S.
CPT-5	42.18	11	183.9	1.3	115	4851	2219	170.8	163.5	0.72	1.7	5.3	0.01	1.3	172.1	0.664	0.554	0.665	1.00	Low F.S.
CPT-5	42.27	11	185.8	1.15	115	4861	2223	172.4	164.9	0.63	1.6	4.6	0.00	0.0	172.4	0.664	0.557	0.668	1.01	Low F.S.
CPT-5	42.34	11	195.4	1.04	115	4869	2227	181.2	173.2	0.54	1.6	3.7	0.00	0.0	181.2	0.664	0.633	0.760	1.14	Low F.S.
CPT-5	42.42	11	192.3	0.93	105	4454	1807	197.9	210.3	0.49	1.5	2.3	0.00	0.0	197.9	0.749	0.801	0.961	1.28	Low F.S.
CPT-5	42.5	11	192	0.93	105	4463	1811	197.4	209.5	0.49	1.5	2.4	0.00	0.0	197.4	0.749	0.796	0.955	1.27	Low F.S.
CPT-5	42.58	11	202.6	0.86	105	4471	1814	208.1	220.8	0.43	1.4	1.7	0.00	0.0	208.1	0.749	0.919	1.102	1.47	NonLiqfble.
CPT-5	42.65	11	207.3	0.8	105	4478	1817	212.8	225.6	0.39	1.4	1.3	0.00	0.0	212.8	0.749	0.976	1.171	1.56	NonLiqfble.
CPT-5	42.73	11	214.8	0.8	105	4487	1820	220.3	233.4	0.38	1.4	1.0	0.00	0.0	220.3	0.749	1.074	1.289	1.72	NonLiqfble.
CPT-5	42.81	11	220.2	1.07	105	4495	1824	225.6	238.9	0.49	1.4	1.8	0.00	0.0	225.6	0.749	1.148	1.378	1.84	NonLiqfble.
CPT-5	42.89	11	227.2	1.13	105	4503	1827	232.6	246.1	0.50	1.4	1.8	0.00	0.0	232.6	0.749	1.250	1.500	2.00	NonLiqfble.
CPT																				

Project Name: 199 River Oaks Parkway
Project Number: 7862.3.001.01
Date: 20-Jul-07
CPT Number: CPT-5
Depth to Groundwater: 11 ft

EQ Magnitude (M_w): 7.1
PGA (g): 0.55
MSF: 1.20

Cone	Depth (FT)	Water Table (FT)	Tip Resist. (TSF)	Sleeve Frict. (TSF)	γ (PCF)	Total Stress (PSF)	Effective Stress (PSF)	Norm. Tip Q _{tip}	Corr. Tip Q	Friction Ratio F	Ic	F.C. (%)	K _{CPT}	Δq _{tip}	(q _{tip}) _{ns}	Induced Stress Ratio	Liquef. Stress M7.5	Liquef. Stress M7.10	Factor of Safety	Comments
CPT-5	43.58	11	191.7	1.02	115	5012	2292	175.2	165.0	0.54	1.6	3.9	0.00	0.0	175.2	0.664	0.580	0.696	1.05	Low F.S.
CPT-5	43.66	11	179.1	1.14	115	5021	2297	163.5	153.7	0.65	1.6	5.1	0.00	0.6	164.1	0.664	0.491	0.589	0.89	Liquefaction
CPT-5	43.74	11	178	0.95	115	5030	2301	162.4	152.5	0.54	1.6	4.4	0.00	0.0	162.4	0.664	0.478	0.574	0.86	Liquefaction
CPT-5	43.82	11	183.1	0.8	105	4601	1867	185.4	193.6	0.44	1.5	2.4	0.00	0.0	185.4	0.749	0.673	0.807	1.08	Low F.S.
CPT-5	43.89	11	171	1.18	115	5047	2309	155.7	145.9	0.70	1.7	5.8	0.02	3.6	159.3	0.664	0.456	0.547	0.82	Liquefaction
CPT-5	43.97	11	166	1.3	115	5057	2313	151.0	141.3	0.80	1.7	6.7	0.05	7.3	158.3	0.664	0.449	0.539	0.81	Liquefaction
CPT-5	44.05	11	180.4	1.3	115	5066	2317	164.0	153.5	0.73	1.7	5.8	0.02	3.4	167.3	0.664	0.516	0.619	0.93	Liquefaction
CPT-5	44.13	11	180.1	1.55	125	5516	2763	149.9	128.3	0.87	1.8	7.9	0.08	12.6	162.5	0.607	0.479	0.575	0.95	Liquefaction
CPT-5	44.2	11	176.1	1.76	125	5525	2767	146.5	125.2	1.02	1.8	9.0	0.11	17.6	164.0	0.607	0.491	0.589	0.97	Liquefaction
CPT-5	44.28	11	189	1.61	125	5535	2772	157.1	134.3	0.86	1.8	7.5	0.07	11.4	168.4	0.607	0.524	0.629	1.04	Low F.S.
CPT-5	44.36	11	199	1.49	115	5101	2333	180.3	168.3	0.76	1.7	5.4	0.01	1.9	182.2	0.664	0.642	0.771	1.16	Low F.S.
CPT-5	44.44	11	204.8	1.41	115	5111	2338	185.3	173.0	0.70	1.6	4.8	0.00	0.0	185.3	0.664	0.672	0.806	1.21	Low F.S.
CPT-5	44.51	11	213.3	1.36	115	5119	2341	192.9	179.9	0.65	1.6	4.2	0.00	0.0	192.9	0.664	0.747	0.897	1.35	NonLiqfble.
CPT-5	44.59	11	216	1.33	115	5128	2345	195.1	181.9	0.62	1.6	4.0	0.00	0.0	195.1	0.664	0.771	0.925	1.39	NonLiqfble.
CPT-5	44.77	11	197.5	1.21	115	5149	2355	178.1	165.5	0.62	1.6	4.5	0.00	0.0	178.1	0.664	0.605	0.726	1.09	Liquefaction
CPT-5	44.86	11	203.8	1.21	115	5159	2360	183.6	170.5	0.60	1.6	4.2	0.00	0.0	183.6	0.664	0.655	0.786	1.18	Low F.S.
CPT-5	44.94	11	203.2	1.09	115	5168	2364	182.9	169.7	0.54	1.6	3.8	0.00	0.0	182.9	0.664	0.649	0.778	1.17	Low F.S.
CPT-5	45.02	11	201.4	1.13	115	5177	2368	181.1	167.8	0.57	1.6	4.1	0.00	0.0	181.1	0.664	0.632	0.759	1.14	Low F.S.
CPT-5	45.1	11	191.9	1.19	115	5187	2372	172.4	159.5	0.63	1.6	4.8	0.00	0.0	172.4	0.664	0.556	0.668	1.01	Low F.S.
CPT-5	45.18	11	183.5	1.13	115	5196	2376	164.7	152.2	0.62	1.6	5.0	0.00	0.2	164.9	0.664	0.497	0.596	0.90	Liquefaction
CPT-5	45.26	11	174.4	1.1	115	5205	2381	156.4	144.3	0.64	1.7	5.5	0.01	2.0	158.4	0.664	0.450	0.539	0.81	Liquefaction
CPT-5	45.34	11	165	1.14	115	5214	2385	147.8	136.1	0.70	1.7	6.3	0.03	5.3	153.1	0.664	0.414	0.497	0.75	Liquefaction
CPT-5	45.42	11	163	1.04	115	5223	2389	145.9	134.2	0.65	1.7	6.0	0.03	3.9	149.9	0.664	0.393	0.472	0.71	Liquefaction
CPT-5	45.5	11	168.3	1.04	115	5233	2393	150.5	138.4	0.63	1.7	5.6	0.02	2.6	153.1	0.664	0.414	0.497	0.75	Liquefaction
CPT-5	45.58	11	180	1.4	115	5242	2398	160.8	147.9	0.79	1.7	6.4	0.04	6.2	167.0	0.664	0.513	0.616	0.93	Liquefaction
CPT-5	45.66	11	191.4	1.35	115	5251	2402	170.9	157.1	0.72	1.7	5.5	0.01	2.3	173.2	0.664	0.563	0.676	1.02	Low F.S.
CPT-5	45.74	11	200.6	1.16	115	5260	2406	178.9	164.5	0.59	1.6	4.3	0.00	0.0	178.9	0.664	0.613	0.735	1.11	Low F.S.
CPT-5	45.81	11	202.9	1.19	115	5268	2410	180.9	166.2	0.59	1.6	4.3	0.00	0.0	180.9	0.664	0.630	0.756	1.14	Low F.S.
CPT-5	45.89	11	194.2	1.27	115	5277	2414	172.9	158.7	0.66	1.6	5.1	0.00	0.3	173.3	0.664	0.564	0.677	1.02	Low F.S.
CPT-5	45.97	11	193.1	1.78	125	5746	2878	157.5	132.2	0.94	1.8	8.1	0.08	14.3	171.8	0.607	0.551	0.662	1.09	Low F.S.
CPT-5	46.05	11	185.9	1.86	125	5756	2883	151.5	126.9	1.02	1.8	8.9	0.10	17.7	169.2	0.607	0.530	0.637	1.05	Low F.S.
CPT-5	46.12	11	180.8	1.62	125	5765	2887	147.2	123.2	0.91	1.8	8.4	0.09	14.9	162.1	0.607	0.476	0.571	0.94	Liquefaction
CPT-5	46.21	11	178.3	1.53	125	5776	2893	145.0	121.2	0.87	1.8	8.3	0.09	14.0	159.0	0.607	0.454	0.545	0.90	Liquefaction
CPT-5	46.28	11	182.1	1.41	115	5322	2434	161.5	147.4	0.79	1.7	6.4	0.04	6.2	167.7	0.664	0.518	0.622	0.94	Liquefaction
CPT-5	46.36	11	193.5	1.45	115	5331	2439	171.4	156.4	0.76	1.7	5.8	0.02	3.9	175.4	0.664	0.582	0.698	1.05	Low F.S.
CPT-5	46.43	11	196.8	1.56	125	5804	2907	159.7	133.4	0.80	1.8	7.2	0.06	9.8	169.5	0.607	0.533	0.640	1.05	Low F.S.
CPT-5	46.51	11	196.2	1.77	125	5814	2912	159.1	132.7	0.92	1.8	8.0	0.08	13.6	172.7	0.607	0.559	0.671	1.11	Low F.S.
CPT-5	46.58	11	199	2.1	125	5823	2916	161.2	134.4	1.07	1.8	8.9	0.10	18.5	179.7	0.607	0.620	0.744	1.23	Low F.S.
CPT-5	46.66	11	191.9	2.5	135	6299	3388	144.3	111.4	1.32	2.0	11.8	0.18	32.0	176.2	0.565	0.589	0.707	1.25	Low F.S.
CPT-5	46.74	11	181.5	2.93	135	6310	3393	136.3	105.1	1.64	2.0	14.0	0.24	43.4	179.7	0.565	0.620	0.744	1.32	NonLiqfble.
CPT-5	46.81	11	182.2	3.33	135	6319	3398	136.7	105.3	1.86	2.1	15.1	0.27	50.7	187.4	0.565	0.692	0.830	1.47	NonLiqfble.
CPT-5	46.89	11	179.7	3.74	135	6330	3404	134.8	103.7	2.12	2.1	16.5	0.31	59.7	194.5	0.565	0.764	0.917	1.62	NonLiqfble.
CPT-5	46.96	11	178.2	4.06	135	6340	3409	133.5	102.6	2.32	2.2	17.5	0.33	66.9	200.4	0.565	0.829	0.995	1.76	NonLiqfble.
CPT-5	47.04	11	177	4.31	135	6350	3415	132.5	101.8	2.48	2.2	18.3	0.35	72.8	205.3	0.565	0.884	1.061	1.88	NonLiqfble.
CPT-5	47.11	11	176.9	4.35	135	6360	3420	132.3	101.5	2.50	2.2	18.4	0.36	73.7	206.1	0.565	0.894	1.073	1.90	NonLiqfble.
CPT-5	47.19	11	176.6	4.31	135	6371	3426	132.0	101.2	2.49	2.2	18.4	0.36	73.1	205.1	0.565	0.883	1.060	1.88	NonLiqfble.
CPT-5	47.27	11	176.9	4.16	135	6381	3432	132.1	101.2	2.39	2.2	18.0	0.35	69.9	202.1	0.565	0.847	1.017	1.80	NonLiqfble.
CPT-5	47.34	11	178.4	3.98	135	6391	3437	133.1	101.9	2.27	2.1	17.4	0.33	65.5	198.7	0.565	0.809	0.971	1.72	NonLiqfble.
CPT-5	47.42	11	180.5	3.69	135	6402	3443	134.6	103.0	2.08	2.1	16.4	0.30	58.8	193.4	0.565	0.753	0.904	1.60	NonLiqfble.
CPT-5	47.49	11	180.5	3.2	135	6411	3448	134.5	102.8	1.80	2.1	15.1	0.27	49.4	183.9	0.565	0.659	0.790	1.40	NonLiqfble.
CPT-5	47.56	11	182.6	2.08	125	5945	2977	146.4	120.6	1.16	1.9	10.2	0.14	23.5	169.9	0.607	0.536	0.643	1.06	Low F.S.
CPT-5	47.63	11	187.8	2.05	125	5954	2982	150.5	123.9	1.11	1.9	9.7	0.12	21.5	172.0	0.607	0.553	0.663	1.09	Low F.S.
CPT-5	47.71	11	196	1.85	125	5964	2987	156.9	129.2	0.96	1.8	8.4	0.09	15.8	172.7	0.607	0.559	0.671	1.11	Low F.S.
CPT-5	47.77	11	195.8	1.55	125	5971	2990	156.7	128.9	0.80	1.8	7.4	0.06	10.7	167.3	0.607	0.516	0.619	1.02	Low F.S.
CPT-5	47.82	11	195.9	1.48	115	5499	2515	170.9	153.5	0.77	1.7	6.0	0.03	4.7	175.6	0.664	0.583	0.700	1.05	Low F.S.
CPT-5	47.9	11	232.6	2.04	125	5988	2999	185.9	153.1	0.89	1.7	6.8	0.05	9.5	195.4	0.607	0.774	0.929	1.53	NonLiqfble.
CPT-5	47.98	11	260.8	2.32	125	5998	3004	208.2	171.6	0.90	1.7	6.2	0.03	6.9	215.1	0.607	1.006	1.207	1.99	NonLiqfble.
CPT-5	48.06	11	290	2.8	125	6008	3009	231.3	190.7	0.98	1.7	6.0	0.03	6.7	238.0	0.607	1.334	1.600	2.64	NonLiqfble.
CPT-5	48.14	11	305.1	3.74	135	6499	3495	225.8	172.7	1.24	1.8	8.1	0.08	20.7	246.5	0.565	1.473	1.768	3.13	NonLiqfble.
CPT-5	48.21	11	315.5	4.43	135	6508	3500	233.3	178.3	1.42	1.8	8.9	0.10	27.0	260.3	0.565	1.721	2.065	3.66	NonLiqfble.
CPT-5	48.29	11	328.4	4.37	135	6519	3506	242.7	185.4	1.34	1.8	8.3	0.09	23.1	265.8	0.565	1.826	2.191	3.88	NonLiqfble.
CPT-5	48.37	1																		

Project Name: 199 River Oaks Parkway
Project Number: 7862.3.001.01
Date: 20-Jul-07
CPT Number: CPT-5
Depth to Groundwater: 11 ft

EQ Magnitude (M_w): 7.1
PGA (g): 0.55
MSF: 1.20

Cone	Depth (FT)	Water Table (FT)	Tip Resist. (TSF)	Sleeve Frict. (TSF)	γ (PCF)	Total Stress (PSF)	Effective Stress (PSF)	Norm. Tip Q _{tip}	Corr. Tip Q	Friction Ratio F	I _c	F.C. (%)	K _{err}	Δq _{tip}	(q _{tip}) ₀	Induced Stress Ratio	Liquef. Stress M7.5	Liquef. Stress M7.10	Factor of Safety	Comments
CPT-5	49.01	11	175.4	1.47	125	6126	3068	138.6	112.3	0.85	1.8	8.7	0.10	15.3	153.8	0.607	0.419	0.502	0.83	Liquefaction
CPT-5	49.09	11	180.9	1.54	125	6136	3073	142.8	115.7	0.87	1.8	8.6	0.10	15.1	157.9	0.607	0.446	0.536	0.88	Liquefaction
CPT-5	49.17	11	180.8	1.65	125	6146	3078	142.6	115.4	0.93	1.8	9.0	0.11	17.2	159.8	0.607	0.460	0.552	0.91	Liquefaction
CPT-5	49.25	11	174.6	1.71	125	6156	3083	137.6	111.2	1.00	1.9	9.8	0.13	20.1	157.7	0.607	0.445	0.534	0.88	Liquefaction
CPT-5	49.33	11	160.7	1.9	125	6166	3088	126.5	102.0	1.21	2.0	11.8	0.18	28.1	154.6	0.607	0.424	0.508	0.84	Liquefaction
CPT-5	49.41	11	143.5	2.75	135	6670	3587	104.8	78.1	1.96	2.2	18.5	0.36	59.1	164.0	0.565	0.490	0.588	1.04	Low F.S.
CPT-5	49.49	11	117.6	2.81	135	6681	3593	85.8	63.6	2.46	2.3	23.2	0.49	81.1	166.9	0.565	0.512	0.615	1.09	Low F.S.
CPT-5	49.57	11	90.4	2.46	135	6692	3599	65.9	48.4	2.83	2.4	28.3	0.62	108.7	174.6	0.565	0.575	0.690	1.22	Low F.S.
CPT-5	49.65	11	86.8	2.38	135	6703	3605	63.3	46.3	2.85	2.5	29.0	0.64	113.2	176.4	0.565	0.591	0.709	1.25	Low F.S.
CPT-5	49.73	11	91.3	2.06	135	6714	3610	66.5	48.7	2.34	2.4	25.9	0.56	84.3	150.8	0.565	0.399	0.479	0.85	Liquefaction
CPT-5	49.81	11	121.7	1.76	135	6724	3616	88.5	65.4	1.49	2.2	17.8	0.34	45.7	134.3	0.565	0.305	0.366	0.65	Liquefaction
CPT-5	49.89	11	170.7	2.13	135	6735	3622	124.1	92.4	1.27	2.0	13.1	0.22	34.1	158.2	0.565	0.448	0.538	0.95	Liquefaction
CPT-5	49.97	11	195.6	2.49	135	6746	3628	142.1	105.9	1.30	2.0	12.0	0.19	32.9	174.9	0.565	0.578	0.694	1.23	Low F.S.
CPT-5	50.05	11	235.2	4.45	135	6757	3634	170.7	127.5	1.92	2.0	13.8	0.23	52.2	223.0	0.499	1.111	1.333	2.67	NonLiqfble.
CPT-5	50.12	11	267.5	4.47	135	6766	3639	194.0	145.1	1.69	2.0	11.7	0.18	42.1	236.2	0.499	1.305	1.566	3.14	NonLiqfble.
CPT-5	50.19	11	308.8	3.82	135	6776	3644	223.8	167.6	1.25	1.8	8.4	0.09	22.4	246.2	0.499	1.468	1.761	3.53	NonLiqfble.
CPT-5	50.27	11	296.6	3.91	135	6786	3650	214.8	160.6	1.33	1.8	9.1	0.11	26.6	241.4	0.499	1.389	1.667	3.34	NonLiqfble.
CPT-5	50.35	11	294.7	3.98	135	6797	3655	213.3	159.3	1.37	1.9	9.4	0.12	28.1	241.4	0.499	1.389	1.665	3.34	NonLiqfble.
CPT-5	50.42	11	287.5	3.64	135	6807	3660	207.9	155.2	1.28	1.8	9.1	0.11	25.4	233.3	0.499	1.261	1.514	3.04	NonLiqfble.
CPT-5	50.5	11	332.1	2.95	125	6313	3161	258.4	208.0	0.90	1.6	5.1	0.00	0.7	259.1	0.535	1.698	2.038	3.81	NonLiqfble.
CPT-5	50.57	11	317.3	3.51	125	6321	3166	246.7	198.4	1.12	1.7	6.6	0.04	11.3	258.0	0.535	1.677	2.013	3.76	NonLiqfble.
CPT-5	50.65	11	322.7	3.56	125	6331	3171	250.7	201.5	1.11	1.7	6.5	0.04	10.7	261.4	0.535	1.742	2.090	3.90	NonLiqfble.
CPT-5	50.72	11	330.5	3.02	125	6340	3175	256.6	206.1	0.92	1.7	5.3	0.01	2.1	258.7	0.535	1.691	2.029	3.79	NonLiqfble.
CPT-5	50.8	11	315.8	2.96	125	6350	3180	245.0	196.5	0.95	1.7	5.7	0.02	4.7	249.8	0.535	1.529	1.835	3.43	NonLiqfble.
CPT-5	50.88	11	278.2	2.71	125	6360	3185	215.7	172.6	0.99	1.7	6.7	0.05	10.2	225.9	0.535	1.152	1.382	2.58	NonLiqfble.
CPT-5	50.96	11	262.9	2.62	125	6370	3190	203.7	162.8	1.01	1.8	7.2	0.06	12.7	216.3	0.535	1.022	1.226	2.29	NonLiqfble.
CPT-5	51.04	11	251	2.57	125	6380	3195	194.3	155.1	1.04	1.8	7.7	0.07	15.0	209.2	0.535	0.932	1.118	2.09	NonLiqfble.
CPT-5	51.12	11	242.3	2.51	125	6390	3200	187.4	149.4	1.05	1.8	8.0	0.08	16.3	203.7	0.535	0.866	1.040	1.94	NonLiqfble.
CPT-5	51.15	11	222.6	2.31	125	6394	3202	172.1	137.0	1.05	1.8	8.6	0.10	18.3	190.5	0.535	0.723	0.867	1.62	NonLiqfble.
CPT-5	51.2	11	222	2.31	125	6400	3205	171.6	136.5	1.06	1.8	8.7	0.10	18.5	190.1	0.535	0.719	0.863	1.61	NonLiqfble.
CPT-5	51.28	11	226.5	2.24	125	6410	3210	174.9	139.1	1.00	1.8	8.2	0.09	16.3	191.2	0.535	0.739	0.876	1.64	NonLiqfble.
CPT-5	51.37	11	234.7	2.09	125	6421	3216	181.1	143.9	0.90	1.8	7.3	0.06	12.0	193.1	0.535	0.749	0.899	1.68	NonLiqfble.
CPT-5	51.45	11	246.6	2.45	125	6431	3221	190.1	151.1	1.01	1.8	7.7	0.07	14.5	204.7	0.535	0.877	1.053	1.97	NonLiqfble.
CPT-5	51.53	11	247.7	2.8	125	6441	3226	190.8	151.5	1.15	1.8	8.5	0.09	19.5	210.3	0.535	0.945	1.134	2.12	NonLiqfble.
CPT-5	51.62	11	257.8	2.33	125	6453	3231	198.4	157.5	0.92	1.7	6.8	0.05	10.1	208.6	0.535	0.924	1.109	2.07	NonLiqfble.
CPT-5	51.7	11	261.9	1.68	115	5946	2719	219.7	190.3	0.65	1.6	4.0	0.00	0.0	219.7	0.586	1.067	1.280	2.18	NonLiqfble.
CPT-5	51.78	11	251.4	1.52	115	5955	2724	210.8	182.3	0.61	1.6	3.9	0.00	0.0	210.8	0.586	0.951	1.141	1.95	NonLiqfble.
CPT-5	51.87	11	238.6	1.63	115	5965	2728	199.9	172.6	0.69	1.6	4.8	0.00	0.0	199.9	0.586	0.822	0.987	1.68	NonLiqfble.
CPT-5	51.95	11	221.2	1.49	115	5974	2733	185.1	159.6	0.68	1.6	5.2	0.00	0.9	186.0	0.586	0.679	0.814	1.39	NonLiqfble.
CPT-5	52.03	11	204.4	1.09	115	5983	2737	171.0	147.1	0.54	1.6	4.6	0.00	0.0	171.0	0.586	0.545	0.654	1.11	Low F.S.
CPT-5	52.11	11	190.4	0.97	105	5472	2220	176.8	169.0	0.52	1.6	3.6	0.00	0.0	176.8	0.661	0.594	0.713	1.08	Low F.S.
CPT-5	52.2	11	189.8	2.68	135	7047	3790	134.9	98.3	1.44	2.0	13.5	0.23	39.7	174.6	0.499	0.575	0.690	1.38	NonLiqfble.
CPT-5	52.28	11	221.8	4.11	135	7058	3796	157.5	115.0	1.88	2.1	14.5	0.25	53.3	210.8	0.499	0.952	1.142	2.29	NonLiqfble.
CPT-5	52.36	11	239	3.51	135	7069	3801	169.6	123.8	1.49	2.0	11.9	0.18	38.1	207.7	0.499	0.913	1.096	2.20	NonLiqfble.
CPT-5	52.44	11	273.5	3.12	125	6555	3283	208.9	164.6	1.15	1.8	8.0	0.08	18.1	226.9	0.535	1.167	1.400	2.62	NonLiqfble.
CPT-5	52.51	11	234	3.04	135	7089	3812	165.8	120.9	1.32	1.9	11.1	0.16	32.3	198.2	0.499	0.804	0.964	1.93	NonLiqfble.
CPT-5	52.59	11	245.2	2.83	125	6574	3292	187.0	146.9	1.17	1.8	8.8	0.10	21.3	208.2	0.535	0.920	1.104	2.06	NonLiqfble.
CPT-5	52.67	11	276	3.11	125	6584	3297	210.3	165.4	1.14	1.8	7.9	0.08	17.5	227.8	0.535	1.179	1.415	2.64	NonLiqfble.
CPT-5	52.75	11	296.8	3.19	125	6594	3302	226.0	177.7	1.09	1.8	7.1	0.06	13.5	239.5	0.535	1.358	1.629	3.04	NonLiqfble.
CPT-5	52.82	11	306	3.11	125	6603	3307	232.8	183.0	1.03	1.7	6.6	0.04	10.3	243.2	0.535	1.417	1.701	3.18	NonLiqfble.
CPT-5	52.9	11	312.6	3.02	125	6613	3312	237.7	186.7	0.98	1.7	6.2	0.03	7.7	245.4	0.535	1.454	1.745	3.26	NonLiqfble.
CPT-5	52.98	11	322.1	2.74	125	6623	3317	244.7	192.2	0.86	1.7	5.3	0.01	2.0	246.7	0.535	1.476	1.772	3.31	NonLiqfble.
CPT-5	53.05	11	321.4	2.62	125	6631	3321	244.0	191.5	0.82	1.6	5.1	0.00	0.6	244.6	0.535	1.442	1.730	3.23	NonLiqfble.
CPT-5	53.13	11	314.1	2.89	125	6641	3326	238.3	186.8	0.93	1.7	5.9	0.02	5.8	244.1	0.535	1.433	1.720	3.21	NonLiqfble.
CPT-5	53.21	11	303.7	2.97	125	6651	3331	230.2	180.3	0.99	1.7	6.5	0.04	9.3	239.5	0.535	1.358	1.630	3.04	NonLiqfble.
CPT-5	53.29	11	296.7	2.49	125	6661	3336	224.8	175.8	0.85	1.7	5.7	0.02	4.5	229.3	0.535	1.201	1.441	2.69	NonLiqfble.
CPT-5	53.37	11	274.8	2.15	125	6671	3341	208.0	162.4	0.79	1.7	5.8	0.02	4.7	212.7	0.535	0.975	1.170	2.19	NonLiqfble.
CPT-5	53.45	11	251.8	1.94	115	6147	2811	207.8	176.9	0.78	1.7	5.3	0.01	1.4	209.2	0.586	0.931	1.118	1.91	NonLiqfble.
CPT-5	53.52	11	238.2	1.55	115	6155	2815	196.4	167.0	0.66	1.6	4.8	0.00	0.0	196.4	0.586	0.785	0.942	1.61	NonLiqfble.
CPT-5	53.61	11	213.2	1.25	115	6165	2820	175.7	149.0	0.59	1.6	4.9	0.00	0.0	175.7	0.586	0.584	0.701	1.20	Low F.S.
CPT-5	53.69	11	187.2	1.15	115	6174	2824	154.1	130.3	0.62	1.7	6.0	0.03	4.2						

Project Name:	199 River Oaks Parkway
Project Number:	7862.3.001.01
Date:	20-Jul-07
CPT Number:	CPT-5
Depth to Groundwater:	11 R

EQ Magnitude (M _w):	7.1
PGA (g):	0.55
MSF:	1.20

Cone	Depth (FT)	Water Table (FT)	Tip Resist. (TSF)	Sleeve Frict. (TSF)	γ (PCF)	Total Stress (PSF)	Effective Stress (PSF)	Norm. Tip Q _N	Corr. Tip Q	Friction Ratio F	I _c	F.C. (%)	K _{CPT}	Δq _{EIN}	(q _{EIN}) _s	Induced Stress Ratio	Liquef. Stress M7.5	Liquef. Stress M7.10	Factor of Safety	Comments
CPT-5	54.34	11	211.2	2.12	125	6793	3402	158.4	122.1	1.02	1.9	9.2	0.11	20.1	178.6	0.535	0.610	0.732	1.37	NonLiqfble.
CPT-5	54.43	11	216.4	2.34	125	6804	3407	162.2	125.0	1.10	1.9	9.5	0.12	22.4	184.6	0.535	0.665	0.798	1.49	NonLiqfble.
CPT-5	54.51	11	196.9	2.94	135	7359	3957	136.9	97.6	1.52	2.0	14.0	0.24	43.5	180.5	0.499	0.627	0.752	1.51	NonLiqfble.
CPT-5	54.59	11	234.8	2.54	125	6824	3417	175.7	135.4	1.10	1.8	9.0	0.11	20.8	196.5	0.535	0.786	0.943	1.76	NonLiqfble.
CPT-5	54.7	11	222.8	2.62	125	6838	3424	166.6	128.1	1.19	1.9	9.9	0.13	25.3	191.9	0.535	0.738	0.885	1.65	NonLiqfble.
CPT-5	54.8	11	214	2.26	125	6850	3430	159.9	122.7	1.07	1.9	9.5	0.12	22.0	181.8	0.535	0.639	0.767	1.43	NonLiqfble.
CPT-5	54.88	11	227.4	2.09	125	6860	3435	169.8	130.3	0.93	1.8	8.2	0.09	15.8	185.6	0.535	0.674	0.809	1.51	NonLiqfble.
CPT-5	54.98	11	235.4	1.75	115	6323	2892	191.5	160.5	0.75	1.7	5.6	0.02	3.3	194.8	0.586	0.768	0.922	1.57	NonLiqfble.
CPT-5	55.08	11	239.6	1.65	115	6334	2897	194.8	163.1	0.70	1.6	5.2	0.00	0.8	195.6	0.586	0.776	0.931	1.59	NonLiqfble.
CPT-5	55.17	11	241.7	1.53	115	6345	2902	196.3	164.3	0.64	1.6	4.7	0.00	0.0	196.3	0.586	0.784	0.940	1.60	NonLiqfble.
CPT-5	55.22	11	238.7	1.42	115	6350	2905	193.8	162.1	0.60	1.6	4.5	0.00	0.0	193.8	0.586	0.757	0.908	1.55	NonLiqfble.
CPT-5	55.3	11	235.5	1.36	115	6360	2909	191.1	159.7	0.59	1.6	4.5	0.00	0.0	191.1	0.586	0.729	0.874	1.49	NonLiqfble.
CPT-5	55.38	11	236.2	1.46	115	6369	2913	191.5	159.9	0.63	1.6	4.8	0.00	0.0	191.5	0.586	0.733	0.880	1.50	NonLiqfble.
CPT-5	55.47	11	235.4	1.43	115	6379	2918	190.7	159.1	0.62	1.6	4.7	0.00	0.0	190.7	0.586	0.725	0.870	1.48	NonLiqfble.
CPT-5	55.55	11	240.9	1.62	115	6388	2922	195.0	162.6	0.68	1.6	5.1	0.00	0.3	195.3	0.586	0.773	0.927	1.58	NonLiqfble.
CPT-5	55.64	11	228.8	1.66	115	6399	2927	185.0	154.1	0.74	1.7	5.8	0.02	3.8	188.9	0.586	0.707	0.848	1.45	NonLiqfble.
CPT-5	55.73	11	231.6	1.6	115	6409	2931	187.2	155.8	0.70	1.7	5.4	0.01	2.3	189.4	0.586	0.712	0.855	1.46	NonLiqfble.
CPT-5	55.82	11	230.8	1.6	115	6419	2936	186.4	155.0	0.70	1.7	5.5	0.01	2.5	188.9	0.586	0.707	0.848	1.45	NonLiqfble.
CPT-5	55.9	11	235.4	1.42	115	6429	2940	189.9	157.9	0.61	1.6	4.7	0.00	0.0	189.9	0.586	0.717	0.861	1.47	NonLiqfble.
CPT-5	55.99	11	250.6	1.53	115	6439	2945	202.0	167.9	0.62	1.6	4.4	0.00	0.0	202.0	0.586	0.847	1.016	1.73	NonLiqfble.
CPT-5	56.09	11	247.1	2.81	125	7011	3511	182.5	138.7	1.15	1.8	9.1	0.11	22.6	205.1	0.535	0.882	1.058	1.98	NonLiqfble.
CPT-5	56.17	11	248	3.29	135	7583	4078	169.9	119.7	1.35	1.9	11.3	0.17	34.7	204.6	0.499	0.876	1.051	2.11	NonLiqfble.
CPT-5	56.26	11	246	3.23	135	7595	4084	168.4	118.5	1.33	1.9	11.3	0.17	34.3	202.8	0.499	0.855	1.026	2.06	NonLiqfble.
CPT-5	56.35	11	212.8	3.32	135	7607	4091	145.6	102.1	1.59	2.0	14.0	0.24	46.0	191.6	0.499	0.734	0.881	1.77	NonLiqfble.
CPT-5	56.44	11	194.9	3.17	135	7619	4098	133.2	93.2	1.66	2.1	15.2	0.27	49.8	183.1	0.499	0.651	0.781	1.57	NonLiqfble.
CPT-5	56.53	11	181	2.33	135	7632	4104	123.6	86.3	1.32	2.0	13.9	0.24	38.8	162.4	0.499	0.478	0.574	1.15	Low F.S.
CPT-5	56.63	11	175.9	2.32	135	7645	4111	120.0	83.7	1.35	2.1	14.4	0.25	40.4	160.5	0.499	0.464	0.557	1.12	Low F.S.
CPT-5	56.71	11	167.3	2.29	135	7656	4117	114.1	79.4	1.40	2.1	15.3	0.27	43.0	157.1	0.499	0.441	0.529	1.06	Low F.S.
CPT-5	56.81	11	159.6	2.21	135	7669	4124	108.7	75.5	1.42	2.1	15.9	0.29	44.4	153.1	0.499	0.414	0.497	1.00	Liquefaction
CPT-5	56.89	11	171.5	2.02	125	7111	3561	125.7	94.3	1.20	2.0	12.5	0.20	31.3	157.0	0.535	0.440	0.528	0.99	Liquefaction
CPT-5	56.98	11	208.8	2.08	125	7123	3567	153.0	115.0	1.01	1.9	9.6	0.12	21.6	174.5	0.535	0.575	0.689	1.29	Low F.S.
CPT-5	57.06	11	237.3	2.07	125	7133	3572	173.7	130.8	0.89	1.8	7.9	0.08	14.3	188.0	0.535	0.698	0.838	1.57	NonLiqfble.
CPT-5	57.15	11	250.5	2.46	125	7144	3578	183.2	138.0	1.00	1.8	8.2	0.09	17.1	200.4	0.535	0.828	0.994	1.86	NonLiqfble.
CPT-5	57.23	11	258.2	2.96	125	7154	3583	188.7	142.1	1.16	1.8	9.0	0.11	22.6	211.4	0.535	0.958	1.150	2.15	NonLiqfble.
CPT-5	57.32	11	260.9	2.78	125	7165	3588	190.6	143.4	1.08	1.8	8.5	0.09	19.4	210.0	0.535	0.941	1.129	2.11	NonLiqfble.
CPT-5	57.41	11	264.4	2.71	125	7176	3594	193.0	145.1	1.04	1.8	8.1	0.08	17.6	210.6	0.535	0.948	1.138	2.13	NonLiqfble.
CPT-5	57.49	11	253.8	2.62	125	7186	3599	185.1	139.0	1.05	1.8	8.5	0.09	18.9	204.0	0.535	0.870	1.044	1.95	NonLiqfble.
CPT-5	57.58	11	257.8	2.37	125	7198	3605	187.9	141.0	0.93	1.8	7.6	0.07	14.3	202.2	0.535	0.849	1.018	1.90	NonLiqfble.
CPT-5	57.66	11	268.8	2.51	125	7208	3610	195.8	146.9	0.95	1.8	7.5	0.07	13.8	209.6	0.535	0.936	1.123	2.10	NonLiqfble.
CPT-5	57.74	11	261.5	2.16	125	7218	3615	190.3	142.6	0.84	1.7	6.9	0.05	10.4	200.7	0.535	0.832	0.999	1.87	NonLiqfble.
CPT-5	57.83	11	259	2.12	125	7229	3620	188.3	141.0	0.83	1.7	7.0	0.05	10.5	198.8	0.535	0.811	0.973	1.82	NonLiqfble.
CPT-5	57.92	11	237.3	2	125	7240	3626	172.4	128.8	0.86	1.8	7.8	0.07	13.7	186.1	0.535	0.688	0.815	1.52	NonLiqfble.
CPT-5	58.01	11	230	1.94	125	7251	3631	167.0	124.6	0.86	1.8	8.0	0.08	14.5	181.5	0.535	0.636	0.763	1.43	NonLiqfble.
CPT-5	58.09	11	220.9	1.92	125	7261	3636	160.3	119.4	0.88	1.8	8.5	0.09	16.4	176.7	0.535	0.593	0.712	1.33	NonLiqfble.
CPT-5	58.18	11	211.8	2.02	125	7273	3642	153.6	114.3	0.97	1.9	9.4	0.12	20.4	174.0	0.535	0.570	0.684	1.28	Low F.S.
CPT-5	58.27	11	211.9	2.11	125	7284	3648	153.5	114.1	1.01	1.9	9.7	0.13	22.0	175.5	0.535	0.582	0.699	1.31	NonLiqfble.
CPT-5	58.35	11	217.7	2.16	125	7294	3653	157.6	117.2	1.01	1.9	9.5	0.12	21.3	178.9	0.535	0.613	0.735	1.37	NonLiqfble.
CPT-5	58.57	11	230.8	1.79	115	6736	3081	181.9	147.6	0.79	1.7	6.4	0.04	7.0	188.9	0.586	0.707	0.848	1.45	NonLiqfble.
CPT-5	58.66	11	245	1.69	115	6746	3086	193.0	156.6	0.70	1.7	5.4	0.01	2.1	195.1	0.586	0.771	0.925	1.58	NonLiqfble.
CPT-5	58.8	11	245.5	1.62	115	6762	3093	193.1	156.5	0.67	1.6	5.2	0.01	1.0	194.2	0.586	0.761	0.913	1.56	NonLiqfble.
CPT-5	58.92	11	252.3	1.87	115	6776	3099	198.3	160.6	0.75	1.7	5.6	0.02	3.3	201.6	0.586	0.842	1.011	1.72	NonLiqfble.
CPT-5	59.01	11	249.7	1.98	125	7376	3694	179.8	133.1	0.80	1.8	7.2	0.06	11.1	190.8	0.535	0.726	0.872	1.63	NonLiqfble.
CPT-5	59.1	11	249.6	2.17	125	7388	3700	179.5	132.9	0.88	1.8	7.7	0.07	14.1	193.6	0.535	0.755	0.906	1.69	NonLiqfble.
CPT-5	59.19	11	264.2	2.38	125	7399	3705	189.9	140.6	0.91	1.8	7.5	0.07	13.9	203.8	0.535	0.867	1.040	1.94	NonLiqfble.
CPT-5	59.27	11	267.7	2.17	125	7409	3710	192.3	142.2	0.82	1.7	6.9	0.05	10.0	202.3	0.535	0.850	1.020	1.91	NonLiqfble.
CPT-5	59.36	11	265.4	2.36	125	7420	3716	190.5	140.8	0.90	1.8	7.5	0.07	13.4	203.9	0.535	0.868	1.042	1.95	NonLiqfble.
CPT-5	59.45	11	249.7	2.32	125	7431	3722	179.1	132.1	0.94	1.8	8.2	0.08	16.5	195.6	0.535	0.776	0.931	1.74	NonLiqfble.
CPT-5	59.53	11	244.5	1.93	125	7441	3727	175.2	129.2	0.80	1.8	7.4	0.06	11.8	187.0	0.535	0.688	0.826	1.54	NonLiqfble.
CPT-5	59.62	11	241.3	1.43	115	6856	3136	188.5	151.6	0.60	1.6	4.9	0.00	0.0	188.5	0.586	0.703	0.844	1.44	NonLiqfble.
CPT-5	59.7	11	240	1.24	115	6866	3140	187.4	150.6	0.52	1.6	4.3	0.00	0.0	187.4	0.586	0.692	0.830	1.42	NonLiqfble.
CPT-5	59.79	11	2																	

Project Name: 199 River Oaks Parkway
Project Number: 7862.3.001.01
Date: 20-Jul-07
CPT Number: CPT-5
Depth to Groundwater: 11 ft

EQ Magnitude (M_w): 7.1
PGA (g): 0.55
MSF: 1.20

Cone	Depth (FT)	Water Table (FT)	Tip Resist. (TSF)	Sleeve Frict. (TSF)	γ (PCF)	Total Stress (PSF)	Effective Stress (PSF)	Norm. Tip Q _{IN}	Corr. Tip Q	Friction Ratio F	I _c	F.C. (%)	K _{CPT}	Δq _{IN}	(q _{IN}) _{0.5}	Induced Stress Ratio	Liquef. Stress M7.5	Liquef. Stress M7.10	Factor of Safety	Comments
CPT-5	60.58	11	182.8	1.19	115	6967	3187	141.7	112.5	0.66	1.8	7.3	0.06	9.3	150.9	0.516	0.400	0.480	0.93	Liquefaction
CPT-5	60.67	11	168.1	1.02	115	6977	3191	130.2	103.1	0.62	1.8	7.6	0.07	9.6	139.8	0.516	0.334	0.401	0.78	Liquefaction
CPT-5	60.75	11	171.6	1.13	115	6986	3195	132.8	105.2	0.67	1.8	7.9	0.08	10.9	143.8	0.516	0.356	0.428	0.83	Liquefaction
CPT-5	60.84	11	172.1	1.5	125	7605	3809	122.0	88.3	0.89	1.9	10.9	0.16	22.9	144.9	0.471	0.363	0.435	0.92	Liquefaction
CPT-5	60.93	11	180.4	2.04	125	7616	3814	127.8	92.6	1.16	2.0	12.3	0.20	31.0	158.8	0.471	0.453	0.543	1.15	Low F.S.
CPT-5	61.02	11	195.3	2.59	135	8238	4430	128.4	86.3	1.35	2.0	14.2	0.25	41.7	170.1	0.439	0.538	0.646	1.47	NonLiqfble.
CPT-5	61.11	11	200.2	3.22	135	8250	4437	131.5	88.4	1.64	2.1	15.6	0.28	52.0	183.5	0.439	0.655	0.786	1.79	NonLiqfble.
CPT-5	61.2	11	237.2	3.87	135	8262	4443	155.7	104.9	1.66	2.0	14.1	0.24	50.3	206.0	0.439	0.893	1.072	2.44	NonLiqfble.
CPT-5	61.28	11	263.6	3.9	135	8273	4449	172.9	116.6	1.50	2.0	12.4	0.20	42.7	215.6	0.439	1.012	1.215	2.77	NonLiqfble.
CPT-5	61.36	11	273.5	3.62	135	8284	4455	179.3	120.9	1.34	1.9	11.3	0.17	35.9	215.2	0.439	1.007	1.208	2.75	NonLiqfble.
CPT-5	61.45	11	260.5	3.43	135	8296	4461	170.6	114.9	1.34	1.9	11.6	0.18	36.6	207.3	0.439	0.908	1.090	2.48	NonLiqfble.
CPT-5	61.54	11	263.3	3.13	135	8308	4468	172.4	116.0	1.21	1.9	10.8	0.15	31.5	203.8	0.439	0.868	1.041	2.37	NonLiqfble.
CPT-5	61.62	11	271.8	3.09	125	7703	3857	191.5	138.9	1.15	1.8	9.1	0.11	23.6	215.1	0.471	1.006	1.207	2.56	NonLiqfble.
CPT-5	61.71	11	285.1	2.9	125	7714	3863	200.7	145.5	1.03	1.8	8.1	0.08	17.8	218.5	0.471	1.051	1.261	2.68	NonLiqfble.
CPT-5	61.76	11	292.4	2.81	125	7720	3866	205.8	149.2	0.97	1.8	7.5	0.07	15.0	220.7	0.471	1.080	1.296	2.75	NonLiqfble.
CPT-5	61.84	11	296.9	2.59	125	7730	3871	208.8	151.3	0.88	1.7	6.9	0.05	11.0	219.8	0.471	1.067	1.281	2.72	NonLiqfble.
CPT-5	61.93	11	299.5	2.84	125	7741	3877	210.5	152.4	0.96	1.8	7.3	0.06	13.9	224.3	0.471	1.130	1.356	2.88	NonLiqfble.
CPT-5	62.06	11	339.3	3.28	125	7758	3885	238.2	172.6	0.98	1.7	6.6	0.04	11.0	249.1	0.471	1.518	1.822	3.87	NonLiqfble.
CPT-5	62.15	11	359.4	2.89	125	7769	3891	252.1	182.7	0.81	1.7	5.3	0.01	1.9	254.1	0.471	1.605	1.926	4.09	NonLiqfble.
CPT-5	62.26	11	359.1	3.38	125	7783	3897	251.7	182.2	0.95	1.7	6.2	0.03	8.1	259.8	0.471	1.710	2.052	4.36	NonLiqfble.
CPT-5	62.36	11	330.6	3.55	125	7795	3904	231.5	167.3	1.09	1.8	7.5	0.07	16.5	248.0	0.471	1.498	1.798	3.82	NonLiqfble.
CPT-5	62.45	11	301.1	3.54	135	8431	4534	195.7	130.9	1.19	1.9	9.8	0.13	28.6	224.2	0.439	1.128	1.354	3.09	NonLiqfble.
CPT-5	62.54	11	256.6	3.42	135	8443	4540	166.6	111.1	1.36	2.0	12.0	0.19	38.2	204.8	0.439	0.879	1.055	2.40	NonLiqfble.
CPT-5	62.63	11	242.2	3.01	135	8455	4547	157.2	104.6	1.26	2.0	12.0	0.19	35.8	193.0	0.439	0.749	0.898	2.05	NonLiqfble.
CPT-5	62.71	11	231.3	2.36	125	7839	3926	161.5	115.8	1.04	1.9	9.7	0.13	23.4	184.9	0.471	0.668	0.802	1.70	NonLiqfble.
CPT-5	62.8	11	218.2	2.51	125	7850	3931	152.3	109.0	1.17	1.9	11.1	0.16	29.4	181.6	0.471	0.637	0.765	1.62	NonLiqfble.
CPT-5	62.89	11	213.1	2.86	135	8490	4566	138.0	91.4	1.37	2.0	13.7	0.23	42.0	180.0	0.439	0.623	0.747	1.70	NonLiqfble.
CPT-5	62.98	11	205.9	2.81	135	8502	4572	133.2	88.2	1.39	2.0	14.2	0.25	43.5	176.7	0.439	0.594	0.712	1.62	NonLiqfble.
CPT-5	63.06	11	210.1	3.42	135	8513	4578	135.9	89.9	1.66	2.1	15.6	0.28	53.3	189.2	0.439	0.709	0.851	1.94	NonLiqfble.
CPT-5	63.15	11	205	3.68	135	8525	4585	132.5	87.5	1.83	2.1	16.7	0.31	60.3	192.7	0.439	0.746	0.895	2.04	NonLiqfble.
CPT-5	63.23	11	221.5	3.4	135	8536	4590	143.0	94.6	1.57	2.1	14.6	0.26	49.0	192.0	0.439	0.739	0.886	2.02	NonLiqfble.
CPT-5	63.31	11	244.4	3.17	135	8547	4596	157.7	104.4	1.32	2.0	12.3	0.19	38.2	195.9	0.439	0.779	0.935	2.13	NonLiqfble.
CPT-5	63.39	11	254.6	2.83	125	7924	3968	176.8	126.3	1.13	1.9	9.7	0.12	25.1	202.0	0.471	0.846	1.015	2.16	NonLiqfble.
CPT-5	63.47	11	269.9	2.53	125	7934	3973	187.3	133.8	0.95	1.8	8.1	0.08	17.1	204.4	0.471	0.874	1.049	2.23	NonLiqfble.
CPT-5	63.55	11	275.2	2.55	125	7944	3978	190.9	136.3	0.94	1.8	7.9	0.08	16.2	207.1	0.471	0.906	1.087	2.31	NonLiqfble.
CPT-5	63.63	11	260.3	2.49	125	7954	3983	180.5	128.6	0.97	1.8	8.5	0.09	18.8	199.3	0.471	0.816	0.979	2.08	NonLiqfble.
CPT-5	63.71	11	275.7	2.41	125	7964	3988	191.0	136.2	0.89	1.8	7.6	0.07	14.2	205.2	0.471	0.883	1.060	2.25	NonLiqfble.
CPT-5	63.8	11	269.9	2.54	125	7975	3994	186.9	133.1	0.96	1.8	8.2	0.09	17.4	204.3	0.471	0.873	1.047	2.22	NonLiqfble.
CPT-5	63.87	11	270.7	2.66	125	7984	3998	187.3	133.4	1.00	1.8	8.4	0.09	19.0	206.3	0.471	0.897	1.076	2.28	NonLiqfble.
CPT-5	63.96	11	269.6	2.67	125	7995	4004	186.4	132.6	1.01	1.8	8.5	0.09	19.4	205.9	0.471	0.891	1.070	2.27	NonLiqfble.
CPT-5	64.04	11	281.8	2.84	125	8005	4009	194.6	138.4	0.95	1.8	7.9	0.08	16.3	210.9	0.471	0.952	1.143	2.43	NonLiqfble.
CPT-5	64.12	11	270.7	2.58	125	8015	4014	186.9	132.8	0.97	1.8	8.3	0.09	18.0	204.9	0.471	0.880	1.056	2.24	NonLiqfble.
CPT-5	64.2	11	253.6	2.49	125	8025	4019	175.0	124.2	1.00	1.8	9.0	0.11	20.7	195.7	0.471	0.777	0.933	1.98	NonLiqfble.
CPT-5	64.29	11	241.3	2.41	125	8036	4025	166.4	117.9	1.02	1.9	9.5	0.12	22.5	188.9	0.471	0.707	0.848	1.80	NonLiqfble.
CPT-5	64.37	11	232.3	2.31	125	8046	4030	160.1	113.3	1.01	1.9	9.7	0.13	23.2	183.3	0.471	0.653	0.783	1.66	NonLiqfble.
CPT-5	64.46	11	225.1	2.19	125	8058	4035	155.0	109.5	0.99	1.9	9.9	0.13	23.1	178.1	0.471	0.606	0.727	1.54	NonLiqfble.
CPT-5	64.54	11	214.5	2.47	125	8068	4040	147.7	104.1	1.17	1.9	11.4	0.17	30.6	178.3	0.471	0.607	0.728	1.55	NonLiqfble.
CPT-5	64.8	11	177.8	3.95	135	8748	4704	113.4	73.7	2.28	2.2	20.7	0.42	81.6	195.0	0.439	0.769	0.923	2.10	NonLiqfble.
CPT-5	64.89	11	162.1	4.02	135	8760	4711	103.3	66.9	2.55	2.3	23.0	0.48	95.6	198.9	0.439	0.812	0.975	2.22	NonLiqfble.
CPT-5	64.98	11	155.2	3.74	135	8772	4718	98.9	63.9	2.48	2.3	23.2	0.49	93.7	192.6	0.439	0.744	0.893	2.03	NonLiqfble.
CPT-5	65.06	11	153.3	3.24	135	8783	4723	97.6	63.0	2.18	2.3	21.9	0.45	80.5	178.1	0.439	0.606	0.727	1.66	NonLiqfble.
CPT-5	65.15	11	152.5	2.98	135	8795	4730	97.0	62.6	2.01	2.3	21.2	0.43	73.8	170.8	0.439	0.544	0.652	1.49	NonLiqfble.
CPT-5	65.23	11	156.9	2.95	135	8806	4736	99.8	64.4	1.93	2.2	20.5	0.41	70.1	169.9	0.439	0.536	0.643	1.47	NonLiqfble.
CPT-5	65.32	11	152.5	3.12	135	8818	4742	96.9	62.4	2.11	2.3	21.7	0.45	77.9	174.8	0.439	0.577	0.693	1.58	NonLiqfble.
CPT-5	65.4	11	152.8	3.21	135	8829	4748	97.0	62.5	2.16	2.3	22.0	0.45	80.4	177.4	0.439	0.599	0.719	1.64	NonLiqfble.
CPT-5	65.49	11	157.8	3.07	135	8841	4755	100.1	64.5	2.00	2.3	20.8	0.42	73.0	173.1	0.439	0.562	0.675	1.54	NonLiqfble.
CPT-5	65.57	11	162.9	2.8	135	8852	4760	103.3	66.6	1.77	2.2	19.2	0.38	63.0	166.3	0.439	0.507	0.609	1.39	NonLiqfble.
CPT-5	65.66	11	165.5	2.51	135	8864	4767	104.9	67.5	1.56	2.2	17.8	0.34	54.7	159.6	0.439	0.458	0.549	1.25	Low F.S.
CPT-5	65.74	11	166	2.23	135	8875	4773	105.1	67.7	1.38	2.1	16.7	0.31	48.0	153.1	0.439	0.414	0.497	1.13	Low F.S.
CPT-5	65.82	11	163.7	1.98	125	8228	4120	111.6	77.4	1.24	2.1	14.5	0.25	37.9	149.5	0.471	0.391	0.469	1.00	Liquefaction
CPT-5	65.91	11	158.3	1.84	125	8239	4126	107.8	74.7											

Project Name: 199 River Oaks Parkway
Project Number: 7862.3.001.01
Date: 20-Jul-07
CPT Number: CPT-5
Depth to Groundwater: 11 ft

EQ Magnitude (M_w): 7.1
PGA (g): 0.55
MSF: 1.20

Cone	Depth (FT)	Water Table (FT)	Tip Resist. (TSF)	Sleeve Frict. (TSF)	γ (PCF)	Total Stress (PSF)	Effective Stress (PSF)	Norm. Tip Q _{IN}	Corr. Tip Q	Friction Ratio F	Ic	F.C. (%)	K _{CPT}	Δq _{IN}	(q _{IN}) ₂₅	Induced Stress Ratio	Liquef. Stress M7.5	Liquef. Stress M7.10	Factor of Safety	Comments
CPT-5	66.68	11	193.8	2.53	135	9002	4841	121.9	78.2	1.34	2.1	15.0	0.27	44.5	166.3	0.439	0.508	0.610	1.39	NonLiqfble.
CPT-5	66.76	11	207.5	3.1	135	9013	4847	130.4	83.7	1.53	2.1	15.5	0.28	50.7	181.1	0.439	0.632	0.759	1.73	NonLiqfble.
CPT-5	66.85	11	224.4	3.1	135	9025	4853	140.9	90.6	1.41	2.0	14.1	0.24	45.0	186.0	0.439	0.678	0.814	1.85	NonLiqfble.
CPT-5	66.93	11	225.5	2.8	135	9036	4859	141.5	90.9	1.27	2.0	13.2	0.22	39.5	181.1	0.439	0.632	0.759	1.73	NonLiqfble.
CPT-5	67.02	11	210	2.47	125	8378	4195	141.9	98.1	1.20	2.0	12.1	0.19	33.2	175.1	0.471	0.579	0.695	1.47	NonLiqfble.
CPT-5	67.1	11	244.2	2.61	125	8388	4200	164.9	114.2	1.09	1.9	10.2	0.14	26.3	191.2	0.471	0.730	0.876	1.86	NonLiqfble.
CPT-5	67.19	11	283.4	2.87	125	8399	4206	191.2	132.7	1.03	1.8	8.7	0.10	20.8	212.0	0.471	0.966	1.159	2.46	NonLiqfble.
CPT-5	67.27	11	308	3.04	125	8409	4211	207.7	144.2	1.00	1.8	7.9	0.08	17.6	225.3	0.471	1.144	1.372	2.91	NonLiqfble.
CPT-5	67.35	11	315.6	3.09	125	8419	4216	212.7	147.7	0.99	1.8	7.7	0.07	16.7	229.3	0.471	1.202	1.442	3.06	NonLiqfble.
CPT-5	67.43	11	311.5	3.2	125	8429	4221	209.8	145.5	1.04	1.8	8.1	0.08	19.1	228.9	0.471	1.195	1.434	3.04	NonLiqfble.
CPT-5	67.52	11	297.1	2.88	125	8440	4227	199.9	138.5	0.98	1.8	8.1	0.08	18.0	218.0	0.471	1.043	1.252	2.66	NonLiqfble.
CPT-5	67.6	11	289.6	2.57	125	8450	4232	194.8	134.8	0.90	1.8	7.7	0.07	15.4	210.2	0.471	0.943	1.132	2.40	NonLiqfble.
CPT-5	67.69	11	284.5	2.38	125	8461	4237	191.2	132.2	0.85	1.8	7.5	0.07	13.8	205.1	0.471	0.882	1.059	2.25	NonLiqfble.
CPT-5	67.77	11	273.6	2.1	125	8471	4242	183.8	126.9	0.78	1.8	7.3	0.06	12.1	195.9	0.471	0.780	0.936	1.99	NonLiqfble.
CPT-5	67.95	11	253.4	1.86	115	7814	3574	185.5	139.5	0.75	1.7	6.4	0.04	7.5	192.9	0.516	0.748	0.897	1.74	NonLiqfble.
CPT-5	68.04	11	239.9	1.69	115	7825	3579	175.5	131.8	0.72	1.7	6.6	0.04	7.9	183.3	0.516	0.653	0.784	1.52	NonLiqfble.
CPT-5	68.12	11	253.2	1.75	115	7834	3583	185.1	139.1	0.70	1.7	6.2	0.03	5.9	191.0	0.516	0.728	0.873	1.69	NonLiqfble.
CPT-5	68.19	11	261.1	1.82	115	7842	3587	190.8	143.3	0.71	1.7	6.0	0.03	5.3	196.0	0.516	0.781	0.937	1.82	NonLiqfble.
CPT-5	68.25	11	264	1.72	115	7849	3590	192.8	144.8	0.66	1.7	5.6	0.02	3.2	196.0	0.516	0.780	0.936	1.81	NonLiqfble.
CPT-5	68.32	11	268.9	1.83	115	7857	3594	196.3	147.4	0.69	1.7	5.7	0.02	3.8	200.1	0.516	0.825	0.990	1.92	NonLiqfble.
CPT-5	68.41	11	279.4	2.67	125	8551	4282	186.8	128.4	0.97	1.8	8.5	0.09	19.5	206.3	0.471	0.897	1.076	2.28	NonLiqfble.
CPT-5	68.5	11	272.1	2.57	125	8563	4288	181.8	124.9	0.96	1.8	8.7	0.10	19.8	201.6	0.471	0.842	1.010	2.14	NonLiqfble.
CPT-5	68.59	11	258.7	2.61	125	8574	4294	172.7	118.5	1.03	1.9	9.5	0.12	23.5	196.3	0.471	0.783	0.940	1.99	NonLiqfble.
CPT-5	68.68	11	222.5	1.67	115	7898	3613	162.0	120.9	0.76	1.8	7.5	0.07	11.8	173.8	0.516	0.568	0.682	1.32	NonLiqfble.
CPT-5	68.77	11	209.9	1.62	115	7909	3617	152.7	113.8	0.79	1.8	8.1	0.08	14.0	166.7	0.516	0.511	0.613	1.19	Low F.S.
CPT-5	68.86	11	208.5	1.58	115	7919	3622	151.6	112.9	0.77	1.8	8.1	0.08	13.7	165.3	0.516	0.500	0.600	1.16	Low F.S.
CPT-5	68.94	11	210.3	1.58	115	7928	3626	152.8	113.8	0.77	1.8	8.0	0.08	13.3	166.1	0.516	0.506	0.607	1.18	Low F.S.
CPT-5	69.03	11	209.8	1.59	115	7938	3631	152.3	113.3	0.77	1.8	8.1	0.08	13.6	165.9	0.516	0.505	0.606	1.17	Low F.S.
CPT-5	69.11	11	198.5	1.51	115	7948	3635	144.1	107.0	0.78	1.8	8.5	0.09	15.0	159.0	0.516	0.454	0.545	1.06	Low F.S.
CPT-5	69.18	11	209	1.4	115	7956	3639	151.6	112.6	0.68	1.8	7.4	0.07	10.6	162.1	0.516	0.476	0.572	1.11	Low F.S.
CPT-5	69.27	11	217.4	1.35	115	7966	3644	157.6	117.1	0.63	1.7	6.8	0.05	7.8	165.4	0.516	0.501	0.601	1.16	Low F.S.
CPT-5	69.36	11	210.8	1.48	115	7976	3648	152.7	113.3	0.72	1.8	7.6	0.07	11.6	164.3	0.516	0.493	0.591	1.15	Low F.S.
CPT-5	69.44	11	200.2	1.42	115	7986	3653	144.9	107.4	0.72	1.8	8.1	0.08	13.1	158.0	0.516	0.447	0.536	1.04	Low F.S.
CPT-5	69.53	11	195	1.37	115	7996	3657	141.1	104.4	0.72	1.8	8.3	0.09	13.5	154.5	0.516	0.423	0.508	0.98	Liquefaction
CPT-5	69.62	11	184.3	1.37	115	8006	3662	133.3	98.4	0.76	1.8	9.0	0.11	16.1	149.4	0.516	0.390	0.468	0.91	Liquefaction
CPT-5	69.71	11	188.7	1.42	115	8017	3667	136.3	100.7	0.77	1.8	8.9	0.10	16.0	152.3	0.516	0.409	0.491	0.95	Liquefaction
CPT-5	69.79	11	190.8	1.46	115	8026	3671	137.8	101.7	0.78	1.8	9.0	0.11	16.2	154.0	0.516	0.420	0.504	0.98	Liquefaction
CPT-5	69.88	11	196.9	1.55	115	8036	3676	142.1	104.9	0.80	1.8	8.9	0.10	16.4	158.5	0.516	0.450	0.540	1.05	Low F.S.
CPT-5	69.97	11	200.8	1.76	125	8746	4380	132.8	89.7	0.90	1.9	10.8	0.16	24.4	157.2	0.471	0.441	0.529	1.12	Low F.S.
CPT-5	70.06	11	212.3	1.91	125	8758	4386	140.3	94.8	0.92	1.9	10.5	0.15	24.2	164.5	0.471	0.494	0.593	1.26	Low F.S.
CPT-5	70.14	11	222.6	1.72	115	8066	3689	160.3	118.4	0.79	1.8	7.9	0.08	13.3	173.6	0.516	0.567	0.680	1.32	NonLiqfble.
CPT-5	70.23	11	231.3	1.87	125	8779	4396	152.6	103.2	0.82	1.8	9.2	0.11	19.0	171.7	0.471	0.551	0.661	1.40	NonLiqfble.
CPT-5	70.31	11	236.8	2.23	125	8789	4401	156.2	105.6	0.96	1.9	9.9	0.13	23.7	179.9	0.471	0.621	0.745	1.58	NonLiqfble.
CPT-5	70.4	11	243	2.28	125	8800	4407	160.2	108.2	0.96	1.9	9.7	0.13	23.0	183.2	0.471	0.652	0.782	1.66	NonLiqfble.
CPT-5	70.48	11	248.1	2.08	125	8810	4412	163.4	110.4	0.85	1.8	8.9	0.10	18.7	182.2	0.471	0.642	0.770	1.64	NonLiqfble.
CPT-5	70.57	11	237.2	2.02	125	8821	4418	156.1	105.3	0.87	1.9	9.3	0.12	20.3	176.5	0.471	0.591	0.709	1.51	NonLiqfble.
CPT-5	70.66	11	227.7	1.93	125	8833	4423	149.8	100.9	0.86	1.9	9.6	0.12	21.1	170.9	0.471	0.544	0.653	1.39	NonLiqfble.
CPT-5	70.75	11	231.8	1.88	125	8844	4429	152.4	102.6	0.83	1.8	9.2	0.11	19.3	171.7	0.471	0.551	0.661	1.40	NonLiqfble.
CPT-5	70.83	11	236.6	1.74	115	8145	3726	169.6	124.8	0.75	1.8	7.2	0.06	10.7	180.3	0.516	0.625	0.750	1.45	NonLiqfble.
CPT-5	70.92	11	237.6	1.63	115	8156	3730	170.2	125.1	0.70	1.7	6.8	0.05	8.7	178.9	0.516	0.613	0.735	1.42	NonLiqfble.
CPT-5	71.01	11	244.2	1.52	115	8166	3735	174.8	128.5	0.63	1.7	6.1	0.03	5.5	180.4	0.516	0.626	0.751	1.46	NonLiqfble.
CPT-5	71.1	11	246	1.59	115	8177	3740	176.0	129.3	0.66	1.7	6.3	0.03	6.3	182.3	0.516	0.644	0.772	1.50	NonLiqfble.
CPT-5	71.18	11	245.2	1.68	115	8186	3744	175.3	128.7	0.70	1.7	6.6	0.04	7.9	183.3	0.516	0.652	0.783	1.52	NonLiqfble.
CPT-5	71.27	11	232.7	1.74	115	8196	3749	166.3	121.9	0.76	1.8	7.5	0.07	11.7	178.0	0.516	0.605	0.726	1.41	NonLiqfble.
CPT-5	71.36	11	218.2	1.65	115	8206	3754	155.8	114.0	0.77	1.8	8.0	0.08	13.6	169.5	0.516	0.533	0.639	1.24	Low F.S.
CPT-5	71.45	11	211	1.56	115	8217	3758	150.6	110.1	0.75	1.8	8.1	0.08	13.8	164.4	0.516	0.493	0.592	1.15	Low F.S.
CPT-5	71.53	11	210	1.75	125	8941	4478	137.3	91.8	0.85	1.9	10.3	0.14	22.6	159.9	0.471	0.460	0.553	1.17	Low F.S.
CPT-5	71.74	11	218.8	1.98	125	8968	4491	142.9	95.4	0.92	1.9	10.5	0.15	24.6	167.4	0.471	0.517	0.620	1.32	NonLiqfble.
CPT-5	71.82	11	228.8	1.79	125	8978	4496	149.3	99.7	0.80	1.9	9.2	0.11	19.0	168.3	0.471	0.523	0.628	1.33	NonLiqfble.
CPT-5	71.91	11	238.2	1.96	125	8989	4502	155.3	103.8	0.84	1.8	9.2	0.11	19.7	175.0	0.471	0.579	0.695	1.47	NonLiqfble.
CPT-5	72	11	250.6	2.16	125	9000	4507	163.3	109.2	0.88	1.8	9.1	0.11	20.1	183.4					

Project Name:	199 River Oaks Parkway
Project Number:	7862.3.001.01
Date:	20-Jul-07
CPT Number:	CPT-5
Depth to Groundwater:	11 ft

EQ Magnitude (M_w):	7.1
PGA (g):	0.55
MSF:	1.20

Cone	Depth (FT)	Water Table (FT)	Tip Resist. (TSF)	Sleeve Frict. (TSF)	γ (PCF)	Total Stress (PSF)	Effective Stress (PSF)	Norm. Tip Q_{tip}	Corr. Tip Q	Friction Ratio F	f_c	F.C. (%)	K_{CPT}	Δq_{tip}	$(q_{tip})_s$	Induced Stress Ratio	Liquef. Stress M7.5	Liquef. Stress M7.10	Factor of Safety	Comments
CPT-5	72.79	11	201.6	2.1	125	9099	4557	130.7	86.5	1.07	2.0	12.3	0.20	31.8	162.5	0.471	0.479	0.574	1.22	Low F.S.
CPT-5	72.88	11	198.3	1.92	125	9110	4562	128.5	84.9	0.99	2.0	12.0	0.19	29.4	157.8	0.471	0.446	0.535	1.14	Low F.S.
CPT-5	72.97	11	185.3	1.93	125	9121	4568	120.0	79.1	1.07	2.0	13.1	0.22	33.4	153.3	0.471	0.415	0.498	1.06	Low F.S.
CPT-5	73.06	11	179.7	2.01	125	9133	4574	116.3	76.6	1.15	2.0	14.0	0.24	36.8	153.0	0.471	0.413	0.496	1.05	Low F.S.
CPT-5	73.15	11	183.3	2.13	125	9144	4579	118.5	78.0	1.19	2.0	14.1	0.24	38.1	156.6	0.471	0.437	0.525	1.11	Low F.S.
CPT-5	73.24	11	195.5	2.13	125	9155	4585	126.3	83.2	1.12	2.0	13.0	0.21	34.3	160.7	0.471	0.466	0.559	1.19	Low F.S.
CPT-5	73.32	11	215.8	2.22	125	9165	4590	139.4	92.0	1.05	2.0	11.7	0.18	30.3	169.7	0.471	0.534	0.641	1.36	NonLiqfble.
CPT-5	73.4	11	239.6	2.3	125	9175	4595	154.7	102.3	0.98	1.9	10.3	0.14	25.6	180.2	0.471	0.625	0.750	1.59	NonLiqfble.
CPT-5	73.49	11	254.4	2.25	125	9186	4600	164.1	108.6	0.90	1.9	9.3	0.12	21.4	185.5	0.471	0.673	0.808	1.71	NonLiqfble.
CPT-5	73.57	11	260.6	2.38	125	9196	4605	168.0	111.1	0.93	1.9	9.3	0.12	22.0	190.0	0.471	0.718	0.861	1.83	NonLiqfble.
CPT-5	73.66	11	251.5	2.38	125	9208	4611	162.1	107.0	0.96	1.9	9.9	0.13	24.1	186.2	0.471	0.680	0.816	1.73	NonLiqfble.
CPT-5	73.75	11	243.6	2.22	125	9219	4617	156.9	103.5	0.93	1.9	9.9	0.13	23.5	180.4	0.471	0.626	0.751	1.59	NonLiqfble.
CPT-5	73.83	11	248	2.2	125	9229	4622	159.6	105.3	0.90	1.9	9.6	0.12	22.2	181.8	0.471	0.639	0.767	1.63	NonLiqfble.
CPT-5	73.92	11	247.7	2.19	125	9240	4627	159.3	105.0	0.90	1.9	9.6	0.12	22.1	181.5	0.471	0.636	0.763	1.62	NonLiqfble.
CPT-5	74	11	253.2	1.99	125	9250	4632	162.8	107.3	0.80	1.8	8.7	0.10	17.8	180.5	0.471	0.627	0.753	1.60	NonLiqfble.
CPT-5	74.09	11	259.3	1.73	115	8520	3897	181.7	130.8	0.68	1.7	6.4	0.04	6.9	188.7	0.516	0.705	0.846	1.64	NonLiqfble.
CPT-5	74.17	11	262.8	1.65	115	8530	3901	184.1	132.5	0.64	1.7	6.0	0.03	5.0	189.1	0.516	0.709	0.851	1.65	NonLiqfble.
CPT-5	74.26	11	264.2	1.55	115	8540	3906	185.0	133.0	0.60	1.7	5.6	0.02	3.2	188.2	0.516	0.700	0.840	1.63	NonLiqfble.
CPT-5	74.35	11	258.4	1.42	115	8550	3911	180.8	129.9	0.56	1.7	5.5	0.01	2.4	183.2	0.516	0.652	0.782	1.52	NonLiqfble.
CPT-5	74.43	11	247.7	1.39	115	8559	3915	173.2	124.3	0.57	1.7	5.9	0.02	4.1	177.4	0.516	0.599	0.719	1.39	NonLiqfble.
CPT-5	74.52	11	212.8	1.14	115	8570	3920	148.7	106.3	0.55	1.7	6.7	0.05	7.2	155.9	0.516	0.433	0.519	1.01	Low F.S.
CPT-5	74.61	11	192.1	0.99	105	7834	3178	149.1	118.4	0.53	1.7	5.8	0.02	3.4	152.4	0.582	0.409	0.491	0.84	Liquefaction
CPT-5	74.7	11	181.5	0.93	105	7844	3182	140.8	111.6	0.52	1.7	6.2	0.03	4.7	145.4	0.582	0.366	0.439	0.76	Liquefaction
CPT-5	74.78	11	177	0.9	105	7852	3186	137.2	108.6	0.52	1.7	6.4	0.04	5.1	142.4	0.582	0.348	0.418	0.72	Liquefaction
CPT-5	74.84	11	163.8	0.95	115	8607	3937	114.2	81.0	0.60	1.9	9.3	0.11	14.7	128.9	0.516	0.279	0.335	0.65	Liquefaction
CPT-5	74.87	11	157.1	1.04	115	8610	3938	105.8	74.8	0.71	1.9	10.9	0.16	19.8	125.5	0.516	0.264	0.317	0.61	Liquefaction
CPT-5	74.91	11	147.3	1.36	125	9364	4689	94.1	60.8	0.95	2.1	14.9	0.26	33.8	127.9	0.471	0.275	0.330	0.70	Liquefaction
CPT-5	74.98	11	155.6	2.01	135	10122	5444	92.3	55.3	1.34	2.2	18.6	0.36	52.9	145.2	0.439	0.365	0.437	1.00	Liquefaction
CPT-5	75.05	11	148.1	2.52	135	10132	5449	87.8	52.5	1.76	2.3	21.9	0.45	72.1	159.9	0.439	0.460	0.552	1.26	Low F.S.
CPT-5	75.12	11	138.1	2.56	135	10141	5454	81.8	48.8	1.92	2.3	23.7	0.50	81.8	163.6	0.439	0.487	0.585	1.33	NonLiqfble.
CPT-5	75.16	11	136	2.49	135	10147	5457	80.6	48.0	1.90	2.3	23.8	0.50	81.3	161.8	0.439	0.474	0.569	1.30	Low F.S.
CPT-5	75.21	11	131.5	2.62	135	10153	5460	77.9	46.3	2.07	2.4	25.2	0.54	91.2	169.1	0.439	0.530	0.636	1.45	NonLiqfble.
CPT-5	75.28	11	170.6	3.24	135	10163	5465	101.0	60.5	1.96	2.3	21.3	0.43	77.6	178.6	0.439	0.610	0.732	1.67	NonLiqfble.
CPT-5	75.37	11	199.3	3.45	135	10175	5472	117.9	71.0	1.78	2.2	18.5	0.36	66.8	184.7	0.439	0.666	0.799	1.82	NonLiqfble.
CPT-5	75.44	11	251.3	3.24	135	10184	5477	148.6	89.9	1.32	2.0	13.6	0.23	44.2	192.7	0.439	0.746	0.895	2.04	NonLiqfble.
CPT-5	75.52	11	291.7	3.35	125	9440	4728	185.6	121.4	1.17	1.9	10.2	0.14	29.8	215.5	0.471	1.010	1.212	2.57	NonLiqfble.
CPT-5	75.6	11	303.2	3.61	135	10206	5489	179.1	108.6	1.21	1.9	11.3	0.17	36.4	215.5	0.439	1.010	1.212	2.76	NonLiqfble.
CPT-5	75.69	11	322.5	3.43	125	9461	4738	205.0	134.1	1.08	1.8	8.9	0.10	24.0	229.0	0.471	1.196	1.436	3.05	NonLiqfble.
CPT-5	75.77	11	319.5	3.15	125	9471	4743	203.0	132.7	1.00	1.8	8.5	0.09	21.0	223.9	0.471	1.124	1.349	2.86	NonLiqfble.
CPT-5	75.86	11	321	3.11	125	9483	4749	203.8	133.1	0.98	1.8	8.4	0.09	20.1	224.0	0.471	1.125	1.350	2.86	NonLiqfble.
CPT-5	75.94	11	311.3	2.94	125	9493	4754	197.5	128.9	0.96	1.8	8.4	0.09	20.0	217.5	0.471	1.037	1.245	2.64	NonLiqfble.
CPT-5	76.03	11	290.4	2.7	125	9504	4759	184.2	120.0	0.95	1.8	8.9	0.10	21.2	205.4	0.471	0.886	1.063	2.26	NonLiqfble.
CPT-5	76.14	11	280	2.46	125	9518	4766	177.5	115.4	0.89	1.8	8.8	0.10	20.0	197.5	0.471	0.796	0.956	2.03	NonLiqfble.
CPT-5	76.24	11	270	2.39	125	9530	4773	171.0	111.1	0.90	1.8	9.1	0.11	21.2	192.2	0.471	0.741	0.889	1.89	NonLiqfble.
CPT-5	76.35	11	275.3	2.09	115	8780	4016	190.1	134.9	0.77	1.7	6.9	0.05	9.9	200.0	0.516	0.824	0.989	1.92	NonLiqfble.
CPT-5	76.46	11	293.2	2.1	115	8793	4022	202.3	143.6	0.73	1.7	6.1	0.03	6.3	208.6	0.516	0.925	1.109	2.15	NonLiqfble.
CPT-5	76.55	11	310.7	1.95	115	8803	4027	214.2	152.1	0.64	1.6	5.1	0.00	0.7	215.0	0.516	1.004	1.205	2.34	NonLiqfble.
CPT-5	76.65	11	314.4	1.96	115	8815	4032	216.6	153.7	0.63	1.6	5.0	0.00	0.2	216.8	0.516	1.028	1.234	2.39	NonLiqfble.
CPT-5	76.75	11	324.3	2.07	115	8826	4037	223.3	158.4	0.65	1.6	5.0	0.00	0.0	223.3	0.516	1.116	1.339	2.60	NonLiqfble.
CPT-5	76.87	11	330.3	2.16	115	8840	4043	227.3	161.1	0.66	1.6	5.0	0.00	0.0	227.3	0.516	1.172	1.406	2.73	NonLiqfble.
CPT-5	76.97	11	333.6	3.13	125	9621	4818	210.3	136.4	0.95	1.8	8.0	0.08	18.3	228.6	0.471	1.191	1.429	3.03	NonLiqfble.
CPT-5	77.09	11	323.8	2.96	125	9636	4826	203.9	132.1	0.93	1.8	8.1	0.08	18.2	222.1	0.471	1.099	1.319	2.80	NonLiqfble.
CPT-5	77.18	11	322.3	2.86	125	9648	4831	202.9	131.4	0.90	1.8	7.9	0.08	17.2	220.1	0.471	1.071	1.285	2.73	NonLiqfble.
CPT-5	77.27	11	301.9	2.44	125	9659	4837	189.9	122.8	0.82	1.8	7.8	0.08	15.6	205.6	0.471	0.888	1.065	2.26	NonLiqfble.
CPT-5	77.35	11	300.8	2.56	125	9669	4842	189.1	122.2	0.86	1.8	8.2	0.09	17.6	206.7	0.471	0.902	1.082	2.30	NonLiqfble.
CPT-5	77.47	11	287.7	2.22	125	9684	4850	180.8	116.6	0.78	1.8	8.0	0.08	15.5	196.2	0.471	0.783	0.939	1.99	NonLiqfble.
CPT-5	77.58	11	278.2	1.84	115	8922	4081	190.5	134.1	0.60	1.7	5.6	0.02	3.2	193.7	0.516	0.756	0.907	1.76	NonLiqfble.
CPT-5	77.67	11	248	1.36	115	8932	4085	169.8	119.2	0.56	1.7	6.1	0.03	4.9	174.7	0.516	0.576	0.691	1.34	NonLiqfble.
CPT-5	77.77	11	218.7	1.11	105	8166	3313	166.2	129.5	0.52	1.6	5.2	0.00	0.8	167.0	0.582	0.513	0.616	1.06	Low F.S.
CPT-5	77.88	11	165.7	0.84	105	8177	3318	125.9	97.4	0.52	1.8	7.1	0.06	7.6	133.5	0.582	0.301	0.361	0.62	Liquefaction
CPT-5	77.98	11	117.6	0.94	115															

Project Name: 199 River Oaks Parkway
Project Number: 7862.3.001.01
Date: 20-Jul-07
CPT Number: CPT-5
Depth to Groundwater: 11 ft

EQ Magnitude (M_w): 7.1
PGA (g): 0.55
MSF: 1.20

Cone	Depth (FT)	Water Table (FT)	Tip Resist. (TSF)	Sleeve Frict. (TSF)	γ (PCF)	Total Stress (PSF)	Effective Stress (PSF)	Norm. Tip Q _{ts} (PSF)	Corr. Tip Q	Friction Ratio F	I _c	F.C. (%)	K _{CPT}	Δq _{ts}	(q _{ts}) _{cs}	Induced Stress Ratio	Liquef. Stress M7.5	Liquef. Stress M7.10	Factor of Safety	Comments
CPT-5	79	11	60	1.45	135	10665	5735	34.7	19.1	2.65	2.7	42.5	0.80	138.7	173.3	0.439	0.564	0.677	1.54	NonLiqfble.
CPT-5	79.06	11	99.6	1.6	135	10673	5740	57.5	32.8	1.70	2.4	27.8	0.61	89.2	146.7	0.439	0.374	0.449	1.02	Low F.S.
CPT-5	79.15	11	115.5	1.76	135	10685	5746	66.7	38.3	1.60	2.4	24.9	0.53	75.9	142.6	0.439	0.350	0.420	0.96	Liquefaction
CPT-5	79.24	11	113.8	2.9	135	10697	5753	65.6	37.7	2.67	2.5	31.1	0.70	151.5	217.1	0.439	1.032	1.238	2.82	NonLiqfble.
CPT-5	79.33	11	96.7	3.32	135	10710	5759	55.8	31.7	3.63	2.7	38.1	0.80	223.0	278.8	0.439	2.094	2.513	5.73	NonLiqfble.
CPT-5	79.43	11	66.2	3.59	135	10723	5767	38.1	21.1	5.90	2.9	53.7	0.80	152.6	190.7	0.439	0.725	0.870	1.98	NonLiqfble.
CPT-5	79.52	11	60.1	3.8	135	10735	5773	34.6	19.0	6.94	3.0	59.1	0.80	138.4	173.0	0.439	0.562	0.674	1.54	NonLiqfble.
CPT-5	79.62	11	57.7	3.73	135	10749	5780	33.2	18.1	7.13	3.0	60.7	0.80	132.8	166.0	0.439	0.506	0.607	1.38	NonLiqfble.
CPT-5	79.72	11	56	3.68	135	10762	5788	32.2	17.5	7.27	3.0	61.8	0.80	128.8	161.0	0.439	0.468	0.562	1.28	NonLiqfble.
CPT-5	79.82	11	60.5	3.39	135	10776	5795	34.8	19.0	6.15	3.0	56.7	0.80	139.1	173.9	0.439	0.569	0.683	1.56	NonLiqfble.
CPT-5	79.92	11	78.7	2.95	135	10789	5802	45.2	25.3	4.02	2.8	43.6	0.80	180.8	226.0	0.439	1.154	1.385	3.16	NonLiqfble.
CPT-5	80.02	11	94.1	2.55	135	10803	5809	54.0	30.5	2.87	2.6	35.4	0.80	216.1	270.1	0.439	1.912	2.295	5.23	NonLiqfble.

Project Name:	199 River Oaks Parkway
Project Number:	7862.3.001.01
Date:	20-Jul-07
CPT Number:	CPT-6
Depth to Groundwater:	10.8 ft

EQ Magnitude (M _w):	7.1
PGA (g):	0.55
MSF:	1.20

Cone	Depth (FT)	Water Table (FT)	Tip Resist. (TSF)	Sleeve Frict. (TSF)	γ (PCF)	Total Stress (PSF)	Effective Stress (PSF)	Norm. Tip Q _{tip}	Corr. Tip Q	Friction Ratio F	F.C. (%)	K _{CPT}	Δq _{tip}	(q _{tip}) ^{0.5}	Induced Stress Ratio	Liquef. Stress M7.5	Liquef. Stress M7.10	Factor of Safety	Comments	
CPT-6	0.55	10.8	290.2	2.96	125	69	69	555.8	8437.7	1.02	1.3	0.5	0.00	0.0	555.8	0.358	16.047	19.256	53.86	Above W.T.
CPT-6	0.64	10.8	257.8	3.13	135	86	86	493.7	5964.1	1.21	1.3	0.8	0.00	0.0	493.7	0.358	11.274	13.528	37.84	Above W.T.
CPT-6	0.73	10.8	232.4	3.26	135	99	99	445.1	4713.4	1.40	1.4	1.3	0.00	0.0	445.1	0.358	8.280	9.936	27.79	Above W.T.
CPT-6	0.82	10.8	197.8	3.97	135	111	111	378.8	3571.1	2.01	1.5	3.2	0.00	0.0	378.8	0.358	5.136	6.163	17.24	Above W.T.
CPT-6	0.91	10.8	167.3	3.91	135	123	123	320.4	2721.5	2.34	1.6	4.2	0.00	0.0	320.4	0.358	3.139	3.767	10.54	Above W.T.
CPT-6	1	10.8	141.9	3.91	135	135	135	271.8	2100.3	2.76	1.7	5.5	0.01	3.8	275.5	0.358	2.025	2.430	6.80	Above W.T.
CPT-6	1.09	10.8	106.6	3.4	135	147	147	204.2	1447.3	3.19	1.8	7.1	0.06	12.2	216.4	0.358	1.022	1.227	3.43	Above W.T.
CPT-6	1.18	10.8	92.5	2.91	135	159	159	177.2	1159.8	3.15	1.8	7.4	0.06	12.1	189.3	0.358	0.711	0.853	2.39	Above W.T.
CPT-6	1.27	10.8	83.6	2.46	135	171	171	160.1	973.8	2.95	1.8	7.2	0.06	10.1	170.2	0.358	0.538	0.646	1.81	Above W.T.
CPT-6	1.35	10.8	77.1	2.14	135	182	182	147.7	844.7	2.78	1.8	7.1	0.06	8.7	156.4	0.358	0.436	0.523	1.46	Above W.T.
CPT-6	1.44	10.8	71.1	1.94	135	194	194	136.2	730.2	2.73	1.8	7.4	0.06	9.2	145.4	0.358	0.366	0.439	1.23	Above W.T.
CPT-6	1.52	10.8	67.5	1.83	135	205	205	129.3	656.6	2.72	1.8	7.7	0.07	9.9	139.1	0.358	0.331	0.397	1.11	Above W.T.
CPT-6	1.61	10.8	65.2	1.81	135	217	217	124.9	598.7	2.78	1.8	8.2	0.08	11.6	136.4	0.358	0.316	0.379	1.06	Above W.T.
CPT-6	1.69	10.8	65	1.78	135	228	228	124.5	568.6	2.74	1.8	8.2	0.09	11.8	136.3	0.358	0.316	0.379	1.06	Above W.T.
CPT-6	1.77	10.8	64.3	1.77	135	239	239	123.1	537.0	2.76	1.8	8.5	0.09	12.7	135.9	0.358	0.313	0.376	1.05	Above W.T.
CPT-6	1.86	10.8	62.1	1.77	135	251	251	118.9	493.4	2.86	1.8	9.2	0.11	14.8	133.8	0.358	0.303	0.363	1.02	Above W.T.
CPT-6	1.94	10.8	57.6	1.79	135	262	262	110.3	438.7	3.11	1.9	10.5	0.15	18.8	129.2	0.358	0.280	0.336	0.94	Above W.T.
CPT-6	2.02	10.8	55.8	1.77	135	273	273	106.9	408.1	3.18	1.9	11.0	0.16	20.4	127.3	0.358	0.272	0.326	0.91	Above W.T.
CPT-6	2.1	10.8	53.7	1.52	135	284	284	102.8	377.7	2.84	1.9	10.3	0.14	17.0	119.8	0.358	0.240	0.288	0.81	Above W.T.
CPT-6	2.18	10.8	52.9	1.5	135	294	294	101.3	358.3	2.84	1.9	10.6	0.15	17.8	119.1	0.358	0.237	0.284	0.80	Above W.T.
CPT-6	2.26	10.8	51.1	1.6	135	305	305	97.9	333.8	3.14	2.0	11.9	0.18	22.1	120.0	0.358	0.241	0.289	0.81	Above W.T.
CPT-6	2.34	10.8	49	1.69	135	316	316	93.8	309.1	3.46	2.0	13.3	0.22	26.8	120.6	0.358	0.243	0.292	0.82	Above W.T.
CPT-6	2.41	10.8	48.8	1.79	135	325	325	93.5	298.9	3.68	2.0	14.2	0.24	30.3	123.8	0.358	0.256	0.308	0.86	Above W.T.
CPT-6	2.51	10.8	46.3	1.91	135	339	339	88.7	272.2	4.14	2.1	16.1	0.30	37.2	125.9	0.358	0.266	0.319	0.89	Above W.T.
CPT-6	2.6	10.8	45.5	2.08	135	351	351	87.1	258.2	4.59	2.2	17.6	0.34	44.4	131.5	0.358	0.292	0.350	0.98	Above W.T.
CPT-6	2.68	10.8	46.7	2.24	135	362	362	89.4	257.0	4.82	2.2	18.3	0.35	49.0	138.5	0.358	0.327	0.392	1.10	Above W.T.
CPT-6	2.76	10.8	48.4	2.4	135	373	373	92.7	258.7	4.98	2.2	18.6	0.36	53.1	145.8	0.358	0.368	0.442	1.24	Above W.T.
CPT-6	2.85	10.8	52	2.61	135	385	385	99.6	269.2	5.04	2.2	18.5	0.36	56.2	155.8	0.358	0.432	0.518	1.45	Above W.T.
CPT-6	2.93	10.8	54.8	2.79	135	396	396	105.0	276.0	5.11	2.2	18.5	0.36	59.3	164.3	0.358	0.492	0.591	1.65	Above W.T.
CPT-6	3.01	10.8	55.4	2.83	135	406	406	106.1	271.6	5.13	2.2	18.7	0.37	61.0	167.1	0.358	0.514	0.617	1.73	Above W.T.
CPT-6	3.1	10.8	54.9	2.86	135	419	419	105.1	261.3	5.23	2.2	19.2	0.38	64.2	169.3	0.358	0.531	0.638	1.78	Above W.T.
CPT-6	3.19	10.8	52.1	2.84	135	431	431	99.8	240.9	5.47	2.2	20.4	0.41	69.5	169.3	0.358	0.531	0.637	1.78	Above W.T.
CPT-6	3.28	10.8	51.8	2.82	135	443	443	99.2	232.9	5.47	2.2	20.6	0.42	70.9	170.1	0.358	0.538	0.645	1.81	Above W.T.
CPT-6	3.37	10.8	54.1	2.89	135	455	455	103.6	236.7	5.36	2.2	20.2	0.41	71.1	174.7	0.358	0.576	0.691	1.93	Above W.T.
CPT-6	3.45	10.8	54.2	3.03	135	466	466	103.8	231.6	5.61	2.3	21.0	0.43	77.5	181.3	0.358	0.634	0.761	2.13	Above W.T.
CPT-6	3.54	10.8	55.7	3.19	135	478	478	106.7	232.0	5.75	2.3	21.3	0.44	82.4	189.1	0.358	0.708	0.850	2.38	Above W.T.
CPT-6	3.63	10.8	56.9	3.34	135	490	490	109.0	231.1	5.90	2.3	21.7	0.45	87.6	196.5	0.358	0.786	0.943	2.64	Above W.T.
CPT-6	3.71	10.8	56.7	3.47	135	501	501	108.6	225.3	6.15	2.3	22.5	0.47	94.9	203.5	0.358	0.863	1.036	2.90	Above W.T.
CPT-6	3.81	10.8	56.2	3.55	135	514	514	107.6	217.4	6.35	2.3	23.2	0.49	101.7	209.3	0.358	0.933	1.120	3.13	Above W.T.
CPT-6	3.89	10.8	55.3	3.66	135	525	525	105.6	209.5	6.65	2.3	24.2	0.51	110.8	216.3	0.358	1.022	1.226	3.43	Above W.T.
CPT-6	3.98	10.8	54.8	3.74	135	537	537	103.4	202.9	6.86	2.4	24.9	0.53	117.2	220.7	0.358	1.079	1.295	3.62	Above W.T.
CPT-6	4.07	10.8	53.1	3.74	135	549	549	99.1	192.2	7.08	2.4	25.8	0.56	124.3	223.4	0.358	1.117	1.340	3.75	Above W.T.
CPT-6	4.16	10.8	51.2	3.73	135	562	562	94.5	181.3	7.33	2.4	26.9	0.58	132.8	227.3	0.358	1.172	1.407	3.93	Above W.T.
CPT-6	4.24	10.8	49.9	3.73	135	572	572	91.3	173.3	7.52	2.4	27.7	0.61	140.3	231.6	0.358	1.235	1.481	4.14	Above W.T.
CPT-6	4.33	10.8	47.4	3.67	135	585	585	85.8	161.1	7.79	2.5	28.9	0.64	152.1	237.8	0.358	1.331	1.597	4.47	Above W.T.
CPT-6	4.42	10.8	46.6	3.64	135	597	597	83.5	155.1	7.86	2.5	29.5	0.65	157.1	240.6	0.358	1.375	1.650	4.61	Above W.T.
CPT-6	4.51	10.8	46.1	3.6	135	609	609	81.7	150.4	7.86	2.5	29.8	0.66	159.5	241.3	0.358	1.386	1.664	4.65	Above W.T.
CPT-6	4.6	10.8	45.3	3.63	135	621	621	79.5	144.8	8.07	2.5	30.6	0.68	171.1	250.6	0.358	1.544	1.853	5.18	Above W.T.
CPT-6	4.69	10.8	43.8	3.55	135	633	633	76.2	137.3	8.16	2.5	31.3	0.70	179.9	256.0	0.358	1.641	1.969	5.51	Above W.T.
CPT-6	4.77	10.8	44.7	3.54	135	644	644	77.1	137.8	7.98	2.5	30.9	0.69	172.6	249.7	0.358	1.527	1.833	5.13	Above W.T.
CPT-6	4.86	10.8	45.5	3.58	135	656	656	77.7	137.6	7.93	2.5	30.8	0.69	172.0	249.7	0.358	1.528	1.833	5.13	Above W.T.
CPT-6	4.95	10.8	45.6	3.53	135	668	668	77.2	135.4	7.80	2.5	30.7	0.69	168.7	245.9	0.358	1.463	1.755	4.91	Above W.T.
CPT-6	5.04	10.8	44.5	3.53	135	680	680	74.6	129.8	7.99	2.5	31.6	0.71	181.9	256.6	0.358	1.650	1.980	5.54	Above W.T.
CPT-6	5.12	10.8	44.2	3.57	135	691	691	73.6	126.8	8.14	2.5	32.1	0.72	192.6	266.2	0.358	1.834	2.201	6.16	Above W.T.
CPT-6	5.21	10.8	43.3	3.5	135	703	703	71.4	122.1	8.15	2.5	32.5	0.74	198.4	269.8	0.358	1.907	2.289	6.40	Above W.T.
CPT-6	5.3	10.8	42.2	3.18	135	716	716	69.0	116.9	7.60	2.5	31.8	0.72	174.7	243.8	0.358	1.427	1.713	4.79	Above W.T.
CPT-6	5.39	10.8	40.6	3.15	135	728	728	65.9	110.5	7.83	2.5	33.0	0.75	194.2	260.0	0.358	1.715	2.058	5.76	Above W.T.
CPT-6	5.48	10.8	39.6	3.14	135	740	740	63.7	106.0	8.00	2.6	33.8	0.77	212.8	276.5	0.358	2.046	2.455	6.87	Above W.T.
CPT-6	5.57	10.8	39	3.13	135	752	752	62.2	102.7	8.10	2.6	34.4	0.79	227.5	289.7	0.358	2.342	2.810	7.86	Above W.T.
CPT-6	5.64	10.8	38.9	3.12	135	761	761	61.7	101.1	8.10	2.6	34.6	0.79	231.7	293.4	0.358	2.430	2.915	8.16	Above W.T.
CPT-6	5.74	10.8	38.7	3.04	135	775	775	60.8	98.8	7.93	2.6	34.5	0.79	225.6	286.4	0.358	2.265	2.718	7.60	Above W.T.

Project Name: 199 River Oaks Parkway
Project Number: 7862.3.001.01
Date: 20-Jul-07
CPT Number: CPT-6
Depth to Groundwater: 10.8 ft

EQ Magnitude (M_w): 7.1
PGA (g): 0.55
MSF: 1.20

Cone	Depth (FT)	Water Table (FT)	Tip Resist. (TSF)	Sleeve Frict. (TSF)	γ (PCF)	Total Stress (PSF)	Effective Stress (PSF)	Norm. Tip Q _{tip}	Corr. Tip Q	Friction Ratio F	I _c	F.C. (%)	K _{CPT}	ΔQ _{tip}	(Q _{tip}) _{0.5}	Induced Stress Ratio	Liquef. Stress M7.5	Liquef. Stress M7.10	Factor of Safety	Comments
CPT-6	6.55	10.8	33.8	2.61	135	884	884	49.7	75.4	7.82	2.6	37.7	0.80	198.9	248.7	0.358	1.510	1.812	5.07	Above W.T.
CPT-6	6.64	10.8	33.8	2.61	135	896	896	49.4	74.4	7.83	2.6	37.8	0.80	197.6	247.0	0.358	1.481	1.777	4.97	Above W.T.
CPT-6	6.73	10.8	33.8	2.58	135	909	909	49.1	73.4	7.74	2.6	37.8	0.80	196.3	245.3	0.358	1.453	1.744	4.88	Above W.T.
CPT-6	6.82	10.8	33.8	2.59	135	921	921	48.7	72.4	7.77	2.7	38.1	0.80	195.0	243.7	0.358	1.426	1.711	4.79	Above W.T.
CPT-6	6.91	10.8	33.6	2.62	135	933	933	48.1	71.0	7.91	2.7	38.7	0.80	192.5	240.7	0.358	1.376	1.652	4.62	Above W.T.
CPT-6	7	10.8	34.1	2.62	135	945	945	48.5	71.1	7.79	2.7	38.4	0.80	194.1	242.7	0.358	1.409	1.691	4.73	Above W.T.
CPT-6	7.1	10.8	33.7	2.62	135	959	959	47.6	69.3	7.89	2.7	38.9	0.80	190.5	238.1	0.358	1.336	1.603	4.48	Above W.T.
CPT-6	7.19	10.8	33.9	2.61	135	971	971	47.6	68.8	7.81	2.7	38.9	0.80	190.4	238.0	0.358	1.334	1.601	4.48	Above W.T.
CPT-6	7.28	10.8	32.6	2.61	135	983	983	45.5	65.3	8.13	2.7	40.3	0.80	182.0	227.5	0.358	1.175	1.410	3.94	Above W.T.
CPT-6	7.37	10.8	31.5	2.59	135	995	995	43.7	62.3	8.35	2.7	41.5	0.80	174.8	218.5	0.358	1.050	1.260	3.52	Above W.T.
CPT-6	7.46	10.8	31.6	2.57	135	1007	1007	43.6	61.7	8.26	2.7	41.4	0.80	174.3	217.8	0.358	1.041	1.250	3.50	Above W.T.
CPT-6	7.56	10.8	31.9	2.68	135	1021	1021	43.7	61.5	8.54	2.7	42.1	0.80	174.8	218.4	0.358	1.049	1.259	3.52	Above W.T.
CPT-6	7.65	10.8	33	2.77	135	1033	1033	44.9	62.9	8.53	2.7	41.7	0.80	179.7	224.6	0.358	1.134	1.361	3.81	Above W.T.
CPT-6	7.74	10.8	33.8	2.76	135	1045	1045	45.8	63.7	8.29	2.7	41.0	0.80	183.0	228.8	0.358	1.193	1.432	4.01	Above W.T.
CPT-6	7.83	10.8	33.4	2.71	135	1057	1057	44.9	62.2	8.24	2.7	41.3	0.80	179.8	224.7	0.358	1.136	1.363	3.81	Above W.T.
CPT-6	7.93	10.8	33.5	2.73	135	1071	1071	44.8	61.6	8.28	2.7	41.5	0.80	179.2	224.0	0.358	1.125	1.350	3.78	Above W.T.
CPT-6	8.02	10.8	33.7	2.68	135	1083	1083	44.8	61.2	8.08	2.7	41.1	0.80	179.2	224.1	0.358	1.126	1.351	3.78	Above W.T.
CPT-6	8.12	10.8	33.3	2.64	135	1096	1096	44.0	59.7	8.06	2.7	41.4	0.80	176.0	220.0	0.358	1.071	1.285	3.59	Above W.T.
CPT-6	8.21	10.8	33.4	2.58	135	1108	1108	43.9	59.2	7.85	2.7	41.1	0.80	175.6	219.5	0.358	1.063	1.276	3.57	Above W.T.
CPT-6	8.31	10.8	32.5	2.57	135	1122	1122	42.5	56.9	8.05	2.7	42.1	0.80	169.8	212.3	0.358	0.970	1.164	3.25	Above W.T.
CPT-6	8.4	10.8	32.9	2.57	135	1134	1134	42.7	57.0	7.95	2.7	41.9	0.80	171.0	213.7	0.358	0.988	1.186	3.32	Above W.T.
CPT-6	8.49	10.8	34.3	2.5	135	1146	1146	44.3	58.8	7.41	2.7	40.2	0.80	177.3	221.6	0.358	1.093	1.311	3.67	Above W.T.
CPT-6	8.58	10.8	35.5	2.44	135	1158	1158	45.6	60.3	6.99	2.7	38.8	0.80	182.6	228.2	0.358	1.185	1.422	3.98	Above W.T.
CPT-6	8.68	10.8	35.3	2.55	135	1172	1172	45.1	59.2	7.35	2.7	39.9	0.80	180.5	225.6	0.358	1.148	1.377	3.85	Above W.T.
CPT-6	8.77	10.8	34.5	2.62	135	1184	1184	43.9	57.3	7.73	2.7	41.3	0.80	175.5	219.4	0.358	1.062	1.274	3.56	Above W.T.
CPT-6	8.86	10.8	33.9	2.65	135	1196	1196	42.9	55.7	7.96	2.7	42.3	0.80	171.6	214.4	0.358	0.997	1.196	3.35	Above W.T.
CPT-6	8.99	10.8	33.8	2.66	135	1200	1200	42.7	55.3	8.01	2.7	42.5	0.80	170.8	213.4	0.358	0.984	1.181	3.30	Above W.T.
CPT-6	8.98	10.8	34.3	2.68	135	1212	1212	43.1	55.6	7.95	2.7	42.3	0.80	172.4	215.5	0.358	1.011	1.213	3.39	Above W.T.
CPT-6	9.07	10.8	34.2	2.66	135	1224	1224	42.8	54.8	7.92	2.7	42.4	0.80	171.1	213.8	0.358	0.989	1.187	3.32	Above W.T.
CPT-6	9.17	10.8	33.8	2.64	135	1238	1238	42.0	53.6	7.96	2.7	42.8	0.80	168.1	210.2	0.358	0.943	1.132	3.17	Above W.T.
CPT-6	9.26	10.8	33.4	2.61	135	1250	1250	41.3	52.4	7.96	2.8	43.2	0.80	165.3	206.7	0.358	0.901	1.081	3.02	Above W.T.
CPT-6	9.35	10.8	32.9	2.64	135	1262	1262	40.5	51.1	8.18	2.8	44.1	0.80	162.1	202.6	0.358	0.853	1.024	2.86	Above W.T.
CPT-6	9.44	10.8	33.5	2.58	135	1274	1274	41.1	51.6	7.85	2.8	43.2	0.80	164.2	205.3	0.358	0.885	1.062	2.97	Above W.T.
CPT-6	9.54	10.8	35.1	2.53	135	1288	1288	42.8	53.5	7.34	2.7	41.4	0.80	171.2	214.0	0.358	0.991	1.189	3.33	Above W.T.
CPT-6	9.63	10.8	36.4	2.54	135	1300	1300	44.2	55.0	7.10	2.7	40.4	0.80	176.7	220.9	0.358	1.082	1.298	3.63	Above W.T.
CPT-6	9.72	10.8	38.5	2.59	135	1312	1312	46.5	57.7	6.84	2.7	39.0	0.80	186.0	232.5	0.358	1.249	1.499	4.19	Above W.T.
CPT-6	9.81	10.8	40.9	2.62	135	1324	1324	49.2	60.7	6.51	2.6	37.4	0.80	196.7	245.9	0.358	1.462	1.755	4.91	Above W.T.
CPT-6	9.9	10.8	42.5	2.66	135	1337	1337	50.9	62.6	6.36	2.6	36.6	0.80	203.5	254.3	0.358	1.610	1.932	5.40	Above W.T.
CPT-6	10	10.8	41	2.69	135	1350	1350	48.8	59.7	6.67	2.7	38.1	0.80	195.3	244.1	0.350	1.433	1.720	4.91	Above W.T.
CPT-6	10.09	10.8	38.7	2.61	135	1362	1362	45.9	55.8	6.87	2.7	39.6	0.80	183.5	229.4	0.350	1.203	1.443	4.12	Above W.T.
CPT-6	10.18	10.8	36.5	2.47	135	1374	1374	43.1	52.1	6.90	2.7	40.7	0.80	172.3	215.4	0.350	1.009	1.211	3.46	Above W.T.
CPT-6	10.27	10.8	34.1	2.32	135	1386	1386	40.1	48.2	6.94	2.7	42.0	0.80	160.3	200.3	0.350	0.828	0.993	2.84	Above W.T.
CPT-6	10.37	10.8	33.4	2.17	135	1400	1400	39.1	46.7	6.64	2.7	41.7	0.80	156.2	195.3	0.350	0.773	0.927	2.65	Above W.T.
CPT-6	10.46	10.8	32.6	2	135	1412	1412	38.0	45.2	6.27	2.7	41.2	0.80	151.8	189.8	0.350	0.716	0.859	2.45	Above W.T.
CPT-6	10.55	10.8	31.1	1.85	135	1424	1424	36.1	42.7	6.09	2.7	41.6	0.80	144.2	180.3	0.350	0.625	0.750	2.14	Above W.T.
CPT-6	10.64	10.8	29.3	1.76	135	1436	1436	33.8	39.8	6.16	2.7	42.9	0.80	135.3	169.1	0.350	0.530	0.636	1.82	Above W.T.
CPT-6	10.73	10.8	27.8	1.65	135	1449	1449	32.0	37.4	6.09	2.8	43.7	0.80	127.8	159.8	0.350	0.459	0.551	1.57	Above W.T.
CPT-6	10.83	10.8	27.1	1.54	135	1462	1462	30.4	35.8	5.84	2.6	34.3	0.78	152.1	194.4	0.651	0.763	0.916	1.41	NonLiqfble.
CPT-6	10.92	10.8	26	1.48	135	1474	1474	29.3	34.6	5.86	2.6	35.0	0.80	161.6	202.0	0.651	0.847	1.016	1.56	NonLiqfble.
CPT-6	11.02	10.8	25.4	1.42	135	1488	1488	28.3	33.3	5.76	2.6	35.2	0.80	157.2	196.5	0.651	0.785	0.942	1.45	NonLiqfble.
CPT-6	11.12	10.8	25.2	1.35	135	1501	1501	27.3	32.3	5.52	2.6	34.8	0.80	150.7	189.5	0.651	0.713	0.856	1.31	NonLiqfble.
CPT-6	11.21	10.8	23.6	1.31	135	1513	1513	26.2	31.4	5.73	2.6	36.5	0.80	144.8	181.0	0.651	0.631	0.758	1.16	NonLiqfble.
CPT-6	11.3	10.8	23.4	1.29	135	1526	1526	25.2	30.7	5.52	2.6	36.6	0.80	143.0	178.7	0.651	0.611	0.733	1.13	NonLiqfble.
CPT-6	11.4	10.8	22.6	1.22	135	1539	1539	24.4	29.7	5.59	2.6	36.9	0.80	137.5	171.9	0.651	0.552	0.662	1.02	NonLiqfble.
CPT-6	11.49	10.8	23	1.23	135	1551	1551	23.4	28.8	5.53	2.6	36.6	0.80	139.4	174.2	0.651	0.572	0.686	1.05	NonLiqfble.
CPT-6	11.59	10.8	22.3	1.2	135	1565	1565	22.6	28.1	5.58	2.6	37.3	0.80	134.5	168.2	0.651	0.522	0.627	0.96	NonLiqfble.
CPT-6	11.68	10.8	21.9	1.13	135	1577	1577	21.9	27.4	5.35	2.6	37.1	0.80	131.6	164.5	0.651	0.494	0.593	0.91	NonLiqfble.
CPT-6	11.78	10.8	21.7	1.13	135	1590	1590	21.3	26.7	5.41	2.6	37.5	0.80	129.9	162.3	0.651	0.478	0.573	0.88	NonLiqfble.
CPT-6	11.88	10.8	21.4	1.12	135	1604	1604	20.7	26.1	5.44	2.7	37.9	0.80	127.5	159.4	0.651	0.457	0.548	0.84	NonLiqfble.
CPT-6	11.97	10.8	20.9	0.98	135	1616	1616	20.1	25.6	4.88	2.6	36.7	0.80	124.1	155.1	0.651	0.427	0.512	0.79	NonLiqfble.
CPT-6	12.07	10.8	19.9	0.97	135	1629	1629	19.4	24.9	5.08	2.7	38.2	0.80	117.7	147.1	0.651	0.376			

Project Name:	199 River Oaks Parkway
Project Number:	7862.3.001.01
Date:	20-Jul-07
CPT Number:	CPT-6
Depth to Groundwater:	10.8 ft

EQ Magnitude (M _w):	7.1
PGA (g):	0.55
MSF:	1.20

Cone	Depth (FT)	Water Table (FT)	Tip Resist. (TSF)	Sleeve Frict. (TSF)	Total Stress (PSF)	Effective Stress (PSF)	Norm. Tip Q (KN)	Corr. Tip Q	Friction Ratio F	F.C. (%)	K _{CPT}	Δq _{0-N}	(q _{0-N}) _{0.5}	Induced Stress Ratio	Liquef. Stress M7.5	Liquef. Stress M7.10	Factor of Safety	Comments		
CPT-6	12.95	10.8	13	0.39	115	1489	681	21.8	36.0	3.18	2.6	34.2	0.78	76.6	98.4	0.766	0.169	0.202	0.26	Liquefaction
CPT-6	13.05	10.8	11.1	0.33	115	1501	686	18.5	30.1	3.19	2.6	37.0	0.80	74.1	92.7	0.766	0.154	0.185	0.24	NonLiqfble.
CPT-6	13.15	10.8	10.2	0.31	115	1512	692	17.0	27.3	3.28	2.7	39.1	0.80	67.9	84.8	0.766	0.137	0.164	0.21	NonLiqfble.
CPT-6	13.24	10.8	10.4	0.29	115	1523	696	17.2	27.7	3.01	2.6	37.6	0.80	69.0	86.2	0.766	0.140	0.168	0.22	NonLiqfble.
CPT-6	13.34	10.8	9.7	0.28	115	1534	702	16.0	25.4	3.13	2.7	39.6	0.80	64.1	80.1	0.766	0.128	0.153	0.20	NonLiqfble.
CPT-6	13.44	10.8	9.3	0.28	115	1546	707	15.3	24.1	3.28	2.7	41.3	0.80	61.2	76.5	0.766	0.122	0.146	0.19	NonLiqfble.
CPT-6	13.53	10.8	9.3	0.27	115	1556	712	15.3	23.9	3.17	2.7	40.9	0.80	61.0	76.3	0.766	0.121	0.146	0.19	NonLiqfble.
CPT-6	13.63	10.8	9.3	0.26	105	1431	581	16.9	29.6	3.03	2.6	36.6	0.80	67.5	84.4	0.864	0.136	0.163	0.19	NonLiqfble.
CPT-6	13.73	10.8	9.6	0.26	115	1579	722	15.6	24.4	2.95	2.7	39.5	0.80	62.5	78.2	0.766	0.124	0.149	0.19	NonLiqfble.
CPT-6	13.83	10.8	9.3	0.29	115	1590	727	15.1	23.4	3.41	2.7	42.4	0.80	60.3	75.4	0.766	0.120	0.144	0.19	NonLiqfble.
CPT-6	13.93	10.8	9	0.3	115	1602	733	14.5	22.4	3.66	2.8	44.3	0.80	58.2	72.7	0.766	0.116	0.139	0.18	NonLiqfble.
CPT-6	14.02	10.8	9	0.32	115	1612	737	14.5	22.2	3.91	2.8	45.5	0.80	58.0	72.5	0.766	0.115	0.139	0.18	NonLiqfble.
CPT-6	14.11	10.8	9.6	0.34	115	1623	742	15.4	23.7	3.87	2.8	44.1	0.80	61.7	77.1	0.766	0.123	0.147	0.19	NonLiqfble.
CPT-6	14.21	10.8	8.7	0.34	115	1634	747	13.9	21.1	4.31	2.8	48.1	0.80	55.7	69.6	0.766	0.111	0.134	0.17	NonLiqfble.
CPT-6	14.29	10.8	9.1	0.33	115	1643	752	14.5	22.0	3.99	2.8	46.0	0.80	58.1	72.6	0.766	0.116	0.139	0.18	NonLiqfble.
CPT-6	14.39	10.8	8.4	0.31	115	1655	757	13.4	20.0	4.09	2.8	48.3	0.80	53.4	66.8	0.766	0.108	0.129	0.17	NonLiqfble.
CPT-6	14.48	10.8	8.2	0.29	115	1665	762	13.0	19.3	3.94	2.8	48.3	0.80	52.0	65.0	0.766	0.106	0.127	0.17	NonLiqfble.
CPT-6	14.57	10.8	7.8	0.27	105	1530	621	13.7	22.7	3.84	2.8	44.8	0.80	54.8	68.5	0.864	0.110	0.132	0.15	NonLiqfble.
CPT-6	14.66	10.8	7.7	0.24	105	1539	625	13.5	22.2	3.46	2.8	43.6	0.80	53.9	67.4	0.864	0.108	0.130	0.15	NonLiqfble.
CPT-6	14.75	10.8	7.6	0.22	105	1549	628	13.3	21.7	3.22	2.7	42.9	0.80	53.1	66.3	0.864	0.107	0.129	0.15	NonLiqfble.
CPT-6	14.84	10.8	6.7	0.21	105	1558	632	11.7	18.7	3.55	2.8	47.3	0.80	46.6	58.3	0.864	0.098	0.118	0.14	NonLiqfble.
CPT-6	14.93	10.8	6.2	0.2	105	1568	636	10.8	17.0	3.69	2.9	49.8	0.80	43.0	53.8	0.864	0.094	0.113	0.13	NonLiqfble.
CPT-6	15.02	10.8	6	0.18	105	1577	640	10.4	16.3	3.45	2.9	49.7	0.80	41.5	51.9	0.864	0.093	0.112	0.13	NonLiqfble.
CPT-6	15.11	10.8	6.9	0.16	105	1587	644	11.9	19.0	2.62	2.7	42.4	0.80	47.6	59.5	0.864	0.100	0.120	0.14	NonLiqfble.
CPT-6	15.2	10.8	7.2	0.18	105	1596	648	12.4	19.8	2.81	2.7	42.7	0.80	49.5	61.9	0.864	0.102	0.122	0.14	NonLiqfble.
CPT-6	15.29	10.8	6.7	0.26	105	1605	651	11.5	18.1	4.41	2.9	51.6	0.80	45.9	57.4	0.864	0.098	0.117	0.14	NonLiqfble.
CPT-6	15.38	10.8	7.1	0.3	105	1615	655	12.1	19.2	4.77	2.9	51.7	0.80	48.5	60.7	0.864	0.101	0.121	0.14	NonLiqfble.
CPT-6	15.45	10.8	6.7	0.32	105	1622	658	11.4	17.9	5.43	3.0	55.6	0.80	45.7	57.1	0.864	0.097	0.117	0.14	NonLiqfble.
CPT-6	15.53	10.8	9.7	0.34	115	1786	817	14.8	21.6	3.86	2.8	45.9	0.80	59.4	74.2	0.766	0.118	0.142	0.18	NonLiqfble.
CPT-6	15.63	10.8	8.6	0.33	115	1797	822	13.1	18.7	4.29	2.9	50.4	0.80	52.5	65.6	0.766	0.106	0.128	0.17	NonLiqfble.
CPT-6	15.72	10.8	7.8	0.28	105	1651	670	13.2	20.8	4.01	2.8	47.2	0.80	52.8	65.9	0.864	0.107	0.128	0.15	NonLiqfble.
CPT-6	15.81	10.8	8	0.24	105	1660	674	13.5	21.3	3.35	2.8	43.9	0.80	54.0	67.4	0.864	0.109	0.130	0.15	NonLiqfble.
CPT-6	15.9	10.8	8.7	0.22	105	1670	677	14.6	23.2	2.80	2.7	39.6	0.80	58.5	73.1	0.864	0.116	0.140	0.16	NonLiqfble.
CPT-6	15.98	10.8	8.5	0.24	105	1678	681	14.3	22.5	3.13	2.7	41.8	0.80	57.0	71.3	0.864	0.114	0.136	0.16	NonLiqfble.
CPT-6	16.07	10.8	8.7	0.26	105	1687	685	14.5	22.9	3.31	2.7	42.3	0.80	58.2	72.7	0.864	0.116	0.139	0.16	NonLiqfble.
CPT-6	16.17	10.8	9.4	0.24	105	1698	689	15.7	24.8	2.81	2.7	38.5	0.80	62.7	78.4	0.864	0.125	0.150	0.17	NonLiqfble.
CPT-6	16.25	10.8	10.6	0.21	105	1706	692	17.6	28.1	2.15	2.5	32.9	0.75	51.5	69.1	0.864	0.111	0.133	0.15	Liquefaction
CPT-6	16.34	10.8	8.9	0.2	105	1716	696	14.8	23.1	2.49	2.7	38.1	0.80	59.0	73.8	0.864	0.117	0.141	0.16	NonLiqfble.
CPT-6	16.43	10.8	8.8	0.2	105	1725	700	14.6	22.7	2.52	2.7	38.6	0.80	58.2	72.8	0.864	0.116	0.139	0.16	NonLiqfble.
CPT-6	16.52	10.8	9.5	0.21	105	1735	704	15.7	24.5	2.43	2.6	36.8	0.80	62.7	78.3	0.864	0.125	0.150	0.17	NonLiqfble.
CPT-6	16.61	10.8	11.9	0.25	115	1910	874	17.6	25.0	2.28	2.6	35.6	0.80	70.5	88.1	0.766	0.144	0.172	0.22	NonLiqfble.
CPT-6	16.7	10.8	12.2	0.31	115	1921	878	18.0	25.6	2.76	2.6	37.7	0.80	72.0	90.1	0.766	0.148	0.177	0.23	NonLiqfble.
CPT-6	16.79	10.8	13.3	0.36	115	1931	883	19.6	27.9	2.92	2.6	37.0	0.80	78.3	97.9	0.766	0.167	0.201	0.26	NonLiqfble.
CPT-6	16.88	10.8	13.8	0.41	125	2110	1057	18.6	24.1	3.22	2.7	41.0	0.80	74.3	92.9	0.700	0.155	0.185	0.27	NonLiqfble.
CPT-6	16.97	10.8	15.9	0.42	125	2121	1062	21.3	27.9	2.83	2.6	36.6	0.80	85.4	106.7	0.700	0.193	0.232	0.33	NonLiqfble.
CPT-6	17.05	10.8	15.8	0.43	125	2131	1067	21.2	27.6	2.92	2.6	37.2	0.80	84.6	105.8	0.700	0.190	0.228	0.33	NonLiqfble.
CPT-6	17.14	10.8	15.6	0.43	125	2143	1073	20.8	27.1	2.96	2.6	37.7	0.80	83.4	104.2	0.700	0.185	0.222	0.32	NonLiqfble.
CPT-6	17.23	10.8	15.1	0.43	125	2154	1079	20.1	26.0	3.07	2.7	39.0	0.80	80.5	100.6	0.700	0.175	0.210	0.30	NonLiqfble.
CPT-6	17.32	10.8	15.5	0.43	125	2165	1084	20.6	26.6	2.98	2.7	38.2	0.80	82.4	103.0	0.700	0.182	0.218	0.31	NonLiqfble.
CPT-6	17.41	10.8	15.4	0.44	125	2176	1090	20.4	26.3	3.07	2.7	38.8	0.80	81.6	102.1	0.700	0.179	0.215	0.31	NonLiqfble.
CPT-6	17.49	10.8	15.4	0.48	125	2186	1095	20.4	26.1	3.36	2.7	40.2	0.80	81.5	101.8	0.700	0.178	0.214	0.31	NonLiqfble.
CPT-6	17.58	10.8	15.2	0.49	125	2198	1101	20.0	25.6	3.47	2.7	41.1	0.80	80.2	100.2	0.700	0.174	0.208	0.30	NonLiqfble.
CPT-6	17.67	10.8	15	0.5	125	2209	1106	19.7	25.1	3.60	2.7	41.9	0.80	78.9	98.7	0.700	0.169	0.203	0.29	NonLiqfble.
CPT-6	17.76	10.8	15.7	0.51	125	2220	1112	20.6	26.2	3.50	2.7	40.7	0.80	82.4	103.0	0.700	0.182	0.218	0.31	NonLiqfble.
CPT-6	17.84	10.8	14.9	0.53	125	2230	1117	19.5	24.7	3.84	2.8	43.3	0.80	78.0	97.5	0.700	0.166	0.200	0.29	NonLiqfble.
CPT-6	17.94	10.8	14.4	0.51	125	2243	1123	18.8	23.6	3.84	2.8	44.1	0.80	75.2	94.0	0.700	0.157	0.189	0.27	NonLiqfble.
CPT-6	18.03	10.8	14.8	0.48	125	2254	1129	19.3	24.2	3.51	2.7	42.2	0.80	77.1	96.4	0.700	0.163	0.196	0.28	NonLiqfble.
CPT-6	18.12	10.8	15	0.46	125	2265	1134	19.5	24.4	3.32	2.7	41.2	0.80	77.9	97.4	0.700	0.166	0.199	0.28	NonLiqfble.
CPT-6	18.22	10.8	15.1	0.5	125	2278	1141	19.6	24.5	3.58	2.7	42.3	0.80	78.3	97.8	0.700	0.167	0.200	0.29	NonLiqfble.
CPT-6	18.32	10.8	16.4	0.58	125	2290	1147	21.2	26.6	3.80	2.7	41.8	0.80	84.8	105.9	0.700	0.191	0.229	0.33	NonLiqfble.
CPT-6	18.41	10.8	18.1	0.66	125	2301	1152	23.3	29.4	3.89	2.7	40.4	0.80	93.3	116.6					

Project Name:	199 River Oaks Parkway
Project Number:	7862.3.001.01
Date:	20-Jul-07
CPT Number:	CPT-6
Depth to Groundwater:	10.8 ft

EQ Magnitude (M_w):	7.1
PGA (g):	0.55
MSF:	1.20

Conc	Depth (FT)	Water Table (FT)	Tip Resist. (TSF)	Sleeve Frict. (TSF)	γ (PCF)	Total Stress (PSF)	Effective Stress (PSF)	Norm. Tip $Q_{(N)}$	Corr. Tip Q	Friction Ratio F	I_c	F.C. (%)	K_{CPT}	$\Delta q_{(N)}$	$(q_{(N)})_{(s)}$	Induced Stress Ratio	Liquef. Stress M7.5	Liquef. Stress M7.10	Factor of Safety	Comments
CPT-6	19.15	10.8	17.2	0.63	125	2394	1199	21.7	26.7	3.94	2.7	42.3	0.80	86.9	108.7	0.700	0.199	0.239	0.34	NonLiqfble.
CPT-6	19.23	10.8	15.8	0.61	125	2404	1204	19.9	24.2	4.18	2.8	45.0	0.80	79.7	99.6	0.700	0.172	0.206	0.29	NonLiqfble.
CPT-6	19.32	10.8	15.6	0.6	125	2415	1209	19.6	23.8	4.17	2.8	45.3	0.80	78.5	98.1	0.700	0.168	0.201	0.29	NonLiqfble.
CPT-6	19.41	10.8	15.5	0.58	125	2426	1215	19.5	23.5	4.06	2.8	45.1	0.80	77.8	97.3	0.700	0.166	0.199	0.28	NonLiqfble.
CPT-6	19.49	10.8	15.3	0.54	125	2436	1220	19.2	23.1	3.83	2.8	44.5	0.80	76.7	95.8	0.700	0.162	0.194	0.28	NonLiqfble.
CPT-6	19.58	10.8	15.1	0.55	125	2448	1226	18.9	22.6	3.96	2.8	45.4	0.80	75.5	94.4	0.700	0.158	0.190	0.27	NonLiqfble.
CPT-6	19.67	10.8	14.8	0.65	125	2459	1231	18.5	22.0	4.79	2.9	49.1	0.80	73.8	92.3	0.700	0.153	0.184	0.26	NonLiqfble.
CPT-6	19.76	10.8	22.6	0.77	125	2470	1237	28.1	34.5	3.60	2.6	36.6	0.80	112.5	140.6	0.700	0.338	0.406	0.58	NonLiqfble.
CPT-6	19.84	10.8	27.9	0.85	135	2678	1440	32.2	36.9	3.20	2.6	33.9	0.77	108.0	140.2	0.651	0.336	0.403	0.62	Liquefaction
CPT-6	19.93	10.8	23.5	0.91	135	2691	1447	27.0	30.6	4.11	2.7	40.5	0.80	108.1	135.2	0.651	0.310	0.372	0.57	NonLiqfble.
CPT-6	20.02	10.8	20.2	0.88	135	2703	1453	23.2	25.9	4.67	2.8	45.6	0.80	92.7	115.9	0.638	0.225	0.270	0.42	NonLiqfble.
CPT-6	20.11	10.8	18.8	0.85	125	2514	1259	23.2	27.9	4.85	2.8	44.9	0.80	92.7	115.9	0.685	0.225	0.270	0.42	NonLiqfble.
CPT-6	20.2	10.8	17.3	0.87	125	2525	1265	21.3	25.4	5.42	2.8	48.6	0.80	85.1	106.4	0.685	0.192	0.231	0.34	NonLiqfble.
CPT-6	20.28	10.8	20.4	0.9	135	2738	1472	23.3	25.8	4.73	2.8	45.8	0.80	93.0	116.3	0.638	0.226	0.272	0.43	NonLiqfble.
CPT-6	20.36	10.8	19.6	0.92	135	2749	1478	22.3	24.6	5.05	2.8	47.8	0.80	89.2	111.5	0.638	0.209	0.251	0.39	NonLiqfble.
CPT-6	20.45	10.8	19.3	0.95	135	2761	1485	21.9	24.1	5.30	2.9	49.1	0.80	87.7	109.6	0.638	0.202	0.243	0.38	NonLiqfble.
CPT-6	20.54	10.8	16.8	0.94	125	2568	1286	20.5	24.1	6.06	2.9	51.5	0.80	82.0	102.5	0.685	0.180	0.216	0.32	NonLiqfble.
CPT-6	20.62	10.8	14.3	0.89	125	2578	1291	17.4	20.2	6.84	3.0	57.5	0.80	69.7	87.1	0.685	0.141	0.170	0.25	NonLiqfble.
CPT-6	20.71	10.8	12.1	0.78	125	2589	1296	14.7	16.7	7.22	3.1	62.7	0.80	58.8	73.5	0.685	0.117	0.140	0.20	NonLiqfble.
CPT-6	20.8	10.8	11.6	0.61	125	2600	1302	14.1	15.8	5.92	3.0	59.9	0.80	56.3	70.3	0.685	0.112	0.135	0.20	NonLiqfble.
CPT-6	20.89	10.8	11.7	0.48	125	2611	1308	14.2	15.9	4.62	2.9	55.1	0.80	56.6	70.8	0.685	0.113	0.136	0.20	NonLiqfble.
CPT-6	20.97	10.8	11.8	0.47	125	2621	1313	14.2	16.0	4.48	2.9	54.5	0.80	57.0	71.2	0.685	0.114	0.136	0.20	NonLiqfble.
CPT-6	21.06	10.8	12	0.51	125	2633	1318	14.5	16.2	4.77	3.0	55.3	0.80	57.8	72.3	0.685	0.115	0.138	0.20	NonLiqfble.
CPT-6	21.15	10.8	13.2	0.59	125	2644	1324	15.9	17.9	4.97	2.9	53.9	0.80	63.5	79.4	0.685	0.126	0.152	0.22	NonLiqfble.
CPT-6	21.24	10.8	15.8	0.68	125	2655	1330	19.0	21.8	4.70	2.9	49.0	0.80	75.8	94.8	0.685	0.159	0.191	0.28	NonLiqfble.
CPT-6	21.32	10.8	16.7	0.74	125	2665	1335	20.0	23.0	4.82	2.8	48.3	0.80	80.0	100.0	0.685	0.173	0.208	0.30	NonLiqfble.
CPT-6	21.41	10.8	16.5	0.75	125	2676	1340	19.7	22.6	4.95	2.9	49.1	0.80	78.9	98.6	0.685	0.169	0.203	0.30	NonLiqfble.
CPT-6	21.49	10.8	17.5	0.72	125	2686	1345	20.9	24.0	4.46	2.8	46.2	0.80	83.5	104.4	0.685	0.186	0.223	0.33	NonLiqfble.
CPT-6	21.58	10.8	18	0.71	125	2698	1351	21.4	24.6	4.26	2.8	45.0	0.80	85.7	107.1	0.685	0.194	0.233	0.34	NonLiqfble.
CPT-6	21.67	10.8	17.7	0.71	125	2709	1357	21.0	24.1	4.34	2.8	45.7	0.80	84.1	105.1	0.685	0.188	0.226	0.33	NonLiqfble.
CPT-6	21.76	10.8	17	1.07	135	2938	1580	18.7	19.7	6.89	3.0	58.2	0.80	74.9	93.6	0.638	0.156	0.187	0.29	NonLiqfble.
CPT-6	21.84	10.8	17.7	1.13	135	2948	1586	19.4	20.5	6.96	3.0	57.6	0.80	77.8	97.2	0.638	0.166	0.199	0.31	NonLiqfble.
CPT-6	21.93	10.8	21.8	1.15	135	2961	1592	23.9	25.5	5.66	2.9	49.2	0.80	95.6	119.5	0.638	0.239	0.287	0.45	NonLiqfble.
CPT-6	21.99	10.8	20.4	1.16	135	2969	1596	22.3	23.7	6.13	2.9	52.1	0.80	89.4	111.7	0.638	0.210	0.252	0.39	NonLiqfble.
CPT-6	22.04	10.8	26	1.2	135	2975	1600	28.4	30.6	4.90	2.8	43.4	0.80	113.8	142.2	0.638	0.347	0.417	0.65	NonLiqfble.
CPT-6	22.13	10.8	20.7	1.27	135	2988	1607	22.6	23.9	6.61	2.9	53.4	0.80	90.4	113.0	0.638	0.214	0.257	0.40	NonLiqfble.
CPT-6	22.22	10.8	19.6	1.24	135	3000	1613	21.4	22.4	6.85	3.0	55.3	0.80	85.4	106.8	0.638	0.193	0.232	0.36	NonLiqfble.
CPT-6	22.3	10.8	19.6	1.17	135	3011	1619	21.3	22.3	6.47	2.9	54.3	0.80	85.3	106.6	0.638	0.193	0.231	0.36	NonLiqfble.
CPT-6	22.39	10.8	18.9	1.14	135	3023	1626	20.5	21.4	6.56	3.0	55.4	0.80	82.0	102.6	0.638	0.180	0.216	0.34	NonLiqfble.
CPT-6	22.47	10.8	19.6	1.05	135	3033	1631	21.2	22.2	5.81	2.9	52.4	0.80	84.9	106.2	0.638	0.191	0.230	0.36	NonLiqfble.
CPT-6	22.56	10.8	17.8	0.93	125	2820	1412	20.7	23.2	5.67	2.9	51.1	0.80	82.9	103.6	0.685	0.183	0.220	0.32	NonLiqfble.
CPT-6	22.65	10.8	16.5	0.88	125	2831	1418	19.2	21.3	5.83	2.9	53.3	0.80	76.7	95.9	0.685	0.162	0.194	0.28	NonLiqfble.
CPT-6	22.73	10.8	15.8	0.82	125	2841	1423	18.3	20.2	5.70	2.9	54.0	0.80	73.3	91.6	0.685	0.152	0.182	0.27	NonLiqfble.
CPT-6	22.82	10.8	16.3	0.81	125	2853	1429	18.9	20.8	5.45	2.9	52.5	0.80	75.5	94.3	0.685	0.158	0.190	0.28	NonLiqfble.
CPT-6	22.91	10.8	16.6	0.8	125	2864	1434	19.2	21.1	5.27	2.9	51.6	0.80	76.7	95.9	0.685	0.162	0.194	0.28	NonLiqfble.
CPT-6	22.99	10.8	15.8	0.78	125	2874	1439	18.2	20.0	5.43	2.9	53.3	0.80	72.9	91.1	0.685	0.150	0.180	0.26	NonLiqfble.
CPT-6	23.08	10.8	14.7	0.73	125	2885	1445	16.9	18.3	5.51	3.0	55.3	0.80	67.7	84.6	0.685	0.136	0.164	0.24	NonLiqfble.
CPT-6	23.16	10.8	13.3	0.65	125	2895	1450	15.3	16.3	5.48	3.0	57.7	0.80	61.1	76.4	0.685	0.121	0.146	0.21	NonLiqfble.
CPT-6	23.25	10.8	12.5	0.56	125	2906	1455	14.3	15.2	5.07	3.0	57.9	0.80	57.3	71.7	0.685	0.114	0.137	0.20	NonLiqfble.
CPT-6	23.33	10.8	12.6	0.51	125	2916	1460	14.4	15.3	4.58	3.0	55.9	0.80	57.7	72.1	0.685	0.115	0.138	0.20	NonLiqfble.
CPT-6	23.42	10.8	13.6	0.49	125	2928	1466	15.5	16.5	4.04	2.9	51.9	0.80	62.2	77.7	0.685	0.124	0.148	0.22	NonLiqfble.
CPT-6	23.51	10.8	12.9	0.49	125	2939	1472	14.7	15.5	4.29	2.9	54.3	0.80	58.9	73.6	0.685	0.117	0.140	0.20	NonLiqfble.
CPT-6	23.59	10.8	13.4	0.47	125	2949	1477	15.3	16.1	3.94	2.9	52.0	0.80	61.0	76.3	0.685	0.121	0.146	0.21	NonLiqfble.
CPT-6	23.68	10.8	13.3	0.49	125	2960	1482	15.1	15.9	4.15	2.9	53.2	0.80	60.5	75.6	0.685	0.120	0.144	0.21	NonLiqfble.
CPT-6	23.76	10.8	13.7	0.58	125	2970	1487	15.5	16.4	4.75	2.9	54.9	0.80	62.2	77.7	0.685	0.124	0.148	0.22	NonLiqfble.
CPT-6	23.85	10.8	15	0.69	125	2981	1493	17.0	18.1	5.11	2.9	54.2	0.80	67.9	84.9	0.685	0.137	0.164	0.24	NonLiqfble.
CPT-6	23.94	10.8	16.4	0.8	125	2993	1499	18.5	19.9	5.37	2.9	53.2	0.80	74.1	92.7	0.685	0.154	0.185	0.27	NonLiqfble.
CPT-6	24.02	10.8	18	0.92	125	3003	1504	20.3	21.9	5.58	2.9	51.9	0.80	81.2	101.6	0.685	0.177	0.213	0.31	NonLiqfble.
CPT-6	24.11	10.8	20.1	1.06	135	3255	1750	21.0	21.1	5.74	2.9	53.2	0.80	84.1	105.1	0.638	0.188	0.226	0.35	NonLiqfble.
CPT-6	24.19	10.8	22.5	1.19	135	3266	1756	23.5	23.8	5.70	2.9	50.7	0.80	94.0	117.5	0.638	0.231	0.277	0.43	NonLiqfble.

Project Name: 199 River Oaks Parkway
Project Number: 7862.3.001.01
Date: 20-Jul-07
CPT Number: CPT-6
Depth to Groundwater: 10.8 ft

EQ Magnitude (M_w): 7.1
PGA (g): 0.55
MSF: 1.20

Cone	Depth (FT)	Water Table (FT)	Tip Resist. (TSF)	Sleeve Frict. (TSF)	Total Stress (PCF)	Effective Stress (PSF)	Norm. Tip Q _{tip}	Corr. Tip Q	Friction Ratio F	F.C. (%)	K _{CPT}	Δq _{tip}	(q _{tip}) _{0.5}	Induced Stress Ratio	Liquef. Stress M7.5	Liquef. Stress M7.10	Factor of Safety	Comments		
CPT-6	25.06	10.8	49.4	1.39	135	3383	1819	50.7	52.4	2.91	2.4	27.6	0.60	77.3	128.0	0.638	0.275	0.330	0.52	Liquefaction
CPT-6	25.14	10.8	49.4	1.43	135	3394	1825	50.6	52.3	3.00	2.4	28.0	0.61	80.8	131.3	0.638	0.291	0.349	0.55	Liquefaction
CPT-6	25.23	10.8	48.4	1.43	135	3406	1832	49.5	51.0	3.06	2.5	28.6	0.63	84.6	134.1	0.638	0.304	0.365	0.57	Liquefaction
CPT-6	25.3	10.8	50.7	1.53	135	3416	1837	51.8	53.3	3.12	2.4	28.3	0.62	85.1	136.8	0.638	0.318	0.382	0.60	Liquefaction
CPT-6	25.39	10.8	49.3	1.54	135	3428	1843	50.2	51.6	3.24	2.5	29.2	0.65	91.6	141.8	0.638	0.345	0.414	0.65	Liquefaction
CPT-6	25.48	10.8	47.3	1.44	135	3440	1850	48.1	49.3	3.16	2.5	29.5	0.65	91.0	139.1	0.638	0.330	0.396	0.62	Liquefaction
CPT-6	25.56	10.8	38.9	1.25	135	3451	1856	39.5	40.0	3.36	2.6	33.3	0.76	122.1	161.6	0.638	0.472	0.567	0.89	Liquefaction
CPT-6	25.65	10.8	30.8	1.2	135	3463	1862	31.2	31.2	4.13	2.7	40.3	0.80	124.9	156.1	0.638	0.434	0.521	0.82	NonLiqble.
CPT-6	25.74	10.8	30.9	1.2	135	3475	1869	31.3	31.2	4.11	2.7	40.2	0.80	125.1	156.4	0.638	0.436	0.523	0.82	NonLiqble.
CPT-6	25.82	10.8	32.1	1.13	135	3486	1875	32.4	32.4	3.72	2.7	38.1	0.80	129.8	162.2	0.638	0.477	0.572	0.90	NonLiqble.
CPT-6	25.9	10.8	47.9	1.01	135	3497	1880	48.3	49.1	2.19	2.4	25.1	0.54	55.7	104.1	0.638	0.185	0.222	0.35	Liquefaction
CPT-6	25.99	10.8	57	0.89	135	3509	1887	57.4	58.5	1.61	2.2	19.7	0.39	37.2	94.6	0.638	0.159	0.191	0.30	Liquefaction
CPT-6	26.07	10.8	61.6	0.81	125	3259	1632	66.7	73.5	1.35	2.1	15.7	0.29	26.7	93.4	0.685	0.156	0.187	0.27	Liquefaction
CPT-6	26.16	10.8	58.2	0.84	125	3270	1638	62.9	69.1	1.49	2.1	17.2	0.32	30.3	93.2	0.685	0.155	0.186	0.27	Liquefaction
CPT-6	26.24	10.8	51.9	0.97	135	3542	1905	52.0	52.6	1.94	2.3	22.8	0.48	47.3	99.3	0.638	0.171	0.205	0.32	Liquefaction
CPT-6	26.32	10.8	48.8	1.11	135	3553	1911	48.8	49.2	2.36	2.4	25.9	0.56	61.6	110.5	0.638	0.205	0.247	0.39	Liquefaction
CPT-6	26.41	10.8	49.3	1.25	135	3565	1917	49.3	49.5	2.63	2.4	27.1	0.59	70.9	120.2	0.638	0.241	0.290	0.45	Liquefaction
CPT-6	26.5	10.8	46.7	1.32	135	3578	1924	46.6	46.7	2.94	2.5	29.3	0.65	86.0	132.6	0.638	0.297	0.356	0.56	Liquefaction
CPT-6	26.58	10.8	41.3	1.32	135	3588	1930	41.1	40.9	3.34	2.5	32.9	0.74	119.9	161.0	0.638	0.468	0.562	0.88	Liquefaction
CPT-6	26.66	10.8	38.9	1.28	135	3599	1936	38.7	38.3	3.45	2.6	34.3	0.78	139.5	178.2	0.638	0.606	0.728	1.14	Low F.S.
CPT-6	26.75	10.8	44.4	1.22	135	3611	1942	44.1	43.8	2.86	2.5	29.8	0.66	86.7	130.8	0.638	0.288	0.346	0.54	Liquefaction
CPT-6	26.82	10.8	52.8	1.05	135	3621	1947	52.4	52.4	2.06	2.3	23.6	0.50	51.5	103.8	0.638	0.184	0.221	0.35	Liquefaction
CPT-6	26.91	10.8	53.2	0.87	135	3633	1954	52.7	52.6	1.69	2.3	21.5	0.44	41.3	94.0	0.638	0.157	0.189	0.30	Liquefaction
CPT-6	26.99	10.8	51.2	0.81	125	3374	1690	54.5	58.6	1.64	2.2	19.9	0.40	35.9	90.4	0.685	0.149	0.178	0.26	Liquefaction
CPT-6	27.07	10.8	47.2	0.9	135	3654	1965	46.6	46.2	1.98	2.4	24.8	0.53	52.0	98.6	0.638	0.169	0.203	0.32	Liquefaction
CPT-6	27.16	10.8	43	0.89	135	3667	1972	42.4	41.7	2.16	2.4	27.1	0.59	60.8	103.2	0.638	0.182	0.219	0.34	Liquefaction
CPT-6	27.24	10.8	40.2	0.72	125	3405	1705	42.6	45.1	1.87	2.3	24.4	0.52	45.8	88.4	0.685	0.144	0.173	0.25	Liquefaction
CPT-6	27.32	10.8	35.6	0.62	125	3415	1710	37.7	39.6	1.83	2.4	25.9	0.56	47.7	85.3	0.685	0.138	0.165	0.24	Liquefaction
CPT-6	27.41	10.8	28.9	0.67	125	3426	1716	30.5	31.7	2.46	2.5	32.7	0.74	87.0	117.5	0.685	0.231	0.277	0.40	Liquefaction
CPT-6	27.49	10.8	22.9	0.76	125	3436	1721	24.2	24.6	3.59	2.7	42.3	0.80	96.6	120.8	0.685	0.244	0.293	0.43	NonLiqble.
CPT-6	27.57	10.8	18.6	0.85	125	3446	1726	19.6	19.5	5.04	2.9	52.3	0.80	78.4	97.9	0.685	0.167	0.201	0.29	NonLiqble.
CPT-6	27.66	10.8	19.3	0.94	135	3734	2008	18.8	17.4	5.39	3.0	56.1	0.80	75.4	94.2	0.638	0.158	0.189	0.30	NonLiqble.
CPT-6	27.74	10.8	23.3	1.07	135	3745	2014	22.7	21.3	4.99	2.9	50.5	0.80	90.9	113.6	0.638	0.216	0.260	0.41	NonLiqble.
CPT-6	27.82	10.8	26.6	1.13	135	3756	2020	25.9	24.5	4.57	2.8	46.3	0.80	103.6	129.5	0.638	0.282	0.338	0.53	NonLiqble.
CPT-6	27.9	10.8	32.3	1.03	135	3767	2026	31.4	30.0	3.39	2.7	37.9	0.80	125.6	157.0	0.638	0.440	0.528	0.83	NonLiqble.
CPT-6	27.98	10.8	53.2	0.84	125	3498	1752	55.6	58.7	1.63	2.2	19.8	0.40	36.4	92.0	0.685	0.152	0.183	0.27	Liquefaction
CPT-6	28.07	10.8	65.4	0.71	125	3509	1757	68.3	72.4	1.12	2.0	14.3	0.25	22.6	90.9	0.685	0.150	0.180	0.26	Liquefaction
CPT-6	28.15	10.8	61.7	0.64	125	3519	1762	64.3	68.0	1.07	2.1	14.6	0.26	22.2	86.5	0.685	0.140	0.168	0.25	Liquefaction
CPT-6	28.23	10.8	54	0.57	125	3529	1767	56.2	59.1	1.09	2.1	16.2	0.30	24.0	80.2	0.685	0.128	0.154	0.22	Liquefaction
CPT-6	28.31	10.8	43.8	0.53	125	3539	1772	45.5	47.4	1.26	2.2	19.9	0.40	30.2	75.7	0.685	0.120	0.144	0.21	Liquefaction
CPT-6	28.4	10.8	30.2	0.54	125	3550	1778	31.3	32.0	1.90	2.5	29.4	0.65	58.8	90.1	0.685	0.148	0.178	0.26	Liquefaction
CPT-6	28.48	10.8	20.4	0.58	125	3560	1783	21.1	20.9	3.12	2.7	43.1	0.80	84.6	105.7	0.685	0.190	0.228	0.33	NonLiqble.
CPT-6	28.56	10.8	17.9	0.65	125	3570	1788	18.5	18.0	4.03	2.9	50.1	0.80	74.1	92.6	0.685	0.154	0.185	0.27	NonLiqble.
CPT-6	28.65	10.8	15.6	0.59	125	3581	1793	16.1	15.4	4.27	2.9	54.4	0.80	64.5	80.6	0.685	0.129	0.154	0.23	NonLiqble.
CPT-6	28.74	10.8	13	0.55	125	3593	1799	13.4	12.4	4.91	3.0	61.8	0.80	53.6	67.1	0.685	0.108	0.130	0.19	NonLiqble.
CPT-6	28.85	10.8	11.1	0.48	125	3606	1806	11.4	10.3	5.16	3.1	67.4	0.80	45.7	57.1	0.685	0.097	0.117	0.17	NonLiqble.
CPT-6	28.94	10.8	11.1	0.44	115	3328	1522	12.4	12.4	4.66	3.0	60.9	0.80	49.8	62.2	0.750	0.102	0.123	0.16	NonLiqble.
CPT-6	29.02	10.8	11	0.41	115	3337	1526	12.3	12.2	4.39	3.0	60.2	0.80	49.3	61.6	0.750	0.102	0.122	0.16	NonLiqble.
CPT-6	29.11	10.8	10.7	0.41	115	3348	1531	12.0	11.8	4.54	3.0	61.6	0.80	47.9	59.8	0.750	0.100	0.120	0.16	NonLiqble.
CPT-6	29.19	10.8	11	0.43	115	3357	1535	12.3	12.1	4.61	3.0	61.2	0.80	49.1	61.4	0.750	0.102	0.122	0.16	NonLiqble.
CPT-6	29.27	10.8	10.9	0.46	125	3659	1832	11.1	9.9	5.07	3.1	68.1	0.80	44.6	55.7	0.685	0.096	0.115	0.17	NonLiqble.
CPT-6	29.35	10.8	10.3	0.47	115	3375	1544	11.5	11.2	5.46	3.1	66.5	0.80	45.9	57.3	0.750	0.098	0.117	0.16	NonLiqble.
CPT-6	29.44	10.8	10.1	0.48	115	3386	1549	11.2	10.9	5.71	3.1	68.1	0.80	44.9	56.1	0.750	0.096	0.116	0.15	NonLiqble.
CPT-6	29.52	10.8	10.4	0.48	125	3690	1848	10.6	9.3	5.61	3.2	71.8	0.80	42.3	52.9	0.685	0.094	0.113	0.16	NonLiqble.
CPT-6	29.61	10.8	10.3	0.47	115	3405	1557	11.4	11.0	5.47	3.1	66.8	0.80	45.7	57.1	0.750	0.097	0.117	0.16	NonLiqble.
CPT-6	29.69	10.8	10.1	0.46	115	3414	1562	11.2	10.7	5.48	3.1	67.5	0.80	44.7	55.9	0.750	0.096	0.116	0.15	NonLiqble.
CPT-6	29.78	10.8	9.7	0.45	115	3425	1566	10.7	10.2	5.63	3.2	69.4	0.80	42.9	53.6	0.750	0.094	0.113	0.15	NonLiqble.
CPT-6	29.86	10.8	9.8	0.43	115	3434	1571	10.8	10.3	5.32	3.1	68.0	0.80	43.3	54.1	0.750	0.095	0.114	0.15	NonLiqble.
CPT-6	29.95	10.8	9.4	0.41	115	3444	1575	10.4	9.7	5.34	3.2	69.5	0.80	41.4	51.8	0.750	0.093	0.112	0.15	NonLiqble.
CPT-6	30.03	10.8	9.1	0.38	115	3453	1580	10.0	9.3	5.15	3.2	69.9	0.80	40.1	50.1	0.719	0.092	0.110	0.15	NonLiqble.
CPT-6	30.11	10.8	9.1	0.33	115	3463	1584	10.0	9.3	4.48	3.1	67.2	0.80	40.0	50.0	0.719	0.092	0.110	0.15	NonLiqble.
CPT-6	30.2	10.8	8.2	0.28	105	317														

Project Name:	199 River Oaks Parkway
Project Number:	7862.3.001.01
Date:	20-Jul-07
CPT Number:	CPT-6
Depth to Groundwater:	10.8 ft

EQ Magnitude (M _w):	7.1
PGA (g):	0.55
MSF:	1.20

Cone	Depth (FT)	Water Table (FT)	Tip Resist. (TSF)	Sleeve Frict. (TSF)	γ (PCF)	Total Stress (PSF)	Effective Stress (PSF)	Norm. Tip Q _{tn}	Corr. Tip Q	Friction Ratio F	Ic	F.C. (%)	K _{CPT}	ΔQ _{tn}	(Q _{tn}) ₀	Induced Stress Ratio	Liquef. Stress M7.5	Liquef. Stress M7.10	Factor of Safety	Comments
CPT-6	30.88	10.8	9.3	0.18	105	3242	1315	11.2	11.7	2.34	2.9	50.8	0.80	44.9	56.1	0.811	0.096	0.116	0.14	NonLiqfble.
CPT-6	30.98	10.8	9.6	0.19	105	3253	1320	11.6	12.1	2.38	2.9	50.3	0.80	46.2	57.8	0.811	0.098	0.118	0.15	NonLiqfble.
CPT-6	31.06	10.8	9.4	0.22	105	3261	1323	11.3	11.7	2.83	2.9	53.6	0.80	45.2	56.5	0.811	0.097	0.116	0.14	NonLiqfble.
CPT-6	31.15	10.8	10.3	0.26	115	3582	1638	11.1	10.4	3.06	3.0	57.7	0.80	44.5	55.7	0.719	0.096	0.115	0.16	NonLiqfble.
CPT-6	31.23	10.8	12.2	0.33	115	3591	1643	13.2	12.7	3.17	2.9	53.7	0.80	52.7	65.9	0.719	0.107	0.128	0.18	NonLiqfble.
CPT-6	31.32	10.8	14.6	0.48	125	3915	1961	14.4	12.9	3.80	3.0	56.3	0.80	57.7	72.1	0.657	0.115	0.138	0.21	NonLiqfble.
CPT-6	31.41	10.8	16.6	0.69	125	3926	1966	16.4	14.9	4.71	3.0	57.0	0.80	65.5	81.9	0.657	0.131	0.157	0.24	NonLiqfble.
CPT-6	31.5	10.8	19.4	0.89	135	4253	2287	17.7	15.1	5.15	3.0	58.3	0.80	71.0	88.7	0.612	0.145	0.174	0.28	NonLiqfble.
CPT-6	31.58	10.8	24.2	1.09	135	4263	2293	22.1	19.2	4.94	2.9	52.3	0.80	88.5	110.6	0.612	0.206	0.247	0.40	NonLiqfble.
CPT-6	31.67	10.8	39.5	1.18	135	4275	2299	36.0	32.5	3.16	2.6	35.7	0.80	144.2	180.2	0.612	0.624	0.749	1.22	NonLiqfble.
CPT-6	31.75	10.8	62.5	1.09	135	4286	2305	57.0	52.3	1.81	2.3	22.2	0.46	48.2	105.2	0.612	0.188	0.226	0.37	Liquefaction
CPT-6	31.83	10.8	83.2	0.91	125	3979	1993	81.6	81.5	1.12	2.0	13.2	0.22	23.0	104.5	0.657	0.186	0.223	0.34	Liquefaction
CPT-6	31.92	10.8	94.2	0.79	115	3671	1679	100.6	110.0	0.86	1.8	8.9	0.10	11.7	112.3	0.719	0.212	0.254	0.35	Liquefaction
CPT-6	32	10.8	100.4	0.72	115	3680	1683	107.1	117.1	0.73	1.8	7.5	0.07	7.7	114.8	0.719	0.221	0.265	0.37	Liquefaction
CPT-6	32.08	10.8	102	0.69	115	3689	1687	108.6	118.7	0.69	1.8	7.1	0.06	6.5	115.2	0.719	0.222	0.266	0.37	Liquefaction
CPT-6	32.17	10.8	100.4	0.7	115	3700	1692	106.8	116.4	0.71	1.8	7.4	0.06	7.4	114.1	0.719	0.218	0.262	0.36	Liquefaction
CPT-6	32.25	10.8	101.5	0.78	115	3709	1696	107.8	117.4	0.78	1.8	7.9	0.08	9.0	116.8	0.719	0.228	0.274	0.38	Liquefaction
CPT-6	32.34	10.8	101.1	0.86	125	4043	2024	98.3	97.8	0.87	1.9	9.9	0.13	14.8	113.1	0.657	0.215	0.257	0.39	Liquefaction
CPT-6	32.42	10.8	100.3	0.88	125	4053	2029	97.4	96.8	0.90	1.9	10.2	0.14	15.6	113.0	0.657	0.214	0.257	0.39	Liquefaction
CPT-6	32.51	10.8	101.6	0.86	125	4064	2035	98.5	97.8	0.86	1.9	9.9	0.13	14.7	113.3	0.657	0.215	0.258	0.39	Liquefaction
CPT-6	32.59	10.8	107.1	0.9	125	4074	2040	103.7	103.0	0.86	1.9	9.4	0.12	13.8	117.6	0.657	0.231	0.277	0.42	Liquefaction
CPT-6	32.68	10.8	112.5	0.91	115	3758	1719	118.7	128.7	0.82	1.8	7.5	0.07	8.6	127.3	0.719	0.272	0.326	0.45	Liquefaction
CPT-6	32.76	10.8	107.5	0.83	115	3767	1723	113.3	122.5	0.79	1.8	7.6	0.07	8.5	121.8	0.719	0.248	0.298	0.41	Liquefaction
CPT-6	32.84	10.8	98.7	0.78	115	3777	1727	103.9	112.0	0.81	1.8	8.4	0.09	10.4	114.3	0.719	0.219	0.263	0.37	Liquefaction
CPT-6	32.92	10.8	91.9	0.84	125	4115	2061	88.6	87.2	0.93	1.9	11.3	0.17	18.1	106.6	0.657	0.193	0.231	0.35	Liquefaction
CPT-6	33.01	10.8	84.1	0.99	125	4126	2066	80.9	79.4	1.21	2.0	14.0	0.24	25.8	106.7	0.657	0.193	0.232	0.35	Liquefaction
CPT-6	33.09	10.8	78.4	1.12	135	4467	2402	70.0	63.4	1.47	2.2	18.0	0.35	37.2	107.2	0.612	0.194	0.233	0.38	Liquefaction
CPT-6	33.17	10.8	75.8	1.2	135	4478	2408	67.6	61.1	1.63	2.2	19.4	0.38	42.1	109.6	0.612	0.203	0.243	0.40	Liquefaction
CPT-6	33.26	10.8	79.1	1.22	135	4490	2415	70.4	63.6	1.59	2.2	18.7	0.36	40.4	110.8	0.612	0.207	0.248	0.41	Liquefaction
CPT-6	33.34	10.8	87.3	1.16	125	4168	2087	83.6	81.6	1.36	2.1	14.8	0.26	29.4	113.0	0.657	0.214	0.257	0.39	Liquefaction
CPT-6	33.41	10.8	84.7	1	125	4176	2091	81.0	79.0	1.21	2.0	14.1	0.24	26.1	107.1	0.657	0.194	0.233	0.36	Liquefaction
CPT-6	33.5	10.8	76.9	0.89	125	4188	2097	73.5	71.3	1.19	2.1	15.0	0.27	26.7	100.1	0.657	0.173	0.208	0.32	Liquefaction
CPT-6	33.58	10.8	67	1.07	135	4533	2438	59.4	53.1	1.65	2.3	21.1	0.43	44.8	104.2	0.612	0.185	0.222	0.36	Liquefaction
CPT-6	33.66	10.8	57.1	1.28	135	4544	2444	50.5	44.9	2.33	2.4	27.0	0.59	71.9	122.4	0.612	0.251	0.301	0.49	Liquefaction
CPT-6	33.74	10.8	51.9	1.25	135	4555	2450	45.9	40.5	2.52	2.5	29.3	0.65	85.1	131.0	0.612	0.289	0.347	0.57	Liquefaction
CPT-6	33.82	10.8	60.6	1.07	135	4566	2455	53.5	47.5	1.83	2.3	23.6	0.50	52.5	106.1	0.612	0.191	0.229	0.37	Liquefaction
CPT-6	33.9	10.8	82.4	0.9	125	4238	2122	78.3	75.6	1.12	2.0	13.9	0.24	24.5	102.8	0.657	0.181	0.217	0.33	Liquefaction
CPT-6	33.98	10.8	98.7	0.75	115	3908	1787	102.1	108.2	0.78	1.8	8.4	0.09	10.3	112.5	0.719	0.212	0.255	0.35	Liquefaction
CPT-6	34.06	10.8	101.9	0.61	115	3917	1792	105.3	111.5	0.61	1.7	6.9	0.05	5.7	115.1	0.719	0.207	0.249	0.35	Liquefaction
CPT-6	34.13	10.8	102.7	0.53	105	3584	1454	117.8	138.7	0.53	1.6	4.8	0.00	0.0	117.8	0.811	0.232	0.279	0.34	Liquefaction
CPT-6	34.21	10.8	103.4	0.49	105	3592	1457	118.5	139.4	0.48	1.6	4.4	0.00	0.0	118.5	0.811	0.235	0.282	0.35	Liquefaction
CPT-6	34.3	10.8	99.3	0.43	105	3602	1461	113.7	133.4	0.44	1.6	4.3	0.00	0.0	113.7	0.811	0.217	0.260	0.32	Liquefaction
CPT-6	34.37	10.8	90.9	0.42	105	3609	1464	103.9	121.6	0.47	1.6	5.2	0.00	0.5	104.4	0.811	0.186	0.223	0.28	Liquefaction
CPT-6	34.46	10.8	80.3	0.46	105	3618	1468	91.7	106.9	0.59	1.7	7.0	0.05	5.3	97.0	0.811	0.165	0.198	0.24	Liquefaction
CPT-6	34.54	10.8	70.3	0.54	115	3972	1817	72.2	75.2	0.79	1.9	11.6	0.18	15.3	87.5	0.719	0.142	0.171	0.24	Liquefaction
CPT-6	34.62	10.8	64.3	0.65	125	4328	2167	60.4	57.3	1.05	2.1	16.2	0.30	25.8	86.3	0.657	0.140	0.168	0.26	Liquefaction
CPT-6	34.7	10.8	60.3	0.69	125	4338	2172	56.6	53.5	1.19	2.2	18.0	0.35	30.1	86.7	0.657	0.141	0.169	0.26	Liquefaction
CPT-6	34.78	10.8	58.2	0.56	125	4348	2177	54.6	51.4	1.00	2.1	17.1	0.32	25.9	80.5	0.657	0.128	0.154	0.23	Liquefaction
CPT-6	34.87	10.8	48.6	0.51	125	4359	2183	45.5	42.5	1.10	2.2	20.1	0.40	30.7	76.2	0.657	0.121	0.145	0.22	Liquefaction
CPT-6	34.95	10.8	37.5	0.54	125	4369	2188	35.1	32.3	1.53	2.4	26.9	0.59	49.5	84.5	0.657	0.136	0.163	0.25	Liquefaction
CPT-6	35.03	10.8	29.2	0.56	125	4379	2193	27.3	24.6	2.07	2.6	34.6	0.79	103.3	130.6	0.657	0.287	0.345	0.52	Liquefaction
CPT-6	35.1	10.8	28.6	0.67	125	4388	2197	26.7	24.0	2.54	2.6	37.7	0.80	106.8	133.5	0.657	0.301	0.361	0.55	NonLiqfble.
CPT-6	35.18	10.8	23.7	0.77	135	4749	2554	20.5	16.7	3.61	2.9	49.9	0.80	82.1	102.6	0.612	0.180	0.217	0.35	NonLiqfble.
CPT-6	35.26	10.8	21.8	0.74	125	4408	2207	20.3	17.7	3.78	2.9	49.3	0.80	81.2	101.5	0.657	0.177	0.213	0.32	NonLiqfble.
CPT-6	35.34	10.8	42.6	0.78	135	4771	2566	36.8	31.3	1.94	2.5	30.0	0.67	73.6	110.4	0.612	0.205	0.246	0.40	Liquefaction
CPT-6	35.42	10.8	64.4	0.94	125	4428	2217	59.8	56.1	1.51	2.2	19.6	0.39	38.3	98.1	0.657	0.168	0.201	0.31	Liquefaction
CPT-6	35.5	10.8	81	1.07	125	4438	2222	75.2	70.9	1.36	2.1	16.1	0.30	31.8	106.9	0.657	0.194	0.232	0.35	Liquefaction
CPT-6	35.58	10.8	95.5	1.02	125	4448	2227	88.5	83.7	1.09	2.0	12.8	0.21	23.3	111.8	0.657	0.210	0.252	0.38	Liquefaction
CPT-6	35.66	10.8	108.4	0.87	115	4101	1876	109.5	113.3	0.82	1.8	8.4	0.09	10.9	120.5	0.719	0.243	0.291	0.40	Liquefaction
CPT-6	35.74	10.8	125.3	0.79	115	4110	1880	126.4	131.1	0.64	1.7	6.1	0.03	3.8	130.2	0.719	0.285	0.342	0.48	Liquefaction
CPT-6	35.82	10.8	147.2	0.85	115	4119	1884	148.4	154.0	0.59	1.6	4.7	0.00	0.0						

Project Name: 199 River Oaks Parkway
Project Number: 7862.3.001.01
Date: 20-Jul-07
CPT Number: CPT-6
Depth to Groundwater: 10.8 ft

EQ Magnitude (M_w): 7.1
PGA (g): 0.55
MSF: 1.20

Cone	Depth (FT)	Water Table (FT)	Tip Resist. (TSF)	Sleeve Frict. (TSF)	γ (PCF)	Total Stress (PSF)	Effective Stress (PSF)	Norm. Tip Q _{tip}	Corr. Tip Q	Friction Ratio F	Ic	F.C. (%)	K _{CPT}	Δq _{tip}	(Q _{tip}) ^{0.5}	Induced Stress Ratio	Liquef. Stress M7.5	Liquef. Stress M7.10	Factor of Safety	Comments
CPT-6	36.51	10.8	226.7	0.97	105	3834	1555	251.5	288.9	0.43	1.3	0.6	0.00	0.0	251.5	0.811	1.560	1.872	2.31	NonLiqfble.
CPT-6	36.6	10.8	230.6	1.03	105	3843	1559	255.5	293.2	0.45	1.3	0.7	0.00	0.0	255.5	0.811	1.632	1.958	2.42	NonLiqfble.
CPT-6	36.68	10.8	235.5	1.06	105	3851	1563	260.7	298.8	0.45	1.3	0.7	0.00	0.0	260.7	0.811	1.727	2.073	2.56	NonLiqfble.
CPT-6	36.75	10.8	239.5	1.15	105	3859	1566	264.8	303.4	0.48	1.3	0.8	0.00	0.0	264.8	0.811	1.808	2.169	2.68	NonLiqfble.
CPT-6	36.83	10.8	236	1.16	105	3867	1569	260.7	298.2	0.50	1.4	1.0	0.00	0.0	260.7	0.811	1.728	2.073	2.56	NonLiqfble.
CPT-6	36.91	10.8	231.9	1.26	115	4245	1941	230.3	236.6	0.55	1.5	2.2	0.00	0.0	230.3	0.719	1.216	1.459	2.03	NonLiqfble.
CPT-6	36.98	10.8	242	1.27	115	4253	1945	240.1	246.5	0.53	1.4	1.9	0.00	0.0	240.1	0.719	1.367	1.640	2.28	NonLiqfble.
CPT-6	37.06	10.8	256.9	1.3	105	3891	1579	282.9	322.8	0.51	1.3	0.8	0.00	0.0	282.9	0.811	2.185	2.623	3.24	NonLiqfble.
CPT-6	37.13	10.8	274.1	1.28	105	3899	1582	301.5	344.0	0.47	1.3	0.3	0.00	0.0	301.5	0.811	2.630	3.156	3.89	NonLiqfble.
CPT-6	37.2	10.8	285.5	1.4	105	3906	1585	313.8	357.7	0.49	1.3	0.3	0.00	0.0	313.8	0.811	2.954	3.544	4.37	NonLiqfble.
CPT-6	37.28	10.8	288.2	1.45	105	3914	1588	316.4	360.3	0.51	1.3	0.4	0.00	0.0	316.4	0.811	3.026	3.632	4.48	NonLiqfble.
CPT-6	37.36	10.8	280	1.26	105	3923	1592	307.1	349.2	0.45	1.3	0.2	0.00	0.0	307.1	0.811	2.773	3.328	4.11	NonLiqfble.
CPT-6	37.43	10.8	278.8	1.22	105	3930	1595	305.5	347.1	0.44	1.3	0.1	0.00	0.0	305.5	0.811	2.731	3.278	4.04	NonLiqfble.
CPT-6	37.51	10.8	272	1.21	105	3939	1598	297.7	337.8	0.45	1.3	0.2	0.00	0.0	297.7	0.811	2.534	3.041	3.75	NonLiqfble.
CPT-6	37.58	10.8	267.4	1.25	105	3946	1601	292.4	331.5	0.47	1.3	0.4	0.00	0.0	292.4	0.811	2.405	2.886	3.56	NonLiqfble.
CPT-6	37.65	10.8	265.1	1.42	115	4330	1980	260.6	265.4	0.54	1.4	1.7	0.00	0.0	260.6	0.719	1.727	2.072	2.88	NonLiqfble.
CPT-6	37.73	10.8	254.9	1.34	115	4339	1985	250.4	254.6	0.53	1.4	1.8	0.00	0.0	250.4	0.719	1.539	1.847	2.57	NonLiqfble.
CPT-6	37.8	10.8	247.1	1.04	105	3969	1610	269.4	304.3	0.42	1.3	0.4	0.00	0.0	269.4	0.811	1.899	2.279	2.81	NonLiqfble.
CPT-6	37.88	10.8	236.4	1.22	115	4356	1992	231.7	235.0	0.52	1.4	2.1	0.00	0.0	231.7	0.719	1.237	1.485	2.06	NonLiqfble.
CPT-6	37.95	10.8	226.5	1.16	115	4364	1996	221.8	224.7	0.52	1.5	2.2	0.00	0.0	221.8	0.719	1.095	1.314	1.83	NonLiqfble.
CPT-6	38.02	10.8	221.1	1.21	115	4372	2000	216.3	218.8	0.55	1.5	2.6	0.00	0.0	216.3	0.719	1.021	1.226	1.70	NonLiqfble.
CPT-6	38.1	10.8	219.6	0.79	105	4001	1623	238.5	268.0	0.36	1.3	0.4	0.00	0.0	238.5	0.811	1.342	1.610	1.99	NonLiqfble.
CPT-6	38.17	10.8	206.6	0.89	105	4008	1626	224.2	251.5	0.44	1.4	1.2	0.00	0.0	224.2	0.811	1.128	1.353	1.67	NonLiqfble.
CPT-6	38.25	10.8	206.7	1.15	115	4399	2012	201.6	203.2	0.56	1.5	3.0	0.00	0.0	201.6	0.719	0.842	1.011	1.41	NonLiqfble.
CPT-6	38.32	10.8	208	1.05	105	4024	1632	225.2	252.3	0.51	1.4	1.7	0.00	0.0	225.2	0.811	1.143	1.371	1.69	NonLiqfble.
CPT-6	38.37	10.8	191.1	1.05	115	4413	2018	186.1	187.1	0.56	1.5	3.4	0.00	0.0	186.1	0.719	0.680	0.815	1.13	Low F.S.
CPT-6	38.44	10.8	212.9	1.08	105	4036	1638	230.2	257.5	0.51	1.4	1.6	0.00	0.0	230.2	0.811	1.214	1.457	1.80	NonLiqfble.
CPT-6	38.52	10.8	214.5	1.2	115	4430	2026	208.5	209.5	0.57	1.5	2.9	0.00	0.0	208.5	0.719	0.923	1.108	1.54	NonLiqfble.
CPT-6	38.59	10.8	224	1.12	105	4052	1644	241.7	269.9	0.50	1.4	1.4	0.00	0.0	241.7	0.811	1.394	1.672	2.06	NonLiqfble.
CPT-6	38.67	10.8	227.9	1.06	105	4060	1647	245.7	274.1	0.47	1.4	1.1	0.00	0.0	245.7	0.811	1.459	1.751	2.16	NonLiqfble.
CPT-6	38.74	10.8	223.4	1.25	115	4455	2038	216.5	217.0	0.57	1.5	2.7	0.00	0.0	216.5	0.719	1.024	1.229	1.71	NonLiqfble.
CPT-6	38.82	10.8	213.8	1.22	115	4464	2042	207.0	207.1	0.58	1.5	3.0	0.00	0.0	207.0	0.719	0.905	1.086	1.51	NonLiqfble.
CPT-6	38.89	10.8	213.9	1.01	105	4083	1657	229.9	255.6	0.48	1.4	1.4	0.00	0.0	229.9	0.811	1.211	1.453	1.79	NonLiqfble.
CPT-6	38.97	10.8	215.1	0.83	105	4092	1660	231.0	256.6	0.39	1.3	0.8	0.00	0.0	231.0	0.811	1.226	1.471	1.82	NonLiqfble.
CPT-6	39.04	10.8	213.3	0.84	105	4099	1663	228.8	253.9	0.40	1.3	0.9	0.00	0.0	228.8	0.811	1.195	1.434	1.77	NonLiqfble.
CPT-6	39.12	10.8	210.3	0.88	105	4108	1667	225.4	249.8	0.42	1.4	1.1	0.00	0.0	225.4	0.811	1.145	1.374	1.69	NonLiqfble.
CPT-6	39.19	10.8	210	0.91	105	4115	1669	224.9	249.0	0.44	1.4	1.2	0.00	0.0	224.9	0.811	1.138	1.365	1.68	NonLiqfble.
CPT-6	39.27	10.8	207.6	0.87	105	4123	1673	222.1	245.6	0.42	1.4	1.2	0.00	0.0	222.1	0.811	1.099	1.318	1.63	NonLiqfble.
CPT-6	39.34	10.8	202.3	0.81	105	4131	1676	216.2	238.9	0.40	1.4	1.2	0.00	0.0	216.2	0.811	1.020	1.224	1.51	NonLiqfble.
CPT-6	39.42	10.8	201.8	0.76	105	4139	1679	215.5	237.8	0.38	1.4	1.0	0.00	0.0	215.5	0.811	1.010	1.212	1.50	NonLiqfble.
CPT-6	39.49	10.8	199.1	0.65	95	3752	1287	242.8	306.3	0.33	1.2	-0.3	0.00	0.0	242.8	0.958	1.411	1.693	1.77	NonLiqfble.
CPT-6	39.57	10.8	194.3	0.64	95	3759	1290	236.7	298.2	0.33	1.2	-0.2	0.00	0.0	236.7	0.958	1.313	1.576	1.64	NonLiqfble.
CPT-6	39.64	10.8	190.4	0.65	95	3766	1292	231.7	291.6	0.34	1.3	0.0	0.00	0.0	231.7	0.958	1.237	1.485	1.55	NonLiqfble.
CPT-6	39.72	10.8	191.9	0.56	95	3773	1295	233.3	293.4	0.29	1.2	-0.4	0.00	0.0	233.3	0.958	1.261	1.514	1.58	NonLiqfble.
CPT-6	39.79	10.8	189.8	0.48	95	3780	1297	230.6	289.6	0.26	1.2	-0.6	0.00	0.0	230.6	0.958	1.220	1.464	1.53	NonLiqfble.
CPT-6	39.87	10.8	183.6	0.48	95	3788	1300	222.8	279.5	0.26	1.2	-0.5	0.00	0.0	222.8	0.958	1.109	1.331	1.39	NonLiqfble.
CPT-6	39.94	10.8	171.3	0.51	95	3794	1302	207.7	260.1	0.30	1.3	0.1	0.00	0.0	207.7	0.958	0.913	1.096	1.14	Low F.S.
CPT-6	40.01	10.8	156.7	0.56	95	3801	1304	189.8	237.3	0.36	1.3	0.9	0.00	0.0	189.8	0.886	0.716	0.860	0.97	Liquefaction
CPT-6	40.09	10.8	151.4	0.59	105	4209	1708	160.3	174.8	0.40	1.5	2.5	0.00	0.0	160.3	0.749	0.463	0.556	0.74	Liquefaction
CPT-6	40.17	10.8	150.8	0.61	105	4218	1711	159.5	173.7	0.41	1.5	2.6	0.00	0.0	159.5	0.749	0.457	0.549	0.73	Liquefaction
CPT-6	40.24	10.8	156	0.54	95	3823	1312	188.5	234.8	0.35	1.3	0.8	0.00	0.0	188.5	0.886	0.702	0.843	0.95	Liquefaction
CPT-6	40.32	10.8	172.2	0.5	95	3830	1314	207.8	259.0	0.29	1.3	0.0	0.00	0.0	207.8	0.886	0.915	1.098	1.24	Low F.S.
CPT-6	40.39	10.8	186.1	0.49	95	3837	1317	224.4	279.6	0.27	1.2	-0.5	0.00	0.0	224.4	0.886	1.131	1.357	1.53	NonLiqfble.
CPT-6	40.46	10.8	186.5	0.44	95	3844	1319	224.7	279.8	0.24	1.2	-0.7	0.00	0.0	224.7	0.886	1.135	1.362	1.54	NonLiqfble.
CPT-6	40.54	10.8	186.4	0.4	88	3568	1038	253.2	355.6	0.22	1.1	-1.5	0.00	0.0	253.2	1.045	1.589	1.907	1.83	NonLiqfble.
CPT-6	40.62	10.8	181.5	0.4	95	3859	1324	218.2	271.1	0.22	1.2	-0.7	0.00	0.0	218.2	0.886	1.047	1.256	1.42	NonLiqfble.
CPT-6	40.7	10.8	174.1	0.38	88	3582	1042	236.0	330.6	0.22	1.1	-1.3	0.00	0.0	236.0	1.045	1.302	1.563	1.50	NonLiqfble.
CPT-6	40.79	10.8	175.6	0.38	88	3590	1044	237.8	332.7	0.22	1.1	-1.3	0.00	0.0	237.8	1.045	1.330	1.596	1.53	NonLiqfble.
CPT-6	40.87	10.8	173.2	0.37	88	3597	1046	234.3	327.5	0.22	1.1	-1.3	0.00	0.0	234.3	1.045	1.276	1.531	1.47	NonLiqfble.
CPT-6	40.95	10.8	164.9	0.35	88	3604	1048	222.8	311.0	0.21	1.1	-1.2	0.00	0.0	222.8	1.045	1.109	1.331	1.27	Low F.S.
CPT-6	41.04	10.8	162.2	0.39	95	3899														

Project Name: 199 River Oaks Parkway
Project Number: 7862.3.001.01
Date: 20-Jul-07
CPT Number: CPT-6
Depth to Groundwater: 10.8 ft

EQ Magnitude (M_w): 7.1
PGA (g): 0.55
MSF: 1.20

Cone	Depth (FT)	Water Table (FT)	Tip Resist. (TSF)	Sleeve Frict. (TSF)	γ (PCF)	Total Stress (PSF)	Effective Stress (PSF)	Norm. Tip Q _{ts}	Corr. Tip Q	Friction Ratio F	I _c	F.C. (%)	K _{cp}	ΔQ _{ts}	(Q _{ts}) _{0.5}	Induced	Liquef.	Liquef.	Factor of Safety	Comments
																Stress Ratio	Stress M7.5	Stress M7.10		
CPT-6	41.74	10.8	204.9	0.66	95	3965	1361	243.0	298.1	0.33	1.2	-0.2	0.00	0.0	243.0	0.886	1.415	1.698	1.92	NonLiqfble.
CPT-6	41.82	10.8	228.3	0.76	95	3973	1363	270.5	331.9	0.34	1.2	-0.5	0.00	0.0	270.5	0.886	1.921	2.306	2.60	NonLiqfble.
CPT-6	41.91	10.8	231.1	0.91	105	4401	1785	239.3	256.3	0.40	1.3	0.8	0.00	0.0	239.3	0.749	1.355	1.625	2.17	NonLiqfble.
CPT-6	41.99	10.8	241.3	0.93	105	4409	1789	249.6	267.2	0.39	1.3	0.6	0.00	0.0	249.6	0.749	1.527	1.832	2.45	NonLiqfble.
CPT-6	42.08	10.8	252.7	1.39	115	4839	2213	235.0	226.1	0.56	1.5	2.5	0.00	0.0	235.0	0.664	1.287	1.545	2.32	NonLiqfble.
CPT-6	42.16	10.8	232.5	1.53	115	4848	2218	216.0	207.4	0.67	1.6	3.6	0.00	0.0	216.0	0.664	1.018	1.221	1.84	NonLiqfble.
CPT-6	42.25	10.8	232.7	1.51	115	4859	2222	216.0	207.1	0.66	1.6	3.6	0.00	0.0	216.0	0.664	1.017	1.220	1.84	NonLiqfble.
CPT-6	42.34	10.8	217.6	1.49	115	4869	2227	201.7	193.1	0.69	1.6	4.2	0.00	0.0	201.7	0.664	0.844	1.012	1.52	NonLiqfble.
CPT-6	42.43	10.8	185.6	0.99	115	4879	2232	171.9	164.1	0.54	1.6	4.0	0.00	0.0	171.9	0.664	0.552	0.663	1.00	Liquefaction
CPT-6	42.51	10.8	190.3	0.92	105	4464	1811	195.7	207.6	0.49	1.5	2.4	0.00	0.0	195.7	0.749	0.777	0.932	1.24	Low F.S.
CPT-6	42.6	10.8	163.2	0.83	105	4473	1815	167.6	177.3	0.52	1.5	3.4	0.00	0.0	167.6	0.749	0.518	0.622	0.83	Liquefaction
CPT-6	42.69	10.8	164.4	0.86	105	4482	1819	168.7	178.3	0.53	1.5	3.5	0.00	0.0	168.7	0.749	0.526	0.632	0.84	Liquefaction
CPT-6	42.78	10.8	173.1	0.86	105	4492	1822	177.4	187.4	0.50	1.5	3.0	0.00	0.0	177.4	0.749	0.599	0.719	0.96	Liquefaction
CPT-6	42.86	10.8	183.3	0.92	105	4500	1826	187.7	198.2	0.51	1.5	2.8	0.00	0.0	187.7	0.749	0.695	0.834	1.11	Low F.S.
CPT-6	42.95	10.8	196.6	1	105	4510	1830	201.1	212.3	0.51	1.5	2.5	0.00	0.0	201.1	0.749	0.836	1.004	1.34	NonLiqfble.
CPT-6	43.04	10.8	212.5	0.98	105	4519	1834	217.1	229.2	0.47	1.4	1.8	0.00	0.0	217.1	0.749	1.032	1.239	1.65	NonLiqfble.
CPT-6	43.12	10.8	233.5	0.88	105	4528	1837	238.4	251.7	0.38	1.3	0.8	0.00	0.0	238.4	0.749	1.340	1.608	2.15	NonLiqfble.
CPT-6	43.2	10.8	254.7	0.82	95	4104	1408	297.0	358.6	0.32	1.2	-0.8	0.00	0.0	297.0	0.886	2.515	3.018	3.41	NonLiqfble.
CPT-6	43.29	10.8	263.9	0.78	95	4113	1411	307.4	370.9	0.30	1.1	-1.0	0.00	0.0	307.4	0.886	2.780	3.337	3.77	NonLiqfble.
CPT-6	43.38	10.8	257.6	0.89	105	4555	1848	262.2	276.2	0.35	1.3	0.2	0.00	0.0	262.2	0.749	1.756	2.107	2.81	NonLiqfble.
CPT-6	43.46	10.8	250	1.21	105	4563	1851	254.2	267.5	0.49	1.4	1.3	0.00	0.0	254.2	0.749	1.608	1.930	2.58	NonLiqfble.
CPT-6	43.55	10.8	230	1.33	115	5008	2291	210.3	198.5	0.58	1.5	3.3	0.00	0.0	210.3	0.664	0.944	1.133	1.71	NonLiqfble.
CPT-6	43.63	10.8	221.4	1.21	115	5017	2295	202.2	190.7	0.55	1.5	3.3	0.00	0.0	202.2	0.664	0.849	1.019	1.53	NonLiqfble.
CPT-6	43.72	10.8	213.6	1.1	115	5028	2300	194.9	183.5	0.52	1.5	3.2	0.00	0.0	194.9	0.664	0.768	0.922	1.39	NonLiqfble.
CPT-6	43.8	10.8	206.6	1.1	115	5037	2304	188.3	177.1	0.54	1.5	3.6	0.00	0.0	188.3	0.664	0.701	0.841	1.27	Low F.S.
CPT-6	43.89	10.8	226	1.08	105	4608	1870	228.7	239.2	0.48	1.4	1.7	0.00	0.0	228.7	0.749	1.192	1.431	1.91	NonLiqfble.
CPT-6	43.97	10.8	242.1	0.94	105	4617	1873	244.8	255.9	0.39	1.3	0.8	0.00	0.0	244.8	0.749	1.444	1.732	2.31	NonLiqfble.
CPT-6	44.06	10.8	258.2	1.09	105	4626	1877	260.8	272.5	0.43	1.3	0.8	0.00	0.0	260.8	0.749	1.729	2.075	2.77	NonLiqfble.
CPT-6	44.14	10.8	272.5	1.32	105	4635	1880	275.0	287.3	0.49	1.4	1.1	0.00	0.0	275.0	0.749	2.013	2.416	3.23	NonLiqfble.
CPT-6	44.22	10.8	298.8	1.27	105	4643	1884	301.2	314.6	0.43	1.3	0.3	0.00	0.0	301.2	0.749	2.622	3.146	4.20	NonLiqfble.
CPT-6	44.3	10.8	321.4	1.6	105	4652	1887	323.7	338.0	0.50	1.3	0.6	0.00	0.0	323.7	0.749	3.235	3.882	5.18	NonLiqfble.
CPT-6	44.38	10.8	342.4	2.08	115	5104	2334	310.1	291.0	0.61	1.4	1.8	0.00	0.0	310.1	0.664	2.853	3.423	5.15	NonLiqfble.
CPT-6	44.47	10.8	370.3	2.09	115	5114	2339	335.0	314.3	0.57	1.4	1.2	0.00	0.0	335.0	0.664	3.576	4.292	6.46	NonLiqfble.
CPT-6	44.54	10.8	398.3	2.07	115	5122	2343	360.0	337.7	0.52	1.3	0.7	0.00	0.0	360.0	0.664	4.421	5.305	7.98	NonLiqfble.
CPT-6	44.62	10.8	421.3	1.42	105	4685	1901	422.8	440.6	0.34	1.1	-1.2	0.00	0.0	422.8	0.749	7.109	8.531	11.39	NonLiqfble.
CPT-6	44.7	10.8	437.7	1.75	105	4694	1904	438.9	457.1	0.40	1.2	-0.9	0.00	0.0	438.9	0.749	7.941	9.529	12.72	NonLiqfble.
CPT-6	44.78	10.8	444	1.91	105	4702	1908	444.8	462.8	0.43	1.2	-0.7	0.00	0.0	444.8	0.749	8.264	9.916	13.24	NonLiqfble.
CPT-6	44.86	10.8	443.9	1.99	105	4710	1911	444.3	461.9	0.45	1.2	-0.6	0.00	0.0	444.3	0.749	8.236	9.883	13.20	NonLiqfble.
CPT-6	44.92	10.8	420.1	2.09	105	4717	1914	420.2	436.4	0.50	1.2	-0.2	0.00	0.0	420.2	0.749	6.979	8.375	11.18	NonLiqfble.
CPT-6	45	10.8	430.1	2.22	115	5175	2367	386.8	361.1	0.52	1.3	0.5	0.00	0.0	386.8	0.664	5.462	6.554	9.87	NonLiqfble.
CPT-6	45.08	10.8	427.4	2.32	115	5184	2371	384.0	358.2	0.55	1.3	0.7	0.00	0.0	384.0	0.664	5.347	6.417	9.66	NonLiqfble.
CPT-6	45.16	10.8	453.2	2.21	105	4742	1924	452.1	468.5	0.49	1.2	-0.4	0.00	0.0	452.1	0.749	8.673	10.408	13.90	NonLiqfble.
CPT-6	45.24	10.8	456.4	2.27	105	4750	1927	454.9	471.0	0.50	1.2	-0.4	0.00	0.0	454.9	0.749	8.833	10.600	14.15	NonLiqfble.
CPT-6	45.32	10.8	470	2.13	105	4759	1931	468.0	484.2	0.46	1.2	-0.7	0.00	0.0	468.0	0.749	9.614	11.537	15.40	NonLiqfble.
CPT-6	45.4	10.8	464	1.91	105	4767	1934	461.6	477.2	0.41	1.2	-0.9	0.00	0.0	461.6	0.749	9.229	11.075	14.79	NonLiqfble.
CPT-6	45.47	10.8	483.3	2.27	105	4774	1937	480.5	496.3	0.47	1.2	-0.7	0.00	0.0	480.5	0.749	10.395	12.474	16.65	NonLiqfble.
CPT-6	45.55	10.8	494.3	3.65	125	5694	2851	405.0	344.6	0.74	1.4	2.0	0.00	0.0	405.0	0.607	6.259	7.511	12.38	NonLiqfble.
CPT-6	45.63	10.8	489.4	4.56	125	5704	2856	400.7	340.5	0.94	1.5	3.1	0.00	0.0	400.7	0.607	6.061	7.273	11.99	NonLiqfble.
CPT-6	45.71	10.8	466.9	4.5	125	5714	2861	381.9	324.2	0.97	1.5	3.4	0.00	0.0	381.9	0.607	5.260	6.312	10.40	NonLiqfble.
CPT-6	45.78	10.8	431.1	4.65	125	5723	2866	352.3	298.7	1.09	1.6	4.4	0.00	0.0	352.3	0.607	4.148	4.978	8.20	NonLiqfble.
CPT-6	45.86	10.8	348.2	4.27	135	6191	3329	264.0	207.2	1.24	1.7	7.0	0.05	15.2	279.2	0.565	2.104	2.525	4.47	NonLiqfble.
CPT-6	45.94	10.8	324.7	3.67	125	5743	2876	264.9	223.7	1.14	1.7	6.1	0.03	8.0	272.9	0.607	1.970	2.364	3.90	NonLiqfble.
CPT-6	46.02	10.8	330.1	2.62	125	5753	2881	269.1	227.1	0.80	1.6	4.1	0.00	0.0	269.1	0.607	1.892	2.271	3.74	NonLiqfble.
CPT-6	46.1	10.8	331	2.31	115	5302	2425	294.1	270.7	0.70	1.5	2.7	0.00	0.0	294.1	0.664	2.446	2.935	4.42	NonLiqfble.
CPT-6	46.17	10.8	326	2.4	115	5310	2429	289.4	266.2	0.74	1.5	3.0	0.00	0.0	289.4	0.664	2.335	2.802	4.22	NonLiqfble.
CPT-6	46.25	10.8	332.2	2.06	115	5319	2433	294.7	270.8	0.63	1.5	2.2	0.00	0.0	294.7	0.664	2.460	2.952	4.44	NonLiqfble.
CPT-6	46.32	10.8	323.8	2.38	115	5327	2436	287.0	263.5	0.74	1.5	3.0	0.00	0.0	287.0	0.664	2.279	2.735	4.12	NonLiqfble.
CPT-6	46.4	10.8	286.1	2.67	125	5800	2905	232.3	194.9	0.94	1.7	5.7	0.02	4.6	236.9	0.607	1.316	1.580	2.60	NonLiqfble.
CPT-6	46.48	10.8	265.1	2.67	125	5810	2910	215.0	180.1	1.02	1.7	6.6	0.04	9.8	224.8	0.607	1.137	1.364	2.25	NonLiqfble.
CPT-6	46.56	10.8	258.5	2.01	125	5820	2915	209.5	175.3	0.79	1.7	5.3	0.01	2.0	211					

Project Name: 199 River Oaks Parkway
Project Number: 7862.3.001.01
Date: 20-Jul-07
CPT Number: CPT-6
Depth to Groundwater: 10.8 ft

EQ Magnitude (M_w): 7.1
PGA (g): 0.55
MSF: 1.20

Cone	Depth (FT)	Water Table (FT)	Tip Resist. (TSF)	Sleeve Frict. (TSF)	γ (PCF)	Total Stress (PSF)	Effective Stress (PSF)	Norm. Tip Q _{tip} (PSF)	Corr. Tip Q (PSF)	Friction Ratio F	I _c	F.C. (%)	K _{corr}	ΔQ _{tip}	(Q _{tip}) _{0.5}	Induced Stress Ratio	Liquef. Stress M7.5	Liquef. Stress M7.10	Factor of Safety	Comments
CPT-6	47.32	10.8	217.3	2.76	135	6388	3435	162.2	124.6	1.29	1.9	10.7	0.15	29.1	191.4	0.565	0.732	0.878	1.55	NonLiqfble.
CPT-6	47.4	10.8	214.2	2.82	135	6399	3441	159.8	122.6	1.34	1.9	11.1	0.16	31.1	190.8	0.565	0.726	0.872	1.54	NonLiqfble.
CPT-6	47.48	10.8	205.6	2.69	135	6410	3447	153.2	117.4	1.33	1.9	11.4	0.17	31.6	184.8	0.565	0.667	0.800	1.42	NonLiqfble.
CPT-6	47.56	10.8	222	2.56	125	5945	2977	178.0	147.1	1.17	1.8	8.8	0.10	20.2	198.2	0.607	0.804	0.965	1.59	NonLiqfble.
CPT-6	47.64	10.8	269.5	2.4	125	5955	2982	215.9	178.7	0.90	1.7	6.0	0.03	5.7	221.7	0.607	1.093	1.311	2.16	NonLiqfble.
CPT-6	47.72	10.8	295.3	1.95	115	5488	2510	257.9	233.0	0.67	1.5	3.1	0.00	0.0	257.9	0.664	1.675	2.010	3.03	NonLiqfble.
CPT-6	47.8	10.8	314.8	1.62	115	5497	2514	274.7	248.1	0.52	1.4	1.8	0.00	0.0	274.7	0.664	2.008	2.409	3.63	NonLiqfble.
CPT-6	47.88	10.8	326.7	1.47	105	5027	2040	316.5	317.7	0.45	1.3	0.5	0.00	0.0	316.5	0.749	3.029	3.634	4.85	NonLiqfble.
CPT-6	47.96	10.8	338.8	1.34	105	5036	2043	328.0	329.1	0.40	1.3	0.0	0.00	0.0	328.0	0.749	3.360	4.033	5.38	NonLiqfble.
CPT-6	48.03	10.8	341	1.17	105	5043	2046	329.8	330.7	0.35	1.2	-0.4	0.00	0.0	329.8	0.749	3.417	4.101	5.48	NonLiqfble.
CPT-6	48.11	10.8	343.8	1.28	105	5052	2049	332.3	332.9	0.38	1.2	-0.2	0.00	0.0	332.3	0.749	3.492	4.190	5.59	NonLiqfble.
CPT-6	48.16	10.8	341.2	1.34	105	5057	2052	329.6	330.0	0.40	1.3	0.0	0.00	0.0	329.6	0.749	3.410	4.092	5.46	NonLiqfble.
CPT-6	48.24	10.8	336.5	1.44	105	5065	2055	324.8	324.9	0.43	1.3	0.2	0.00	0.0	324.8	0.749	3.266	3.919	5.23	NonLiqfble.
CPT-6	48.33	10.8	360.7	1.56	105	5075	2059	347.8	347.8	0.44	1.3	0.1	0.00	0.0	347.8	0.749	3.993	4.792	6.40	NonLiqfble.
CPT-6	48.42	10.8	369.7	1.63	105	5084	2063	356.2	355.8	0.44	1.3	0.0	0.00	0.0	356.2	0.749	4.282	5.138	6.86	NonLiqfble.
CPT-6	48.51	10.8	382.6	1.65	105	5094	2067	368.2	367.7	0.43	1.2	-0.1	0.00	0.0	368.2	0.749	4.724	5.669	7.57	NonLiqfble.
CPT-6	48.59	10.8	385	1.7	105	5102	2070	370.3	369.4	0.44	1.3	-0.1	0.00	0.0	370.3	0.749	4.800	5.760	7.69	NonLiqfble.
CPT-6	48.68	10.8	389.4	1.91	105	5111	2074	374.1	372.9	0.49	1.3	0.2	0.00	0.0	374.1	0.749	4.951	5.941	7.93	NonLiqfble.
CPT-6	48.76	10.8	389.8	2.35	115	5607	2565	336.8	301.7	0.61	1.4	1.6	0.00	0.0	336.8	0.664	3.632	4.359	6.56	NonLiqfble.
CPT-6	48.85	10.8	400.5	2.77	115	5618	2570	345.7	309.4	0.70	1.4	2.1	0.00	0.0	345.7	0.664	3.922	4.706	7.08	NonLiqfble.
CPT-6	48.94	10.8	394.4	2.56	115	5628	2574	340.1	304.1	0.65	1.4	1.9	0.00	0.0	340.1	0.664	3.739	4.487	6.75	NonLiqfble.
CPT-6	49.02	10.8	351.8	2.18	115	5637	2578	303.1	270.6	0.62	1.5	2.2	0.00	0.0	303.1	0.664	2.670	3.205	4.82	NonLiqfble.
CPT-6	49.11	10.8	314.2	2.09	115	5648	2583	270.5	241.0	0.67	1.5	3.0	0.00	0.0	270.5	0.664	1.920	2.305	3.47	NonLiqfble.
CPT-6	49.2	10.8	277.7	2.14	125	6150	3080	218.9	178.3	0.78	1.6	5.2	0.01	1.2	220.1	0.607	1.072	1.287	2.12	NonLiqfble.
CPT-6	49.28	10.8	288.8	2.19	115	5667	2592	248.2	220.5	0.77	1.6	4.0	0.00	0.0	248.2	0.664	1.502	1.802	2.71	NonLiqfble.
CPT-6	49.37	10.8	320.9	2.11	115	5678	2597	275.5	244.9	0.66	1.5	2.9	0.00	0.0	275.5	0.664	2.025	2.430	3.66	NonLiqfble.
CPT-6	49.45	10.8	324.8	1.92	115	5687	2601	278.6	247.5	0.60	1.5	2.4	0.00	0.0	278.6	0.664	2.092	2.511	3.78	NonLiqfble.
CPT-6	49.53	10.8	345.3	1.8	115	5696	2605	296.0	262.8	0.53	1.4	1.6	0.00	0.0	296.0	0.664	2.492	2.990	4.50	NonLiqfble.
CPT-6	49.62	10.8	372.2	1.58	105	5210	2114	354.2	349.5	0.43	1.3	0.0	0.00	0.0	354.2	0.749	4.213	5.056	6.75	NonLiqfble.
CPT-6	49.7	10.8	389.7	1.57	105	5219	2117	370.6	365.5	0.41	1.2	-0.3	0.00	0.0	370.6	0.749	4.812	5.775	7.71	NonLiqfble.
CPT-6	49.77	10.8	406.5	1.73	105	5226	2120	386.3	380.8	0.43	1.2	-0.3	0.00	0.0	386.3	0.749	5.440	6.528	8.72	NonLiqfble.
CPT-6	49.86	10.8	404.9	1.82	105	5235	2124	384.4	378.6	0.45	1.2	-0.1	0.00	0.0	384.4	0.749	5.362	6.435	8.59	NonLiqfble.
CPT-6	49.94	10.8	418.6	1.78	105	5244	2127	397.1	390.9	0.43	1.2	-0.3	0.00	0.0	397.1	0.749	5.903	7.084	9.46	NonLiqfble.
CPT-6	50.01	10.8	399.6	1.95	105	5251	2130	378.8	372.5	0.49	1.3	0.2	0.00	0.0	378.8	0.661	5.135	6.162	9.32	NonLiqfble.
CPT-6	50.09	10.8	411.2	2.27	115	5760	2635	350.5	309.8	0.56	1.4	1.2	0.00	0.0	350.5	0.586	4.085	4.902	8.36	NonLiqfble.
CPT-6	50.17	10.8	390.6	2.29	115	5770	2639	332.7	293.7	0.59	1.4	1.6	0.00	0.0	332.7	0.586	3.504	4.205	7.17	NonLiqfble.
CPT-6	50.25	10.8	377.5	2.11	115	5779	2643	321.3	283.3	0.56	1.4	1.6	0.00	0.0	321.3	0.586	3.164	3.797	6.48	NonLiqfble.
CPT-6	50.33	10.8	366.2	2.08	115	5788	2647	311.4	274.4	0.57	1.4	1.8	0.00	0.0	311.4	0.586	2.888	3.466	5.91	NonLiqfble.
CPT-6	50.41	10.8	372.7	1.71	105	5293	2147	351.9	344.5	0.46	1.3	0.3	0.00	0.0	351.9	0.661	4.132	4.959	7.50	NonLiqfble.
CPT-6	50.49	10.8	394.2	1.72	105	5301	2151	371.9	363.9	0.44	1.3	-0.1	0.00	0.0	371.9	0.661	4.864	5.836	8.83	NonLiqfble.
CPT-6	50.56	10.8	425.8	2	105	5309	2154	401.4	392.8	0.47	1.3	-0.1	0.00	0.0	401.4	0.661	6.096	7.315	11.07	NonLiqfble.
CPT-6	50.65	10.8	446.2	2.22	105	5318	2158	420.3	411.0	0.50	1.3	0.0	0.00	0.0	420.3	0.661	6.985	8.381	12.68	NonLiqfble.
CPT-6	50.72	10.8	449.8	2.03	105	5326	2161	423.4	413.7	0.45	1.2	-0.3	0.00	0.0	423.4	0.661	7.138	8.566	12.96	NonLiqfble.
CPT-6	50.8	10.8	451.4	2.46	115	5842	2672	382.1	335.5	0.55	1.3	0.9	0.00	0.0	382.1	0.586	5.267	6.321	10.78	NonLiqfble.
CPT-6	50.87	10.8	468	3.09	115	5850	2676	395.9	347.5	0.66	1.4	1.5	0.00	0.0	395.9	0.586	5.849	7.019	11.97	NonLiqfble.
CPT-6	50.95	10.8	504.5	3.23	115	5859	2680	426.4	374.2	0.64	1.4	1.1	0.00	0.0	426.4	0.586	7.290	8.748	14.92	NonLiqfble.
CPT-6	50.99	10.8	520.8	2.76	115	5864	2682	440.0	386.0	0.53	1.3	0.4	0.00	0.0	440.0	0.586	8.002	9.602	16.38	NonLiqfble.
CPT-6	51.03	10.8	539.5	2.54	105	5358	2174	506.3	493.7	0.47	1.2	-0.7	0.00	0.0	506.3	0.661	12.149	14.578	22.06	NonLiqfble.
CPT-6	51.06	10.8	547.3	2.49	105	5361	2175	513.4	500.6	0.46	1.2	-0.8	0.00	0.0	513.4	0.661	12.668	15.202	23.00	NonLiqfble.
CPT-6	51.13	10.8	509	1.96	105	5369	2178	477.2	464.7	0.39	1.1	-1.0	0.00	0.0	477.2	0.661	10.185	12.223	18.49	NonLiqfble.
CPT-6	51.18	10.8	511.6	1.86	105	5374	2180	479.4	466.6	0.37	1.1	-1.2	0.00	0.0	479.4	0.661	10.326	12.391	18.75	NonLiqfble.
CPT-6	51.23	10.8	492	2.23	105	5379	2182	460.8	448.2	0.46	1.2	-0.5	0.00	0.0	460.8	0.661	9.180	11.016	16.67	NonLiqfble.
CPT-6	51.3	10.8	502.3	2.48	105	5387	2185	470.1	457.0	0.50	1.2	-0.3	0.00	0.0	470.1	0.661	9.743	11.692	17.69	NonLiqfble.
CPT-6	51.37	10.8	492.1	2.35	105	5394	2188	460.3	447.1	0.48	1.2	-0.4	0.00	0.0	460.3	0.661	9.148	10.978	16.61	NonLiqfble.
CPT-6	51.44	10.8	413.2	1.99	105	5401	2191	386.2	374.5	0.48	1.3	0.1	0.00	0.0	386.2	0.661	5.437	6.525	9.87	NonLiqfble.
CPT-6	51.53	10.8	465.5	1.9	105	5411	2195	434.7	421.5	0.41	1.2	-0.6	0.00	0.0	434.7	0.661	7.720	9.264	14.02	NonLiqfble.
CPT-6	51.62	10.8	458	1.9	105	5420	2199	427.3	413.9	0.42	1.2	-0.6	0.00	0.0	427.3	0.661	7.338	8.805	13.32	NonLiqfble.
CPT-6	51.71	10.8	450.6	2.11	105	5430	2203	420.1	406.5	0.47	1.2	-0.2	0.00	0.0	420.1	0.661	6.973	8.368	12.66	NonLiqfble.
CPT-6	51.79	10.8	444.2	2.33	115	5956	2724	372.4	323.8	0.53	1.3	0.9	0.00	0.0	372.4	0.586	4.882	5.858	9.99	NonLiqfble.
CPT-6	51.88	10.8	438.3	2.29	115	5966	2729	367.1	318.9	0.53	1.3	0.9	0.00	0.0	367.1	0.586	4.681	5.617		

Project Name:	199 River Oaks Parkway
Project Number:	7862.3.001.01
Date:	20-Jul-07
CPT Number:	CPT-6
Depth to Groundwater:	10.8 ft

EQ Magnitude (M _w):	7.1
PGA (g):	0.55
MSF:	1.20

Cone	Depth (FT)	Water Table (FT)	Tip Resist. (TSF)	Sleeve Frict. (TSF)	Total γ (PCF)	Total Stress (PSF)	Effective Stress (PSF)	Norm. Tip Q _{tip}	Corr. Tip Q	Friction Ratio F	Ic	F.C. (%)	K _{crit}	ΔQ _{tip}	(Q _{tip}) _{0.5s}	Induced Stress Ratio	Liquef. Stress M7.5	Liquef. Stress M7.10	Factor of Safety	Comments
CPT-6	52.71	10.8	299.5	2.98	125	6589	3300	228.1	179.5	1.01	1.7	6.6	0.04	10.1	238.2	0.535	1.337	1.604	3.00	NonLiqfble.
CPT-6	52.8	10.8	256.1	3.3	135	7128	3833	181.0	131.7	1.31	1.9	10.4	0.14	30.4	211.4	0.499	0.958	1.150	2.31	NonLiqfble.
CPT-6	52.89	10.8	224.2	3.47	135	7140	3840	158.3	114.9	1.57	2.0	12.9	0.21	42.4	200.7	0.499	0.832	0.998	2.00	NonLiqfble.
CPT-6	52.97	10.8	208.4	3.26	135	7151	3846	147.0	106.5	1.59	2.0	13.7	0.23	44.2	191.2	0.499	0.730	0.876	1.76	NonLiqfble.
CPT-6	53.06	10.8	190.4	2.98	135	7163	3852	134.2	97.0	1.60	2.1	14.5	0.25	45.6	179.8	0.499	0.621	0.745	1.49	NonLiqfble.
CPT-6	53.14	10.8	177.8	2.86	135	7174	3858	125.2	90.3	1.64	2.1	15.4	0.28	48.2	173.4	0.499	0.565	0.678	1.36	NonLiqfble.
CPT-6	53.23	10.8	168.2	2.68	135	7186	3864	118.4	85.2	1.63	2.1	15.9	0.29	48.5	166.9	0.499	0.512	0.615	1.23	NonLiqfble.
CPT-6	53.31	10.8	162.5	2.46	135	7197	3870	114.3	82.1	1.55	2.1	15.8	0.29	46.3	160.6	0.499	0.465	0.558	1.12	Low F.S.
CPT-6	53.4	10.8	159.1	2.44	135	7209	3877	111.8	80.2	1.57	2.1	16.1	0.30	47.4	159.2	0.499	0.455	0.546	1.09	Low F.S.
CPT-6	53.48	10.8	155.9	2.52	135	7220	3883	109.5	78.4	1.65	2.1	16.8	0.32	50.6	160.1	0.499	0.462	0.554	1.11	Low F.S.
CPT-6	53.57	10.8	153.4	2.54	135	7232	3889	107.6	77.0	1.70	2.1	17.3	0.33	52.3	160.0	0.499	0.461	0.553	1.11	Low F.S.
CPT-6	53.66	10.8	153.2	2.45	135	7244	3896	107.4	76.8	1.64	2.1	17.0	0.32	50.4	157.8	0.499	0.466	0.555	1.07	Low F.S.
CPT-6	53.75	10.8	153.6	2.35	135	7256	3902	107.6	76.8	1.57	2.1	16.6	0.31	48.0	155.6	0.499	0.430	0.516	1.04	Low F.S.
CPT-6	53.83	10.8	155.7	2.25	135	7267	3908	109.0	77.8	1.48	2.1	15.9	0.29	44.9	153.9	0.499	0.419	0.502	1.01	Low F.S.
CPT-6	53.92	10.8	157.6	2.17	135	7279	3915	110.2	78.6	1.41	2.1	15.4	0.28	42.4	152.6	0.499	0.410	0.493	0.99	Liquefaction
CPT-6	54	10.8	156.3	2.1	135	7290	3920	109.2	77.8	1.38	2.1	15.3	0.27	41.4	150.6	0.499	0.398	0.477	0.96	Liquefaction
CPT-6	54.09	10.8	154.1	2	135	7302	3927	107.6	76.6	1.33	2.1	15.2	0.27	40.1	147.7	0.499	0.380	0.456	0.91	Liquefaction
CPT-6	54.18	10.8	148.6	1.93	135	7314	3933	103.7	73.7	1.33	2.1	15.6	0.28	40.7	144.4	0.499	0.360	0.432	0.87	Liquefaction
CPT-6	54.27	10.8	140.6	1.84	135	7326	3940	98.0	69.5	1.34	2.1	16.2	0.30	42.0	140.0	0.499	0.335	0.402	0.81	Liquefaction
CPT-6	54.36	10.8	134.3	1.78	135	7339	3947	93.5	66.2	1.36	2.1	16.9	0.32	43.3	136.9	0.499	0.319	0.382	0.77	Liquefaction
CPT-6	54.45	10.8	130.2	1.72	135	7351	3953	90.6	64.0	1.36	2.1	17.2	0.33	43.7	134.4	0.499	0.306	0.367	0.74	Liquefaction
CPT-6	54.53	10.8	125.4	1.82	135	7362	3959	87.2	61.5	1.50	2.2	18.5	0.36	49.0	136.2	0.499	0.315	0.378	0.76	Liquefaction
CPT-6	54.8	10.8	128.9	2.63	135	7398	3978	89.4	62.9	2.10	2.3	21.6	0.44	71.0	160.4	0.499	0.464	0.557	1.12	Low F.S.
CPT-6	54.88	10.8	136.3	2.85	135	7409	3984	94.5	66.5	2.15	2.3	21.2	0.43	71.9	166.4	0.499	0.508	0.610	1.22	Low F.S.
CPT-6	54.98	10.8	147.6	2.8	135	7422	3992	102.2	72.1	1.95	2.2	19.3	0.38	63.0	165.2	0.499	0.499	0.599	1.20	Low F.S.
CPT-6	55.07	10.8	167.1	2.37	135	7434	3998	115.6	81.7	1.45	2.1	15.3	0.27	43.7	159.4	0.499	0.456	0.548	1.10	Low F.S.
CPT-6	55.16	10.8	217	2.03	125	6895	3453	161.6	123.6	0.95	1.8	8.7	0.10	17.6	179.2	0.535	0.615	0.738	1.38	NonLiqfble.
CPT-6	55.24	10.8	278.8	2.03	115	6353	2906	226.3	189.6	0.74	1.6	4.6	0.00	0.0	226.3	0.586	1.158	1.389	2.37	NonLiqfble.
CPT-6	55.33	10.8	323.6	2.11	115	6363	2910	262.5	220.1	0.66	1.5	3.3	0.00	0.0	262.5	0.586	1.761	2.114	3.61	NonLiqfble.
CPT-6	55.41	10.8	332.9	1.92	115	6372	2915	269.8	226.2	0.58	1.5	2.7	0.00	0.0	269.8	0.586	1.906	2.288	3.90	NonLiqfble.
CPT-6	55.5	10.8	341.6	1.91	115	6383	2919	276.6	231.7	0.56	1.5	2.4	0.00	0.0	276.6	0.586	2.049	2.458	4.19	NonLiqfble.
CPT-6	55.58	10.8	347.3	1.83	115	6392	2924	281.0	235.3	0.53	1.4	2.1	0.00	0.0	281.0	0.586	2.144	2.573	4.39	NonLiqfble.
CPT-6	55.66	10.8	357.5	1.85	115	6401	2928	289.1	241.9	0.52	1.4	2.0	0.00	0.0	289.1	0.586	2.327	2.792	4.76	NonLiqfble.
CPT-6	55.75	10.8	337	1.76	115	6411	2932	272.3	227.6	0.53	1.5	2.3	0.00	0.0	272.3	0.586	1.957	2.349	4.01	NonLiqfble.
CPT-6	55.83	10.8	327.7	2	115	6420	2937	264.6	220.9	0.62	1.5	3.0	0.00	0.0	264.6	0.586	1.803	2.163	3.69	NonLiqfble.
CPT-6	55.92	10.8	313.9	2.74	125	6990	3501	232.1	177.3	0.88	1.7	5.9	0.02	5.7	237.9	0.535	1.332	1.598	2.98	NonLiqfble.
CPT-6	56.01	10.8	296.7	2.99	125	7001	3506	219.2	167.2	1.02	1.8	7.1	0.06	13.0	232.2	0.535	1.245	1.494	2.79	NonLiqfble.
CPT-6	56.09	10.8	256.8	2.8	125	7011	3511	189.6	144.2	1.11	1.8	8.6	0.10	20.0	209.6	0.535	0.936	1.124	2.10	NonLiqfble.
CPT-6	56.18	10.8	237.7	2.53	125	7023	3517	175.4	133.1	1.08	1.8	9.0	0.11	20.8	196.2	0.535	0.783	0.939	1.75	NonLiqfble.
CPT-6	56.27	10.8	219.1	2.01	125	7034	3523	161.5	122.4	0.93	1.8	8.6	0.10	17.4	178.9	0.535	0.612	0.735	1.37	NonLiqfble.
CPT-6	56.36	10.8	233.3	1.55	115	6481	2965	187.5	155.1	0.67	1.7	5.3	0.01	1.4	188.9	0.586	0.707	0.848	1.45	NonLiqfble.
CPT-6	56.44	10.8	255.2	1.44	115	6491	2969	204.9	169.7	0.57	1.6	4.0	0.00	0.0	204.9	0.586	0.880	1.056	1.80	NonLiqfble.
CPT-6	56.53	10.8	257.6	1.35	115	6501	2973	206.7	171.0	0.53	1.6	3.7	0.00	0.0	206.7	0.586	0.901	1.081	1.84	NonLiqfble.
CPT-6	56.61	10.8	258.3	1.38	115	6510	2978	207.1	171.2	0.54	1.6	3.7	0.00	0.0	207.1	0.586	0.906	1.087	1.86	NonLiqfble.
CPT-6	56.7	10.8	246.2	1.56	115	6521	2982	197.3	162.8	0.64	1.6	4.8	0.00	0.0	197.3	0.586	0.794	0.952	1.62	NonLiqfble.
CPT-6	56.79	10.8	234.8	1.39	115	6531	2987	188.0	155.0	0.60	1.6	4.7	0.00	0.0	188.0	0.586	0.698	0.837	1.43	NonLiqfble.
CPT-6	56.87	10.8	263	1.29	105	5971	2423	233.8	214.6	0.50	1.5	2.3	0.00	0.0	233.8	0.661	1.268	1.522	2.30	NonLiqfble.
CPT-6	56.96	10.8	308	1.09	105	5981	2426	273.6	251.3	0.36	1.3	0.6	0.00	0.0	273.6	0.661	1.984	2.381	3.60	NonLiqfble.
CPT-6	57.04	10.8	311.4	0.81	95	5419	1860	316.0	331.9	0.26	1.1	-1.0	0.00	0.0	316.0	0.781	3.014	3.616	4.63	NonLiqfble.
CPT-6	57.13	10.8	282.4	0.98	105	5999	2434	250.5	229.5	0.35	1.3	0.9	0.00	0.0	250.5	0.661	1.541	1.849	2.80	NonLiqfble.
CPT-6	57.22	10.8	215.2	1.2	115	6580	3010	171.6	140.8	0.57	1.6	5.1	0.00	0.3	171.9	0.586	0.552	0.663	1.13	Low F.S.
CPT-6	57.31	10.8	169	1.79	125	7164	3588	123.5	92.2	1.08	2.0	11.9	0.18	27.8	151.2	0.535	0.402	0.482	0.90	Liquefaction
CPT-6	57.4	10.8	100.3	2.19	135	7749	4167	68.0	46.3	2.27	2.4	26.3	0.57	89.2	157.2	0.499	0.441	0.530	1.06	Low F.S.
CPT-6	57.49	10.8	75.3	2.54	135	7761	4174	51.0	34.2	3.56	2.6	36.5	0.80	204.0	255.0	0.499	1.622	1.946	3.90	NonLiqfble.
CPT-6	57.59	10.8	56.3	1.96	135	7775	4181	38.1	25.1	3.74	2.7	42.6	0.80	152.4	190.5	0.499	0.723	0.867	1.74	NonLiqfble.
CPT-6	57.68	10.8	39.6	1.58	135	7787	4188	26.8	17.0	4.43	2.9	52.9	0.80	107.1	133.9	0.499	0.303	0.364	0.73	NonLiqfble.
CPT-6	57.77	10.8	28.5	0.9	135	7799	4194	19.3	11.7	3.66	3.0	57.9	0.80	77.0	96.3	0.499	0.163	0.196	0.39	NonLiqfble.
CPT-6	57.87	10.8	26.6	0.75	135	7812	4201	18.0	10.8	3.31	3.0	58.1	0.80	71.8	89.8	0.499	0.147	0.177	0.35	NonLiqfble.
CPT-6	57.96	10.8	22	0.64	125	7245	3628	16.0	10.1	3.48	3.0	60.5	0.80	63.9	79.9	0.535	0.127	0.153	0.29	NonLiqfble.
CPT-6	58	10.8	21.9	0.64	125	7250	3631	15.9	10.1	3.50	3.0	60.8	0.80	63.6	79.5	0.535	0.127	0.152</		

Project Name: 199 River Oaks Parkway
Project Number: 7862.3.001.01
Date: 20-Jul-07
CPT Number: CPT-6
Depth to Groundwater: 10.8 ft

EQ Magnitude (M_w): 7.1
PGA (g): 0.55
MSF: 1.20

Cone	Depth (FT)	Water Table (FT)	Tip Resist. (TSF)	Sleeve Frict. (TSF)	γ (PCF)	Total Stress (PSF)	Effective Stress (PSF)	Norm. Tip Q _{tn}	Corr. Tip Q	Friction Ratio F	Ic	F.C. (%)	K _{CPT}	Δq _{tn}	(q _{tn}) _s	Induced Stress Ratio	Liquef. Stress M7.5	Liquef. Stress M7.10	Factor of Safety	Comments
CPT-6	58.91	10.8	316.6	1.49	105	6186	2510	276.5	249.7	0.48	1.4	1.5	0.00	0.0	276.5	0.661	2.046	2.456	3.72	NonLiqfble.
CPT-6	59	10.8	326.7	1.7	115	6785	3103	256.6	208.3	0.53	1.5	2.7	0.00	0.0	256.6	0.586	1.651	1.981	3.38	NonLiqfble.
CPT-6	59.09	10.8	333.1	1.33	105	6204	2517	290.5	262.1	0.40	1.3	0.8	0.00	0.0	290.5	0.661	2.360	2.832	4.28	NonLiqfble.
CPT-6	59.18	10.8	325	1.55	105	6214	2521	283.2	255.3	0.48	1.4	1.5	0.00	0.0	283.2	0.661	2.193	2.631	3.98	NonLiqfble.
CPT-6	59.28	10.8	325.9	1.91	115	6817	3118	255.4	206.8	0.59	1.5	3.2	0.00	0.0	255.4	0.586	1.629	1.954	3.33	NonLiqfble.
CPT-6	59.37	10.8	334.1	1.96	115	6828	3123	261.6	211.7	0.59	1.5	3.1	0.00	0.0	261.6	0.586	1.745	2.094	3.57	NonLiqfble.
CPT-6	59.46	10.8	341.3	1.71	105	6243	2533	296.7	266.9	0.51	1.4	1.4	0.00	0.0	296.7	0.661	2.509	3.011	4.56	NonLiqfble.
CPT-6	59.55	10.8	348.6	1.72	105	6253	2537	302.8	272.3	0.50	1.4	1.3	0.00	0.0	302.8	0.661	2.663	3.195	4.83	NonLiqfble.
CPT-6	59.64	10.8	351.8	1.78	105	6262	2541	305.4	274.4	0.51	1.4	1.4	0.00	0.0	305.4	0.661	2.728	3.274	4.95	NonLiqfble.
CPT-6	59.73	10.8	359.8	1.58	105	6272	2544	312.1	280.2	0.44	1.3	0.8	0.00	0.0	312.1	0.661	2.907	3.488	5.28	NonLiqfble.
CPT-6	59.82	10.8	361.8	1.52	105	6281	2548	313.6	281.4	0.42	1.3	0.7	0.00	0.0	313.6	0.661	2.948	3.537	5.35	NonLiqfble.
CPT-6	59.91	10.8	347.3	1.1	95	5691	1953	343.8	352.6	0.32	1.2	-0.8	0.00	0.0	343.8	0.781	3.861	4.633	5.93	NonLiqfble.
CPT-6	60	10.8	354.6	1.26	105	6300	2556	306.9	274.9	0.36	1.3	0.3	0.00	0.0	306.9	0.582	2.768	3.321	5.71	NonLiqfble.
CPT-6	60.09	10.8	331.1	1.29	105	6309	2560	286.3	256.1	0.39	1.3	0.8	0.00	0.0	286.3	0.582	2.263	2.716	4.67	NonLiqfble.
CPT-6	60.18	10.8	309.9	1.37	105	6319	2564	267.8	239.2	0.45	1.4	1.5	0.00	0.0	267.8	0.582	1.866	2.239	3.85	NonLiqfble.
CPT-6	60.27	10.8	294.4	1.4	105	6328	2568	254.2	226.8	0.48	1.4	1.9	0.00	0.0	254.2	0.582	1.608	1.929	3.32	NonLiqfble.
CPT-6	60.36	10.8	275.1	1.46	115	6941	3175	213.6	171.0	0.54	1.6	3.7	0.00	0.0	213.6	0.516	0.987	1.184	2.29	NonLiqfble.
CPT-6	60.45	10.8	268.8	1.68	115	6952	3180	208.6	166.8	0.63	1.6	4.6	0.00	0.0	208.6	0.516	0.924	1.109	2.15	NonLiqfble.
CPT-6	60.54	10.8	266.7	1.8	115	6962	3184	206.8	165.2	0.68	1.6	5.0	0.00	0.0	206.8	0.516	0.902	1.083	2.10	NonLiqfble.
CPT-6	60.63	10.8	270.6	1.99	115	6972	3189	209.7	167.4	0.75	1.7	5.3	0.01	1.9	211.5	0.516	0.960	1.152	2.23	NonLiqfble.
CPT-6	60.72	10.8	269.8	2.25	125	7590	3801	191.5	139.9	0.85	1.8	7.1	0.06	11.5	203.0	0.471	0.858	1.030	2.19	NonLiqfble.
CPT-6	60.8	10.8	282.8	2.06	115	6992	3198	218.8	174.6	0.74	1.6	5.0	0.00	0.3	219.1	0.516	1.058	1.269	2.46	NonLiqfble.
CPT-6	60.89	10.8	275.2	1.73	115	7002	3203	212.8	169.6	0.64	1.6	4.5	0.00	0.0	212.8	0.516	0.976	1.171	2.27	NonLiqfble.
CPT-6	60.98	10.8	259	1.63	115	7013	3208	200.1	159.2	0.64	1.6	4.9	0.00	0.0	200.1	0.516	0.825	0.990	1.92	NonLiqfble.
CPT-6	61.07	10.8	264.8	1.16	105	6412	2602	227.2	201.0	0.44	1.5	2.2	0.00	0.0	227.2	0.582	1.170	1.404	2.41	NonLiqfble.
CPT-6	61.16	10.8	257.4	1.71	115	7033	3217	198.6	157.8	0.67	1.6	5.2	0.00	1.0	199.5	0.516	0.819	0.982	1.90	NonLiqfble.
CPT-6	61.24	10.8	257.6	1.43	115	7043	3221	198.6	157.7	0.56	1.6	4.4	0.00	0.0	198.6	0.516	0.808	0.970	1.88	NonLiqfble.
CPT-6	61.33	10.8	238.3	1.51	115	7053	3226	183.6	145.5	0.64	1.7	5.4	0.01	2.2	185.8	0.516	0.676	0.811	1.57	NonLiqfble.
CPT-6	61.37	10.8	209	1.89	125	7671	3842	147.5	106.8	0.92	1.9	9.6	0.12	20.6	168.1	0.471	0.522	0.626	1.33	NonLiqfble.
CPT-6	61.47	10.8	211.9	1.58	115	7069	3233	163.1	128.8	0.76	1.7	7.1	0.06	9.5	172.6	0.516	0.558	0.670	1.30	Low F.S.
CPT-6	61.57	10.8	204.9	1.85	125	7696	3854	144.4	104.3	0.92	1.9	9.8	0.13	21.0	165.4	0.471	0.501	0.601	1.28	Low F.S.
CPT-6	61.67	10.8	195.6	1.95	125	7709	3861	137.7	99.3	1.02	1.9	10.8	0.16	25.3	163.1	0.471	0.483	0.580	1.23	Low F.S.
CPT-6	61.76	10.8	194.2	2.17	125	7720	3866	136.7	98.4	1.14	2.0	11.7	0.18	29.7	166.4	0.471	0.508	0.610	1.30	Low F.S.
CPT-6	61.86	10.8	197.9	2.29	125	7733	3872	139.1	100.2	1.18	2.0	11.8	0.18	30.9	170.0	0.471	0.537	0.644	1.37	NonLiqfble.
CPT-6	61.94	10.8	202.3	2.33	125	7743	3877	142.1	102.3	1.17	1.9	11.6	0.18	30.3	172.5	0.471	0.557	0.669	1.42	NonLiqfble.
CPT-6	62.04	10.8	213.6	2.41	125	7755	3884	150.0	108.0	1.15	1.9	11.0	0.16	28.6	178.5	0.471	0.609	0.731	1.55	NonLiqfble.
CPT-6	62.13	10.8	222.4	2.39	125	7766	3889	156.0	112.3	1.09	1.9	10.3	0.14	25.9	181.9	0.471	0.640	0.768	1.63	NonLiqfble.
CPT-6	62.22	10.8	219.8	2.32	125	7778	3895	154.1	110.8	1.07	1.9	10.3	0.14	25.5	179.6	0.471	0.618	0.742	1.58	NonLiqfble.
CPT-6	62.3	10.8	217.8	2.24	125	7788	3900	152.6	109.6	1.05	1.9	10.2	0.14	24.7	177.3	0.471	0.598	0.718	1.52	NonLiqfble.
CPT-6	62.4	10.8	215.8	2.26	125	7800	3906	151.1	108.4	1.07	1.9	10.4	0.15	25.6	176.7	0.471	0.593	0.712	1.51	NonLiqfble.
CPT-6	62.48	10.8	211.8	2.24	125	7810	3911	148.2	106.3	1.08	1.9	10.7	0.15	26.4	174.6	0.471	0.575	0.690	1.46	NonLiqfble.
CPT-6	62.58	10.8	211.1	2.04	125	7823	3918	147.6	105.7	0.98	1.9	10.1	0.14	23.2	170.8	0.471	0.543	0.652	1.38	NonLiqfble.
CPT-6	62.67	10.8	206.9	1.91	125	7834	3923	144.5	103.4	0.94	1.9	10.0	0.13	22.1	166.6	0.471	0.510	0.612	1.30	Low F.S.
CPT-6	62.76	10.8	205.5	1.81	125	7845	3929	143.4	102.6	0.90	1.9	9.7	0.13	20.8	164.2	0.471	0.492	0.590	1.25	Low F.S.
CPT-6	62.85	10.8	204.6	1.75	125	7856	3934	142.7	102.0	0.87	1.9	9.6	0.12	20.0	162.7	0.471	0.480	0.576	1.22	Low F.S.
CPT-6	62.94	10.8	204.7	1.75	125	7868	3940	142.7	101.9	0.87	1.9	9.6	0.12	20.0	162.7	0.471	0.480	0.576	1.22	Low F.S.
CPT-6	63.03	10.8	213.7	1.76	125	7879	3946	148.9	106.3	0.84	1.8	9.0	0.11	18.0	166.8	0.471	0.512	0.614	1.30	NonLiqfble.
CPT-6	63.12	10.8	236.1	1.66	115	7259	3320	179.3	140.0	0.71	1.7	6.2	0.03	6.0	185.2	0.516	0.671	0.805	1.56	NonLiqfble.
CPT-6	63.2	10.8	257.2	1.64	115	7268	3324	195.2	152.5	0.65	1.6	5.2	0.00	1.0	196.2	0.516	0.782	0.938	1.82	NonLiqfble.
CPT-6	63.29	10.8	272.7	1.66	115	7278	3329	206.8	161.6	0.62	1.6	4.6	0.00	0.0	206.8	0.516	0.902	1.083	2.10	NonLiqfble.
CPT-6	63.38	10.8	283.7	1.8	115	7289	3334	215.0	167.9	0.64	1.6	4.6	0.00	0.0	215.0	0.516	1.004	1.205	2.34	NonLiqfble.
CPT-6	63.47	10.8	278.5	1.89	115	7299	3339	210.9	164.6	0.69	1.6	5.0	0.00	0.2	211.1	0.516	0.955	1.146	2.22	NonLiqfble.
CPT-6	63.55	10.8	287.2	1.89	115	7308	3343	217.3	169.6	0.67	1.6	4.7	0.00	0.0	217.3	0.516	1.035	1.242	2.41	NonLiqfble.
CPT-6	63.65	10.8	293.4	1.81	115	7320	3348	221.9	173.0	0.62	1.6	4.3	0.00	0.0	221.9	0.516	1.096	1.315	2.55	NonLiqfble.
CPT-6	63.73	10.8	296.4	1.89	115	7329	3352	224.0	174.6	0.65	1.6	4.4	0.00	0.0	224.0	0.516	1.125	1.350	2.62	NonLiqfble.
CPT-6	63.82	10.8	294.8	2.08	115	7339	3357	222.6	173.4	0.71	1.6	4.9	0.00	0.0	222.6	0.516	1.106	1.327	2.57	NonLiqfble.
CPT-6	63.9	10.8	293.3	2.26	125	7988	4000	202.9	144.6	0.78	1.7	6.5	0.04	8.3	211.2	0.471	0.956	1.148	2.44	NonLiqfble.
CPT-6	63.99	10.8	295	2.38	125	7999	4006	203.9	145.2	0.82	1.7	6.7	0.05	9.7	213.6	0.471	0.986	1.184	2.51	NonLiqfble.
CPT-6	64.07	10.8	291.6	2.35	125	8009	4011	201.5	143.4	0.82	1.7	6.8	0.05	10.0	211.5	0.471	0.960	1.152	2.44	NonLiqfble.
CPT-6	64.16	10.8	297.4	2.25	115	7378	3375	224.0	174.0	0.77	1.7	5.3	0.01	1.5	225.5	0.516	1.147	1.376	2.67	NonLiqfble.
CPT-6																				

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CPT Number: CPT-6
Depth to Groundwater: 10.8 ft

EQ Magnitude (M_w): 7.1
PGA (g): 0.55
MSF: 1.20

Cone	Depth (FT)	Water Table (FT)	Tip Resist. (TSF)	Sleeve Frict. (TSF)	γ (PCF)	Total Stress (PSF)	Effective Stress (PSF)	Norm. Tip Q _{tip}	Corr. Tip Q	Friction Ratio F	I _c	F.C. (%)	K _{CPT}	Δq _{tip}	(Q _{tip}) ^{0.5}	Induced Stress Ratio	Liquef. Stress M7.5	Liquef. Stress M7.10	Factor of Safety	Comments
CPT-6	64.98	10.8	332.3	2	115	7473	3418	248.7	192.2	0.61	1.6	3.6	0.00	0.0	248.7	0.516	1.510	1.813	3.51	NonLiqfble.
CPT-6	65.06	10.8	316.5	2.06	115	7482	3422	236.7	182.7	0.66	1.6	4.3	0.00	0.0	236.7	0.516	1.314	1.576	3.06	NonLiqfble.
CPT-6	65.15	10.8	316	2.14	115	7492	3427	236.2	182.2	0.69	1.6	4.5	0.00	0.0	236.2	0.516	1.305	1.566	3.04	NonLiqfble.
CPT-6	65.24	10.8	330.9	2.12	115	7503	3432	247.2	190.6	0.65	1.6	4.0	0.00	0.0	247.2	0.516	1.484	1.781	3.45	NonLiqfble.
CPT-6	65.33	10.8	345.9	2.12	115	7513	3436	258.2	199.0	0.62	1.5	3.5	0.00	0.0	258.2	0.516	1.680	2.017	3.91	NonLiqfble.
CPT-6	65.41	10.8	342.1	2.34	115	7522	3441	255.2	196.6	0.69	1.6	4.1	0.00	0.0	255.2	0.516	1.625	1.951	3.78	NonLiqfble.
CPT-6	65.5	10.8	344.5	2.41	115	7533	3445	256.8	197.7	0.71	1.6	4.2	0.00	0.0	256.8	0.516	1.655	1.986	3.85	NonLiqfble.
CPT-6	65.58	10.8	341.3	2.17	115	7542	3450	254.3	195.6	0.64	1.6	3.8	0.00	0.0	254.3	0.516	1.609	1.930	3.74	NonLiqfble.
CPT-6	65.67	10.8	350.3	1.97	115	7552	3454	260.8	200.6	0.57	1.5	3.1	0.00	0.0	260.8	0.516	1.729	2.075	4.02	NonLiqfble.
CPT-6	65.75	10.8	365.9	1.82	105	6904	2801	302.5	258.7	0.50	1.4	1.5	0.00	0.0	302.5	0.582	2.654	3.185	5.48	NonLiqfble.
CPT-6	65.84	10.8	377	1.69	105	6913	2805	311.5	266.2	0.45	1.4	1.1	0.00	0.0	311.5	0.582	2.890	3.468	5.96	NonLiqfble.
CPT-6	65.92	10.8	382.4	1.64	105	6922	2808	315.7	269.8	0.43	1.3	0.9	0.00	0.0	315.7	0.582	3.007	3.609	6.20	NonLiqfble.
CPT-6	66.01	10.8	376.4	1.72	105	6931	2812	310.6	265.1	0.46	1.4	1.2	0.00	0.0	310.6	0.582	2.866	3.439	5.91	NonLiqfble.
CPT-6	66.09	10.8	380.1	1.86	105	6939	2815	313.4	267.4	0.49	1.4	1.4	0.00	0.0	313.4	0.582	2.944	3.532	6.07	NonLiqfble.
CPT-6	66.17	10.8	362.5	1.7	105	6948	2819	298.7	254.6	0.47	1.4	1.4	0.00	0.0	298.7	0.582	2.559	3.071	5.28	NonLiqfble.
CPT-6	66.25	10.8	362.4	1.47	105	6956	2822	298.5	254.2	0.41	1.4	1.0	0.00	0.0	298.5	0.582	2.553	3.063	5.27	NonLiqfble.
CPT-6	66.34	10.8	363.5	1.36	105	6966	2826	299.2	254.7	0.38	1.3	0.7	0.00	0.0	299.2	0.582	2.570	3.084	5.30	NonLiqfble.
CPT-6	66.42	10.8	362.7	1.29	105	6974	2829	298.3	253.8	0.36	1.3	0.6	0.00	0.0	298.3	0.582	2.550	3.059	5.26	NonLiqfble.
CPT-6	66.51	10.8	360.4	1.29	105	6984	2833	296.2	251.8	0.36	1.3	0.6	0.00	0.0	296.2	0.582	2.498	2.998	5.15	NonLiqfble.
CPT-6	66.59	10.8	358.6	1.36	105	6992	2837	294.6	250.3	0.38	1.3	0.8	0.00	0.0	294.6	0.582	2.458	2.949	5.07	NonLiqfble.
CPT-6	66.68	10.8	341.8	1.36	105	7001	2841	280.6	238.1	0.40	1.4	1.2	0.00	0.0	280.6	0.582	2.135	2.562	4.40	NonLiqfble.
CPT-6	66.76	10.8	331.2	1.48	105	7010	2844	271.7	230.4	0.45	1.4	1.7	0.00	0.0	271.7	0.582	1.946	2.335	4.02	NonLiqfble.
CPT-6	66.85	10.8	317.2	1.64	115	7688	3516	234.0	178.2	0.52	1.5	3.4	0.00	0.0	234.0	0.516	1.272	1.527	2.96	NonLiqfble.
CPT-6	66.93	10.8	307.9	1.75	115	7697	3521	227.1	172.7	0.58	1.6	4.0	0.00	0.0	227.1	0.516	1.169	1.402	2.72	NonLiqfble.
CPT-6	67.02	10.8	310.9	2.07	115	7707	3525	229.1	174.1	0.67	1.6	4.6	0.00	0.0	229.1	0.516	1.198	1.438	2.79	NonLiqfble.
CPT-6	67.1	10.8	303	1.99	115	7717	3529	223.2	169.4	0.67	1.6	4.7	0.00	0.0	223.2	0.516	1.113	1.336	2.59	NonLiqfble.
CPT-6	67.19	10.8	293.4	1.81	115	7727	3534	215.9	163.8	0.63	1.6	4.6	0.00	0.0	215.9	0.516	1.016	1.220	2.36	NonLiqfble.
CPT-6	67.28	10.8	272.3	1.75	115	7737	3539	200.3	151.6	0.65	1.7	5.3	0.01	1.4	201.7	0.516	0.843	1.011	1.96	NonLiqfble.
CPT-6	67.37	10.8	255.1	1.79	115	7748	3544	187.5	141.7	0.71	1.7	6.1	0.03	5.7	193.2	0.516	0.751	0.901	1.75	NonLiqfble.
CPT-6	67.45	10.8	268.4	1.83	115	7757	3548	197.2	149.1	0.69	1.7	5.7	0.02	3.5	200.7	0.516	0.831	0.998	1.93	NonLiqfble.
CPT-6	67.54	10.8	272.4	1.91	115	7767	3553	200.0	151.1	0.71	1.7	5.7	0.02	3.9	203.8	0.516	0.867	1.041	2.02	NonLiqfble.
CPT-6	67.63	10.8	241	1.86	115	7777	3557	176.8	133.3	0.78	1.7	7.0	0.05	10.1	186.9	0.516	0.687	0.825	1.60	NonLiqfble.
CPT-6	67.73	10.8	216.8	1.46	115	7789	3563	158.9	119.5	0.69	1.7	7.0	0.05	9.2	168.1	0.516	0.522	0.626	1.21	Low F.S.
CPT-6	67.81	10.8	218.4	1.45	115	7798	3567	160.0	120.2	0.68	1.7	6.9	0.05	8.7	168.7	0.516	0.526	0.632	1.22	Low F.S.
CPT-6	67.9	10.8	241.5	1.41	115	7809	3572	176.8	133.0	0.59	1.7	5.6	0.02	3.0	179.8	0.516	0.620	0.745	1.44	NonLiqfble.
CPT-6	67.97	10.8	237.3	1.37	115	7817	3575	173.6	130.5	0.59	1.7	5.7	0.02	3.3	176.9	0.516	0.595	0.714	1.38	NonLiqfble.
CPT-6	68.06	10.8	285	1.56	115	7827	3580	208.4	157.0	0.55	1.6	4.3	0.00	0.0	208.4	0.516	0.922	1.106	2.14	NonLiqfble.
CPT-6	68.16	10.8	308.8	1.48	105	7157	2904	250.7	210.1	0.48	1.5	2.3	0.00	0.0	250.7	0.582	1.546	1.855	3.19	NonLiqfble.
CPT-6	68.26	10.8	312.2	1.66	115	7850	3590	228.0	171.6	0.54	1.6	3.7	0.00	0.0	228.0	0.516	1.182	1.418	2.75	NonLiqfble.
CPT-6	68.35	10.8	305.6	1.71	115	7860	3595	223.0	167.7	0.57	1.6	4.0	0.00	0.0	223.0	0.516	1.111	1.334	2.59	NonLiqfble.
CPT-6	68.44	10.8	289.4	1.92	115	7871	3600	211.0	158.5	0.67	1.6	5.1	0.00	0.8	211.9	0.516	0.964	1.157	2.24	NonLiqfble.
CPT-6	68.53	10.8	243.8	2.14	125	8566	4290	162.9	111.6	0.89	1.8	9.0	0.11	19.7	182.6	0.471	0.646	0.776	1.65	NonLiqfble.
CPT-6	68.62	10.8	196	2.27	125	8578	4296	130.8	89.2	1.18	2.0	12.8	0.21	34.6	165.4	0.471	0.501	0.601	1.28	Low F.S.
CPT-6	68.72	10.8	149	2.82	135	9277	4989	92.3	57.8	1.95	2.3	21.8	0.45	75.0	167.3	0.439	0.516	0.619	1.41	NonLiqfble.
CPT-6	68.82	10.8	115	3.27	135	9291	4996	71.2	44.2	2.96	2.5	30.2	0.67	145.9	217.1	0.439	1.032	1.238	2.82	NonLiqfble.
CPT-6	68.91	10.8	136.1	3.43	135	9303	5003	84.2	52.5	2.61	2.4	26.2	0.57	110.3	194.4	0.439	0.764	0.916	2.09	NonLiqfble.
CPT-6	69	10.8	150.9	2.79	135	9315	5009	93.3	58.4	1.91	2.3	21.4	0.44	73.0	166.3	0.439	0.508	0.609	1.39	NonLiqfble.
CPT-6	69.1	10.8	202.3	2.34	125	8638	4326	134.6	91.5	1.18	2.0	12.6	0.20	34.2	168.8	0.471	0.527	0.633	1.34	NonLiqfble.
CPT-6	69.18	10.8	244.8	1.97	125	8648	4331	162.8	111.0	0.82	1.8	8.6	0.10	17.1	179.9	0.471	0.621	0.746	1.58	NonLiqfble.
CPT-6	69.27	10.8	270.2	1.68	115	7966	3644	195.9	146.1	0.63	1.7	5.3	0.01	1.7	197.6	0.516	0.797	0.957	1.85	NonLiqfble.
CPT-6	69.36	10.8	282.2	1.55	115	7976	3648	204.4	152.4	0.56	1.6	4.5	0.00	0.0	204.4	0.516	0.874	1.049	2.03	NonLiqfble.
CPT-6	69.47	10.8	279.4	1.81	115	7989	3654	202.2	150.7	0.66	1.7	5.3	0.01	1.8	204.1	0.516	0.870	1.044	2.02	NonLiqfble.
CPT-6	69.55	10.8	263.4	1.77	115	7998	3658	190.5	141.8	0.68	1.7	5.9	0.02	4.7	195.2	0.516	0.772	0.926	1.80	NonLiqfble.
CPT-6	69.64	10.8	237.7	1.82	115	8009	3663	171.8	127.5	0.78	1.8	7.3	0.06	11.2	183.0	0.516	0.650	0.780	1.51	NonLiqfble.
CPT-6	69.73	10.8	212.1	1.93	125	8716	4365	140.5	95.1	0.93	1.9	10.6	0.15	24.5	165.0	0.471	0.497	0.597	1.27	Low F.S.
CPT-6	69.82	10.8	199.1	2.23	125	8728	4371	131.8	89.1	1.15	2.0	12.6	0.20	33.5	165.3	0.471	0.500	0.600	1.27	Low F.S.
CPT-6	69.91	10.8	179.9	2.26	135	9438	5075	110.5	69.0	1.29	2.1	16.0	0.29	45.7	156.2	0.439	0.434	0.521	1.19	Low F.S.
CPT-6	70	10.8	184	2.59	135	9450	5082	112.9	70.5	1.44	2.1	16.7	0.31	51.3	164.3	0.439	0.492	0.591	1.35	NonLiqfble.
CPT-6	70.09	10.8	187.9	2.72	135	9462	5089	115.3	72.0	1.48	2.1	16.7	0.31	52.6	167.9	0.439	0.520	0.624	1.42	NonLiqfble.
CPT-6	70.18	10.8	197.8	2.76	135	9474	5095	121.2	75.8	1.43	2.1	15.9	0.29	49.7	171.0	0.439	0.545	0.654	1.49	NonLiqfble.
CPT-6	70.27																			

Project Name: 199 River Oaks Parkway
Project Number: 7862.3.001.01
Date: 20-Jul-07
CPT Number: CPT-6
Depth to Groundwater: 10.8 ft

EQ Magnitude (M_w): 7.1
PGA (g): 0.55
MSF: 1.20

Cone	Depth (FT)	Water Table (FT)	Tip Resist. (TSF)	Sleeve Frict. (TSF)	γ (PCF)	Total Stress (PSF)	Effective Stress (PSF)	Norm. Tip Q _{tip}	Corr. Tip Q	Friction Ratio F	I _c	F.C. (%)	K _{corr}	Δq _{tip}	(q _{tip}) _{ns}	Induced Stress Ratio	Liquef. Stress M7.5	Liquef. Stress M7.10	Factor of Safety	Comments
CPT-6	70.98	10.8	241.5	1.69	115	8163	3734	172.9	127.1	0.71	1.7	6.8	0.05	8.8	181.8	0.516	0.638	0.766	1.49	NonLiqfble.
CPT-6	71.07	10.8	261.6	1.77	115	8173	3738	187.2	137.7	0.69	1.7	6.1	0.03	5.7	192.9	0.516	0.748	0.898	1.74	NonLiqfble.
CPT-6	71.17	10.8	261.1	2.04	125	8896	4455	171.2	115.2	0.79	1.8	8.1	0.08	15.5	186.7	0.471	0.685	0.822	1.75	NonLiqfble.
CPT-6	71.27	10.8	252.7	2.28	125	8909	4462	165.5	111.2	0.92	1.9	9.2	0.11	21.2	186.7	0.471	0.685	0.822	1.75	NonLiqfble.
CPT-6	71.36	10.8	250.6	2.23	125	8920	4467	164.1	110.2	0.91	1.9	9.2	0.11	20.9	185.0	0.471	0.669	0.802	1.70	NonLiqfble.
CPT-6	71.46	10.8	258.8	2.3	125	8933	4473	169.3	113.7	0.90	1.8	9.0	0.11	20.2	189.5	0.471	0.713	0.855	1.82	NonLiqfble.
CPT-6	71.55	10.8	251	2.14	125	8944	4479	164.1	110.0	0.87	1.8	9.0	0.11	19.5	183.6	0.471	0.656	0.787	1.67	NonLiqfble.
CPT-6	71.65	10.8	256.6	2.23	125	8956	4485	167.6	112.4	0.88	1.8	8.9	0.11	19.7	187.3	0.471	0.691	0.830	1.76	NonLiqfble.
CPT-6	71.74	10.8	262.5	2.34	125	8968	4491	171.4	114.9	0.91	1.8	8.9	0.10	20.1	191.5	0.471	0.733	0.879	1.87	NonLiqfble.
CPT-6	71.82	10.8	269.3	2.45	125	8978	4496	175.7	117.8	0.93	1.8	8.9	0.10	20.2	196.0	0.471	0.780	0.936	1.99	NonLiqfble.
CPT-6	71.91	10.8	279.7	2.44	125	8989	4502	182.4	122.2	0.89	1.8	8.3	0.09	17.8	200.2	0.471	0.827	0.992	2.11	NonLiqfble.
CPT-6	72	10.8	294.2	2.46	125	9000	4507	191.7	128.5	0.85	1.8	7.7	0.07	15.0	206.8	0.471	0.902	1.083	2.30	NonLiqfble.
CPT-6	72.09	10.8	307.8	2.57	125	9011	4513	200.5	134.4	0.85	1.8	7.4	0.06	13.8	214.3	0.471	0.995	1.194	2.53	NonLiqfble.
CPT-6	72.18	10.8	311.9	2.58	125	9023	4518	203.0	136.0	0.84	1.8	7.3	0.06	13.1	216.1	0.471	1.019	1.223	2.60	NonLiqfble.
CPT-6	72.27	10.8	309.1	2.52	125	9034	4524	201.1	134.6	0.83	1.8	7.3	0.06	12.9	214.0	0.471	0.991	1.189	2.52	NonLiqfble.
CPT-6	72.35	10.8	303.9	2.41	125	9044	4529	197.6	132.1	0.81	1.8	7.2	0.06	12.5	210.1	0.471	0.942	1.131	2.40	NonLiqfble.
CPT-6	72.45	10.8	294.7	2.52	125	9056	4535	191.5	127.9	0.87	1.8	7.9	0.08	16.0	207.5	0.471	0.911	1.093	2.32	NonLiqfble.
CPT-6	72.53	10.8	281	2.64	125	9066	4540	182.5	121.7	0.95	1.8	8.8	0.10	20.7	203.2	0.471	0.860	1.032	2.19	NonLiqfble.
CPT-6	72.62	10.8	275.8	2.95	125	9078	4546	179.0	119.3	1.09	1.9	9.8	0.13	26.5	205.5	0.471	0.887	1.064	2.26	NonLiqfble.
CPT-6	72.71	10.8	285.2	3.26	125	9089	4552	185.0	123.3	1.16	1.9	10.0	0.13	28.7	213.7	0.471	0.987	1.185	2.52	NonLiqfble.
CPT-6	72.8	10.8	301.1	2.98	125	9100	4557	195.2	130.1	1.00	1.8	8.7	0.10	21.2	216.4	0.471	1.022	1.226	2.60	NonLiqfble.
CPT-6	72.88	10.8	320.5	2.76	125	9110	4562	207.6	138.4	0.87	1.8	7.4	0.06	14.1	221.7	0.471	1.094	1.313	2.79	NonLiqfble.
CPT-6	72.97	10.8	325.9	2.65	125	9121	4568	211.0	140.6	0.82	1.7	7.0	0.05	11.6	222.6	0.471	1.105	1.326	2.82	NonLiqfble.
CPT-6	73.06	10.8	327.1	2.5	125	9133	4574	211.6	141.0	0.78	1.7	6.6	0.04	9.4	221.0	0.471	1.084	1.301	2.76	NonLiqfble.
CPT-6	73.14	10.8	314.7	2.37	115	8411	3847	222.0	161.3	0.76	1.7	5.7	0.02	4.1	226.1	0.516	1.155	1.385	2.69	NonLiqfble.
CPT-6	73.23	10.8	309.5	2.31	115	8421	3852	218.2	158.4	0.76	1.7	5.7	0.02	4.4	222.6	0.516	1.106	1.327	2.57	NonLiqfble.
CPT-6	73.32	10.8	302.8	2.27	115	8432	3857	213.3	154.8	0.76	1.7	5.9	0.02	5.3	218.6	0.516	1.052	1.262	2.45	NonLiqfble.
CPT-6	73.41	10.8	295.7	2.31	125	9176	4595	190.9	126.6	0.79	1.8	7.4	0.07	13.3	204.1	0.471	0.871	1.045	2.22	NonLiqfble.
CPT-6	73.5	10.8	296.4	2.44	125	9188	4601	191.2	126.8	0.84	1.8	7.7	0.07	15.0	206.2	0.471	0.896	1.075	2.28	NonLiqfble.
CPT-6	73.59	10.8	291.8	2.61	125	9199	4607	188.1	124.6	0.91	1.8	8.3	0.09	18.5	206.6	0.471	0.900	1.080	2.29	NonLiqfble.
CPT-6	73.68	10.8	291.2	2.77	125	9210	4612	187.6	124.2	0.97	1.8	8.8	0.10	20.9	208.5	0.471	0.923	1.107	2.35	NonLiqfble.
CPT-6	73.76	10.8	290.9	2.87	125	9220	4617	187.3	124.0	1.00	1.8	9.0	0.11	22.4	209.7	0.471	0.938	1.125	2.39	NonLiqfble.
CPT-6	73.85	10.8	303.6	3.08	125	9231	4623	195.4	129.3	1.03	1.8	8.9	0.10	22.5	217.9	0.471	1.042	1.251	2.65	NonLiqfble.
CPT-6	73.93	10.8	315.3	3.14	125	9241	4628	202.8	134.2	1.01	1.8	8.5	0.09	20.8	223.6	0.471	1.120	1.344	2.85	NonLiqfble.
CPT-6	74.02	10.8	331.1	2.42	115	8512	3893	232.2	167.8	0.74	1.7	5.3	0.01	1.8	234.0	0.516	1.271	1.525	2.96	NonLiqfble.
CPT-6	74.1	10.8	343.7	1.7	105	7781	3157	267.7	215.2	0.50	1.5	2.3	0.00	0.0	267.7	0.582	1.863	2.236	3.84	NonLiqfble.
CPT-6	74.19	10.8	350.3	2.01	115	8532	3902	245.4	177.3	0.58	1.6	3.9	0.00	0.0	245.4	0.516	1.454	1.744	3.38	NonLiqfble.
CPT-6	74.27	10.8	360.8	2.02	115	8541	3907	252.6	182.4	0.57	1.6	3.6	0.00	0.0	252.6	0.516	1.578	1.894	3.67	NonLiqfble.
CPT-6	74.38	10.8	359.1	1.97	115	8554	3912	251.2	181.3	0.56	1.5	3.5	0.00	0.0	251.2	0.516	1.554	1.865	3.62	NonLiqfble.
CPT-6	74.47	10.8	368.5	1.73	105	7819	3172	286.3	229.8	0.47	1.4	1.8	0.00	0.0	286.3	0.582	2.262	2.714	4.67	NonLiqfble.
CPT-6	74.56	10.8	365	1.75	105	7829	3176	283.4	227.3	0.48	1.4	2.0	0.00	0.0	283.4	0.582	2.196	2.635	4.53	NonLiqfble.
CPT-6	74.64	10.8	359	1.91	115	8584	3926	250.7	180.6	0.54	1.5	3.4	0.00	0.0	250.7	0.516	1.545	1.854	3.59	NonLiqfble.
CPT-6	74.73	10.8	337.9	1.93	115	8594	3931	235.8	169.7	0.58	1.6	4.1	0.00	0.0	235.8	0.516	1.299	1.559	3.02	NonLiqfble.
CPT-6	74.82	10.8	334.4	1.96	115	8604	3936	233.2	167.7	0.59	1.6	4.3	0.00	0.0	233.2	0.516	1.260	1.512	2.93	NonLiqfble.
CPT-6	74.91	10.8	346.3	1.91	115	8615	3940	241.4	173.5	0.56	1.6	3.8	0.00	0.0	241.4	0.516	1.388	1.666	3.23	NonLiqfble.
CPT-6	75	10.8	365.1	2.08	115	8625	3945	254.3	182.8	0.58	1.6	3.7	0.00	0.0	254.3	0.516	1.610	1.932	3.75	NonLiqfble.
CPT-6	75.08	10.8	358.4	1.9	115	8634	3949	249.5	179.2	0.54	1.5	3.5	0.00	0.0	249.5	0.516	1.525	1.830	3.55	NonLiqfble.
CPT-6	75.17	10.8	365.3	1.59	105	7893	3202	282.4	225.6	0.44	1.4	1.7	0.00	0.0	282.4	0.582	2.176	2.611	4.49	NonLiqfble.
CPT-6	75.25	10.8	377.8	1.61	105	7901	3206	292.0	233.1	0.43	1.4	1.5	0.00	0.0	292.0	0.582	2.394	2.873	4.94	NonLiqfble.
CPT-6	75.34	10.8	389.5	1.78	105	7911	3209	300.8	240.2	0.46	1.4	1.6	0.00	0.0	300.8	0.582	2.612	3.134	5.39	NonLiqfble.
CPT-6	75.42	10.8	385.1	1.93	105	7919	3213	297.3	237.2	0.51	1.4	1.9	0.00	0.0	297.3	0.582	2.523	3.027	5.21	NonLiqfble.
CPT-6	75.51	10.8	382.4	2.04	115	8684	3972	265.5	190.3	0.54	1.5	3.2	0.00	0.0	265.5	0.516	1.820	2.184	4.23	NonLiqfble.
CPT-6	75.59	10.8	381.1	2.07	115	8693	3976	264.4	189.4	0.55	1.5	3.3	0.00	0.0	264.4	0.516	1.800	2.160	4.19	NonLiqfble.
CPT-6	75.67	10.8	365.4	2.09	115	8702	3980	253.4	181.3	0.58	1.6	3.7	0.00	0.0	253.4	0.516	1.593	1.912	3.71	NonLiqfble.
CPT-6	75.76	10.8	358.5	2.1	115	8712	3985	248.5	177.7	0.59	1.6	3.9	0.00	0.0	248.5	0.516	1.507	1.808	3.51	NonLiqfble.
CPT-6	75.84	10.8	357	2	115	8722	3989	247.3	176.7	0.57	1.6	3.8	0.00	0.0	247.3	0.516	1.487	1.784	3.46	NonLiqfble.
CPT-6	75.93	10.8	354.9	1.78	105	7973	3235	273.0	216.9	0.51	1.5	2.3	0.00	0.0	273.0	0.582	1.973	2.367	4.07	NonLiqfble.
CPT-6	76.01	10.8	352.6	1.56	105	7981	3238	271.1	215.2	0.45	1.4	1.9	0.00	0.0	271.1	0.582	1.933	2.320	3.99	NonLiqfble.
CPT-6	76.1	10.8	368.3	1.69	105	7991	3242	283.0	224.7	0.46	1.4	1.9	0.00	0.0	283.0	0.582	2.188	2.626	4.52	NonLiqfble.
CPT-6	76.17	10.8	363.9	1.87	115	8760	4007	251.5	179.4	0.52	1.5	3.3	0.00	0.0	251.5	0.516	1.560	1.872	3.63	NonLiqf

Project Name: 199 River Oaks Parkway
Project Number: 7862.3.001.01
Date: 20-Jul-07
CPT Number: CPT-6
Depth to Groundwater: 10.8 ft

EQ Magnitude (M_w): 7.1
PGA (g): 0.55
MSF: 1.20

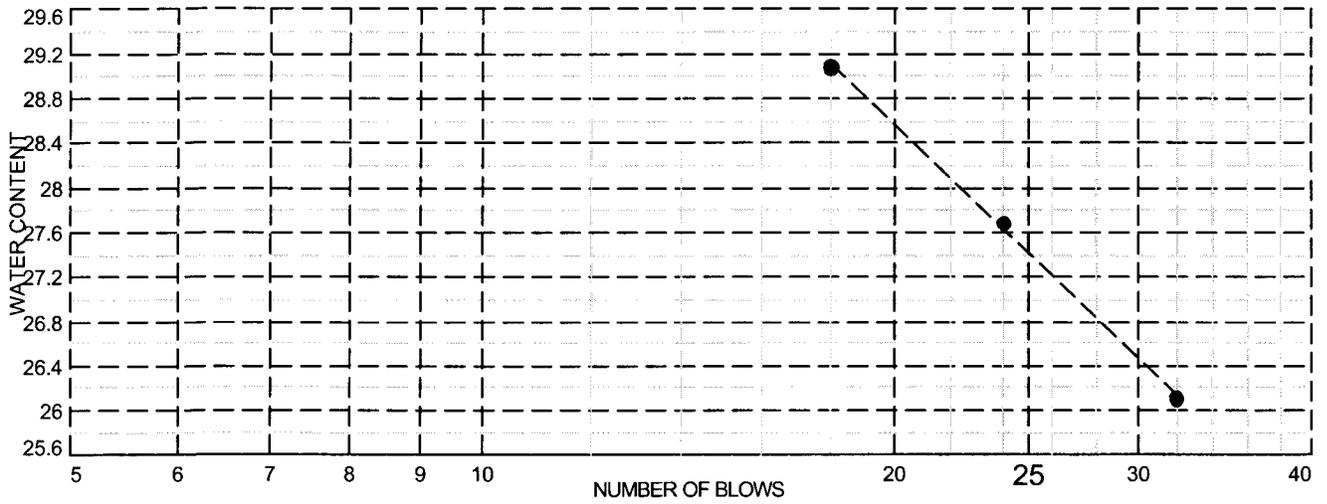
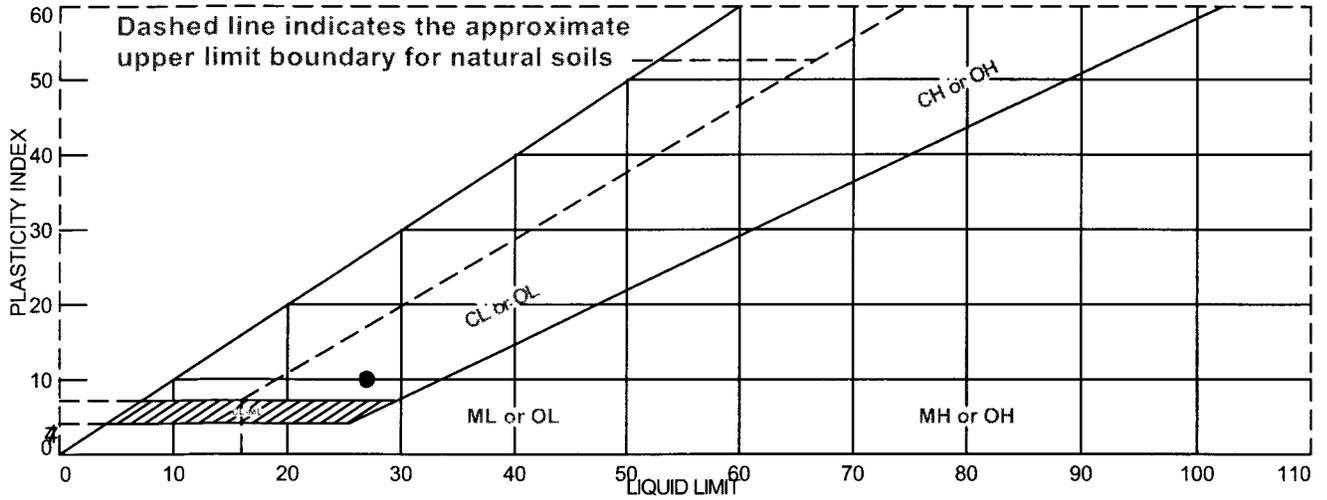
Cone	Depth (FT)	Water Table (FT)	Tip Resist. (TSF)	Sleeve Frict. (TSF)	γ (PCF)	Total Stress (PSF)	Effective Stress (PSF)	Norm. Tip Q (IN)	Corr. Tip Q	Friction Ratio F	Ic	F.C. (%)	K _{CPT}	ΔQ _{IN}	(Q _{IN}) ₀	Induced Stress Ratio	Liquef. Stress M7.5	Liquef. Stress M7.10	Factor of Safety	Comments
CPT-6	77.12	10.8	196	2.23	125	9640	4828	123.4	79.2	1.17	2.0	13.8	0.24	37.9	161.4	0.471	0.471	0.565	1.20	Low F.S.
CPT-6	77.22	10.8	219.6	2.32	125	9653	4834	138.2	88.8	1.08	2.0	12.2	0.19	32.8	171.0	0.471	0.545	0.654	1.39	NonLiqfble.
CPT-6	77.35	10.8	246.8	2.05	125	9669	4842	155.2	99.9	0.85	1.9	9.6	0.12	21.6	176.8	0.471	0.594	0.713	1.51	NonLiqfble.
CPT-6	77.47	10.8	265.1	1.36	115	8909	4075	181.7	127.9	0.52	1.7	5.3	0.01	1.4	183.1	0.516	0.651	0.781	1.51	NonLiqfble.
CPT-6	77.57	10.8	281.2	1.66	115	8921	4080	192.6	135.6	0.60	1.7	5.5	0.01	2.9	195.5	0.516	0.775	0.930	1.80	NonLiqfble.
CPT-6	77.65	10.8	265.6	1.88	115	8930	4084	181.8	127.8	0.72	1.7	6.8	0.05	9.4	191.2	0.516	0.730	0.877	1.70	NonLiqfble.
CPT-6	77.69	10.8	238.4	1.97	125	9711	4863	149.6	96.0	0.84	1.9	9.9	0.13	22.4	171.9	0.471	0.553	0.663	1.41	NonLiqfble.
CPT-6	77.78	10.8	299	1.79	115	8945	4091	204.5	143.9	0.61	1.7	5.2	0.01	1.3	205.9	0.516	0.891	1.070	2.07	NonLiqfble.
CPT-6	77.88	10.8	320.5	2.08	115	8956	4096	219.1	154.2	0.66	1.6	5.2	0.01	1.2	220.3	0.516	1.074	1.289	2.50	NonLiqfble.
CPT-6	77.97	10.8	324.3	2.05	115	8967	4101	221.6	155.9	0.64	1.6	5.0	0.00	0.1	221.7	0.516	1.093	1.311	2.54	NonLiqfble.
CPT-6	78.06	10.8	321	1.65	115	8977	4106	219.2	154.1	0.52	1.6	4.2	0.00	0.0	219.2	0.516	1.059	1.271	2.46	NonLiqfble.
CPT-6	78.15	10.8	302.3	1.9	115	8987	4111	206.3	144.8	0.64	1.7	5.4	0.01	2.4	208.7	0.516	0.925	1.111	2.15	NonLiqfble.
CPT-6	78.25	10.8	247.8	1.82	115	8999	4116	169.0	118.2	0.75	1.8	7.6	0.07	12.6	181.6	0.516	0.637	0.764	1.48	NonLiqfble.
CPT-6	78.34	10.8	189.9	2.01	125	9793	4904	118.6	75.4	1.09	2.0	13.7	0.23	36.0	154.7	0.471	0.424	0.509	1.08	Low F.S.
CPT-6	78.44	10.8	113.2	2.16	135	10589	5695	65.6	37.9	2.00	2.4	27.5	0.60	99.3	164.9	0.439	0.497	0.597	1.36	NonLiqfble.
CPT-6	78.54	10.8	66.2	1.97	135	10603	5702	38.4	21.4	3.24	2.8	43.3	0.80	153.4	191.8	0.439	0.736	0.883	2.01	NonLiqfble.
CPT-6	78.64	10.8	50.7	1.58	135	10616	5709	29.4	15.9	3.48	2.9	50.3	0.80	117.4	146.8	0.439	0.374	0.449	1.02	NonLiqfble.
CPT-6	78.74	10.8	35	1.27	135	10630	5717	20.3	10.4	4.28	3.1	63.6	0.80	81.0	101.3	0.439	0.177	0.212	0.48	NonLiqfble.
CPT-6	78.85	10.8	31.5	0.91	135	10645	5725	18.2	9.1	3.48	3.1	63.0	0.80	72.9	91.1	0.439	0.150	0.180	0.41	NonLiqfble.
CPT-6	78.95	10.8	29.1	0.7	125	9869	4942	18.1	9.8	2.90	3.0	58.2	0.80	72.4	90.6	0.471	0.149	0.179	0.38	NonLiqfble.
CPT-6	79.05	10.8	26.9	0.63	125	9881	4949	16.7	8.9	2.87	3.0	60.5	0.80	66.9	83.7	0.471	0.134	0.161	0.34	NonLiqfble.
CPT-6	79.15	10.8	26.1	0.61	125	9894	4955	16.2	8.5	2.88	3.0	61.5	0.80	64.9	81.1	0.471	0.130	0.156	0.33	NonLiqfble.
CPT-6	79.25	10.8	25.2	0.62	125	9906	4961	15.7	8.2	3.06	3.1	63.7	0.80	62.6	78.3	0.471	0.125	0.150	0.32	NonLiqfble.
CPT-6	79.35	10.8	25.3	0.6	125	9919	4967	15.7	8.2	2.95	3.1	63.0	0.80	62.8	78.5	0.471	0.125	0.150	0.32	NonLiqfble.
CPT-6	79.47	10.8	24.5	0.56	125	9934	4975	15.2	7.8	2.87	3.1	63.6	0.80	60.8	76.0	0.471	0.121	0.145	0.31	NonLiqfble.
CPT-6	79.56	10.8	23.7	0.53	125	9945	4980	14.7	7.5	2.83	3.1	64.5	0.80	58.8	73.5	0.471	0.117	0.140	0.30	NonLiqfble.
CPT-6	79.67	10.8	23.5	0.52	125	9959	4987	14.6	7.4	2.81	3.1	64.7	0.80	58.2	72.8	0.471	0.116	0.139	0.30	NonLiqfble.
CPT-6	79.77	10.8	25	0.5	125	9971	4994	15.5	8.0	2.50	3.0	60.8	0.80	61.9	77.4	0.471	0.123	0.148	0.31	NonLiqfble.
CPT-6	79.87	10.8	27.8	0.5	125	9984	5000	17.2	9.1	2.19	3.0	55.6	0.80	68.8	86.0	0.471	0.139	0.167	0.35	NonLiqfble.
CPT-6	79.97	10.8	29.8	0.54	125	9996	5006	18.4	9.9	2.18	2.9	53.5	0.80	73.7	92.1	0.471	0.153	0.183	0.39	NonLiqfble.
CPT-6	80.07	10.8	29.1	0.6	125	10009	5012	18.0	9.6	2.49	3.0	56.2	0.80	71.9	89.9	0.471	0.148	0.177	0.38	NonLiqfble.

APPENDIX C

ENGEO INCORPORATED

Laboratory Testing Results

LIQUID AND PLASTIC LIMITS TEST REPORT



	MATERIAL DESCRIPTION	LL	PL	PI	%<#40	%<#200	USCS
●	Dark grayish brown silty CLAY with sand.	27	17	10		78.0	CL

Project No. 7862.3.001.01 **Client:**

Project: 199 River Oaks

● **Sample Number:** P3

Remarks:

Plate

ENGEO Incorporated

SULFATE TEST RESULTS

CALTRANS Test Method 417

Project Name: 199 River Oaks

Project Number: 7862.3.001.01

Tested By: DS

Date: July 25, 2007

Measurements less than 15 mg/kg are reported as Not Detectable (ND)

Sample Number	Sample Location	Matrix	Water Soluble Sulfate (SO ₄) in Soil	
			mg/kg	% by Weight
P1		Soil	23	0.002
P2		Soil	25	0.002
P3		Soil	30	0.003

Project No.
7862.300.101

January 29, 2008

Mr. Kevin Ma
BRE Properties, Inc.
525 Market Street, 4th floor
San Francisco, CA 94105

Subject: 199 River Oaks Parkway
San Jose, California

SUMMARY OF GEOTECHNICAL HAZARDS

Reference: ENGEO Inc.; Preliminary Geotechnical Assessment; 199 River Oaks Parkway, San Jose, California; July 23, 2007; Project No. 7862.3.001.01.

Dear Mr. Ma:

With your authorization and as requested by your environmental consultant, we are summarizing the potential geotechnical/geologic hazards identified in the referenced report as they relate to the podium-style residential development.

The conceptual plans provided to us indicate construction of a six-story podium structure with two levels of parking under four stories of wood-frame residential use. The lowest garage level is planned to be constructed at least partially below grade.

Site Seismicity

The site is not located within a State of California Earthquake Fault Hazard Zone (1982), within a City of San Jose Fault Hazard Zone (1983), or within a Santa Clara County Geologic Hazard Zones (2002) for Fault Rupture Hazard. A concealed, queried splay of the potentially active Silver Creek fault is shown to cross through the site on the City of San Jose Fault Hazard Zone (1983) map, CDMG (1974), and fault mapping by Jennings (1994). This feature, however, is not zoned as requiring further study by the State of California or City of San Jose.

Groundwater

Groundwater was encountered at the time of exploration approximately 10 to 11 feet below the ground surface in the cone penetrometer test (CPT) probes. Fluctuations in groundwater levels should be expected during seasonal changes or over a period of years because of precipitation changes, perched zones, changes in drainage patterns, and irrigation. Groundwater levels will be reassessed in future design-level studies.

Summary of Findings and Conclusions

The main geotechnical concerns for the proposed site development include: (1) potential seismic hazards, (2) the presence of potentially expansive near-surface soils, (3) potential load-induced settlement, and (4) the anticipated existence of shallow groundwater.

Based on topographic and lithologic data, risk from earthquake-induced lurch cracking, regional subsidence or uplift, tsunamis, landslides and seiches is considered low at the site. Since no known active faults cross the site, it is our opinion that ground rupture is not likely to occur at the site. Additionally, the offset or strain from ground lurching is expected to be low to negligible at the site. These items, therefore, do not pose a significant impact to residential development at the site.

Ground Shaking. An earthquake of moderate to high magnitude generated within the San Francisco Bay Region, similar to those which have occurred in the past, could cause considerable ground shaking at the site. To mitigate the shaking effects, all structures should be designed using sound engineering judgment and the latest International Uniform Building Code (UBC) or California Building Code (CBC) requirements as a minimum. It is reasonable to expect that a well-designed and well-constructed structure will not collapse or cause loss of life in a major earthquake (SEAOC, 1996). Ground shaking will cause impacts to the site; however, they are mitigated with typical code-based design to acceptable standards.

Liquefaction. The site is located within a State of California Seismic Hazard Zone (2004) for Liquefaction Hazard (Milpitas Quadrangle). Preliminary liquefaction analyses of the CPT data followed general guidelines provided in DMG Special Publication 117 (1997), SCEC (1999), Robertson and Wride (1997), Robertson and Campanella (1988), Finn (1996), Youd et al. (1997), and Seed et al. (1982). Our analyses generally indicated that some of the following layers are potentially liquefiable ($FS < 1.2$):

- Some clayey silt to silty clay layers encountered from the ground surface to roughly 31 to 39 feet below ground surface (bgs);
- Thin sand lenses encountered in the predominantly clay layers from the ground surface to roughly 31 to 39 feet bgs; and
- Medium dense to dense portions of the sand to gravelly sand layers encountered from roughly 31 to 39 feet bgs to the base of the probes.

Based on Ishihara (1985), due to the depth of the potentially liquefiable soils and thickness of non-liquefiable material above those materials, it does not appear that these zones are susceptible to ground failure. If site grades are significantly lowered due to excavation for subterranean structures, there is an increased potential for ground failure. If site grades are not lowered, these zones are not considered susceptible to ground failure. The effects of liquefaction should not pose a significant

impact to residential development and can be mitigated through foundation design or ground improvement.

Densification Due to Earthquake Shaking. Densification of the potentially liquefiable soils above and below groundwater levels can result in settlement/densification during an earthquake. The initial assessment indicates that the potentially liquefiable soils encountered in the probes are estimated to undergo up to 2 inches of earthquake-induced densification (total). Preliminary foundation design should incorporate a differential settlement of 1 inch over a 40-foot length/width or between column supports, whichever is less.

Use of a mat foundation (either post-tensioned or conventionally reinforced) is a common, generally cost-effective foundation system to address differential settlement caused by earthquakes. Alternatively, deep foundations or ground improvement techniques such as dynamic compaction or soil mixing could be considered. The effects of earthquake-induced densification are able to be mitigated and should not pose a significant impact to residential development at the site.

Expansive Soils

Expansive soils shrink and swell as a result of moisture changes. Successful development on expansive soils requires special attention during construction. Long-term mitigation measures should also include the prevention of moisture variation.

An initial assessment of near-surface site soil yielded a PI of 10, which is an indication of a low to moderately expansive soil. Further evaluation of site soils should be performed during a site-specific geotechnical exploration as part of the design process.

Conventional grading operations, incorporating fill placement specifications tailored to the expansive characteristics of the soil, and use of a mat foundation (either post-tensioned or conventionally reinforced) or low-expansive import are common, generally cost-effective measures to address the expansive potential of the foundation soils. Expansive site soils can be mitigated through design and construction and, therefore, do not pose a significant impact to residential development.

Load-Induced Settlement

Portions of the fine-grained material located above 39 feet are medium stiff and below groundwater levels, according to the CPT data. In addition, small pockets of softer material were also encountered. Some of these materials may be subject to load-induced settlement (compression) under the weight of new fills or building loads.

Laboratory testing and analysis during a design-level study will be necessary to determine the amount of potential settlement. Design of a mat or deep foundation system is common practice to address the potential for load-induced settlement. Therefore, load-induced settlement is not expected to pose a significant impact to residential development.

Shallow Groundwater

Groundwater was encountered at elevations ranging from 10 to 11 feet bgs. Fluctuations in groundwater levels should be expected during seasonal changes and over a period of years because of precipitation changes, perched zones, changes in drainage patterns, and irrigation. Temporary dewatering systems might be required during construction. Permanent basements will require designs that consider the presence of high groundwater levels, and the foundation for the structure will be designed to resist uplift (buoyancy) pressures. As a result, shallow groundwater is able to be mitigated by design and, therefore, should not pose a significant impact to residential development.

Existing or Undocumented Fill

Undocumented fill conditions may arise at the site, such as around the existing improvements, as utility trench backfill, and at the landscaped area with minor hills on the southwestern corner of the site. Depending upon planned cuts and fills for the development, fill thicknesses across individual building pads may need mitigation to prevent adverse impacts to the performance of the foundation systems.

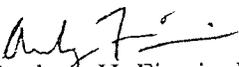
The most common mitigation method for existing fills is simply to remove the existing fills to expose native soil and recompact the material as engineered fill under the observation of a Geotechnical Engineer or their field representative. Existing or undocumented fills do not pose a significant impact to residential development.

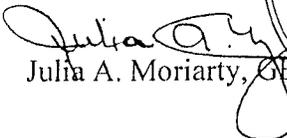
CLOSING

We are pleased to have been of service on this project and are prepared to consult further with you and your design team as the project progresses. If you have any questions regarding the contents of this letter, please do not hesitate to contact us.

Very truly yours,

ENGEO Incorporated


Andrew H. Firmin, PE
ahf/jb


Julia A. Moriarty, PE


cc: 1 – Mr. Richard Mindigo, Mindigo & Associates (e-mail only)

**PHASE ONE
ENVIRONMENTAL SITE ASSESSMENT**

199 RIVER OAKS PARKWAY

SAN JOSE, CALIFORNIA

SUBMITTED

TO

BRE PROPERTIES, INC.

SAN FRANCISCO, CALIFORNIA

PREPARED

BY

ENGEO INCORPORATED

PROJECT NO. 7862.3.002.01

JULY 23, 2007

REVISED FEBRUARY 1, 2008

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THE EXPRESS WRITTEN CONSENT OF ENGEO INCORPORATED.**

July 23, 2007
Revised February 1, 2008

Project No.
7862.3.002.01

Mr. Kevin Ma
BRE Properties, Inc.
525 Market Street, 4th Floor
San Francisco, CA 94105

Subject: 199 River Oaks Parkway
San Jose, California

PHASE ONE ENVIRONMENTAL SITE ASSESSMENT

Dear Mr. Ma:

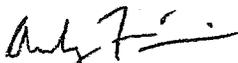
ENGEO Incorporated (ENGEO) is pleased to present our phase one environmental site assessment of the subject property (Property), located in San Jose, California. The attached report includes a description of the site assessment activities, along with ENGEO's findings, opinions, and conclusions regarding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

ENGEO has the specific qualifications based on education, training, and experience to assess the nature, history, and setting of the Property, and has developed and performed all appropriate inquiries in conformance with the standards and practices set forth in 40 CFR Part 312. We declare that, to the best of our professional knowledge and belief, the responsible charge for this study meets the definition of Environmental Professional as defined in Section 312.10 of 40 CFR 312 and ASTM 1527-05.

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

Very truly yours,

ENGEO Incorporated


Andrew H. Firmin


Kelly Krohn
kk/smc

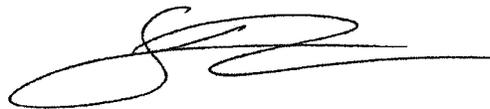

Shawn Munger, CHG, REAH

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EXECUTIVE SUMMARY

The Property is located at 199 River Oaks Parkway in San Jose, California. The Property is approximately 3.7 acres in area and is identified by Assessor's Parcel Number (APN) 097-33-036. Topographic maps of the Property indicate the parcel is relatively level at an elevation of approximately 22 feet above mean sea level (msl) in the southwest portion of the site to approximately 24 feet above msl in the northwest portion of the site.

The Property consists of one mixed light industrial/manufacturing and office building with asphalt paved parking areas and landscaping around the building. Review of historical records indicates that the Property was first developed around 1981, with construction of the current building. A machine shop/manufacturing addition was constructed on the north side of the building in 2001. Several additional improvements to the existing building have also occurred including interior wall construction and expansion of office space. The mixed-use building is currently occupied by Frontier Semiconductor. Tenant activities include office work, storage, and fabrication and distribution of electronic devices. Prior to these developments, it appears that the Property supported farming uses.

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

The site reconnaissance and records review found documentation or physical evidence of significant soil and groundwater impairments associated with the use or past use of the Property.

A review of regulatory databases maintained by county, state, tribal, and federal agencies found documentation of hazardous materials violations or discharge on the Property and did identify contaminated facilities within the appropriate American Society for Testing and Materials (ASTM) search distances that would reasonably be expected to impact the Property. However, as Studemeister & Associates have suggested, it is possible portions of the downgradient area of the subject Property may have been impacted from off-site sources.

Our research indicates that three underground storage tanks (UST) ranging from 400 to 5000 gallons in capacity were installed at the property in 1981. Also in 1981, three monitoring wells were installed without permit along the northern side of the building. It appears that the tanks were used to store various hazardous and non-hazardous materials including motor oil waste, solvent waste, and other chemical waste. One 1,500-gallon steel underground storage tank on the north side of the building that was used to store solvent waste was removed in 1985. During tank removal activities, it was determined that the underground storage tank had leaked. Soil samples were recovered from the base of the excavation and detectable concentrations of trichloroethene were reported. Initial groundwater samples were recovered in 1985, and detectable concentrations of 1,1,1-trichloroethane, 1,1-dichloroethane, 1,1-dichloroethene and trichloroethene were reported in the groundwater.

Additional investigations were performed to determine the extent of the groundwater contamination. A Spills, Leak, Investigation and Cleanup (SLIC) program was implemented by the Regional Water Quality Control Board (RWQCB) in 1987. In March of that year, a groundwater extraction system was installed for the remediation of the trichloroethene impacted groundwater. Two groundwater extraction wells, and an additional nine groundwater monitoring wells were installed. Groundwater was pumped from the two wells and filtered to remove solids. The extracted groundwater was then passed through an air stripper for contaminant removal and pumped into the facility's treatment plant for ultimate disposal in the sanitary sewer.

The groundwater extraction program was in place from 1987 to 1999, and in 2000, the RWQCB authorized the indefinite shutdown of the extraction wells due to a reduction of TCE concentration in the groundwater to levels below the RWQCB Environmental Screening levels (ESLs). Based on a letter from the RWQCB dated November 17, 2000, they concluded that the concentrations of the pollutants in the groundwater had reached asymptotic levels and indicated that they believe the groundwater extraction system would no longer significantly reduce the levels of pollutants in the groundwater. As such, they authorized the indefinite shutdown of the groundwater extraction system and requested annual groundwater monitoring. The letter indicated that site closure would be considered when the pollutant levels were near the Maximum Contaminant Levels (MCLs) as established by the State of California.

The two other underground storage tanks were for hydrofluoric acid waste and an acid neutralization system and an associated above-ground wastewater treatment system. According to a report prepared by Studemeister and Associates, the hydrofluoric acid waste tank was removed in about 1996 and the acid neutralization system and above-ground wastewater treatment system were removed in 2001. However, direct documentation of the tank removal was not identified during the preparation of this report.

ENGEO Incorporated (ENGEO) has performed a phase one environmental site assessment of the Property in general conformance with the scope and limitations of ASTM E 1527-05 "Standard Practice for Environmental Site Assessments" and USEPA "Standards and Practices for All Appropriate Inquiries", 40 CFR Part 312. Based on the findings of this assessment, two Recognized Environmental Conditions (RECs) were identified for the Property.

- Based on the information reviewed, contaminated groundwater from a historic underground solvent waste storage tank exists at the Property. Extraction wells were located on the Property and operated between 1987 and 1999 to remediate the groundwater. The California

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Regional Water Quality Control Board is overseeing the case, and has not yet issued a site closure letter for the Property.

- During the preparation of this report, the former presence of three underground storage tanks (USTs) was identified on the Property. Information for the removal of one UST was reviewed. The other former USTs were removed in 1996 and 2001, according to later reports; however, we did not receive reports directly associated with the removal of those two USTs.

Based on the review of regulatory databases and site reconnaissance, we present information on features of potential environmental concern that were either contained in the databases or observed on the Property. These features were not considered to be RECs. We briefly discuss each feature below:

- Given the age of the structures, it is unlikely that asbestos-containing building materials (ACBM) and lead-based paints would have been used in construction; however, if significant renovation or demolition activities are planned, a survey of ACBM and lead-based paint materials should be conducted.
- A review of historical topographic maps and aerial photography indicates portions of the Property were cultivated for agricultural purposes. Given the current site development, it is unlikely residual agrichemicals, if present, would affect the Property.

ENGEO has performed a phase one environmental site assessment of the Property in general conformance with the scope and limitations of ASTM E 1527-05 "Standard Practice for Environmental Site Assessments" and USEPA "Standards and Practices for All Appropriate Inquiries", 40 CFR Part 312. Based on the findings of this assessment, ENGEO recommends the following:

- A soil gas survey should be conducted at the Property to address the potential for vapor intrusion hazards.
- A geophysical survey including the use of a magnetometer and ground penetrating radar should be conducted to determine whether the two identified underground storage tanks remain on the Property.

- Additional soil samples should be conducted in the areas of the identified underground storage tanks to ensure that contaminated soil does not remain on site.
- The RWQCB should be contacted to determine if additional studies will be required if residential rezoning is desired.

1.0 INTRODUCTION

The Property is located at 199 River Oaks Parkway, east of Zanker Road in San Jose, California (Figure 1). The approximately 3.7-acre Property is identified as APN 097-33-036 (Figure 2) and is currently occupied by an approximately 46,530 square foot office building and associated parking and landscaped areas. The building is currently used by Frontier Semiconductor, an electronics manufacturing company.

1.1 Purpose of Phase One Environmental Site Assessment

This assessment was performed at the request of BRE Properties, Inc. for the purpose of environmental due diligence during property acquisition. The objective of this phase one environmental site assessment is to identify recognized environmental conditions associated with the Property. As defined in the ASTM Standard Practice E 1527-05, a REC is “the presence or likely presence of any hazardous substances or petroleum products on a property under conditions that indicate an existing release, a past release, or a material threat of a release of any hazardous substances or petroleum products into structures on the property or into the ground, groundwater, or surface water of the property”.

1.2 Detailed Scope of Services

The scope of services performed included the following:

- A review of publicly available and practically reviewable standard local, state, tribal, and federal environmental record sources.
- A review of publicly available and practically reviewable standard historical sources, aerial photographs, fire insurance maps and physical setting sources.

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- A reconnaissance of the Property to review site use and current conditions. The reconnaissance was conducted to check for the storage, use, production or disposal of hazardous or potentially hazardous materials.
- Interviews with owners/occupants and public sector officials.
- Preparation of this report with our findings, opinions, and conclusions.

1.3 Significant Assumptions

The following significant assumptions were made during preparation of this report as well as the opinions and conclusions contained herein:

1. Shallow groundwater flow follows the topographical gradient in the vicinity of the Property. According to the groundwater monitoring reports prepared by Studemeister and Associates, groundwater flow can be inferred to be westerly; which generally follows the topographical gradient of the Property.
2. Subsurface soil conditions are assumed to be generally homogeneous; subsurface preferential flow channels or conduits are assumed not to be located in the immediate vicinity of the subject property.

1.4 Limitations and Exceptions of Assessment

The professional staff at ENGEO strives to perform its services in a proper and professional manner with reasonable care and competence but is not infallible. The recommendations and conclusions presented in this report were based on the findings of our study, which were developed solely from the contracted services. The findings of the report are based in part on contracted database research, out-of-house reports and personal communications. The opinions formed by ENGEO are based on the assumed accuracy of the relied upon data in conjunction with our relevant professional experience related to such data interpretation. ENGEO has evaluated such data for consistency with other

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information developed as part of this assessment, but otherwise assumes no liability for the validity of the materials relied upon in the preparation of this report.

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

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

1.5 Special Terms and Conditions

ENGEO has prepared this report for the exclusive use of our client, BRE Properties, Inc. It is recognized and agreed that ENGEO has assumed responsibility only for undertaking the study for

the client. The responsibility for disclosures or reports to a third party and for remedial or mitigative action shall be solely that of the Client.

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

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

2.0 SITE DESCRIPTION

2.1 Location and Legal Description

The Property is located at 199 River Oaks Parkway in San Jose, California (Figure 1). The approximately 3.7-acre Property is identified as APN 097-33-036 (Figure 2).

2.2 Site and Vicinity Characteristics

According to published topographic maps, the Property ranges in elevation from approximately 22 feet above mean sea level (msl) in the southwest portion of the site to approximately 24 feet above msl in the northwest portion of the site (Figure 2). Review of the geologic mapping by Wentworth (1999) found that the Property is underlain by Holocene floodplain deposits (Qhfp).

Geocheck – Physical Setting Source Summary of the Environmental Resources Data report (Appendix A) indicated three Federal United States Geological Survey (USGS) wells located within one mile of the Property. Well Number USGS 3223871 is mapped approximately 1 mile southwest of the Property and 523 groundwater level measurements are reported for this well. The average depth to groundwater reported for this well was approximately 15 feet below the surface. The well was destroyed in 1989. The depth to groundwater was not reported for the other two water wells.

The site-specific depth to groundwater and direction of groundwater flow was not determined as part of this assessment. However, review of the groundwater monitoring report prepared by Studemeister and Associates for the Property indicates that first groundwater is encountered between approximately 8 and 9 feet below the ground surface. Studemeister documented general groundwater flow as west-northwest to west-southwest. Fluctuations in groundwater levels may occur seasonally and over a period of years due to variations in precipitation, temperature, irrigation and other factors.

2.3 Current Use of Property/Description of Site Improvements

The Property consists of one mixed light industrial/manufacturing and office building currently occupied by Frontier Semiconductor, an electronics manufacturing company. A machine shop/manufacturing addition was constructed on the north side of the building in 2001. Asphalt paved parking areas are located around the building perimeter with small landscaping areas adjacent to the parking areas. A large, landscaped area with small, gentle hills is located in the western portion of the site. An aerial photograph of the Property is included as Figure 3.

2.4 Current Use of Adjoining Properties

The Property is bordered by Zanker Road to the west, River Oaks Parkway to the south, existing commercial and light industrial buildings to the east and the Agnews Development Center Property to the north. Surrounding properties have mixed uses, including residential, commercial/retail, and light manufacturing.

3.0 PREVIOUS ENVIRONMENTAL REPORTS

Studemeister and Associates has prepared a number of groundwater monitoring reports for the contaminated groundwater plume at the Property. Several of these groundwater monitoring reports were made available to us for review. A summary of these reports is provided below.

Groundwater Monitoring Report for Second Half of 2000: 199 River Oaks Parkway., San Jose, California 95134 (Studemeister and Associates, December 26, 2000)

A summary by Studemeister and Associates (Studemeister) indicated the contaminated groundwater plume is monitored by eleven groundwater monitoring wells designated Wells AEC-1 to -4, AEC-6A to -9A, AEC-10B, AEC-11A, and AEC-12A. The RWQCB gave permission for a groundwater extraction program to be implemented at the Property. The groundwater extraction program operated from 1987 to 1999. Groundwater was extracted from Wells AEC-11A and AEC-12A by submersible pumps. Groundwater treatment consisted of a series of filters to remove solids, and an air stripper for contaminant removal. Treated groundwater was pumped into the site treatment plant for discharge into the sanitary sewer system.

In November 2000, the RWQCB authorized the indefinite shutdown of the groundwater extraction system because pollutant concentrations had reached relatively stable levels, and additional groundwater extraction was no longer significantly reducing contaminant concentrations in the groundwater. The RWQCB also authorized reducing the groundwater monitoring frequency from twice yearly to once per year.

Depth-to-water measurements and groundwater samples were collected from each well on November 22, 2000. A minimum of three casing volumes were purged from the wells prior to sampling, and conductivity, temperature and pH were monitored during purging. Recovered

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groundwater samples were analyzed for halogenated volatile organic compounds, including Freon-113. Reported groundwater depths in the monitoring wells ranged from 7.03 to 7.67 feet below ground surface and the inferred groundwater flow was west-northwest to west-southwest. Trichloroethene concentrations in the groundwater ranged from below laboratory detection limits micrograms per liter (ug/L) to 47 micrograms per liter (ug/L), with the highest concentrations occurring in Wells AEC-4 and AEC-6A. Additionally, trace concentrations of 1,1,1-trichloroethane, 1,1-dichloroethene, and Freon-113 were identified in the groundwater samples. According to the data summary tables, the analytical results were comparable to results of recent monitoring events.

Groundwater Monitoring Report of 2001: 199 River Oaks Parkway., San Jose, California 95134
(Studemeister and Associates, December 4, 2001)

According to Santa Clara Valley Water District (SCVWD) records, groundwater monitoring well AEC-4 and groundwater extraction well AEC-11A were destroyed on December 12, 2000, by URS Corporation. The wells were destroyed to accommodate construction of a building addition.

Depth-to-water measurements and groundwater samples were collected from each well on October 12, 2001. Groundwater depths in the monitoring wells ranged from 7.03 to 7.70 feet below ground surface and the inferred groundwater flow west northwest to west southwest across the site. Trichloroethene concentrations in the groundwater ranged from below laboratory detection limits to 14 ug/L, with the highest concentrations occurring in Wells AEC-6A and AEC-7A (Well AEC-4 was destroyed and measurements were not taken). Additionally, trace concentrations of 1,1,1-trichloroethane, 1,1-dichloroethene, chloroform and Freon-113 were identified in the groundwater samples. According the data summary tables, the analytical results were comparable to results of recent monitoring events.

Groundwater Monitoring Report of 2004: 199 River Oaks Parkway., San Jose, California 95134
(Studemeister and Associates, February 11, 2005)

Groundwater depth measurements and sample collection from the nine remaining monitoring wells were collected on December 9, 2004. Groundwater depths in the monitoring wells ranged from 10.83 to 12.97 feet below ground surface and the inferred groundwater flow direction was west northwest to west southwest. Trichloroethene concentrations in the groundwater ranged from less than 0.5 parts per billion (non-detectable) to 20 parts per billion with the highest concentrations reported in well AEC-6A. 1,1-dichloroethene was reported in wells AEC-7A and well AEC-6A at concentrations of 0.70 ug/L and 0.61 ug/L. Additionally, Freon-113 was reported to a maximum concentration of 70 ug/L, detected in wells AEC-12A and AEC-9A, both downgradient of the former source area. According the data summary tables, the analytical results were comparable to recent years.

Groundwater Monitoring Report of 2005: 199 River Oaks Parkway., San Jose, California 95134
(Studemeister and Associates, March 10, 2006)

Three old and inactive groundwater monitoring wells (Wells W1, W2, and W3) were identified on the Property along the northern side of the building. Studemeister indicated that based on historical documents, it appears the wells were installed around 1981, during the installation of the underground storage tanks (USTs). According to Studemeister, the waste solvent UST was removed in 1985, the hydrofluoric acid waste UST was removed in 1996, and the acid neutralization UST and above-ground wastewater treatment system were removed in 2001.

Studemeister indicates that the wells were destroyed by drilling out each of the three wells on January 24, 2005. Two soil samples were collected from the soil cuttings and were analyzed for

volatile organic compounds (VOCs) by EPA method 8260B, total extractable petroleum hydrocarbons as diesel (TEPHd)/motor oil (TEPHmo) by EPA method 8015M, and CAM 17 metals by EPA methods 6010B/7471A. Analytical results indicated no detectable levels of VOCs, TEPHd, or TEPHmo. CAM 17 analytical results indicated the presence of arsenic, barium, chromium, cobalt, copper, lead, molybdenum, nickel, vanadium, and zinc. The reported metal concentrations were reported consistent with background soil concentrations for metals in the region.

Depth-to-water measurements and groundwater samples were collected from the nine remaining monitoring wells on November 15, 2005. Groundwater depths in the monitoring wells ranged from 8.43 to 8.94 feet below ground surface and the inferred groundwater flow was west across the site. Trichloroethene concentrations in the groundwater ranged from less than 0.5 parts per billion (non-detectable) to 20 parts per billion with the highest concentrations occurring in Wells AEC-6A and AEC-7A. According to the data summary tables, the analytical results were comparable to recent years.

Groundwater Monitoring Report of 2007, 199 River Oaks Parkway,, San Jose, California 95134 (Studemeister and Associates, July 19, 2007)

Depth-to-water measurements and groundwater samples were collected from the nine remaining monitoring wells on January 18, 2007. Groundwater depths in the monitoring wells ranged from 10.5 to 12.67 feet below ground surface and the inferred groundwater flow was west across the site. Trichloroethene concentrations in the groundwater ranged from less than 0.5 parts per billion (non-detectable) to 16 parts per billion with the highest concentrations occurring in Wells AEC-6A and AEC-7A. According to the data summary tables, the analytical results were comparable to recent years, suggesting the VOC concentrations in groundwater are stable. We

understand that Studemeister and Associates has requested that the RWQCB consider case closure for the Property.

4.0 RECORDS REVIEW

4.1 Environmental Liens

First American Title Insurance Company prepared a Title Report for the Property. The Preliminary Title Report, which is included in Appendix C, listed no environmental liens, deed restrictions, or use limitations associated with the Property APN. In addition, a questionnaire completed by the Client indicated that they are not aware of any environmental cleanup liens recorded against the Property

4.2 Historical Record Sources

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

4.2.1 Historical Topographic Maps

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

QUAD	YEAR	SERIES	SCALE
Milpitas	1953	7.5'	1:24000
Milpitas	1961	7.5'	1:24000
Milpitas	1968	7.5'	1:24000
Milpitas	1973	7.5'	1:24000

QUAD	YEAR	SERIES	SCALE
Milpitas	1980	7.5'	1:24000

1953 Map – The Property is depicted as an orchard, at an elevation of approximately 23 feet above msl. Malovis Road is shown to run along the northern property line and an unnamed road crosses through the Property from Malovis Road trending southeast. Agnews State Hospital (East Area) is located north of the Property. The adjoining properties to the east, south and west are also depicted as orchard.

1961 Map – Conditions on the Property and the surrounding properties are similar to those depicted on the 1953 map. The map shows the Property at an elevation of approximately 20 feet above msl.

1968 Map – Conditions on the Property and the surrounding properties are similar to those depicted on the 1961 map.

1973 Map – Conditions on the Property and the surrounding properties are similar to those depicted on the 1961 map.

1980 Map – Conditions on the Property and the surrounding properties are similar to those depicted on the 1961 map.

4.2.2 Aerial Photographs

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

FLYER	YEAR	SCALE
Fairchild	1939	1" = 555'
Aero	1956	1" = 555'
Cartwright	1965	1" = 333'
WSA	1982	1" = 690'
USGS	1993	1" = 666'
USGS	1998	1" = 666'

1939 Photograph – The photograph shows the Property as an orchard. A paved road is visible along the northern property boundary, and a dirt road can be seen to cross through the property extending southeast from the paved road. Adjoining properties to the east, south and west appear to be orchard fields. Agnews State Hospital (East Area) can be seen to the north of the Property.

1956 Photograph – Conditions on the Property and the surrounding properties are similar to those visible in the 1939 photograph.

1965 Photograph – A small barn appears to have been constructed on the Property in the orchard field west of the dirt road. Additional structures appear to have been constructed at the Agnews State Hospital (East Area), north of the Property. Conditions on the surrounding properties are similar to those visible in the 1956 photograph.

1982 Photograph – The Property and two adjacent properties to the east appear to be developed. A structure in the present day location of the existing mixed-use building appears to have been constructed on the Property. Paved two-lane roads have been constructed to the south of the Property extending east-west and to the west of the Property trending north-south, in the present day alignment of River Oaks Parkway and Zanker Road, respectively. The orchard on the

adjoining property to the south across River Oaks Parkway has been removed and the property appears to be undeveloped land.

1993 Photograph – Conditions on the Property are similar to those depicted in the 1982 photograph. Surrounding areas to the south of the Property appear to be developed for commercial/industrial use.

1998 Photograph – Conditions on the Property are similar to those in the 1993 photograph. Additional development has taken place to the north and the west of the Property.

4.2.3 Fire Insurance Maps

EDR prepared a Sanborn Fire insurance map search for the Property and surrounding properties. EDR reported that no maps were available for the Property and surrounding properties.

4.2.4 City Directory

City Directories, published since the 18th century for major towns and cities, lists the name of the resident or business associated with each address. A city directory search conducted by EDR is located in Appendix E and includes entries from 1922 through 2001.

The first occupancy of the Property at 199 River Oaks Parkway was recorded in 1996 and is listed as Foxboro-ICT Inc. However, in 2000 and 2001 the address is not listed in the city directory search. We understand that the current tenant at the Property is Frontier Semiconductor.

Neighboring or nearby properties are mixed, with residential, commercial/retail, and light manufacturing listings. The earliest neighboring property is listed in 1982 (Fluke Automated Systems at 211 River Oaks Parkway).

4.2.5 Title Report/Ownership

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

A Preliminary Title Report for the Property, prepared by First American Title Insurance Company and dated June 6, 2007, was provided for our review. The Property title is vested in Applejack 199, LP. No references to environmental liens, deed restrictions or other potential environmental issues were noted. This report is included in Appendix C.

4.2.6 Government Agencies

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

- City of San Jose Building and Planning Departments
- City of San Jose Fire Department
- Santa Clara County Department of Environmental Health
- Santa Clara County Assessor's Office
- California Regional Water Quality Control Board
- Department of Toxic Substances Control
- California Environmental Protection Agency

The City of San Jose Building and Planning Departments had general construction permits on file for the Property. The permits reviewed were for plumbing, electrical improvements, renovation activities, parking lot and tenant improvements. Documents related to the Property on file with the Planning Department include storefront, landscaping, painting, construction of an addition, a special use permit to mill and lathe, and most recently, a Comprehensive Preliminary Review of a proposed project to demolish the existing structure and construct a multi-family residential development. No references to underground storage tanks, sumps, clarifiers or treatment tanks were noted in the City files.

The Santa Clara County Assessor's office website was reviewed for information pertaining to the Property. The website confirmed the address and acreage of the Property APN. Santa Clara Valley Water District and Santa Clara County Department of Environmental Health did not have any files on record for the Property.

The California Regional Water Quality Control Board's leaking underground storage tank (LUST) website, GeoTracker, was referenced for information relating to the LUST on the Property. According to the information provided on the website, the Property was classified as a leaking underground storage tank due to the detection of solvents at the base of the tank excavation during removal.

Files maintained by the City of San Jose Fire Department were reviewed for information relating to hazardous materials and storage tanks. According to the documents reviewed, permits for the Property were filed with the Fire Department for storage and use of hazardous compressed gas including liquid nitrogen and liquid oxygen, and for a cryogenic system. Other files maintained by the Fire Department included a permit for use of two above ground storage tanks, one 3,000-gallon liquid nitrogen tank and one 300-gallon liquid oxygen tank. According to the information reviewed, the property owner requested the installation of a 35-gallon steel diesel tank and a

10-gallon water/antifreeze tank. There is no mention in the files where the tanks were stored or if they were removed. There was no evidence above ground storage tanks noted during the site reconnaissance.

Additionally, the Fire Department had a report for the 1985 excavation of one 1,500-gallon steel underground solvent waste storage tank located on the north side of the building. Included in the report was a figure depicting a hydrofluoric acid waste tank just north of the solvent tank, and an Acid Neutralization System located east of the solvent tank. No documentation relating to the size, construction, installation or removal of the tanks was identified during the file review process; however, Studemeister and Associates indicated in their Groundwater Monitoring Report of 2005 that the hydrofluoric acid waste tank was removed in 1986 and the acid neutralization system was removed in 2001.

As reported in the report prepared by Applied Earth Consultants, Inc., the solvent waste tank was removed in November 1985. During tank removal activities, it was determined that the underground storage tank had leaked. Soil samples were recovered from the base of the excavation and detectable concentrations of trichloroethene were reported.

For additional information on the leaking underground storage tank, the RWQCB SLIC database and the GeoTracker website were reviewed. GeoTracker has annual monitoring reports for 2004 and 2005 on record. Additionally, as supplied to us, we reviewed annual monitoring reports for 2000 and 2001. These reports are summarized in Section 3.0 above.

Based on the information provided in the groundwater monitoring reports, detectable concentrations of 1,1,1-trichloroethane, 1,1-dichloroethane, 1,1-dichloroethene, 1,2-dichloroethane, trans-1,2-dichloroethene, trichloroethene, tetrachloroethene, Freon-113, and methylene chloride have been reported in the groundwater. Groundwater investigations

performed by Applied Earth Consultants, Inc. (AEC) and later by Studemeister and Associates indicated a groundwater plume with a high concentration of trichloroethene (TCE). Two groundwater extraction wells were installed on the Property in 1987 to remediate the contaminated groundwater. Additionally, nine groundwater monitoring wells were located on the Property to monitor the remedial efforts. Groundwater was pumped from two wells and filtered to remove solids. The extracted groundwater was then passed through an air stripper for contaminant removal and pumped into the facility's treatment plant for ultimate disposal in the sanitary sewer.

The groundwater extraction program was in place from 1987 to 1999. In a letter from the RWQCB dated November 11, 2000, they concluded that the concentrations of the pollutants in the groundwater had reached asymptotic levels and indicated that they believe the groundwater extraction system will no longer significantly reduce the levels of pollutants in the groundwater. As such, they authorized the indefinite shutdown of the groundwater extraction system and requested annual groundwater monitoring. The letter indicated that site closure would be considered when the pollutant levels were near the Maximum Contaminant Levels (MCLs) as established by the State of California. Concentrations of TCE and Freon-113 have reportedly decreased from maximum concentrations of 4,100 ug/L and 5,100 ug/L respectively. The data from the most recent groundwater monitoring report (2007) indicate that the maximum reported concentration of TCE and Freon-113 are 16 ug/L and 96 ug/L. The TCE remains slightly above the Maximum Contaminant Level (MCL) for drinking water. The reported Freon-113 concentration is below the MCL of 1,200 ug/L.

4.3 Environmental Record Sources

EDR performed a search of federal, tribal, state, and local databases regarding the Property and nearby properties. Details regarding the databases searched by EDR are provided in Appendix A.

A list of the facilities documented by EDR within the approximate minimum search distance of the Property is provided below:

4.3.1 Federal ASTM Standard/Supplemental Sources

4.3.1.1 Subject Property

The Property (199 River Oaks Parkway) is listed on the following databases.

- CERC-NFRAP – Archived Federal Comprehensive Environmental Remediation Cleanup (CERC) sites not on the National Priority List (NPL) where site assessments have been completed and no further remedial action is planned (NFRAP).
- RCRA-SQG – A RCRA comprehensive information management system for facilities that generate hazardous materials. Facilities can be classified as either conditionally-exempt small quantity generators (CESQGs), small quantity generators (SQG) or large quantity generators (LQG).
- ICIS – Integrated Compliance Information Systems – ICIS supports the information needs of the national enforcement and compliance program as well as the unique needs of the National Pollutant Discharge Elimination System (NPDES) program.
- FINDS – Facility Index System/Facility Registry System.

4.3.1.2 Other Properties

The following databases include facilities listed within the appropriate ASTM search distances of the Property on Federal ASTM Standard or supplemental sources.

- CORRACTS – RCRA Corrective Action Activity sites where remedial actions have taken place or are currently underway.

IT Corp San Jose Transfer Facility

3010 Zanker Road

7862.3.002.01

July 23, 2007

Revised February 1, 2008

- RCRA-SQG – A RCRA comprehensive information management system for facilities that generate hazardous materials. Facilities can be classified as either conditionally-exempt small quantity generators (CESQGs), small quantity generators (SQG) or large quantity generators (LQG).

<i>Sony Corporation of America</i>	<i>3300 Zanker Road</i>
<i>Seagate Technology Inc.</i>	<i>3061 Zanker Road</i>
<i>Thermoquest Corporation</i>	<i>355 River Oaks Parkway</i>
<i>Finnigan Corporation</i>	<i>355 River Oaks Parkway</i>
<i>Lockheed Martin Tactical Defense Systems</i>	<i>3151 Zanker Road</i>
<i>Lockheed Martin</i>	<i>3200 Zanker Road</i>
<i>Agnews Developmental Center</i>	<i>East Campus of Agnews Drive</i>
<i>Maxtor Corporation</i>	<i>150 River Oaks Parkway</i>

4.3.2 State ASTM Standard/Supplemental Sources

4.3.2.1 Subject Property

The Property (199 River Oaks Parkway) is listed on the following databases.

- LUST – Leaking Underground Storage Tank Information System – Contains an inventory of reported leaking underground storage tank incidents.
- CA SLIC – The SLIC (Spills, Leaks, Investigations and Cleanup) program is designed to protect and restore water quality from spills, leaks, and similar discharges. The SLIC database comes from the local-governing RWQCB.
- SWEEPS – Statewide Environmental Evaluation and Planning System – A list of underground storage tank listings that is no longer maintained.
- HIST UST – Hazardous Substance Storage Container Database – A historical listing of UST sites.

4.3.2.2 Other Properties

The following database include facilities listed within the appropriate ASTM search distances of the Property on State ASTM Standard or supplemental sources.

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- HIST CAL-SITES – Calsites Database – A historical listing of both known and potential hazardous substance sites. This database is no longer updated by the State and has since been replaced by ENVIROSTOR.

Mansion Grove

4101 Lick Mill Boulevard

- BEP – List developed as the basis for an appropriation of Hazardous Substance Cleanup Bond Act funds. This list is no longer updated by the State.

Mansion Grove

4101 Lick Mill Boulevard

- HIST UST – Hazardous Substance Storage Container Database – A historical listing of UST sites.

Moitozo Brothers, Inc.

175 River Oaks Parkway

- SWEEPS – Statewide Environmental Evaluation and Planning System – A list of underground storage tank listings that is no longer maintained.

Moitozo Brothers, Inc.

175 River Oaks Parkway

- RESPONSE – A list that identifies confirmed release sites where the Department of Toxic Substance Control (DTSC) is involved in remediation. These confirmed release sites are generally high-priority and high potential risk.

Mansion Grove

4101 Lick Mill Boulevard

- ENVIROSTOR – The Department of Toxic Substances Control's (DTSC's) Site Mitigation and Brownfields Reuse Program's (SMBRP's) EnviroStor database identifies sites that have known contamination or sites for which there may be reasons to investigate further. The database includes the following site types: Federal Superfund sites (National Priorities List (NPL)); State Response, including Military Facilities and State Superfund; Voluntary Cleanup; and School sites. EnviroStor provides similar information to the information that was available in CalSites, and provides additional site information, including, but not limited to, identification of formerly-contaminated properties that have been released for reuse, properties where environmental deed restrictions have been recorded to prevent inappropriate land uses, and risk characterization information that is used to assess potential impacts to public health and the environment at contaminated sites.

*IT, San Jose
Multichip Technology
Mansion Grove*

*3010 Zanker Road
58 Daggett Drive
4101 Lick Mill Boulevard*

4.3.3 Local ASTM Supplemental Sources

4.3.3.1 Subject Property

The Property (199 River Oaks Parkway) is listed on the following databases.

- SJ HAZMAT – San Jose Hazmat Facilities

Frontier Semiconductor

199 River Oaks Parkway

- HAZNET – Facility and Manifest Data – The data is extracted from copies of hazardous waste manifests received each year from the DTSC.

Invensys Inc.

199 River Oaks Parkway

- EMI – Emissions Inventory Data – Toxics and criteria pollutant emissions data collected by the Air Resources Board (ARB) and local air pollution agencies.

Foxboro/ICT

199 River Oaks Parkway

4.3.3.2 Other Properties

The following databases include facilities listed within the appropriate ASTM search distance of the Property.

- SJ HAZMAT – San Jose Hazmat Facilities

*DataQuest/Gartner Group
Lockheed Martin*

*281 River Oaks Parkway
3130 Zanker Road*

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Sony Electronics Inc.
Seagate Technology, Inc.
Orchard Facility Services
Moitozo Brothers, Inc.

3300 Zanker Road
3061 Zanker Road
3151 Zanker Road
175 River Oaks Parkway

Based on the distances to the identified database sites, regional topographic gradient, and the EDR findings, it is unlikely that the above-stated database sites pose a significant environmental risk to the Property. However, as Studemeister & Associates have suggested, it is possible portions of the downgradient area of the subject Property may have been impacted from off-site sources. Information pertaining to the Property is discussed in Section 3.2 above. Properties that are on the "Orphan Summary" list appear to be located beyond the ASTM recommended radius search criteria.

5.0 SITE RECONNAISSANCE

5.1 Methodology

ENGEO conducted a reconnaissance of the Property on July 12, 2007. The Property was viewed for hazardous materials storage, superficial staining or discoloration, debris, stressed vegetation, or other conditions that may be indicative of potential sources of soil or groundwater contamination. The site was also checked for evidence of fill/ventilation pipes, ground subsidence, or other evidence of existing or preexisting underground storage tanks. Photographs taken during the site reconnaissance are presented in Figure 4.

5.2 General Site Setting

The Property currently consists of one mixed light industrial/manufacturing and office building occupied by tenants. A property tour was performed with the current Property Manager, tenants, and ENGEO representatives. The building has a reported size of approximately 46,530 square feet and is currently occupied by Frontier Semiconductor. The building comprises tilt-up concrete walls and wood-truss roof systems with insulation in the ceiling, and is divided into several sections with various uses and flooring types.

- The large, central section of the building has linoleum flooring and appears to be a storage area with some machine equipment. Several tall metal racks store computer parts and electronic equipment.
- The eastern portion of the building is an office area with carpeting. The office area consists of several large conference rooms and smaller offices with various office furniture.
- The northern building was an addition constructed in 2001. It consists of a machine shop with sealed concrete flooring and several pieces of large machinery.

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5.3 Exterior Observations

Structures. There is one structure on-site with tilt-up concrete perimeter walls.

Hazardous Substances and Petroleum Products in Connection with Identified Uses. We observed less than 5 gallons of household cleaners in small storage rooms adjacent to the central section of the building, acetone and alcohol stored in flammable cabinets in the central section of the building, and approximately twenty (20) 5-gallon plastic containers of motor oil on wooden pallets in the machine shop. These areas appeared to be relatively clean with no indications of spills.

Storage Tanks. No above-ground storage tanks or evidence of existing underground storage tanks was observed during the site reconnaissance.

Odors. Odors of petroleum material were noted near the above-mentioned plastic containers of motor oil at the time of the reconnaissance.

Pools of Potentially Hazardous Liquid. No pools of potentially hazardous liquid were observed within the Property at the time of our reconnaissance.

Drums. Approximately ten (10) 55-gallon steel drums were observed in the machine shop. The drums appeared to contain aluminum scraps from production.

Hazardous Substance and Petroleum Product Containers. We observed less than 5 gallons of household cleaners in small storage rooms adjacent to the central section of the building, acetone and alcohol stored in flammable cabinets in the central section of the building, and

approximately twenty (20) 5-gallon plastic containers of motor oil on wooden pallets in the machine shop. These areas appeared to be relatively clean with no indications of spills.

Polychlorinated Biphenyls (PCBs). No PCB-containing materials, including transformers, were observed within the Property during our site reconnaissance. Two non-PCB transformers (one pole-mounted and one ground level) were observed on the Property.

Pits, Ponds and Lagoons. No pits, ponds or lagoons were observed within the Property at the time of our reconnaissance.

Stained Soil/Pavement. Minor oil or gas staining of the pavement was observed on the paved parking area on the east side of the building

Stressed Vegetation. No signs of stressed vegetation were observed on the Property at the time of our reconnaissance.

Solid Waste/Debris Solid waste receptacles ranging in size up to 40 cubic yard dumpster was observed onsite

Wastewater. The Property has a number of storm drains in the exterior pavement, which appear to be routed to the City of San Jose stormwater system.

Wells. According to the Groundwater Elevation Contour Map, prepared by Studemeister and Associates, eleven groundwater monitoring wells have been constructed at the site, two of which have been destroyed. During our reconnaissance, we observed seven of these wells (AEC-1, AEC-2, AEC-3, AEC-7A, AEC-8A, AEC-9A, and AEC-12A). Four monitoring wells are located within the footprint of the machine shop; two of the wells were destroyed in 2001

(AEC-4 and AEC-11A) and the two remaining wells, AEC-6A and AEC-10B, were observed to be located within grated coverings in the machine shop floor.

Septic Systems. We observed no surficial evidence of septic systems present within the Property at the time of the reconnaissance. The Property is serviced by the City of San Jose sewer system.

5.4 Asbestos-Containing Materials and Lead-Based Paint

Given the age of the structures, it is unlikely that asbestos-containing building materials (ACBM) and lead-based paints would have been used in construction; however, if significant renovation or demolition activities are planned a survey of ACBM and lead-based paint materials should be conducted.

5.5 Indoor Air Quality

An evaluation of indoor air quality, mold, or radon was not included as part of the contracted scope of services. The California Department of Health Services has conducted studies of radon risks throughout the state, sorted by zip code. Results of the studies indicate that one test was conducted within the Property zip code, with no tests exceeding the current EPA action level of 4 picocuries per liter [pCi/L]¹.

¹ California Department of Health Services – Division of Drinking Water and Environmental Management – Radon (<http://www.dhs.ca.gov/ps/ddwem/environmental/radon/PDFs/California%20Radon%20Data%20base.pdf>).

6.0 INTERVIEWS

Mr. Kevin Ma completed an environmental site assessment questionnaire pertaining to user-related applicable environmental information regarding the Property. In the questionnaire, Mr. Ma did not identify potential environmentally related issues with the Property. The questionnaire is presented in its entirety in Appendix F.

Ms. Ann Koo completed an environmental site assessment questionnaire pertaining to applicable past and present uses and physical characteristics of the Property and surrounding properties. In the questionnaire, Ms. Koo indicated that the Property is currently used for semiconductor equipment manufacturing. She also indicated the presence of monitoring wells on the Property and referenced a letter prepared by Studemeister and Associates dated August 2, 2004, to describe the use of the wells. The letter indicates that the wells are used to monitor the groundwater due to a historical leaking solvent waste underground storage tank onsite. The questionnaire is presented in its entirety in Appendix F.

7.0 FINDINGS

The reconnaissance and records research did find documentation or physical evidence of soil or groundwater impairments associated with the current or past use of the Property. A review of regulatory databases maintained by county, state and federal agencies found documentation of hazardous materials violations or discharge on the Property. No documented soil or groundwater contamination associated with abutting properties was found from the records research. However, groundwater impairments have been documented in the general site vicinity.

Our research indicates that three underground storage tanks (UST) ranging from 400 to 5000 gallons in capacity were installed at the property in 1981. It appears that the tanks were used to store various hazardous and non-hazardous materials including motor oil waste, solvent waste, and other chemical waste. One 1,500-gallon steel underground storage tank on the north side of the building that was used to store solvent waste was removed in 1985. During tank removal activities, it was determined that the underground storage tank had leaked. Soil samples were recovered from the base of the excavation and detectable concentrations of trichloroethene were reported. Initial groundwater samples were recovered in the 1985, and detectable concentrations of 1,1,1-trichloroethane, 1,1-dichloroethane, 1,1-dichloroethene and trichloroethene were reported in the groundwater.

Additional investigations were performed to determine the extent of the groundwater contamination. A SLIC program was implemented by the RWQCB in 1987, and in March of that year a groundwater extraction system was installed for the remediation of the trichloroethene impacted groundwater. Two groundwater extraction wells, and an additional nine groundwater monitoring wells were installed. Groundwater was pumped from the two wells and filtered to remove solids. The extracted groundwater was then passed through an air stripper for contaminant removal and pumped into the facility's treatment plant for ultimate disposal in the sanitary sewer.

The groundwater extraction program was in place from 1987 to 1999, and in 2000 the RWQCB authorized the indefinite shutdown of the extraction wells due to a reduction of TCE concentration in the groundwater to levels below the RWQCB ESL. Based on a letter from the RWQCB dated November 11, 2000, they concluded that the concentrations of the pollutants in the groundwater had reached asymptotic levels and indicated that they believed the groundwater extraction system would no longer significantly reduce the levels of pollutants in the groundwater. As such, they authorized the indefinite shutdown of the groundwater extraction system and requested annual groundwater monitoring. The letter indicated that site closure would be considered when the pollutant levels were near the Maximum Contaminant Levels (MCLs) as established by the State of California.

The two other underground storage tanks were used for hydrofluoric acid waste, an acid neutralization system, and associated above-ground wastewater treatment system. According to a report prepared by Studemeister, the hydrofluoric acid waste tank was removed in about 1996 and the acid neutralization system and above-ground wastewater treatment system were removed in 2001.

Given the age of the structures, it is unlikely that asbestos-containing building materials (ACBM) and lead-based paints would have been used in construction; however, if significant renovation or demolition activities are planned, a survey of ACBM and lead-based paint materials should be conducted.

A review of historical topographic maps and aerial photography indicates portions of the Property were cultivated for agricultural purposes. Given the current site development, it is unlikely residual agrichemicals, if present, would affect the Property.

8.0 OPINIONS AND DATA GAPS

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

During the preparation of this report, the former presence of three underground storage tanks (USTs) was identified on the Property. Information for the removal of one UST was reviewed. The other former USTs were removed in 1996 and 2001, according to later reports; however, we did not receive reports directly associated with the removal of those two USTs. Additional research, or field work should be conducted to determine if the USTs remain on site or whether potential contamination exists in the area of the tanks. We recommend that further investigation be conducted.

9.0 CONCLUSIONS

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

The site reconnaissance and records review did find documentation or physical evidence of significant soil or groundwater impairments associated with the use of the Property. A review of regulatory databases maintained by county, state, and federal agencies found documentation of hazardous materials violations or discharge on the Property. A review of regulatory agency records and available databases did not identify contaminated facilities within the appropriate ASTM search distances that would be expected to impact the Property. However, as Studemeister & Associates have suggested, it is possible portions of the downgradient area of the subject Property may have been impacted from off-site sources.

Based on the findings of this assessment, two RECs were identified for the Property.

- Based on the information reviewed, contaminated groundwater from a historic underground solvent waste storage tank exists at the Property. Extraction wells were located on the Property and operated between 1987 and 1999 to remediate the groundwater. The California Regional Water Quality Control Board is overseeing the case, and has not yet issued a site closure letter for the Property.
- Information obtained during preparation of the phase one environmental site assessment identified three underground storage tanks located in the northern portion of the Property. Documentation for the removal of one of the tanks was located, however, there was no information identified regarding the additional two underground storage tanks.

Based on the review of regulatory databases and site reconnaissance, we present information on features of potential environmental concern that were either contained in the databases or observed on the Property. These features were not considered to be RECs. We briefly discuss each feature below:

- Given the age of the structures, it is unlikely that asbestos-containing building materials (ACBM) and lead-based paints would have been used in construction; however, if significant renovation or demolition activities are planned a survey of ACBM and lead-based paint materials should be conducted.
- A review of historical topographic maps and aerial photography indicates portions of the Property were cultivated for agricultural purposes. Given the current site development, it is unlikely residual agrichemicals, if present, would affect the Property.

ENGEO Incorporated has performed a phase one environmental site assessment of the Property in general conformance with the scope and limitations of ASTM E 1527-05 "Standard Practice for Environmental Site Assessments" and USEPA "Standards and Practices for All Appropriate Inquiries", 40 CFR Part 312. Based on the findings of this assessment, ENGEO recommends the following:

- A soil gas survey should be conducted at the Property to address the potential for vapor intrusion hazards.
- A geophysical survey including the use of a magnetometer and ground penetrating radar should be conducted to determine whether the two identified underground storage tanks remain on the Property.
- Additional soil samples should be conducted in the areas of the identified underground storage tanks to ensure that contaminated soil does not remain on site.
- The RWQCB should be contacted to determine if additional studies will be required if residential rezoning is desired.

SELECTED REFERENCES

- Applied Earth Consultants, Inc., Subsurface Sampling and Testing, Solvent Waste Storage Tank Removal; Foxboro/ICT, 199 River Oaks Parkway, San Jose, California; January 15, 1986; Job No. 10545.
- Studemeister and Associates, Groundwater Monitoring Report for Second Half of 2000; Former Foxboro/ICT Site, 199 River Oaks Parkway, San Jose, California; December 26, 2000.
- Studemeister and Associates, Groundwater Monitoring Report for 2001; 199 River Oaks Parkway Site, San Jose, California; December 4, 2001.
- Studemeister and Associates, Groundwater Monitoring Report for 2004; 199 River Oaks Parkway, San Jose, California; February 25, 2005.
- Studemeister and Associates, Groundwater Monitoring Report for 2005; 199 River Oaks Parkway, San Jose, California; March 15, 2006.
- Wentworth, C.M., Blake, M.C., McLaughlin, R.J., and Graymer, R.W., 1999, Preliminary Geologic Map of the San Jose 30X60-Minute Quadrangle, California, US Geological Survey.
- USGS, 7.5' Milpitas Quadrangle-Historical Topographic Maps dated 1953, 1961, 1968, 1973, and 1980.
- City of San Jose On-Line Permits (<https://www.sjpermits.org>).
- Google Maps (<http://maps.google.com>).
- California Department of Water Resources (<http://wdl.water.ca.gov>).
- Microsoft TerraServer USA (<http://www.terra-server.com>).
- Topozone (<http://www.topozone.com>).
- United States Environmental Protection Agency Indoor Air Quality Website (<http://www.dhs.ca.gov/ps/ddwem/environmental/radon/PDFs/california%20radon%20data%20base%209.16.2005.pdf>).

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July 23, 2007

Revised February 1, 2008

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BASE MAP SOURCE: MS STREETS AND TRIPS

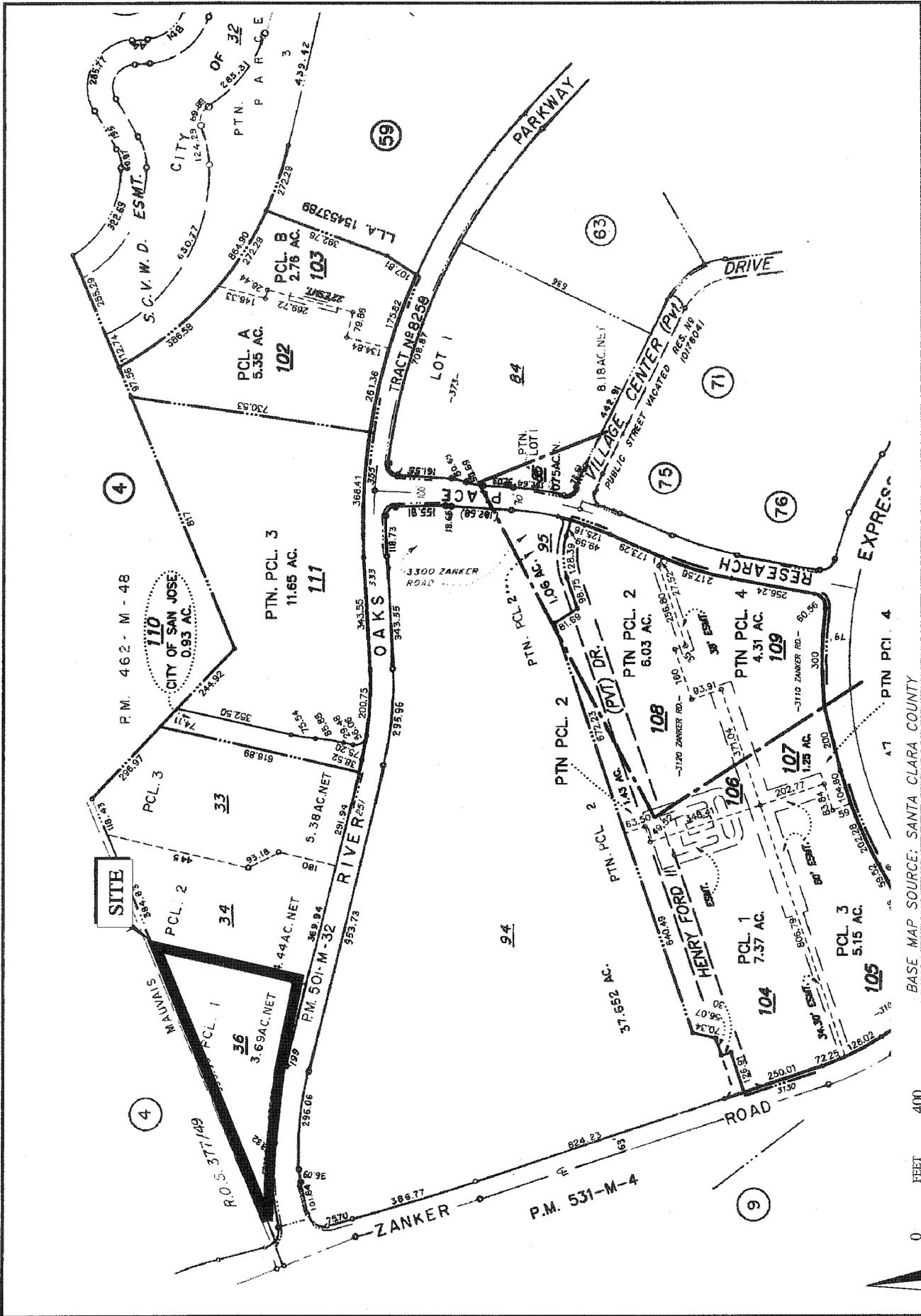


VICINITY MAP
 199 RIVER OAKS PARKWAY
 SAN JOSE, CALIFORNIA

PROJECT NO.: 7862.3.002.01
 DATE: JULY 2007
 DRAWN BY: SRP CHECKED BY: SM

FIGURE NO.
1

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PROJECT NO: 7862.3.002.01
 DATE: JULY 2007
 DRAWN BY: SRP
 CHECKED BY: SM

FIGURE NO: 2

ASSESSOR'S PARCEL MAP
 199 RIVER OAKS PARKWAY
 SAN JOSE, CALIFORNIA

BASE MAP SOURCE: SANTA CLARA COUNTY

ENGEO
 INCORPORATED
 EXCELLENT SERVICE SINCE 1971

0 FEET 400
 0 METERS 200

0 400 800
 0 200 400

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BASE MAP SOURCE: GOOGLE EARTH



AERIAL PHOTOGRAPH
199 RIVER OAKS PARKWAY
SAN JOSE, CALIFORNIA

PROJECT NO.: 7862.3.002.01

DATE: JULY 2007

DRAWN BY: SRP

CHECKED BY: SM

FIGURE NO.

3

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EXISTING GROUNDWATER MONITORING WELL AEC-9A AT SOUTHWESTERN ENTRANCE TO PROPERTY



LOOKING EAST AT INTERIOR OF MACHINE SHOP AT 5-GALLON PLASTIC CONTAINERS STORING OIL ON WOODEN PALLETS



LOOKING EAST AT NORTH SIDE OF BUILDING



LOOKING EAST AT SOUTHERN SIDE OF BUILDING FROM SOUTHERN ENTRANCE TO PROPERTY



LOOKING EAST AT STORAGE ROOM IN MAIN BUILDING WITH METAL RACKS AND COMPUTER EQUIPMENT



LOOKING EAST AT WESTERN SIDE OF PROPERTY FROM WESTERN CORNER OF PROPERTY

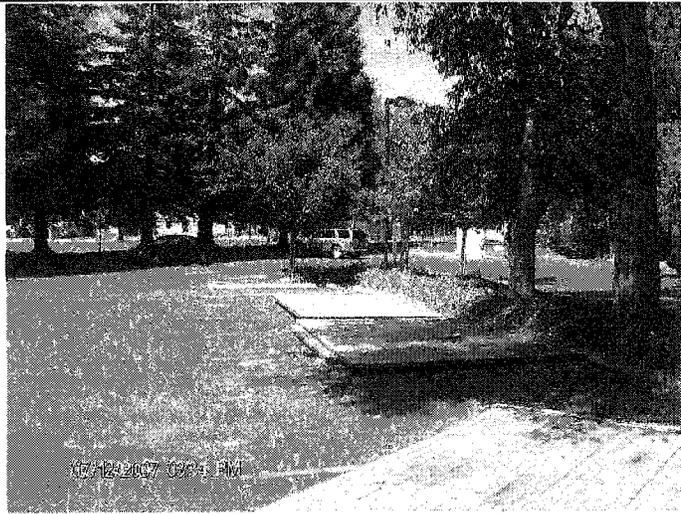


SITE PHOTOGRAPHS
199 RIVER OAKS PARKWAY
SAN JOSE, CALIFORNIA

PROJECT NO:	7862.3.002.01
DATE:	JULY 2007
DRAWN BY:	SRP
CHECKED BY:	SM

FIGURE NO.
4A

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LOOKING NORTH AT NORTHERN PAVED PARKING AREA FROM NORTH SIDE OF BUILDING



LOOKING SOUTH AT EASTERN SIDE OF BUILDING FROM NORTHEASTERN CORNER OF PROPERTY



LOOKING SOUTH AT VACANT SONY BUILDING ON SOUTH SIDE OF RIVER OAKS PARKWAY FROM SOUTH SIDE OF PROPERTY



LOOKING WEST AT INTERIOR OF MACHINE SHOP



LOOKING WEST AT INTERIOR OF MAIN BUILDING



LOOKING WEST AT NORTHERN SIDE OF BUILDING FROM EASTERN SIDE OF PROPERTY



SITE PHOTOGRAPHS
199 RIVER OAKS PARKWAY
SAN JOSE, CALIFORNIA

PROJECT NO.: 7862.3.002.01

DATE: JULY 2007

DRAWN BY: SRP

CHECKED BY: SM

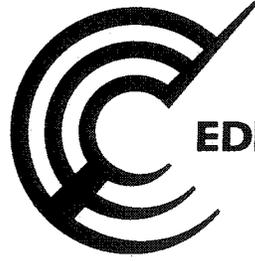
FIGURE NO.

4B

APPENDIX A

ENVIRONMENTAL DATA RESOURCES, INC.

Radius Map Report



EDR® Environmental
Data Resources Inc

The EDR Radius Map with GeoCheck®

**199 River Oaks Parkway
199 River Oaks Parkway
San Jose, CA 95134**

Inquiry Number: 01975893.2r

July 11, 2007

The Standard in Environmental Risk Information

**440 Wheelers Farms Road
Milford, Connecticut 06461**

Nationwide Customer Service

**Telephone: 1-800-352-0050
Fax: 1-800-231-6802
Internet: www.edrnet.com**

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

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EXECUTIVE SUMMARY

A search of available environmental records was conducted by Environmental Data Resources, Inc (EDR). The report was designed to assist parties seeking to meet the search requirements of EPA's Standards and Practices for All Appropriate Inquiries (40 CFR Part 312), the ASTM Standard Practice for Environmental Site Assessments (E 1527-05) or custom requirements developed for the evaluation of environmental risk associated with a parcel of real estate.

TARGET PROPERTY INFORMATION

ADDRESS

199 RIVER OAKS PARKWAY
SAN JOSE, CA 95134

COORDINATES

Latitude (North): 37.404900 - 37° 24' 17.6"
Longitude (West): 121.934000 - 121° 56' 2.4"
Universal Transverse Mercator: Zone 10
UTM X (Meters): 594346.9
UTM Y (Meters): 4140119.8
Elevation: 22 ft. above sea level

USGS TOPOGRAPHIC MAP ASSOCIATED WITH TARGET PROPERTY

Target Property Map: 37121-D8 MILPITAS, CA
Most Recent Revision: 1980

TARGET PROPERTY SEARCH RESULTS

The target property was identified in the following records. For more information on this property see page 6 of the attached EDR Radius Map report:

Site	Database(s)	EPA ID
FOXBORO/ICT SITE - FORMER 199 RIVER OAKS PARKWAY SANTA CLARA, CA	SLIC Facility Status: Remedial Action Underway	N/A
FOXBORO ICT 199 RIVER OAKS PKWY SAN JOSE, CA 95134	LUST Facility Status: Pollution Characterization SLIC	N/A
FRONTIER SEMICONDUCTOR 199 RIVER OAKS PY , CA 95134	SAN JOSE HAZMAT	N/A
INVENSYS INC 199 RIVER OAKS PKWY SAN JOSE, CA 95134	HAZNET	N/A
FOXBORO/ICT 199 RIVEROAKS PRKWY SAN JOSE, CA 95134	RCRA-SQG FINDS CERC-NFRAP HIST UST	CAD092202969

EXECUTIVE SUMMARY

FOXBORO/ICT INC 199 RIVER OAKS PY SAN JOSE, CA 95134	SWEEPS UST	N/A
FOXBORO/ICT 199 RIVEROAKS PKWY SAN JOSE, CA 95134	EMI	N/A
FOXBORO 199 RIVER OAKS PKWY SAN JOSE, CA 95138	HIST UST EMI	N/A
FOXBORO ICT INCORPORATED 199 RIVER OAKS PKY. SAN JOSE, CA 95134	ICIS	N/A
SENSYM/ICT 199 RIVER OAKS PKWY SAN JOSE, CA 95134	HAZNET	N/A

DATABASES WITH NO MAPPED SITES

No mapped sites were found in EDR's search of available ("reasonably ascertainable ") government records either on the target property or within the search radius around the target property for the following databases:

FEDERAL RECORDS

NPL	National Priority List
Proposed NPL	Proposed National Priority List Sites
Delisted NPL	National Priority List Deletions
NPL LIENS	Federal Superfund Liens
CERCLIS	Comprehensive Environmental Response, Compensation, and Liability Information System
RCRA-TSDF	Resource Conservation and Recovery Act Information
RCRA-LQG	Resource Conservation and Recovery Act Information
ERNS	Emergency Response Notification System
HMIRS	Hazardous Materials Information Reporting System
US ENG CONTROLS	Engineering Controls Sites List
US INST CONTROL	Sites with Institutional Controls
DOD	Department of Defense Sites
FUDS	Formerly Used Defense Sites
US BROWNFIELDS	A Listing of Brownfields Sites
CONSENT	Superfund (CERCLA) Consent Decrees
ROD	Records Of Decision
UMTRA	Uranium Mill Tailings Sites
ODI	Open Dump Inventory

EXECUTIVE SUMMARY

TRIS	Toxic Chemical Release Inventory System
TSCA	Toxic Substances Control Act
FTTS	FIFRA/ TSCA Tracking System - FIFRA (Federal Insecticide, Fungicide, & Rodenticide Act)/TSCA (Toxic Substances Control Act)
SSTS	Section 7 Tracking Systems
LIENS 2	CERCLA Lien Information
RADINFO	Radiation Information Database
US CDL	Clandestine Drug Labs
HIST FTTS	FIFRA/TSCA Tracking System Administrative Case Listing
LUCIS	Land Use Control Information System
DOT OPS	Incident and Accident Data
PADS	PCB Activity Database System
MLTS	Material Licensing Tracking System
MINES	Mines Master Index File
RAATS	RCRA Administrative Action Tracking System

STATE AND LOCAL RECORDS

SCH	School Property Evaluation Program
Toxic Pits	Toxic Pits Cleanup Act Sites
SWF/LF	Solid Waste Information System
CA WDS	Waste Discharge System
WMUDS/SWAT	Waste Management Unit Database
Cortese	"Cortese" Hazardous Waste & Substances Sites List
SWRCY	Recycler Database
CA FID UST	Facility Inventory Database
HIST LUST SANTA CLARA	HIST LUST - Fuel Leak Site Activity Report
UST	Active UST Facilities
AST	Aboveground Petroleum Storage Tank Facilities
LIENS	Environmental Liens Listing
CHMIRS	California Hazardous Material Incident Report System
Notify 65	Proposition 65 Records
DEED	Deed Restriction Listing
VCP	Voluntary Cleanup Program Properties
CLEANERS	Cleaner Facilities
WIP	Well Investigation Program Case List
CDL	Clandestine Drug Labs

TRIBAL RECORDS

INDIAN RESERV	Indian Reservations
INDIAN LUST	Leaking Underground Storage Tanks on Indian Land
INDIAN UST	Underground Storage Tanks on Indian Land

EDR PROPRIETARY RECORDS

Manufactured Gas Plants	EDR Proprietary Manufactured Gas Plants
EDR Historical Auto Stations	EDR Proprietary Historic Gas Stations
EDR Historical Cleaners	EDR Proprietary Historic Dry Cleaners

SURROUNDING SITES: SEARCH RESULTS

Surrounding sites were identified in the following databases.

EXECUTIVE SUMMARY

Elevations have been determined from the USGS Digital Elevation Model and should be evaluated on a relative (not an absolute) basis. Relative elevation information between sites of close proximity should be field verified. Sites with an elevation equal to or higher than the target property have been differentiated below from sites with an elevation lower than the target property.

Page numbers and map identification numbers refer to the EDR Radius Map report where detailed data on individual sites can be reviewed.

Sites listed in ***bold italics*** are in multiple databases.

Unmappable (orphan) sites are not considered in the foregoing analysis.

FEDERAL RECORDS

CORRACTS: CORRACTS is a list of handlers with RCRA Corrective Action Activity. This report shows which nationally-defined corrective action core events have occurred for every handler that has had corrective action activity.

A review of the CORRACTS list, as provided by EDR, and dated 03/14/2007 has revealed that there is 1 CORRACTS site within approximately 1 mile of the target property.

<u>Equal/Higher Elevation</u>	<u>Address</u>	<u>Dist / Dir</u>	<u>Map ID</u>	<u>Page</u>
<i>IT CORP SAN JOSE TRANSFER FACI</i>	<i>3010 ZANKER RD</i>	<i>1/2 - 1 SSE</i>	<i>27</i>	<i>35</i>

RCRAInfo: RCRAInfo is EPA's comprehensive information system, providing access to data supporting the Resource Conservation and Recovery Act (RCRA) of 1976 and the Hazardous and Solid Waste Amendments (HSWA) of 1984. RCRAInfo replaces the data recording and reporting abilities of the Resource Conservation and Recovery Information System(RCRIS). The database includes selective information on sites which generate, transport, store, treat and/or dispose of hazardous waste as defined by the Resource Conservation and Recovery Act (RCRA). Conditionally exempt small quantity generators (CESQGs) generate less than 100 kg of hazardous waste, or less than 1 kg of acutely hazardous waste per month. Small quantity generators (SQGs) generate between 100 kg and 1,000 kg of hazardous waste per month Large quantity generators generate over 1,000 kilograms (kg) of hazardous waste, or over 1 kg of acutely hazardous waste per month. Transporters are individuals or entities that move hazardous waste from the generator offsite to a facility that can recycle, treat, store, or dispose of the waste. TSDFs treat, store, or dispose of the waste.

A review of the RCRA-SQG list, as provided by EDR, and dated 06/13/2006 has revealed that there are 8 RCRA-SQG sites within approximately 0.25 miles of the target property.

<u>Equal/Higher Elevation</u>	<u>Address</u>	<u>Dist / Dir</u>	<u>Map ID</u>	<u>Page</u>
<i>SONY CORPORATION OF AMERICA</i>	<i>3300 ZANKER RD</i>	<i>1/8 - 1/4 SE</i>	<i>D20</i>	<i>29</i>
<i>SEAGATE TECHNOLOGY INC</i>	<i>3061 ZANKER RD</i>	<i>1/8 - 1/4 S</i>	<i>E22</i>	<i>31</i>
<i>THERMOQUEST CORP</i>	<i>355 RIVER OAKS PKWY</i>	<i>1/8 - 1/4 ESE</i>	<i>F24</i>	<i>34</i>
<i>FINNIGAN CORPORATION</i>	<i>355 RIVER OAKS PARKWAY</i>	<i>1/8 - 1/4 ESE</i>	<i>F25</i>	<i>34</i>
<u>Lower Elevation</u>	<u>Address</u>	<u>Dist / Dir</u>	<u>Map ID</u>	<u>Page</u>
<i>LOCKHEED MARTIN TACT DEF SYS E</i>	<i>3151 ZANKER RD</i>	<i>0 - 1/8 S</i>	<i>B12</i>	<i>22</i>
<i>LOCKHEED MARTIN</i>	<i>3200 ZANKER RD</i>	<i>0 - 1/8 NNW</i>	<i>13</i>	<i>23</i>
<i>AGNEWS DEVELOPMENTAL CENTER</i>	<i>EAST CAMPUS OF AGNEWS D</i>	<i>1/8 - 1/4 NW</i>	<i>18</i>	<i>27</i>
<i>MAXTOR CORPORATION</i>	<i>150 RIVER OAKS PARKWAY</i>	<i>1/8 - 1/4 SW</i>	<i>23</i>	<i>32</i>

EXECUTIVE SUMMARY

STATE AND LOCAL RECORDS

HIST CAL-SITES: Formerly known as ASPIS, this database contains both known and potential hazardous substance sites. The source is the California Department of Toxic Substance Control. No longer updated by the state agency. It has been replaced by ENVIROSTOR.

A review of the HIST Cal-Sites list, as provided by EDR, and dated 08/08/2005 has revealed that there is 1 HIST Cal-Sites site within approximately 1 mile of the target property.

<u>Lower Elevation</u>	<u>Address</u>	<u>Dist / Dir</u>	<u>Map ID</u>	<u>Page</u>
MANSION GROVE	4101 LICK MILL BOULEVAR	1/2 - 1 WSW	G29	40

BEP: Department of Health Services developed a site-specific expenditure plan as the basis for an appropriation of Hazardous Substance Cleanup Bond Act funds. It is not updated.

A review of the CA BOND EXP. PLAN list, as provided by EDR, and dated 01/01/1989 has revealed that there is 1 CA BOND EXP. PLAN site within approximately 1 mile of the target property.

<u>Lower Elevation</u>	<u>Address</u>	<u>Dist / Dir</u>	<u>Map ID</u>	<u>Page</u>
MANSION GROVE	4101 LICK MILL BLVD	1/2 - 1 WSW	G28	39

HIST UST: Historical UST Registered Database.

A review of the HIST UST list, as provided by EDR, and dated 10/15/1990 has revealed that there is 1 HIST UST site within approximately 0.25 miles of the target property.

<u>Lower Elevation</u>	<u>Address</u>	<u>Dist / Dir</u>	<u>Map ID</u>	<u>Page</u>
MOITZOZ BROS., INC.	175 RIVER OAKS PKWY	1/8 - 1/4 WSW	C16	25

SJ HAZMAT: San Jose Hazmat Facilities.

A review of the SAN JOSE HAZMAT list, as provided by EDR, and dated 06/11/2007 has revealed that there are 6 SAN JOSE HAZMAT sites within approximately 0.25 miles of the target property.

<u>Equal/Higher Elevation</u>	<u>Address</u>	<u>Dist / Dir</u>	<u>Map ID</u>	<u>Page</u>
DATAQUEST/GARTNER GROUP	281 RIVER OAKS PY	0 - 1/8 E	14	24
LOCKHEED MARTIN	3130 ZANKER RD	0 - 1/8 S	15	24
SONY ELECTRONICS INC	3300 ZANKER RD	1/8 - 1/4 SE	D19	27
SEAGATE TECHNOLOGY, INC	3061 ZANKER RD	1/8 - 1/4 S	E21	30
<u>Lower Elevation</u>	<u>Address</u>	<u>Dist / Dir</u>	<u>Map ID</u>	<u>Page</u>
ORCHARD FACILITY SERVICES	3151 ZANKER RD	0 - 1/8 S	B11	20
MOITZOZ BROS, INC	175 RIVER OAKS PY	1/8 - 1/4 WSW	C17	26

EXECUTIVE SUMMARY

SWEEPS: Statewide Environmental Evaluation and Planning System. This underground storage tank listing was updated and maintained by a company contacted by the SWRCB in the early 1980's. The listing is no longer updated or maintained. The local agency is the contact for more information on a site on the SWEEPS list.

A review of the SWEEPS UST list, as provided by EDR, and dated 06/01/1994 has revealed that there is 1 SWEEPS UST site within approximately 0.25 miles of the target property.

<u>Lower Elevation</u>	<u>Address</u>	<u>Dist / Dir</u>	<u>Map ID</u>	<u>Page</u>
MOITZOZ BROS, INC	175 RIVER OAKS PY	1/8 - 1/4 WSW	C17	26

RESPONSE: Identifies confirmed release sites where DTSC is involved in remediation, either in a lead or oversight capacity. These confirmed release sites are generally high-priority and high potential risk.

A review of the RESPONSE list, as provided by EDR, and dated 05/29/2007 has revealed that there is 1 RESPONSE site within approximately 1 mile of the target property.

<u>Lower Elevation</u>	<u>Address</u>	<u>Dist / Dir</u>	<u>Map ID</u>	<u>Page</u>
MANSION GROVE	4101 LICK MILL BOULEVAR	1/2 - 1 WSW	G29	40

ENVIROSTOR: The Department of Toxic Substances Control's (DTSC's) Site Mitigation and Brownfields Reuse Program's (SMBRP's) EnviroStor database identifies sites that have known contamination or sites for which there may be reasons to investigate further. The database includes the following site types: Federal Superfund sites (National Priorities List (NPL)); State Response, including Military Facilities and State Superfund; Voluntary Cleanup; and School sites. EnviroStor provides similar information to the information that was available in CalSites, and provides additional site information, including, but not limited to, identification of formerly-contaminated properties that have been released for reuse, properties where environmental deed restrictions have been recorded to prevent inappropriate land uses, and risk characterization information that is used to assess potential impacts to public health and the environment at contaminated sites.

A review of the ENVIROSTOR list, as provided by EDR, and dated 05/29/2007 has revealed that there are 3 ENVIROSTOR sites within approximately 1 mile of the target property.

<u>Equal/Higher Elevation</u>	<u>Address</u>	<u>Dist / Dir</u>	<u>Map ID</u>	<u>Page</u>
IT, SAN JOSE Facility Status: Refer: RWQCB	3010 ZANKER ROAD	1/4 - 1/2 S	26	34
MULTICHIP TECHNOLOGY Facility Status: Refer: RWQCB	58 DAGGETT DR	1/2 - 1 S	30	50

<u>Lower Elevation</u>	<u>Address</u>	<u>Dist / Dir</u>	<u>Map ID</u>	<u>Page</u>
MANSION GROVE Facility Status: Certified / Operation & Maintenance	4101 LICK MILL BOULEVAR	1/2 - 1 WSW	G29	40

EXECUTIVE SUMMARY

Due to poor or inadequate address information, the following sites were not mapped:

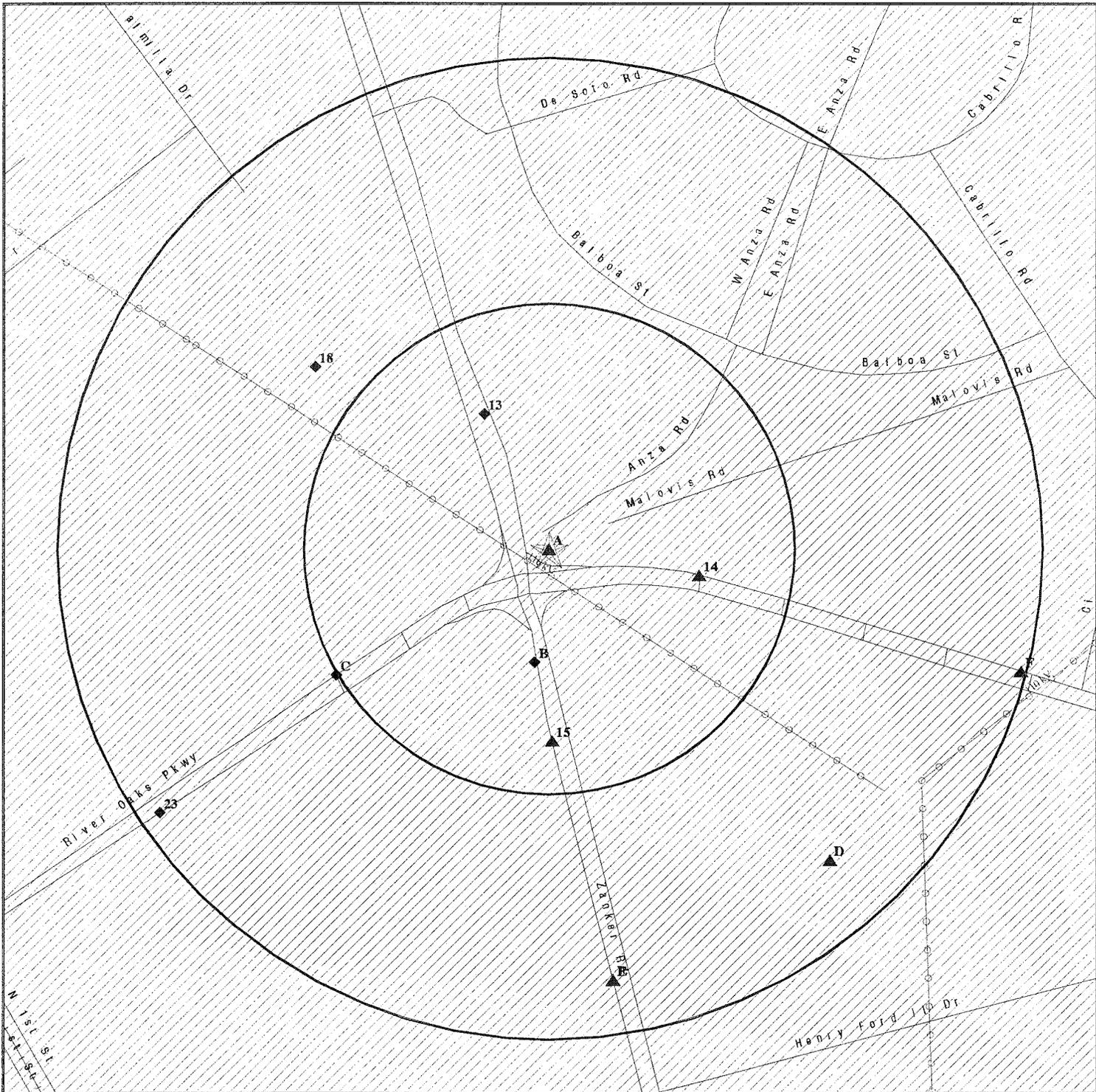
Site Name

S J CONCRETE PIPE CO
ROBISON PREZIOSO INC
AUTOMATION PARKWAY
SAN FILIPE ROAD 1 MILE SOUTH OF VILLAGE PARKWAY
METRON TECH DISTRIBUTION

Database(s)

SWEEPS UST
RCRA-SQG
ERNS
ERNS
SAN JOSE HAZMAT

DETAIL MAP - 01975893.2r



- ★ Target Property
- ▲ Sites at elevations higher than or equal to the target property
- ◆ Sites at elevations lower than the target property
- ▲ Manufactured Gas Plants
- ⚡ Sensitive Receptors
- ☐ National Priority List Sites
- ☐ Dept. Defense Sites
- ☐ Indian Reservations BIA
- ⚡ Power transmission lines
- ⚡ Oil & Gas pipelines
- ☐ 100-year flood zone
- ☐ 500-year flood zone
- ☐ Areas of Concern



This report includes Interactive Map Layers to display and/or hide map information. The legend includes only those icons for the default map view.

<p>SITE NAME: 199 River Oaks Parkway ADDRESS: 199 River Oaks Parkway San Jose CA 95134 LAT/LONG: 37.4049 / 121.9340</p>	<p>CLIENT: Engeo Inc. CONTACT: Andy Firmin INQUIRY #: 01975893.2r DATE: July 11, 2007 8:28 am</p>
--	--

MAP FINDINGS SUMMARY

Database	Target Property	Search Distance (Miles)	< 1/8	1/8 - 1/4	1/4 - 1/2	1/2 - 1	> 1	Total Plotted
<u>FEDERAL RECORDS</u>								
NPL		1.000	0	0	0	0	NR	0
Proposed NPL		1.000	0	0	0	0	NR	0
Delisted NPL		1.000	0	0	0	0	NR	0
NPL LIENS		TP	NR	NR	NR	NR	NR	0
CERCLIS		0.500	0	0	0	NR	NR	0
CERC-NFRAP	X	0.500	0	0	0	NR	NR	0
CORRACTS		1.000	0	0	0	1	NR	1
RCRA TSD		0.500	0	0	0	NR	NR	0
RCRA Lg. Quan. Gen.		0.250	0	0	NR	NR	NR	0
RCRA Sm. Quan. Gen.	X	0.250	2	6	NR	NR	NR	8
ERNS		TP	NR	NR	NR	NR	NR	0
HMIRS		TP	NR	NR	NR	NR	NR	0
US ENG CONTROLS		0.500	0	0	0	NR	NR	0
US INST CONTROL		0.500	0	0	0	NR	NR	0
DOD		1.000	0	0	0	0	NR	0
FUDS		1.000	0	0	0	0	NR	0
US BROWNFIELDS		0.500	0	0	0	NR	NR	0
CONSENT		1.000	0	0	0	0	NR	0
ROD		1.000	0	0	0	0	NR	0
UMTRA		0.500	0	0	0	NR	NR	0
ODI		0.500	0	0	0	NR	NR	0
TRIS		TP	NR	NR	NR	NR	NR	0
TSCA		TP	NR	NR	NR	NR	NR	0
FTTS		TP	NR	NR	NR	NR	NR	0
SSTS		TP	NR	NR	NR	NR	NR	0
LIENS 2		TP	NR	NR	NR	NR	NR	0
RADINFO		TP	NR	NR	NR	NR	NR	0
CDL		TP	NR	NR	NR	NR	NR	0
HIST FTTS		TP	NR	NR	NR	NR	NR	0
ICIS	X	TP	NR	NR	NR	NR	NR	0
LUCIS		0.500	0	0	0	NR	NR	0
DOT OPS		TP	NR	NR	NR	NR	NR	0
PADS		TP	NR	NR	NR	NR	NR	0
MLTS		TP	NR	NR	NR	NR	NR	0
MINES		0.250	0	0	NR	NR	NR	0
FINDS	X	TP	NR	NR	NR	NR	NR	0
RAATS		TP	NR	NR	NR	NR	NR	0
<u>STATE AND LOCAL RECORDS</u>								
Hist Cal-Sites		1.000	0	0	0	1	NR	1
CA Bond Exp. Plan		1.000	0	0	0	1	NR	1
SCH		0.250	0	0	NR	NR	NR	0
Toxic Pits		1.000	0	0	0	0	NR	0
State Landfill		0.500	0	0	0	NR	NR	0
CA WDS		TP	NR	NR	NR	NR	NR	0
WMUDS/SWAT		0.500	0	0	0	NR	NR	0
Cortese		0.500	0	0	0	NR	NR	0

MAP FINDINGS SUMMARY

Database	Target Property	Search Distance (Miles)	Search Distance					Total Plotted
			< 1/8	1/8 - 1/4	1/4 - 1/2	1/2 - 1	> 1	
SWRCY		0.500	0	0	0	NR	NR	0
LUST	X	0.500	0	0	0	NR	NR	0
CA FID UST		0.250	0	0	NR	NR	NR	0
SLIC	X	0.500	0	0	0	NR	NR	0
HIST LUST SANTA CLARA		0.500	0	0	0	NR	NR	0
UST		0.250	0	0	NR	NR	NR	0
HIST UST	X	0.250	0	1	NR	NR	NR	1
AST		0.250	0	0	NR	NR	NR	0
LIENS		TP	NR	NR	NR	NR	NR	0
SAN JOSE HAZMAT	X	0.250	3	3	NR	NR	NR	6
SWEEPS UST	X	0.250	0	1	NR	NR	NR	1
CHMIRS		TP	NR	NR	NR	NR	NR	0
Notify 65		1.000	0	0	0	0	NR	0
DEED		0.500	0	0	0	NR	NR	0
VCP		0.500	0	0	0	NR	NR	0
DRYCLEANERS		0.250	0	0	NR	NR	NR	0
WIP		0.250	0	0	NR	NR	NR	0
CDL		TP	NR	NR	NR	NR	NR	0
RESPONSE		1.000	0	0	0	1	NR	1
HAZNET	X	TP	NR	NR	NR	NR	NR	0
EMI	X	TP	NR	NR	NR	NR	NR	0
ENVIROSTOR		1.000	0	0	1	2	NR	3
<u>TRIBAL RECORDS</u>								
INDIAN RESERV		1.000	0	0	0	0	NR	0
INDIAN LUST		0.500	0	0	0	NR	NR	0
INDIAN UST		0.250	0	0	NR	NR	NR	0
<u>EDR PROPRIETARY RECORDS</u>								
Manufactured Gas Plants		1.000	0	0	0	0	NR	0
EDR Historical Auto Stations		0.250	0	0	NR	NR	NR	0
EDR Historical Cleaners		0.250	0	0	NR	NR	NR	0

NOTES:

TP = Target Property

NR = Not Requested at this Search Distance

Sites may be listed in more than one database

Map ID
Direction
Distance
Distance (ft.)
Elevation

MAP FINDINGS

Database(s) EDR ID Number
EPA ID Number

A1 FOXBORO/ICT SITE - FORMER SLIC S106235137
Target 199 RIVER OAKS PARKWAY N/A
Property SANTA CLARA, CA

Site 1 of 10 in cluster A

Actual:
22 ft.

SLIC:
Region: STATE
Global Id: SL1824K1153
Assigned Name: SLICSITE
Lead Agency Contact: DAVID BARR
Lead Agency: SAN FRANCISCO BAY RWQCB (REGION 2)
Lead Agency Case Number: SL1824K1153
Responsible Party: SEN SYM ICT INVENSYS SENSOR SYSTEMS
Recent Dtw: Not reported
Substance Released: VOC
Facility Status: Remedial Action Underway

SLIC:
Region: 2
Facility ID: SL1824K1153
Facility Status: Remedial action (cleanup) Underway
Date Closed: Not reported
Local Case #: Not reported
How Discovered: Not reported
Leak Cause: Not reported
Leak Source: Not reported
Date Confirmed: Not reported
Date Prelim Site Assmnt Workplan Submitted: Not reported
Date Preliminary Site Assessment Began: Not reported
Date Pollution Characterization Began: Not reported
Date Remediation Plan Submitted: Not reported
Date Remedial Action Underway: Not reported
Date Post Remedial Action Monitoring Began: Not reported

A2 FOXBORO ICT LUST S102628869
Target 199 RIVER OAKS PKWY SLIC N/A
Property SAN JOSE, CA 95134

Site 2 of 10 in cluster A

Actual:
22 ft.

LUST:
Region: STATE
Case Type: Other ground water affected
Cross Street: Not reported
Enf Type: Not reported
Funding: Federal
How Discovered: Tank Closure
How Stopped: Not reported
Leak Cause: Structure Failure
Leak Source: Tank
Global Id: T0608591787
Stop Date: 1988-05-11 00:00:00
Confirm Leak: Not reported
Workplan: Not reported
Prelim Assess: Not reported
Pollution Char: 1986-05-30 00:00:00
Remed Plan: Not reported
Remed Action: Not reported

Map ID
Direction
Distance
Distance (ft.)
Elevation Site

MAP FINDINGS

Database(s) EDR ID Number
EPA ID Number

FOXBORO ICT (Continued)

S102628869

Monitoring: Not reported
Close Date: Not reported
Discover Date: 1988-05-11 00:00:00
Enforcement Dt: Not reported
Release Date: 1988-05-11 00:00:00
Review Date: 2000-05-10 00:00:00
Enter Date: Not reported
MTBE Date: Not reported
GW Qualifier: Not reported
Soil Qualifier: Not reported
Max MTBE GW ppb: Not reported
Max MTBE Soil ppb: Not reported
County: 43
Org Name: Not reported
Reg Board: San Francisco Bay Region
Status: Pollution Characterization
Chemical: Solvents
Contact Person: Not reported
Responsible Party: BLANK RP
RP Address: Not reported
Interim: Yes
Oversight Prgm: Spills, Leaks, Investigations and Cleanup UST
MTBE Class: *
MTBE Conc: 0
MTBE Fuel: 0
MTBE Tested: MTBE Detected. Site tested for MTBE and MTBE detected
Staff: Not reported
Staff Initials: UNK
Lead Agency: Regional Board
Local Agency: 43099L
Hydr Basin #: Santa Clara Basin (2)
Beneficial: Not reported
Priority: Not reported
Cleanup Fund Id: Not reported
Work Suspended: No
Local Case #: 43-1964
Case Number: 43-1964
Qty Leaked: Not reported
Abate Method: Excavate and Treat - remove contaminated soil and treat (includes spreading or land farming), Pump and Treat Ground Water - generally employed to remove dissolved contaminants
Operator: Not reported
Water System Name: Not reported
Well Name: Not reported
Distance To Lust: 0
Waste Discharge Global ID: Not reported
Waste Disch Assigned Name: Not reported
Summary: SMS ALSO-SEE DIB FOR FILE

SLIC:

Region: 2
Facility ID: 43-1964
Facility Status: Pollution Characterization
Date Closed: Not reported
Local Case #: 43-1964
How Discovered: Tank Closure
Leak Cause: Structure Failure

Map ID
 Direction
 Distance
 Distance (ft.)
 Elevation

MAP FINDINGS

FOXBORO ICT (Continued)

EDR ID Number
 EPA ID Number

Database(s)

Leak Source: Tank
 Date Confirmed: Not reported
 Date Prelim Site Assmnt Workplan Submitted: Not reported
 Date Preliminary Site Assessment Began: Not reported
 Date Pollution Characterization Began: 5/30/1986
 Date Remediation Plan Submitted: Not reported
 Date Remedial Action Underway: Not reported
 Date Post Remedial Action Monitoring Began: Not reported

S102628869

A3
 Target
 Property

FRONTIER SEMICONDUCTOR
199 RIVER OAKS PY
, CA 95134

SAN JOSE HAZMAT

S108419253
 N/A

Actual:
22 ft.

Site 3 of 10 in cluster A

SAN JOSE HAZMAT:
 Region: SAN JOSE
 File Num: 402114
 Class: Auto Wrecking/Misc Simple Facility

A4
 Target
 Property

INVENSYS INC
199 RIVER OAKS PKWY
SAN JOSE, CA 95134

HAZNET

S108209592
 N/A

Actual:
22 ft.

Site 4 of 10 in cluster A

HAZNET:
 Gepaid: CAC002586444
 Contact: FRANK SIMMONS
 Telephone: 5085496896
 Facility Addr2: Not reported
 Mailing Name: Not reported
 Mailing Address: 33 COMMERCIAL ST
 Mailing City,St,Zip: FOXBORO, MA 02305
 Gen County: Santa Clara
 TSD EPA ID: CAT080014079
 TSD County: Contra Costa
 Waste Category: Other inorganic solid waste
 Disposal Method: Transfer Station
 Tons: 0.6
 Facility County: Not reported

A5
 Target
 Property

FOXBORO/ICT
199 RIVEROAKS PRKWY
SAN JOSE, CA 95134

RCRA-SQG
FINDS
CERC-NFRAP
HIST UST

1000164393
CAD092202969

Actual:
22 ft.

Site 5 of 10 in cluster A

Map ID
 Direction
 Distance
 Distance (ft.)
 Elevation Site

MAP FINDINGS

Database(s) EDR ID Number
 EPA ID Number

FOXBORO/ICT (Continued)

1000164393

RCRAInfo:

Owner: NOT REQUIRED
 (415) 555-1212
 EPA ID: CAD092202969
 Contact: Not reported
 Classification: Small Quantity Generator
 TSDF Activities: Not reported

Violation Status: Violations exist

Regulation Violated:	Not reported
Area of Violation:	GENERATOR-GENERAL REQUIREMENTS
Date Violation Determined:	11/08/1993
Actual Date Achieved Compliance:	04/13/1994
Regulation Violated:	Not reported
Area of Violation:	GENERATOR-OTHER REQUIREMENTS
Date Violation Determined:	10/10/1986
Actual Date Achieved Compliance:	05/22/1987
Enforcement Action:	WRITTEN INFORMAL
Enforcement Action Date:	05/01/1987
Penalty Type:	Not reported

There are 2 violation record(s) reported at this site:

<u>Evaluation</u>	<u>Area of Violation</u>	<u>Date of Compliance</u>
Compliance Evaluation Inspection	GENERATOR-GENERAL REQUIREMENTS	19940413
Compliance Evaluation Inspection	GENERATOR-OTHER REQUIREMENTS	19870522

FINDS:

Other Pertinent Environmental Activity Identified at Site

AFS (Aerometric Information Retrieval System (AIRS) Facility Subsystem) replaces the former Compliance Data System (CDS), the National Emission Data System (NEDS), and the Storage and Retrieval of Aerometric Data (SAROAD). AIRS is the national repository for information concerning airborne pollution in the United States. AFS is used to track emissions and compliance data from industrial plants. AFS data are utilized by states to prepare State Implementation Plans to comply with regulatory programs and by EPA as an input for the estimation of total national emissions. AFS is undergoing a major redesign to support facility operating permits required under Title V of the Clean Air Act.

ICIS (Integrated Compliance Information System) is the Integrated Compliance Information System and provides a database that, when complete, will contain integrated Enforcement and Compliance information across most of EPA's programs. The vision for ICIS is to replace EPA's independent databases that contain Enforcement data with a single repository for that information. Currently, ICIS contains all Federal Administrative and Judicial enforcement actions. This information is maintained in ICIS by EPA in the Regional offices and its Headquarters. A future release of ICIS will replace the Permit Compliance System (PCS) which supports the NPDES and will integrate that information with Federal actions already in the system. ICIS also has the capability to track other activities occurring in the Region that support Compliance and Enforcement programs. These include;

Map ID
Direction
Distance
Distance (ft.)
Elevation Site

MAP FINDINGS

EDR ID Number
EPA ID Number
Database(s)

FOXBORO/ICT (Continued)

1000164393

Incident Tracking, Compliance Assistance, and Compliance Monitoring.

The NEI (National Emissions Inventory) database contains information on stationary and mobile sources that emit criteria air pollutants and their precursors, as well as hazardous air pollutants (HAPs).

RCRAInfo is a national information system that supports the Resource Conservation and Recovery Act (RCRA) program through the tracking of events and activities related to facilities that generate, transport, and treat, store, or dispose of hazardous waste. RCRAInfo allows RCRA program staff to track the notification, permit, compliance, and corrective action activities required under RCRA.

TRIS (Toxics Release Inventory System) contains information from facilities on the amounts of over 300 listed toxic chemicals that these facilities release directly to air, water, land, or that are transported off-site.

CERC-NFRAP:

Site ID: 0903386
Federal Facility: Not a Federal Facility
NPL Status: Not on the NPL
Non NPL Status: NFRAP

CERCLIS-NFRAP Site Contact Name(s):

Contact Name: Matt Mitguard
Contact Tel: (415) 972-3096
Contact Title: Site Assessment Manager (SAM)

Contact Name: Jere Johnson
Contact Tel: (415) 972-3094
Contact Title: Site Assessment Manager (SAM)

Site Description: Not reported

CERCLIS-NFRAP Assessment History:

Action: DISCOVERY
Date Started: Not reported
Date Completed: 04/01/1988
Priority Level: Not reported

Action: ARCHIVE SITE
Date Started: Not reported
Date Completed: 02/28/1989
Priority Level: Not reported

Action: PRELIMINARY ASSESSMENT
Date Started: Not reported
Date Completed: 02/28/1989
Priority Level: NFRAP (No Further Remedial Action Planned)

Map ID
Direction
Distance
Distance (ft.)
Elevation Site

MAP FINDINGS

Database(s) EDR ID Number
EPA ID Number

FOXBORO/ICT (Continued)

1000164393

HIST UST:

Region: STATE
Facility ID: 00000008443
Tank Num: 001
Container Num: 1
Year Installed: 1981
Tank Capacity: 00005000
Facility Type: Other
Other Type: ELECTRONICS
Total Tanks: 0004
Tank Used for: WASTE
Type of Fuel: Not reported
Tank Construction: 4 inches
Leak Detection: Visual
Contact Name: COOKSON TERRY
Telephone: 4089469630
Owner Name: THE FOXBORO COMPANY
Owner Address: BRISTOL PARK
Owner City,St,Zip: FOXBORO, MA 02035

Region: STATE
Facility ID: 00000008443
Tank Num: 002
Container Num: D
Year Installed: 1981
Tank Capacity: 00001500
Facility Type: Other
Other Type: ELECTRONICS
Total Tanks: 0004
Tank Used for: WASTE
Type of Fuel: Not reported
Tank Construction: Not reported
Leak Detection: Groundwater Monitoring Well
Contact Name: COOKSON TERRY
Telephone: 4089469630
Owner Name: THE FOXBORO COMPANY
Owner Address: BRISTOL PARK
Owner City,St,Zip: FOXBORO, MA 02035

Region: STATE
Facility ID: 00000008443
Tank Num: 003
Container Num: C
Year Installed: 1981
Tank Capacity: 00000600
Facility Type: Other
Other Type: ELECTRONICS
Total Tanks: 0004
Tank Used for: WASTE
Type of Fuel: Not reported
Tank Construction: Not reported
Leak Detection: Groundwater Monitoring Well
Contact Name: COOKSON TERRY
Telephone: 4089469630
Owner Name: THE FOXBORO COMPANY
Owner Address: BRISTOL PARK
Owner City,St,Zip: FOXBORO, MA 02035

Map ID
Direction
Distance
Distance (ft.)
Elevation

MAP FINDINGS

Database(s)
EDR ID Number
EPA ID Number

FOXBORO/ICT (Continued)

1000164393

Region: STATE
Facility ID: 00000008443
Tank Num: 004
Container Num: E
Year Installed: 1981
Tank Capacity: 00000400
Facility Type: Other
Other Type: ELECTRONICS
Total Tanks: 0004
Tank Used for: WASTE
Type of Fuel: Not reported
Tank Construction: Not reported
Leak Detection: Groundwater Monitoring Well, 10
Contact Name: COOKSON TERRY
Telephone: 4089469630
Owner Name: THE FOXBORO COMPANY
Owner Address: BRISTOL PARK
Owner City,St,Zip: FOXBORO, MA 02035

A6
Target
Property

FOXBORO/I C T INC
199 RIVER OAKS PY
SAN JOSE, CA 95134

SWEEPS UST S106926386
N/A

Site 6 of 10 in cluster A

Actual:
22 ft.

SWEEPS UST:

Status: A
Comp Number: 402114
Number: 9
Board Of Equalization: Not reported
Ref Date: 09-30-92
Act Date: 09-08-92
Created Date: 02-29-88
Tank Status: A
Owner Tank Id: Not reported
Swrcb Tank Id: 43-060-402114-000001
Actv Date: Not reported
Capacity: 600
Tank Use: CHEMICAL
Stg: P
Content: Not reported
Number Of Tanks: 3

Status: A
Comp Number: 402114
Number: 9
Board Of Equalization: Not reported
Ref Date: 09-30-92
Act Date: 09-08-92
Created Date: 02-29-88
Tank Status: A
Owner Tank Id: Not reported
Swrcb Tank Id: 43-060-402114-000002
Actv Date: Not reported
Capacity: 400
Tank Use: CHEMICAL
Stg: P
Content: Not reported

Map ID
 Direction
 Distance
 Distance (ft.)
 Elevation

MAP FINDINGS

Database(s)
 EDR ID Number
 EPA ID Number

FOXBORO/I C T INC (Continued)

S106926386

Number Of Tanks: Not reported
 Status: A
 Comp Number: 402114
 Number: 9
 Board Of Equalization: Not reported
 Ref Date: 09-30-92
 Act Date: 09-08-92
 Created Date: 02-29-88
 Tank Status: A
 Owner Tank Id: Not reported
 Swrcb Tank Id: 43-060-402114-000003
 Actv Date: Not reported
 Capacity: 590
 Tank Use: CHEMICAL
 Stg: P
 Content: Not reported
 Number Of Tanks: Not reported

Status: Not reported
 Comp Number: 402114
 Number: Not reported
 Board Of Equalization: Not reported
 Ref Date: Not reported
 Act Date: Not reported
 Created Date: Not reported
 Tank Status: Not reported
 Owner Tank Id: Not reported
 Swrcb Tank Id: 43-060-402114-000004
 Actv Date: Not reported
 Capacity: 590
 Tank Use: CHEMICAL
 Stg: PRODUCT
 Content: Not reported
 Number Of Tanks: 1

A7 **FOXBORO/ICT**
Target **199 RIVEROAKS PKWY**
Property **SAN JOSE, CA 95134**

EMI S106831274
N/A

Site 7 of 10 in cluster A

Actual:
22 ft.

EMI:
 Year: 1987
 Carbon Monoxide Emissions Tons/Yr: 43
 Air Basin: SF
 Facility ID: 2308
 Air District Name: BA
 SIC Code: 3679
 Air District Name: BAY AREA AQMD
 Community Health Air Pollution Info System: Not reported
 Consolidated Emission Reporting Rule: Not reported
 Total Organic Hydrocarbon Gases Tons/Yr: 4
 Reactive Organic Gases Tons/Yr: 2
 Carbon Monoxide Emissions Tons/Yr: 0
 NOX - Oxides of Nitrogen Tons/Yr: 0
 SOX - Oxides of Sulphur Tons/Yr: 0
 Particulate Matter Tons/Yr: 0

Map ID
 Direction
 Distance
 Distance (ft.)
 Elevation

MAP FINDINGS

Database(s)
 EDR ID Number
 EPA ID Number

FOXBORO/ICT (Continued)

S106831274

Part. Matter 10 Micrometers & Smllr Tons/Yr: 0

Year: 1990
 Carbon Monoxide Emissions Tons/Yr: 43
 Air Basin: SF
 Facility ID: 2308
 Air District Name: BA
 SIC Code: 3674
 Air District Name: BAY AREA AQMD
 Community Health Air Pollution Info System: Not reported
 Consolidated Emission Reporting Rule: Not reported
 Total Organic Hydrocarbon Gases Tons/Yr: 3
 Reactive Organic Gases Tons/Yr: 1
 Carbon Monoxide Emissions Tons/Yr: 0
 NOX - Oxides of Nitrogen Tons/Yr: 0
 SOX - Oxides of Sulphur Tons/Yr: 0
 Particulate Matter Tons/Yr: 0
 Part. Matter 10 Micrometers & Smllr Tons/Yr: 0

Year: 1993
 Carbon Monoxide Emissions Tons/Yr: 43
 Air Basin: SF
 Facility ID: 2308
 Air District Name: BA
 SIC Code: 3674
 Air District Name: BAY AREA AQMD
 Community Health Air Pollution Info System: Not reported
 Consolidated Emission Reporting Rule: Not reported
 Total Organic Hydrocarbon Gases Tons/Yr: 6
 Reactive Organic Gases Tons/Yr: 2
 Carbon Monoxide Emissions Tons/Yr: 0
 NOX - Oxides of Nitrogen Tons/Yr: 0
 SOX - Oxides of Sulphur Tons/Yr: 0
 Particulate Matter Tons/Yr: 0
 Part. Matter 10 Micrometers & Smllr Tons/Yr: 0

A8 **FOXBORO**
Target **199 RIVER OAKS PKWY**
Property **SAN JOSE, CA 95138**

HIST UST **U001603159**
EMI **N/A**

Site 8 of 10 in cluster A

Actual:
22 ft.

HIST UST:
 Region: STATE
 Facility ID: 00000048000
 Tank Num: 001
 Container Num: 001
 Year Installed: 1981
 Tank Capacity: 00001500
 Facility Type: Other
 Other Type: SEMICONDUCTOR MANUF.
 Total Tanks: 0004
 Tank Used for: WASTE
 Type of Fuel: Not reported
 Tank Construction: 3/8" inches
 Leak Detection: Groundwater Monitoring Well
 Contact Name: TERRY COOKSON
 Telephone: 4082670704

Map ID
Direction
Distance
Distance (ft.)
Elevation Site

MAP FINDINGS

Database(s) EDR ID Number
EPA ID Number

FOXBORO (Continued)

U001603159

Owner Name: FOXBORO
Owner Address: 199 RIVEROAKS PARKWAY
Owner City,St,Zip: SAN JOSE, CA 95138

Region: STATE
Facility ID: 00000048000
Tank Num: 002
Container Num: 003
Year Installed: 1981
Tank Capacity: 00000500
Facility Type: Other
Other Type: SEMICONDUCTOR MANUF.
Total Tanks: 0004
Tank Used for: WASTE
Type of Fuel: Not reported
Tank Construction: 1/4 inches
Leak Detection: Groundwater Monitoring Well
Contact Name: TERRY COOKSON
Telephone: 4082670704
Owner Name: FOXBORO
Owner Address: 199 RIVEROAKS PARKWAY
Owner City,St,Zip: SAN JOSE, CA 95138

Region: STATE
Facility ID: 00000048000
Tank Num: 003
Container Num: 004
Year Installed: 1981
Tank Capacity: 00004000
Facility Type: Other
Other Type: SEMICONDUCTOR MANUF.
Total Tanks: 0004
Tank Used for: WASTE
Type of Fuel: Not reported
Tank Construction: 4 inches
Leak Detection: Groundwater Monitoring Well
Contact Name: TERRY COOKSON
Telephone: 4082670704
Owner Name: FOXBORO
Owner Address: 199 RIVEROAKS PARKWAY
Owner City,St,Zip: SAN JOSE, CA 95138

Region: STATE
Facility ID: 00000048000
Tank Num: 004
Container Num: 002
Year Installed: 1981
Tank Capacity: 00001000
Facility Type: Other
Other Type: SEMICONDUCTOR MANUF.
Total Tanks: 0004
Tank Used for: WASTE
Type of Fuel: Not reported
Tank Construction: Not reported
Leak Detection: Groundwater Monitoring Well
Contact Name: TERRY COOKSON
Telephone: 4082670704

Map ID
Direction
Distance
Distance (ft.)
Elevation Site

MAP FINDINGS

Database(s) EDR ID Number
EPA ID Number

FOXBORO (Continued)

U001603159

Owner Name: FOXBORO
Owner Address: 199 RIVEROAKS PARKWAY
Owner City,St,Zip: SAN JOSE, CA 95138

EMI:

Year: 1995
Carbon Monoxide Emissions Tons/Yr: 43
Air Basin: SF
Facility ID: 2308
Air District Name: BA
SIC Code: 3674
Air District Name: BAY AREA AQMD
Community Health Air Pollution Info System: Not reported
Consolidated Emission Reporting Rule: Not reported
Total Organic Hydrocarbon Gases Tons/Yr: 6
Reactive Organic Gases Tons/Yr: 2
Carbon Monoxide Emissions Tons/Yr: 0
NOX - Oxides of Nitrogen Tons/Yr: 0
SOX - Oxides of Sulphur Tons/Yr: 0
Particulate Matter Tons/Yr: 0
Part. Matter 10 Micrometers & Smlr Tons/Yr: 0

Year: 1996
Carbon Monoxide Emissions Tons/Yr: 43
Air Basin: SF
Facility ID: 2308
Air District Name: BA
SIC Code: 3674
Air District Name: BAY AREA AQMD
Community Health Air Pollution Info System: Not reported
Consolidated Emission Reporting Rule: Not reported
Total Organic Hydrocarbon Gases Tons/Yr: 6
Reactive Organic Gases Tons/Yr: 2
Carbon Monoxide Emissions Tons/Yr: 0
NOX - Oxides of Nitrogen Tons/Yr: 0
SOX - Oxides of Sulphur Tons/Yr: 0
Particulate Matter Tons/Yr: 0
Part. Matter 10 Micrometers & Smlr Tons/Yr: 0

Year: 1997
Carbon Monoxide Emissions Tons/Yr: 43
Air Basin: SF
Facility ID: 2308
Air District Name: BA
SIC Code: 3674
Air District Name: BAY AREA AQMD
Community Health Air Pollution Info System: Not reported
Consolidated Emission Reporting Rule: Not reported
Total Organic Hydrocarbon Gases Tons/Yr: 4
Reactive Organic Gases Tons/Yr: 2
Carbon Monoxide Emissions Tons/Yr: 0
NOX - Oxides of Nitrogen Tons/Yr: 0
SOX - Oxides of Sulphur Tons/Yr: 0
Particulate Matter Tons/Yr: 0
Part. Matter 10 Micrometers & Smlr Tons/Yr: 0

Year: 1998

Map ID
Direction
Distance
Distance (ft.)
Elevation Site

MAP FINDINGS

Database(s) EDR ID Number
EPA ID Number

FOXBORO (Continued)

U001603159

Carbon Monoxide Emissions Tons/Yr: 43
Air Basin: SF
Facility ID: 2308
Air District Name: BA
SIC Code: 3674
Air District Name: BAY AREA AQMD
Community Health Air Pollution Info System: Not reported
Consolidated Emission Reporting Rule: Not reported
Total Organic Hydrocarbon Gases Tons/Yr: 0
Reactive Organic Gases Tons/Yr: 0
Carbon Monoxide Emissions Tons/Yr: 0
NOX - Oxides of Nitrogen Tons/Yr: 0
SOX - Oxides of Sulphur Tons/Yr: 0
Particulate Matter Tons/Yr: 0
Part. Matter 10 Micrometers & Smllr Tons/Yr: 0

Year: 1999
Carbon Monoxide Emissions Tons/Yr: 43
Air Basin: SF
Facility ID: 2308
Air District Name: BA
SIC Code: 3679
Air District Name: BAY AREA AQMD
Community Health Air Pollution Info System: Not reported
Consolidated Emission Reporting Rule: Not reported
Total Organic Hydrocarbon Gases Tons/Yr: 0
Reactive Organic Gases Tons/Yr: 0
Carbon Monoxide Emissions Tons/Yr: 0
NOX - Oxides of Nitrogen Tons/Yr: 0
SOX - Oxides of Sulphur Tons/Yr: 0
Particulate Matter Tons/Yr: 0
Part. Matter 10 Micrometers & Smllr Tons/Yr: 0

Year: 2000
Carbon Monoxide Emissions Tons/Yr: 43
Air Basin: SF
Facility ID: 2308
Air District Name: BA
SIC Code: 3679
Air District Name: BAY AREA AQMD
Community Health Air Pollution Info System: Not reported
Consolidated Emission Reporting Rule: Not reported
Total Organic Hydrocarbon Gases Tons/Yr: 0
Reactive Organic Gases Tons/Yr: 0
Carbon Monoxide Emissions Tons/Yr: 0
NOX - Oxides of Nitrogen Tons/Yr: 0
SOX - Oxides of Sulphur Tons/Yr: 0
Particulate Matter Tons/Yr: 0
Part. Matter 10 Micrometers & Smllr Tons/Yr: 0

Map ID
 Direction
 Distance
 Distance (ft.)
 Elevation Site

MAP FINDINGS

Database(s) EDR ID Number
 EPA ID Number

A9 **FOXBORO ICT INCORPORATED**
Target **199 RIVER OAKS PKY.**
Property **SAN JOSE, CA 95134**

ICIS **1009938630**
N/A

Site 9 of 10 in cluster A

Actual:
22 ft.

ICIS:

EFA Enforcement Action ID: 09-1998-0089
 FRS ID: 110000770933
 Program ID: FRS 110000770933
 Action Name: FOXBORO/ICT, INC.
 Facility Name: FOXBORO ICT INCORPORATED
 Facility Address: 199 RIVER OAKS PKY.
 SAN JOSE, California 95134

EFA Enforcement Action Type: CAA 113D1 Action For Penalty
 Facility County: SANTA CLARA
 EPA Region #: 9

Facility Name: FOXBORO ICT INCORPORATED
 Address: 199 RIVER OAKS PKY. SAN JOSE CA 95134
 Tribal Indicator: Not reported
 Fed Facility: Not reported
 NAIC Code: Not reported
 SIC Code: Not reported

Facility Name: FOXBORO ICT INCORPORATED
 Address: 199 RIVER OAKS PKY. SAN JOSE CA 95134
 Tribal Indicator: Not reported
 Fed Facility: No
 NAIC Code: Not reported
 SIC Code: Not reported

Facility Name: FOXBORO ICT INCORPORATED
 Address: 199 RIVER OAKS PKY. SAN JOSE CA 95134
 Tribal Indicator: Not reported
 Fed Facility: Not reported
 NAIC Code: Not reported
 SIC Code: Not reported

Facility Name: FOXBORO ICT INCORPORATED
 Address: 199 RIVER OAKS PKY. SAN JOSE CA 95134
 Tribal Indicator: Not reported
 Fed Facility: Not reported
 NAIC Code: Not reported
 SIC Code: Not reported

Facility Name: FOXBORO ICT INCORPORATED
 Address: 199 RIVER OAKS PKY. SAN JOSE CA 95134
 Tribal Indicator: Not reported
 Fed Facility: Not reported
 NAIC Code: Not reported
 SIC Code: Not reported

Facility Name: FOXBORO ICT INCORPORATED
 Address: 199 RIVER OAKS PKY. SAN JOSE CA 95134
 Tribal Indicator: Not reported
 Fed Facility: Not reported
 NAIC Code: Not reported
 SIC Code: Not reported

Facility Name: FOXBORO ICT INCORPORATED
 Address: 199 RIVER OAKS PKY. SAN JOSE CA 95134
 Tribal Indicator: Not reported
 Fed Facility: Not reported
 NAIC Code: Not reported
 SIC Code: Not reported

Map ID
Direction
Distance
Distance (ft.)
Elevation

MAP FINDINGS

Database(s)
EPA ID Number
EDR ID Number

FOXBORO ICT INCORPORATED (Continued)

1009938630

Facility Name: FOXBORO ICT INCORPORATED
Address: 199 RIVER OAKS PKY. SAN JOSE CA 95134
Tribal Indicator: Not reported
Fed Facility: Not reported
NAIC Code: Not reported
SIC Code: Not reported

Facility Name: FOXBORO ICT INCORPORATED
Address: 199 RIVER OAKS PKY. SAN JOSE CA 95134
Tribal Indicator: Not reported
Fed Facility: Not reported
NAIC Code: Not reported
SIC Code: Not reported

A10 SENSYM/ICT
Target 199 RIVER OAKS PKWY
Property SAN JOSE, CA 95134

HAZNET S104573967
N/A

Actual:
22 ft.

Site 10 of 10 in cluster A

HAZNET:
Gepaid: CAD092202969
Contact: INVENSYS SENSOR SYSTEMS
Telephone: 0000000000
Facility Addr2: Not reported
Mailing Name: Not reported
Mailing Address: 1804 MCCARTHY BLVD
Mailing City,St,Zip: MILPITAS, CA 950351914
Gen County: Santa Clara
TSD EPA ID: CAD059494310
TSD County: Santa Clara
Waste Category: Unspecified organic liquid mixture
Disposal Method: Disposal, Other
Tons: 1.5135
Facility County: Santa Clara

Gepaid: CAD092202969
Contact: INVENSYS SENSOR SYSTEMS
Telephone: 0000000000
Facility Addr2: Not reported
Mailing Name: Not reported
Mailing Address: 1804 MCCARTHY BLVD
Mailing City,St,Zip: MILPITAS, CA 950351914
Gen County: Santa Clara
TSD EPA ID: CAD059494310
TSD County: Santa Clara
Waste Category: Unspecified oil-containing waste
Disposal Method: Not reported
Tons: .6880
Facility County: Santa Clara

Gepaid: CAD092202969
Contact: INVENSYS SENSOR SYSTEMS
Telephone: 0000000000
Facility Addr2: Not reported
Mailing Name: Not reported
Mailing Address: 1804 MCCARTHY BLVD

Map ID
Direction
Distance
Distance (ft.)
Elevation

MAP FINDINGS

Database(s)
EDR ID Number
EPA ID Number

SENSYM/ICT (Continued)

S104573967

Mailing City,St,Zip: MILPITAS, CA 950351914
Gen County: Santa Clara
TSD EPA ID: CAD059494310
TSD County: Santa Clara
Waste Category: Laboratory waste chemicals
Disposal Method: Disposal, Other
Tons: .1010
Facility County: Santa Clara

Gepaid: CAD092202969
Contact: INVENSYS SENSOR SYSTEMS
Telephone: 0000000000
Facility Addr2: Not reported
Mailing Name: Not reported
Mailing Address: 1804 MCCARTHY BLVD
Mailing City,St,Zip: MILPITAS, CA 950351914
Gen County: Santa Clara
TSD EPA ID: CAD059494310
TSD County: Santa Clara
Waste Category: Unspecified aqueous solution
Disposal Method: Not reported
Tons: 2.0099
Facility County: Santa Clara

Gepaid: CAD092202969
Contact: INVENSYS SENSOR SYSTEMS
Telephone: 0000000000
Facility Addr2: Not reported
Mailing Name: Not reported
Mailing Address: 1804 MCCARTHY BLVD
Mailing City,St,Zip: MILPITAS, CA 950351914
Gen County: Santa Clara
TSD EPA ID: CAD059494310
TSD County: Santa Clara
Waste Category: Unspecified aqueous solution
Disposal Method: Disposal, Other
Tons: 15.9794
Facility County: Santa Clara

[Click this hyperlink](#) while viewing on your computer to access
74 additional CA_HAZNET: record(s) in the EDR Site Report.

B11
South
< 1/8
307 ft.

ORCHARD FACILITY SERVICES
3151 ZANKER RD
SAN JOSE, CA 95134

HAZNET S100939117
SAN JOSE HAZMAT N/A

Site 1 of 2 in cluster B

Relative:
Lower

HAZNET:
Gepaid: CAD982499717
Contact: Not reported
Telephone: 0000000000
Facility Addr2: Not reported
Mailing Name: Not reported
Mailing Address: 3151 ZANKER RD
Mailing City,St,Zip: SAN JOSE, CA 951340000
Gen County: Santa Clara
TSD EPA ID: CAD050806850

Actual:
21 ft.

Map ID
Direction
Distance
Distance (ft.)
Elevation Site

MAP FINDINGS

Database(s) EDR ID Number
EPA ID Number

ORCHARD FACILITY SERVICES (Continued)

S100939117

TSD County: Los Angeles
Waste Category: Unspecified alkaline solution
Disposal Method: Transfer Station
Tons: .0100
Facility County: Santa Clara

Gepaid: CAD982499717
Contact: Not reported
Telephone: 0000000000
Facility Addr2: Not reported
Mailing Name: Not reported
Mailing Address: 3151 ZANKER RD
Mailing City,St,Zip: SAN JOSE, CA 951340000
Gen County: Santa Clara
TSD EPA ID: CAD050806850
TSD County: Los Angeles
Waste Category: Halogenated solvents (chloroform, methyl chloride, perchloroethylene, etc.)
Disposal Method: Transfer Station
Tons: .1000
Facility County: Santa Clara

Gepaid: CAD982499717
Contact: Not reported
Telephone: 0000000000
Facility Addr2: Not reported
Mailing Name: Not reported
Mailing Address: 3151 ZANKER RD
Mailing City,St,Zip: SAN JOSE, CA 951340000
Gen County: Santa Clara
TSD EPA ID: CAD050806850
TSD County: Los Angeles
Waste Category: Unspecified oil-containing waste
Disposal Method: Transfer Station
Tons: .2250
Facility County: Santa Clara

Gepaid: CAD982499717
Contact: Not reported
Telephone: 0000000000
Facility Addr2: Not reported
Mailing Name: Not reported
Mailing Address: 3151 ZANKER RD
Mailing City,St,Zip: SAN JOSE, CA 951340000
Gen County: Santa Clara
TSD EPA ID: CAD050806850
TSD County: Los Angeles
Waste Category: Other organic solids
Disposal Method: Transfer Station
Tons: .0500
Facility County: Santa Clara

Gepaid: CAD982499717
Contact: Not reported
Telephone: 0000000000
Facility Addr2: Not reported
Mailing Name: Not reported

Map ID
Direction
Distance
Distance (ft.)
Elevation Site

MAP FINDINGS

Database(s) EDR ID Number
EPA ID Number

ORCHARD FACILITY SERVICES (Continued)

S100939117

Mailing Address: 3151 ZANKER RD
Mailing City,St,Zip: SAN JOSE, CA 951340000
Gen County: Santa Clara
TSD EPA ID: CAD009452657
TSD County: San Mateo
Waste Category: Empty containers less than 30 gallons
Disposal Method: Disposal, Other
Tons: .2250
Facility County: Santa Clara

[Click this hyperlink](#) while viewing on your computer to access 60 additional CA_HAZNET: record(s) in the EDR Site Report.

SAN JOSE HAZMAT:

Region: SAN JOSE
File Num: 401329
Class: Auto Wrecking/Misc Simple Facility

B12
South
< 1/8
307 ft.

LOCKHEED MARTIN TACT DEF SYS EAGAN
3151 ZANKER RD
SAN JOSE, CA 95134

RCRA-SQG 1000148315
FINDS CAD982499717

Site 2 of 2 in cluster B

Relative:
Lower

RCRAInfo:
Owner: LOCKHEED MARTIN TACT DEF SYS EAGAN
(408) 473-4494
EPA ID: CAD982499717
Contact: ED TEMPLE
(408) 473-4924

Actual:
21 ft.

Classification: Small Quantity Generator
TSDF Activities: Not reported
Violation Status: No violations found

FINDS:

Other Pertinent Environmental Activity Identified at Site

RCRAInfo is a national information system that supports the Resource Conservation and Recovery Act (RCRA) program through the tracking of events and activities related to facilities that generate, transport, and treat, store, or dispose of hazardous waste. RCRAInfo allows RCRA program staff to track the notification, permit, compliance, and corrective action activities required under RCRA.

Map ID
 Direction
 Distance
 Distance (ft.)
 Elevation

MAP FINDINGS

Site
 LOCKHEED MARTIN
 3200 ZANKER RD
 SAN JOSE, CA 95134

Database(s)	EDR ID Number EPA ID Number
RCRA-SQG	1000840866
FINDS	CAD982519019
NY MANIFEST	

13
 NNW
 < 1/8
 404 ft.

Relative: RCRAInfo:
Lower Owner: LOCKHEED MARTIN CORP
 (408) 473-3000

Actual: EPA ID: CAD982519019
21 ft. Contact: ED TEMPLE
 (408) 473-4929

Classification: Small Quantity Generator
 TSDF Activities: Not reported
 Violation Status: No violations found

FINDS:
 Other Pertinent Environmental Activity Identified at Site

RCRAInfo is a national information system that supports the Resource Conservation and Recovery Act (RCRA) program through the tracking of events and activities related to facilities that generate, transport, and treat, store, or dispose of hazardous waste. RCRAInfo allows RCRA program staff to track the notification, permit, compliance, and corrective action activities required under RCRA.

NY MANIFEST:

Document ID: NYG1564083
 Manifest Status: Not reported
 Trans1 State ID: SCD987574647
 Trans2 State ID: NYD982792814
 Generator Ship Date: 08/18/1999
 Trans1 Recv Date: 08/18/1999
 Trans2 Recv Date: 08/23/1999
 TSD Site Recv Date: 09/07/1999
 Part A Recv Date: Not reported
 Part B Recv Date: Not reported
 Generator EPA ID: CAD982519019
 Trans1 EPA ID: NYD000632372
 Trans2 EPA ID: Not reported
 TSDF ID: Not reported
 Waste Code: D001 - NON-LISTED IGNITABLE WASTES
 Quantity: 00020
 Units: P - Pounds
 Number of Containers: 001
 Container Type: CY - Cylinders
 Handling Method: T Chemical, physical, or biological treatment.
 Specific Gravity: 01.00
 Waste Code: D001 - NON-LISTED IGNITABLE WASTES
 Quantity: 00040
 Units: P - Pounds
 Number of Containers: 003
 Container Type: CY - Cylinders
 Handling Method: B Incineration, heat recovery, burning.
 Specific Gravity: 01.00

MAP FINDINGS

Map ID
 Direction
 Distance
 Distance (ft.)
 Elevation Site

Database(s) EDR ID Number
 EPA ID Number

LOCKHEED MARTIN (Continued)

1000840866

Waste Code: D001 - NON-LISTED IGNITABLE WASTES
 Quantity: 00020
 Units: P - Pounds
 Number of Containers: 001
 Container Type: CY - Cylinders
 Handling Method: B Incineration, heat recovery, burning.
 Specific Gravity: 01.00
 Year: 99
 Facility Type: Generator
 EPA ID: CAD982519019
 Facility Name: LOCKHEED MARTIN MGMNT & DATA SYSTEMS
 Facility Address: 3200 ZANKER RD
 Facility City: SAN JOSE
 Facility Zip 4: Not reported
 Country: Not reported
 County: Not reported
 Mailing Name: LOCKHEED MARTIN MGMNT & DATA SYSTEMS
 Mailing Contact: CYNTHIA RITTENHOUSE
 Mailing Address: 3200 ZANKER RD
 Mailing City: SAN JOSE
 Mailing State: CA
 Mailing Zip: 95134
 Mailing Zip4: Not reported
 Mailing Country: Not reported
 Mailing Phone: 408-473-4311

14
 East
 < 1/8
 408 ft.

DATAQUEST/GARTNER GROUP
 281 RIVER OAKS PY
 , CA 95134

SAN JOSE HAZMAT S105109362
 N/A

Relative:
 Higher
 Actual:
 23 ft.

SAN JOSE HAZMAT:
 Region: SAN JOSE
 File Num: 406288
 Class: Auto Wrecking/Misc Simple Facility

15
 South
 < 1/8
 516 ft.

LOCKHEED MARTIN
 3130 ZANKER RD
 , CA 95134

SAN JOSE HAZMAT S105990315
 N/A

Relative:
 Equal
 Actual:
 22 ft.

SAN JOSE HAZMAT:
 Region: SAN JOSE
 File Num: 403159
 Class: Auto Wrecking/Misc Simple Facility

Map ID
 Direction
 Distance
 Distance (ft.)
 Elevation

MAP FINDINGS

MOITZOZ BROS., INC. (Continued)

EDR ID Number
 EPA ID Number

Database(s)

Telephone: 4082620525
 Owner Name: MOITZOZ BROS., INC.
 Owner Address: 175 RIVER OAKS PARKWAY
 Owner City,St,Zip: SAN JOSE, CA 95134

U001603126

C17
 WSW
 1/8-1/4
 666 ft.

MOITZOZ BROS, INC
 175 RIVER OAKS PY
 SAN JOSE, CA 95134

SAN JOSE HAZMAT S102416447
 SWEEPS UST N/A

Site 2 of 2 in cluster C

Relative:
 Lower

SAN JOSE HAZMAT:

Region: SAN JOSE
 File Num: 406728
 Class: Misc. Complex firms and labs

Actual:
 20 ft.

SWEEPS UST:

Status: Not reported
 Comp Number: 406728
 Number: Not reported
 Board Of Equalization: Not reported
 Ref Date: Not reported
 Act Date: Not reported
 Created Date: Not reported
 Tank Status: Not reported
 Owner Tank Id: Not reported
 Swrcb Tank Id: 43-060-406728-000001
 Actv Date: Not reported
 Capacity: 4000
 Tank Use: M.V. FUEL
 Stg: PRODUCT
 Content: REG UNLEADED
 Number Of Tanks: 2

Status: Not reported
 Comp Number: 406728
 Number: Not reported
 Board Of Equalization: Not reported
 Ref Date: Not reported
 Act Date: Not reported
 Created Date: Not reported
 Tank Status: Not reported
 Owner Tank Id: Not reported
 Swrcb Tank Id: 43-060-406728-000002
 Actv Date: Not reported
 Capacity: 8000
 Tank Use: M.V. FUEL
 Stg: PRODUCT
 Content: DIESEL
 Number Of Tanks: Not reported

Map ID
Direction
Distance
Distance (ft.)
Elevation Site

MAP FINDINGS

Database(s) EDR ID Number
EPA ID Number

SONY ELECTRONICS INC (Continued)

S103653271

Gen County: Santa Clara
TSD EPA ID: CAL000121946
TSD County: Marin
Waste Category: Photochemicals/photoprocessing waste
Disposal Method: Recycler
Tons: .2710
Facility County: Santa Clara

Gepaid: CAD983666264
Contact: STEVEN HOCHSTADT
Telephone: 4089555912
Facility Addr2: Not reported
Mailing Name: Not reported
Mailing Address: 3300 ZANKER RD
Mailing City,St,Zip: SAN JOSE, CA 951341940
Gen County: Santa Clara
TSD EPA ID: CAT080014079
TSD County: Santa Clara
Waste Category: Unspecified organic liquid mixture
Disposal Method: Transfer Station
Tons: 0.03
Facility County: Santa Clara

Gepaid: CAD983666264
Contact: STEVEN HOCHSTADT
Telephone: 4089555912
Facility Addr2: Not reported
Mailing Name: Not reported
Mailing Address: 3300 ZANKER RD
Mailing City,St,Zip: SAN JOSE, CA 951341940
Gen County: Santa Clara
TSD EPA ID: CAT080014079
TSD County: Santa Clara
Waste Category: Off-specification, aged, or surplus organics
Disposal Method: Transfer Station
Tons: 0.14
Facility County: Santa Clara

Gepaid: CAD983666264
Contact: STEVEN HOCHSTADT
Telephone: 4089555912
Facility Addr2: Not reported
Mailing Name: Not reported
Mailing Address: 3300 ZANKER RD
Mailing City,St,Zip: SAN JOSE, CA 951341940
Gen County: Santa Clara
TSD EPA ID: CAT080014079
TSD County: Contra Costa
Waste Category: Off-specification, aged, or surplus organics
Disposal Method: Transfer Station
Tons: 0.52
Facility County: Not reported

Gepaid: CAD983666264
Contact: SONY ELECTRONICS INC
Telephone: 4089444169
Facility Addr2: Not reported

Map ID
Direction
Distance
Distance (ft.)
Elevation Site

MAP FINDINGS

Database(s) EDR ID Number
EPA ID Number

SONY ELECTRONICS INC (Continued)

S103653271

Mailing Name: Not reported
Mailing Address: 3300 ZANKER RD
Mailing City,St,Zip: SAN JOSE, CA 951341940
Gen County: Santa Clara
TSD EPA ID: CAD044429835
TSD County: Los Angeles
Waste Category: Unspecified organic liquid mixture
Disposal Method: Recycler
Tons: .2210
Facility County: Santa Clara

[Click this hyperlink](#) while viewing on your computer to access
23 additional CA_HAZNET: record(s) in the EDR Site Report.

SAN JOSE HAZMAT:

Region: SAN JOSE
File Num: 405808
Class: Auto Wrecking/Misc Simple Facility

D20
SE
1/8-1/4
1125 ft.

SONY CORPORATION OF AMERICA
3300 ZANKER RD
SAN JOSE, CA 95134

RCRA-SQG 1000820564
FINDS CAD983666264

Site 2 of 2 in cluster D

Relative:
Higher

RCRAInfo:
Owner: SONY CORPORATION OF AMERICA
(408) 944-4169
EPA ID: CAD983666264
Contact: GLENN ERITZ
(408) 944-4169

Actual:
23 ft.

Classification: Small Quantity Generator
TSD Activities: Not reported
Violation Status: No violations found

FINDS:

Other Pertinent Environmental Activity Identified at Site

California - Hazardous Waste Tracking System - Datamart

RCRAInfo is a national information system that supports the Resource Conservation and Recovery Act (RCRA) program through the tracking of events and activities related to facilities that generate, transport, and treat, store, or dispose of hazardous waste. RCRAInfo allows RCRA program staff to track the notification, permit, compliance, and corrective action activities required under RCRA.

Map ID
Direction
Distance
Distance (ft.)
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

E21 SEAGATE TECHNOLOGY, INC
South 3061 ZANKER RD
1/8-1/4 SAN JOSE, CA 95131
1172 ft.

HAZNET S103651396
SAN JOSE HAZMAT N/A

Site 1 of 2 in cluster E

Relative:
Equal

HAZNET:

Actual:
22 ft.

Gepaid: CAD982465130
Contact: SEAGATE TECHNOLOGY, INC
Telephone: 4084397735
Facility Addr2: Not reported
Mailing Name: Not reported
Mailing Address: 3081 ZANKER RD
Mailing City,St,Zip: SAN JOSE, CA 951360000
Gen County: Santa Clara
TSD EPA ID: CAD003963592
TSD County: Santa Clara
Waste Category: Photochemicals/photoprocessing waste
Disposal Method: Recycler
Tons: .2293
Facility County: Santa Clara

Gepaid: CAD982465130
Contact: SEAGATE TECHNOLOGY, INC
Telephone: 4084397735
Facility Addr2: Not reported
Mailing Name: Not reported
Mailing Address: 3081 ZANKER RD
Mailing City,St,Zip: SAN JOSE, CA 951360000
Gen County: Santa Clara
TSD EPA ID: CAD009452657
TSD County: San Mateo
Waste Category: Laboratory waste chemicals
Disposal Method: Recycler
Tons: .2325
Facility County: Santa Clara

Gepaid: CAD982465130
Contact: SEAGATE TECHNOLOGY, INC
Telephone: 4084397735
Facility Addr2: Not reported
Mailing Name: Not reported
Mailing Address: 3081 ZANKER RD
Mailing City,St,Zip: SAN JOSE, CA 951360000
Gen County: Santa Clara
TSD EPA ID: CAD050806850
TSD County: Los Angeles
Waste Category: Unspecified oil-containing waste
Disposal Method: Transfer Station
Tons: .2250
Facility County: Santa Clara

Gepaid: CAD982465130
Contact: SEAGATE TECHNOLOGY, INC
Telephone: 4084397735
Facility Addr2: Not reported
Mailing Name: Not reported
Mailing Address: 3081 ZANKER RD
Mailing City,St,Zip: SAN JOSE, CA 951360000

Map ID
Direction
Distance
Distance (ft.)
Elevation

MAP FINDINGS

Database(s)
EPA ID Number
EDR ID Number

SEAGATE TECHNOLOGY, INC (Continued)

S103651396

Gen County: Santa Clara
TSD EPA ID: CAD059494310
TSD County: Santa Clara
Waste Category: Unspecified organic liquid mixture
Disposal Method: Disposal, Other
Tons: .2085
Facility County: Santa Clara

Gepaid: CAD982465130
Contact: SEAGATE TECHNOLOGY, INC
Telephone: 4084397735
Facility Addr2: Not reported
Mailing Name: Not reported
Mailing Address: 3081 ZANKER RD
Mailing City,St,Zip: SAN JOSE, CA 951360000
Gen County: Santa Clara
TSD EPA ID: CAD009452657
TSD County: San Mateo
Waste Category: Liquids with halogenated organic compounds > 1000 mg/l
Disposal Method: Disposal, Other
Tons: 1.5637
Facility County: Santa Clara

[Click this hyperlink](#) while viewing on your computer to access 48 additional CA_HAZNET: record(s) in the EDR Site Report.

SAN JOSE HAZMAT:

Region: SAN JOSE
File Num: 406281
Class: Auto Wrecking/Misc Simple Facility

E22
South
1/8-1/4
1172 ft.

SEAGATE TECHNOLOGY INC
3061 ZANKER RD
SAN JOSE, CA 95134

RCRA-SQG 1000313323
FINDS CAD982465130

Site 2 of 2 in cluster E

Relative:
Equal

RCRAInfo:
Owner: SEAGATE TECH INC
(408) 438-6550
EPA ID: CAD982465130
Contact: DAVE BINGHAM
(408) 439-7735

Actual:
22 ft.

Classification: Small Quantity Generator
TSD Activities: Not reported

Violation Status: No violations found

FINDS:

Other Pertinent Environmental Activity Identified at Site

RCRAInfo is a national information system that supports the Resource Conservation and Recovery Act (RCRA) program through the tracking of events and activities related to facilities that generate, transport, and treat, store, or dispose of hazardous waste. RCRAInfo allows RCRA program staff to track the notification, permit, compliance, and

Map ID
Direction
Distance
Distance (ft.)
Elevation

MAP FINDINGS

Database(s)
EDR ID Number
EPA ID Number

SEAGATE TECHNOLOGY INC (Continued)

1000313323

corrective action activities required under RCRA.

TRIS (Toxics Release Inventory System) contains information from facilities on the amounts of over 300 listed toxic chemicals that these facilities release directly to air, water, land, or that are transported off-site.

23
SW
1/8-1/4
1264 ft.

MAXTOR CORPORATION
150 RIVER OAKS PARKWAY
SAN JOSE, CA 95134

RCRA-SQG 1000417810
FINDS CAD981399876
HAZNET

Relative:
Lower

RCRAInfo:
Owner: MAXTOR CORPORATION
(408) 555-1212
EPA ID: CAD981399876
Contact: ANDY FINFROCK
(408) 942-1700

Actual:
19 ft.

Classification: Small Quantity Generator
TSDF Activities: Not reported
Violation Status: No violations found

FINDS:

Other Pertinent Environmental Activity Identified at Site

RCRAInfo is a national information system that supports the Resource Conservation and Recovery Act (RCRA) program through the tracking of events and activities related to facilities that generate, transport, and treat, store, or dispose of hazardous waste. RCRAInfo allows RCRA program staff to track the notification, permit, compliance, and corrective action activities required under RCRA.

TRIS (Toxics Release Inventory System) contains information from facilities on the amounts of over 300 listed toxic chemicals that these facilities release directly to air, water, land, or that are transported off-site.

HAZNET:

Gepaid: CAD981399876
Contact: MAXTOR CORPORATION
Telephone: 0000000000
Facility Addr2: Not reported
Mailing Name: Not reported
Mailing Address: 150 RIVER OAKS PARKWAY
Mailing City,St,Zip: SAN JOSE, CA 951340000
Gen County: Santa Clara
TSD EPA ID: CAD050806850

Map ID
Direction
Distance
Distance (ft.)
Elevation Site

MAP FINDINGS

Database(s) EDR ID Number
EPA ID Number

MAXTOR CORPORATION (Continued)

1000417810

TSD County: Los Angeles
Waste Category: Unspecified solvent mixture Waste
Disposal Method: Recycler
Tons: .3000
Facility County: Santa Clara

Gepaid: CAD981399876
Contact: MAXTOR CORPORATION
Telephone: 0000000000
Facility Addr2: Not reported
Mailing Name: Not reported
Mailing Address: 150 RIVER OAKS PARKWAY
Mailing City,St,Zip: SAN JOSE, CA 951340000
Gen County: Santa Clara
TSD EPA ID: CAD050806850
TSD County: Los Angeles
Waste Category: Other empty containers 30 gallons or more
Disposal Method: Transfer Station
Tons: .0505
Facility County: Santa Clara

Gepaid: CAD981399876
Contact: MAXTOR CORPORATION
Telephone: 0000000000
Facility Addr2: Not reported
Mailing Name: Not reported
Mailing Address: 150 RIVER OAKS PARKWAY
Mailing City,St,Zip: SAN JOSE, CA 951340000
Gen County: Santa Clara
TSD EPA ID: CAD050806850
TSD County: Los Angeles
Waste Category: Liquids with halogenated organic compounds > 1000 mg/l
Disposal Method: Transfer Station
Tons: .2250
Facility County: Santa Clara

Gepaid: CAD981399876
Contact: MAXTOR CORPORATION
Telephone: 0000000000
Facility Addr2: Not reported
Mailing Name: Not reported
Mailing Address: 150 RIVER OAKS PARKWAY
Mailing City,St,Zip: SAN JOSE, CA 951340000
Gen County: Santa Clara
TSD EPA ID: CAD009452657
TSD County: San Mateo
Waste Category: Liquids with halogenated organic compounds > 1000 mg/l
Disposal Method: Recycler
Tons: .6880
Facility County: Santa Clara

[Click this hyperlink](#) while viewing on your computer to access
-1 additional CA_HAZNET: record(s) in the EDR Site Report.

Map ID
Direction
Distance
Distance (ft.)
Elevation Site

MAP FINDINGS

Database(s) EDR ID Number
EPA ID Number

IT, SAN JOSE (Continued)

S102008396

Alias Type: INDUSTRIAL TANK, INC.
Alternate Name
Alternate Name
Envirostor ID Number
APN: NONE SPECIFIED
APN Description: Not reported
Comments: no commentCompleted RA. 54 cubic yards of hazardous soil and 1,830 cubic yards of non-hazardous soil were excavated, removed and disposed off-site.
Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Removal Action Completion Report
Completed Date: / /
Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Removal Action Completion Report
Completed Date: / /
Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Site Screening
Completed Date: / /
Confirmed: NONE SPECIFIED
Confirmed Description: Not reported
Future Area Name: Not reported
Future Sub Area Name: Not reported
Future Document Type: Not reported
Future Due Date: Not reported
Media Affected: 10002, 30013, 30153
Media Affected Desc: Not reported
Media Affected Desc: Not reported
Media Affected Desc: Not reported
Management Required: NONE SPECIFIED
Management Required Desc: Not reported
Potential: NONE SPECIFIED
Potential Description: Not reported
Schedule Area Name: Not reported
Schedule Sub Area Name: Not reported
Schedule Document Type: Not reported
Schedule Due Date: Not reported
Schedule Revised Date: Not reported
PastUse: NONE SPECIFIED

27 IT CORP SAN JOSE TRANSFER FACILITY
SSE 3010 ZANKER RD
1/2-1 SAN JOSE, CA 95035
2791 ft.

RCRA-SQG 1000180426
FINDS CAD000633115
HAZNET
RCRA-TSDF
CORRACTS
CERC-NFRAP

Relative:
Equal

Actual:
22 ft.

Map ID
Direction
Distance
Distance (ft.)
Elevation Site

MAP FINDINGS

Database(s) EDR ID Number
EPA ID Number

IT CORP SAN JOSE TRANSFER FACILITY (Continued)

1000180426

RCRAInfo Corrective Action Summary:

Event: CA Prioritization, Facility or area was assigned a low corrective action priority.
Event Date: 03/18/1991

RCRAInfo:

Owner: IT CORPORATION
(213) 830-1781
EPA ID: CAD000633115
Contact: Not reported
Classification: TSD
TSD Activities: Not reported

Violation Status: Violations exist

Regulation Violated: 270
Area of Violation: TSD-OTHER REQUIREMENTS (OVERSIGHT)
Date Violation Determined: 11/15/1988
Actual Date Achieved Compliance: 03/07/1989

Enforcement Action: WRITTEN INFORMAL
Enforcement Action Date: 01/31/1989
Penalty Type: Not reported

Regulation Violated: 268 ALL
Area of Violation: TSD-LAND BAN REQUIREMENTS
Date Violation Determined: 11/15/1988
Actual Date Achieved Compliance: 03/21/1989

Enforcement Action: WRITTEN INFORMAL
Enforcement Action Date: 01/31/1989
Penalty Type: Not reported

Regulation Violated: 264.70-77.E
Area of Violation: TSD-OTHER REQUIREMENTS (OVERSIGHT)
Date Violation Determined: 11/15/1988
Actual Date Achieved Compliance: 03/07/1989

Enforcement Action: WRITTEN INFORMAL
Enforcement Action Date: 01/31/1989
Penalty Type: Not reported

Regulation Violated: 268.7
Area of Violation: GENERATOR-LAND BAN REQUIREMENTS
Date Violation Determined: 11/15/1988
Actual Date Achieved Compliance: 03/21/1989

Enforcement Action: WRITTEN INFORMAL
Enforcement Action Date: 01/31/1989
Penalty Type: Not reported

Regulation Violated: 264.140-150.H
Area of Violation: TSD-FINANCIAL RESPONSIBILITY REQUIREMENTS
Date Violation Determined: 11/08/1988
Actual Date Achieved Compliance: 10/26/1989

Enforcement Action: FINAL JUDICIAL ORDERS
Enforcement Action Date: 04/01/1987
Penalty Type: Not reported

Regulation Violated: 270
Area of Violation: TSD-OTHER REQUIREMENTS (OVERSIGHT)

Map ID
 Direction
 Distance
 Distance (ft.)
 Elevation Site

MAP FINDINGS

Database(s) EDR ID Number
 EPA ID Number

IT CORP SAN JOSE TRANSFER FACILITY (Continued)

1000180426

Date Violation Determined: 09/14/1987
 Actual Date Achieved Compliance: 11/15/1988

Enforcement Action: WRITTEN INFORMAL
 Enforcement Action Date: 01/31/1989
 Penalty Type: Not reported

Regulation Violated: 268 ALL
 Area of Violation: TSD-LAND BAN REQUIREMENTS
 Date Violation Determined: 09/14/1987
 Actual Date Achieved Compliance: 11/15/1988

Enforcement Action: WRITTEN INFORMAL
 Enforcement Action Date: 01/31/1989
 Penalty Type: Not reported

Regulation Violated: 268.7
 Area of Violation: GENERATOR-LAND BAN REQUIREMENTS
 Date Violation Determined: 09/14/1987
 Actual Date Achieved Compliance: 11/15/1988

Enforcement Action: FINAL JUDICIAL ORDERS
 Enforcement Action Date: 04/01/1987
 Penalty Type: Not reported

There are 8 violation record(s) reported at this site:

<u>Evaluation</u>	<u>Area of Violation</u>	<u>Date of Compliance</u>
Compliance Evaluation Inspection	TSD-OTHER REQUIREMENTS (OVERSIGHT)	19890307
	TSD-OTHER REQUIREMENTS (OVERSIGHT)	19890307
	TSD-LAND BAN REQUIREMENTS	19890321
	GENERATOR-LAND BAN REQUIREMENTS	19890321
Financial Record Review	TSD-FINANCIAL RESPONSIBILITY REQUIREMENTS	19891026
	TSD-LAND BAN REQUIREMENTS	19881115
Other Evaluation	TSD-OTHER REQUIREMENTS (OVERSIGHT)	19881115
	GENERATOR-LAND BAN REQUIREMENTS	19881115

FINDS:

Other Pertinent Environmental Activity Identified at Site

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HAZNET:

Gepaid: CAD000633115
 Contact: IT CORP
 Telephone: 5103729100
 Facility Addr2: Not reported
 Mailing Name: Not reported
 Mailing Address: 4585 PACHECO BLVD
 Mailing City,St,Zip: MARTINEZ, CA 945530000
 Gen County: Santa Clara

Map ID
Direction
Distance
Distance (ft.)
Elevation Site

MAP FINDINGS

Database(s) EDR ID Number
EPA ID Number

IT CORP SAN JOSE TRANSFER FACILITY (Continued)

1000180426

TSD EPA ID: CAD009452657
TSD County: San Mateo
Waste Category: Unspecified organic liquid mixture
Disposal Method: Not reported
Tons: .1042
Facility County: Santa Clara

Gepaid: CAD000633115
Contact: IT CORP
Telephone: 5103729100
Facility Addr2: Not reported
Mailing Name: Not reported
Mailing Address: 4585 PACHECO BLVD
Mailing City,St,Zip: MARTINEZ, CA 945530000
Gen County: Santa Clara
TSD EPA ID: CAD059494310
TSD County: Santa Clara
Waste Category: Unspecified oil-containing waste
Disposal Method: Disposal, Other
Tons: .2500
Facility County: Santa Clara

Gepaid: CAD000633115
Contact: IT CORP
Telephone: 5103729100
Facility Addr2: Not reported
Mailing Name: Not reported
Mailing Address: 4585 PACHECO BLVD
Mailing City,St,Zip: MARTINEZ, CA 945530000
Gen County: Santa Clara
TSD EPA ID: CAD009452657
TSD County: San Mateo
Waste Category: Unspecified organic liquid mixture
Disposal Method: Recycler
Tons: .1251
Facility County: Santa Clara

Gepaid: CAD000633115
Contact: IT CORP
Telephone: 5103729100
Facility Addr2: Not reported
Mailing Name: Not reported
Mailing Address: 4585 PACHECO BLVD
Mailing City,St,Zip: MARTINEZ, CA 945530000
Gen County: Santa Clara
TSD EPA ID: CAD059494310
TSD County: Santa Clara
Waste Category: Unspecified oil-containing waste
Disposal Method: Disposal, Other
Tons: .2500
Facility County: Santa Clara

[Click this hyperlink](#) while viewing on your computer to access
-1 additional CA_HAZNET: record(s) in the EDR Site Report.

CORRACTS:

Map ID
 Direction
 Distance
 Distance (ft.)
 Elevation Site

MAP FINDINGS

Database(s) EDR ID Number
 EPA ID Number

IT CORP SAN JOSE TRANSFER FACILITY (Continued)

1000180426

EPA ID: CAD000633115
 EPA Region: 09
 Area Name: ENTIRE FACILITY
 Actual Date: 03/18/1991
 Action: CA075LO - CA Prioritization, Facility or area was assigned a low corrective action priority
 NAICS Code(s): 562
 Waste Management and Remediation Services

CERC-NFRAP:
 Site ID: 0903314
 Federal Facility: Not a Federal Facility
 NPL Status: Not on the NPL
 Non NPL Status: Deferred to RCRA

CERCLIS-NFRAP Site Contact Name(s):
 Contact Name: Matt Mitguard
 Contact Tel: (415) 972-3096
 Contact Title: Site Assessment Manager (SAM)

Contact Name: Jere Johnson
 Contact Tel: (415) 972-3094
 Contact Title: Site Assessment Manager (SAM)

Site Description: Not reported

CERCLIS-NFRAP Assessment History:
 Action: DISCOVERY
 Date Started: Not reported
 Date Completed: 08/24/1990
 Priority Level: Not reported
 Action: PRELIMINARY ASSESSMENT
 Date Started: Not reported
 Date Completed: 03/18/1991
 Priority Level: Deferred to RCRA (Subtitle C)
 Action: ARCHIVE SITE
 Date Started: Not reported
 Date Completed: 01/23/1996
 Priority Level: Not reported

G28
 WSW
 1/2-1
 3290 ft.

MANSION GROVE
4101 LICK MILL BLVD
SANTA CLARA, CA 95050

CA BOND EXP. PLAN S100833264
SLIC N/A

Site 1 of 2 in cluster G

Relative:
 Lower

CA BOND EXP. PLAN:
 Responsible Party: RESPONSIBLE PARTY-LEAD SITE CLEANUP WORKPLAN
 Project Revenue Source Company: Not reported
 Project Revenue Source Addr: Not reported
 Project Revenue Source City,St,Zip: Not reported
 Project Revenue Source Desc: DHS will be issuing remedial action order or entering into an enforceable agreement with the responsible parties. DHS has budgeted \$100,000 for oversight/monitoring of cleanup efforts. DHS will recover 100 percent of direct

Actual:
 13 ft.

Map ID
 Direction
 Distance
 Distance (ft.)
 Elevation Site

MAP FINDINGS

Database(s) EDR ID Number
 EPA ID Number

MANSION GROVE (Continued)

S100833264

costs plus staff costs and overhead related to the project. The responsible parties will pay all costs associated with remedial investigations and cleanup activities.

Site Description: Mansion Grove is a 29 acre residential apartment complex currently under construction. The site was occupied by facilities involved in metals reclamation and the manufacture and recycling of solvents and other chemicals for over 70 years. During excavations for several building foundations, contaminated soil was discovered.

Hazardous Waste Desc: Soil testing has detected the presence of volatile organic compounds including halogenated solvents, naphthalene compounds, polynuclear aromatic compounds and petroleum hydrocarbons. There is potential for ground water contamination.

Threat To Public Health & Env: Residential apartments are located adjacent to areas of contaminated soil. The site is fenced and posted to prevent public contact with contaminated soil.

Site Activity Status: A removal of 6000 cubic yards of contaminated soil adjacent to occupied buildings was completed by the RP under DHS oversight in 1988. Preliminary ground water investigations have been initiated.

SLIC:

Region: STATE
Global Id: SL0608586160
Assigned Name: SLICSITE
Lead Agency Contact: DEREK WHITWORTH
Lead Agency: SAN FRANCISCO BAY RWQCB (REGION 2)
Lead Agency Case Number: 43s0678
Responsible Party: Not reported
Recent Dtw: Not reported
Substance Released: 13
Facility Status: Case Open

G29
 WSW
 1/2-1
 3290 ft.

MANSION GROVE
4101 LICK MILL BOULEVARD
SANTA CLARA, CA 95054

RESPONSE S101272885
EMI N/A
ENVIROSTOR
HIST Cal-Sites

Site 2 of 2 in cluster G

Relative:
 Lower

Actual:
 13 ft.

RESPONSE:
Facility ID: 43280031
Site Type: State Response
Site Type Detail: State Response or NPL
Acres: 29
National Priorities List: NO
Cleanup Oversight Agencies: SMBRP
Lead Agency: SMBRP
Lead Agency Description: Not reported
Project Manager: VIRGINIA LASKY
Supervisor: Karen Toth
Division Branch: North Coast
Site Code: 200117
Assembly: 22
Senate: 13
Status: Certified / Operation & Maintenance
Status Date: 1996-11-15 00:00:00
Restricted Use: NO
Funding: Responsible Party
Latitude: 37.398975
Longitude: -121.949011111111
Alias Name: 200117

Map ID
 Direction
 Distance
 Distance (ft.)
 Elevation Site

MAP FINDINGS

Database(s) EDR ID Number
 EPA ID Number

MANSION GROVE (Continued)

S101272885

Alias Type: APN: APN Description: Comments:	CAD982512832 P23023 CAD980735971 43280031 COMMERCIAL SOLVENT JAMES LICK MANSION LICK MILL CREEK APARTMENTS PROMETHEUS DEVELOPMENT CO INC CAD982400293 Project Code (Site Code) HWIS Identification Code PCode EPA Identification Number EPA Identification Number Alternate Name Alternate Name Alternate Name Alternate Name Envirostor ID Number NONE SPECIFIED Not reported <p>A Removal Action Workplan was approved for the installation of a soil vapor extraction system. Amendment to the Order to include the requirements for the Operation and Maintenance (O&M) of the extraction trench and the three extraction wells (E-6, E-7 and E-8) The Remedial Investigation and Feasibility Study Report confirms the presence of volatile organic compounds in soil and groundwater. The Public Participation plan for the site was approved. A Preliminary Assessment Report was completed and made a recommendation for the inclusion of the site into the State Superfund but will continue to work with Prometheus Development Company to develop a plan for a Remedial Investigation/Feasibility SA Remedial Action Plan was approved on November 30, 1994 which required the installation of groundwater and the expansion of the soil vapor extraction and treatment systems. The 5 Year Review Report indicates that the groundwater and the soil vapor remediation systems are containing the offsite migration of contaminants. The approval of the Operation and Maintenance Plan which lays out plan how to operate and maintain both the soil vapor and the groundwater monitoring and extraction treatment systems. Completed the start-up of the groundwater and the soil vapor extraction and treatment systems. DTSC approved a detailed design for the installation of the soil vapor (expanded) and groundwater monitoring extraction system. The installation of a soil vapor extraction system, including its wells and associated piping and a carbon adsorption unit, were completed to remediate soils contaminated with volatile organic compounds. Removal action completed which consisted of excavation of contaminated soil with volatile organic compounds and disposed to an offsite facility. Report approved. DTSC approved revisions to the Annual Report. DTSC has no technical comments. DTSC has no comments. Fact Sheet provides project updates. An amendment to Order HAS 88-89-019 (November 7, 1996) was also issued to ensure the operation and maintenance of both systems until such time that cleanup objectives are met. Certification - Ongoing operation and maintenance consists of the continued extraction and treatment of the groundwater and soil vapor. A Negative Declaration was adopted for the site. DTSC adopted a Negative Declaration for the proposed RAW. An Order was issued to require</p>
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Map ID
Direction
Distance
Distance (ft.)
Elevation Site

MAP FINDINGS

EDR ID Number
EPA ID Number
Database(s)

MANSION GROVE (Continued)

S101272885

Mansion Grove to conduct groundwater monitoring and among other things to , submit a Remedial Investigation/Feasibility Study and a Remedial Action Workplans.tudy.

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Removal Action Workplan
Completed Date: / /

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Remedial Action Plan
Completed Date: / /

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Remedial Investigation / Feasibility Study
Completed Date: / /

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Public Participation Plan / Community Relations Plan
Completed Date: / /

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Site Inspection Report
Completed Date: / /

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Preliminary Assessment Report
Completed Date: / /

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Amendment - Order/Agreement
Completed Date: / /

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Certification
Completed Date: / /

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: CEQA - Initial Study/ Neg. Declaration
Completed Date: / /

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Cost Recovery Settlements/Decrees
Completed Date: / /

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: CEQA - Initial Study/ Neg. Declaration
Completed Date: / /

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Unilateral Order (I/SE, RAO, EPA AO)
Completed Date: / /

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: 5 Year Review Reports
Completed Date: / /

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported

Map ID
 Direction
 Distance
 Distance (ft.)
 Elevation Site

MAP FINDINGS

Database(s) EDR ID Number
 EPA ID Number

MANSION GROVE (Continued)

S101272885

Future Sub Area Name: Not reported
 Future Document Type: Operations and Maintenance Report
 Future Due Date: 2007
 Future Area Name: PROJECT WIDE
 Future Sub Area Name: Not reported
 Future Document Type: Operations and Maintenance Report
 Future Due Date: 2007
 Future Area Name: PROJECT WIDE
 Future Sub Area Name: Not reported
 Future Document Type: Operations and Maintenance Report
 Future Due Date: 2007
 Media Affected: 30022, 30027, 30028, 30192, 30195
 Media Affected Desc: Not reported
 Management Required: REM
 Management Required Desc: Not reported
 Potential: OTH, SOIL, SV
 Potential Description: Not reported
 Potential Description: Not reported
 Potential Description: Not reported
 Schedule Area Name: Not reported
 Schedule Sub Area Name: Not reported
 Schedule Document Type: Not reported
 Schedule Due Date: Not reported
 Schedule Revised Date: Not reported
 PastUse: MANUFACTURING - CHEMICALS

EMI:

Year: 2002
 Carbon Monoxide Emissions Tons/Yr: 43
 Air Basin: SF
 Facility ID: 10451
 Air District Name: BA
 SIC Code: 2869
 Air District Name: BAY AREA AQMD
 Community Health Air Pollution Info System: Not reported
 Consolidated Emission Reporting Rule: Not reported
 Total Organic Hydrocarbon Gases Tons/Yr: 0
 Reactive Organic Gases Tons/Yr: 0
 Carbon Monoxide Emissions Tons/Yr: 0
 NOX - Oxides of Nitrogen Tons/Yr: 0
 SOX - Oxides of Sulphur Tons/Yr: 0
 Particulate Matter Tons/Yr: 0
 Part. Matter 10 Micrometers & Smilr Tons/Yr: 0

Year: 2003
 Carbon Monoxide Emissions Tons/Yr: 43
 Air Basin: SF
 Facility ID: 10451
 Air District Name: BA
 SIC Code: 2869
 Air District Name: BAY AREA AQMD
 Community Health Air Pollution Info System: Not reported
 Consolidated Emission Reporting Rule: Not reported

Map ID
Direction
Distance
Distance (ft.)
Elevation Site

MAP FINDINGS

Database(s) EDR ID Number
EPA ID Number

MANSION GROVE (Continued)

S101272885

Total Organic Hydrocarbon Gases Tons/Yr: 0
Reactive Organic Gases Tons/Yr: 0
Carbon Monoxide Emissions Tons/Yr: 0
NOX - Oxides of Nitrogen Tons/Yr: 0
SOX - Oxides of Sulphur Tons/Yr: 0
Particulate Matter Tons/Yr: 0
Part. Matter 10 Micrometers & Smllr Tons/Yr: 0

Year: 2004
Carbon Monoxide Emissions Tons/Yr: 43
Air Basin: SF
Facility ID: 10451
Air District Name: BA
SIC Code: 2869
Air District Name: BAY AREA AQMD
Community Health Air Pollution Info System: Not reported
Consolidated Emission Reporting Rule: Not reported
Total Organic Hydrocarbon Gases Tons/Yr: 0
Reactive Organic Gases Tons/Yr: 0
Carbon Monoxide Emissions Tons/Yr: 0
NOX - Oxides of Nitrogen Tons/Yr: 0
SOX - Oxides of Sulphur Tons/Yr: 0
Particulate Matter Tons/Yr: 0
Part. Matter 10 Micrometers & Smllr Tons/Yr: 0

Year: 2005
Carbon Monoxide Emissions Tons/Yr: 43
Air Basin: SF
Facility ID: 10451
Air District Name: BA
SIC Code: 2869
Air District Name: BAY AREA AQMD
Community Health Air Pollution Info System: Not reported
Consolidated Emission Reporting Rule: Not reported
Total Organic Hydrocarbon Gases Tons/Yr: 0
Reactive Organic Gases Tons/Yr: 0
Carbon Monoxide Emissions Tons/Yr: 0
NOX - Oxides of Nitrogen Tons/Yr: 0
SOX - Oxides of Sulphur Tons/Yr: 0
Particulate Matter Tons/Yr: 0
Part. Matter 10 Micrometers & Smllr Tons/Yr: 0

ENVIROSTOR:

Site Type: State Response
Site Type Detailed: State Response or NPL
Acres: 29
NPL: NO
Regulatory Agencies: SMBRP
Lead Agency: SMBRP
Program Manager: VIRGINIA LASKY
Supervisor: Karen Toth
Division Branch: North Coast
Facility ID: 43280031
Site Code: 200117
Assembly: 22
Senate: 13
Special Program: Not reported

Map ID
 Direction
 Distance
 Distance (ft.)
 Elevation Site

MAP FINDINGS

Database(s) EDR ID Number
 EPA ID Number

MANSION GROVE (Continued)

S101272885

<p>Status: Status Date: Restricted Use: Funding: Latitude: Longitude: Alias Name:</p>	<p>Certified / Operation & Maintenance 1996-11-15 00:00:00 NO Responsible Party 37.398975 -121.949011111111 200117 CAD982512832 P23023 CAD980735971 43280031 COMMERCIAL SOLVENT JAMES LICK MANSION LICK MILL CREEK APARTMENTS PROMETHEUS DEVELOPMENT CO INC CAD982400293</p>
<p>Alias Type:</p>	<p>Project Code (Site Code) HWIS Identification Code PCode EPA Identification Number EPA Identification Number Alternate Name Alternate Name Alternate Name Alternate Name Envirostor ID Number</p>
<p>APN: APN Description: Comments:</p>	<p>NONE SPECIFIED Not reported A Removal Action Workplan was approved for the installation of a soil vapor extraction system. Amendment to the Order to include the requirements for the Operation and Maintenance (O&M) of the extraction trench and the three extraction wells (E-6, E-7 and E-8) The Remedial Investigation and Feasibility Study Report confirms the presence of volatile organic compounds in soil and groundwater. The Public Participation plan for the site was approved. A Preliminary Assessment Report was completed and made a recommendation for the inclusion of the site into the State Superfund but will continue to work with Prometheus Development Company to develop a plan for a Remedial Investigation/Feasibility SA Remedial Action Plan was approved on November 30, 1994 which required the installation of groundwater and the expansion of the soil vapor extraction and treatment systems. The 5 Year Review Report indicates that the groundwater and the soil vapor remediation systems are containing the offsite migration of contaminants. The approval of the Operation and Maintenance Plan which lays out plan how to operate and maintain both the soil vapor and the groundwater monitoring and extraction treatment systems. Completed the start-up of the groundwater and the soil vapor extraction and treatment systems. DTSC approved a detailed design for the installation of the soil vapor (expanded) and groundwater monitoring extraction system. The installation of a soil vapor extraction system, including its wells and associated piping and a carbon adsorption unit, were completed to remediate soils contaminated with volatile organic compounds. Removal action completed which consisted of excavation of contaminated soil with volatile organic compounds and disposed to an offsite facility. Report approved. DTSC approved revisions to the Annual Report. DTSC has no technical comments. DTSC has no comments. Fact Sheet provides project</p>

Map ID
Direction
Distance
Distance (ft.)
Elevation Site

MAP FINDINGS

EDR ID Number
EPA ID Number
Database(s)

MANSION GROVE (Continued)

S101272885

updates. An amendment to Order HAS 88-89-019 (November 7, 1996) was also issued to ensure the operation and maintenance of both systems until such time that cleanup objectives are met. Certification - Ongoing operation and maintenance consists of the continued extraction and treatment of the groundwater and soil vapor. A Negative Declaration was adopted for the site. DTSC adopted a Negative Declaration for the proposed RAW. An Order was issued to require Mansion Grove to conduct groundwater monitoring and among other things to submit a Remedial Investigation/Feasibility Study and a Remedial Action Workplan.

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Removal Action Workplan
Completed Date: / /
Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Remedial Action Plan
Completed Date: / /
Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Remedial Investigation / Feasibility Study
Completed Date: / /
Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Public Participation Plan / Community Relations Plan
Completed Date: / /
Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Site Inspection Report
Completed Date: / /
Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Preliminary Assessment Report
Completed Date: / /
Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Amendment - Order/Agreement
Completed Date: / /
Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Certification
Completed Date: / /
Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: CEQA - Initial Study/ Neg. Declaration
Completed Date: / /
Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Cost Recovery Settlements/Decrees
Completed Date: / /
Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: CEQA - Initial Study/ Neg. Declaration
Completed Date: / /
Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Unilateral Order (I/SE, RAO, EPA AO)

Map ID
Direction
Distance
Distance (ft.)
Elevation Site

MAP FINDINGS

Database(s) EDR ID Number
EPA ID Number

MANSION GROVE (Continued)

S101272885

Completed Date: //
Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: 5 Year Review Reports
Completed Date: //
Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Operations and Maintenance Plan
Completed Date: //
Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Remedial Action Completion Report
Completed Date: //
Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Remedial Design
Completed Date: //
Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Removal Action Completion Report
Completed Date: //
Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Removal Action Completion Report
Completed Date: //
Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Operations and Maintenance Report
Completed Date: //
Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Operations and Maintenance Report
Completed Date: //
Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Operations and Maintenance Report
Completed Date: //
Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Operations and Maintenance Report
Completed Date: //
Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Fact Sheets
Completed Date: //
Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Discovery
Completed Date: //
Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Amendment - Order/Agreement
Completed Date: //
Confirmed: 30022,30027,30028,30192,30195
Confirmed Description: Tetrachloroethylene (PCE)
Confirmed Description: Trichloroethylene (TCE)
Confirmed Description: Vinyl chloride

Map ID
Direction
Distance
Distance (ft.)
Elevation Site

MAP FINDINGS

Database(s) EDR ID Number
EPA ID Number

MANSION GROVE (Continued)

S101272885

Confirmed Description: 1,1-Dichloroethane
Confirmed Description: 1,2-Dichloroethylene (cis)
Future Area Name: PROJECT WIDE
Future Sub Area Name: Not reported
Future Document Type: 5 Year Review Reports
Future Due Date: 2007
Future Area Name: PROJECT WIDE
Future Sub Area Name: Not reported
Future Document Type: Operations and Maintenance Report
Future Due Date: 2007
Future Area Name: PROJECT WIDE
Future Sub Area Name: Not reported
Future Document Type: Operations and Maintenance Report
Future Due Date: 2007
Future Area Name: PROJECT WIDE
Future Sub Area Name: Not reported
Future Document Type: Operations and Maintenance Report
Future Due Date: 2007
Media Affected: 30022, 30027, 30028, 30192, 30195
Media Affected Desc: Not reported
Management Required: REM
Management Required Desc: Not reported
Potential: OTH, SOIL, SV
Potential Description: Not reported
Potential Description: Not reported
Potential Description: Not reported
Schedule Area Name: Not reported
Schedule Sub Area Name: Not reported
Schedule Document Type: Not reported
Schedule Due Date: Not reported
Schedule Revised Date: Not reported
PastUse: MANUFACTURING - CHEMICALS

HISTORICAL CAL-SITES:

Facility ID: 43280031
Region: 2
Region Name: BERKELEY
Branch: NC
Branch Name: NORTH COAST
File Name: Not reported
State Senate District: 11151996
Status: COM - CERTIFIED OPERATION AND MAINTENANCE, ALL PLANNED ACTIVITIES
IMPLEMENTED REMEDIATION CONTINUES
Status Name: CERTIFIED / OPERATION & MAINTENANCE
Lead Agency: DTSC
Lead Agency: DEPT OF TOXIC SUBSTANCES CONTROL
Facility Type: RP
Type Name: RESPONSIBLE PARTY
NPL: Not Listed
SIC Code: 28
SIC Name: MANU - CHEMICALS & ALLIED PRODUCTS
Access: Controlled
Cortese: Not reported

Map ID
 Direction
 Distance
 Distance (ft.)
 Elevation Site

MAP FINDINGS

Database(s) EDR ID Number
 EPA ID Number

MANSION GROVE (Continued)

S101272885

Hazardous Ranking Score: Not reported
 Date Site Hazard Ranked: Not reported
 Groundwater Contamination: Confirmed
 Staff Member Responsible for Site: VLASKY
 Supervisor Responsible for Site: Not reported
 Region Water Control Board: SF
 Region Water Control Board Name: SAN FRANCISCO BAY
 Lat/Long Direction: Not reported
 Lat/Long (dms): 0 0 0 / 0 0 0
 Lat/long Method: Not reported
 Lat/Long Description: Not reported
 State Assembly District Code: 22
 State Senate District Code: 13

[Click this hyperlink](#) while viewing on your computer to access additional CA_CALSITE: detail in the EDR Site Report.

30
 South
 1/2-1
 4080 ft.

MULTICHIP TECHNOLOGY
58 DAGGETT DR
SAN JOSE, CA 95134

HAZNET S101482368
ENVIROSTOR N/A

Relative:
 Higher

HAZNET:

Gepaid: CAL000021786
 Contact: ORCHARD PROPERTIES
 Telephone: 0000000000
 Facility Addr2: Not reported
 Mailing Name: Not reported
 Mailing Address: 58 DAGGETT DR
 Mailing City,St,Zip: SAN JOSE, CA 951340000
 Gen County: Santa Clara
 TSD EPA ID: CAD981696420
 TSD County: Los Angeles
 Waste Category: Aqueous solution with less than 10% total organic residues
 Disposal Method: Transfer Station
 Tons: .3336
 Facility County: Santa Clara

Actual:
 23 ft.

Gepaid: CAL000021786
 Contact: ORCHARD PROPERTIES
 Telephone: 0000000000
 Facility Addr2: Not reported
 Mailing Name: Not reported
 Mailing Address: 58 DAGGETT DR
 Mailing City,St,Zip: SAN JOSE, CA 951340000
 Gen County: Santa Clara
 TSD EPA ID: CAD000088252
 TSD County: Los Angeles
 Waste Category: Unspecified oil-containing waste
 Disposal Method: Transfer Station
 Tons: 0.2
 Facility County: Santa Clara

ENVIROSTOR:

Site Type: Evaluation
 Site Type Detailed: Evaluation
 Acres: Not reported

Map ID
 Direction
 Distance
 Distance (ft.)
 Elevation Site

MAP FINDINGS

Database(s) EDR ID Number
 EPA ID Number

MULTICHIP TECHNOLOGY (Continued)

S101482368

NPL: NO
 Regulatory Agencies: RWQCB 2 - San Francisco Bay
 Lead Agency: NONE SPECIFIED
 Program Manager: CLAUDE JEMISON
 Supervisor: Karen Toth
 Division Branch: North Coast
 Facility ID: 43360122
 Site Code: Not reported
 Assembly: 22
 Senate: 10
 Special Program: Not reported
 Status: Refer: RWQCB
 Status Date: 1993-09-22 00:00:00
 Restricted Use: NO
 Funding: Responsible Party
 Latitude: 0
 Longitude: 0
 Alias Name: MULTI CHIP
 43360122
 Alias Type: Alternate Name
 Envirostor ID Number
 APN: NONE SPECIFIED
 APN Description: Not reported
 Comments: Completed Site Screening. Soil samples detected dichloroethylene in the soil beneath the floor. Over 8 cubic yards of soil was excavated and disposed off-site. Analyses of soil samples taken from the bottom of the excavation indicated levels less than 100 ppb. Based on this information, the SF Regional Water Quality Control Board (RWQCB), the lead agency, decided that the remaining contaminant no longer posed a threat to groundwater and no further action was required. The soil level is below residential standards.
 Completed Area Name: PROJECT WIDE
 Completed Sub Area Name: Not reported
 Completed Document Type: Site Screening
 Completed Date: / /
 Completed Area Name: PROJECT WIDE
 Completed Sub Area Name: Not reported
 Completed Document Type: Site Screening
 Completed Date: / /
 Confirmed: NONE SPECIFIED
 Confirmed Description: Not reported
 Future Area Name: Not reported
 Future Sub Area Name: Not reported
 Future Document Type: Not reported
 Future Due Date: Not reported
 Media Affected: 10003
 Media Affected Desc: Not reported
 Management Required: NONE SPECIFIED
 Management Required Desc: Not reported
 Potential: SOIL
 Potential Description: Not reported
 Schedule Area Name: Not reported
 Schedule Sub Area Name: Not reported
 Schedule Document Type: Not reported
 Schedule Due Date: Not reported
 Schedule Revised Date: Not reported

MAP FINDINGS

Map ID
Direction
Distance
Distance (ft.)
Elevation Site

Database(s) EDR ID Number
EPA ID Number

MULTICHIP TECHNOLOGY (Continued)

S101482368

PastUse: MANUFACTURING - ELECTRONIC

ORPHAN SUMMARY

City	EDR ID	Site Name	Site Address
COUNTY	S108195466	METRON TECH DISTRIBUTION	655 RIVER OAKS PY SUITE 2
SAN JOSE	90188262	AUTOMATION PARKWAY	AUTOMATION PARKWAY
SAN JOSE	S106931689	S J CONCRETE PIPE CO	1420 N BAYSHORE HWY 1
SAN JOSE	1007117567	ROBISON PREZIOSO INC	700 LOS ESTEROS RD ZANKER TANK
SAN JOSE	99644760	SAN FILIPE ROAD 1 MILE SOUTH OF VILLAGE PARKWAY	SAN FILIPE ROAD 1 MILE SOUTH OF VILLAGE PARKWAY

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

To maintain currency of the following federal and state databases, EDR contacts the appropriate governmental agency on a monthly or quarterly basis, as required.

Number of Days to Update: Provides confirmation that EDR is reporting records that have been updated within 90 days from the date the government agency made the information available to the public.

FEDERAL RECORDS

NPL: National Priority List

National Priorities List (Superfund). The NPL is a subset of CERCLIS and identifies over 1,200 sites for priority cleanup under the Superfund Program. NPL sites may encompass relatively large areas. As such, EDR provides polygon coverage for over 1,000 NPL site boundaries produced by EPA's Environmental Photographic Interpretation Center (EPIC) and regional EPA offices.

Date of Government Version: 04/20/2007	Source: EPA
Date Data Arrived at EDR: 05/03/2007	Telephone: N/A
Date Made Active in Reports: 07/05/2007	Last EDR Contact: 05/03/2007
Number of Days to Update: 63	Next Scheduled EDR Contact: 07/30/2007
	Data Release Frequency: Quarterly

NPL Site Boundaries

Sources:

EPA's Environmental Photographic Interpretation Center (EPIC)

Telephone: 202-564-7333

EPA Region 1

Telephone 617-918-1143

EPA Region 3

Telephone 215-814-5418

EPA Region 4

Telephone 404-562-8033

EPA Region 5

Telephone 312-886-6686

EPA Region 10

Telephone 206-553-8665

EPA Region 6

Telephone: 214-655-6659

EPA Region 7

Telephone: 913-551-7247

EPA Region 8

Telephone: 303-312-6774

EPA Region 9

Telephone: 415-947-4246

Proposed NPL: Proposed National Priority List Sites

A site that has been proposed for listing on the National Priorities List through the issuance of a proposed rule in the Federal Register. EPA then accepts public comments on the site, responds to the comments, and places on the NPL those sites that continue to meet the requirements for listing.

Date of Government Version: 04/20/2007	Source: EPA
Date Data Arrived at EDR: 05/03/2007	Telephone: N/A
Date Made Active in Reports: 07/05/2007	Last EDR Contact: 05/03/2007
Number of Days to Update: 63	Next Scheduled EDR Contact: 07/30/2007
	Data Release Frequency: Quarterly

DELISTED NPL: National Priority List Deletions

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.

Date of Government Version: 04/20/2007	Source: EPA
Date Data Arrived at EDR: 05/03/2007	Telephone: N/A
Date Made Active in Reports: 06/25/2007	Last EDR Contact: 05/03/2007
Number of Days to Update: 53	Next Scheduled EDR Contact: 07/30/2007
	Data Release Frequency: Quarterly

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

NPL LIENS: Federal Superfund Liens

Federal Superfund Liens. Under the authority granted the USEPA by CERCLA of 1980, the USEPA has the authority to file liens against real property in order to recover remedial action expenditures or when the property owner received notification of potential liability. USEPA compiles a listing of filed notices of Superfund Liens.

Date of Government Version: 10/15/1991	Source: EPA
Date Data Arrived at EDR: 02/02/1994	Telephone: 202-564-4267
Date Made Active in Reports: 03/30/1994	Last EDR Contact: 05/21/2007
Number of Days to Update: 56	Next Scheduled EDR Contact: 08/20/2007
	Data Release Frequency: No Update Planned

CERCLIS: Comprehensive Environmental Response, Compensation, and Liability Information System

CERCLIS contains data on potentially hazardous waste sites that have been reported to the USEPA by states, municipalities, private companies and private persons, pursuant to Section 103 of the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA). CERCLIS contains sites which are either proposed to or on the National Priorities List (NPL) and sites which are in the screening and assessment phase for possible inclusion on the NPL.

Date of Government Version: 02/27/2007	Source: EPA
Date Data Arrived at EDR: 03/21/2007	Telephone: 703-412-9810
Date Made Active in Reports: 04/27/2007	Last EDR Contact: 06/20/2007
Number of Days to Update: 37	Next Scheduled EDR Contact: 09/17/2007
	Data Release Frequency: Quarterly

CERCLIS-NFRAP: CERCLIS No Further Remedial Action Planned

Archived sites are sites that have been removed and archived from the inventory of CERCLIS sites. Archived status indicates that, to the best of EPA's knowledge, assessment at a site has been completed and that EPA has determined no further steps will be taken to list this site on the National Priorities List (NPL), unless information indicates this decision was not appropriate or other considerations require a recommendation for listing at a later time. 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.

Date of Government Version: 03/21/2007	Source: EPA
Date Data Arrived at EDR: 04/27/2007	Telephone: 703-412-9810
Date Made Active in Reports: 05/25/2007	Last EDR Contact: 06/15/2007
Number of Days to Update: 28	Next Scheduled EDR Contact: 09/17/2007
	Data Release Frequency: Quarterly

CORRACTS: Corrective Action Report

CORRACTS identifies hazardous waste handlers with RCRA corrective action activity.

Date of Government Version: 03/14/2007	Source: EPA
Date Data Arrived at EDR: 03/20/2007	Telephone: 800-424-9346
Date Made Active in Reports: 04/27/2007	Last EDR Contact: 06/04/2007
Number of Days to Update: 38	Next Scheduled EDR Contact: 09/03/2007
	Data Release Frequency: Quarterly

RCRA: Resource Conservation and Recovery Act Information

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

RCRAInfo is EPA's comprehensive information system, providing access to data supporting the Resource Conservation and Recovery Act (RCRA) of 1976 and the Hazardous and Solid Waste Amendments (HSWA) of 1984. RCRAInfo replaces the data recording and reporting abilities of the Resource Conservation and Recovery Information System (RCRIS). The database includes selective information on sites which generate, transport, store, treat and/or dispose of hazardous waste as defined by the Resource Conservation and Recovery Act (RCRA). Conditionally exempt small quantity generators (CESQGs) generate less than 100 kg of hazardous waste, or less than 1 kg of acutely hazardous waste per month. Small quantity generators (SQGs) generate between 100 kg and 1,000 kg of hazardous waste per month. Large quantity generators (LQGs) generate over 1,000 kilograms (kg) of hazardous waste, or over 1 kg of acutely hazardous waste per month. Transporters are individuals or entities that move hazardous waste from the generator off-site to a facility that can recycle, treat, store, or dispose of the waste. TSDFs treat, store, or dispose of the waste.

Date of Government Version: 06/13/2006	Source: EPA
Date Data Arrived at EDR: 06/28/2006	Telephone: (415) 495-8895
Date Made Active in Reports: 08/23/2006	Last EDR Contact: 06/05/2007
Number of Days to Update: 56	Next Scheduled EDR Contact: 07/16/2007
	Data Release Frequency: Quarterly

ERNS: Emergency Response Notification System

Emergency Response Notification System. ERNS records and stores information on reported releases of oil and hazardous substances.

Date of Government Version: 12/31/2006	Source: National Response Center, United States Coast Guard
Date Data Arrived at EDR: 01/24/2007	Telephone: 202-267-2180
Date Made Active in Reports: 03/12/2007	Last EDR Contact: 04/24/2007
Number of Days to Update: 47	Next Scheduled EDR Contact: 07/23/2007
	Data Release Frequency: Annually

HMIRS: Hazardous Materials Information Reporting System

Hazardous Materials Incident Report System. HMIRS contains hazardous material spill incidents reported to DOT.

Date of Government Version: 03/05/2007	Source: U.S. Department of Transportation
Date Data Arrived at EDR: 04/17/2007	Telephone: 202-366-4555
Date Made Active in Reports: 05/14/2007	Last EDR Contact: 04/17/2007
Number of Days to Update: 27	Next Scheduled EDR Contact: 07/16/2007
	Data Release Frequency: Annually

US ENG CONTROLS: Engineering Controls Sites List

A listing of sites with engineering controls in place. Engineering controls include various forms of caps, building foundations, liners, and treatment methods to create pathway elimination for regulated substances to enter environmental media or effect human health.

Date of Government Version: 04/20/2007	Source: Environmental Protection Agency
Date Data Arrived at EDR: 04/26/2007	Telephone: 703-603-8905
Date Made Active in Reports: 05/25/2007	Last EDR Contact: 07/02/2007
Number of Days to Update: 29	Next Scheduled EDR Contact: 10/01/2007
	Data Release Frequency: Varies

US INST CONTROL: Sites with Institutional Controls

A listing of sites with institutional controls in place. Institutional controls include administrative measures, such as groundwater use restrictions, construction restrictions, property use restrictions, and post remediation care requirements intended to prevent exposure to contaminants remaining on site. Deed restrictions are generally required as part of the institutional controls.

Date of Government Version: 04/20/2007	Source: Environmental Protection Agency
Date Data Arrived at EDR: 04/26/2007	Telephone: 703-603-8905
Date Made Active in Reports: 05/25/2007	Last EDR Contact: 07/02/2007
Number of Days to Update: 29	Next Scheduled EDR Contact: 10/01/2007
	Data Release Frequency: Varies

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

DOD: Department of Defense Sites

This data set consists of federally owned or administered lands, administered by the Department of Defense, that have any area equal to or greater than 640 acres of the United States, Puerto Rico, and the U.S. Virgin Islands.

Date of Government Version: 12/31/2005	Source: USGS
Date Data Arrived at EDR: 11/10/2006	Telephone: 703-692-8801
Date Made Active in Reports: 01/11/2007	Last EDR Contact: 05/11/2007
Number of Days to Update: 62	Next Scheduled EDR Contact: 08/06/2007
	Data Release Frequency: Semi-Annually

FUDS: Formerly Used Defense Sites

The listing includes locations of Formerly Used Defense Sites properties where the US Army Corps of Engineers is actively working or will take necessary cleanup actions.

Date of Government Version: 12/31/2005	Source: U.S. Army Corps of Engineers
Date Data Arrived at EDR: 09/20/2006	Telephone: 202-528-4285
Date Made Active in Reports: 11/22/2006	Last EDR Contact: 07/02/2007
Number of Days to Update: 63	Next Scheduled EDR Contact: 10/01/2007
	Data Release Frequency: Varies

US BROWNFIELDS: A Listing of Brownfields Sites

Included in the listing are brownfields properties addresses by Cooperative Agreement Recipients and brownfields properties addressed by Targeted Brownfields Assessments. Targeted Brownfields Assessments-EPA's Targeted Brownfields Assessments (TBA) program is designed to help states, tribes, and municipalities--especially those without EPA Brownfields Assessment Demonstration Pilots--minimize the uncertainties of contamination often associated with brownfields. Under the TBA program, EPA provides funding and/or technical assistance for environmental assessments at brownfields sites throughout the country. Targeted Brownfields Assessments supplement and work with other efforts under EPA's Brownfields Initiative to promote cleanup and redevelopment of brownfields. Cooperative Agreement Recipients-States, political subdivisions, territories, and Indian tribes become Brownfields Cleanup Revolving Loan Fund (BCRLF) cooperative agreement recipients when they enter into BCRLF cooperative agreements with the U.S. EPA. EPA selects BCRLF cooperative agreement recipients based on a proposal and application process. BCRLF cooperative agreement recipients must use EPA funds provided through BCRLF cooperative agreement for specified brownfields-related cleanup activities.

Date of Government Version: 04/04/2007	Source: Environmental Protection Agency
Date Data Arrived at EDR: 04/04/2007	Telephone: 202-566-2777
Date Made Active in Reports: 05/25/2007	Last EDR Contact: 06/11/2007
Number of Days to Update: 51	Next Scheduled EDR Contact: 09/10/2007
	Data Release Frequency: Semi-Annually

CONSENT: Superfund (CERCLA) Consent Decrees

Major legal settlements that establish responsibility and standards for cleanup at NPL (Superfund) sites. Released periodically by United States District Courts after settlement by parties to litigation matters.

Date of Government Version: 08/23/2006	Source: Department of Justice, Consent Decree Library
Date Data Arrived at EDR: 03/06/2007	Telephone: Varies
Date Made Active in Reports: 04/10/2007	Last EDR Contact: 04/23/2007
Number of Days to Update: 35	Next Scheduled EDR Contact: 07/23/2007
	Data Release Frequency: Varies

ROD: Records Of Decision

Record of Decision. ROD documents mandate a permanent remedy at an NPL (Superfund) site containing technical and health information to aid in the cleanup.

Date of Government Version: 03/27/2007	Source: EPA
Date Data Arrived at EDR: 03/27/2007	Telephone: 703-416-0223
Date Made Active in Reports: 04/27/2007	Last EDR Contact: 07/02/2007
Number of Days to Update: 31	Next Scheduled EDR Contact: 10/01/2007
	Data Release Frequency: Annually

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

UMTRA: Uranium Mill Tailings Sites

Uranium ore was mined by private companies for federal government use in national defense programs. When the mills shut down, large piles of the sand-like material (mill tailings) remain after uranium has been extracted from the ore. Levels of human exposure to radioactive materials from the piles are low; however, in some cases tailings were used as construction materials before the potential health hazards of the tailings were recognized.

Date of Government Version: 12/31/2005	Source: Department of Energy
Date Data Arrived at EDR: 11/08/2006	Telephone: 505-845-0011
Date Made Active in Reports: 01/29/2007	Last EDR Contact: 07/05/2007
Number of Days to Update: 82	Next Scheduled EDR Contact: 09/17/2007
	Data Release Frequency: Varies

ODI: Open Dump Inventory

An open dump is defined as a disposal facility that does not comply with one or more of the Part 257 or Part 258 Subtitle D Criteria.

Date of Government Version: 06/30/1985	Source: Environmental Protection Agency
Date Data Arrived at EDR: 08/09/2004	Telephone: 800-424-9346
Date Made Active in Reports: 09/17/2004	Last EDR Contact: 06/09/2004
Number of Days to Update: 39	Next Scheduled EDR Contact: N/A
	Data Release Frequency: No Update Planned

TRIS: Toxic Chemical Release Inventory System

Toxic Release Inventory System. TRIS identifies facilities which release toxic chemicals to the air, water and land in reportable quantities under SARA Title III Section 313.

Date of Government Version: 12/31/2005	Source: EPA
Date Data Arrived at EDR: 04/27/2007	Telephone: 202-566-0250
Date Made Active in Reports: 07/05/2007	Last EDR Contact: 06/19/2007
Number of Days to Update: 69	Next Scheduled EDR Contact: 09/17/2007
	Data Release Frequency: Annually

TSCA: Toxic Substances Control Act

Toxic Substances Control Act. TSCA identifies manufacturers and importers of chemical substances included on the TSCA Chemical Substance Inventory list. It includes data on the production volume of these substances by plant site.

Date of Government Version: 12/31/2002	Source: EPA
Date Data Arrived at EDR: 04/14/2006	Telephone: 202-260-5521
Date Made Active in Reports: 05/30/2006	Last EDR Contact: 04/16/2007
Number of Days to Update: 46	Next Scheduled EDR Contact: 07/16/2007
	Data Release Frequency: Every 4 Years

FTTS: FIFRA/ TSCA Tracking System - FIFRA (Federal Insecticide, Fungicide, & Rodenticide Act)/TSCA (Toxic Substances Control Act)

FTTS tracks administrative cases and pesticide enforcement actions and compliance activities related to FIFRA, TSCA and EPCRA (Emergency Planning and Community Right-to-Know Act). To maintain currency, EDR contacts the Agency on a quarterly basis.

Date of Government Version: 04/13/2007	Source: EPA/Office of Prevention, Pesticides and Toxic Substances
Date Data Arrived at EDR: 04/25/2007	Telephone: 202-566-1667
Date Made Active in Reports: 07/05/2007	Last EDR Contact: 06/15/2007
Number of Days to Update: 71	Next Scheduled EDR Contact: 09/17/2007
	Data Release Frequency: Quarterly

FTTS INSP: FIFRA/ TSCA Tracking System - FIFRA (Federal Insecticide, Fungicide, & Rodenticide Act)/TSCA (Toxic Substances Control Act)

A listing of FIFRA/TSCA Tracking System (FTTS) inspections and enforcements.

Date of Government Version: 04/13/2007	Source: EPA
Date Data Arrived at EDR: 04/25/2007	Telephone: 202-566-1667
Date Made Active in Reports: 07/05/2007	Last EDR Contact: 06/15/2007
Number of Days to Update: 71	Next Scheduled EDR Contact: 09/17/2007
	Data Release Frequency: Quarterly

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

SSTS: Section 7 Tracking Systems

Section 7 of the Federal Insecticide, Fungicide and Rodenticide Act, as amended (92 Stat. 829) requires all registered pesticide-producing establishments to submit a report to the Environmental Protection Agency by March 1st each year. Each establishment must report the types and amounts of pesticides, active ingredients and devices being produced, and those having been produced and sold or distributed in the past year.

Date of Government Version: 12/31/2005	Source: EPA
Date Data Arrived at EDR: 03/13/2007	Telephone: 202-564-4203
Date Made Active in Reports: 04/27/2007	Last EDR Contact: 04/12/2007
Number of Days to Update: 45	Next Scheduled EDR Contact: 07/16/2007
	Data Release Frequency: Annually

LIENS 2: CERCLA Lien Information

A Federal CERCLA ('Superfund') lien can exist by operation of law at any site or property at which EPA has spent Superfund monies. These monies are spent to investigate and address releases and threatened releases of contamination. CERCLIS provides information as to the identity of these sites and properties.

Date of Government Version: 03/08/2007	Source: Environmental Protection Agency
Date Data Arrived at EDR: 04/12/2007	Telephone: 202-564-6023
Date Made Active in Reports: 05/14/2007	Last EDR Contact: 05/21/2007
Number of Days to Update: 32	Next Scheduled EDR Contact: 08/20/2007
	Data Release Frequency: Varies

RADINFO: Radiation Information Database

The Radiation Information Database (RADINFO) contains information about facilities that are regulated by U.S. Environmental Protection Agency (EPA) regulations for radiation and radioactivity.

Date of Government Version: 05/01/2007	Source: Environmental Protection Agency
Date Data Arrived at EDR: 05/03/2007	Telephone: 202-343-9775
Date Made Active in Reports: 05/25/2007	Last EDR Contact: 05/03/2007
Number of Days to Update: 22	Next Scheduled EDR Contact: 07/30/2007
	Data Release Frequency: Quarterly

CDL: Clandestine Drug Labs

A listing of clandestine drug lab locations. The U.S. Department of Justice ("the Department") provides this web site as a public service. It contains addresses of some locations where law enforcement agencies reported they found chemicals or other items that indicated the presence of either clandestine drug laboratories or dumpsites. In most cases, the source of the entries is not the Department, and the Department has not verified the entry and does not guarantee its accuracy. Members of the public must verify the accuracy of all entries by, for example, contacting local law enforcement and local health departments.

Date of Government Version: 12/01/2006	Source: Drug Enforcement Administration
Date Data Arrived at EDR: 01/08/2007	Telephone: 202-307-1000
Date Made Active in Reports: 01/11/2007	Last EDR Contact: 06/29/2007
Number of Days to Update: 3	Next Scheduled EDR Contact: 09/24/2007
	Data Release Frequency: Quarterly

HIST FTTS: FIFRA/TSCA Tracking System Administrative Case Listing

A complete administrative case listing from the FIFRA/TSCA Tracking System (FTTS) for all ten EPA regions. The information was obtained from the National Compliance Database (NCDB). NCDB supports the implementation of FIFRA (Federal Insecticide, Fungicide, and Rodenticide Act) and TSCA (Toxic Substances Control Act). Some EPA regions are now closing out records. Because of that, and the fact that some EPA regions are not providing EPA Headquarters with updated records, it was decided to create a HIST FTTS database. It included records that may not be included in the newer FTTS database updates. This database is no longer updated.

Date of Government Version: 10/19/2006	Source: Environmental Protection Agency
Date Data Arrived at EDR: 03/01/2007	Telephone: 202-564-2501
Date Made Active in Reports: 04/10/2007	Last EDR Contact: 06/15/2007
Number of Days to Update: 40	Next Scheduled EDR Contact: 09/17/2007
	Data Release Frequency: No Update Planned

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

ICIS: Integrated Compliance Information System

The Integrated Compliance Information System (ICIS) supports the information needs of the national enforcement and compliance program as well as the unique needs of the National Pollutant Discharge Elimination System (NPDES) program.

Date of Government Version: 02/21/2007
Date Data Arrived at EDR: 04/03/2007
Date Made Active in Reports: 05/14/2007
Number of Days to Update: 41

Source: Environmental Protection Agency
Telephone: 202-564-5088
Last EDR Contact: 06/22/2007
Next Scheduled EDR Contact: 07/16/2007
Data Release Frequency: Quarterly

LUCIS: Land Use Control Information System

LUCIS contains records of land use control information pertaining to the former Navy Base Realignment and Closure properties.

Date of Government Version: 12/09/2005
Date Data Arrived at EDR: 12/11/2006
Date Made Active in Reports: 01/11/2007
Number of Days to Update: 31

Source: Department of the Navy
Telephone: 843-820-7326
Last EDR Contact: 06/11/2007
Next Scheduled EDR Contact: 09/10/2007
Data Release Frequency: Varies

DOT OPS: Incident and Accident Data

Department of Transportation, Office of Pipeline Safety Incident and Accident data.

Date of Government Version: 05/14/2007
Date Data Arrived at EDR: 05/30/2007
Date Made Active in Reports: 07/05/2007
Number of Days to Update: 36

Source: Department of Transportation, Office of Pipeline Safety
Telephone: 202-366-4595
Last EDR Contact: 05/30/2007
Next Scheduled EDR Contact: 08/27/2007
Data Release Frequency: Varies

PADS: PCB Activity Database System

PCB Activity Database. PADS identifies generators, transporters, commercial storers and/or brokers and disposers of PCB's who are required to notify the EPA of such activities.

Date of Government Version: 10/17/2006
Date Data Arrived at EDR: 11/29/2006
Date Made Active in Reports: 01/11/2007
Number of Days to Update: 43

Source: EPA
Telephone: 202-566-0500
Last EDR Contact: 06/08/2007
Next Scheduled EDR Contact: 08/06/2007
Data Release Frequency: Annually

MLTS: Material Licensing Tracking System

MLTS is maintained by the Nuclear Regulatory Commission and contains a list of approximately 8,100 sites which possess or use radioactive materials and which are subject to NRC licensing requirements. To maintain currency, EDR contacts the Agency on a quarterly basis.

Date of Government Version: 04/05/2007
Date Data Arrived at EDR: 04/25/2007
Date Made Active in Reports: 05/25/2007
Number of Days to Update: 30

Source: Nuclear Regulatory Commission
Telephone: 301-415-7169
Last EDR Contact: 07/02/2007
Next Scheduled EDR Contact: 10/01/2007
Data Release Frequency: Quarterly

MINES: Mines Master Index File

Contains all mine identification numbers issued for mines active or opened since 1971. The data also includes violation information.

Date of Government Version: 02/06/2007
Date Data Arrived at EDR: 03/28/2007
Date Made Active in Reports: 05/14/2007
Number of Days to Update: 47

Source: Department of Labor, Mine Safety and Health Administration
Telephone: 303-231-5959
Last EDR Contact: 06/28/2007
Next Scheduled EDR Contact: 09/24/2007
Data Release Frequency: Semi-Annually

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

FINDS: Facility Index System/Facility Registry System

Facility Index System. FINDS contains both facility information and 'pointers' to other sources that contain more detail. EDR includes the following FINDS databases in this report: PCS (Permit Compliance System), AIRS (Aerometric Information Retrieval System), DOCKET (Enforcement Docket used to manage and track information on civil judicial enforcement cases for all environmental statutes), FURS (Federal Underground Injection Control), C-DOCKET (Criminal Docket System used to track criminal enforcement actions for all environmental statutes), FFIS (Federal Facilities Information System), STATE (State Environmental Laws and Statutes), and PADS (PCB Activity Data System).

Date of Government Version: 04/12/2007	Source: EPA
Date Data Arrived at EDR: 05/17/2007	Telephone: (415) 947-8000
Date Made Active in Reports: 07/05/2007	Last EDR Contact: 07/02/2007
Number of Days to Update: 49	Next Scheduled EDR Contact: 10/01/2007
	Data Release Frequency: Quarterly

RAATS: RCRA Administrative Action Tracking System

RCRA Administration Action Tracking System. RAATS contains records based on enforcement actions issued under RCRA pertaining to major violators and includes administrative and civil actions brought by the EPA. For administration actions after September 30, 1995, data entry in the RAATS database was discontinued. EPA will retain a copy of the database for historical records. It was necessary to terminate RAATS because a decrease in agency resources made it impossible to continue to update the information contained in the database.

Date of Government Version: 04/17/1995	Source: EPA
Date Data Arrived at EDR: 07/03/1995	Telephone: 202-564-4104
Date Made Active in Reports: 08/07/1995	Last EDR Contact: 06/04/2007
Number of Days to Update: 35	Next Scheduled EDR Contact: 09/03/2007
	Data Release Frequency: No Update Planned

BRS: Biennial Reporting System

The Biennial Reporting System is a national system administered by the EPA that collects data on the generation and management of hazardous waste. BRS captures detailed data from two groups: Large Quantity Generators (LQG) and Treatment, Storage, and Disposal Facilities.

Date of Government Version: 12/31/2005	Source: EPA/NTIS
Date Data Arrived at EDR: 03/06/2007	Telephone: 800-424-9346
Date Made Active in Reports: 04/13/2007	Last EDR Contact: 06/12/2007
Number of Days to Update: 38	Next Scheduled EDR Contact: 09/10/2007
	Data Release Frequency: Biennially

USGS WATER WELLS: National Water Information System (NWIS)

This database consists of well records in the United States. Available site descriptive information includes well location information (latitude and longitude, well depth, site use, water use, and aquifer).

Date of Government Version: 03/25/2005	Source: USGS
Date Data Arrived at EDR: 03/25/2005	Telephone: N/A
Date Made Active in Reports: N/A	Last EDR Contact: 03/25/2005
Number of Days to Update: 0	Next Scheduled EDR Contact: N/A
	Data Release Frequency: N/A

PWS: Public Water System Data

This Safe Drinking Water Information System (SDWIS) file contains public water systems name and address, population served and the primary source of water

Date of Government Version: 02/24/2000	Source: EPA
Date Data Arrived at EDR: 04/27/2005	Telephone: N/A
Date Made Active in Reports: N/A	Last EDR Contact: 05/21/2007
Number of Days to Update: 0	Next Scheduled EDR Contact: 08/20/2007
	Data Release Frequency: N/A

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

STATE AND LOCAL RECORDS

HIST CAL-SITES: Calsites Database

The Calsites database contains potential or confirmed hazardous substance release properties. In 1996, California EPA reevaluated and significantly reduced the number of sites in the Calsites database. No longer updated by the state agency. It has been replaced by ENVIROSTOR.

Date of Government Version: 08/08/2005	Source: Department of Toxic Substance Control
Date Data Arrived at EDR: 08/03/2006	Telephone: 916-323-3400
Date Made Active in Reports: 08/24/2006	Last EDR Contact: 05/25/2007
Number of Days to Update: 21	Next Scheduled EDR Contact: 08/27/2007
	Data Release Frequency: No Update Planned

CA BOND EXP. PLAN: Bond Expenditure Plan

Department of Health Services developed a site-specific expenditure plan as the basis for an appropriation of Hazardous Substance Cleanup Bond Act funds. It is not updated.

Date of Government Version: 01/01/1989	Source: Department of Health Services
Date Data Arrived at EDR: 07/27/1994	Telephone: 916-255-2118
Date Made Active in Reports: 08/02/1994	Last EDR Contact: 05/31/1994
Number of Days to Update: 6	Next Scheduled EDR Contact: N/A
	Data Release Frequency: No Update Planned

SCH: School Property Evaluation Program

This category contains proposed and existing school sites that are being evaluated by DTSC for possible hazardous materials contamination. In some cases, these properties may be listed in the CalSites category depending on the level of threat to public health and safety or the environment they pose.

Date of Government Version: 05/29/2007	Source: Department of Toxic Substances Control
Date Data Arrived at EDR: 05/30/2007	Telephone: 916-323-3400
Date Made Active in Reports: 06/29/2007	Last EDR Contact: 05/30/2007
Number of Days to Update: 30	Next Scheduled EDR Contact: 08/27/2007
	Data Release Frequency: Quarterly

TOXIC PITS: Toxic Pits Cleanup Act Sites

Toxic PITS Cleanup Act Sites. TOXIC PITS identifies sites suspected of containing hazardous substances where cleanup has not yet been completed.

Date of Government Version: 07/01/1995	Source: State Water Resources Control Board
Date Data Arrived at EDR: 08/30/1995	Telephone: 916-227-4364
Date Made Active in Reports: 09/26/1995	Last EDR Contact: 04/30/2007
Number of Days to Update: 27	Next Scheduled EDR Contact: 07/30/2007
	Data Release Frequency: No Update Planned

SWF/LF (SWIS): Solid Waste Information System

Active, Closed and Inactive Landfills. SWF/LF records typically contain an inventory of solid waste disposal facilities or landfills. These may be active or inactive facilities or open dumps that failed to meet RCRA Section 4004 criteria for solid waste landfills or disposal sites.

Date of Government Version: 06/11/2007	Source: Integrated Waste Management Board
Date Data Arrived at EDR: 06/13/2007	Telephone: 916-341-6320
Date Made Active in Reports: 06/29/2007	Last EDR Contact: 06/13/2007
Number of Days to Update: 16	Next Scheduled EDR Contact: 09/10/2007
	Data Release Frequency: Quarterly

CA WDS: Waste Discharge System

Sites which have been issued waste discharge requirements.

Date of Government Version: 06/19/2007	Source: State Water Resources Control Board
Date Data Arrived at EDR: 06/20/2007	Telephone: 916-341-5227
Date Made Active in Reports: 06/29/2007	Last EDR Contact: 06/20/2007
Number of Days to Update: 9	Next Scheduled EDR Contact: 09/17/2007
	Data Release Frequency: Quarterly

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

WMUDS/SWAT: Waste Management Unit Database

Waste Management Unit Database System. WMUDS is used by the State Water Resources Control Board staff and the Regional Water Quality Control Boards for program tracking and inventory of waste management units. WMUDS is composed of the following databases: Facility Information, Scheduled Inspections Information, Waste Management Unit Information, SWAT Program Information, SWAT Report Summary Information, SWAT Report Summary Data, Chapter 15 (formerly Subchapter 15) Information, Chapter 15 Monitoring Parameters, TPCA Program Information, RCRA Program Information, Closure Information, and Interested Parties Information.

Date of Government Version: 04/01/2000	Source: State Water Resources Control Board
Date Data Arrived at EDR: 04/10/2000	Telephone: 916-227-4448
Date Made Active in Reports: 05/10/2000	Last EDR Contact: 06/04/2007
Number of Days to Update: 30	Next Scheduled EDR Contact: 09/03/2007
	Data Release Frequency: Quarterly

CORTESE: "Cortese" Hazardous Waste & Substances Sites List

The sites for the list are designated by the State Water Resource Control Board (LUST), the Integrated Waste Board (SWF/LS), and the Department of Toxic Substances Control (Cal-Sites). This listing is no longer updated by the state agency.

Date of Government Version: 04/01/2001	Source: CAL EPA/Office of Emergency Information
Date Data Arrived at EDR: 05/29/2001	Telephone: 916-323-3400
Date Made Active in Reports: 07/26/2001	Last EDR Contact: 04/23/2007
Number of Days to Update: 58	Next Scheduled EDR Contact: 07/23/2007
	Data Release Frequency: No Update Planned

SWRCY: Recycler Database

A listing of recycling facilities in California.

Date of Government Version: 04/09/2007	Source: Department of Conservation
Date Data Arrived at EDR: 04/11/2007	Telephone: 916-323-3836
Date Made Active in Reports: 04/27/2007	Last EDR Contact: 04/11/2007
Number of Days to Update: 16	Next Scheduled EDR Contact: 07/09/2007
	Data Release Frequency: Quarterly

LUST REG 1: Active Toxic Site Investigation

Del Norte, Humboldt, Lake, Mendocino, Modoc, Siskiyou, Sonoma, Trinity counties. For more current information, please refer to the State Water Resources Control Board's LUST database.

Date of Government Version: 02/01/2001	Source: California Regional Water Quality Control Board North Coast (1)
Date Data Arrived at EDR: 02/28/2001	Telephone: 707-570-3769
Date Made Active in Reports: 03/29/2001	Last EDR Contact: 05/21/2007
Number of Days to Update: 29	Next Scheduled EDR Contact: 08/20/2007
	Data Release Frequency: No Update Planned

LUST REG 9: Leaking Underground Storage Tank Report

Orange, Riverside, San Diego counties. For more current information, please refer to the State Water Resources Control Board's LUST database.

Date of Government Version: 03/01/2001	Source: California Regional Water Quality Control Board San Diego Region (9)
Date Data Arrived at EDR: 04/23/2001	Telephone: 858-637-5595
Date Made Active in Reports: 05/21/2001	Last EDR Contact: 04/12/2007
Number of Days to Update: 28	Next Scheduled EDR Contact: 07/16/2007
	Data Release Frequency: No Update Planned

LUST REG 8: Leaking Underground Storage Tanks

California Regional Water Quality Control Board Santa Ana Region (8). For more current information, please refer to the State Water Resources Control Board's LUST database.

Date of Government Version: 02/14/2005	Source: California Regional Water Quality Control Board Santa Ana Region (8)
Date Data Arrived at EDR: 02/15/2005	Telephone: 909-782-4496
Date Made Active in Reports: 03/28/2005	Last EDR Contact: 05/07/2007
Number of Days to Update: 41	Next Scheduled EDR Contact: 08/06/2007
	Data Release Frequency: Varies

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

LUST REG 7: Leaking Underground Storage Tank Case Listing

Leaking Underground Storage Tank locations. Imperial, Riverside, San Diego, Santa Barbara counties.

Date of Government Version: 02/26/2004

Source: California Regional Water Quality Control Board Colorado River Basin Region (7)

Date Data Arrived at EDR: 02/26/2004

Telephone: 760-776-8943

Date Made Active in Reports: 03/24/2004

Last EDR Contact: 05/21/2007

Number of Days to Update: 27

Next Scheduled EDR Contact: 08/20/2007

Data Release Frequency: No Update Planned

LUST REG 6V: Leaking Underground Storage Tank Case Listing

Leaking Underground Storage Tank locations. Inyo, Kern, Los Angeles, Mono, San Bernardino counties.

Date of Government Version: 06/07/2005

Source: California Regional Water Quality Control Board Victorville Branch Office (6)

Date Data Arrived at EDR: 06/07/2005

Telephone: 760-241-7365

Date Made Active in Reports: 06/29/2005

Last EDR Contact: 07/02/2007

Number of Days to Update: 22

Next Scheduled EDR Contact: 10/01/2007

Data Release Frequency: No Update Planned

LUST REG 6L: Leaking Underground Storage Tank Case Listing

For more current information, please refer to the State Water Resources Control Board's LUST database.

Date of Government Version: 09/09/2003

Source: California Regional Water Quality Control Board Lahontan Region (6)

Date Data Arrived at EDR: 09/10/2003

Telephone: 530-542-5572

Date Made Active in Reports: 10/07/2003

Last EDR Contact: 06/04/2007

Number of Days to Update: 27

Next Scheduled EDR Contact: 09/03/2007

Data Release Frequency: No Update Planned

LUST REG 5: Leaking Underground Storage Tank Database

Leaking Underground Storage Tank locations. Alameda, Alpine, Amador, Butte, Colusa, Contra Costa, Calveras, El Dorado, Fresno, Glenn, Kern, Kings, Lake, Lassen, Madera, Mariposa, Merced, Modoc, Napa, Nevada, Placer, Plumas, Sacramento, San Joaquin, Shasta, Solano, Stanislaus, Sutter, Tehama, Tulare, Tuolumne, Yolo, Yuba counties.

Date of Government Version: 04/01/2007

Source: California Regional Water Quality Control Board Central Valley Region (5)

Date Data Arrived at EDR: 04/25/2007

Telephone: 916-464-4834

Date Made Active in Reports: 05/10/2007

Last EDR Contact: 07/05/2007

Number of Days to Update: 15

Next Scheduled EDR Contact: 10/01/2007

Data Release Frequency: Quarterly

LUST REG 4: Underground Storage Tank Leak List

Los Angeles, Ventura counties. For more current information, please refer to the State Water Resources Control Board's LUST database.

Date of Government Version: 09/07/2004

Source: California Regional Water Quality Control Board Los Angeles Region (4)

Date Data Arrived at EDR: 09/07/2004

Telephone: 213-576-6710

Date Made Active in Reports: 10/12/2004

Last EDR Contact: 06/25/2007

Number of Days to Update: 35

Next Scheduled EDR Contact: 09/24/2007

Data Release Frequency: No Update Planned

LUST REG 3: Leaking Underground Storage Tank Database

Leaking Underground Storage Tank locations. Monterey, San Benito, San Luis Obispo, Santa Barbara, Santa Cruz counties.

Date of Government Version: 05/19/2003

Source: California Regional Water Quality Control Board Central Coast Region (3)

Date Data Arrived at EDR: 05/19/2003

Telephone: 805-542-4786

Date Made Active in Reports: 06/02/2003

Last EDR Contact: 05/14/2007

Number of Days to Update: 14

Next Scheduled EDR Contact: 08/13/2007

Data Release Frequency: No Update Planned

LUST REG 2: Fuel Leak List

Leaking Underground Storage Tank locations. Alameda, Contra Costa, Marin, Napa, San Francisco, San Mateo, Santa Clara, Solano, Sonoma counties.

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

Date of Government Version: 09/30/2004
Date Data Arrived at EDR: 10/20/2004
Date Made Active in Reports: 11/19/2004
Number of Days to Update: 30

Source: California Regional Water Quality Control Board San Francisco Bay Region (2)
Telephone: 510-622-2433
Last EDR Contact: 07/09/2007
Next Scheduled EDR Contact: 10/08/2007
Data Release Frequency: Quarterly

LUST: Geotracker's Leaking Underground Fuel Tank Report

Leaking Underground Storage Tank Incident Reports. LUST records contain an inventory of reported leaking underground storage tank incidents. Not all states maintain these records, and the information stored varies by state. For more information on a particular leaking underground storage tank sites, please contact the appropriate regulatory agency.

Date of Government Version: 04/10/2007
Date Data Arrived at EDR: 04/11/2007
Date Made Active in Reports: 04/27/2007
Number of Days to Update: 16

Source: State Water Resources Control Board
Telephone: see region list
Last EDR Contact: 04/11/2007
Next Scheduled EDR Contact: 07/09/2007
Data Release Frequency: Quarterly

CA FID UST: Facility Inventory Database

The Facility Inventory Database (FID) contains a historical listing of active and inactive underground storage tank locations from the State Water Resource Control Board. Refer to local/county source for current data.

Date of Government Version: 10/31/1994
Date Data Arrived at EDR: 09/05/1995
Date Made Active in Reports: 09/29/1995
Number of Days to Update: 24

Source: California Environmental Protection Agency
Telephone: 916-341-5851
Last EDR Contact: 12/28/1998
Next Scheduled EDR Contact: N/A
Data Release Frequency: No Update Planned

SLIC: Statewide SLIC Cases

The SLIC (Spills, Leaks, Investigations and Cleanup) program is designed to protect and restore water quality from spills, leaks, and similar discharges.

Date of Government Version: 04/10/2007
Date Data Arrived at EDR: 04/11/2007
Date Made Active in Reports: 04/27/2007
Number of Days to Update: 16

Source: State Water Resources Control Board
Telephone: 866-480-1028
Last EDR Contact: 04/11/2007
Next Scheduled EDR Contact: 07/09/2007
Data Release Frequency: Varies

SLIC REG 1: Active Toxic Site Investigations

The SLIC (Spills, Leaks, Investigations and Cleanup) program is designed to protect and restore water quality from spills, leaks, and similar discharges.

Date of Government Version: 04/03/2003
Date Data Arrived at EDR: 04/07/2003
Date Made Active in Reports: 04/25/2003
Number of Days to Update: 18

Source: California Regional Water Quality Control Board, North Coast Region (1)
Telephone: 707-576-2220
Last EDR Contact: 05/21/2007
Next Scheduled EDR Contact: 08/20/2007
Data Release Frequency: No Update Planned

SLIC REG 2: Spills, Leaks, Investigation & Cleanup Cost Recovery Listing

The SLIC (Spills, Leaks, Investigations and Cleanup) program is designed to protect and restore water quality from spills, leaks, and similar discharges.

Date of Government Version: 09/30/2004
Date Data Arrived at EDR: 10/20/2004
Date Made Active in Reports: 11/19/2004
Number of Days to Update: 30

Source: Regional Water Quality Control Board San Francisco Bay Region (2)
Telephone: 510-286-0457
Last EDR Contact: 07/09/2007
Next Scheduled EDR Contact: 10/08/2007
Data Release Frequency: Quarterly

SLIC REG 3: Spills, Leaks, Investigation & Cleanup Cost Recovery Listing

The SLIC (Spills, Leaks, Investigations and Cleanup) program is designed to protect and restore water quality from spills, leaks, and similar discharges.

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

Date of Government Version: 05/18/2006
Date Data Arrived at EDR: 05/18/2006
Date Made Active in Reports: 06/15/2006
Number of Days to Update: 28

Source: California Regional Water Quality Control Board Central Coast Region (3)
Telephone: 805-549-3147
Last EDR Contact: 05/14/2007
Next Scheduled EDR Contact: 08/13/2007
Data Release Frequency: Semi-Annually

SLIC REG 4: Spills, Leaks, Investigation & Cleanup Cost Recovery Listing

The SLIC (Spills, Leaks, Investigations and Cleanup) program is designed to protect and restore water quality from spills, leaks, and similar discharges.

Date of Government Version: 11/17/2004
Date Data Arrived at EDR: 11/18/2004
Date Made Active in Reports: 01/04/2005
Number of Days to Update: 47

Source: Region Water Quality Control Board Los Angeles Region (4)
Telephone: 213-576-6600
Last EDR Contact: 04/23/2007
Next Scheduled EDR Contact: 07/23/2007
Data Release Frequency: Varies

SLIC REG 5: Spills, Leaks, Investigation & Cleanup Cost Recovery Listing

The SLIC (Spills, Leaks, Investigations and Cleanup) program is designed to protect and restore water quality from spills, leaks, and similar discharges.

Date of Government Version: 04/01/2005
Date Data Arrived at EDR: 04/05/2005
Date Made Active in Reports: 04/21/2005
Number of Days to Update: 16

Source: Regional Water Quality Control Board Central Valley Region (5)
Telephone: 916-464-3291
Last EDR Contact: 07/02/2007
Next Scheduled EDR Contact: 10/01/2007
Data Release Frequency: Semi-Annually

SLIC REG 6V: Spills, Leaks, Investigation & Cleanup Cost Recovery Listing

The SLIC (Spills, Leaks, Investigations and Cleanup) program is designed to protect and restore water quality from spills, leaks, and similar discharges.

Date of Government Version: 05/24/2005
Date Data Arrived at EDR: 05/25/2005
Date Made Active in Reports: 06/16/2005
Number of Days to Update: 22

Source: Regional Water Quality Control Board, Victorville Branch
Telephone: 619-241-6583
Last EDR Contact: 07/02/2007
Next Scheduled EDR Contact: 10/01/2007
Data Release Frequency: Semi-Annually

SLIC REG 6L: SLIC Sites

The SLIC (Spills, Leaks, Investigations and Cleanup) program is designed to protect and restore water quality from spills, leaks, and similar discharges.

Date of Government Version: 09/07/2004
Date Data Arrived at EDR: 09/07/2004
Date Made Active in Reports: 10/12/2004
Number of Days to Update: 35

Source: California Regional Water Quality Control Board, Lahontan Region
Telephone: 530-542-5574
Last EDR Contact: 06/04/2007
Next Scheduled EDR Contact: 09/03/2007
Data Release Frequency: No Update Planned

SLIC REG 7: SLIC List

The SLIC (Spills, Leaks, Investigations and Cleanup) program is designed to protect and restore water quality from spills, leaks, and similar discharges.

Date of Government Version: 11/24/2004
Date Data Arrived at EDR: 11/29/2004
Date Made Active in Reports: 01/04/2005
Number of Days to Update: 36

Source: California Regional Quality Control Board, Colorado River Basin Region
Telephone: 760-346-7491
Last EDR Contact: 05/21/2007
Next Scheduled EDR Contact: 08/20/2007
Data Release Frequency: No Update Planned

SLIC REG 8: Spills, Leaks, Investigation & Cleanup Cost Recovery Listing

The SLIC (Spills, Leaks, Investigations and Cleanup) program is designed to protect and restore water quality from spills, leaks, and similar discharges.

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

Date of Government Version: 04/06/2006
Date Data Arrived at EDR: 04/06/2006
Date Made Active in Reports: 05/11/2006
Number of Days to Update: 35

Source: California Region Water Quality Control Board Santa Ana Region (8)
Telephone: 951-782-3298
Last EDR Contact: 07/03/2007
Next Scheduled EDR Contact: 10/01/2007
Data Release Frequency: Semi-Annually

SLIC REG 9: Spills, Leaks, Investigation & Cleanup Cost Recovery Listing

The SLIC (Spills, Leaks, Investigations and Cleanup) program is designed to protect and restore water quality from spills, leaks, and similar discharges.

Date of Government Version: 03/13/2007
Date Data Arrived at EDR: 03/14/2007
Date Made Active in Reports: 04/06/2007
Number of Days to Update: 23

Source: California Regional Water Quality Control Board San Diego Region (9)
Telephone: 858-467-2980
Last EDR Contact: 06/29/2007
Next Scheduled EDR Contact: 08/27/2007
Data Release Frequency: Annually

UST: Active UST Facilities

Active UST facilities gathered from the local regulatory agencies

Date of Government Version: 04/10/2007
Date Data Arrived at EDR: 04/11/2007
Date Made Active in Reports: 05/03/2007
Number of Days to Update: 22

Source: SWRCB
Telephone: 916-480-1028
Last EDR Contact: 04/11/2007
Next Scheduled EDR Contact: 07/09/2007
Data Release Frequency: Semi-Annually

UST MENDOCINO: Mendocino County UST Database

A listing of underground storage tank locations in Mendocino County.

Date of Government Version: 02/05/2007
Date Data Arrived at EDR: 02/06/2007
Date Made Active in Reports: 03/21/2007
Number of Days to Update: 43

Source: Department of Public Health
Telephone: 707-463-4466
Last EDR Contact: 06/25/2007
Next Scheduled EDR Contact: 09/24/2007
Data Release Frequency: Varies

HIST UST: Hazardous Substance Storage Container Database

The Hazardous Substance Storage Container Database is a historical listing of UST sites. Refer to local/county source for current data.

Date of Government Version: 10/15/1990
Date Data Arrived at EDR: 01/25/1991
Date Made Active in Reports: 02/12/1991
Number of Days to Update: 18

Source: State Water Resources Control Board
Telephone: 916-341-5851
Last EDR Contact: 07/26/2001
Next Scheduled EDR Contact: N/A
Data Release Frequency: No Update Planned

LIENS: Environmental Liens Listing

A listing of property locations with environmental liens for California where DTSC is a lien holder.

Date of Government Version: 05/07/2007
Date Data Arrived at EDR: 05/08/2007
Date Made Active in Reports: 05/25/2007
Number of Days to Update: 17

Source: Department of Toxic Substances Control
Telephone: 916-323-3400
Last EDR Contact: 02/22/2007
Next Scheduled EDR Contact: 08/06/2007
Data Release Frequency: Varies

AST: Aboveground Petroleum Storage Tank Facilities

Registered Aboveground Storage Tanks.

Date of Government Version: 05/01/2007
Date Data Arrived at EDR: 05/01/2007
Date Made Active in Reports: 05/25/2007
Number of Days to Update: 24

Source: State Water Resources Control Board
Telephone: 916-341-5712
Last EDR Contact: 04/30/2007
Next Scheduled EDR Contact: 07/30/2007
Data Release Frequency: Quarterly

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

SWEEPS UST: SWEEPS UST Listing

Statewide Environmental Evaluation and Planning System. This underground storage tank listing was updated and maintained by a company contacted by the SWRCB in the early 1980's. The listing is no longer updated or maintained. The local agency is the contact for more information on a site on the SWEEPS list.

Date of Government Version: 06/01/1994	Source: State Water Resources Control Board
Date Data Arrived at EDR: 07/07/2005	Telephone: N/A
Date Made Active in Reports: 08/11/2005	Last EDR Contact: 06/03/2005
Number of Days to Update: 35	Next Scheduled EDR Contact: N/A
	Data Release Frequency: No Update Planned

CHMIRS: California Hazardous Material Incident Report System

California Hazardous Material Incident Reporting System. CHMIRS contains information on reported hazardous material incidents (accidental releases or spills).

Date of Government Version: 12/31/2005	Source: Office of Emergency Services
Date Data Arrived at EDR: 02/23/2007	Telephone: 916-845-8400
Date Made Active in Reports: 04/06/2007	Last EDR Contact: 05/21/2007
Number of Days to Update: 42	Next Scheduled EDR Contact: 08/20/2007
	Data Release Frequency: Varies

NOTIFY 65: Proposition 65 Records

Proposition 65 Notification Records. NOTIFY 65 contains facility notifications about any release which could impact drinking water and thereby expose the public to a potential health risk.

Date of Government Version: 10/21/1993	Source: State Water Resources Control Board
Date Data Arrived at EDR: 11/01/1993	Telephone: 916-445-3846
Date Made Active in Reports: 11/19/1993	Last EDR Contact: 04/12/2007
Number of Days to Update: 18	Next Scheduled EDR Contact: 07/16/2007
	Data Release Frequency: No Update Planned

DEED: Deed Restriction Listing

Site Mitigation and Brownfields Reuse Program Facility Sites with Deed Restrictions & Hazardous Waste Management Program Facility Sites with Deed / Land Use Restriction. The DTSC Site Mitigation and Brownfields Reuse Program (SMBRP) list includes sites cleaned up under the program's oversight and generally does not include current or former hazardous waste facilities that required a hazardous waste facility permit. The list represents deed restrictions that are active. Some sites have multiple deed restrictions. The DTSC Hazardous Waste Management Program (HWMP) has developed a list of current or former hazardous waste facilities that have a recorded land use restriction at the local county recorder's office. The land use restrictions on this list were required by the DTSC HWMP as a result of the presence of hazardous substances that remain on site after the facility (or part of the facility) has been closed or cleaned up. The types of land use restriction include deed notice, deed restriction, or a land use restriction that binds current and future owners.

Date of Government Version: 04/03/2007	Source: Department of Toxic Substances Control
Date Data Arrived at EDR: 04/05/2007	Telephone: 916-323-3400
Date Made Active in Reports: 04/27/2007	Last EDR Contact: 07/03/2007
Number of Days to Update: 22	Next Scheduled EDR Contact: 10/01/2007
	Data Release Frequency: Semi-Annually

VCP: Voluntary Cleanup Program Properties

Contains low threat level properties with either confirmed or unconfirmed releases and the project proponents have request that DTSC oversee investigation and/or cleanup activities and have agreed to provide coverage for DTSC's costs.

Date of Government Version: 05/29/2007	Source: Department of Toxic Substances Control
Date Data Arrived at EDR: 05/30/2007	Telephone: 916-323-3400
Date Made Active in Reports: 06/29/2007	Last EDR Contact: 05/30/2007
Number of Days to Update: 30	Next Scheduled EDR Contact: 08/27/2007
	Data Release Frequency: Quarterly

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

DRYCLEANERS: Cleaner Facilities

A list of drycleaner related facilities that have EPA ID numbers. These are facilities with certain SIC codes: power laundries, family and commercial; garment pressing and cleaner's agents; linen supply; coin-operated laundries and cleaning; drycleaning plants, except rugs; carpet and upholster cleaning; industrial launderers; laundry and garment services.

Date of Government Version: 04/18/2005
Date Data Arrived at EDR: 04/18/2005
Date Made Active in Reports: 05/06/2005
Number of Days to Update: 18

Source: Department of Toxic Substance Control
Telephone: 916-327-4498
Last EDR Contact: 06/25/2007
Next Scheduled EDR Contact: 10/01/2007
Data Release Frequency: Annually

WIP: Well Investigation Program Case List

Well Investigation Program case in the San Gabriel and San Fernando Valley area.

Date of Government Version: 03/01/2007
Date Data Arrived at EDR: 03/13/2007
Date Made Active in Reports: 04/06/2007
Number of Days to Update: 24

Source: Los Angeles Water Quality Control Board
Telephone: 213-576-6726
Last EDR Contact: 04/27/2007
Next Scheduled EDR Contact: 07/23/2007
Data Release Frequency: Varies

CDL: Clandestine Drug Labs

A listing of drug lab locations. Listing of a location in this database does not indicate that any illegal drug lab materials were or were not present there, and does not constitute a determination that the location either requires or does not require additional cleanup work.

Date of Government Version: 12/31/2006
Date Data Arrived at EDR: 03/07/2007
Date Made Active in Reports: 04/06/2007
Number of Days to Update: 30

Source: Department of Toxic Substances Control
Telephone: 916-255-6504
Last EDR Contact: 04/23/2007
Next Scheduled EDR Contact: 07/23/2007
Data Release Frequency: Varies

RESPONSE: State Response Sites

Identifies confirmed release sites where DTSC is involved in remediation, either in a lead or oversight capacity. These confirmed release sites are generally high-priority and high potential risk.

Date of Government Version: 05/29/2007
Date Data Arrived at EDR: 05/30/2007
Date Made Active in Reports: 06/29/2007
Number of Days to Update: 30

Source: Department of Toxic Substances Control
Telephone: 916-323-3400
Last EDR Contact: 05/30/2007
Next Scheduled EDR Contact: 08/27/2007
Data Release Frequency: Quarterly

HAZNET: Facility and Manifest Data

Facility and Manifest Data. The data is extracted from the copies of hazardous waste manifests received each year by the DTSC. The annual volume of manifests is typically 700,000 - 1,000,000 annually, representing approximately 350,000 - 500,000 shipments. Data are from the manifests submitted without correction, and therefore many contain some invalid values for data elements such as generator ID, TSD ID, waste category, and disposal method.

Date of Government Version: 12/31/2005
Date Data Arrived at EDR: 11/20/2006
Date Made Active in Reports: 01/03/2007
Number of Days to Update: 44

Source: California Environmental Protection Agency
Telephone: 916-255-1136
Last EDR Contact: 05/11/2007
Next Scheduled EDR Contact: 08/06/2007
Data Release Frequency: Annually

EMI: Emissions Inventory Data

Toxics and criteria pollutant emissions data collected by the ARB and local air pollution agencies.

Date of Government Version: 12/31/2005
Date Data Arrived at EDR: 04/17/2007
Date Made Active in Reports: 05/10/2007
Number of Days to Update: 23

Source: California Air Resources Board
Telephone: 916-322-2990
Last EDR Contact: 04/17/2007
Next Scheduled EDR Contact: 07/16/2007
Data Release Frequency: Varies

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

ENVIROSTOR: EnviroStor Database

The Department of Toxic Substances Control's (DTSC's) Site Mitigation and Brownfields Reuse Program's (SMBRP's) EnviroStor database identifies sites that have known contamination or sites for which there may be reasons to investigate further. The database includes the following site types: Federal Superfund sites (National Priorities List (NPL)); State Response, including Military Facilities and State Superfund; Voluntary Cleanup; and School sites. EnviroStor provides similar information to the information that was available in CalSites, and provides additional site information, including, but not limited to, identification of formerly-contaminated properties that have been released for reuse, properties where environmental deed restrictions have been recorded to prevent inappropriate land uses, and risk characterization information that is used to assess potential impacts to public health and the environment at contaminated sites.

Date of Government Version: 05/29/2007	Source: Department of Toxic Substances Control
Date Data Arrived at EDR: 05/30/2007	Telephone: 916-323-3400
Date Made Active in Reports: 06/29/2007	Last EDR Contact: 05/30/2007
Number of Days to Update: 30	Next Scheduled EDR Contact: 08/27/2007
	Data Release Frequency: Quarterly

TRIBAL RECORDS

INDIAN RESERV: Indian Reservations

This map layer portrays Indian administered lands of the United States that have any area equal to or greater than 640 acres.

Date of Government Version: 12/31/2005	Source: USGS
Date Data Arrived at EDR: 02/06/2006	Telephone: 202-208-3710
Date Made Active in Reports: 01/11/2007	Last EDR Contact: 05/11/2007
Number of Days to Update: 339	Next Scheduled EDR Contact: 08/06/2007
	Data Release Frequency: Semi-Annually

INDIAN LUST R1: Leaking Underground Storage Tanks on Indian Land

A listing of leaking underground storage tank locations on Indian Land.

Date of Government Version: 12/01/2006	Source: EPA Region 1
Date Data Arrived at EDR: 12/01/2006	Telephone: 617-918-1313
Date Made Active in Reports: 01/29/2007	Last EDR Contact: 05/21/2007
Number of Days to Update: 59	Next Scheduled EDR Contact: 08/20/2007
	Data Release Frequency: Varies

INDIAN LUST R7: Leaking Underground Storage Tanks on Indian Land

LUSTs on Indian land in Iowa, Kansas, and Nebraska

Date of Government Version: 06/01/2007	Source: EPA Region 7
Date Data Arrived at EDR: 06/14/2007	Telephone: 913-551-7003
Date Made Active in Reports: 07/05/2007	Last EDR Contact: 05/21/2007
Number of Days to Update: 21	Next Scheduled EDR Contact: 08/20/2007
	Data Release Frequency: Varies

INDIAN LUST R6: Leaking Underground Storage Tanks on Indian Land

LUSTs on Indian land in New Mexico and Oklahoma.

Date of Government Version: 01/04/2005	Source: EPA Region 6
Date Data Arrived at EDR: 01/21/2005	Telephone: 214-665-6597
Date Made Active in Reports: 02/28/2005	Last EDR Contact: 05/21/2007
Number of Days to Update: 38	Next Scheduled EDR Contact: 08/20/2007
	Data Release Frequency: Varies

INDIAN LUST R4: Leaking Underground Storage Tanks on Indian Land

LUSTs on Indian land in Florida, Minnesota, Mississippi and North Carolina.

Date of Government Version: 03/20/2007	Source: EPA Region 4
Date Data Arrived at EDR: 04/16/2007	Telephone: 404-562-8677
Date Made Active in Reports: 05/14/2007	Last EDR Contact: 05/21/2007
Number of Days to Update: 28	Next Scheduled EDR Contact: 08/20/2007
	Data Release Frequency: Semi-Annually

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

INDIAN LUST R8: Leaking Underground Storage Tanks on Indian Land

LUSTs on Indian land in Colorado, Montana, North Dakota, South Dakota, Utah and Wyoming.

Date of Government Version: 05/30/2007	Source: EPA Region 8
Date Data Arrived at EDR: 05/31/2007	Telephone: 303-312-6271
Date Made Active in Reports: 07/05/2007	Last EDR Contact: 05/21/2007
Number of Days to Update: 35	Next Scheduled EDR Contact: 08/20/2007
	Data Release Frequency: Quarterly

INDIAN LUST R10: Leaking Underground Storage Tanks on Indian Land

LUSTs on Indian land in Alaska, Idaho, Oregon and Washington.

Date of Government Version: 05/23/2007	Source: EPA Region 10
Date Data Arrived at EDR: 05/24/2007	Telephone: 206-553-2857
Date Made Active in Reports: 07/05/2007	Last EDR Contact: 05/21/2007
Number of Days to Update: 42	Next Scheduled EDR Contact: 08/20/2007
	Data Release Frequency: Quarterly

INDIAN LUST R9: Leaking Underground Storage Tanks on Indian Land

LUSTs on Indian land in Arizona, California, New Mexico and Nevada

Date of Government Version: 06/18/2007	Source: Environmental Protection Agency
Date Data Arrived at EDR: 06/18/2007	Telephone: 415-972-3372
Date Made Active in Reports: 07/05/2007	Last EDR Contact: 05/21/2007
Number of Days to Update: 17	Next Scheduled EDR Contact: 08/20/2007
	Data Release Frequency: Quarterly

INDIAN UST R6: Underground Storage Tanks on Indian Land

Date of Government Version: 06/06/2007	Source: EPA Region 6
Date Data Arrived at EDR: 06/07/2007	Telephone: 214-665-7591
Date Made Active in Reports: 07/05/2007	Last EDR Contact: 05/21/2007
Number of Days to Update: 28	Next Scheduled EDR Contact: 08/20/2007
	Data Release Frequency: Semi-Annually

INDIAN UST R7: Underground Storage Tanks on Indian Land

Date of Government Version: 06/01/2007	Source: EPA Region 7
Date Data Arrived at EDR: 06/14/2007	Telephone: 913-551-7003
Date Made Active in Reports: 07/05/2007	Last EDR Contact: 05/21/2007
Number of Days to Update: 21	Next Scheduled EDR Contact: 08/20/2007
	Data Release Frequency: Varies

INDIAN UST R4: Underground Storage Tanks on Indian Land

Date of Government Version: 03/20/2007	Source: EPA Region 4
Date Data Arrived at EDR: 04/16/2007	Telephone: 404-562-9424
Date Made Active in Reports: 05/14/2007	Last EDR Contact: 05/21/2007
Number of Days to Update: 28	Next Scheduled EDR Contact: 08/20/2007
	Data Release Frequency: Semi-Annually

INDIAN UST R9: Underground Storage Tanks on Indian Land

Date of Government Version: 06/18/2007	Source: EPA Region 9
Date Data Arrived at EDR: 06/18/2007	Telephone: 415-972-3368
Date Made Active in Reports: 07/05/2007	Last EDR Contact: 05/21/2007
Number of Days to Update: 17	Next Scheduled EDR Contact: 08/20/2007
	Data Release Frequency: Quarterly

INDIAN UST R1: Underground Storage Tanks on Indian Land

A listing of underground storage tank locations on Indian Land.

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

Date of Government Version: 12/01/2006	Source: EPA, Region 1
Date Data Arrived at EDR: 12/01/2006	Telephone: 617-918-1313
Date Made Active in Reports: 01/29/2007	Last EDR Contact: 05/21/2007
Number of Days to Update: 59	Next Scheduled EDR Contact: 08/20/2007
	Data Release Frequency: Varies

INDIAN UST R5: Underground Storage Tanks on Indian Land

Date of Government Version: 12/02/2004	Source: EPA Region 5
Date Data Arrived at EDR: 12/29/2004	Telephone: 312-886-6136
Date Made Active in Reports: 02/04/2005	Last EDR Contact: 05/21/2007
Number of Days to Update: 37	Next Scheduled EDR Contact: 08/20/2007
	Data Release Frequency: Varies

INDIAN UST R8: Underground Storage Tanks on Indian Land

Date of Government Version: 05/30/2007	Source: EPA Region 8
Date Data Arrived at EDR: 05/31/2007	Telephone: 303-312-6137
Date Made Active in Reports: 07/05/2007	Last EDR Contact: 05/21/2007
Number of Days to Update: 35	Next Scheduled EDR Contact: 08/20/2007
	Data Release Frequency: Quarterly

INDIAN UST R10: Underground Storage Tanks on Indian Land

Date of Government Version: 05/23/2007	Source: EPA Region 10
Date Data Arrived at EDR: 05/24/2007	Telephone: 206-553-2857
Date Made Active in Reports: 07/05/2007	Last EDR Contact: 05/21/2007
Number of Days to Update: 42	Next Scheduled EDR Contact: 08/20/2007
	Data Release Frequency: Quarterly

EDR PROPRIETARY RECORDS

Manufactured Gas Plants: EDR Proprietary Manufactured Gas Plants

The EDR Proprietary Manufactured Gas Plant Database includes records of coal gas plants (manufactured gas plants) compiled by EDR's researchers. Manufactured gas sites were used in the United States from the 1800's to 1950's to produce a gas that could be distributed and used as fuel. These plants used whale oil, rosin, coal, or a mixture of coal, oil, and water that also produced a significant amount of waste. Many of the byproducts of the gas production, such as coal tar (oily waste containing volatile and non-volatile chemicals), sludges, oils and other compounds are potentially hazardous to human health and the environment. The byproduct from this process was frequently disposed of directly at the plant site and can remain or spread slowly, serving as a continuous source of soil and groundwater contamination.

Date of Government Version: N/A	Source: EDR, Inc.
Date Data Arrived at EDR: N/A	Telephone: N/A
Date Made Active in Reports: N/A	Last EDR Contact: N/A
Number of Days to Update: N/A	Next Scheduled EDR Contact: N/A
	Data Release Frequency: No Update Planned

EDR Historical Auto Stations: EDR Proprietary Historic Gas Stations

EDR has searched selected national collections of business directories and has collected listings of potential gas station/filling station/service station sites that were available to EDR researchers. EDR's review was limited to those categories of sources that might, in EDR's opinion, include gas station/filling station/service station establishments. The categories reviewed included, but were not limited to gas, gas station, gasoline station, filling station, auto, automobile repair, auto service station, service station, etc.

Date of Government Version: N/A	Source: EDR, Inc.
Date Data Arrived at EDR: N/A	Telephone: N/A
Date Made Active in Reports: N/A	Last EDR Contact: N/A
Number of Days to Update: N/A	Next Scheduled EDR Contact: N/A
	Data Release Frequency: Varies

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

EDR Historical Cleaners: EDR Proprietary Historic Dry Cleaners

EDR has searched selected national collections of business directories and has collected listings of potential dry cleaner sites that were available to EDR researchers. EDR's review was limited to those categories of sources that might, in EDR's opinion, include dry cleaning establishments. The categories reviewed included, but were not limited to dry cleaners, cleaners, laundry, laundromat, cleaning/laundry, wash & dry etc.

Date of Government Version: N/A
Date Data Arrived at EDR: N/A
Date Made Active in Reports: N/A
Number of Days to Update: N/A

Source: EDR, Inc.
Telephone: N/A
Last EDR Contact: N/A
Next Scheduled EDR Contact: N/A
Data Release Frequency: Varies

COUNTY RECORDS

ALAMEDA COUNTY:

Contaminated Sites

A listing of contaminated sites overseen by the Toxic Release Program (oil and groundwater contamination from chemical releases and spills) and the Leaking Underground Storage Tank Program (soil and ground water contamination from leaking petroleum USTs).

Date of Government Version: 04/24/2007
Date Data Arrived at EDR: 04/26/2007
Date Made Active in Reports: 05/10/2007
Number of Days to Update: 14

Source: Alameda County Environmental Health Services
Telephone: 510-567-6700
Last EDR Contact: 04/23/2007
Next Scheduled EDR Contact: 07/23/2007
Data Release Frequency: Semi-Annually

Underground Tanks

Underground storage tank sites located in Alameda county.

Date of Government Version: 04/24/2007
Date Data Arrived at EDR: 04/26/2007
Date Made Active in Reports: 05/07/2007
Number of Days to Update: 11

Source: Alameda County Environmental Health Services
Telephone: 510-567-6700
Last EDR Contact: 04/23/2007
Next Scheduled EDR Contact: 07/23/2007
Data Release Frequency: Semi-Annually

CONTRA COSTA COUNTY:

Site List

List includes sites from the underground tank, hazardous waste generator and business plan/2185 programs.

Date of Government Version: 05/29/2007
Date Data Arrived at EDR: 05/31/2007
Date Made Active in Reports: 06/29/2007
Number of Days to Update: 29

Source: Contra Costa Health Services Department
Telephone: 925-646-2286
Last EDR Contact: 05/29/2007
Next Scheduled EDR Contact: 08/27/2007
Data Release Frequency: Semi-Annually

FRESNO COUNTY:

CUPA Resources List

Certified Unified Program Agency. CUPA's are responsible for implementing a unified hazardous materials and hazardous waste management regulatory program. The agency provides oversight of businesses that deal with hazardous materials, operate underground storage tanks or aboveground storage tanks.

Date of Government Version: 04/09/2007
Date Data Arrived at EDR: 04/10/2007
Date Made Active in Reports: 04/27/2007
Number of Days to Update: 17

Source: Dept. of Community Health
Telephone: 559-445-3271
Last EDR Contact: 05/07/2007
Next Scheduled EDR Contact: 08/06/2007
Data Release Frequency: Semi-Annually

KERN COUNTY:

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

Underground Storage Tank Sites & Tank Listing

Kern County Sites and Tanks Listing.

Date of Government Version: 04/13/2007
Date Data Arrived at EDR: 04/16/2007
Date Made Active in Reports: 05/07/2007
Number of Days to Update: 21

Source: Kern County Environment Health Services Department
Telephone: 661-862-8700
Last EDR Contact: 06/18/2007
Next Scheduled EDR Contact: 09/03/2007
Data Release Frequency: Quarterly

LOS ANGELES COUNTY:

San Gabriel Valley Areas of Concern

San Gabriel Valley areas where VOC contamination is at or above the MCL as designated by region 9 EPA office.

Date of Government Version: 12/31/1998
Date Data Arrived at EDR: 07/07/1999
Date Made Active in Reports: N/A
Number of Days to Update: 0

Source: EPA Region 9
Telephone: 415-972-3178
Last EDR Contact: 05/16/2006
Next Scheduled EDR Contact: N/A
Data Release Frequency: No Update Planned

HMS: Street Number List

Industrial Waste and Underground Storage Tank Sites.

Date of Government Version: 01/31/2007
Date Data Arrived at EDR: 04/12/2007
Date Made Active in Reports: 04/27/2007
Number of Days to Update: 15

Source: Department of Public Works
Telephone: 626-458-3517
Last EDR Contact: 05/14/2007
Next Scheduled EDR Contact: 08/13/2007
Data Release Frequency: Semi-Annually

List of Solid Waste Facilities

Solid Waste Facilities in Los Angeles County.

Date of Government Version: 05/15/2007
Date Data Arrived at EDR: 06/08/2007
Date Made Active in Reports: 06/29/2007
Number of Days to Update: 21

Source: La County Department of Public Works
Telephone: 818-458-5185
Last EDR Contact: 05/16/2007
Next Scheduled EDR Contact: 08/13/2007
Data Release Frequency: Varies

City of Los Angeles Landfills

Landfills owned and maintained by the City of Los Angeles.

Date of Government Version: 03/01/2007
Date Data Arrived at EDR: 03/27/2007
Date Made Active in Reports: 04/27/2007
Number of Days to Update: 31

Source: Engineering & Construction Division
Telephone: 213-473-7869
Last EDR Contact: 06/11/2007
Next Scheduled EDR Contact: 09/10/2007
Data Release Frequency: Varies

Site Mitigation List

Industrial sites that have had some sort of spill or complaint.

Date of Government Version: 12/04/2006
Date Data Arrived at EDR: 01/09/2007
Date Made Active in Reports: 01/24/2007
Number of Days to Update: 15

Source: Community Health Services
Telephone: 323-890-7806
Last EDR Contact: 05/14/2007
Next Scheduled EDR Contact: 08/13/2007
Data Release Frequency: Annually

City of El Segundo Underground Storage Tank

Underground storage tank sites located in El Segundo city.

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

Date of Government Version: 05/14/2007
Date Data Arrived at EDR: 05/15/2007
Date Made Active in Reports: 06/25/2007
Number of Days to Update: 41

Source: City of El Segundo Fire Department
Telephone: 310-524-2236
Last EDR Contact: 05/14/2007
Next Scheduled EDR Contact: 08/13/2007
Data Release Frequency: Semi-Annually

City of Long Beach Underground Storage Tank

Underground storage tank sites located in the city of Long Beach.

Date of Government Version: 03/28/2003
Date Data Arrived at EDR: 10/23/2003
Date Made Active in Reports: 11/26/2003
Number of Days to Update: 34

Source: City of Long Beach Fire Department
Telephone: 562-570-2563
Last EDR Contact: 05/30/2007
Next Scheduled EDR Contact: 08/20/2007
Data Release Frequency: Annually

City of Torrance Underground Storage Tank

Underground storage tank sites located in the city of Torrance.

Date of Government Version: 05/29/2007
Date Data Arrived at EDR: 05/29/2007
Date Made Active in Reports: 06/25/2007
Number of Days to Update: 27

Source: City of Torrance Fire Department
Telephone: 310-618-2973
Last EDR Contact: 05/29/2007
Next Scheduled EDR Contact: 08/13/2007
Data Release Frequency: Semi-Annually

MARIN COUNTY:

Underground Storage Tank Sites

Currently permitted USTs in Marin County.

Date of Government Version: 01/26/2007
Date Data Arrived at EDR: 02/20/2007
Date Made Active in Reports: 03/21/2007
Number of Days to Update: 29

Source: Public Works Department Waste Management
Telephone: 415-499-6647
Last EDR Contact: 04/30/2007
Next Scheduled EDR Contact: 07/30/2007
Data Release Frequency: Semi-Annually

NAPA COUNTY:

Sites With Reported Contamination

A listing of leaking underground storage tank sites located in Napa county.

Date of Government Version: 04/09/2007
Date Data Arrived at EDR: 04/10/2007
Date Made Active in Reports: 04/27/2007
Number of Days to Update: 17

Source: Napa County Department of Environmental Management
Telephone: 707-253-4269
Last EDR Contact: 07/09/2007
Next Scheduled EDR Contact: 09/24/2007
Data Release Frequency: Semi-Annually

Closed and Operating Underground Storage Tank Sites

Underground storage tank sites located in Napa county.

Date of Government Version: 04/09/2007
Date Data Arrived at EDR: 04/10/2007
Date Made Active in Reports: 04/24/2007
Number of Days to Update: 14

Source: Napa County Department of Environmental Management
Telephone: 707-253-4269
Last EDR Contact: 07/09/2007
Next Scheduled EDR Contact: 09/24/2007
Data Release Frequency: Annually

ORANGE COUNTY:

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

List of Industrial Site Cleanups

Petroleum and non-petroleum spills.

Date of Government Version: 06/01/2007
Date Data Arrived at EDR: 06/19/2007
Date Made Active in Reports: 06/29/2007
Number of Days to Update: 10

Source: Health Care Agency
Telephone: 714-834-3446
Last EDR Contact: 06/06/2007
Next Scheduled EDR Contact: 09/03/2007
Data Release Frequency: Annually

List of Underground Storage Tank Cleanups

Orange County Underground Storage Tank Cleanups (LUST).

Date of Government Version: 06/01/2007
Date Data Arrived at EDR: 06/19/2007
Date Made Active in Reports: 06/29/2007
Number of Days to Update: 10

Source: Health Care Agency
Telephone: 714-834-3446
Last EDR Contact: 06/06/2007
Next Scheduled EDR Contact: 09/03/2007
Data Release Frequency: Quarterly

List of Underground Storage Tank Facilities

Orange County Underground Storage Tank Facilities (UST).

Date of Government Version: 03/01/2007
Date Data Arrived at EDR: 03/20/2007
Date Made Active in Reports: 04/12/2007
Number of Days to Update: 23

Source: Health Care Agency
Telephone: 714-834-3446
Last EDR Contact: 06/06/2007
Next Scheduled EDR Contact: 09/03/2007
Data Release Frequency: Quarterly

PLACER COUNTY:

Master List of Facilities

List includes aboveground tanks, underground tanks and cleanup sites.

Date of Government Version: 04/04/2007
Date Data Arrived at EDR: 04/05/2007
Date Made Active in Reports: 04/27/2007
Number of Days to Update: 22

Source: Placer County Health and Human Services
Telephone: 530-889-7312
Last EDR Contact: 06/18/2007
Next Scheduled EDR Contact: 09/17/2007
Data Release Frequency: Semi-Annually

RIVERSIDE COUNTY:

Listing of Underground Tank Cleanup Sites

Riverside County Underground Storage Tank Cleanup Sites (LUST).

Date of Government Version: 05/21/2007
Date Data Arrived at EDR: 05/22/2007
Date Made Active in Reports: 06/29/2007
Number of Days to Update: 38

Source: Department of Public Health
Telephone: 951-358-5055
Last EDR Contact: 04/16/2007
Next Scheduled EDR Contact: 07/16/2007
Data Release Frequency: Quarterly

Underground Storage Tank Tank List

Underground storage tank sites located in Riverside county.

Date of Government Version: 05/21/2007
Date Data Arrived at EDR: 05/22/2007
Date Made Active in Reports: 06/25/2007
Number of Days to Update: 34

Source: Health Services Agency
Telephone: 951-358-5055
Last EDR Contact: 04/16/2007
Next Scheduled EDR Contact: 07/16/2007
Data Release Frequency: Quarterly

SACRAMENTO COUNTY:

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

Contaminated Sites

List of sites where unauthorized releases of potentially hazardous materials have occurred.

Date of Government Version: 05/04/2007	Source: Sacramento County Environmental Management
Date Data Arrived at EDR: 05/23/2007	Telephone: 916-875-8406
Date Made Active in Reports: 06/29/2007	Last EDR Contact: 05/01/2007
Number of Days to Update: 37	Next Scheduled EDR Contact: 07/30/2007
	Data Release Frequency: Quarterly

ML - Regulatory Compliance Master List

Any business that has hazardous materials on site - hazardous material storage sites, underground storage tanks, waste generators.

Date of Government Version: 05/04/2007	Source: Sacramento County Environmental Management
Date Data Arrived at EDR: 05/24/2007	Telephone: 916-875-8406
Date Made Active in Reports: 06/29/2007	Last EDR Contact: 05/01/2007
Number of Days to Update: 36	Next Scheduled EDR Contact: 07/30/2007
	Data Release Frequency: Quarterly

SAN BERNARDINO COUNTY:

Hazardous Material Permits

This listing includes underground storage tanks, medical waste handlers/generators, hazardous materials handlers, hazardous waste generators, and waste oil generators/handlers.

Date of Government Version: 03/23/2007	Source: San Bernardino County Fire Department Hazardous Materials Division
Date Data Arrived at EDR: 03/27/2007	Telephone: 909-387-3041
Date Made Active in Reports: 04/27/2007	Last EDR Contact: 06/04/2007
Number of Days to Update: 31	Next Scheduled EDR Contact: 09/03/2007
	Data Release Frequency: Quarterly

SAN DIEGO COUNTY:

Hazardous Materials Management Division Database

The database includes: HE58 - This report contains the business name, site address, business phone number, establishment 'H' permit number, type of permit, and the business status. HE17 - In addition to providing the same information provided in the HE58 listing, HE17 provides inspection dates, violations received by the establishment, hazardous waste generated, the quantity, method of storage, treatment/disposal of waste and the hauler, and information on underground storage tanks. Unauthorized Release List - Includes a summary of environmental contamination cases in San Diego County (underground tank cases, non-tank cases, groundwater contamination, and soil contamination are included.)

Date of Government Version: 05/16/2005	Source: Hazardous Materials Management Division
Date Data Arrived at EDR: 05/18/2005	Telephone: 619-338-2268
Date Made Active in Reports: 06/16/2005	Last EDR Contact: 07/05/2007
Number of Days to Update: 29	Next Scheduled EDR Contact: 10/01/2007
	Data Release Frequency: Quarterly

Solid Waste Facilities

San Diego County Solid Waste Facilities.

Date of Government Version: 11/01/2006	Source: Department of Health Services
Date Data Arrived at EDR: 01/03/2007	Telephone: 619-338-2209
Date Made Active in Reports: 01/24/2007	Last EDR Contact: 06/04/2007
Number of Days to Update: 21	Next Scheduled EDR Contact: 08/20/2007
	Data Release Frequency: Varies

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

Environmental Case Listing

The listing contains all underground tank release cases and projects pertaining to properties contaminated with hazardous substances that are actively under review by the Site Assessment and Mitigation Program.

Date of Government Version: 03/29/2007	Source: San Diego County Department of Environmental Health
Date Data Arrived at EDR: 04/24/2007	Telephone: 619-338-2371
Date Made Active in Reports: 05/10/2007	Last EDR Contact: 07/03/2007
Number of Days to Update: 16	Next Scheduled EDR Contact: 10/01/2007
	Data Release Frequency: Varies

SAN FRANCISCO COUNTY:

Local Oversight Facilities

A listing of leaking underground storage tank sites located in San Francisco county.

Date of Government Version: 06/08/2007	Source: Department Of Public Health San Francisco County
Date Data Arrived at EDR: 06/12/2007	Telephone: 415-252-3920
Date Made Active in Reports: 06/29/2007	Last EDR Contact: 06/04/2007
Number of Days to Update: 17	Next Scheduled EDR Contact: 09/03/2007
	Data Release Frequency: Quarterly

Underground Storage Tank Information

Underground storage tank sites located in San Francisco county.

Date of Government Version: 03/08/2007	Source: Department of Public Health
Date Data Arrived at EDR: 03/13/2007	Telephone: 415-252-3920
Date Made Active in Reports: 04/12/2007	Last EDR Contact: 06/04/2007
Number of Days to Update: 30	Next Scheduled EDR Contact: 09/03/2007
	Data Release Frequency: Quarterly

SAN JOAQUIN COUNTY:

San Joaquin Co. UST

A listing of underground storage tank locations in San Joaquin county.

Date of Government Version: 04/06/2007	Source: Environmental Health Department
Date Data Arrived at EDR: 04/10/2007	Telephone: N/A
Date Made Active in Reports: 04/24/2007	Last EDR Contact: 04/02/2007
Number of Days to Update: 14	Next Scheduled EDR Contact: 04/16/2007
	Data Release Frequency: Semi-Annually

SAN MATEO COUNTY:

Business Inventory

List includes Hazardous Materials Business Plan, hazardous waste generators, and underground storage tanks.

Date of Government Version: 04/30/2007	Source: San Mateo County Environmental Health Services Division
Date Data Arrived at EDR: 05/01/2007	Telephone: 650-363-1921
Date Made Active in Reports: 05/25/2007	Last EDR Contact: 07/09/2007
Number of Days to Update: 24	Next Scheduled EDR Contact: 10/08/2007
	Data Release Frequency: Annually

Fuel Leak List

A listing of leaking underground storage tank sites located in San Mateo county.

Date of Government Version: 04/11/2007	Source: San Mateo County Environmental Health Services Division
Date Data Arrived at EDR: 04/12/2007	Telephone: 650-363-1921
Date Made Active in Reports: 04/27/2007	Last EDR Contact: 07/09/2007
Number of Days to Update: 15	Next Scheduled EDR Contact: 10/08/2007
	Data Release Frequency: Semi-Annually

SANTA CLARA COUNTY:

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

HIST LUST - Fuel Leak Site Activity Report

A listing of open and closed leaking underground storage tanks. This listing is no longer updated by the county. Leaking underground storage tanks are now handled by the Department of Environmental Health.

Date of Government Version: 03/29/2005	Source: Santa Clara Valley Water District
Date Data Arrived at EDR: 03/30/2005	Telephone: 408-265-2600
Date Made Active in Reports: 04/21/2005	Last EDR Contact: 06/25/2007
Number of Days to Update: 22	Next Scheduled EDR Contact: 09/24/2007
	Data Release Frequency: No Update Planned

LOP Listing

A listing of leaking underground storage tanks located in Santa Clara county.

Date of Government Version: 03/26/2007	Source: Department of Environmental Health
Date Data Arrived at EDR: 03/27/2007	Telephone: 408-918-3417
Date Made Active in Reports: 04/27/2007	Last EDR Contact: 06/25/2007
Number of Days to Update: 31	Next Scheduled EDR Contact: 09/24/2007
	Data Release Frequency: Varies

Hazardous Material Facilities

Hazardous material facilities, including underground storage tank sites.

Date of Government Version: 06/11/2007	Source: City of San Jose Fire Department
Date Data Arrived at EDR: 06/12/2007	Telephone: 408-277-4659
Date Made Active in Reports: 06/29/2007	Last EDR Contact: 06/04/2007
Number of Days to Update: 17	Next Scheduled EDR Contact: 09/03/2007
	Data Release Frequency: Annually

SOLANO COUNTY:

Leaking Underground Storage Tanks

A listing of leaking underground storage tank sites located in Solano county.

Date of Government Version: 03/26/2007	Source: Solano County Department of Environmental Management
Date Data Arrived at EDR: 04/16/2007	Telephone: 707-784-6770
Date Made Active in Reports: 05/10/2007	Last EDR Contact: 07/09/2007
Number of Days to Update: 24	Next Scheduled EDR Contact: 09/24/2007
	Data Release Frequency: Quarterly

Underground Storage Tanks

Underground storage tank sites located in Solano county.

Date of Government Version: 03/26/2007	Source: Solano County Department of Environmental Management
Date Data Arrived at EDR: 04/18/2007	Telephone: 707-784-6770
Date Made Active in Reports: 05/07/2007	Last EDR Contact: 07/09/2007
Number of Days to Update: 19	Next Scheduled EDR Contact: 09/24/2007
	Data Release Frequency: Quarterly

SONOMA COUNTY:

Leaking Underground Storage Tank Sites

A listing of leaking underground storage tank sites located in Sonoma county.

Date of Government Version: 04/23/2007	Source: Department of Health Services
Date Data Arrived at EDR: 04/24/2007	Telephone: 707-565-6565
Date Made Active in Reports: 05/10/2007	Last EDR Contact: 07/09/2007
Number of Days to Update: 16	Next Scheduled EDR Contact: 07/23/2007
	Data Release Frequency: Quarterly

SUTTER COUNTY:

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

Underground Storage Tanks

Underground storage tank sites located in Sutter county.

Date of Government Version: 05/04/2007	Source: Sutter County Department of Agriculture
Date Data Arrived at EDR: 05/04/2007	Telephone: 530-822-7500
Date Made Active in Reports: 05/24/2007	Last EDR Contact: 07/02/2007
Number of Days to Update: 20	Next Scheduled EDR Contact: 10/01/2007
	Data Release Frequency: Semi-Annually

VENTURA COUNTY:

Business Plan, Hazardous Waste Producers, and Operating Underground Tanks

The BWT list indicates by site address whether the Environmental Health Division has Business Plan (B), Waste Producer (W), and/or Underground Tank (T) information.

Date of Government Version: 05/30/2007	Source: Ventura County Environmental Health Division
Date Data Arrived at EDR: 06/22/2007	Telephone: 805-654-2813
Date Made Active in Reports: 06/29/2007	Last EDR Contact: 06/12/2007
Number of Days to Update: 7	Next Scheduled EDR Contact: 09/10/2007
	Data Release Frequency: Quarterly

Inventory of Illegal Abandoned and Inactive Sites

Ventura County Inventory of Closed, Illegal Abandoned, and Inactive Sites.

Date of Government Version: 08/01/2006	Source: Environmental Health Division
Date Data Arrived at EDR: 09/05/2006	Telephone: 805-654-2813
Date Made Active in Reports: 10/05/2006	Last EDR Contact: 05/21/2007
Number of Days to Update: 30	Next Scheduled EDR Contact: 08/20/2007
	Data Release Frequency: Annually

Listing of Underground Tank Cleanup Sites

Ventura County Underground Storage Tank Cleanup Sites (LUST).

Date of Government Version: 06/05/2007	Source: Environmental Health Division
Date Data Arrived at EDR: 06/21/2007	Telephone: 805-654-2813
Date Made Active in Reports: 06/29/2007	Last EDR Contact: 06/12/2007
Number of Days to Update: 8	Next Scheduled EDR Contact: 09/10/2007
	Data Release Frequency: Quarterly

Underground Tank Closed Sites List

Ventura County Operating Underground Storage Tank Sites (UST)/Underground Tank Closed Sites List.

Date of Government Version: 03/28/2007	Source: Environmental Health Division
Date Data Arrived at EDR: 04/24/2007	Telephone: 805-654-2813
Date Made Active in Reports: 05/07/2007	Last EDR Contact: 04/10/2007
Number of Days to Update: 13	Next Scheduled EDR Contact: 07/09/2007
	Data Release Frequency: Quarterly

YOLO COUNTY:

Underground Storage Tank Comprehensive Facility Report

Underground storage tank sites located in Yolo county.

Date of Government Version: 04/30/2007	Source: Yolo County Department of Health
Date Data Arrived at EDR: 05/15/2007	Telephone: 530-666-8646
Date Made Active in Reports: 06/25/2007	Last EDR Contact: 04/30/2007
Number of Days to Update: 41	Next Scheduled EDR Contact: 07/16/2007
	Data Release Frequency: Annually

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

OTHER DATABASE(S)

Depending on the geographic area covered by this report, the data provided in these specialty databases may or may not be complete. For example, the existence of wetlands information data in a specific report does not mean that all wetlands in the area covered by the report are included. Moreover, the absence of any reported wetlands information does not necessarily mean that wetlands do not exist in the area covered by the report.

CT MANIFEST: Hazardous Waste Manifest Data

Facility and manifest data. Manifest is a document that lists and tracks hazardous waste from the generator through transporters to a tsd facility.

Date of Government Version: 12/31/2004
Date Data Arrived at EDR: 02/17/2006
Date Made Active in Reports: 04/07/2006
Number of Days to Update: 49

Source: Department of Environmental Protection
Telephone: 860-424-3375
Last EDR Contact: 06/13/2007
Next Scheduled EDR Contact: 09/10/2007
Data Release Frequency: Annually

NJ MANIFEST: Manifest Information

Hazardous waste manifest information.

Date of Government Version: 04/01/2007
Date Data Arrived at EDR: 04/05/2007
Date Made Active in Reports: 05/08/2007
Number of Days to Update: 33

Source: Department of Environmental Protection
Telephone: N/A
Last EDR Contact: 07/03/2007
Next Scheduled EDR Contact: 10/01/2007
Data Release Frequency: Annually

NY MANIFEST: Facility and Manifest Data

Manifest is a document that lists and tracks hazardous waste from the generator through transporters to a TSD facility.

Date of Government Version: 10/26/2006
Date Data Arrived at EDR: 11/29/2006
Date Made Active in Reports: 01/05/2007
Number of Days to Update: 37

Source: Department of Environmental Conservation
Telephone: 518-402-8651
Last EDR Contact: 06/01/2007
Next Scheduled EDR Contact: 08/27/2007
Data Release Frequency: Annually

PA MANIFEST: Manifest Information

Hazardous waste manifest information.

Date of Government Version: 12/31/2005
Date Data Arrived at EDR: 03/17/2006
Date Made Active in Reports: 06/06/2006
Number of Days to Update: 81

Source: Department of Environmental Protection
Telephone: N/A
Last EDR Contact: 06/11/2007
Next Scheduled EDR Contact: 09/10/2007
Data Release Frequency: Annually

RI MANIFEST: Manifest information

Hazardous waste manifest information

Date of Government Version: 04/09/2007
Date Data Arrived at EDR: 04/12/2007
Date Made Active in Reports: 04/27/2007
Number of Days to Update: 15

Source: Department of Environmental Management
Telephone: 401-222-2797
Last EDR Contact: 06/18/2007
Next Scheduled EDR Contact: 09/17/2007
Data Release Frequency: Annually

WI MANIFEST: Manifest Information

Hazardous waste manifest information.

Date of Government Version: 12/31/2006
Date Data Arrived at EDR: 04/27/2007
Date Made Active in Reports: 06/08/2007
Number of Days to Update: 42

Source: Department of Natural Resources
Telephone: N/A
Last EDR Contact: 07/09/2007
Next Scheduled EDR Contact: 10/08/2007
Data Release Frequency: Annually

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

Oil/Gas Pipelines: This data was obtained by EDR from the USGS in 1994. It is referred to by USGS as GeoData Digital Line Graphs from 1:100,000-Scale Maps. It was extracted from the transportation category including some oil, but primarily gas pipelines.

Electric Power Transmission Line Data

Source: PennWell Corporation

Telephone: (800) 823-6277

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Sensitive Receptors: There are individuals deemed sensitive receptors due to their fragile immune systems and special sensitivity to environmental discharges. These sensitive receptors typically include the elderly, the sick, and children. While the location of all sensitive receptors cannot be determined, EDR indicates those buildings and facilities - schools, daycares, hospitals, medical centers, and nursing homes - where individuals who are sensitive receptors are likely to be located.

AHA Hospitals:

Source: American Hospital Association, Inc.

Telephone: 312-280-5991

The database includes a listing of hospitals based on the American Hospital Association's annual survey of hospitals.

Medical Centers: Provider of Services Listing

Source: Centers for Medicare & Medicaid Services

Telephone: 410-786-3000

A listing of hospitals with Medicare provider number, produced by Centers of Medicare & Medicaid Services, a federal agency within the U.S. Department of Health and Human Services.

Nursing Homes

Source: National Institutes of Health

Telephone: 301-594-6248

Information on Medicare and Medicaid certified nursing homes in the United States.

Public Schools

Source: National Center for Education Statistics

Telephone: 202-502-7300

The National Center for Education Statistics' primary database on elementary and secondary public education in the United States. It is a comprehensive, annual, national statistical database of all public elementary and secondary schools and school districts, which contains data that are comparable across all states.

Private Schools

Source: National Center for Education Statistics

Telephone: 202-502-7300

The National Center for Education Statistics' primary database on private school locations in the United States.

Daycare Centers: Licensed Facilities

Source: Department of Social Services

Telephone: 916-657-4041

Flood Zone Data: This data, available in select counties across the country, was obtained by EDR in 1999 from the Federal Emergency Management Agency (FEMA). Data depicts 100-year and 500-year flood zones as defined by FEMA.

NWI: National Wetlands Inventory. This data, available in select counties across the country, was obtained by EDR in 2002 and 2005 from the U.S. Fish and Wildlife Service.

Scanned Digital USGS 7.5' Topographic Map (DRG)

Source: United States Geologic Survey

A digital raster graphic (DRG) is a scanned image of a U.S. Geological Survey topographic map. The map images are made by scanning published paper maps on high-resolution scanners. The raster image is georeferenced and fit to the Universal Transverse Mercator (UTM) projection.

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

STREET AND ADDRESS INFORMATION

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GEOCHECK[®] - PHYSICAL SETTING SOURCE ADDENDUM

TARGET PROPERTY ADDRESS

199 RIVER OAKS PARKWAY
199 RIVER OAKS PARKWAY
SAN JOSE, CA 95134

TARGET PROPERTY COORDINATES

Latitude (North): 37.40490 - 37° 24' 17.6"
Longitude (West): 121.934 - 121° 56' 2.4"
Universal Tranverse Mercator: Zone 10
UTM X (Meters): 594346.9
UTM Y (Meters): 4140119.8
Elevation: 22 ft. above sea level

USGS TOPOGRAPHIC MAP

Target Property Map: 37121-D8 MILPITAS, CA
Most Recent Revision: 1980

EDR's GeoCheck Physical Setting Source Addendum is provided to assist the environmental professional in forming an opinion about the impact of potential contaminant migration.

Assessment of the impact of contaminant migration generally has two principle investigative components:

1. Groundwater flow direction, and
2. Groundwater flow velocity.

Groundwater flow direction may be impacted by surface topography, hydrology, hydrogeology, characteristics of the soil, and nearby wells. Groundwater flow velocity is generally impacted by the nature of the geologic strata.

GEOCHECK® - PHYSICAL SETTING SOURCE SUMMARY

GROUNDWATER FLOW DIRECTION INFORMATION

Groundwater flow direction for a particular site is best determined by a qualified environmental professional using site-specific well data. If such data is not reasonably ascertainable, it may be necessary to rely on other sources of information, such as surface topographic information, hydrologic information, hydrogeologic data collected on nearby properties, and regional groundwater flow information (from deep aquifers).

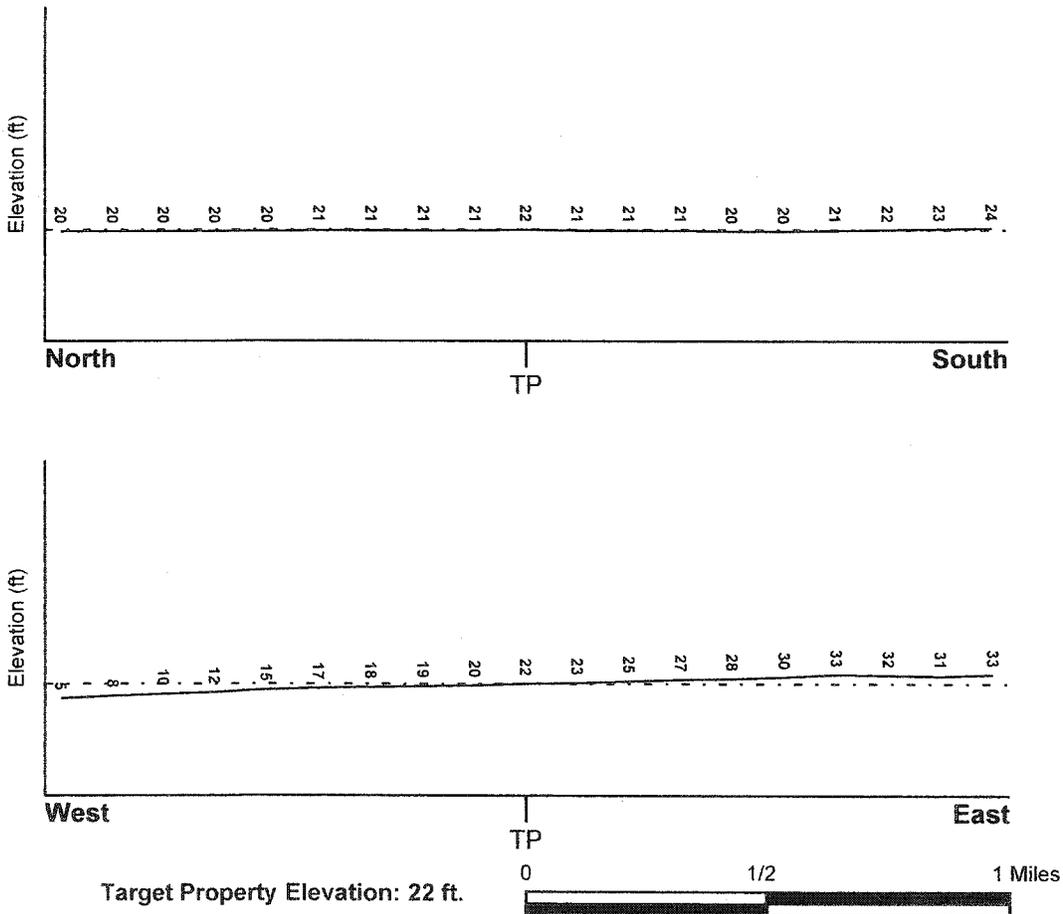
TOPOGRAPHIC INFORMATION

Surface topography may be indicative of the direction of surficial groundwater flow. This information can be used to assist the environmental professional in forming an opinion about the impact of nearby contaminated properties or, should contamination exist on the target property, what downgradient sites might be impacted.

TARGET PROPERTY TOPOGRAPHY

General Topographic Gradient: General West

SURROUNDING TOPOGRAPHY: ELEVATION PROFILES



Source: Topography has been determined from the USGS 7.5' Digital Elevation Model and should be evaluated on a relative (not an absolute) basis. Relative elevation information between sites of close proximity should be field verified.

GEOCHECK® - PHYSICAL SETTING SOURCE SUMMARY

HYDROLOGIC INFORMATION

Surface water can act as a hydrologic barrier to groundwater flow. Such hydrologic information can be used to assist the environmental professional in forming an opinion about the impact of nearby contaminated properties or, should contamination exist on the target property, what downgradient sites might be impacted.

Refer to the Physical Setting Source Map following this summary for hydrologic information (major waterways and bodies of water).

FEMA FLOOD ZONE

<u>Target Property County</u> SANTA CLARA, CA	FEMA Flood <u>Electronic Data</u> YES - refer to the Overview Map and Detail Map
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Flood Plain Panel at Target Property: 0603490008F

Additional Panels in search area:
0603440003F
0603500001C
0603370070F
0603490013E

NATIONAL WETLAND INVENTORY

<u>NWI Quad at Target Property</u> MILPITAS	NWI Electronic <u>Data Coverage</u> YES - refer to the Overview Map and Detail Map
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HYDROGEOLOGIC INFORMATION

Hydrogeologic information obtained by installation of wells on a specific site can often be an indicator of groundwater flow direction in the immediate area. Such hydrogeologic information can be used to assist the environmental professional in forming an opinion about the impact of nearby contaminated properties or, should contamination exist on the target property, what downgradient sites might be impacted.

Site-Specific Hydrogeological Data:*

Search Radius:	1.25 miles
Location Relative to TP:	1/2 - 1 Mile SSW
Site Name:	Lick James Mansion/Mansion Grove
Site EPA ID Number:	CAD980735971
Surficial Aquifer Flow Dir.:	NOT AVAILABLE.
Measured Depth to Water:	approximately 12 feet.
Hydraulic Connection:	A confining layer separates the surficial and lower aquifers, but an interconnection between the aquifers occurs.
Sole Source Aquifer:	No information about a sole source aquifer is available
Data Quality:	Information based on site-specific subsurface investigations is documented in the CERCLIS investigation report(s)

AQUIFLOW®

Search Radius: 1.000 Mile.

EDR has developed the AQUIFLOW Information System to provide data on the general direction of groundwater flow at specific points. EDR has reviewed reports submitted by environmental professionals to regulatory authorities at select sites and has extracted the date of the report, groundwater flow direction as determined hydrogeologically, and the depth to water table.

<u>MAP ID</u>	<u>LOCATION FROM TP</u>	<u>GENERAL DIRECTION GROUNDWATER FLOW</u>
Not Reported		

* ©1996 Site-specific hydrogeological data gathered by CERCLIS Alerts, Inc., Bainbridge Island, WA. All rights reserved. All of the information and opinions presented are those of the cited EPA report(s), which were completed under a Comprehensive Environmental Response Compensation and Liability Information System (CERCLIS) investigation.

GEOCHECK® - PHYSICAL SETTING SOURCE SUMMARY

GROUNDWATER FLOW VELOCITY INFORMATION

Groundwater flow velocity information for a particular site is best determined by a qualified environmental professional using site specific geologic and soil strata data. If such data are not reasonably ascertainable, it may be necessary to rely on other sources of information, including geologic age identification, rock stratigraphic unit and soil characteristics data collected on nearby properties and regional soil information. In general, contaminant plumes move more quickly through sandy-gravelly types of soils than silty-clayey types of soils.

GEOLOGIC INFORMATION IN GENERAL AREA OF TARGET PROPERTY

Geologic information can be used by the environmental professional in forming an opinion about the relative speed at which contaminant migration may be occurring.

ROCK STRATIGRAPHIC UNIT

Era: Cenozoic
System: Quaternary
Series: Quaternary
Code: Q (decoded above as Era, System & Series)

GEOLOGIC AGE IDENTIFICATION

Category: Stratified Sequence

Geologic Age and Rock Stratigraphic Unit Source: P.G. Schruben, R.E. Arndt and W.J. Bawiec, Geology of the Conterminous U.S. at 1:2,500,000 Scale - a digital representation of the 1974 P.B. King and H.M. Beikman Map, USGS Digital Data Series DDS - 11 (1994).

DOMINANT SOIL COMPOSITION IN GENERAL AREA OF TARGET PROPERTY

The U.S. Department of Agriculture's (USDA) Soil Conservation Service (SCS) leads the National Cooperative Soil Survey (NCSS) and is responsible for collecting, storing, maintaining and distributing soil survey information for privately owned lands in the United States. A soil map in a soil survey is a representation of soil patterns in a landscape. Soil maps for STATSGO are compiled by generalizing more detailed (SSURGO) soil survey maps. The following information is based on Soil Conservation Service STATSGO data.

Soil Component Name: BOTELLA

Soil Surface Texture: clay loam

Hydrologic Group: Class B - Moderate infiltration rates. Deep and moderately deep, moderately well and well drained soils with moderately coarse textures.

Soil Drainage Class: Not reported

Hydric Status: Soil does not meet the requirements for a hydric soil.

Corrosion Potential - Uncoated Steel: MODERATE

Depth to Bedrock Min: > 60 inches

Depth to Bedrock Max: > 60 inches

GEOCHECK® - PHYSICAL SETTING SOURCE SUMMARY

Soil Layer Information							
Layer	Boundary		Soil Texture Class	Classification		Permeability Rate (in/hr)	Soil Reaction (pH)
	Upper	Lower		AASHTO Group	Unified Soil		
1	0 inches	9 inches	clay loam	Silt-Clay Materials (more than 35 pct. passing No. 200), Clayey Soils.	FINE-GRAINED SOILS, Silts and Clays (liquid limit less than 50%), Lean Clay	Max: 0.60 Min: 0.20	Max: 7.30 Min: 5.60
2	9 inches	41 inches	silty clay loam	Silt-Clay Materials (more than 35 pct. passing No. 200), Clayey Soils.	FINE-GRAINED SOILS, Silts and Clays (liquid limit less than 50%), Lean Clay	Max: 0.60 Min: 0.20	Max: 7.80 Min: 5.60
3	41 inches	76 inches	sandy clay loam	Silt-Clay Materials (more than 35 pct. passing No. 200), Clayey Soils.	COARSE-GRAINED SOILS, Sands, Sands with fines, Clayey sand.	Max: 0.60 Min: 0.20	Max: 7.80 Min: 5.60

OTHER SOIL TYPES IN AREA

Based on Soil Conservation Service STATSGO data, the following additional subordinant soil types may appear within the general area of target property.

Soil Surface Textures: No Other Soil Types

Surficial Soil Types: No Other Soil Types

Shallow Soil Types: No Other Soil Types

Deeper Soil Types: No Other Soil Types

LOCAL / REGIONAL WATER AGENCY RECORDS

EDR Local/Regional Water Agency records provide water well information to assist the environmental professional in assessing sources that may impact ground water flow direction, and in forming an opinion about the impact of contaminant migration on nearby drinking water wells.

WELL SEARCH DISTANCE INFORMATION

<u>DATABASE</u>	<u>SEARCH DISTANCE (miles)</u>
Federal USGS	1.000
Federal FRDS PWS	Nearest PWS within 1 mile
State Database	1.000

GEOCHECK® - PHYSICAL SETTING SOURCE SUMMARY

FEDERAL USGS WELL INFORMATION

<u>MAP ID</u>	<u>WELL ID</u>	<u>LOCATION FROM TP</u>
A1	USGS3223888	1/4 - 1/2 Mile ENE
B6	USGS3223879	1/2 - 1 Mile ESE
8	USGS3223871	1/2 - 1 Mile SW

FEDERAL FRDS PUBLIC WATER SUPPLY SYSTEM INFORMATION

<u>MAP ID</u>	<u>WELL ID</u>	<u>LOCATION FROM TP</u>
No PWS System Found		

Note: PWS System location is not always the same as well location.

STATE DATABASE WELL INFORMATION

<u>MAP ID</u>	<u>WELL ID</u>	<u>LOCATION FROM TP</u>
A2	6842	1/4 - 1/2 Mile ENE
3	6849	1/2 - 1 Mile SE
4	6846	1/2 - 1 Mile WSW
5	6847	1/2 - 1 Mile ESE
B7	6848	1/2 - 1 Mile ESE

PHYSICAL SETTING SOURCE MAP - 01975893.2r



- / County Boundary
- / Major Roads
- / Contour Lines
- / Earthquake Fault Lines
-) Earthquake epicenter, Richter 5 or greater
- Water Wells
- Public Water Supply Wells
- Cluster of Multiple Icons



- ↑ Groundwater Flow Direction
- (GI) Indeterminate Groundwater Flow at Location
- (GV) Groundwater Flow Varies at Location
- (HD) Closest Hydrogeological Data
- Oil, gas or related wells

SITE NAME: 199 River Oaks Parkway
 ADDRESS: 199 River Oaks Parkway
 San Jose CA 95134
 AT/LONG: 37.4049 / 121.9340

CLIENT: Engeo Inc.
 CONTACT: Andy Firmin
 INQUIRY #: 01975893.2r
 DATE: July 11, 2007 8:28 am

GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Map ID
Direction
Distance
Elevation

Database EDR ID Number

A1
ENE
1/4 - 1/2 Mile
Higher

FED USGS USGS3223888

Agency cd:	USGS	Site no:	372423121554601
Site name:	006S001W13F006M		
Latitude:	372423.9		
Longitude:	1215546.9	Dec lat:	37.40663889
Dec lon:	-121.92969444	Coor meth:	G
Coor accr:	S	Latlong datum:	NAD83
Dec latlong datum:	NAD83	District:	06
State:	06	County:	085
Country:	US	Land net:	Not Reported
Location map:	MILPITAS	Map scale:	24000
Altitude:	22		
Altitude method:	Interpolated from topographic map		
Altitude accuracy:	5		
Altitude datum:	National Geodetic Vertical Datum of 1929		
Hydrologic:	Not Reported		
Topographic:	Flat surface		
Site type:	Ground-water other than Spring	Date construction:	19900830
Date inventoried:	20010628	Mean greenwich time offset:	PST
Local standard time flag:	Y		
Type of ground water site:	Single well, other than collector or Ranney type		
Aquifer Type:	Not Reported		
Aquifer:	Not Reported		
Well depth:	700	Hole depth:	740
Source of depth data:	driller		
Project number:	470657500		
Real time data flag:	0	Daily flow data begin date:	0000-00-00
Daily flow data end date:	0000-00-00	Daily flow data count:	0
Peak flow data begin date:	0000-00-00	Peak flow data end date:	0000-00-00
Peak flow data count:	0	Water quality data begin date:	2001-06-28
Water quality data end date:	2001-06-28	Water quality data count:	1
Ground water data begin date:	0000-00-00	Ground water data end date:	0000-00-00
Ground water data count:	0		

Ground-water levels, Number of Measurements: 0

A2
ENE
1/4 - 1/2 Mile
Higher

CA WELLS 6842

Water System Information:

Prime Station Code:	06S/01W-13N04 M	User ID:	HEN
FRDS Number:	4310800001	County:	Santa Clara
District Number:	05	Station Type:	WELL/AMBNT/MUN/INTAKE
Water Type:	Well/Groundwater	Well Status:	Active Untreated
Source Lat/Long:	372424.0 1215543.0	Precision:	100 Feet (one Second)
Source Name:	WELL 04		

GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

System Number:	4310800		
System Name:	Agnews Dev. Center - East Campus		
Organization That Operates System:	3500 ZANKER RD SAN JOSE, CA 95114		
Pop Served:	1830	Connections:	34
Area Served:	Not Reported		
Sample Collected:	03/24/2003 00:00:00	Findings:	6.2 MG/L
Chemical:	NITRATE (AS NO3)		
Sample Collected:	03/24/2003 00:00:00	Findings:	240 UG/L
Chemical:	BARIUM		
Sample Collected:	03/24/2003 00:00:00	Findings:	70 UG/L
Chemical:	ALUMINUM		
Sample Collected:	04/16/2003 00:00:00	Findings:	.77 PCI/L
Chemical:	GROSS ALPHA COUNTING ERROR		
Sample Collected:	07/17/2002 00:00:00	Findings:	12 UG/L
Chemical:	CHLOROFORM (THM)		
Sample Collected:	07/17/2002 00:00:00	Findings:	.56 UG/L
Chemical:	CHLOROMETHANE		
Sample Collected:	01/17/2001 00:00:00	Findings:	.76 PCI/L
Chemical:	GROSS ALPHA COUNTING ERROR		
Sample Collected:	03/20/2002 00:00:00	Findings:	20.1 C
Chemical:	SOURCE TEMPERATURE C		
Sample Collected:	03/20/2002 00:00:00	Findings:	710 US
Chemical:	SPECIFIC CONDUCTANCE		
Sample Collected:	03/20/2002 00:00:00	Findings:	6.7
Chemical:	PH, LABORATORY		
Sample Collected:	03/20/2002 00:00:00	Findings:	240 MG/L
Chemical:	ALKALINITY (TOTAL) AS CaCO3		
Sample Collected:	03/20/2002 00:00:00	Findings:	180 MG/L
Chemical:	HARDNESS (TOTAL) AS CaCO3		
Sample Collected:	03/20/2002 00:00:00	Findings:	84 MG/L
Chemical:	CALCIUM		
Sample Collected:	03/20/2002 00:00:00	Findings:	23 MG/L
Chemical:	MAGNESIUM		
Sample Collected:	03/20/2002 00:00:00	Findings:	30 MG/L
Chemical:	SODIUM		
Sample Collected:	03/20/2002 00:00:00	Findings:	1.3 MG/L
Chemical:	POTASSIUM		
Sample Collected:	03/20/2002 00:00:00	Findings:	37 MG/L
Chemical:	CHLORIDE		
Sample Collected:	03/20/2002 00:00:00	Findings:	240 UG/L
Chemical:	BARIUM		
Sample Collected:	03/20/2002 00:00:00	Findings:	900 UG/L
Chemical:	IRON		

GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Sample Collected:	03/20/2002 00:00:00	Findings:	160 UG/L
Chemical:	MANGANESE		
Sample Collected:	03/20/2002 00:00:00	Findings:	460 MG/L
Chemical:	TOTAL DISSOLVED SOLIDS		
Sample Collected:	03/20/2002 00:00:00	Findings:	6.3 MG/L
Chemical:	NITRATE (AS NO3)		
Sample Collected:	04/17/2002 00:00:00	Findings:	.54 UG/L
Chemical:	TOTAL TRIHALOMETHANES		
Sample Collected:	04/17/2002 00:00:00	Findings:	.12 PCI/L
Chemical:	GROSS ALPHA COUNTING ERROR		
Sample Collected:	07/17/2002 00:00:00	Findings:	.94 PCI/L
Chemical:	GROSS ALPHA COUNTING ERROR		
Sample Collected:	07/17/2002 00:00:00	Findings:	5.2 MG/L
Chemical:	SILICA		
Sample Collected:	07/17/2002 00:00:00	Findings:	5.2 MG/L
Chemical:	SILICA		
Sample Collected:	10/23/2002 00:00:00	Findings:	.98 PCI/L
Chemical:	GROSS ALPHA COUNTING ERROR		
Sample Collected:	01/13/2003 00:00:00	Findings:	1.2 UG/L
Chemical:	CHLOROFORM (THM)		
Sample Collected:	01/13/2003 00:00:00	Findings:	1.2 UG/L
Chemical:	TOTAL TRIHALOMETHANES		
Sample Collected:	01/13/2003 00:00:00	Findings:	.83 PCI/L
Chemical:	GROSS ALPHA COUNTING ERROR		
Sample Collected:	03/24/2003 00:00:00	Findings:	19.8 C
Chemical:	SOURCE TEMPERATURE C		
Sample Collected:	03/24/2003 00:00:00	Findings:	700 US
Chemical:	SPECIFIC CONDUCTANCE		
Sample Collected:	03/24/2003 00:00:00	Findings:	7.7
Chemical:	PH, LABORATORY		
Sample Collected:	03/24/2003 00:00:00	Findings:	240 MG/L
Chemical:	ALKALINITY (TOTAL) AS CaCO3		
Sample Collected:	03/24/2003 00:00:00	Findings:	270 MG/L
Chemical:	HARDNESS (TOTAL) AS CaCO3		
Sample Collected:	03/24/2003 00:00:00	Findings:	73 MG/L
Chemical:	CALCIUM		
Sample Collected:	03/24/2003 00:00:00	Findings:	21 MG/L
Chemical:	MAGNESIUM		
Sample Collected:	03/24/2003 00:00:00	Findings:	36 MG/L
Chemical:	SODIUM		
Sample Collected:	03/24/2003 00:00:00	Findings:	1.3 MG/L
Chemical:	POTASSIUM		
Sample Collected:	03/24/2003 00:00:00	Findings:	35 MG/L
Chemical:	CHLORIDE		

GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Sample Collected:	03/24/2003 00:00:00	Findings:	880 UG/L
Chemical:	IRON		
Sample Collected:	03/24/2003 00:00:00	Findings:	170 UG/L
Chemical:	MANGANESE		
Sample Collected:	03/24/2003 00:00:00	Findings:	440 MG/L
Chemical:	TOTAL DISSOLVED SOLIDS		
Sample Collected:	10/27/2003 00:00:00	Findings:	.83 PCI/L
Chemical:	GROSS ALPHA COUNTING ERROR		
Sample Collected:	01/20/2004 00:00:00	Findings:	.83 PCI/L
Chemical:	GROSS ALPHA COUNTING ERROR		
Sample Collected:	03/03/2004 00:00:00	Findings:	710 US
Chemical:	SPECIFIC CONDUCTANCE		
Sample Collected:	03/03/2004 00:00:00	Findings:	7.7
Chemical:	PH, LABORATORY		
Sample Collected:	03/03/2004 00:00:00	Findings:	250 MG/L
Chemical:	ALKALINITY (TOTAL) AS CaCO ₃		
Sample Collected:	03/03/2004 00:00:00	Findings:	290 MG/L
Chemical:	HARDNESS (TOTAL) AS CaCO ₃		
Sample Collected:	03/03/2004 00:00:00	Findings:	79 MG/L
Chemical:	CALCIUM		
Sample Collected:	03/03/2004 00:00:00	Findings:	23 MG/L
Chemical:	MAGNESIUM		
Sample Collected:	10/18/2004 00:00:00	Findings:	1.04 PCI/L
Chemical:	GROSS ALPHA COUNTING ERROR		
Sample Collected:	01/10/2005 00:00:00	Findings:	1.22 PCI/L
Chemical:	GROSS ALPHA COUNTING ERROR		
Sample Collected:	04/11/2005 00:00:00	Findings:	1.28 PCI/L
Chemical:	GROSS ALPHA COUNTING ERROR		
Sample Collected:	10/17/2005 00:00:00	Findings:	1.59 PCI/L
Chemical:	GROSS ALPHA COUNTING ERROR		
Sample Collected:	07/14/2003 00:00:00	Findings:	.73 PCI/L
Chemical:	GROSS ALPHA COUNTING ERROR		
Sample Collected:	10/27/2003 00:00:00	Findings:	1.5 UG/L
Chemical:	CHLOROFORM (THM)		
Sample Collected:	03/03/2004 00:00:00	Findings:	34 MG/L
Chemical:	SODIUM		
Sample Collected:	03/03/2004 00:00:00	Findings:	1.3 MG/L
Chemical:	POTASSIUM		
Sample Collected:	03/03/2004 00:00:00	Findings:	36 MG/L
Chemical:	CHLORIDE		
Sample Collected:	03/03/2004 00:00:00	Findings:	290 UG/L
Chemical:	IRON		
Sample Collected:	03/03/2004 00:00:00	Findings:	170 UG/L
Chemical:	MANGANESE		

GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Sample Collected:	03/03/2004 00:00:00	Findings:	14 UG/L
Chemical:	NICKEL		
Sample Collected:	03/03/2004 00:00:00	Findings:	430 MG/L
Chemical:	TOTAL DISSOLVED SOLIDS		
Sample Collected:	03/03/2004 00:00:00	Findings:	6.1 MG/L
Chemical:	NITRATE (AS NO3)		
Sample Collected:	03/03/2004 00:00:00	Findings:	240 UG/L
Chemical:	BARIUM		
Sample Collected:	04/19/2004 00:00:00	Findings:	.83 PCI/L
Chemical:	GROSS ALPHA COUNTING ERROR		
Sample Collected:	07/14/2004 00:00:00	Findings:	610 US
Chemical:	SPECIFIC CONDUCTANCE		
Sample Collected:	07/14/2004 00:00:00	Findings:	8.15
Chemical:	PH, FIELD		
Sample Collected:	07/14/2004 00:00:00	Findings:	9.31
Chemical:	PH, LABORATORY		
Sample Collected:	07/14/2004 00:00:00	Findings:	240 MG/L
Chemical:	ALKALINITY (TOTAL) AS CaCO3		
Sample Collected:	07/14/2004 00:00:00	Findings:	293 MG/L
Chemical:	BICARBONATE ALKALINITY		
Sample Collected:	07/14/2004 00:00:00	Findings:	290 MG/L
Chemical:	HARDNESS (TOTAL) AS CaCO3		
Sample Collected:	07/14/2004 00:00:00	Findings:	74 MG/L
Chemical:	CALCIUM		
Sample Collected:	07/14/2004 00:00:00	Findings:	26 MG/L
Chemical:	MAGNESIUM		
Sample Collected:	07/14/2004 00:00:00	Findings:	37 MG/L
Chemical:	SODIUM		
Sample Collected:	07/14/2004 00:00:00	Findings:	1.3 MG/L
Chemical:	POTASSIUM		
Sample Collected:	07/14/2004 00:00:00	Findings:	35 MG/L
Chemical:	CHLORIDE		
Sample Collected:	07/14/2004 00:00:00	Findings:	.14 MG/L
Chemical:	FLUORIDE (F) (NATURAL-SOURCE)		
Sample Collected:	07/14/2004 00:00:00	Findings:	4.5 MG/L
Chemical:	SILICA		
Sample Collected:	07/14/2004 00:00:00	Findings:	2.5 UG/L
Chemical:	ARSENIC		
Sample Collected:	07/14/2004 00:00:00	Findings:	290 UG/L
Chemical:	BARIUM		
Sample Collected:	07/14/2004 00:00:00	Findings:	120 UG/L
Chemical:	BORON		
Sample Collected:	07/14/2004 00:00:00	Findings:	1700 UG/L
Chemical:	IRON		

GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Sample Collected:	07/14/2004 00:00:00	Findings:	130 UG/L
Chemical:	MANGANESE		
Sample Collected:	07/14/2004 00:00:00	Findings:	400 MG/L
Chemical:	TOTAL DISSOLVED SOLIDS		
Sample Collected:	07/14/2004 00:00:00	Findings:	1.66 PCI/L
Chemical:	GROSS ALPHA COUNTING ERROR		

3
SE
1/2 - 1 Mile
Higher

CA WELLS 6849

Water System Information:

Prime Station Code:	06S/01W-24E01 M	User ID:	HEN
FRDS Number:	4310019005	County:	Santa Clara
District Number:	05	Station Type:	WELL/AMBNT/MUN/INTAKE
Water Type:	Well/Groundwater	Well Status:	Active Untreated
Source Lat/Long:	372356.0 1215538.0	Precision:	1,000 Feet (10 Seconds)
Source Name:	WELL 04		
System Number:	4310019		
System Name:	City of San Jose - NSJ/Alviso		
Organization That Operates System:	3025 TUERS RD. SAN JOSE, CA 95121		
Pop Served:	4300	Connections:	1221
Area Served:	SAN JOSE ALVISO		
Sample Collected:	03/11/1999 00:00:00	Findings:	7.4 MG/L
Chemical:	NITRATE (AS NO3)		
Sample Collected:	03/11/1999 00:00:00	Findings:	3.3 UG/L
Chemical:	ARSENIC		
Sample Collected:	03/11/1999 00:00:00	Findings:	210 UG/L
Chemical:	BARIUM		
Sample Collected:	03/11/1999 00:00:00	Findings:	110 UG/L
Chemical:	BORON		
Sample Collected:	03/11/1999 00:00:00	Findings:	1700 UG/L
Chemical:	NITRATE + NITRITE (AS N)		
Sample Collected:	03/07/2000 00:00:00	Findings:	.79 PCI/L
Chemical:	GROSS ALPHA COUNTING ERROR		
Sample Collected:	03/07/2000 00:00:00	Findings:	4 PCI/L
Chemical:	GROSS BETA COUNTING ERROR		
Sample Collected:	03/07/2000 00:00:00	Findings:	8 MG/L
Chemical:	NITRATE (AS NO3)		
Sample Collected:	05/16/2000 00:00:00	Findings:	.36 PCI/L
Chemical:	GROSS ALPHA COUNTING ERROR		
Sample Collected:	05/16/2000 00:00:00	Findings:	1.82 PCI/L
Chemical:	GROSS BETA		
Sample Collected:	05/16/2000 00:00:00	Findings:	.57 PCI/L
Chemical:	GROSS BETA COUNTING ERROR		

GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Sample Collected:	09/26/2000 00:00:00	Findings:	.92 PCI/L
Chemical:	GROSS ALPHA COUNTING ERROR		
Sample Collected:	11/21/2000 00:00:00	Findings:	1.5 PCI/L
Chemical:	GROSS ALPHA COUNTING ERROR		
Sample Collected:	11/21/2000 00:00:00	Findings:	600 US
Chemical:	SPECIFIC CONDUCTANCE		
Sample Collected:	11/21/2000 00:00:00	Findings:	7.7
Chemical:	PH, LABORATORY		
Sample Collected:	11/21/2000 00:00:00	Findings:	226 MG/L
Chemical:	ALKALINITY (TOTAL) AS CaCO3		
Sample Collected:	11/21/2000 00:00:00	Findings:	226 MG/L
Chemical:	BICARBONATE ALKALINITY		
Sample Collected:	11/21/2000 00:00:00	Findings:	234 MG/L
Chemical:	HARDNESS (TOTAL) AS CaCO3		
Sample Collected:	11/21/2000 00:00:00	Findings:	62 MG/L
Chemical:	CALCIUM		
Sample Collected:	11/21/2000 00:00:00	Findings:	19 MG/L
Chemical:	MAGNESIUM		
Sample Collected:	11/21/2000 00:00:00	Findings:	38 MG/L
Chemical:	SODIUM		
Sample Collected:	11/21/2000 00:00:00	Findings:	30 MG/L
Chemical:	CHLORIDE		
Sample Collected:	11/21/2000 00:00:00	Findings:	388 MG/L
Chemical:	TOTAL DISSOLVED SOLIDS		
Sample Collected:	11/21/2000 00:00:00	Findings:	.52
Chemical:	LANGELIER INDEX AT SOURCE TEMP.		
Sample Collected:	11/21/2000 00:00:00	Findings:	.8 NTU
Chemical:	TURBIDITY, LABORATORY		
Sample Collected:	01/23/2001 00:00:00	Findings:	6.1 MG/L
Chemical:	NITRATE (AS NO3)		
Sample Collected:	05/21/2002 00:00:00	Findings:	110 UG/L
Chemical:	BORON		
Sample Collected:	05/21/2002 00:00:00	Findings:	5 UG/L
Chemical:	VANADIUM		

4
WSW
1/2 - 1 Mile
Lower

CA WELLS 6846

Water System Information:

Prime Station Code:	06S/01W-23C03 M	User ID:	43C
FRDS Number:	4300800001	County:	Santa Clara
District Number:	73	Station Type:	WELL/AMBNT/MUN/INTAKE
Water Type:	Well/Groundwater	Well Status:	Active Untreated
Source Lat/Long:	372402.0 1215630.0	Precision:	1,000 Feet (10 Seconds)
Source Name:	WELL 01		

GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

System Number: 4300800
 System Name: CAMSI III
 Organization That Operates System: Not Reported
 Pop Served: 12
 Area Served: Not Reported
 Connections: Unknown, Small System

5
 ESE
 1/2 - 1 Mile
 Higher

CA WELLS 6847

Water System Information:

Prime Station Code: 06S/01W-24B04 M	User ID: HEN
FRDS Number: 4310019003	County: Santa Clara
District Number: 05	Station Type: WELL/AMBNT/MUN/INTAKE
Water Type: Well/Groundwater	Well Status: Active Untreated
Source Lat/Long: 372410.0 1215513.0	Precision: 1,000 Feet (10 Seconds)
Source Name: WELL 02	
System Number: 4310019	
System Name: City of San Jose - NSJ/Alviso	
Organization That Operates System: 3025 TUERS RD. SAN JOSE, CA 95121	
Pop Served: 4300	Connections: 1221
Area Served: SAN JOSE ALVISO	
Sample Collected: 03/11/1999 00:00:00	Findings: 3600 UG/L
Chemical: NITRATE + NITRITE (AS N)	
Sample Collected: 03/07/2000 00:00:00	Findings: .94 PCI/L
Chemical: GROSS ALPHA COUNTING ERROR	
Sample Collected: 03/07/2000 00:00:00	Findings: 4 PCI/L
Chemical: GROSS BETA COUNTING ERROR	
Sample Collected: 03/07/2000 00:00:00	Findings: 16 MG/L
Chemical: NITRATE (AS NO3)	
Sample Collected: 05/16/2000 00:00:00	Findings: .57 PCI/L
Chemical: GROSS ALPHA COUNTING ERROR	
Sample Collected: 05/16/2000 00:00:00	Findings: 4 PCI/L
Chemical: GROSS BETA COUNTING ERROR	
Sample Collected: 09/26/2000 00:00:00	Findings: 1.2 PCI/L
Chemical: GROSS ALPHA COUNTING ERROR	
Sample Collected: 11/21/2000 00:00:00	Findings: 1 PCI/L
Chemical: GROSS ALPHA COUNTING ERROR	
Sample Collected: 11/21/2000 00:00:00	Findings: 769 US
Chemical: SPECIFIC CONDUCTANCE	
Sample Collected: 11/21/2000 00:00:00	Findings: 7.6
Chemical: PH, LABORATORY	
Sample Collected: 11/21/2000 00:00:00	Findings: 277 MG/L
Chemical: ALKALINITY (TOTAL) AS CaCO3	

GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Sample Collected:	11/21/2000 00:00:00	Findings:	277 MG/L
Chemical:	BICARBONATE ALKALINITY		
Sample Collected:	11/21/2000 00:00:00	Findings:	360 MG/L
Chemical:	HARDNESS (TOTAL) AS CaCO3		
Sample Collected:	11/21/2000 00:00:00	Findings:	91 MG/L
Chemical:	CALCIUM		
Sample Collected:	11/21/2000 00:00:00	Findings:	32 MG/L
Chemical:	MAGNESIUM		
Sample Collected:	03/11/1999 00:00:00	Findings:	150 UG/L
Chemical:	BARIUM		
Sample Collected:	03/11/1999 00:00:00	Findings:	120 UG/L
Chemical:	BORON		
Sample Collected:	03/11/1999 00:00:00	Findings:	11 UG/L
Chemical:	SELENIUM		
Sample Collected:	03/11/1999 00:00:00	Findings:	16 MG/L
Chemical:	NITRATE (AS NO3)		
Sample Collected:	11/21/2000 00:00:00	Findings:	32 MG/L
Chemical:	SODIUM		
Sample Collected:	11/21/2000 00:00:00	Findings:	44 MG/L
Chemical:	CHLORIDE		
Sample Collected:	11/21/2000 00:00:00	Findings:	502 MG/L
Chemical:	TOTAL DISSOLVED SOLIDS		
Sample Collected:	11/21/2000 00:00:00	Findings:	.52
Chemical:	LANGELIER INDEX AT SOURCE TEMP.		
Sample Collected:	11/21/2000 00:00:00	Findings:	.3 NTU
Chemical:	TURBIDITY, LABORATORY		
Sample Collected:	01/23/2001 00:00:00	Findings:	19.4 MG/L
Chemical:	NITRATE (AS NO3)		

**B6
ESE
1/2 - 1 Mile
Higher**

FED USGS USGS3223879

Agency cd:	USGS	Site no:	372407121550801
Site name:	006S001W24B005M		
Latitude:	372407		
Longitude:	1215508	Dec lat:	37.40194444
Dec lon:	-121.91888889	Coor meth:	G
Coor accr:	S	Latlong datum:	NAD83
Dec latlong datum:	NAD83	District:	06
State:	06	County:	085
Country:	US	Land net:	Not Reported
Location map:	MILPITAS	Map scale:	24000
Altitude:	32		
Altitude method:	Interpolated from topographic map		
Altitude accuracy:	2.5		
Altitude datum:	National Geodetic Vertical Datum of 1929		
Hydrologic:	Not Reported		
Topographic:	Flat surface		
Site type:	Ground-water other than Spring	Date construction:	19830816
Date inventoried:	20010824	Mean greenwich time offset:	PST

GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Local standard time flag:	Y		
Type of ground water site:	Single well, other than collector or Ranney type		
Aquifer Type:	Not Reported		
Aquifer:	Not Reported		
Well depth:	630	Hole depth:	660
Source of depth data:	driller		
Project number:	470657500		
Real time data flag:	0	Daily flow data begin date:	0000-00-00
Daily flow data end date:	0000-00-00	Daily flow data count:	0
Peak flow data begin date:	0000-00-00	Peak flow data end date:	0000-00-00
Peak flow data count:	0	Water quality data begin date:	2001-08-09
Water quality data end date:	2001-08-09	Water quality data count:	1
Ground water data begin date:	0000-00-00	Ground water data end date:	0000-00-00
Ground water data count:	0		

Ground-water levels, Number of Measurements: 0

B7
ESE
1/2 - 1 Mile
Higher

CA WELLS 6848

Water System Information:

Prime Station Code:	06S/01W-24B05 M	User ID:	HEN
FRDS Number:	4310019002	County:	Santa Clara
District Number:	05	Station Type:	WELL/AMBNT/MUN/INTAKE
Water Type:	Well/Groundwater	Well Status:	Active Untreated
Source Lat/Long:	372408.0 1215503.0	Precision:	1,000 Feet (10 Seconds)
Source Name:	WELL 01		
System Number:	4310019		
System Name:	City of San Jose - NSJ/Alviso		
Organization That Operates System:	3025 TUERS RD. SAN JOSE, CA 95121		
Pop Served:	4300	Connections:	1221
Area Served:	SAN JOSE ALVISO	Findings:	276 MG/L
Sample Collected:	11/21/2000 00:00:00	Findings:	276 MG/L
Chemical:	ALKALINITY (TOTAL) AS CACO3		
Sample Collected:	11/21/2000 00:00:00	Findings:	348 MG/L
Chemical:	BICARBONATE ALKALINITY		
Sample Collected:	11/21/2000 00:00:00	Findings:	88 MG/L
Chemical:	CALCIUM		
Sample Collected:	11/21/2000 00:00:00	Findings:	31 MG/L
Chemical:	MAGNESIUM		
Sample Collected:	11/21/2000 00:00:00	Findings:	38 MG/L
Chemical:	SODIUM		
Sample Collected:	11/21/2000 00:00:00	Findings:	38 MG/L
Chemical:	CHLORIDE		

GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Sample Collected:	11/21/2000 00:00:00	Findings:	478 MG/L
Chemical:	TOTAL DISSOLVED SOLIDS		
Sample Collected:	11/21/2000 00:00:00	Findings:	.5
Chemical:	LANGELIER INDEX AT SOURCE TEMP.		
Sample Collected:	11/21/2000 00:00:00	Findings:	.2 NTU
Chemical:	TURBIDITY, LABORATORY		
Sample Collected:	01/23/2001 00:00:00	Findings:	16.9 MG/L
Chemical:	NITRATE (AS NO3)		
Sample Collected:	03/11/1999 00:00:00	Findings:	3500 UG/L
Chemical:	NITRATE + NITRITE (AS N)		
Sample Collected:	03/07/2000 00:00:00	Findings:	.62 PCI/L
Chemical:	GROSS ALPHA COUNTING ERROR		
Sample Collected:	03/07/2000 00:00:00	Findings:	4 PCI/L
Chemical:	GROSS BETA COUNTING ERROR		
Sample Collected:	03/07/2000 00:00:00	Findings:	15 MG/L
Chemical:	NITRATE (AS NO3)		
Sample Collected:	05/16/2000 00:00:00	Findings:	.59 PCI/L
Chemical:	GROSS ALPHA COUNTING ERROR		
Sample Collected:	05/16/2000 00:00:00	Findings:	.38 PCI/L
Chemical:	GROSS BETA COUNTING ERROR		
Sample Collected:	09/26/2000 00:00:00	Findings:	1.1 PCI/L
Chemical:	GROSS ALPHA COUNTING ERROR		
Sample Collected:	11/21/2000 00:00:00	Findings:	1.3 PCI/L
Chemical:	GROSS ALPHA COUNTING ERROR		
Sample Collected:	11/21/2000 00:00:00	Findings:	740 US
Chemical:	SPECIFIC CONDUCTANCE		
Sample Collected:	11/21/2000 00:00:00	Findings:	7.6
Chemical:	PH, LABORATORY		
Sample Collected:	03/11/1999 00:00:00	Findings:	140 UG/L
Chemical:	BARIUM		
Sample Collected:	03/11/1999 00:00:00	Findings:	120 UG/L
Chemical:	BORON		
Sample Collected:	03/11/1999 00:00:00	Findings:	10 UG/L
Chemical:	SELENIUM		
Sample Collected:	03/11/1999 00:00:00	Findings:	16 MG/L
Chemical:	NITRATE (AS NO3)		

8
SW
1/2 - 1 Mile
Lower

FED USGS USGS3223871

GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Agency cd:	USGS	Site no:	372349121564701
Site name:	006S001W23E001M		
Latitude:	372349		
Longitude:	1215647	Dec lat:	37.39688473
Dec lon:	-121.94745812	Coor meth:	M
Coor accr:	S	Latlong datum:	NAD27
Dec latlong datum:	NAD83	District:	06
State:	06	County:	085
Country:	US	Land net:	SWNW S23 T06S R01W M
Location map:	MILPITAS	Map scale:	24000
Altitude:	21.00		
Altitude method:	Interpolated from topographic map		
Altitude accuracy:	001		
Altitude datum:	National Geodetic Vertical Datum of 1929		
Hydrologic:	Coyote, California. Area = 831 sq.mi.		
Topographic:	Valley flat		
Site type:	Ground-water other than Spring	Date construction:	19520101
Date inventoried:	Not Reported	Mean greenwich time offset:	PST
Local standard time flag:	Y		
Type of ground water site:	Single well, other than collector or Ranney type		
Aquifer Type:	Not Reported		
Aquifer:	Not Reported		
Well depth:	425	Hole depth:	425
Source of depth data:	Not Reported		
Project number:	9479200205		
Real time data flag:	0		
Daily flow data begin date:	0000-00-00	Daily flow data begin date:	0000-00-00
Daily flow data end date:	0000-00-00	Daily flow data count:	0
Peak flow data begin date:	0000-00-00	Peak flow data end date:	0000-00-00
Peak flow data count:	0	Water quality data begin date:	0000-00-00
Water quality data end date:	0000-00-00	Water quality data count:	0
Ground water data begin date:	1958-09-10	Ground water data end date:	1989-04-11
Ground water data count:	523		

Ground-water levels, Number of Measurements: 523

Date	Feet below Surface	Feet to Sealevel	Date	Feet below Surface	Feet to Sealevel

1989-04-11					
Note: The well was destroyed (no water level is recorded).					
1984-12-28	6.60		1984-06-01	6.71	
1983-10-18	12.84		1983-01-10	2.50	
1982-08-27	35.17		1981-09-18	54.2	
1981-07-13	53.8		1981-07-12	53.7	
1981-07-11	52.3		1981-07-10	51.0	
1981-07-09	48.7		1981-07-08	48.2	
1981-07-07	48.8		1981-07-06	48.8	
1981-07-05	49.6		1981-07-04	50.4	
1981-07-03	50.8		1981-07-02	53.2	
1981-07-01	54.2		1981-06-30	53.0	
1981-06-29	51.0		1981-06-28	51.0	
1981-06-27	50.3		1981-06-26	49.8	
1981-06-25	50.9		1981-06-24	50.2	
1981-06-23	49.4		1981-06-22	49.4	
1981-06-21	50.7		1981-06-20	51.4	
1981-06-19	51.0		1981-06-18	52.6	
1981-06-17	52.4		1981-06-16	51.6	
1981-06-15	40.4		1981-06-14	38.7	
1981-06-13	39.2		1981-06-12	39.8	
1981-06-11	39.4		1981-06-10	39.2	

GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Ground-water levels, continued.

Date	Feet below Surface	Feet to Sealevel	Date	Feet below Surface	Feet to Sealevel
1981-06-09	37.3		1981-06-08	35.6	
1981-06-07	35.6		1981-06-06	35.6	
1981-06-05	35		1981-06-04	35.0	
1981-06-03	34.9		1981-06-02	31.6	
1981-06-01	32.4		1981-05-31	33.6	
1981-05-30	33.0		1981-05-29	31.9	
1981-05-28	32.4		1981-05-27	34.4	
1981-05-26	35.3		1981-05-25	31.2	
1981-05-24	32.6		1981-05-23	31.6	
1981-05-22	30.2		1981-05-21	29.7	
1981-05-20	28.9		1981-05-19	29.1	
1981-05-18	29.0		1981-05-17	28.8	
1981-05-16	30.7		1981-05-15	31.9	
1981-05-14	31.3		1981-05-13	30.0	
1981-05-12	29.5		1981-05-11	29.4	
1981-05-10	30.7		1981-05-09	31.9	
1981-05-08	32.0		1981-05-07	31.1	
1981-05-06	29.3		1981-05-05	28.0	
1981-05-04	26.9		1981-05-03	27.6	
1981-05-02	27.3		1981-05-01	26.1	
1981-04-30	24.9		1981-04-29	21.7	
1981-04-28	20.0		1981-04-27	19.6	
1981-04-26	19.7		1981-04-25	20.5	
1981-04-24	20.5		1981-04-23	20.1	
1981-04-22	19.8		1981-04-21	14.3	
1981-04-20	14.5		1981-04-19	15.8	
1981-04-18	16.3		1981-04-17	16.5	
1981-04-16	15.3		1981-04-15	15.5	
1981-04-14	14.3		1981-04-13	14.0	
1981-04-12	14.9		1981-04-11	13.3	
1981-04-10	12.3		1981-04-09	11.7	
1981-04-08	11.1		1981-04-07	9.4	
1981-04-06	9.3		1981-04-05	8.9	
1981-04-04	8.2		1981-04-03	7.5	
1981-04-02	7.9		1981-04-01	7.5	
1981-03-31	7.4		1981-03-30	7.0	
1981-03-29	7.2		1981-03-28	7.3	
1981-03-27	7.5		1981-03-26	7.4	
1981-03-25	7.6		1981-03-24	7.7	
1981-03-23	7.8		1981-03-22	8.2	
1981-03-21	8.6		1981-03-20	8.9	
1981-03-19	9.5		1981-03-18	9.4	
1981-03-17	9.6		1981-03-16	9.9	
1981-03-15	10.7		1981-03-14	12.8	
1981-03-13	14.9		1981-03-12	9.2	
1981-03-11	8.8		1981-03-09	8.7	
1981-03-08	9.0		1981-03-07	9.1	
1981-03-06	9.2		1981-03-05	9.0	
1981-03-04	9.1		1981-03-03	9.3	
1981-03-02	9.5		1981-03-01	9.8	
1981-02-28	10.0		1981-02-27	10.1	
1981-02-26	9.8		1981-02-25	9.7	
1981-02-24	9.9		1981-02-23	10.0	
1981-02-21	10.1		1981-02-20	10.3	
1981-02-19	10.4		1981-02-17	10.3	

GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Ground-water levels, continued.

Date	Feet below Surface	Feet to Sealevel	Date	Feet below Surface	Feet to Sealevel
1981-02-16	10.4		1981-02-15	10.8	
1981-02-13	10.7		1981-02-12	11.0	
1981-02-11	11.2		1981-02-10	11.4	
1981-02-09	11.7		1981-02-08	11.8	
1981-02-07	11.5		1981-02-06	11.4	
1981-02-05	11.6		1981-02-04	11.7	
1981-02-03	12.0		1981-02-02	12.3	
1981-02-01	12.7		1981-01-29	12.8	
1981-01-28	12.6		1981-01-27	12.9	
1981-01-26	13.0		1981-01-25	13.3	
1981-01-24	13.5		1981-01-23	13.6	
1981-01-21	13.7		1981-01-19	13.6	
1981-01-18	13.7		1981-01-17	13.3	
1981-01-16	13.2		1981-01-14	13.1	
1981-01-13	13.3		1981-01-11	13.4	
1981-01-10	13.7		1981-01-08	13.6	
1981-01-07	13.7		1981-01-06	13.8	
1981-01-05	14.2		1981-01-04	14.7	
1981-01-03	15.1		1981-01-02	15.5	
1981-01-01	15.9		1980-12-31	16.4	
1980-12-30	16.9		1980-12-29	17.2	
1980-12-27	17.3		1980-12-26	17.9	
1980-12-25	18.4		1980-12-24	18.9	
1980-12-23	19.4		1980-12-22	19.8	
1980-12-21	20.6		1980-12-20	21.8	
1980-12-19	23.6		1980-12-18	25.3	
1980-12-17	20.1		1980-12-16	20.4	
1980-12-15	20.5		1980-12-14	20.6	
1980-12-13	20.5		1980-12-12	20.3	
1980-12-11	20.5		1980-12-10	20.8	
1980-12-09	21.1		1980-12-08	21.2	
1980-12-07	21.4		1980-12-06	21.7	
1980-12-05	21.9		1980-12-04	22.4	
1980-12-03	22.9		1980-12-02	23.3	
1980-12-01	23.8		1980-11-30	24.5	
1980-11-29	25.7		1980-11-28	27.2	
1980-11-27	29.6		1980-11-26	26.3	
1980-11-25	25.7		1980-11-24	25.8	
1980-11-23	26.7		1980-11-22	27.7	
1980-11-21	27.5		1980-11-20	27.9	
1980-11-19	30.8		1980-11-18	31.0	
1980-11-17	27.5		1980-11-16	28.9	
1980-11-15	31.7		1980-11-14	31.7	
1980-11-13	32.0		1980-11-12	28.1	
1980-11-11	28.4		1980-11-10	28.6	
1980-11-09	28.8		1980-11-08	29.4	
1980-11-07	29.6		1980-11-06	29.7	
1980-11-05	29.8		1980-11-04	30.1	
1980-11-03	30.7		1980-11-02	31.1	
1980-11-01	32.4		1980-10-31	34.7	
1980-10-30	35.8		1980-10-29	35.5	
1980-10-28	34.9		1980-10-27	33.1	
1980-10-26	33.4		1980-10-25	33.8	
1980-10-24	36.0		1980-10-23	37.6	
1980-10-22	38.0		1980-10-21	36.4	

GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Ground-water levels, continued.

Date	Feet below Surface	Feet to Sealevel	Date	Feet below Surface	Feet to Sealevel
1980-10-20	35.3		1980-10-19	35.8	
1980-10-18	36.4		1980-10-17	36.8	
1980-10-16	37.0		1980-10-15	37.2	
1980-10-14	38.1		1980-10-13	39.2	
1980-10-12	41.0		1980-10-11	42.0	
1980-10-10	42.0		1980-10-09	41.8	
1980-10-08	42.1		1980-10-07	41.4	
1980-10-06	41.9		1980-10-05	43.0	
1980-10-04	43.4		1980-10-03	44.9	
1980-10-02	44.0		1980-10-01	45.2	
1980-05-23	25.28		1980-03-28	12.65	
1980-01-28	18.11		1979-11-19	36.53	
1979-09-17	70.82		1979-07-23	68.69	
1979-05-14	23.98		1979-03-12	12.32	
1979-01-08	21.00		1978-10-16	54.60	
1978-08-11	61.94		1978-06-19	54.79	
1978-04-06	23.69		1978-01-06	37.12	
1977-10-04	63.57		1977-07-04	66.48	
1977-03-28	27.60		1977-01-12	26.98	
1976-10-04	50.64		1976-07-06	78.12	
1976-04-04	20.30		1976-01-05	5.35	
1975-10-06	38.88		1975-07-11	52.08	
1975-04-11	1.20		1975-01-09	7.33	
1974-10-21	39.27		1974-09-19	61.96	
1974-08-22	67.83		1974-07-26	89.64	
1974-06-28	73.05		1974-05-28	61.29	
1974-04-29	20.84		1974-04-05	17.04	
1974-03-06	18.71		1974-02-08	17.80	
1974-01-11	21.92		1973-12-14	28.37	
1973-11-16	37.95		1973-10-16	53.94	
1973-09-19	74.93		1973-08-23	72.58	
1973-07-26	84.47		1973-06-27	90.00	
1973-06-01	75.59		1973-05-03	42.05	
1973-04-06	37.67		1973-03-09	28.42	
1973-02-08	34.43		1973-01-12	39.10	
1972-12-15	45.34		1972-11-17	52.99	
1972-10-20	62.68		1972-09-22	88.88	
1972-08-25	90.79		1972-07-28	91.83	
1972-06-27	93.87		1972-05-26	81.98	
1972-05-04	59.60		1972-04-05	51.60	
1972-03-10	29.84		1972-02-11	24.81	
1972-01-13	27.33		1971-12-16	32.95	
1971-11-18	44.63		1971-10-23	55.87	
1971-09-23	78.22		1971-08-27	68.36	
1971-07-29	86.61		1971-07-02	75.25	
1971-06-04	52.52		1971-05-06	40.56	
1971-04-09	31.61		1971-03-12	28.32	
1971-02-19	27.28		1971-02-12	29.19	
1971-01-15	31.96		1970-12-18	39.41	
1970-11-19	49.10		1970-10-26	61.52	
1970-09-24	94.57		1970-08-24	86.01	
1970-07-30	110.44		1970-07-02	83.53	
1970-06-05	73.5		1970-05-09	61.0	
1970-04-09	52.9		1970-03-12	37.2	
1970-02-12	41.9		1970-01-16	46.9	

GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Ground-water levels, continued.

Date	Feet below Surface	Feet to Sealevel	Date	Feet below Surface	Feet to Sealevel
1969-12-19	55.1		1969-11-21	66.2	
1969-10-23	80.7		1969-09-25	118.7	
1969-08-28	109.2		1969-08-01	119.3	
1969-06-28	109.1		1969-06-02	112.9	
1969-05-05	66.4		1969-04-07	60.6	
1969-03-10	61.6		1969-02-10	65.7	
1969-01-10	71.8		1968-12-18	77.3	
1968-11-18	87.8		1968-10-23	104.31	
1968-10-22	104.3		1968-09-26	133.1	
1968-08-26	119.5		1968-07-29	136.1	
1968-06-30	133.95		1968-06-03	100.7	
1968-05-06	131.1		1968-04-08	68.7	
1968-03-10	68.2		1968-02-12	72.5	
1968-01-15	79.5		1968-01-05	81.49	
1967-12-18	87.0		1967-11-20	101.9	
1967-10-23	128.3		1967-09-25	144.80	
1967-08-28	132.23		1967-07-31	151.85	
1967-07-05	131.27		1967-06-05	107.9	
1967-05-08	88.6		1967-04-11	92.0	
1967-03-13	99.0		1967-02-13	100.9	
1967-01-16	107.0		1966-12-19	111.0	
1966-11-20	119.6		1966-10-24	131.4	
1966-09-25	151.8		1966-08-29	136.8	
1966-08-01	132.5		1966-07-05	134.1	
1966-06-06	140.8		1966-05-19	161.38	
1966-05-09	161.2		1966-04-11	99.7	
1966-03-14	89.8		1966-02-14	93.1	
1966-01-14	99.3		1965-12-14	107.98	
1965-11-15	119.4		1965-10-18	139.6	
1965-09-17	157.9		1965-08-18	144.9	
1965-07-19	164.8		1965-06-18	138.4	
1965-05-18	139.3		1965-04-16	98.9	
1965-03-17	102.0		1965-02-15	103.2	
1965-01-14	108.1		1964-12-17	113.2	
1964-11-17	120.6		1964-10-17	158.6	
1964-09-18	158.7		1964-08-21	172.3	
1964-07-21	171.8		1964-06-22	131.0	
1964-05-25	129.74		1964-04-29	116.3	
1964-04-09	116.28		1964-02-07	83.26	
1964-01-08	89.50		1963-12-06	93.8	
1963-11-14	101.03		1963-11-07	103.65	
1963-11-06	104.3		1963-10-08	130.2	
1963-09-10	158.8		1963-08-12	131.2	
1963-07-15	162.3		1963-06-17	152.8	
1963-05-20	93.8		1963-04-22	90.14	
1963-03-22	98.1		1963-02-21	99.9	
1963-01-23	107.7		1963-01-21	107.67	
1962-12-21	106.3		1962-11-14	114.3	
1962-10-17	119.0		1962-09-11	149.6	
1962-08-13	145.7		1962-07-18	174.6	
1962-06-18	172.1		1962-05-21	150.2	
1962-04-24	123.8		1962-03-27	98.9	
1962-02-26	98.5		1962-01-29	102.27	
1962-01-02	104.3		1961-12-14	110.08	
1961-12-04	110.1		1961-11-06	125.7	

GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Ground-water levels, continued.

Date	Feet below Surface	Feet to Sealevel
1961-10-09	148.9	
1961-08-14	139.0	
1961-06-19	152.7	
1961-04-24	105.5	
1961-02-27	72.30	
1961-01-03	76.4	
1960-11-07	99.1	
1960-09-12	124.9	
1960-07-20	147.9	
1960-05-23	96.64	
1960-03-28	67.69	
1960-01-29	58.62	
1959-12-10	74.93	
1959-10-15	105.52	
1959-08-28	117.65	
1959-06-27	123.23	
1959-04-29	86.78	
1959-03-12	34.58	
1959-01-16	47.67	
1958-11-25	64.27	
1958-09-26	108.62	

Date	Feet below Surface	Feet to Sealevel
1961-09-11	151.2	
1961-07-17	171.8	
1961-05-22	113.7	
1961-03-27	72.3	
1961-01-30	74.6	
1960-12-05	81.1	
1960-10-10	122.4	
1960-08-15	122.7	
1960-06-20	134.43	
1960-04-25	105.48	
1960-02-29	53.17	
1960-01-04	64.43	
1959-11-12	87.37	
1959-09-17	121.46	
1959-07-23	136.67	
1959-05-27	95.81	
1959-04-09	60.43	
1959-02-17	40.63	
1958-12-18	55.26	
1958-10-27	82.50	
1958-09-10	120.12	

GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS RADON

AREA RADON INFORMATION

State Database: CA Radon

Radon Test Results

Zip	Total Sites	> 4 Pci/L	Pct. > 4 Pci/L
95134	1	0	0.00

Federal EPA Radon Zone for SANTA CLARA County: 2

- Note: Zone 1 indoor average level > 4 pCi/L.
 : Zone 2 indoor average level >= 2 pCi/L and <= 4 pCi/L.
 : Zone 3 indoor average level < 2 pCi/L.

Federal Area Radon Information for SANTA CLARA COUNTY, CA

Number of sites tested: 70

Area	Average Activity	% <4 pCi/L	% 4-20 pCi/L	% >20 pCi/L
Living Area - 1st Floor	1.363 pCi/L	91%	9%	0%
Living Area - 2nd Floor	2.100 pCi/L	100%	0%	0%
Basement	2.300 pCi/L	100%	0%	0%

PHYSICAL SETTING SOURCE RECORDS SEARCHED

TOPOGRAPHIC INFORMATION

USGS 7.5' Digital Elevation Model (DEM)

Source: United States Geologic Survey

EDR acquired the USGS 7.5' Digital Elevation Model in 2002 and updated it in 2006. The 7.5 minute DEM corresponds to the USGS 1:24,000- and 1:25,000-scale topographic quadrangle maps. The DEM provides elevation data with consistent elevation units and projection.

Scanned Digital USGS 7.5' Topographic Map (DRG)

Source: United States Geologic Survey

A digital raster graphic (DRG) is a scanned image of a U.S. Geological Survey topographic map. The map images are made by scanning published paper maps on high-resolution scanners. The raster image is georeferenced and fit to the Universal Transverse Mercator (UTM) projection.

HYDROLOGIC INFORMATION

Flood Zone Data: This data, available in select counties across the country, was obtained by EDR in 1999 from the Federal Emergency Management Agency (FEMA). Data depicts 100-year and 500-year flood zones as defined by FEMA.

NWI: National Wetlands Inventory. This data, available in select counties across the country, was obtained by EDR in 2002 and 2005 from the U.S. Fish and Wildlife Service.

HYDROGEOLOGIC INFORMATION

AQUIFLOW^R Information System

Source: EDR proprietary database of groundwater flow information

EDR has developed the AQUIFLOW Information System (AIS) to provide data on the general direction of groundwater flow at specific points. EDR has reviewed reports submitted to regulatory authorities at select sites and has extracted the date of the report, hydrogeologically determined groundwater flow direction and depth to water table information.

GEOLOGIC INFORMATION

Geologic Age and Rock Stratigraphic Unit

Source: P.G. Schruben, R.E. Arndt and W.J. Bawiec, Geology of the Conterminous U.S. at 1:2,500,000 Scale - A digital representation of the 1974 P.B. King and H.M. Beikman Map, USGS Digital Data Series DDS - 11 (1994).

STATSGO: State Soil Geographic Database

Source: Department of Agriculture, Natural Resources Conservation Services

The U.S. Department of Agriculture's (USDA) Natural Resources Conservation Service (NRCS) leads the national Conservation Soil Survey (NCSS) and is responsible for collecting, storing, maintaining and distributing soil survey information for privately owned lands in the United States. A soil map in a soil survey is a representation of soil patterns in a landscape. Soil maps for STATSGO are compiled by generalizing more detailed (SSURGO) soil survey maps.

SSURGO: Soil Survey Geographic Database

Source: Department of Agriculture, Natural Resources Conservation Services (NRCS)

Telephone: 800-672-5559

SSURGO is the most detailed level of mapping done by the Natural Resources Conservation Services, mapping scales generally range from 1:12,000 to 1:63,360. Field mapping methods using national standards are used to construct the soil maps in the Soil Survey Geographic (SSURGO) database. SSURGO digitizing duplicates the original soil survey maps. This level of mapping is designed for use by landowners, townships and county natural resource planning and management.

PHYSICAL SETTING SOURCE RECORDS SEARCHED

LOCAL / REGIONAL WATER AGENCY RECORDS

FEDERAL WATER WELLS

PWS: Public Water Systems

Source: EPA/Office of Drinking Water
Telephone: 202-564-3750

Public Water System data from the Federal Reporting Data System. A PWS is any water system which provides water to at least 25 people for at least 60 days annually. PWSs provide water from wells, rivers and other sources.

PWS ENF: Public Water Systems Violation and Enforcement Data

Source: EPA/Office of Drinking Water
Telephone: 202-564-3750

Violation and Enforcement data for Public Water Systems from the Safe Drinking Water Information System (SDWIS) after August 1995. Prior to August 1995, the data came from the Federal Reporting Data System (FRDS).

USGS Water Wells: USGS National Water Inventory System (NWIS)

This database contains descriptive information on sites where the USGS collects or has collected data on surface water and/or groundwater. The groundwater data includes information on wells, springs, and other sources of groundwater.

STATE RECORDS

Water Well Database

Source: Department of Water Resources
Telephone: 916-651-9648

California Drinking Water Quality Database

Source: Department of Health Services
Telephone: 916-324-2319

The database includes all drinking water compliance and special studies monitoring for the state of California since 1984. It consists of over 3,200,000 individual analyses along with well and water system information.

OTHER STATE DATABASE INFORMATION

California Oil and Gas Well Locations

Source: Department of Conservation
Telephone: 916-323-1779

RADON

State Database: CA Radon

Source: Department of Health Services
Telephone: 916-324-2208
Radon Database for California

Area Radon Information

Source: USGS
Telephone: 703-356-4020

The National Radon Database has been developed by the U.S. Environmental Protection Agency (USEPA) and is a compilation of the EPA/State Residential Radon Survey and the National Residential Radon Survey. The study covers the years 1986 - 1992. Where necessary data has been supplemented by information collected at private sources such as universities and research institutions.

EPA Radon Zones

Source: EPA
Telephone: 703-356-4020

Sections 307 & 309 of IRAA directed EPA to list and identify areas of U.S. with the potential for elevated indoor radon levels.

PHYSICAL SETTING SOURCE RECORDS SEARCHED

OTHER

Airport Landing Facilities: Private and public use landing facilities
Source: Federal Aviation Administration, 800-457-6656

Epicenters: World earthquake epicenters, Richter 5 or greater
Source: Department of Commerce, National Oceanic and Atmospheric Administration

California Earthquake Fault Lines: The fault lines displayed on EDR's Topographic map are digitized quaternary fault lines, prepared in 1975 by the United State Geological Survey. Additional information (also from 1975) regarding activity at specific fault lines comes from California's Preliminary Fault Activity Map prepared by the California Division of Mines and Geology.

STREET AND ADDRESS INFORMATION

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Certified Sanborn® Map Report

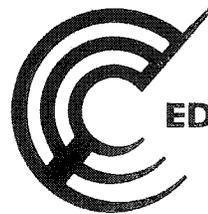


Sanborn® Library search results
Certification # 4993-4A6F-9B72

199 River Oaks Parkway
199 River Oaks Parkway
San Jose, CA 95134

Inquiry Number 1975893.3

July 10, 2007



EDR® Environmental
Data Resources Inc

The Standard in Environmental Risk Information

440 Wheelers Farms Rd
Milford, Connecticut 06461

Nationwide Customer Service

Telephone: 1-800-352-0050
Fax: 1-800-231-6802
Internet: www.edrnet.com

Certified Sanborn® Map Report

7/10/07

Site Name:

199 River Oaks Parkway
199 River Oaks Parkway
San Jose, CA 95134

Client Name:

Engeo Inc.
2010 Crow Canyon Place
San Ramon, CA 94583

EDR Inquiry # 1975893.3

Contact: Andy Firmin



The complete Sanborn Library collection has been searched by EDR, and fire insurance maps covering the target property location provided by Engeo Inc. were identified for the years listed below. The certified Sanborn Library search results in this report can be authenticated by visiting www.edrnet.com/sanborn and entering the certification number. Only Environmental Data Resources Inc. (EDR) is authorized to grant rights for commercial reproduction of maps by Sanborn Library LLC, the copyright holder for the collection.

Certified Sanborn Results:

Site Name: 199 River Oaks Parkway
Address: 199 River Oaks Parkway
City, State, Zip: San Jose, CA 95134
Cross Street:
P.O. # NA
Project: 7862.3.001.01
Certification # 4993-4A6F-9B72



Sanborn® Library search results
Certification # 4993-4A6F-9B72

UNMAPPED PROPERTY

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

The Sanborn Library includes more than 1.2 million Sanborn fire insurance maps, which track historical property usage in approximately 12,000 American cities and towns. Collections searched:

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

Total Maps: 0

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APPENDIX B

ENVIRONMENTAL DATA RESOURCES, INC.

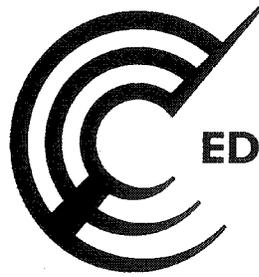
Historical Topographic Map Report

EDR Historical Topographic Map Report

**199 River Oaks Parkway
199 River Oaks Parkway
San Jose, CA 95134**

Inquiry Number: 1975893.4

July 11, 2007



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Milford, Connecticut 06461**

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EDR Historical Topographic Map Report

Environmental Data Resources, Inc.'s (EDR) Historical Topographic Map Report is designed to assist professionals in evaluating potential liability on a target property resulting from past activities. EDR's Historical Topographic Map Report includes a search of a collection of public and private color historical topographic maps, dating back to the early 1900s.

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

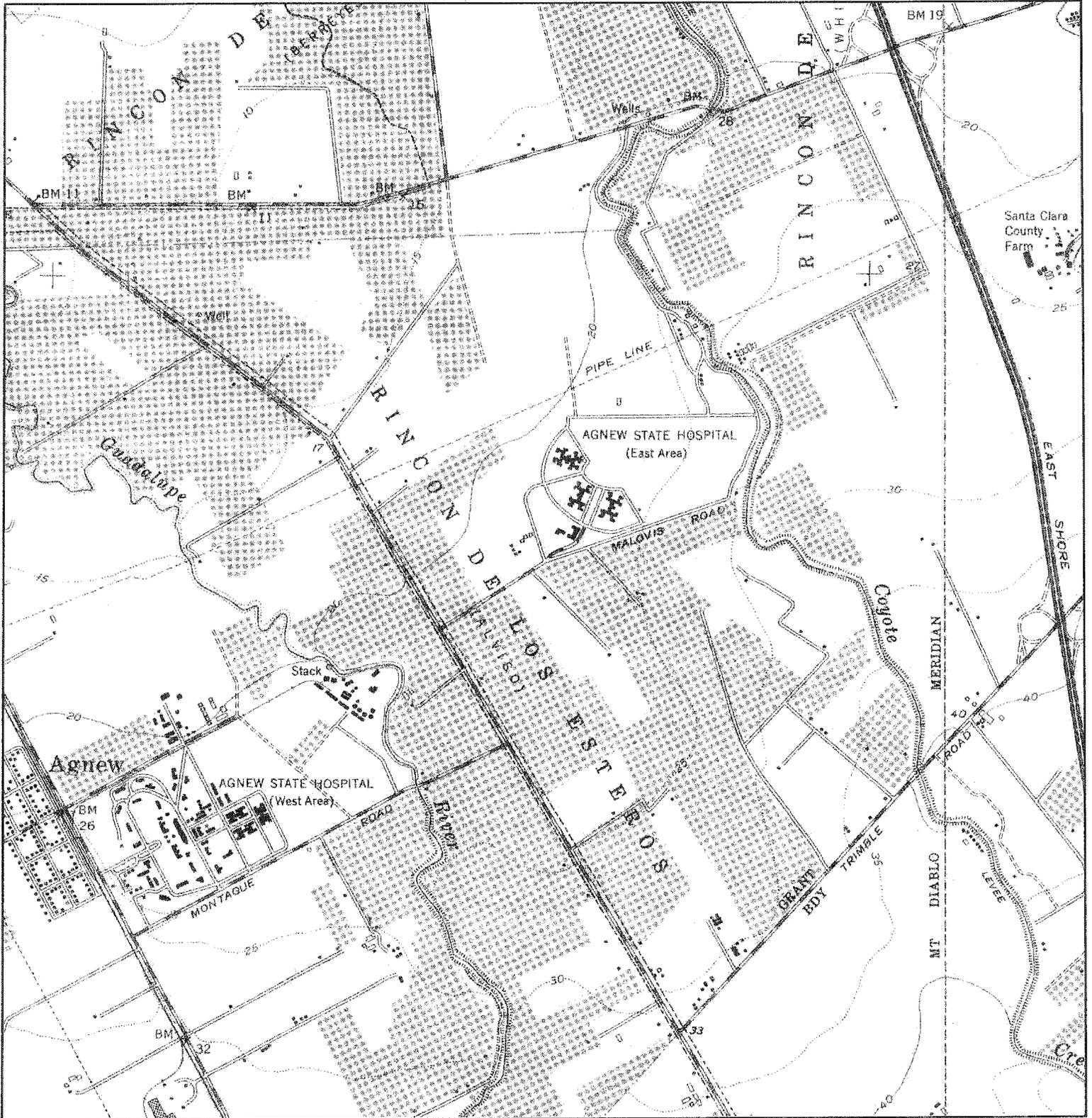
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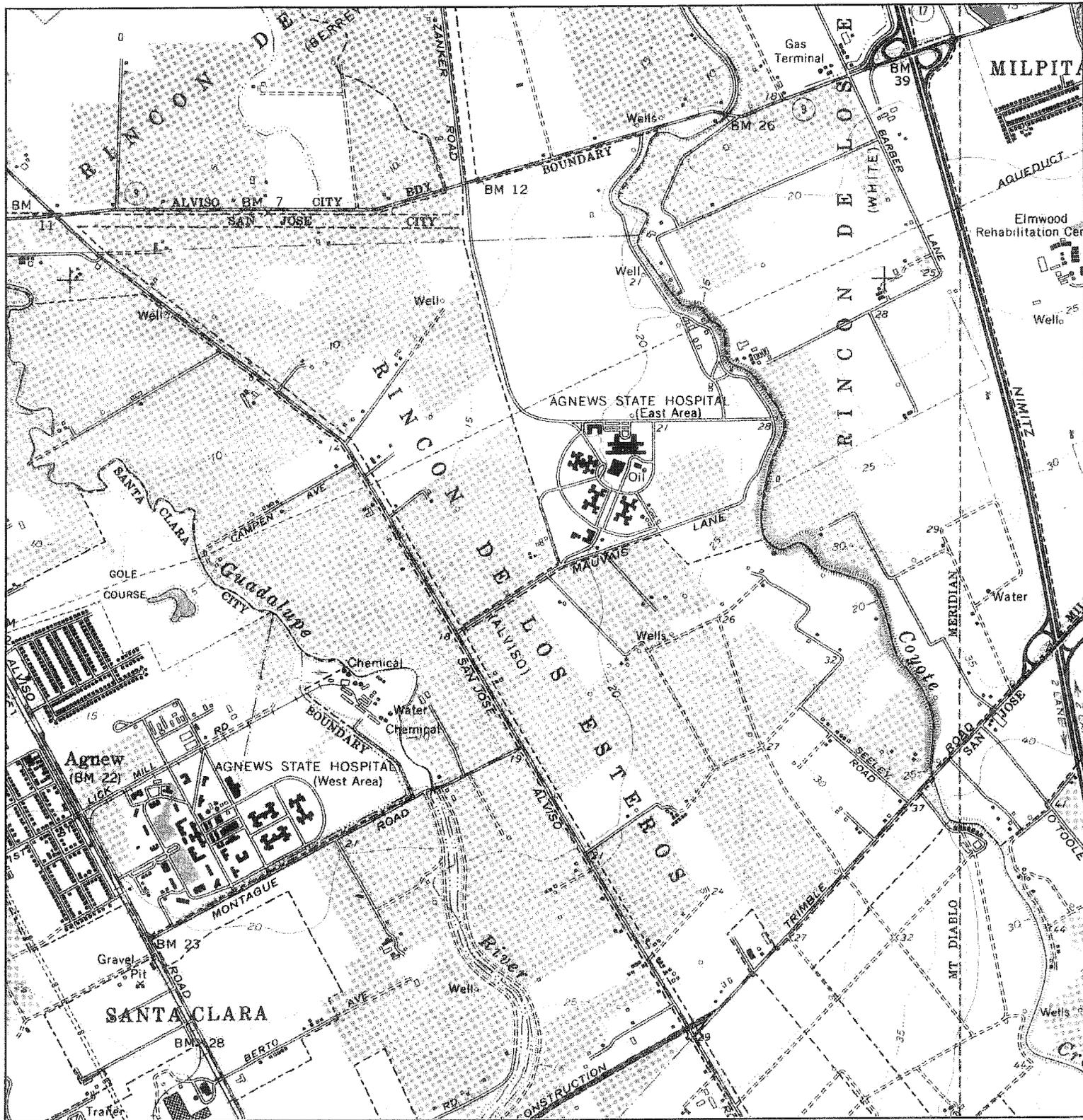
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Historical Topographic Map



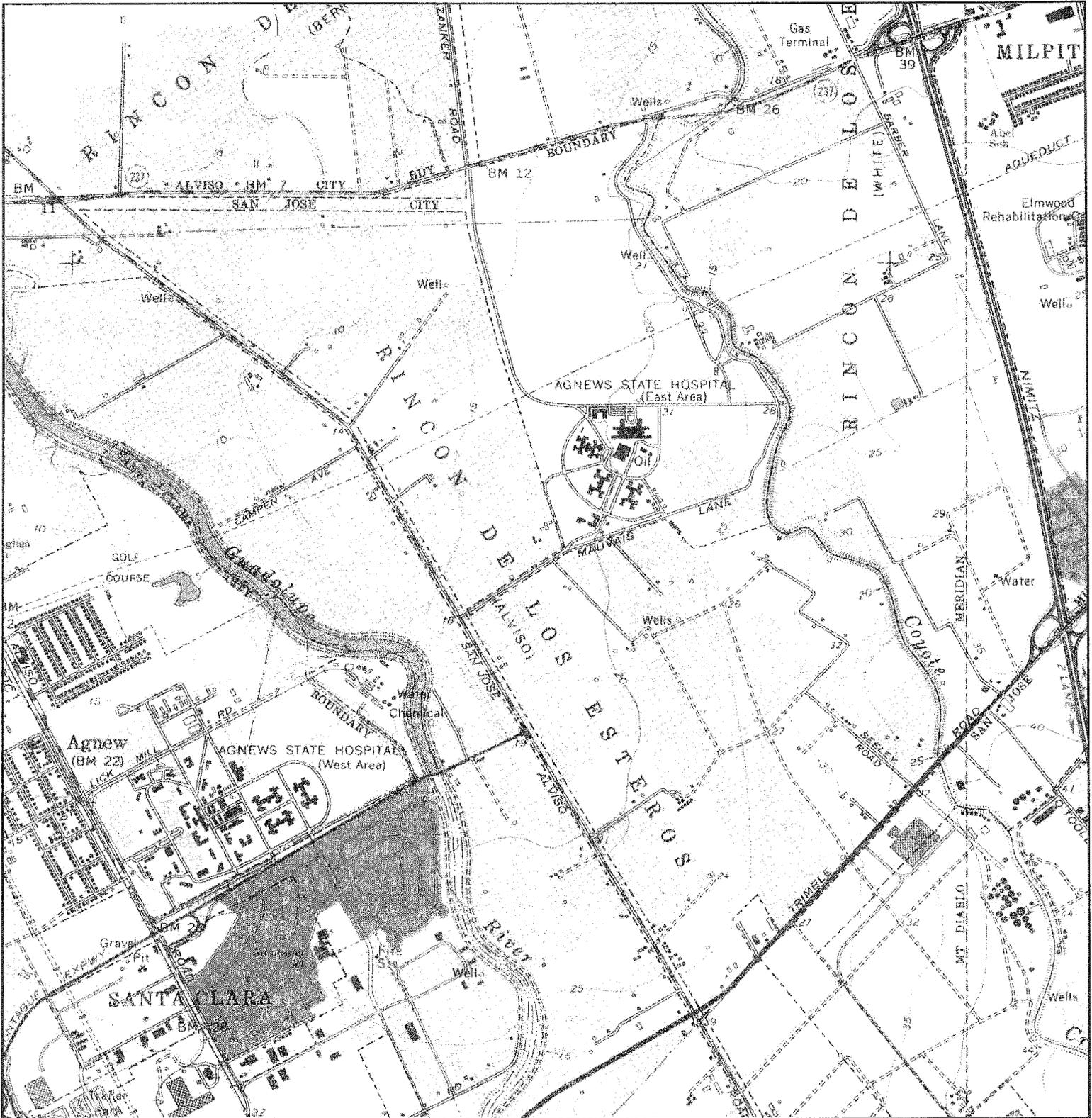
	TARGET QUAD NAME: MILPITAS MAP YEAR: 1953	SITE NAME: 199 River Oaks Parkway ADDRESS: 199 River Oaks Parkway San Jose, CA 95134 LAT/LONG: 37.4049 / 121.934	CLIENT: Engeo Inc. CONTACT: Andy Firmin INQUIRY#: 1975893.4 RESEARCH DATE: 07/11/2007
	SERIES: 7.5 SCALE: 1:24000		

Historical Topographic Map



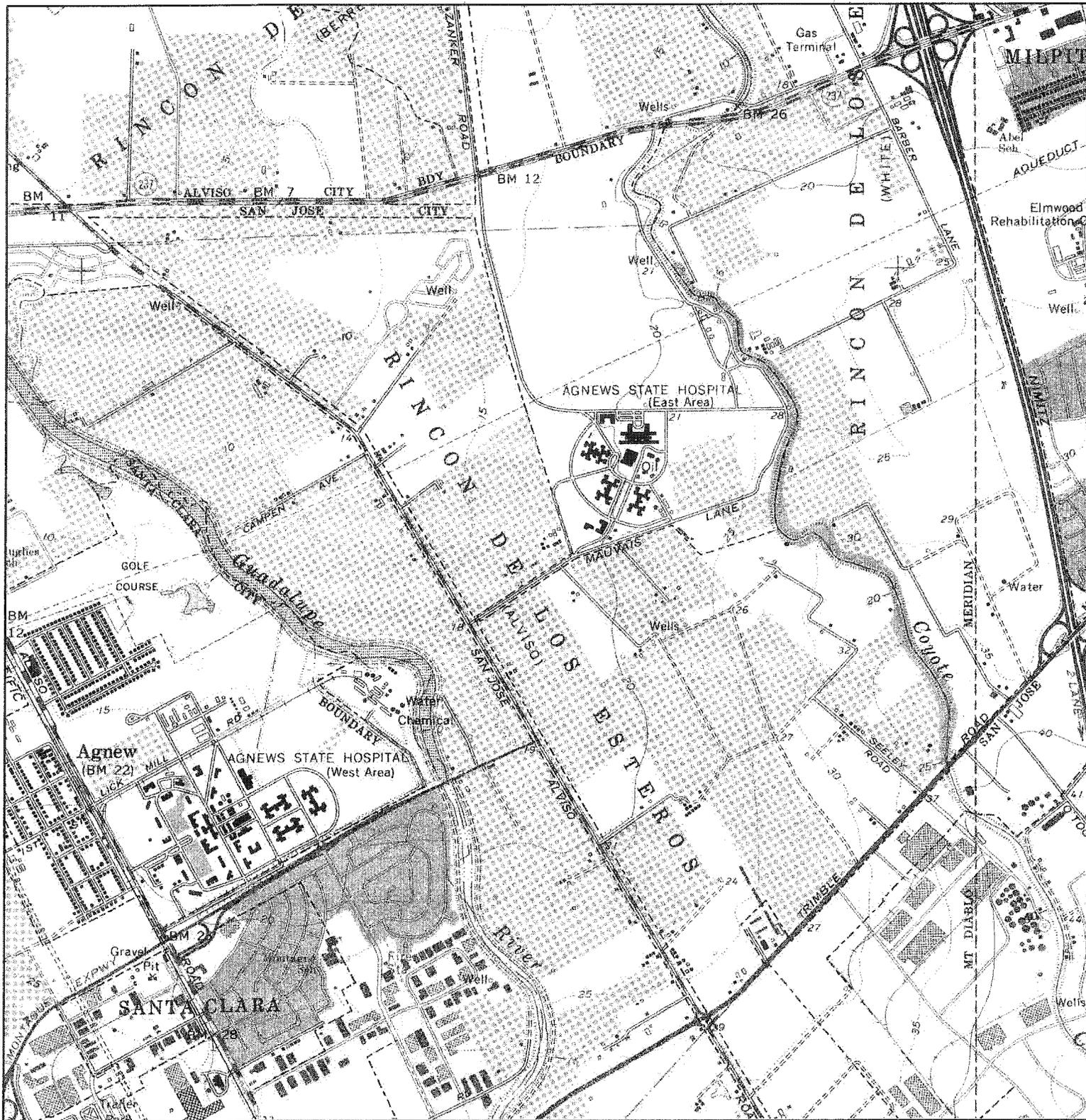
	TARGET QUAD	SITE NAME:	199 River Oaks Parkway	CLIENT:	Engeo Inc.
	NAME: MILPITAS	ADDRESS:	199 River Oaks Parkway	CONTACT:	Andy Firmin
	MAP YEAR: 1961		San Jose, CA 95134	INQUIRY#:	1975893.4
		LAT/LONG:	37.4049 / 121.934	RESEARCH DATE:	07/11/2007
	SERIES: 7.5				
SCALE: 1:24000					

Historical Topographic Map



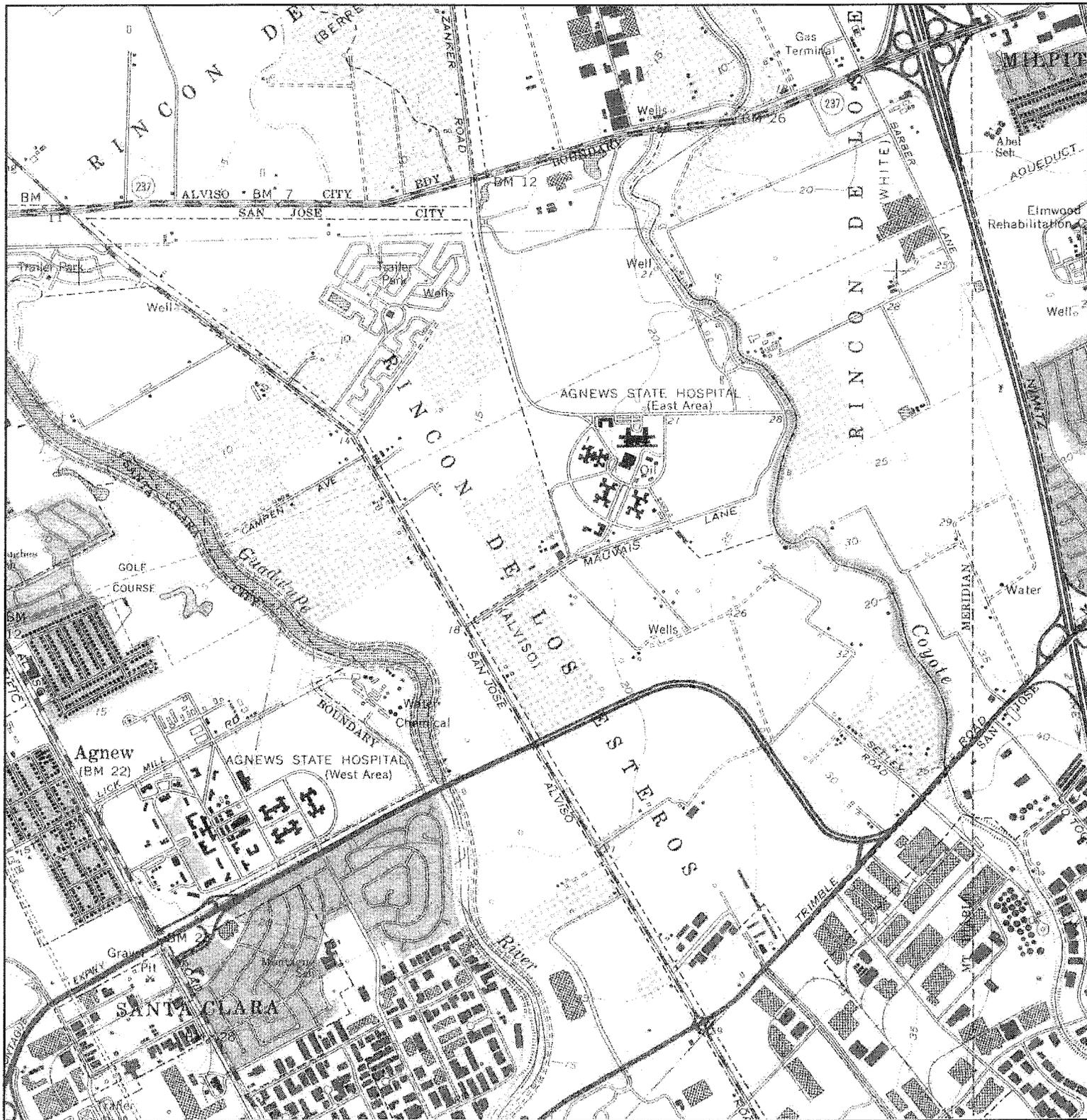
	TARGET QUAD	SITE NAME:	199 River Oaks Parkway	CLIENT:	Engeo Inc.
	NAME: MILPITAS	ADDRESS:	199 River Oaks Parkway	CONTACT:	Andy Firmin
	MAP YEAR: 1968		San Jose, CA 95134	INQUIRY#:	1975893.4
	PHOTOREVISED FROM: 1961	LAT/LONG:	37.4049 / 121.934	RESEARCH DATE:	07/11/2007
	SERIES: 7.5				
	SCALE: 1:24000				

Historical Topographic Map



	TARGET QUAD	SITE NAME:	199 River Oaks Parkway	CLIENT:	Engeo Inc.
	NAME: MILPITAS	ADDRESS:	199 River Oaks Parkway	CONTACT:	Andy Firmin
	MAP YEAR: 1973		San Jose, CA 95134	INQUIRY#:	1975893.4
	PHOTOREVISED FROM: 1961	LAT/LONG:	37.4049 / 121.934	RESEARCH DATE:	07/11/2007
	SERIES: 7.5				
	SCALE: 1:24000				

Historical Topographic Map



<p>N ↑</p>	TARGET QUAD	SITE NAME:	199 River Oaks Parkway	CLIENT:	Engeo Inc.
	NAME: MILPITAS	ADDRESS:	199 River Oaks Parkway	CONTACT:	Andy Firmin
	MAP YEAR: 1980		San Jose, CA 95134	INQUIRY#:	1975893.4
	PHOTOREVISED FROM: 1961	LAT/LONG:	37.4049 / 121.934	RESEARCH DATE:	07/11/2007
	SERIES: 7.5				
	SCALE: 1:24000				

APPENDIX C

First American Title Insurance Company

Preliminary Title Report



First American Title Insurance Company

1850 Mt. Diablo Blvd., Suite 300

Walnut Creek, CA 94596

Dewey Horton
BRE Properties, Inc.
525 Market Street, 4th Floor
San Francisco, CA 94105-2712
Phone: (415)445-6530

Escrow Officer: Kitty Schlesinger
Phone: 925 927-2154

Buyer: BRE Properties, Inc.

Owner: Applejack 199, L.P.

Property: 199 River Oaks Parkway, San Jose, CA

PRELIMINARY REPORT

In response to the above referenced application for a policy of title insurance, this 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 below or not excluded from coverage pursuant to the printed Schedules, Conditions and Stipulations of said Policy forms.

The printed Exceptions and Exclusions from the coverage of said Policy or Policies are set forth in Exhibit A attached. Copies of the Policy forms should be read. They are available from the office which issued this report.

Please read the exceptions shown or referred to below and the exceptions and exclusions set forth in Exhibit A 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.

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.

Dated as of June 06, 2007 at 7:30 A.M.

The form of Policy of title insurance contemplated by this report is:

ALTA Owner's Policy (10-17-92)

A specific request should be made if another form or additional coverage is desired.

Title to said estate or interest at the date hereof is vested in:

Applejack 199, L.P., a California limited partnership

The estate or interest in the land hereinafter described or referred to covered by this Report is:

Fee Simple

The Land referred to herein is described as follows:

(See attached Legal Description)

At the date hereof exceptions to coverage in addition to the printed Exceptions and Exclusions in said policy form would be as follows:

1. General and special taxes and assessments for the fiscal year 2007-2008, a lien not yet due or payable.
2. The lien of supplemental taxes, if any, assessed pursuant to Chapter 3.5 commencing with Section 75 of the California Revenue and Taxation Code.
3. A waiver of any claims for damages by reason of the location, construction, landscaping or maintenance of a contiguous freeway, highway, roadway or transit facility as contained in the document recorded December 14, 1949 as Book 1891, Page 554 of Official Records.
4. An easement shown or dedicated on the map filed or recorded December 28, 1979 as Book 456, Pages 37 and 38 of Maps
For: Public service and incidental purposes.

(Affects the Southwesterly 10 feet)
5. An easement shown or dedicated on the map filed or recorded December 28, 1979 as Book 456, Pages 37 and 38 of Maps
For: Landscape and incidental purposes.

(Affects the Southwesterly 24 feet)

6. An easement shown or dedicated on the map filed or recorded December 28, 1979 as Book 456, Pages 37 and 38 of Maps

For: Sidewalk and incidental purposes.

(Affects the Southwesterly 24 feet)

7. The fact that the land lies within the boundaries of the Rincon de los Esteros Redevelopment Project Area, as disclosed by various documents of record.
8. Covenants, conditions, restrictions and easements in the document recorded February 07, 1980 as Book F128, Page 480 of Official Records, which provide that a violation thereof shall not defeat or render invalid the lien of any first mortgage or deed of trust made in good faith and for value, but deleting any covenant, condition or restriction indicating a preference, limitation or discrimination based on race, color, religion, sex, handicap, familial status, national origin, sexual orientation, marital status, ancestry, source of income or disability, to the extent such covenants, conditions or restrictions violate Title 42, Section 3604(c), of the United States Codes or Section 12955 of the California Government Code. Lawful restrictions under state and federal law on the age of occupants in senior housing or housing for older persons shall not be construed as restrictions based on familial status.

Document(s) declaring modifications thereof recorded June 16, 1980 as Book F378, Page 418 of Official Records.

Document(s) declaring modifications thereof recorded May 04, 1981 as Book G064, Page 273 of Official Records.

Document(s) declaring modifications thereof recorded August 26, 1981 as Book G298, Page 495 of Official Records.

Document(s) declaring modifications thereof recorded April 20, 1984 as Book I476, Page 625 of Official Records.

Document(s) declaring modifications thereof recorded May 06, 1988 as Book K526, Page 1214 of Official Records.

Document(s) declaring modifications thereof recorded October 17, 1988 as Book K720, Page 1911 of Official Records.

Document(s) declaring modifications thereof recorded April 10, 1990 as Book L315, Page 91 of Official Records.

The Declarant's interest of record under said Covenants, Conditions and Restrictions was assigned

To: Gibson Speno Company, a California Corporation

By Assignment Dated: December 31, 1990

Recorded: December 31, 1990 in Book L580 at Page 234 Official Records.

9. TERMS AND CONDITIONS of that certain Permit
File No.: H 00-05-041
Disclosed By: Certificate of Permit
Recorded: September 15, 2000 as Document No. 15392686, Official Records

Reference is hereby made to the record for particulars.

10. TERMS AND CONDITIONS of that certain Permit
File No.: SP06-001
Disclosed By: Certificate of Permit
Recorded: May 16, 2006 as Document No. 18937193, Official Records

Reference is hereby made to the record for particulars.

11. Rights of parties in possession.
12. Any facts, rights, interests or claims which would be disclosed by a correct ALTA/ACSM survey.
13. Prior to the issuance of any policy of title insurance, the Company will require:
An ALTA/ACSM survey of recent date which complies with the current minimum standard detail requirements for ALTA/ACSM land title surveys.

INFORMATIONAL NOTES

1. General and special taxes and assessments for the fiscal year 2006-2007.

First Installment:	\$24,752.36, PAID
Penalty:	\$0.00
Second Installment:	\$24,752.36, PAID
Penalty:	\$0.00
Tax Rate Area:	17 116
A. P. No.:	097-33-036

2. According to the latest available equalized assessment roll in the office of the county tax assessor, there is located on the land a(n) Commercial Structure known as 199 River Oaks Parkway, San Jose, California.

3. According to the public records, there has been no conveyance of the land within a period of twenty-four months prior to the date of this report, except as follows:

None

4. This preliminary report/commitment was prepared based upon an application for a policy of title insurance that identified land by street address or assessor's parcel number only. It is the responsibility of the applicant to determine whether the land referred to herein is in fact the land that is to be described in the policy or policies to be issued.

5. Should this report be used to facilitate your transaction, we must be provided with the following prior to the issuance of the policy:
 - A. WITH RESPECT TO A CORPORATION:
 - a. A certificate of good standing of recent date issued by the Secretary of State of the corporation's state of domicile.

 - b. A certificate copy of a resolution of the Board of Directors authorizing the contemplated transaction and designating which corporate officers shall have the power to execute on behalf of the corporation.

 - c. Requirements which the Company may impose following its review of the above material and other information which the Company may require.

 - B. WITH RESPECT TO A CALIFORNIA LIMITED PARTNERSHIP:
 - a. A certified copy of the certificate of limited partnership (form LP-1) and any amendments thereto (form LP-2) to be recorded in the public records;

- b. A full copy of the partnership agreement and any amendments;
 - c. Satisfactory evidence of the consent of a majority in interest of the limited partners to the contemplated transaction;
 - d. Requirements which the Company may impose following its review of the above material and other information which the Company may require.
- C. WITH RESPECT TO A FOREIGN LIMITED PARTNERSHIP:
- a. A certified copy of the application for registration, foreign limited partnership (form LP-5) and any amendments thereto (form LP-6) to be recorded in the public records;
 - b. A full copy of the partnership agreement and any amendment;
 - c. Satisfactory evidence of the consent of a majority in interest of the limited partners to the contemplated transaction;
 - d. Requirements which the Company may impose following its review of the above material and other information which the Company may require.
- D. WITH RESPECT TO A GENERAL PARTNERSHIP:
- a. A certified copy of a statement of partnership authority pursuant to Section 16303 of the California Corporation Code (form GP-I), executed by at least two partners, and a certified copy of any amendments to such statement (form GP-7), to be recorded in the public records;
 - b. A full copy of the partnership agreement and any amendments;
 - c. Requirements which the Company may impose following its review of the above material required herein and other information which the Company may require.
- E. WITH RESPECT TO A LIMITED LIABILITY COMPANY:
- a. A copy of its operating agreement and any amendments thereto;
 - b. If it is a California limited liability company, a certified copy of its articles of organization (LLC-1) and any certificate of correction (LLC-11), certificate of amendment (LLC-2), or restatement of articles of organization (LLC-10) to be recorded in the public records;
 - c. If it is a foreign limited liability company, a certified copy of its application for registration (LLC-5) to be recorded in the public records;
 - d. With respect to any deed, deed of trust, lease, subordination agreement or other document or instrument executed by such limited liability company and presented for recordation by the Company or upon which the Company is asked to rely, such document or instrument must be executed in accordance with one of the following, as appropriate:

- (i) If the limited liability company properly operates through officers appointed or elected pursuant to the terms of a written operating agreement, such documents must be executed by at least two duly elected or appointed officers, as follows: the chairman of the board, the president or any vice president, and any secretary, assistant secretary, the chief financial officer or any assistant treasurer;
 - (ii) If the limited liability company properly operates through a manager or managers identified in the articles of organization and/or duly elected pursuant to the terms of a written operating agreement, such document must be executed by at least two such managers or by one manager if the limited liability company properly operates with the existence of only one manager.
- e. Requirements which the Company may impose following its review of the above material and other information which the Company may require.

F. WITH RESPECT TO A TRUST:

- a. A certification pursuant to Section 18500.5 of the California Probate Code in a form satisfactory to the Company.
- b. Copies of those excerpts from the original trust documents and amendments thereto which designate the trustee and confer upon the trustee the power to act in the pending transaction.
- c. Other requirements which the Company may impose following its review of the material require herein and other information which the Company may require.

G. WITH RESPECT TO INDIVIDUALS:

- a. A statement of information.

The map attached, if any, may or may not be a survey of the land depicted hereon. First American Title Insurance Company expressly disclaims any liability for loss or damage which may result from reliance on this map except to the extent coverage for such loss or damage is expressly provided by the terms and provisions of the title insurance policy, if any, to which this map is attached.

LEGAL DESCRIPTION

Real property in the City of San Jose, County of Santa Clara, State of California, described as follows:

ALL OF PARCEL 1, AS SAID PARCEL IS SHOWN UPON THAT CERTAIN MAP ENTITLED, "PARCEL MAP... BEING A PORTION OF PARCEL 1 & PARCEL 2 OF THE PARCEL MAP RECORDED IN BOOK 462 OF MAPS PAGE 47...", WHICH MAP WAS FILED FOR RECORD IN THE OFFICE OF THE RECORDER OF THE COUNTY OF SANTA CLARA, STATE OF CALIFORNIA ON JUNE 18, 1982 IN BOOK 501 OF MAPS AT PAGES 31 AND 32.

APN: 097-33-036

NOTICE I

Section 12413.1 of the California Insurance Code, effective January 1, 1990, requires that any title insurance company, underwritten title company, or controlled escrow company handling funds in an escrow or sub-escrow capacity, wait a specified number of days after depositing funds, before recording any documents in connection with the transaction or disbursing funds. This statute allows for funds deposited by wire transfer to be disbursed the same day as deposit. In the case of cashier's checks or certified checks, funds may be disbursed the next day after deposit. In order to avoid unnecessary delays of three to seven days, or more, please use wire transfer, cashier's checks, or certified checks whenever possible.

If you have any questions about the effect of this new law, please contact your local First American Office for more details.

NOTICE II

As of January 1, 1991, if the transaction which is the subject of this report will be a sale, you as a party to the transaction, may have certain tax reporting and withholding obligations pursuant to the state law referred to below:

In accordance with Sections 18662 and 18668 of the Revenue and Taxation Code, a buyer may be required to withhold an amount equal to three and one-third percent of the sales price in the case of the disposition of California real property interest by either:

1. A seller who is an individual with a last known street address outside of California or when the disbursement instructions authorize the proceeds be sent to a financial intermediary of the seller, OR
2. A corporate seller which has no permanent place of business in California.

The buyer may become subject to penalty for failure to withhold an amount equal to the greater of 10 percent of the amount required to be withheld or five hundred dollars (\$500).

However, notwithstanding any other provision included in the California statutes referenced above, no buyer will be required to withhold any amount or be subject to penalty for failure to withhold if:

1. The sales price of the California real property conveyed does not exceed one hundred thousand dollars (\$100,000), OR
2. The seller executes a written certificate, under the penalty of perjury, certifying that the seller is a resident of California, or if a corporation, has a permanent place of business in California, OR
3. The seller, who is an individual, executes a written certificate, under the penalty of perjury, that the California real property being conveyed is the seller's principal residence (as defined in Section 1034 of the Internal Revenue Code).

The seller is subject to penalty for knowingly filing a fraudulent certificate for the purpose of avoiding the withholding requirement.

The California statutes referenced above include provisions which authorize the Franchise Tax Board to grant reduced withholding and waivers from withholding on a case-by-case basis.

The parties to this transaction should seek an attorney's, accountant's, or other tax specialist's opinion concerning the effect of this law on this transaction and should not act on any statements made or omitted by the escrow or closing officer.

The Seller May Request a Waiver by Contacting:

Franchise Tax Board
Withhold at Source Unit
P.O. Box 651
Sacramento, CA 95812-0651
(916) 845-4900

Privacy Policy

We Are Committed to Safeguarding Customer Information

In order to better serve your needs now and in the future, we may ask you to provide us with certain information. We understand that you may be concerned about what we will do with such information - particularly any personal or financial information. We agree that you have a right to know how we will utilize the personal information you provide to us. Therefore, together with our parent company, The First American Corporation, we have adopted this Privacy Policy to govern the use and handling of your personal information.

Applicability

This Privacy Policy governs our use of the information which you provide to us. It does not govern the manner in which we may use information we have obtained from any other source, such as information obtained from a public record or from another person or entity. First American has also adopted broader guidelines that govern our use of personal information regardless of its source. First American calls these guidelines its *Fair Information Values*, a copy of which can be found on our website at www.firstam.com.

Types of Information

Depending upon which of our services you are utilizing, the types of nonpublic personal information that we may collect include:

- Information we receive from you on applications, forms and in other communications to us, whether in writing, in person, by telephone or any other means;
- Information about your transactions with us, our affiliated companies, or others; and
- Information we receive from a consumer reporting agency.

Use of Information

We request information from you for our own legitimate business purposes and not for the benefit of any nonaffiliated party. Therefore, we will not release your information to nonaffiliated parties except: (1) as necessary for us to provide the product or service you have requested of us; or (2) as permitted by law. We may, however, store such information indefinitely, including the period after which any customer relationship has ceased. Such information may be used for any internal purpose, such as quality control efforts or customer analysis. We may also provide all of the types of nonpublic personal information listed above to one or more of our affiliated companies. Such affiliated companies include financial service providers, such as title insurers, property and casualty insurers, and trust and investment advisory companies, or companies involved in real estate services, such as appraisal companies, home warranty companies, and escrow companies. Furthermore, we may also provide all the information we collect, as described above, to companies that perform marketing services on our behalf, on behalf of our affiliated companies, or to other financial institutions with whom we or our affiliated companies have joint marketing agreements.

Former Customers

Even if you are no longer our customer, our Privacy Policy will continue to apply to you.

Confidentiality and Security

We will use our best efforts to ensure that no unauthorized parties have access to any of your information. We restrict access to nonpublic personal information about you to those individuals and entities who need to know that information to provide products or services to you. We will use our best efforts to train and oversee our employees and agents to ensure that your information will be handled responsibly and in accordance with this Privacy Policy and First American's *Fair Information Values*. We

currently maintain physical, electronic, and procedural safeguards that comply with federal regulations to guard your nonpublic personal information.

**EXHIBIT A
LIST OF PRINTED EXCEPTIONS AND EXCLUSIONS (BY POLICY TYPE)**

**1. CALIFORNIA LAND TITLE ASSOCIATION STANDARD COVERAGE POLICY - 1990
SCHEDULE B**

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 notice 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, which are 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.

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) 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 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 their 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.

**2. AMERICAN LAND TITLE ASSOCIATION OWNER'S POLICY FORM B - 1970
SCHEDULE OF EXCLUSIONS FROM COVERAGE**

1. Any law, ordinance or governmental regulation (including but not limited to building and zoning ordinances) restricting or regulating or prohibiting the occupancy, use or enjoyment of the land, or regulating the character, dimensions or location of any improvement now or hereafter erected on the land, or prohibiting a separation in ownership or a reduction in the dimensions of area of the land, or the effect of any violation of any such law, ordinance or governmental regulation.
2. Rights of eminent domain or governmental rights of police power unless notice of the exercise of such rights appears in the public records at Date of Policy.
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 and not shown by the public records but known to the insured claimant either at Date of Policy or at the date such claimant acquired an estate or interest insured by this policy and not disclosed in writing by the insured claimant to the Company prior to the

date such insured claimant became an insured hereunder; (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.

**3. AMERICAN LAND TITLE ASSOCIATION OWNER'S POLICY FORM B - 1970
WITH REGIONAL EXCEPTIONS**

When the American Land Title Association policy is used as a Standard Coverage Policy and not as an Extended Coverage Policy the exclusions set forth in paragraph 2 above are used and the following exceptions to coverage appear in the policy.

SCHEDULE B

This policy does not insure against loss or damage by reason of the matters shown in parts one and two following:

Part One

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.
2. Any facts, rights, interests, or claims which are not shown by the public records but which could be ascertained by an inspection of said land or by making inquiry of persons in possession thereof.
3. Easements, claims of easement or encumbrances which are 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 public records.
5. Unpatented mining claims; reservations or exceptions in patents or in Acts authorizing the issuance thereof; water rights, claims or title to water.
6. Any lien, or right to a lien, for services, labor or material heretofore or hereafter furnished, imposed by law and not shown by the public records.

**4. AMERICAN LAND TITLE ASSOCIATION LOAN POLICY - 1970
WITH A.L.T.A. ENDORSEMENT FORM 1 COVERAGE
SCHEDULE OF EXCLUSIONS FROM COVERAGE**

1. Any law, ordinance or governmental regulation (including but not limited to building and zoning ordinances) restricting or regulating or prohibiting the occupancy, use or enjoyment of the land, or regulating the character, dimensions or location of any improvement now or hereafter erected on the land, or prohibiting a separation in ownership or a reduction in the dimensions or area of the land, or the effect of any violation of any such law ordinance or governmental regulation.
2. Rights of eminent domain or governmental rights of police power unless notice of the exercise of such rights appears in the public records at Date of Policy.
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 and not shown by the public records but known to the insured claimant either at Date of Policy or at the date such claimant acquired an estate or interest insured by this policy or acquired the insured mortgage and not disclosed in writing by the insured claimant to the Company prior to the date such insured claimant became an insured hereunder, (c) resulting in no loss or damage to the insured claimant; (d) attaching or created subsequent to Date of Policy (except to the extent insurance is afforded herein as to any statutory lien for 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).
4. Unenforceability of the lien of the insured mortgage because of failure of the insured at Date of Policy or of any subsequent owner of the indebtedness to comply with applicable "doing business" laws of the state in which the land is situated.

**5. AMERICAN LAND TITLE ASSOCIATION LOAN POLICY - 1970
WITH REGIONAL EXCEPTIONS**

When the American Land Title Association Lenders Policy is used as a Standard Coverage Policy and not as an Extended Coverage Policy, the exclusions set forth in paragraph 4 above are used and the following exceptions to coverage appear in the policy.

SCHEDULE B

This policy does not insure against loss or damage by reason of the matters shown in parts one and two following:

Part One

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.
2. Any facts, rights, interests, or claims which are not shown by the public records but which could be ascertained by an inspection of said land or by making inquiry of persons in possession thereof.
3. Easements, claims of easement or encumbrances which are 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 public records.
5. Unpatented mining claims; reservations or exceptions in patents or in Acts authorizing the issuance thereof; water rights, claims or title to water.

6. Any lien, or right to a lien, for services, labor or material theretofore or hereafter furnished, imposed by law and not shown by the public records.

**6. AMERICAN LAND TITLE ASSOCIATION LOAN POLICY - 1992
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) 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 (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 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 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 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 judgment or lien creditor.

**7. AMERICAN LAND TITLE ASSOCIATION LOAN POLICY - 1992
WITH REGIONAL EXCEPTIONS**

When the American Land Title Association policy is used as a Standard Coverage Policy and not as an Extended Coverage Policy the exclusions set forth in paragraph 6 above are used and the following exceptions to coverage appear in the policy.

SCHEDULE B

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.
2. Any facts, rights, interests, or claims which are not shown by the public records but which could be ascertained by an inspection of said land or by making inquiry of persons in possession thereof.
3. Easements, claims of easement or encumbrances which are 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 public records.
5. Unpatented mining claims; reservations or exceptions in patents or in Acts authorizing the issuance thereof; water rights, claims or title to water.

6. Any lien, or right to a lien, for services, labor or material theretofore or hereafter furnished, imposed by law and not shown by the public records.

**8. AMERICAN LAND TITLE ASSOCIATION OWNER'S POLICY - 1992
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 judgment or lien creditor.

**9. AMERICAN LAND TITLE ASSOCIATION OWNER'S POLICY - 1992
WITH REGIONAL EXCEPTIONS**

When the American Land Title Association policy is used as a Standard Coverage Policy and not as an Extended Coverage Policy the exclusions set forth in paragraph 8 above are used and the following exceptions to coverage appear in the policy.

SCHEDULE B

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 One:

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.
2. Any facts, rights, interests, or claims which are not shown by the public records but which could be ascertained by an inspection of said land or by making inquiry of persons in possession thereof.
3. Easements, claims of easement or encumbrances which are 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 public records.
5. Unpatented mining claims; reservations or exceptions in patents or in Acts authorizing the issuance thereof; water rights, claims or title to water.
6. Any lien, or right to a lien, for services, labor or material theretofore or hereafter furnished, imposed by law and not shown by the public records.

**10. AMERICAN LAND TITLE ASSOCIATION RESIDENTIAL
TITLE INSURANCE POLICY - 1987
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 knowing 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.

11. EAGLE PROTECTION OWNER'S POLICY

**CLTA HOMEOWNER'S POLICY OF TITLE INSURANCE - 1998
ALTA HOMEOWNER'S POLICY OF TITLE INSURANCE - 1998**

Covered Risks 14 (Subdivision Law Violation), 15 (Building Permit), 16 (Zoning) and 18 (Encroachment of boundary walls or fences) are subject to Deductible Amounts and Maximum Dollar Limits of Liability

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 the 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. 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.

12. AMERICAN LAND TITLE ASSOCIATION LOAN POLICY - 1992 WITH A.L.T.A. ENDORSEMENT FORM 1 COVERAGE WITH EAGLE PROTECTION ADDED

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. This exclusion does not limit the coverage provided under insuring provisions 14, 15, 16 and 24 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 insuring provisions 14, 15, 16 and 24 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 or damage to the Insured Claimant;
 - (d) attaching or created subsequent to Date of Policy (this paragraph (d) does not limit the coverage provided under insuring provisions 7, 8, 16, 17, 19, 20, 21, 23, 24 and 25); 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:
 - (a) usury, except as provided under insuring provision 10 of this policy; or
 - (b) any consumer credit protection or truth in lending law.
6. Taxes or assessments of any taxing or assessment authority which become a lien on the Land subsequent to Date of Policy.
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:
 - (a) the transaction creating the interest of the insured mortgagee being deemed a fraudulent conveyance or fraudulent transfer; or
 - (b) the subordination of the interest of the insured mortgagee as a result of the application of the doctrine of equitable subordination; or
 - (c) the transaction creating the interest of the insured mortgagee being deemed a preferential transfer except where the preferential transfer results from the failure:
 - (i) to timely record the instrument of transfer; or
 - (ii) of such recordation to impart notice to a purchaser for value or a judgment or lien creditor.
8. 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 under insuring provision 7.
9. 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 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 under insuring provision 7.

SCHEDULE B

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. Environmental protection liens provided for by the following existing statutes, which liens will have priority over the lien of the Insured Mortgage when they arise: NONE.

13. AMERICAN LAND TITLE ASSOCIATION LOAN POLICY - 1992 WITH EAGLE PROTECTION ADDED WITH REGIONAL EXCEPTIONS

When the American Land Title Association loan policy with EAGLE Protection Added is used as a Standard Coverage Policy and not as an Extended Coverage Policy the exclusions set forth in paragraph 12 above are used and the following exceptions to coverage appear in the policy.

SCHEDULE B

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 One:

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.
2. Any facts, rights, interests, or claims which are not shown by the public records but which could be ascertained by an inspection of said land or by making inquiry of persons in possession thereof.
3. Easements, claims of easement or encumbrances which are 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 public records.
5. Unpatented mining claims; reservations or exceptions in patents or in acts authorizing the issuance thereof; water rights, claims or title to water.
6. Any lien, or right to a lien, for services, labor or material theretofore or hereafter furnished, imposed by law and not shown by the public records.

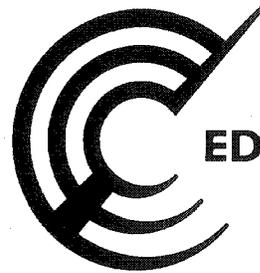
Part Two:

1. Environmental protection liens provided for by the following existing statutes, which liens will have priority over the lien of the Insured Mortgage when they arise: NONE

APPENDIX D

ENVIRONMENTAL DATA RESOURCES, INC.

Aerial Photo Decade Package



EDR® Environmental
Data Resources Inc

The EDR Aerial Photo Decade Package

**199 River Oaks Parkway
199 River Oaks Parkway
San Jose, CA 95134**

Inquiry Number: 1975893.5

July 11, 2007

The Standard in Environmental Risk Information

**440 Wheelers Farms Road
Milford, Connecticut 06461**

Nationwide Customer Service

**Telephone: 1-800-352-0050
Fax: 1-800-231-6802
Internet: www.edrnet.com**

EDR Aerial Photo Decade Package

Environmental Data Resources, Inc. (EDR) Aerial Photo Decade Package is a screening tool designed to assist environmental professionals in evaluating potential liability on a target property resulting from past activities. EDRs professional researchers provide digitally reproduced historical aerial photographs, and when available, provide one photo per decade.

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

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Date EDR Searched Historical Sources:

Aerial Photography July 11, 2007

Target Property:

199 River Oaks Parkway

San Jose, CA 95134

<u>Year</u>	<u>Scale</u>	<u>Details</u>	<u>Source</u>
1939	Aerial Photograph. Scale: 1"=555'	Flight Year: 1939	Fairchild
1956	Aerial Photograph. Scale: 1"=555'	Flight Year: 1956	Aero
1965	Aerial Photograph. Scale: 1"=333'	Flight Year: 1965	Cartwright
1982	Aerial Photograph. Scale: 1"=690'	Flight Year: 1982	WSA
1993	Aerial Photograph. Scale: 1"=666'	Flight Year: 1993	USGS
1998	Aerial Photograph. Scale: 1"=666'	Flight Year: 1998	USGS



INQUIRY #: 1975893.5

YEAR: 1939

— = 555'





INQUIRY #: 1975893.5

YEAR: 1956

| = 555'





INQUIRY #: 1975893.5
YEAR: 1965
| = 333'





INQUIRY #: 1975893.5

YEAR: 1982

| = 690'





INQUIRY #: 1975893.5
YEAR: 1993

| = 666'





INQUIRY #: 1975893.5

YEAR: 1998

— = 666'



APPENDIX E

ENVIRONMENTAL DATA RESOURCES, INC.

City Directory



EDR® Environmental
Data Resources Inc

The EDR-City Directory
Abstract

199 River Oaks Parkway
199 River Oaks Parkway
San Jose, CA 95134

Inquiry Number: 1975893.6

Tuesday, July 10, 2007

**The Standard in
Environmental Risk
Information**

440 Wheelers Farms Road
Milford, Connecticut 06461

Nationwide Customer Service

Telephone: 1-800-352-0050
Fax: 1-800-231-6802
Internet: www.edrnet.com

EDR City Directory Abstract

Environmental Data Resources, Inc.'s (EDR) City Directory Abstract is a screening report designed to assist environmental professionals in evaluating potential liability on a target property resulting from past activities. EDR's City Directory Abstract includes a search and abstract of available city directory data. For each address, the directory lists the name of the corresponding occupant at five year intervals.

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

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SUMMARY

- ***City Directories:***

Business directories including city, cross reference and telephone directories were reviewed, if available, at approximately five year intervals for the years spanning 1922 through 2001. (These years are not necessarily inclusive.) A summary of the information obtained is provided in the text of this report.

This report compiles information by geocoding the subject properties (that is, plotting the latitude and longitude for such subject properties and obtaining data concerning properties within 1/8th of a mile of the subject properties). There is no warranty or guarantee that geocoding will report or list all properties within the specified radius of the subject properties and any such warranty or guarantee is expressly disclaimed. Accordingly, some properties within the aforementioned radius and the information concerning those properties may not be referenced in this report.

Date EDR Searched Historical Sources: July 10, 2007

Target Property:

199 River Oaks Parkway
San Jose, CA 95134

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1922	Address Not Listed in Research Source	R. L. POLK & CO.
1925	Address Not Listed in Research Source	R. L. POLK & CO.
1926	Address Not Listed in Research Source	R. L. Polk Co.
1930	Address Not Listed in Research Source	R. L. POLK & CO. OF CALIFORNIA
1931	Address Not Listed in Research Source	R. L. POLK & CO.
1935	Address Not Listed in Research Source	R. L. POLK & CO.
1936	Address Not Listed in Research Source	R. L. POLK & CO.
1940	Address Not Listed in Research Source	R. L. POLK & CO.
1942	Address Not Listed in Research Source	R. L. POLK & CO.
1945	Address Not Listed in Research Source	R. L. POLK & CO.
1946	Address Not Listed in Research Source	R. L. POLK & CO.
1950	Address Not Listed in Research Source	R. L. POLK & CO.
1955	Address Not Listed in Research Source	R. L. POLK & CO.
1957	Address Not Listed in Research Source	PACIFIC TELEPHONE
1960	Address Not Listed in Research Source	R. L. POLK & CO.
1962	Address Not Listed in Research Source	R. L. POLK & CO.

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1963	Address Not Listed in Research Source	PACIFIC TELEPHONE
1964	Address Not Listed in Research Source	R. L. POLK & CO.
1965	Address Not Listed in Research Source	R. L. POLK & CO.
1966	Address Not Listed in Research Source	R. L. POLK & CO.
1968	Address Not Listed in Research Source	R. L. POLK & CO.
1970	Address Not Listed in Research Source	R. L. POLK & CO.
1974	Address Not Listed in Research Source	R. L. POLK & CO.
1975	Address Not Listed in Research Source	PACIFIC TELEPHONE
1978	Address Not Listed in Research Source	R. L. POLK & CO.
1980	Address Not Listed in Research Source	PACIFIC TELEPHONE
1982	Address Not Listed in Research Source	PACIFIC TELEPHONE
1985	Address Not Listed in Research Source	PACIFIC BELL
1986	Address Not Listed in Research Source	Pacific Bell
1991	Address Not Listed in Research Source	PACIFIC BELL WHITE PAGES
1996	**RIVER OAKS PKY** FOXBORO-ICT INC (199)	Pacific Bell Street Address Telephone Directory San Jose December 1996
2000	Address Not Listed in Research Source	HAINES & COMPANY
2001	Address Not Listed in Research Source	HAINES & COMPANY, INC.

Adjoining Properties

SURROUNDING

Multiple Addresses
San Jose, CA 95134

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1922	Address Not Listed in Research Source	R. L. POLK & CO.
1925	Address Not Listed in Research Source	R. L. POLK & CO.
1926	Address Not Listed in Research Source	R. L. Polk Co.
1930	Address Not Listed in Research Source	R. L. POLK & CO. OF CALIFORNIA
1931	Address Not Listed in Research Source	R. L. POLK & CO.
1935	Address Not Listed in Research Source	R. L. POLK & CO.
1936	Address Not Listed in Research Source	R. L. POLK & CO.
1940	Address Not Listed in Research Source	R. L. POLK & CO.
1942	Address Not Listed in Research Source	R. L. POLK & CO.
1945	Address Not Listed in Research Source	R. L. POLK & CO.
1946	Address Not Listed in Research Source	R. L. POLK & CO.
1950	Address Not Listed in Research Source	R. L. POLK & CO.
1955	Address Not Listed in Research Source	R. L. POLK & CO.
1957	Address Not Listed in Research Source	PACIFIC TELEPHONE
1960	Address Not Listed in Research Source	R. L. POLK & CO.
1962	Address Not Listed in Research Source	R. L. POLK & CO.
1963	Address Not Listed in Research Source	PACIFIC TELEPHONE
1964	Address Not Listed in Research Source	R. L. POLK & CO.

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1965	Address Not Listed in Research Source	R. L. POLK & CO.
1966	Address Not Listed in Research Source	R. L. POLK & CO.
1968	Address Not Listed in Research Source	R. L. POLK & CO.
1970	Address Not Listed in Research Source	R. L. POLK & CO.
1974	Address Not Listed in Research Source	R. L. POLK & CO.
1975	Address Not Listed in Research Source	PACIFIC TELEPHONE
1978	Address Not Listed in Research Source	R. L. POLK & CO.
1980	Address Not Listed in Research Source	PACIFIC TELEPHONE
1982	**RIVER OAKS PKY** FLUKE AUTOMATED SYSTEMS (211)	PACIFIC TELEPHONE
1985	**RIVER OAKS PKY** MOITZO BROS INC (175) REYES PABLO (187)	PACIFIC BELL
1986	**RIVER OAKS PKY** MAXTOR CORPORATION (150) MOITZO BROS INC (175) REYES PABLO (187)	Pacific Bell
1991	**RIVER OAKS PKY** MOITO ZO BROS INC (175) MOLTO O ANTHONY (175) JIM BLACKBURN DESIGN INC (189) JIMENEZ DELIA (189)	PACIFIC BELL WHITE PAGES
1996	**ZANKER RD** BOOLE & BABBAGE INC (3131) ARRAYCOMM INC (3151) LORAL FAIRCHILD IMAGING SENSORS (3151) **RIVER OAKS PKY** MOITZO BROS INC (175)	Pacific Bell Street Address Telephone Directory San Jose December 1996 Pacific Bell Street Address Telephone Directory San Jose December 1996
2000	**ZANKER RD** BOQLE&BABBAGEINC (3131)	HAINES & COMPANY

<u>Year</u>	<u>Uses</u>	<u>Source</u>
2000	(continued)	
	XXXX (3137)	
	ARRAYCOIMMINC (3151)	
	X CAVIGLIA DR (3151)	
	X HENRY FORD II DR (3151)	
	RIVER OAKS PKY	HAINES & COMPANY
	MOITZOMANUEL (155)	
	MOITZO BROS INC (175)	
	SMOITZO ANTHONY (175)	
	X MALOVIS RD (187)	
	X ZANKER RD (187)	
	XXXX (187)	
	FOXBOROICTINC (198)	
	XXXX (200)	
	XXXX (211)	
2001	Address Not Listed in Research Source	HAINES & COMPANY, INC.

APPENDIX F

Environmental Site Assessment Questionnaires (2)

Project Name 199 River Oaks Parkway, San Jose

Project No. 7862.3.002.01

ENGEO
INCORPORATED

- | | |
|--|-------------------------------------|
| <input checked="" type="checkbox"/> 2010 Crow Canyon Place • Suite 250 • San Ramon, CA 94583 | (925) 866-9000 • Fax (888) 279-2698 |
| <input type="checkbox"/> 2213 Plaza Drive • Rocklin, CA 95765 | (916) 786-8883 • Fax (888) 279-2698 |
| <input type="checkbox"/> 116 New Montgomery Street • Suite 224 • San Francisco, CA 94105 | (415) 284-9900 • Fax (888) 279-2698 |
| <input type="checkbox"/> 6399 San Ignacio Avenue • Suite 150 • San Jose, CA 95119 | (408) 574-4900 • Fax (888) 279-2698 |
| <input type="checkbox"/> 580 N. Wilma Avenue • Suite A • Ripon, CA 95366 | (209) 835-0610 • Fax (888) 279-2698 |
| <input type="checkbox"/> 425 Merchant Street • Suite 101 • Vacaville, CA 95688 | (707) 455-7833 • Fax (888) 279-2698 |
| <input type="checkbox"/> 690 Walnut Avenue • Suite 220 • Mare Island, Vallejo, CA 94592 | (707) 562-0030 • Fax (888) 279-2698 |
| <input type="checkbox"/> 3545 Airway Drive • Suite 114 • Reno, NV 89511 | (775) 852-2121 • Fax (888) 279-2698 |

**ENVIRONMENTAL SITE ASSESSMENT QUESTIONNAIRE
FOR CLIENT**

To evaluate the potential for possible environmentally related impacts and site contamination the following information is requested. This questionnaire is to be completed by the user of the phase one environmental site assessment, or their authorized representative.

PART I

1. Property address and Assessor's Parcel Number (APN):

199 River Oaks Pkwy San Jose, CA
097-33-036

2. Current property owner (name, address, voice/fax number):

Applejack 199 L.P. (Ann Koo)
2327 Partridge Lane
Los Altos, CA 94204 650-941-7692

3. Date current property owner assumed title of property:

Unknown, within last 5 years?

4. Current property development/improvements:

Semiconductor production facilities
& office suites

5. Past property use, development/improvements:

Unknown

6. Neighboring property uses: North - Agnews Developmental Center (mentally ill care facility)
South - vacant Sony office bldg
East - vacant office building
West - Agricultural warehouse & citrus orchard

PART II

1. Are you aware of any environmental cleanup liens against the *property* that are filed under federal, tribal, local or state law? Yes No

2. Are you aware of any activity and land use limitations, such as engineering controls, land use restrictions, or institutional controls that are in place at the property and/or have been filed or recorded in a registry under federal, tribal, state or local law? Yes No

3. 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? Yes No

4. If a property transaction is occurring in conjunction with this environmental assessment, does the purchase price of 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 No

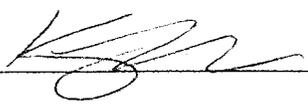
5. Are you aware of any commonly known or reasonably ascertainable information about the property that would help the environmental professional to identify conditions indicative of releases or threatened releases? For example,
 - (a) do you know of specific chemicals that are present or once were present at the *property*?
 - (b) do you know of spills or other chemical releases that have taken place at the *property*?
 - (c) do you know of any environmental cleanups that have taken place at the *property*? Yes No

6. 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*? Yes No

If a "Yes" response was provided to any of the above questions, please provide details below:

I certify that the information herein is true and correct to the best of my knowledge as of the date signed below.

Name (Printed/Typed): Kevin Ma

Signature:  Date: 7/11/07

- | | |
|--|-------------------------------------|
| <input checked="" type="checkbox"/> 2010 Crow Canyon Place • Suite 250 • San Ramon, CA 94583 | (925) 866-9000 • Fax (888) 279-2698 |
| <input type="checkbox"/> 2213 Plaza Drive • Rocklin, CA 95765 | (916) 786-8883 • Fax (888) 279-2698 |
| <input type="checkbox"/> 116 New Montgomery Street • Suite 224 • San Francisco, CA 94105 | (415) 284-9900 • Fax (888) 279-2698 |
| <input type="checkbox"/> 6399 San Ignacio Avenue • Suite 150 • San Jose, CA 95119 | (408) 574-4900 • Fax (888) 279-2698 |
| <input type="checkbox"/> 580 N. Wilma Avenue • Suite A • Ripon, CA 95366 | (209) 835-0610 • Fax (888) 279-2698 |
| <input type="checkbox"/> 425 Merchant Street • Suite 101 • Vacaville, CA 95688 | (707) 455-7833 • Fax (888) 279-2698 |
| <input type="checkbox"/> 690 Walnut Avenue • Suite 220 • Mare Island, Vallejo, CA 94592 | (707) 562-0030 • Fax (888) 279-2698 |
| <input type="checkbox"/> 3545 Airway Drive • Suite 114 • Reno, NV 89511 | (775) 852-2121 • Fax (888) 279-2698 |

**ENVIRONMENTAL SITE ASSESSMENT QUESTIONNAIRE
FOR "KEY SITE MANAGER"**

To evaluate the potential for possible environmentally related impacts and site contamination the following information is requested. This questionnaire is to be preferably completed by the current property owner, or owner representative, leasing agent, or other person having good knowledge of the uses and physical characteristics of the property (Key Site Manager).

PART I

1. Property Address/Location and Assessor's Parcel Number (APN):

097-33-036-00

2. Current property owner (name, address, voice/fax number):

Applejack 199, L.P.

3. Date current property owner assumed title of property:

4/23/2004

4. Current property development/improvements:

Build up internal walls

5. Past property use, development/improvements:

Electronic Company

6. Neighboring property uses:

office, R&D

PART II - The following questions should be answered to the best of your knowledge.

- | | | |
|---|---|--|
| 1. Is/has the <i>property</i> or any adjoining property used/been used for industrial purposes? | <input checked="" type="checkbox"/> Yes | <input type="checkbox"/> No |
| 2. Has the <i>property</i> or any adjoining property been used as a gasoline station, motor repair facility, commercial printing facility, dry cleaners, photo developing laboratory, junkyard or landfill, or as a waste treatment, storage, disposal, processing, or recycling facility? | <input type="checkbox"/> Yes | <input checked="" type="checkbox"/> No |
| 3. Are there currently, or have there been previously, any damaged or discarded automotive or industrial batteries, or pesticides, paints, or other chemicals in individual containers of greater than 5 gal in volume or 50 gal in the aggregate, stored on or used at the <i>property</i> or at the facility? | <input type="checkbox"/> Yes | <input checked="" type="checkbox"/> No |
| 4. Has undocumented soil been brought onto the property at any time? If yes, estimated quantity is _____ cubic yards. | <input type="checkbox"/> Yes | <input checked="" type="checkbox"/> No |
| 5. Has soil been brought onto the property that originated from a contaminated site or that is of an unknown origin? | <input type="checkbox"/> Yes | <input checked="" type="checkbox"/> No |
| 6. Are there currently, or have there been previously, any pits, ponds, or lagoons located on the <i>property</i> in connection with waste treatment or waste disposal? | <input type="checkbox"/> Yes | <input checked="" type="checkbox"/> No |
| 7. Is there currently, or has there been previously, any stained soil on the <i>property</i> ? | <input type="checkbox"/> Yes | <input checked="" type="checkbox"/> No |
| 8. Are there currently, or have there been previously, any registered or unregistered storage tanks (above or underground) located on the <i>property</i> ? | <input type="checkbox"/> Yes | <input checked="" type="checkbox"/> No |
| 9. Are there currently, or have there been previously, any vent pipes, fill pipes, or access ways indicating a fill pipe protruding from the ground on the <i>property</i> or adjacent to any structure located on the <i>property</i> ? | <input type="checkbox"/> Yes | <input checked="" type="checkbox"/> No |
| 10. Are there currently, or have there been previously, any flooring, drains, or walls located within the facility that are stained by substances other than water or are emitting foul odors? | <input type="checkbox"/> Yes | <input checked="" type="checkbox"/> No |
| 11. Are there any domestic, irrigation or monitoring wells on the property? | <input checked="" type="checkbox"/> Yes | <input type="checkbox"/> No |
| 12. If the <i>property</i> is served by a private well or non-public water system, have contaminants been identified in the well or system that exceed guidelines applicable to the water system or has the well been designated as contaminated by any government environmental/health agency? | <input type="checkbox"/> Yes | <input checked="" type="checkbox"/> No |
| 13. Have you been informed of the past or current existence of <i>hazardous substances</i> or <i>petroleum products</i> or environmental violations with respect to the <i>property</i> or any facility located on the <i>property</i> ? | <input type="checkbox"/> Yes | <input checked="" type="checkbox"/> No |
| 14. Have there been any <i>environmental site assessments</i> of the <i>property</i> or facility that indicated the presence of <i>hazardous substances</i> or <i>petroleum products</i> on, or contamination of, the <i>property</i> or recommended further assessment of the <i>property</i> ? | <input type="checkbox"/> Yes | <input checked="" type="checkbox"/> No |
| 15. Have there been any past, threatened, or pending lawsuits or administrative proceedings concerning a release or threatened release of any <i>hazardous substance</i> or <i>petroleum products</i> involving the <i>property</i> ? | <input type="checkbox"/> Yes | <input checked="" type="checkbox"/> No |
| 16. Has there been any past agricultural use of the <i>property</i> , such as orchards or seed crop cultivation? | <input type="checkbox"/> Yes | <input checked="" type="checkbox"/> No |
| 17. Have any <i>hazardous substances</i> or <i>petroleum products</i> , unidentified waste materials, tires, automotive or industrial batteries or any other waste materials been dumped above grade, buried and/or burned on the <i>property</i> ? | <input type="checkbox"/> Yes | <input checked="" type="checkbox"/> No |
| 18. Is there a transformer, capacitor, or any hydraulic equipment for which there are any records indicating the presence of PCBs? | <input type="checkbox"/> Yes | <input checked="" type="checkbox"/> No |

If a "Yes" response was provided to any of the above questions, please provide details below:

For Question 1 of Part II: The property is now used for semiconductor equipment manufacturing.

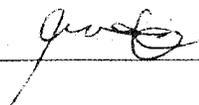
For Question 11 of Part II: Please refer to the attached letter from Studemeister & Associates dated August 2, 2004.

I certify that the information herein is true and correct to the best of my knowledge as of the date signed below.

Name (Printed/Typed):

Ann Koo

Signature:



Date:

7/11/07

STUDEMEISTER & ASSOCIATES

675 Sharon Park Drive, Suite 212, Menlo Park, CA 94025

Phone: 650-234-1030 / Fax: 650-234-8331 / e-mail: pstudemeister@netscape.com

August 2, 2004

Ms. Ann Koo
23271 Partridge Lane
Los Altos, CA 94024

RE: 199 River Oaks Parkway Property, San Jose, CA

Dear Ms. Koo:

Invensys Inc. (Invensys) of Foxboro, MA has retained Studemeister & Associates to perform groundwater sampling activities at 199 River Oaks Parkway (*subject property*). The purpose of this letter is to request access for Studemeister & Associates to perform the work described herein.

The following is a summary on the project background. Copies of documents that pertain to the groundwater sampling activities are attached for your information. With regards to groundwater impact issues at 199 River Oaks Parkway, the lead regulatory agency is the California Regional Water Quality Control Board, San Francisco Bay Region (Regional Board), a state regulatory agency. The case handler at the Regional Board is Mr. David Barr (Phone: 510-622-2313). The local water district, Santa Clara Valley Water District (Water District), has jurisdiction over the issuance of permits for groundwater monitoring wells.

In July 1984, an environmental investigation began around the north side of the *subject property* building. Trichloroethene (a solvent chemical compound) was identified in solution in the groundwater around an underground storage tank used at the former Foxboro facility for the storage of waste solvents. Use of the storage tank was discontinued and, in November 1985, the tank was excavated and removed. Subsequent investigations outlined a plume of trichloroethene-impacted groundwater below the *subject property*. Since 1986, the *subject property* Owners (Foxboro/ICT/Invensys) have sponsored site cleanup and groundwater sampling activities. There are currently nine (9) groundwater monitoring wells on the *subject property* – the wells were installed in the 1980's to monitor the plume of trichloroethene-impacted groundwater.

In 2000, the Regional Board reviewed the 199 River Oaks Parkway case at the request of the previous Owner. In a letter dated November 17, 2000 ("*Approval of Request to Cease Groundwater Extraction at the Foxboro/ICT Site, 199 River Oaks Parkway, San Jose, Santa Clara County*"), the Regional Board concluded that further active remediation at the *subject property* was not required and authorized for annual sampling of the groundwater monitoring wells. The Regional Board requested that the wells be sampled once-per-year and a technical

STUDEMEISTER & ASSOCIATES

675 Sharon Park Drive, Suite 212, Menlo Park, CA 94025

Phone: 650-234-1030 / Fax: 650-234-8331 / e-mail: pstudemeister@netscape.com

report be issued with the investigation results. A copy of the November 17, 2000 letter from the Regional Board is attached for your reference.

The attached Studemeister & Associates Report of December 15, 2003 presents the groundwater sampling activities performed last year (2003).

An additional issue that needs to be addressed is the discovery of three (3) abandoned wells at 199 River Oaks Parkway. These wells not currently in use. The Water District requested that the abandoned wells be permanently closed in accordance with the well ordinance. Permits for the well closures was recently obtained from the Water District by Studemeister & Associates. Please find attached copies of the well closure permits.

In summary, Invesys has retained Studemeister & Associates to perform in 2004 groundwater sampling activities at 199 River Oaks Parkway. The following groundwater sampling activities are planned for 2004 to continue with regulatory agency compliance:

- Groundwater sampling and monitoring of the existing wells. Two (2) of the wells are inside the building and the remaining seven (7) wells are located outside of the building. The on-site work can be performed in approximately two (2) days.
- Closure of the abandoned wells. The on-site work can probably be completed in two (2) to three (3) days.

Please review the attached Access Agreement and return the signed agreement in order to proceed with the work. Please include the name and phone number of your representative in order to schedule the work and arrange for access to the building and property.

The costs for the planned activities by Studemeister & Associates will be covered by Invensys. The Invensys representative is as follows:

Steve Sacco
Director of Environmental Affairs
Invensys Inc.
33 Commercial Street, C41-2E
Foxboro, MA 02035
Phone: 508-549-4285 / Fax: 508-549-6152
e-mail: steve.sacco@invensys.com

STUDEMEISTER & ASSOCIATES

675 Sharon Park Drive, Suite 212, Menlo Park, CA 94025

Phone: 650-234-1030 / Fax: 650-234-8331 / e-mail: pstudemeister@netscape.com

If you need more information or have questions, please call me at 650-234-1030. Thank you.

Sincerely,

STUDEMEISTER & ASSOCIATES



Paul Studemeister, PhD, CEG 1746
Project Manager

Attachments:

- Report by Studemeister & Associates, "*Groundwater Monitoring Report For 2003: Former Foxboro/ICT Site, 199 River Oaks Parkway, San Jose, California 95134,*" dated December 15, 2003
- Well Destruction Permits for 199 River Oaks Parkway, San Jose, CA (Permits issued by the Santa Clara Valley Water District)
- Letter from the California Regional Water Quality Control Board, San Francisco Bay Region, "*Approval of Request to Cease Groundwater Extraction at the Foxboro/ICT Site, 199 River Oaks Parkway, San Jose, Santa Clara County,*" dated November 17, 2000
- Access Agreement (Studemeister & Associates and Owner)

APPENDIX G

Qualification(s) of Environmental Professional(s)

EDUCATION

B.S. Geology, UC Davis

REGISTRATIONS

Registered Geologist in
California 5810

Certified Hydrogeologist in
California 413

Registered Environmental
Assessor in California #20201

Certified Environmental
Manager in Nevada 1332

SPECIALIZATIONS

- Hazardous materials
- Due diligence evaluations for portfolio property acquisitions
- Hydrogeologic Studies
- UST characterization and remediation
- VOC release assessments and remediation
- Risk Based Corrective Action (RBCA) evaluations
- Agrichemical impact assessments

REFERENCE

Ms. Patty Hirota – Cohen
BART Real Estate Department
1330 Broadway, Suite 1800
Oakland, CA 94612
510- 464-6000

Since joining ENGEO in 1985, Mr. Munger has been managing groundwater supply evaluations, hydrogeologic studies, chemical assessments, phase one and two site assessment projects, UST site investigations, risk based corrective action (RBCA), VOC remediation, and agricultural impact evaluations. He serves as Principal-in-Charge or Project Manager for environmental and hazardous materials projects involving groundwater hydrology, contaminant fate and transport, and remediation.

620 North 9th Street, San Jose, CA

Mr. Munger is Principal-in-Charge for groundwater and soil gas characterization study for former Del Monte Packing Plant site in San Jose. His scope of services included meetings and interaction with multiple members of the San Francisco Regional Water Quality Control Board, and preparation of a Remedial Management Plan and public participation notifications.

ENGEO performed a Phase One Environmental Site Assessment and a subsequent Phase Two Environmental Site Assessment for the 3.1-acre proposed residential property. The property is currently occupied by two commercial warehouses and surrounding asphalt parking. The purpose of the Phase Two study was to provide an assessment of possible remaining soil gas impacts related to residual groundwater impairments from on- and off-site sources. ENGEO prepared a Remedial Action Plan (RAP) for the mitigation of volatile organic compounds (VOCs) and management of potential petroleum impacted soil.

Ivy Glen, Fremont, CA

Mr. Munger is the Principal-in-Charge. ENGEO is providing groundwater sampling, including collecting groundwater samples from existing monitoring wells. Field activities have been conducted by an ENGEO Environmental Engineer. Static water levels are measured in surrounding wells, then checked for the presence of free product or sheen, with no measurable product or sheen found. Prior to groundwater sampling, a well was purged with at least four casing volumes until the field parameters (temperature, conductivity and pH) had stabilized.

Groundwater samples are collected in accordance with ENGEO's standard sampling procedures. Water samples are collected for laboratory testing using a dedicated polyethylene bailer. The samples are decanted into a pre-cleaned 40 ml vial preserved with HCL and cooled in an ice chest until delivery under documented chain-of-custody to Entech Analytical Laboratory in

Santa Clara, California. Samples are analyzed for Volatile Organic Compounds (VOCs) by EPA Method 8260B. Detectable concentrations of VOCs are reported in the laboratory test results.

Cecchini Property, Contra Costa County, CA

Mr. Munger provided an agrichemical study. ENGEO is providing geotechnical, environmental, hydrologic, and long-term storm water Best Management Practices (BMP) consultation services for the project. ENGEO previously performed several surface and subsurface explorations at the site for the purpose of providing geotechnical and environmental design recommendations. The project site is located on Byron Tract at the eastern edge of Contra Costa County. The irregularly shaped parcel is bounded by Old River to the east, Highway 4 to the south, Discovery Bay to the west, and Indian Slough to the north. The site is agricultural in nature with existing farm-related structures in the north central part of the site. Numerous small irrigation and drainage ditches traverse the property. The ditches help maintain artificially depressed groundwater levels that serve as a permanent dewatering system.

Discovery Bay West, Tracts 7686 and 8143, Discovery Bay, CA

Mr. Munger was Principal-in-Charge. ENGEO provide a modified phase one site assessment addressing the entire 756-acre property. The lots have been rough graded with streets and curb/gutter in place. Most underground utilities are also in place. The proposed development consists of single-family homes and areas graded for residential development.

River Islands School Site Preliminary Endangerment Assessment, Lathrop, CA

Mr. Munger was Principal-in-Charge. ENGEO recently performed a Preliminary Endangerment Assessment for a proposed school site, located in the eastern portion of the River Islands project, a 4,800 acres residential development in Lathrop, California. The PEA was completed for the Banta School District for the proposed River Islands middle and elementary schools. ENGEO conducted environmental sampling of the site near surface soils since the site was historically used for agricultural usages since at least the 1930's. ENGEO determined that residual levels of the pesticides DDE and DDT detected onsite were below the acceptable thresholds and did not pose a threat to the future school site. We concluded the onsite concentrations of mercury, arsenic and lead were consistent with the range and mean concentrations of the background soil results. Based on our evaluation of the soil sampling results, we proposed that no further action was necessary for the proposed school site. ENGEO recently received verbal approval by DTSC for the PEA.

Discovery Bay West Villages 4 and 5, Discovery Bay, CA

Mr. Munger was Principal-in-Charge. ENGEO provided environmental services for the installation of three groundwater monitoring wells and advancement of six Geoprobe borings at the project site—adjacent to the existing pipeline easement of $\pm 3,400$ lineal feet on the property. The purpose of the additional services is to provide further delineation of the extent of low-level petroleum impacts identified at the site. We also created a letter report presenting the results of the Kinder-Morgan petroleum pipeline assessment.

ENGEO completed a previous petroleum pipeline assessment for the development in 1998. The study did not reveal any appreciable concentrations of target analytes associated with petroleum

products. It was concluded that no soil or groundwater impact had occurred to-date. This subsurface assessment was performed to evaluate whether pipeline operations since the 1998 study have subsequently impacted the soil and/or groundwater.

Hogan Drive, Santa Clara, CA

Mr. Munger is the Principal-in-Charge for the active groundwater remediation services for 3 acre former dry cleaner site in Santa Clara. Our scope of services has included an initial site characterization, groundwater plume delineation and ongoing bioremediation services. ENGEO provided a soil and groundwater study to monitor the presence of VOCs, TPHg, BTEX, MTBE, and PCE. All were non-detectable except for PCE. ENGEO recommended that remediation take place to clean the soil and groundwater of PCE.

Mayfield Avenue Site, Mountain View, CA

Mr. Munger is the Principal-in-Charge for groundwater study and dewatering system design for former Hewlett Packard Site in Mountain View. His scope of services included the installation and monitoring of four piezometers.

Aerially Deposited Lead (ADL) Assessment Program, Alcosta Boulevard/Interstate 680 Interchange Improvement, San Ramon, CA

Mr. Munger provided Principal Review. ENGEO performed an Aerially Deposited Lead (ADL) assessment program for the Alcosta Boulevard/Interstate 680 Interchange Improvement. The purpose of the investigation was to determine existing lead levels in surface soils. The scope of services included the recovery of soil samples from the surface to a depth of 3 feet below the ground surface, analytical testing of the samples to determine hydrogen ion content (pH testing), total lead, STLC WET soluble lead, and STLC TCLP soluble lead analyses, and a statistical analysis to determine Confidence Intervals (CI) of soil lead concentrations.

An innovative risk-based statistical analysis was performed to assure site soils were suitable for on-site reuse in accord with Caltrans/State of California regulations. This analysis led to significant project budget savings by avoiding removal and disposal at a solid waste disposal facility.

SR 121 Improvements, Napa, CA

As Principal in Charge, Mr. Munger provided quality assurance and oversight while ENGEO personnel performed aerially deposited lead (ADL) sampling and laboratory analysis for the State Route 121 improvement project. The purpose of the investigation was to determine total lead concentrations in surface soils within the proposed improvement area. Our scope of services included: recovery of 20 surface soil samples from 20 sampling locations and submittal of the soil samples for hydrogen ion content (pH testing) and total lead analyses. The area of study consisted of approximately one-half mile of right-of-way on either side of the existing roadway.

Builder's Square, Multiple States—USA

Mr. Munger led the ENGEO team that provided Phase One Environmental Site Assessments for 90 properties located within 22 states as part of a pre-acquisition due diligence. We completed the work within five and a half weeks and on budget. The properties consisted of 48,000 to

115,000 square foot cornet tilt-up commercial buildings developed as home improvement centers. The existing structures were constructed in the 1980s and 1990s.

Hercules Wastewater Treatment Plant, Hercules, CA—2004

Mr. Munger was Principal-in-Charge of the project. ENGEO performed a phase one environmental site assessment at the 12-acre property currently occupied by the Hercules Waste Water Treatment Plant (WWTP), previously operated by the City of Hercules. The property is also a former parcel of the Hercules Powder Works site (HPW). Remnant facilities previously associated with the WWTP include a treatment vault, above-ground chemical storage tank, and aeration ponds. Based on the findings of the assessment, there were potential environmental concerns associated with the past and current uses of the property:

- The lack of environmental documentation prior to the construction of the Waste Water Treatment Plant and the past history of the site as a part of the Hercules Powder Works represented a potential environmental concern for impacts to the site.
- Sampling and analysis data compiled by Questa Engineering in association with the 1991 – 1992 UST and dispenser removal suggests residual soil and groundwater impacts may exist on the property.
- The use of hazardous materials and waste associated with the Waste Water Treatment Plant present a potential environmental concern for possible impact to the site.

Lockeford Wastewater Treatment Plant Expansion, Lockeford, CA

Mr. Munger is Principal-in-Charge. ENGEO is providing environmental services regarding private party activities to assist the Lockeford Community Services District (LCSD) in acquiring property to support expansion of the existing wastewater treatment plant's capacity. The LCSD operates a wastewater treatment plant (WWTP) that is designed to process wastewater to secondary water quality standards and is reported to have a current design capacity of 340,000 gallons per day. The existing disposal capacity for treated effluent is reported to limit the WWTP to approximately 280,000 gallons per day. Our scope of services includes obtaining clarification of Preliminary Vernal Pools Determination, identifying existing WWTP capacity and identifying use alternatives for 120 acres.

ENGEO is completing study to characterize groundwater for the purpose of preparing a Report of Waste Discharge submittal to the Central Valley Regional Water Quality Control Board. This application is in support of a plan to convert use of an existing agricultural property to effluent reclamation for secondary treated water.

City of Plymouth Treated Water Pipeline Project, Tanner Reservoir to Plymouth Water Treatment Plant, Amador County, CA—on-going

Mr. Munger is Principal-in-Charge. ENGEO is preparing a geotechnical report for the project which will consist of construction of a treated water pipeline connecting the existing Amador Water Agency Water Treatment Plant at Tanner Reservoir, with the existing City of Plymouth treated water storage tank. ENGEO is also providing environmental services related to disposal issues. We created a letter

determining if naturally occurring asbestos issue was a factor. The project also includes construction of a water storage tank north of Sutter Creek. We will perform a geologic reconnaissance of the selected pipeline alignment. We will also perform subsurface explorations and provide design recommendations for foundation design and excavatability.

Bear Creek Property, Contra Costa County, CA

ENGEO has provided a wide range of services for the 83-acre site, a proposed cemetery location. We performed a groundwater availability study to evaluate the underlying aquifer(s) with regard to potential sustained well yield and water quality. We also provided a hydrogeologic evaluation of the groundwater availability on an existing well. In addition, we submitted plans for the installation of an additional groundwater observation well and monitoring, required by Contra Costa County as a Condition of Approval for the project. Most recently we summarized the findings of the groundwater monitoring.

Burroughs Property (State Parcels), Jersey Island Road, Oakley, CA

Mr. Munger conducted a Phase Two Site Assessment to address the environmental concerns associated with the one active natural gas well site and five former natural gas well sites identified in the referenced site assessment report. Mr. Munger identified the following potential environmental concerns associated with the six active/former natural gas well sites:

- Hydrocarbon impacts to soil/groundwater as a result of spillage from condensate tanks
- Spillage from above-ground diesel and motor oil tanks
- Hydrocarbon impacts within the area of compressor units
- Mercury impacts adjacent/beneath meter sheds
- Hydrocarbon/barium impacts associated with former drill sumps
- Hydrocarbon impacts around well heads

Pay N' Pak Real Estate Transactions, CA

A financial money manager of Harvard University hired ENGEO to undertake 18 Phase One Environmental Site Assessments prior to their purchasing a number of Pay N' Pak stores. The scope of work included site walkovers with an asbestos inspector, review of aerial photographs and available Sanborn Fire Insurance maps, and record research. We prepared a detailed plan showing nearby contaminated sites that could potentially affect the subject property. The reports were prepared under a strict four-week deadline for completion. The full reports were completed within the time limits with no revisions required prior to the completion of the real estate transaction.

170 King Street, San Francisco, CA

Mr. Munger served as the Project Manager for the proposed residential project. The planned development includes an 11-story building and the upper eight levels will consist of residential units with parking on the lower three levels. Our services focused on characterizing the environmental aspects of the project and provide design level recommendations to guide land planning.

Pleasant Hill BART Station, Walnut Creek, CA

ENGEO provided a Phase Two Environmental Site Assessment for this BART station that encompasses 20 acres, including the platform/station area, electrical facilities, a parking garage and additional paved parking areas. The purpose of our study was to address the general soil quality across the area of the parcels (not those underneath the platform or parking structure). The comprehensive scope of services included soil and groundwater samples from 85 locations across the site, laboratory analysis and the preparation of a final report for the client that included an evaluation of reported constituents with comparisons to applicable State and Federal guidelines.

In order to minimize impacts to BART travelers and operations, ENGEO provided our services during the weekends. ENGEO also obtained a right-of-way permit through BART Real Estate Services Division to gain access to the site before the project commenced.

San Ramon Village Plaza, Dublin, CA

Mr. Munger conducted an environmental peer review for the proposed residential development within the mixed-use 4.68-acre San Ramon Village Plaza site. According to the general plan, the proposed development will consist of commercial and residential usage. Approximately 2.94 acres will be developed for residential use and includes construction of 11 townhome buildings and access roadways. The residential townhouses are three-story wood-framed structures, and each building may contain 4, 5 or 8 units.

Arroyo Crossings, Livermore, CA

Mr. Munger was Project Manager while ENGEO provided geotechnical and environmental engineering services for this 34-acre site. The extensive scope of work included supplemental geotechnical exploration, phase one and two environmental site assessments, underground storage tank removal as well as groundwater monitoring. The proposed development for the site will consist of 155 residential lots with associated roadways and underground utilities. The client has received documented site characterization and recommendations necessary to move forward with development.

Iron Horse Trail Improvements, Pleasanton, CA

Mr. Munger was Project Manager while ENGEO performed near surface soil sampling in the proposed landscape "pod" areas along the Iron Horse Trail for the City of Pleasanton. The improvement project includes a bicycle/walking trail, drainage facilities and landscape improvements. The area consists of a strip of land that is $\pm 2,350$ feet long and 100 feet wide. ENGEO collected soil samples to determine if the soil had been adversely impacted as a result of its past use as a railroad right-of-way.

Kelseyville Unified School District, Lake County, CA

Mr. Munger was Principal-in-Charge. ENGEO prepared a Preliminary Endangerment Assessment (PEA) for the Kelseyville Unified School District in Lake County, California. The purpose of the PEA was to evaluate the likelihood for elevated levels of Naturally Occurring Asbestos (NOA) and CAM 17 metals to be present at the proposed Cobb School Site. Working under the direction of DTSC we developed a DTSC approved scope of services which included:

- A classification of the sub surface geology at the Site
- Soil and groundwater sample collection. Samples were analyzed for NOA and CAM 17 metals.
- Preparation of a PEA report summarizing our findings for the Site.

Our assessment revealed no significant levels of asbestos and CAM 17 metals at the Site and concluded that Naturally Occurring Asbestos is not a concern for development of the Cobb School facility.

In February 2006, ENGEO's PEA was approved by the DTSC.

S&S Farms, 12-Acre Proposed Grant Street School Site, Brentwood, CA

Mr. Munger completed an updated Phase One Environmental Site Assessment (ESA) for the proposed Grant Street School. The previous phase one site assessment was completed by ENGEO in October 2002, for a larger ±94-acre property. The 12-acre school site is located in the northeast corner of this site. The October 2002 Phase One scope of services was modified to include limited sampling to initially evaluate soil for evidence of leakage from an underground petroleum pipeline and for the presence of agricultural chemical residues in soil from agricultural activities that occurred on the property.

ENGEO also performed a soil vapor study that involved collecting soil vapor samples for analysis of hydrogen sulfide and methane. This objective of this study was to evaluate whether these compounds were introduced to shallow soil by historic natural gas exploration in the area. The results of this study in conjunction with the results from prior soil vapor studies performed at the site indicated hydrogen sulfide and methane were not present at concentrations in soil vapor beneath the site that merited further study.

ENGEO's reports included calculations for cancer risk and hazard quotient posed to human health for the two pesticides and two metals detected in the surface soil. Based on the calculated cancer risk being less than 1 in a million and the hazard quotient being less than 1, ENGEO recommended that a Preliminary Endangerment Assessment (PEA) may not be necessary.

Proposed Cobb School Site, Cobb, CA

Mr. Munger was Principal-in-Charge. ENGEO prepared a work plan for a Preliminary Endangerment Assessment (PEA) regarding Naturally Occurring Asbestos (NOA) and metals in surface and near surface soil and Title 22 contaminants in groundwater. Our scope of services included:

- Collecting soil samples from two depths at three locations previously sampled in December 2004 for analysis of naturally occurring asbestos using the transmitted light microscopy (TEM) method.
- Collecting soil samples from the upper 6 inches of soil at four locations for analysis of the seventeen metals listed in the California Assessment Manual.

- Collecting one groundwater sample from the existing water supply wells for laboratory analysis.

DTSC requested that one groundwater sample be collected from the neighboring water supply well for laboratory analysis. Observation of the well head suggests that the well's condition allows for surface water and debris to enter the well bore. Since this condition is not consistent with the California Water Well Standards, we recommend a limited suite of analyses that is intended to assess the presence of the constituents.

Petersen Mine Tailings Pile, Pine Grove, Amador County, CA

Mr. Munger was Principal-in-Charge. The Site consists of an approximate ½-acre parcel that is surrounded by approximately 141 acres of land proposed for development as the Petersen Ranch subdivision (Petersen Ranch). The Site was used as a repository for mine tailings generated from gold recovery using mercury amalgamation in connection with the former Petersen Mine, which was operated between approximately 1930 and 1948. Closures of the other aspects of the former mine, such as the closure of tunnels, have been addressed to the satisfaction of Amador County.

As the lead agency for the PEA process, the Department of Toxic Substances Control (DTSC) is providing regulatory oversight under the authority of a Voluntary Cleanup Agreement (VCA) executed between DTSC and Mr. Fred Petersen, the project proponent. The RAW objective is to establish a plan for relocating the MTP in a manner that is protective of the public health and the environment.

Proposed Mixed-Use Development Site, Suisun City, CA

Mr. Munger is Principal-in-Charge. ENGEO is performing additional groundwater sampling for the proposed mixed-use development site at the northwestern corner of Highway 12 and Marina Boulevard and is comprised of four parcels totaling approximately 30 acres. The proposed development will consist of a mixture of townhomes and single-family residential housing, commercial, greenscapes, parking and associated roadways. The purpose of the proposed additional groundwater sampling is to provide further delineation of the extent of groundwater impact associated with the former USTs.

The recently completed Phase Two Environmental Site Assessment included a groundwater assessment of the former City Corporation Yard. Although a previous Phase Two assessment did not determine the horizontal and vertical extent of contamination, it was our opinion that the area of impact is limited to the immediate vicinity of the former USTs at the City Corporation Yard, since laboratory testing yielded non-detectable results for samples 2-E6 and 2-E8.

Dougherty Valley High School, Contra Costa County, CA

Mr. Munger is environmental principal-in-charge. Shapell Industries and Windemere BLC are jointly undertaking the construction of the Dougherty Valley High School project. The target capacity for the new high school is 2200 students. The new high school will consist of Four 2 story classroom Buildings, a Library/commons building, a 400 seat Theater, a Career Tech Building, an Administration Building, a Main Gymnasium, an Auxiliary Gymnasium, an Olympic size Swimming Pool, Basketball courts, Baseball fields, Softball Fields,

Soccer/Lacrosse Fields, a football Stadium with a rubberized track, Tennis Courts and approximately 700 student parking stalls. Mr. Munger managed a scope of services for the project including:

- A geotechnical exploration of the site using soil borings and cone penetration testing methods.
- A geotechnical and seismic hazards analysis of the site including probabilistic earthquake magnitudes, mitigation measures for the highly expansive on-site soil materials, and remedial grading and foundation recommendations for the proposed structures and pavements planned for the project. The seismic hazards analysis was reviewed and approved for the project by the California Geological Survey (CGS).
- Plans and Specifications for approximately 2,000 linear feet of Mechanically Stabilized Earth (MSE) walls up to 11-feet in height. The wall plans and specifications were reviewed and approved by the California Division of the State Architect (DSA).
- Testing and Observation services of all earthwork operations involved in the construction of the school.
- Special Inspection services for all on-site retaining wall structures including MSE walls and concrete masonry unit (CMU) walls.

Live Oak Elementary School within Windemere Phase IV, Contra Costa County, CA

Mr. Munger is principal-in-charge. We are currently providing geotechnical engineering services for the school and school park sites, which total approximately 15 acres. ENGEO provided geotechnical explorations for the Windemere Development, Phase IV including the project site, in 1995 and 2002. Geological conditions for the school site were also provided in this report which is located primarily on bedrock material. Mr. Munger provided a site-specific geotechnical exploration for the school site to provide detailed foundation recommendations and related site construction based on the building layouts, local geologic constraints and regional seismicity. He also reviewed all construction specifications for the project for conformance with the recommendations outlined in the geotechnical report.

Gale Ranch Elementary School Site, Contra Costa County, CA

We provided a geologic hazard evaluation and a geotechnical exploration for the proposed school site. The proposed elementary school campus will consist of eight two-story masonry and steel buildings with a combined floor space area of 114,145 square feet. Associated parking, emergency access, recreation, landscape and hardscape areas, and underground utilities are also planned. We anticipated that minor cutting and filling will be required to create relatively level building pads.

Gale Ranch Middle School, San Ramon, CA

Mr. Munger was environmental principal-in-charge. ENGEO provided environmental geotechnical engineering services for the ±15.8-acre school site is located south of Bollinger Canyon Road. Improvements will include the construction of five to six buildings that will

house a library, classroom structures, an administration building and a gymnasium. These buildings will be one to two stories high. Basketball courts and two soccer fields will be constructed at the western half of the site.

Executive Jet Hangar, Concord, CA

ENGEO conducted a geotechnical exploration and Mr. Munger led the Phase One and Phase Two Environmental Site Assessments for the proposed executive jet hangar and surrounding parking area improvements. The proposed jet hangar will be approximately 125 feet wide and 300 feet long with a parking area to the west of the hanger. It is our understanding that the hangar will consist of a first floor totaling 46,906 square feet with 39,320 square feet for hanger use and 7,386 square feet set aside for offices. A second floor is also planned with office space totaling 7,386 square feet.

Suisun City Marina Project, Suisun City, CA

ENGEO was retained by the Suisun City Redevelopment Agency to conduct Phase One Environmental Site Assessments on five parcels totaling 35 acres along the east side of Suisun Channel. The parcels included a number of boat repair and storage facilities; warehouses and light manufacturing. Multiple tenants had occupied the properties since the early 1900s. Subsequent site assessments found areas of questionable in filling of ancient marine inlets with unknown materials. Phase Two assessments found evidence of leaking underground fuel storage tanks; heavy metal contaminated soil, solvents and semivolatile organic material in the site soil and ground water. The degree of environmental impact was evaluated on a parcel-by-parcel basis. Removal of underground storage tanks, installation of ground water monitoring wells, and excavation of contaminated soil have to date resulted in four letters of site closure from the Solano County Department of Environmental Management. Soil remediation techniques included reclassification of soil for less costly landfill disposal, off-site incineration and on-site aeration.

Terminal One, Richmond, CA

ENGEO is providing geotechnical and environmental consultation for the subject development. Our environmental services are focused on reviewing and commenting on the planned environmental remediation and mitigations plans, and to serve as the site consultant for the Toll Brothers. ENGEO evaluated the proposed plans to mitigate the known site contamination to allow for future residential development. ENGEO is also providing geotechnical services related to site development. Design issues include soft bay mud soils over sloping bedrock conditions and high building loads for this multi-level podium residential structure.

Sea Cliff Marina, Richmond, CA

The 12-acre Seacliff Marina site is located west of the Port of Richmond's Shipyard No. 3 and east of the Brickyard Cove Development. The Seacliff Marina site was formerly part of Kaiser Shipyard No. 3 and was used for ship repair and maintenance along with scrap metal and salvage yards. A 1986 soil investigation found elevated concentrations of metals and asbestos at the site. In 1995, a DTSC-approved Remedial Action Plan required the consolidation and capping of contaminated soil at the site, and this remedial action was completed in 1998. ENGEO provided oversight, review, and consultation regarding remediation work performed by the Seacliff

Marina consultant. ENGEO has also provided design level geotechnical studies for the development.

Proposed West Shore Project, Richmond, CA

ENGEO is providing design level geotechnical and environmental studies for this multi level podium structure. The property is currently undeveloped land surrounded by predominately commercial parcels. High -density residential construction is proposed for the site, including a proposed 6-story podium structure to include five residential floors with 269 units and one parking floor.

The site was reclaimed in the late 1920s by constructing a rock bulkhead between the San Francisco Bay and the margins of the peninsula now occupied by the West Shore Areas. Geotechnical issues include consolidation and possible liquefaction of dredge spoils that generally consist of soft silt and loose silty sand.

California Rock & Asphalt, Brisbane, CA

ENGEO provided field and laboratory services in an evaluation of potential lead impacts to imported fill material placed at Cal Rock during the spring and summer of 2002. Based on a review of information on file with the San Mateo County Department of Environmental Health (DEH), potentially lead-contaminated soil was exported to the Cal Rock site in 2002. According to DEH information, approximately 2,350 truckloads of soil was exported from the Prometheus Real Estate Group's (PREG) Metropolitan Apartment development site in the City of San Mateo. Additional soil from the PREG site was transported to the former Burlingame Drive-In property (301 Beach) and San Mateo property (2nd Avenue and B Street) The volume of soil transported to Cal Rock has been estimated at 28,200 cubic yards. Previous analysis of near-surface soils at the Metropolitan Apartment site found total lead concentrations up to 620 parts per million (ppm) and soluble lead concentrations up to 21 milligrams per liter (mg/l). Based on these findings, DEH requested that PREG submit a work plan to address all three of the import fill locations. DEH staff also contacted Cal Rock personnel to inform them that lead-impacted soil may have been transported to the property. Finally in 2004, DEH requested that the City of Brisbane require Cal Rock to develop a work plan to address the potentially impacted fill material.

Former McKesson Facility, Union City, CA

Mr. Munger was the Project Manager who reviewed selected documents provided by a developer, former owners, and the San Francisco Regional Water Quality Control Board (SFRWQCB). The purpose of the review was to evaluate the adequacy of site cleanup efforts to allow proposed single-family residential development across the property. Part of our scope included a review of selected technical reports and letters, comparison of residual soil and groundwater concentrations to applicable residential risk criteria maintained by USEPA and the SFRWQCB and the preparation of a final letter report with conclusions. ENGEO also provided a geotechnical exploration and environmental work. The proposed development includes 62 lots at the northern portion of the site and two parcels at the southwestern corner. The 62 residential lots consist of 58 single-family lots and four duplex lots. Parcel D will contain a park and Parcel E will contain a fire station. Lot 13 at the southeast corner will be used as an interim water treatment facility.

Los Banos Airport, Los Banos, CA

The Los Banos Airport is approximately 112 acres in area. ENGEO provided a draft Phase One Environmental Site Assessment and a Conceptual Soil Remediation Work Plan as part of a multi-phase development for Stonecreek Properties, LLC. The scope of the environmental site assessment consisted of a Phase One environmental site assessment and a soil and groundwater characterization program. A review of regulatory databases at the local, state and federal level revealed that the property is listed in both federal and state databases as a site that has been subjected to environmental impacts.

Blackwelders Iron Works, Extractable Hydrocarbon Contaminated Soils, Rio Vista, CA

The Blackwelders facility was a former manufacturer of farm equipment and machine products. A Phase One Environmental Site Assessment was performed for a property transfer. The initial investigation identified areas of surface and subsurface discharge of hydrocarbon bearing condensate from an extensive air compression system. A Phase II Assessment which included hollow stem auger borings with soil and ground-water sampling found that extractable hydrocarbon contamination of the soil had occurred from both surface discharge and underground piping leaks. The primary area of contamination was located beneath the former compressor building. The affected soil adjacent to and beneath the building was excavated, stockpiled and profiled by laboratory analysis. Discrete soil samples were recovered from the excavation to confirm the removal of the contaminated soils to the regulatory agreed cleanup level of 100 parts per million. Excavated soil volume was approximately 250 cubic yards. Several potential remedial alternatives were evaluated including on-site biodegradation, landfilling and low-temperature rotary kiln thermal treatment. After considering cost, liability, and time constraints, off-site thermal treatment was selected as the most economical for soil treatment.

Richmond Transit Project, BART right of way drilling, Richmond, CA

ENGEO was retained by the Olson Company with the cooperation of the City of Richmond Redevelopment Agency to perform a geotechnical investigation for the proposed transit project. An application was made for permission to drill, and consequently to encroach on or over BART property at the following locations:

Borehole 2: Approximately 110 feet West of 19th Street and approximately 480 feet North of Macdonald Avenue.

Borehole 3: Approximately 340 feet West of 19th Street and approximately 650 feet North of Macdonald Avenue.

Borehole 4: Approximately 60 feet West of 18th Street and approximately 120 feet South of Barret Avenue.

Borehole 5: Approximately 330 feet West of 18th Street and approximately 130 feet South of Barret Avenue.

Borehole 8: Approximately 730 feet East of Marina Way and approximately 300 feet North of Macdonald Avenue.

Borehole 9: Approximately 510 feet East of Marina Way and approximately 270 feet North of Macdonald Avenue.

The purpose of drilling at the said locations was to conduct a geotechnical investigation involving soil borings at 6 locations within the BART right of way (5 of which requiring pavement penetration), and at 3 locations on property belonging to the City of Richmond. A truck mounted drill rig was used, and drive samples were taken at approximately every five feet.

Hercules Village for Bixby Land Development Company LLC, Hercules, CA

The project area consists of ±167 acres located near and along the southeastern shore of San Pablo Bay in Hercules, California. The property was once a portion of a 1300-acre manufacturing facility that was operated by DuPont from 1879 to 1913 and Hercules Incorporated from 1913 to 1979. The planned development included single/multi family residential development with some commercial components. Mr. Munger provided environmental due-diligence services for the prospective purchaser/developer of the property. Previous site operations included the manufacture of explosives, fertilizer products and chemicals such as methanol, nitric acid and nitrogen tetroxide. Initial investigations confirmed the presence of arsenic, cadmium, chromium, copper, lead, mercury, nickel, zinc, petroleum hydrocarbons and polynuclear aromatic hydrocarbons in site soils. ENGEО's scope of work included:

Site Asbestos Survey

In March 1999, an asbestos survey was conducted for structures on the site. The survey included a physical inspection of the buildings, the recovery of bulk material samples, and analysis of the samples using Polarized Light Microscopy (PLM). The survey identified significant quantities of regulated asbestos-containing materials and Category II materials including pipe wrap, ducts, air cell, wall panels, and linoleum/vinyl tile. An estimate of the potential abatement costs was provided for the preparation of bid specifications.

Site Characterization

In order to verify past remedial efforts for the property, ENGEО excavated approximately 110 test pits across the property. Samples recovered from the test pits were submitted for metal, PCB, PNA and TPH analysis. Statistical analyses were performed to determine upper confidence levels (UCLs) for the various contaminants. Contaminant levels were compared to the existing site-specific risk criteria developed for the site.

Demolition Observation/Contaminant Assessment

Remnant foundation elements, utilities, and drainage structures existed across the property. These structures were proposed for demolition prior to initiating the reworking of un-engineered fill material and mass grading work.

ENGEО provided full-time observation services during demolition and pregrading work. This work included a physical inspection of areas around and beneath the structures/foundations, along with the recovery of soil samples with laboratory testing.

Phase One Site Assessment

The Phase One Assessment included a site reconnaissance, a review of regulatory records and interviews with owner/occupants. The areas were viewed for hazardous materials

storage, surficial staining or discoloration, debris, stressed vegetation, or other conditions indicative of potential sources of soil or ground-water contamination. The areas were also inspected for fill/ventilation pipes, ground subsidence, or other evidence of existing or preexisting underground storage tanks.

Based on the findings of the site assessment, ENGEO identified several environmental concerns associated with the property, including potential metal, PCB and petroleum hydrocarbon impacts.

Brann Parcels, Rio Vista, CA

Mr. Munger provided Phase One and Two Environmental Site Assessments. The Phase Two Environmental Assessment included Division of Oil and Gas research, magnetometer survey, exploratory test pits, soil sampling and laboratory analyses.

Hydrogeologic Evaluation for Groundwater Availability, Fox Creek Country Club, Contra Costa County, CA

Mr. Munger provided a general hydrogeologic site characterization of this 350-acre property to determine the potential for an adequate source of groundwater on the subject property for golf course irrigation and other non-potable applications. The proposed development included an 18-hole golf course, a clubhouse, driving range and access roads. The scope of services included a review of geologic and hydrogeologic maps and literature regarding site geologic stratigraphy and structure, groundwater availability and quality; a review of available black and white stereo aerial photographs; an evaluation of available pump test data for existing on and off site groundwater wells; drilling and logging of four exploratory borings on the property; preliminary calculations of anticipated surface water runoff; and evaluation of groundwater availability.

Stop & Go Service Station, Suisun City, CA

Mr. Munger managed the characterization and remediation of service station site in Suisun City. He implemented an innovative sparging and bacterial treatment approach, which resulted in attainment of rapid site closure from the State with no off-site disposal costs.

Suisun City Marina Redevelopment Project, Suisun City, CA

Mr. Munger conducted an environmental assessment, characterization and remediation of a 40-acre redevelopment. His innovative remediation methodologies resulted in savings of over \$75,000 to the city.

Builders Square/Home Quarters Site Assessment Project, throughout the United States

Mr. Munger was the Principal in charge of due diligence assessment of 95 commercial properties throughout the country within a one-month time frame.

Former Dry Cleaner Facility, San Ramon, CA

Mr. Munger managed characterization, monitoring and remediation of solvent contamination. His proactive approach to monitoring and characterization using rapid assessment techniques allowed developer to proceed with planned residential subdivision.

Agrichemical Contamination, Brentwood, CA

Mr. Munger managed the characterization, statistical evaluation, and health risk assessment for this large-scale former orchard/row crop property. Statistical methodologies and risk evaluation resulted in expedited site closure allowing rezoning and residential construction. The estimated cost savings to the client was approximately \$250,000.

Select Foods Property, Hayward, CA

ENGEO conducted Phase One and Phase Two Environmental Site Assessments on the Select Foods manufacturing facility, which includes an educational facility with associated parking and a playground. The Phase Two Assessment was conducted on the property to address potential soil contamination associated with the past and present use of the property and the removal of five underground fuel tanks. We also provided services to determine if additional soil and groundwater studies were required before planning could continue.

Play Field Improvements, Closed Turk Island Landfill, Union City, CA

Mr. Munger was the Project Manager for this site consisting of approximately 46 acres of land proposed for recreational improvements to include play fields such as soccer and baseball fields and recreational trails. The site contained debris and municipal waste and was capped and considered "closed landfill" by the State of California. The scope of work included a review of available reports including literature and pertinent maps; subgrade requirements for synthetic play-field surfaces; a stability analysis for the placement of fill; geotechnical recommendations for site grading including fill placement criteria for the new cap and playfield surfaces; assess possible geological hazards in the general project area; and provide recommendations for treatment of geotechnical constraints, foundation recommendations, preliminary pavement design for parking areas, drainage considerations and utility trench backfill.

7th Street & East Taylor Street Project, San Jose, CA

ENGEO provided environmental consultation and field services during the removal of metal-impacted soil identified. ENGEO provided additional soil sampling and laboratory analysis services. Approximately 1,100 cubic yards of soil exceeding state hazardous waste criteria was found from the soil sampling and testing. Previous sampling and laboratory testing conducted identified elevated metal concentrations across several areas of the property.

Hacienda Avenue, Campbell, CA

Mr. Munger was the Principal in Charge providing a geotechnical exploration and a Phase Two Environmental Site Assessment for the proposed ±7.5-acre site consisting of 30 single-family residential homes. The geotechnical exploration included a geologic hazards assessment, field exploration, preparation of site development recommendations and a geotechnical design report. The assessment update included a review of the operations, maintenance and hazardous materials management practices, with an evaluation of their potential to adversely impact the site soil and groundwater. In addition, the phase two environmental services addressed the potential environmental impacts of the former orchards and dry cleaners.

Southern Pacific Property - Park Sierra Residential Development, Scarlett Drive/Dougherty Road, Dublin CA

ENGEO performed a Phase One and Phase Two Environmental Site Assessment for the former Southern Pacific property located along the railway corridor between the northern end of the current Scarlett Drive extending northwest across Dougherty Road (*within proposed Scarlett Drive Extension area*). This area has since been developed as a residential subdivision. Work included a review of past management practices associated with the Southern Pacific operation and a review of environmental data compiled for the abutting Camp Parks site. Phase Two work included recovery of soil and groundwater samples along the SP right of way, adjacent to the existing Kinder Morgan petroleum pipeline.

Camp Parks Fire Station, Dublin, CA

ENGEO performed a Phase One Environmental Site Assessment Update for the proposed Camp Parks Fire Station. The assessment included a review of the operations, maintenance and hazardous materials management practices, with an evaluation of their potential to adversely impact the site soil and groundwater.

Dublin Ranch, Dublin, CA

ENGEO performed a Phase One Environmental Site Assessment Update for Phase I – Tract 6956 of the Dublin Ranch subdivision. The assessment included a review of the operations, maintenance and hazardous materials management practices, with an evaluation of their potential to adversely impact the site soil and groundwater.

Valley Plaza, Pleasanton, CA

In 2003, Mr. Munger provided an update to ENGEO's previous environmental site assessment (ESA) from 1998 for this combined retail and residential site. After a review of the previous report, Mr. Munger directed a new reconnaissance of the property and was able to document, within the final report, comparative data from each ESA and, finally, identified potential environmental concerns for the property.

3rd & Connolly Utility Corridor, Mare Island, CA

Mr. Munger provided Principal oversight. ENGEO monitored demolition and soil excavation activities required to prepare for construction of a 300 – foot water and sewer utility corridor along Connelly Street between 3rd Street and Azuar Street for indications of chemical contaminants. The utility corridor, which will service planned residential development on Mare Island, lies adjacent to historic and large facilities that supported the Department of Navy operation of the former Mare Island Shipyard. Plans to excavate the corridor included geotechnical evaluation of trenching to protect the adjacent facilities, geotechnical evaluation of trench backfill to protect against settlement within the future street alignment and environmental evaluation to identify, classify and document to presence of soil contaminants. The environmental consideration was necessary to fulfill the obligations of the identified responsible parties.

Existing/former improvements within the alignment included water and steam pipelines, a former fuel oil pipeline (FOPL), natural gas lines and an industrial waste water line. In addition,

SHAWN MUNGER, PG, CHG, REA II (CONTINUED)

a previous fuel island, hydraulic hoists and two underground storage tanks were associated with Buildings 637 and 811. The zones of impacted soil removal were delineated within an approximate 9,300 square foot footprint area and extend to depths from 5 to 10½ feet below existing grade.

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7862.300.201

September 19, 2007
Revised February 1, 2008

Mr. Kevin Ma
BRE Properties, Inc.
525 Market Street, 4th Floor
San Francisco, CA 94105

Subject: 199 River Oaks Parkway
San Jose, California

ENVIRONMENTAL SOIL GAS SAMPLING RESULTS

Reference: ENGEO Incorporated; Phase I Environmental Site Assessment, 199 River Oaks Parkway, San Jose, California; Project No. 7862.3.002.01; July 23, 2007.

Dear Mr. Ma:

As requested, ENGEO performed a soil gas sampling program for the subject property, located at 199 River Oaks Parkway in San Jose, California (Figure 1). The purpose of this document is to present the results of the sampling and analysis program. These results will be presented with other conclusions pertaining to environmental conditions of the subject property in the phase one environmental site assessment.

BACKGROUND

The Property consists of one mixed light industrial/manufacturing and office building with asphalt paved parking areas and landscaping around the building. Review of historical records indicates that the Property was first developed around 1981. A machine shop/manufacturing addition was constructed on the north side of the building in 2001. The mixed-use building is currently occupied by Frontier Semiconductor and tenant activities include office work, storage, and fabrication and distribution of electronic devices. Prior to these developments, it appears that the Property was used for agricultural production.

Based on the site reconnaissance and records research conducted during the phase one environmental site assessment, a groundwater contamination plume exists on the Property. Information reviewed indicated that a former 1,500-gallon steel underground storage tank located on the northern side of the building was used to store solvent waste, and the tank was removed in 1985. During tank removal activities, it was determined that the underground

storage tank had leaked. Soil samples were recovered from the base of the excavation and detectable concentrations of trichloroethene were reported. Initial groundwater samples were recovered in 1985, and detectable concentrations of 1,1,1-trichloroethane, 1,1-dichloroethane, 1,1-dichloroethene and trichloroethene were reported in the groundwater.

Additional investigations were performed to determine the extent of the groundwater contamination. A SLIC program was implemented by the RWQCB in 1987, and in March of that year a groundwater extraction system was installed for the remediation of the trichloroethene-impacted groundwater. Two groundwater extraction wells, and an additional nine groundwater monitoring wells were installed.

The groundwater extraction program was in place from 1987 to 1999, and in 2000 the RWQCB authorized the indefinite shutdown of the extraction wells due to a reduction of TCE concentration in the groundwater to levels below the RWQCB ESL. Based on a letter from the RWQCB dated November 11, 2000, they concluded that the concentrations of the pollutants in the groundwater had reached asymptotic levels and indicated that they believed the groundwater extraction system would no longer significantly reduce the levels of pollutants in the groundwater. As such, they authorized the indefinite shutdown of the groundwater extraction system and requested annual groundwater monitoring. The letter indicated that site closure would be considered when the pollutant levels were near the Maximum Contaminant Levels (MCLs) as established by the State of California. A figure produced by Studemeister and Associates, which is included in the most recent annual monitoring report reviewed, showing the approximate extents of the groundwater plume (Figure 2).

SOIL GAS SAMPLING AND TESTING

Based on the historic land use in the vicinity of the subject property, as well as the presence of a groundwater contamination reported in the referenced report, a soil gas program was performed. On July 19, 2007, under the supervision of an ENGEO representative, a total of five soil gas probes were advanced to 5 feet below the ground surface. Two additional soil gas samples were recovered from within the building on August 18, 2007. The sample locations are depicted in Figure 3, attached. Soil gas samples were collected using protocols and procedures consistent with "Advisory-Active Soil Gas Investigations dated January 13, 2003" (Los Angeles Regional Water Quality Control Board and DTSC). The Geoprobe™ direct-push soil gas probes utilized a hydraulic hammer to drive a 2-inch-diameter rod to the desired sampling depth, and a bentonite seal was applied between the drive rod and ground surface. A disposable drive tip at the end of the rod was fitted with disposable poly tubing to which a laboratory-assembled sampling manifold was attached. For the samples recovered from within the building, a concrete coring machine was first used to core through the foundation.

One purge and one sample canister was securely attached to the manifolds. Each manifold consisted of a regulator and moisture filter that was used solely for one soil vapor probe. Each probe was allowed to equilibrate for approximately 30 minutes following installation. A leak test was performed for approximately 10 minutes by bringing the sampling manifold up to vacuum and observing any loss in pressure. After the 30-minute equilibration period, qualitative soil permeability observations were completed, and the entire sampling train was purged. Following purging, sampling was conducted.

For quality assurance purposes, a leak detection compound, rubbing alcohol (2-Propanol), was applied to gauze strips attached to system connections and seals along the sampling manifold. Probe rods were decontaminated with a non-phosphate detergent and a triple wash between each soil boring location.

The collected samples were returned to Torrent Laboratory, Inc., a fixed-base laboratory in Milpitas, California under documented chain-of-custody. The samples were analyzed using EPA Method TO-15 for volatile organic compounds (VOCs).

The laboratory analytical reports as prepared by Torrent Laboratory, Inc. are presented in Table 1. These values have been compared to the San Francisco Regional Water Quality Control Board's (SFRWQCB's) environmental screening levels (ESLs) for evaluation of potential indoor air impacts. Volatile organic compounds were detected in all soil vapor samples collected; however, the detected concentrations were below ESLs. Analytical reports prepared by Torrent Laboratory, Inc. are included as an attachment.

Leak testing using isopropanol indicated that low-level leakage, though acceptable, occurred in the two soil gas samples collected on August 18, 2007 (SG-6 and SG-7). The concentrations and types of VOCs detected in Samples SG-6 and SG-7 were consistent with those detected in the other soil gas samples, suggesting that the analytical results, though possibly slightly biased, remain valid.

DISCUSSION

Based on a review of the data, none of the detected analytes in the soil gas samples are present at concentrations greater than respective ESLs. Based on the results of the sampling program, it appears that the soil gas at the Property has not been significantly impacted by the former operations on site and is not expected to pose a threat to public health and/or the proposed development of the property. It is possible that the RWQCB could require additional soil gas sampling be conducted prior to residential development.

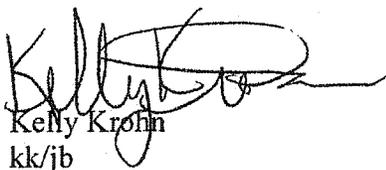
BRE Properties, Inc.
199 River Oaks Parkway
ENVIRONMENTAL SOIL GAS SAMPLING RESULTS

7862.300.201
September 19, 2007
Revised February 1, 2008
Page 4

It is a pleasure to be of continued service to you on this project. If you have any questions regarding the contents of this letter, please do not hesitate to contact us.

Very truly yours,

ENGEO INCORPORATED


Kelly Krohn
kk/jb


Shawn Munger, REA II

Attachments: Table 1
Figures 1 through 3

Table 1.
Soil Gas

SFRWQCB	SG-1		SG-2		SG-3		SG-4		SG-5		SG-6		SG-7		TRIP BLANK		Maximum		
	Soil Gas	5 ft	Soil Gas	Soil Gas	Soil Gas	Concentration													
µg/m³	7/19/2007	µg/m³	7/19/2007	µg/m³	7/19/2007	µg/m³	7/19/2007	µg/m³	7/19/2007	µg/m³	8/18/2007	µg/m³	8/18/2007	µg/m³	7/19/2007	µg/m³	µg/m³	µg/m³	
TARGET ANALYTE																			
VOCs																			
660000	2200	1100	280	790	310	344	200	<9.5	2200										
85	<23	9.2	<4.7	8.7	<4.6	3.3	4.1	<1.6	9.2										
210000	160	160	50	87	48	22	22	<1.5	160										
	7.5	<2.4	<2.6	<2.5	<2.5	<1.6	<1.6	<1.6	7.5										
450	93	<9.4	<10	<9.7	<10	<2.4	<2.4	<2.4	93										
1500	<29	<3.3	<3.6	<3.4	<3.5	<2.0	25	<2.0	25										
420000	<24	<1.5	<1.6	<1.5	<1.6	7.3	<1.7	<1.7	7.3										
	<35	3.5	<3.9	<3.7	<3.8	30	21	<2.5	30										
	<54	<4.4	27	<4.6	<4.7	<3.8	140	<3.8	140										
17000	<29	<3.2	<3.5	<3.3	<3.4	9.4	<2.0	<2.0	9.4										
71	<370	<13	<14	<13	<13	<2.6	6.7	<2.6	6.7										
	<230	130	<8.6	78	<8.4	54.10	3800	<1.6	54.10										
	68	<2.0	<2.2	<2.0	<2.1	<1.5	<1.5	<1.5	<1.5										
63000	31	15	22	<2.6	1.6	46	23	<1.9	46										
	<35	9	<4.7	<4.4	<4.5	32	28	<2.5	32										
	<35	<3.3	<3.1	<3.3	<3.5	8.2	6.2	<2.5	8.2										
150000	70	22	25	29	22	70	44	<2.0	70										

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BASE MAP SOURCE: MS STREETS AND TRIPS

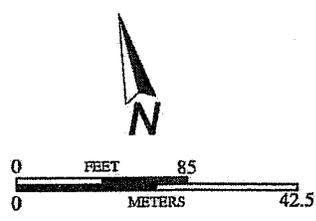
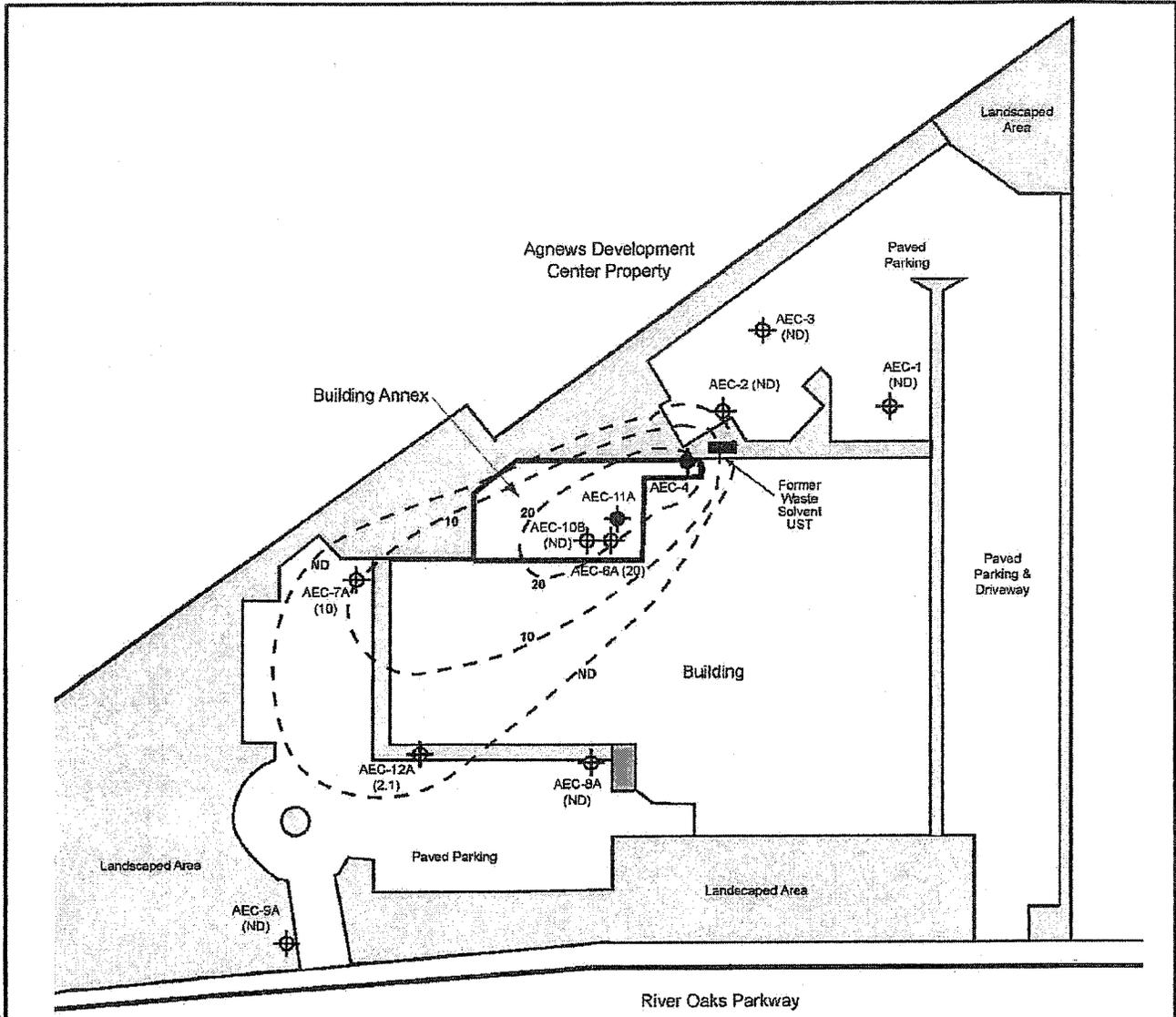


VICINITY MAP
 199 RIVER OAKS PARKWAY
 SAN JOSE, CALIFORNIA

PROJECT NO.: 7862.3.002.01
 DATE: SEPTEMBER 2007
 DRAWN BY: RJS CHECKED BY: SM

FIGURE NO.
1

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EXPLANATION

- AEC-1 (ND) GROUND WATER MONITORING WELL WITH TRICHLOROETHENE (TCE) CONCENTRATION IN GROUNDWATER, IN MICROGRAMS PER LITER ($\mu\text{g}/\text{L}$)
- AEC-4 DESTROYED GROUNDWATER MONITORING/EXTRACTION WELL (URS, DECEMBER 2000)
- 10 INFERRED ISOCONCENTRATION CONTOUR FOR TCE IN GROUNDWATER ($\mu\text{g}/\text{L}$)
- ND NOT DETECTED AT OR ABOVE LABORATORY REPORTING LIMIT

BASE MAP SOURCE: STUDEMEISTER AND ASSOCIATES

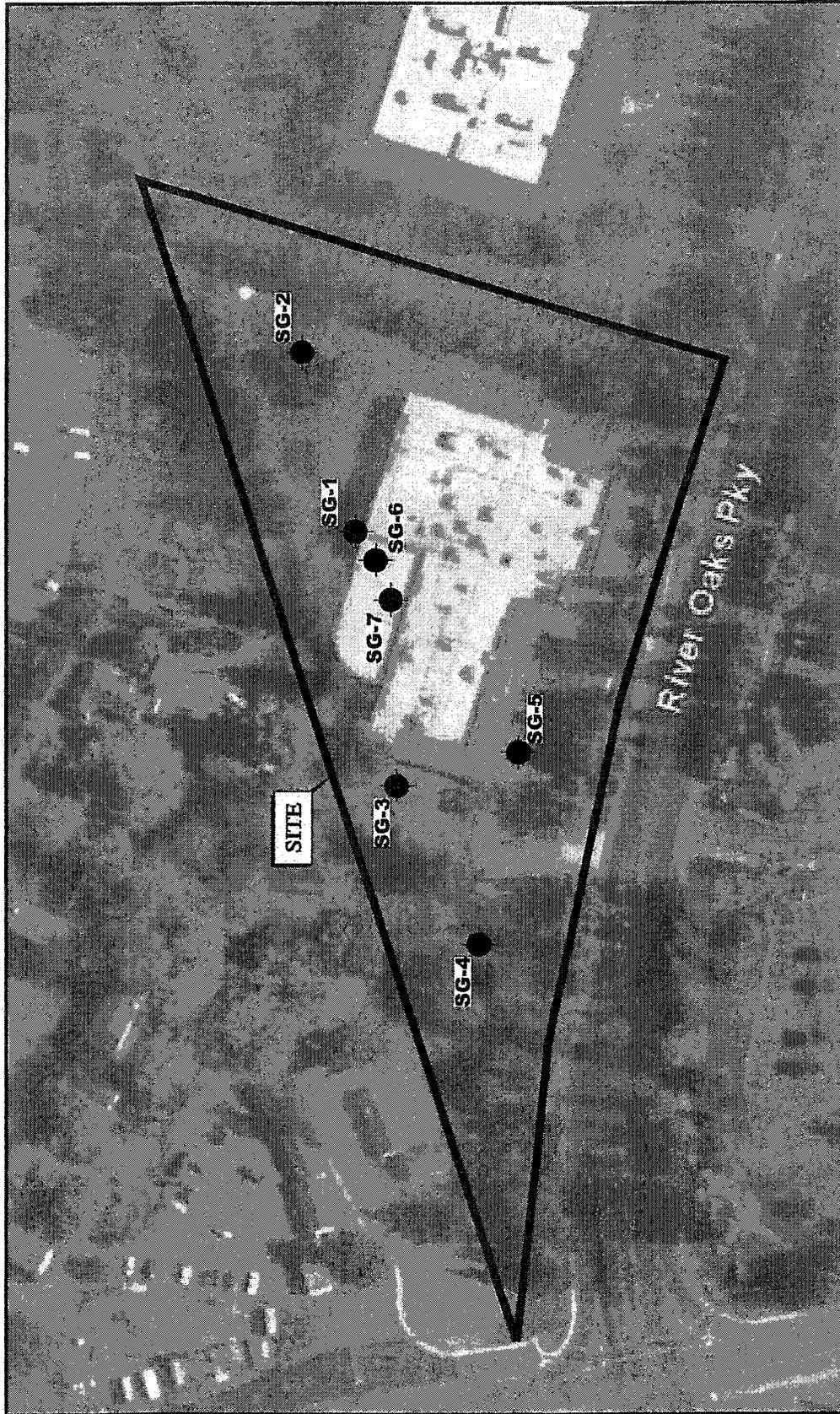


TRICHLOROETHENE PLUME
 199 RIVER OAKS PARKWAY
 SAN JOSE, CALIFORNIA

PROJECT NO.: 7862.3.002.01	2
DATE: SEPTEMBER 2007	
DRAWN BY: RJS CHECKED BY: SM	

FIGURE NO.

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EXPLANATION

- SG-5** ● APPROXIMATE LOCATION OF BORING



BASE MAP SOURCE: GOOGLE EARTH



SITE PLAN
 199 RIVER OAKS PARKWAY
 SAN JOSE, CALIFORNIA

PROJECT NO: 7862.3.002.01

DATE: SEPTEMBER 2007

DRAWN BY: RJS CHECKED BY: SM

FIGURE NO.

3

REVISIONS: NONE

Project No.
7862.3.002.01

November 28, 2007
Revised February 1, 2008

Mr. Kevin Ma
BRE Properties, Inc.
525 Market Street, 4th Floor
San Francisco, CA 94105

Subject: 199 River Oaks Parkway
San Jose, California

**GEOPHYSICAL SURVEY AND ADDITIONAL ENVIRONMENTAL SOIL
AND GROUNDWATER SAMPLING**

Reference: ENGEO Incorporated; Phase I Environmental Site Assessment, 199 River Oaks Parkway, San Jose, California; Project No. 7862.3.002.01; July 23, 2007.

Dear Mr. Ma:

As requested, ENGEO performed a geophysical survey and additional soil and groundwater sampling for the subject property (Property), located at 199 River Oaks Parkway in San Jose, California (Figure 1). The purpose of this document is to present the results of this sampling and analysis program. Results of the soil gas sampling conducted at the subject site are presented in a separate letter report.

BACKGROUND

The Property consists of one mixed light industrial/manufacturing and office building with asphalt-paved parking areas and landscaping around the building. Review of historical records indicates that the Property was first developed approximately 1981. A machine shop/manufacturing addition was constructed on the north side of the building in 2001. The mixed-use building is currently occupied by Frontier Semiconductor and tenant activities include office work, storage, and fabrication and distribution of electronic devices. Prior to these developments, it appears that the Property was used for agricultural production.

Based on the site reconnaissance and records research conducted during the phase one environmental site assessment (Reference), a groundwater contamination plume exists on the Property. Information reviewed indicated that three underground storage tanks (UST), ranging from 400 to 5,000 gallons in capacity, were installed at the property in 1981 on the northern side of the existing building. One 1,500-gallon steel underground storage tank, which was used to store solvent waste, was removed in 1985. During tank removal activities, it was determined that the underground storage tank had leaked. Soil samples were recovered from the base of the excavation and detectable concentrations of trichloroethene were reported. Initial groundwater samples were

recovered in 1985, and detectable concentrations of 1,1,1-trichloroethane, 1,1-dichloroethane, 1,1-dichloroethene and trichloroethene were reported in the groundwater.

The two remaining USTs included a hydrofluoric acid waste tank and an acid neutralization system with an associated above-ground wastewater treatment system. According to a report prepared by Studemeister and Associates, the hydrofluoric acid waste tank was removed in about 1996 and the acid neutralization system and above-ground wastewater treatment system were removed in 2001; however, direct documentation of the tank removal was not identified during the preparation of the phase one environmental assessment. The approximate locations of the USTs are shown on Figure 2, as originally reported by Applied Earth Consultants, Inc. in 1985.

As recommended in the referenced phase one environmental site assessment, a geophysical survey was conducted to determine whether the two identified USTs remain on the Property, and additional soil and groundwater samples were recovered in the areas of the identified USTs to determine if contaminated soil and groundwater remain at the site.

FIELD ACTIVITIES

Geophysical Survey

A geophysical survey consisting of a combination of vertical magnetic gradient (VMG), ground penetrating radar (GPR), and hand-held metal detection (MD) methods was conducted by Norcal Geophysical Consultants, Inc. on July 31, 2007, under the supervision of an ENGEO representative. The survey was performed over a 140- by 40-foot rectangular area along the northern side of the building. The survey was directed at identifying areas with anomalous accumulations of ferrous metals and to search for evidence of USTs, buried debris, or backfilled areas.

Based on the results of the survey, there does not appear to be evidence suggesting the presence of USTs within the surveyed area. Areas with VMG anomalies appear to be due to the existing street light and suspected steel reinforcement associated with sidewalk and curbing. Two MD anomalies likely associated with metal debris at a shallow depth below the asphalt pavement were also detected. The results of the geophysical survey are presented in Appendix A.

Soil Sampling

On August 1, 2007, under the supervision of an ENGEO representative, a total of six borings were advanced using a Geoprobe™ direct-push sampling rig. The borings, identified as DP-1 through DP-6, were advanced at the approximate locations as shown on Figure 2.

Continuous soil samples were recovered to a maximum depth of approximately 16 feet below the ground surface (bgs). The soil samples were recovered in 1½-inch-diameter sample cores in

clear acrylic tubes. The acrylic sampling tubes were then cut to collect the soil sample at the desired depth. Soil samples for analyses were sealed with Teflon sheets secured by tight fitting plastic end caps and tape, and were labeled to indicate a unique sample number, sample location, and time and date collected. The samples were labeled and preserved in an ice-cooled chest for transportation to Entech Analytical Labs, Inc. in Santa Clara, California.

Groundwater Sampling

After collection of the soil samples from Borings DP-3 and DP-4, temporary PVC pipe was placed in the borings. Groundwater samples were recovered using a peristaltic pump with dedicated polyethylene tubing and transferred to appropriate glassware with the elimination of all headspace. The groundwater samples were placed in an ice-cooled chest and delivered under documented chain of custody to Entech Analytical Labs, Inc. in Santa Clara, California.

LABORATORY ANALYSIS

Soil Samples

Soil samples were analyzed for volatile organic compounds (VOCs), semi-volatile organic compounds (SVOCs), CAM-17 Metals, fluoride, and reactivity, corrosivity, and ignitability (RCI). Most VOC and SVOC constituents were reported below laboratory detection limits with the exception of isophorone which was reported at a concentration of 2.6 milligrams per kilogram (mg/kg) in DP-2 at a depth of 6 feet. Several CAM-17 metal constituents were reported above laboratory detection limits, and the results were compared to Environmental Screening Levels (ESLs) as established by the Regional Water Quality Control Board (RWQCB). After review, it was determined that arsenic and cobalt were reported above the direct contact ESLs for residential land use (Tables K-1) in several of the borings; however, the reported concentrations are within the expected range of background concentrations. A summary of the analytical laboratory results are provided in Tables 1 and 2, and the laboratory analysis reports and chain-of-custody documentation can be found in Appendix B.

Groundwater

Groundwater samples were analyzed for VOCs, SVOCs, CAM-17 Metals, fluoride, and RCI. No VOCs or SVOCs were reported above laboratory detection limits in the groundwater samples. All CAM-17 metal concentrations were below the established maximum contaminant levels (MCLs) by the Department of Health Services (DHS) drinking water program. A summary of the analytical laboratory results are provided in Table 3, and the laboratory analysis reports and chain-of-custody documentation is included as Appendix B.

CONCLUSIONS

Based on the geophysical survey, it is our opinion that underground storage tanks are not present on the Property at the locations surveyed. In the unlikely event that a tank is encountered during grading operations, an environmental professional should be contacted to observe and determine if environmental impact may be present within the subsurface.

Based on a review of the field and laboratory data, there is no evidence of significant subsurface impacts associated with the Property. In our opinion, the Property is suitable for residential development. If excavations below the groundwater table are proposed, which require dewatering, additional groundwater evaluations should be conducted.

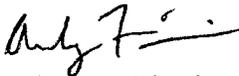
The professional staff at ENGEO Incorporated strives to perform its services in a proper and professional manner with reasonable care and competence but is not infallible. The recommendations and conclusions presented in this letter report were based on the findings of our study, which were developed solely from the contracted services. ENGEO Incorporated assumes no liability for the validity of the materials relied upon in the preparation of this letter report.

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

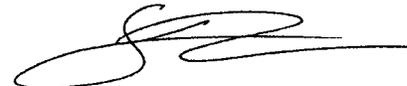
We are pleased to be of continued service to you on this project. If you have any questions, please contact us.

Very truly yours,

ENGEO Incorporated



Andrew H. Firmin
ahf/smc



Shawn Munger, CHG, REAII

Attachments: Figures 1 and 2
Tables 1 through 3
Appendix A – NORCAL Geophysical Investigation
Appendix B – Entech Analytical Labs, Laboratory Analytical Results

LIST OF FIGURES

Figure 1	Vicinity Map
Figure 2	Site Plan

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BASE MAP SOURCE: MS STREETS AND TRIPS



VICINITY MAP
 199 RIVER OAKS PARKWAY
 SAN JOSE, CALIFORNIA

PROJECT NO.: 7862.3.002.01

DATE: NOVEMBER 2007

DRAWN BY: PC

CHECKED BY: SM

FIGURE NO.

1

LIST OF TABLES

Table 1	Shallow Soil Data
Table 2	Deep Soil Data
Table 3	Groundwater Data

Table 3. Groundwater Data

TARGET ANALYTE	SFRWQCB	SFRWQCB	DP-2	DP-2	DP-2	DP-4	DP-4	DP-6
	ESL	ESL	Soil 3 ft	Soil 6 ft	Soil 8 ft	Soil 6 ft	Soil 8 ft	Soil 8 ft
	mg/kg	mg/kg	8/1/2007 mg/kg	8/1/2007 mg/kg	8/1/2007 mg/kg	8/1/2007 mg/kg	8/1/2007 mg/kg	8/1/2007 mg/kg
VOCs								
ALL	-	-	ND	ND	ND	ND	ND	ND
SVOCs								
ISOPHORONE	-	-	ND	2.6	ND	ND	ND	ND
CAM 17 Metals								
	TABLE A-1	TABLE K-1						
ANTIMONY	6.1	6.1	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
ARSENIC	5.5	0.08	7.2	3.1	1.9	1.9	3	3
BARIUM	750	1000	310	100	200	200	210	210
BERYLLIUM	4	29	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
CADMIUM	1.7	1.7	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
CHROMIUM(TOTAL)	58	-	210	29	47	47	62	62
COBALT	10	10	21	8.1	9.9	9.9	11	11
COPPER	230	610	31	20	37	37	29	29
LEAD	150	150	16	6.3	6.2	6.2	7.3	7.3
MERCURY	3.7	3.7	<0.050	<0.050	0.066	0.066	0.08	0.08
MOLYBDENUM	40	76	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
NICKEL	150	310	290	40	63	63	86	86
SELENIUM	10	76	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0
SILVER	20	76	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
THALLIUM	1	1	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0
VANADIUM	110	110	35	30	42	42	40	40
ZINC	600	4600	50	45	46	46	47	47
FLUORIDE								
TOTAL FLUORIDE	1.0	1.0	1.1	<1.0	<1.0	<1.0	<1.0	<1.0
RCI								
CORROSIVITY (pH)	-	-	12	11	9	9	9.4	9.4
REACTIVE SULFIDE	-	-	<500	<500	<500	<500	<500	<500
IGNITABILITY BY FLASHPOINT (°F)	-	-	220	220	220	220	220	220
REACTIVE-CYANIDE	-	-	<250	<250	<250	<250	<250	<250

- NOT APPLICABLE

ND - NOT DETECTED AT OR ABOVE THE DETECTION LIMIT

BOLD DATA INDICATES A REPORTED CONCENTRATION EXCEEDING THE LOWEST ESTABLISHED SCREENING LEVEL

TABLE A-1 - SHALLOW SOIL SCREENING LEVELS FOR RESIDENTIAL LAND USE

TABLE K-1 - DIRECT EXPOSURE SCREENING LEVELS FOR RESIDENTIAL EXPOSURE

Table 3. Groundwater Data

TARGET ANALYTE	SFRWQCB	SFRWQCB	DP-3	DP-4	DP-5
	ESL	ESL	Soil 10 ft 8/1/2007 mg/kg	Soil 10 ft 8/1/2007 mg/kg	Soil 10 ft 8/1/2007 mg/kg
VOCs					
ALL	--	--	ND	ND	ND
SVOCs					
ALL	--	--	ND	ND	ND
CAM 17 Metals					
ANTIMONY	280.0	6.1	<1.0	<1.0	<1.0
ARSENIC	5.5	0.06	6.5	7	7.9
BARIUM	2500	1000	52	65	390
BERYLLIUM	36.0	29	<1.0	<1.0	<1.0
CADMIUM	38	1.7	<1.0	<1.0	<1.0
CHROMIUM (TOTAL)	58.0	--	69	63	69
COBALT	10	10	17	18	18
COPPER	2500.0	610	44	40	46
LEAD	750	150	11	10	13
MERCURY	98.0	3.7	0.082	0.11	0.11
MOLYBDENUM	2500	76	<1.0	<1.0	<1.0
NICKEL	1000.0	310	100	100	99
SELENIUM	2500	76	<2.0	<2.0	<2.0
SILVER	2500.0	76	<1.0	<1.0	<1.0
THALLIUM	47	1	<2.0	<2.0	<2.0
VANADIUM	2500.0	110	48	45	55
ZINC	2500	4600	74	71	78
FLUORIDE					
TOTAL FLUORIDE	1.0	1.0	9.8	8	9.8
RCI					
CORROSIVITY (pH)	--	--	8.2	8.4	7.9
REACTIVE SULFIDE	--	--	<500	<500	<500
IGNITABILITY BY FLASHPOINT (°F)	--	--	220	220	220
REACTIVE CYANIDE	--	--	<250	<250	<250

-- NOT TESTED

ND - NOT DETECTED AT OR ABOVE THE DETECTION LIMIT

BOLD DATA INDICATES A REPORTED CONCENTRATION EXCEEDING THE LOWEST ESTABLISHED SCREENING LEVEL

TABLE C-1 - DEEP SOIL SCREENING LEVELS FOR RESIDENTIAL LAND USE

TABLE K-1 - DIRECT EXPOSURE SCREENING LEVELS FOR RESIDENTIAL EXPOSURE

APPENDIX A

NORCAL GEOPHYSICAL CONSULTANTS, INC.

Geophysical Investigation

7862.3.002.01
November 28, 2007
Revised February 1, 2008



August 21, 2007

Andy Firmin
ENGEО, Inc.
6399 San Ignacio, Suite 150
San Jose, California, 95119

Subject: Geophysical Investigation
199 River Oaks Parkway Site
San Jose, California

NORCAL Project No. 07-241.34

Dear Mr. Firmin:

This report presents the findings of a geophysical investigation performed by NORCAL Geophysical Consultants, Inc. on portions of the subject property on July 31, 2007. The field investigation was conducted by NORCAL geophysicist David Bissiri with background information and site logistics provided by Mr. Andy Firmin of ENGEО, Inc.

I SITE DESCRIPTION and PURPOSE

The site is a roughly triangular parcel located near the northeast corner of River Oaks Parkway and Zanker Road in San Jose, California. A single-story light-manufacturing building is located in the central portion of the site with asphalt paved parking areas located along portions of the eastern and northern sides of the building. The survey area, as delineated by ENGEО, Inc., consisted of an approximately 140- by 40-foot rectangular portion of the northern (rear) parking lot (see Plate 1). Notable above-ground objects in or near the survey area included a loading dock driveway and two walkways along the rear wall of the building, four existing flush-mounted wells, landscaped planters with concrete curbing, a light standard near the center of the survey area, and a stack of stored metal panels near the eastern boundary.

According to information supplied to NORCAL, the building was constructed in the early 1980's. Most of the building appears to be original, except for an annex attached to the northwest portion of the building. Part of the original facilities were located underground and included an acid neutralization system located near the northeast corner of the building, a solvent waste tank and associated piping located near the northwest corner of the building, and a hydrofluoric (HF) waste tank, also located near the northwest corner. These facilities have reportedly been removed, but documentation of their removal is not available. The purpose of the investigation therefore, is to determine if there is evidence of the USTs or other former underground facilities within the accessible portions of the designated survey area.



ENGEO, Inc.
August 21, 2007
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II METHODOLOGY

We performed the geophysical investigation using a combination of vertical magnetic gradient (VMG), ground penetrating radar (GPR), and hand-held metal detection (MD) methods. VMG was used to detect magnetic metal objects buried in the shallow subsurface. GPR was used to image the shallow subsurface for evidence of USTs, buried debris, or backfilled areas. MD was used to delineate the locations and general outline of subsurface metallic objects. A more detailed discussion of these methods, data analysis, geophysical instrumentation, and limitations is presented in Appendix A.

III DATA ACQUISITION

Our first task was to establish a survey grid to provide horizontal control for data acquisition. For field logistical reasons "project north" was oriented parallel to the rear wall of the building, approximately 45 degrees counterclockwise from true north. The grid consisted of a series of parallel lines spaced 5 feet apart along which VMG data were collected at approximately 3-foot intervals. The data were uploaded to a field computer and processed to produce a VMG contour map. The contour map was evaluated for lateral VMG variations that might be caused by magnetic objects. VMG variations that could not be attributed to obvious above-ground magnetic objects were considered anomalous and investigated further with the MD. This was accomplished by conducting a series of bidirectional traverses in the vicinity of the identified VMG anomalies. Typically, the initial traverses were centered on the anomaly and ranged in length from 10 to 20 feet. As the outline and orientation of a detected subsurface feature became more apparent, additional traverses of differing orientations and lengths were conducted as needed. The resulting interpreted outline or orientation of the object was then painted on the ground and its location mapped. The MD was also used to investigate the portion of the survey area immediately adjacent the rear of the building, where reliable VMG data could not be collected due to magnetic interference from the wall. This area was approximately 140 feet long and 10 feet wide, as depicted on Plate 1.

Lastly, the GPR was used to conduct radar investigations of any identified metal-detector anomalies. The GPR investigation consisted of conducting two bidirectional radar traverses of at least 15 feet in length over the apparent center of each anomaly. The data were reviewed and processed to produce vertical image profiles of the shallow sub-surface. These images depicted lateral variations of GPR signal amplitude with depth and were analyzed for reflection patterns that may be indicative of USTs, buried debris, or other sub-surface objects.



ENGEO, Inc.
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IV RESULTS and CONCLUSIONS

The results of the geophysical surveys are presented as a Site Map on the left half of Plate 1 and a VMG contour map on the right half. The Site Map depicts the approximate limits of the survey area, the locations of pertinent above-ground objects and the locations of interpreted subsurface features. The VMG contour map depicts the lateral variation of the magnetic gradient and the locations of selected above-ground and underground features.

Based on our interpretation of the geophysical data, we do not believe there is evidence suggesting the presence of USTs or their associated piping within the designated survey area. The VMG variations all appear to be due to the light standard, suspected rebar in the planter curbing and walkways, the stored metal panels, well lids, and some miscellaneous metal debris present on the ground. The MD investigation of the auxiliary area next to the wall likewise did not indicate the presence of a UST or associated piping. However, the follow-up investigation of the VMG survey area with the MD did detect two localized metal-detector anomalies in the northern portion of the survey area, as depicted on Plate 1 by the shaded blue features labeled I and II. Based on their limited extent and weak magnetic fields we believe these MD anomalies are due to minor amounts of metallic debris that are shallowly buried below the pavement. The GPR follow-up investigation of these two MD anomalies were inconclusive. The data profiles displayed reflections typically associated with disturbed and graded soils, but no distinct localized object(s). However, the effective depth of signal penetration appeared to be limited to the upper 2-3 feet. This suggests that the object or objects causing each of the MD anomalies may be buried deeper than the effective range of the radar, or may be too small to be imaged.

V STANDARD CARE AND WARRANTY

The scope of NORCAL's services for this project consisted of using geophysical methods to characterize the shallow subsurface. The accuracy of our findings is subject to specific site conditions and limitations inherent to the techniques used. We performed our services in a manner consistent with the level of skill ordinarily exercised by members of the profession currently employing similar methods. No warranty, with respect to the performance of services or products delivered under this agreement, expressed or implied, is made by NORCAL.



ENGEO, Inc.
August 21, 2007
Page 4

We appreciate having the opportunity to provide you with this information.

Respectfully,

NORCAL Geophysical Consultants, Inc.

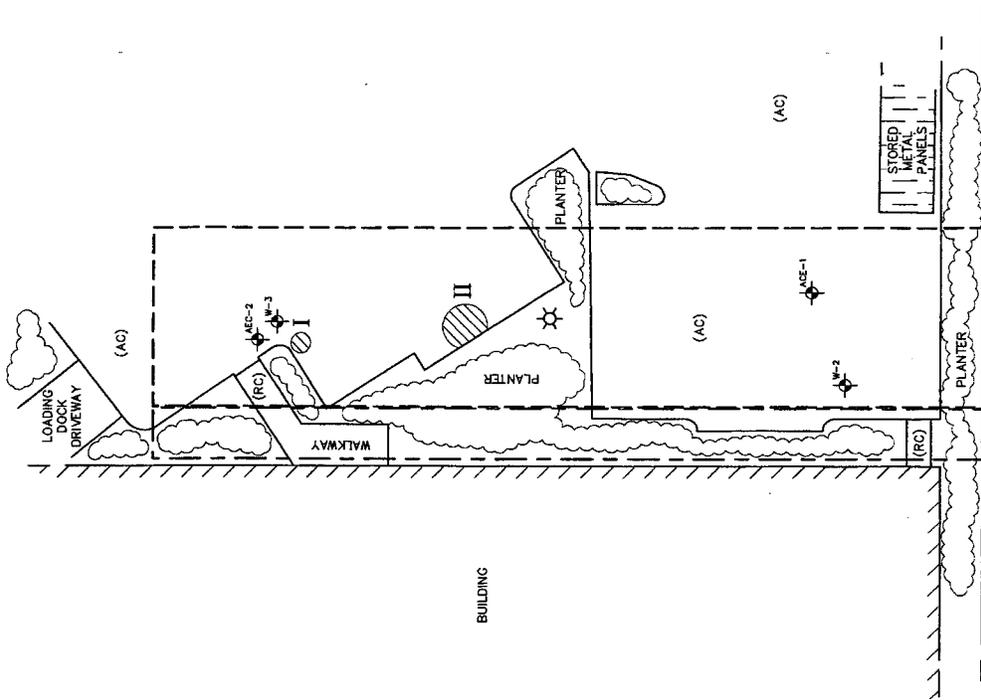
A handwritten signature in black ink, appearing to read "David Bissiri".

David Bissiri
Geophysicist, GP-1009

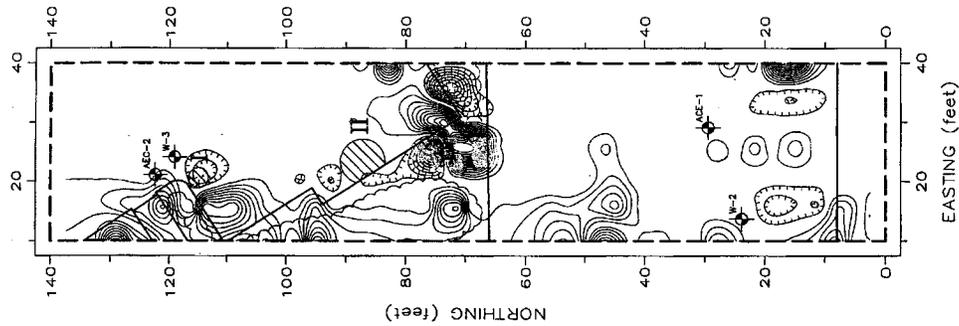
DJB/KGB/tt

Enclosures: Plate 1- Site Map and Vertical Magnetic Gradient Contour Map

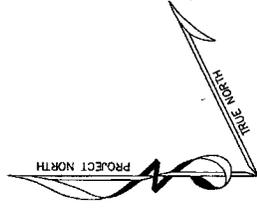
Appendix A - Geophysical Methodology, Instrumentation, Data Analysis, and
Limitations



SITE MAP



VERTICAL MAGNETIC GRADIENT MAP



LEGEND

---	LIMITS OF VERTICAL MAGNETIC GRADIENT SURVEY
---	LIMITS OF AUXILIARY METAL-DETECTOR SURVEY
○	VERTICAL MAGNETIC GRADIENT CONTOUR (CONTOUR INTERVAL = 250 nT/m)
○	METAL DETECTOR ANOMALY
☆	LIGHT STANDARD
⊙	EXISTING WELL
(AC)	ASPHALT
(RC)	REINFORCED CONCRETE



SITE MAP & VERTICAL MAGNETIC GRADIENT CONTOUR MAP
199 RIVER OAKS PARKWAY

LOCATION: SAN JOSE, CALIFORNIA

CLIENT: ENOCO

NORCAL GEOPHYSICAL CONSULTANTS INC.

DATE: AUG. 2007

DRAWN BY: G. RANDALL

APPROVED BY: DUB

PLATE 1



Appendix A

Geophysical Methodology, Instrumentation, Data Analysis, and Limitations



Vertical Magnetic Gradient (VMG)

VMG Methodology

VMG is a method of determining the vertical rate of change in the magnetic field intensity and is commonly used to detect buried ferrous objects. Since the magnetic field at any given point on the earth's surface is the vector sum of the earth's field combined with the magnetic fields of nearby metal objects, by removing or suppressing the earth's field the local magnetic variations due to ferrous objects may be detected. The basis for vertical magnetic gradient surveying starts with measuring a different quantity, the total intensity of the magnetic field, at two different elevations. These are referred to as total field measurements (TF) and are recorded in units of nanoTesla (nT). The difference in the magnetic intensity between the two measurements is then divided by the elevation difference to yield the vertical rate of change in the magnetic intensity. This is referred to as the vertical magnetic gradient (VMG), and is measured in units of nanoTesla/meter (nT/m).

While both TF and VMG measurements are related to the same phenomena (i.e. changes in the magnetic field), each has certain advantages over the other. However, the VMG method is often chosen for environmental/engineering investigations. because of the following:

- 1) VMG measurements are generally less affected by nearby *above* ground objects, especially objects to the side of the instrument. This reduces magnetic interference caused by such objects.
- 2) Unlike TF measurements, VMG measurements are not affected by temporal (diurnal) variations in the earth's magnetic field due to the relative changes in position of the moon and sun. This eliminates one more variable from the data.
- 3) VMG effects attenuate more rapidly with increasing distance from magnetic sources than TF effects, thus allowing more precise determination of a buried object's location.

It should be noted, however, that because the VMG method is very sensitive, the effects of small, near surface objects can be amplified and can act as a source of noise in VMG data.

Instrumentation

The instrument typically used by NORCAL to obtain the VMG data is a Geometrics 858 Cesium-vapor magnetometer. This instrument operates on the "optical pumping" principle and consists of a console and two total field magnetic sensors that are mounted on a vertical staff. One sensor is mounted at about shoulder-height and the other sensor is mounted at about knee-height. The magnetometer console features a built-in computer that stores the raw TF data obtained from each



sensor, calculates the VMG values, and records survey grid (position) information. The instrument simultaneously measures the total magnetic field intensity at the two sensors, takes their difference in magnetic intensity, and then divides that quantity by their separation distance. The survey information is then recorded and later uploaded to a field computer for further processing.

Computer Processing

VMG data are typically processed in the field on a portable computer. The uploaded data are converted into a format suitable for contouring using the program SURFER from Golden Software. This program calculates an evenly spaced array of values (data grid) based on the measured field data. These gridded values are then contoured to produce a set of isopleths on VMG contour maps for interpretation.

Contour Map Interpretation

Generally speaking, in a region with fairly uniform magnetic conditions (i.e. free of magnetic objects) the VMG values will vary smoothly from one area to another. Under these conditions, contour lines are usually spaced far apart. In contrast, in those areas where VMG variations are stronger, the contours are closely spaced. In some cases the variations are so strong that the contours become highly contorted and convoluted. These contorted contours may form roughly concentric circles, tightly wound loops and whorls, or elongated parallel lines. Such convoluted contours are typically due to the presence of magnetic objects. The actual magnitude and shape of the contour lines is dependent on the relative position and size of the magnetic object with respect to the location of the magnetic sensors and the proximity of other magnetic objects.

Roughly concentric circles that look like "bull's-eyes" are generally referred to as monopoles. Monopoles that are roughly limited in extent to the data point spacing of the sampling grid are often caused by relatively small, near surface objects with limited cross-section. These typically consist of well caps, pull boxes, balls of wire, etc. On the other hand, larger monopoles that extend across an area of several data points are typically associated with larger, deeper objects such as well casings, reinforced concrete footers, ends of pipelines, etc. In other cases, two monopoles, one positive and one negative, may be in close proximity to each other and form a pair of high-low closures known as a dipole. Dipoles are often, but not always, attributed to larger objects such as USTs, vaults, buried ordnance, etc. that have a substantial diameter or width.

Irregular patterns of loops and whorls (the usual case) are often indicative of several magnetic objects being present with variable shape, mass, and distribution. These VMG patterns are the most difficult to interpret. Past experience has shown that such patterns are usually associated with debris fields, landfills, and demolition sites.



A series of parallel, quasi-linear contours typically indicates that an elongate object such as a building wall, fence, or underground pipeline is the magnetic source.

Regardless of whether the contours form monopoles, dipoles, or irregular whorls, if there are no obvious nearby above ground sources that could cause such magnetic variations, then subsurface objects are suspected. Contours are typically considered anomalous when large differences in data readings (on the order of several hundred to several thousands of nT/m) from one data station to the next are displayed. The anomalous variations are called VMG anomalies.

Limitations

While buried ferrous metal objects often produce localized variations in the earth's magnetic field, the actual magnetic intensity associated with these objects depends on the mass of the metal, its orientation within the earth's field, and the distance the metal object is from the magnetometer sensor. As a general rule, anomaly magnitude typically decreases and anomaly width increases as distance (depth) to the source increases, thereby making detection more difficult. In addition, the ability to detect a buried metal object is based on the intensity of these variations in contrast to the intensity of background variations. The intensity of background variations is based on the amount of above and below ground metal that is present within the survey area. Cultural features such as chain-link fences, buildings, debris, railroad spurs, utilities, above ground electric lines, etc. typically produce magnetic variations with high intensities. These variations may mask the magnetic effects from buried metal objects and thus make it very difficult to determine whether the magnetic variations are associated with below ground metal or above/below ground cultural features.

Metal Detection (MD)

MD Methodology

This method uses the principle of electromagnetic induction to detect shallowly buried metal objects such as USTs, metal utility conduits, rebar in concrete, manhole covers, and various metallic debris. This is done by carrying a hand-held radio transmitter-receiver unit above the ground and continuously scanning the surface. A primary coil broadcasts a radio signal from a transmitter which induces secondary electrical currents in metal objects. These secondary currents in turn produce a magnetic field which is detected by the receiver.

Instrumentation

The MD instrument that we typically use for shallow subsurface investigations is a Fisher TW-6 pipe and cable locator. This instrument is expressly designed to detect metallic pipes, cables, USTs, manhole covers, and other large, shallowly buried metallic objects. It is specifically designed to have low response to smaller objects such as balls of wire, nuts and bolts, and coins. The instrument operates by generating both a meter reading (unitless) and an audible response when near a metal

object. The peak instrument response usually occurs when the unit is directly over the object. The TW-6 does not provide a recordable data output that can be used for later computer processing however. Results are generally limited to marking the interpreted outlines of detected objects in the field and mapping their locations.

Limitations

In general, the response of the MD instrument is roughly proportional to the horizontal surface area of near surface buried objects (typically in the upper three or four feet). This relationship can be used to advantage in discriminating between metal debris, reinforced concrete pads, and pipelines. However, in the presence of above ground metal objects such as fences, walls, parked cars, and metal debris, this is no longer valid. In some instances, the presence of such objects can make it very difficult to determine whether the instrument responses are associated with below ground targets or above ground cultural features. In addition, when multiple sources are present it may not be possible to identify individual targets. Also, relatively large objects that have a limited horizontal cross-section, such as well casing and clipped-off fence posts, are sometimes difficult to detect.

Ground Penetrating Radar (GPR)

GPR Methodology

Ground penetrating radar is a survey method that provides a continuous, high resolution graphical cross-section of the shallow subsurface. The method entails repeatedly radiating an electromagnetic pulse into the ground from an antenna as it is moved along a traverse. Reflected signals are received by an antenna and sent to a control unit for processing. The control unit then converts the varying amplitude of reflected radar signals as a function of time into a cross-sectional image showing signal amplitude as a function of depth.

GPR is particularly sensitive to variations of two electrical properties. One property is conductivity (the ability of a material to conduct a charge when a field is applied) and the other is permittivity (the ability of a material to hold a charge when a field is applied). These two properties determine how far a signal can propagate. They also determine the strength of reflected signals that can be generated at material boundaries. Most soil and earthen-like materials such as concrete are electrically resistive and have a relatively low permittivity. As a result, they are relatively transparent to electromagnetic energy. This means that only a portion of the radar signal incident upon them is reflected back to the surface. On the other hand, when the signal encounters an object composed of a material that has the opposite electrical properties, especially one with a high permittivity (such as metal) much of the incident energy is reflected.

Instrumentation

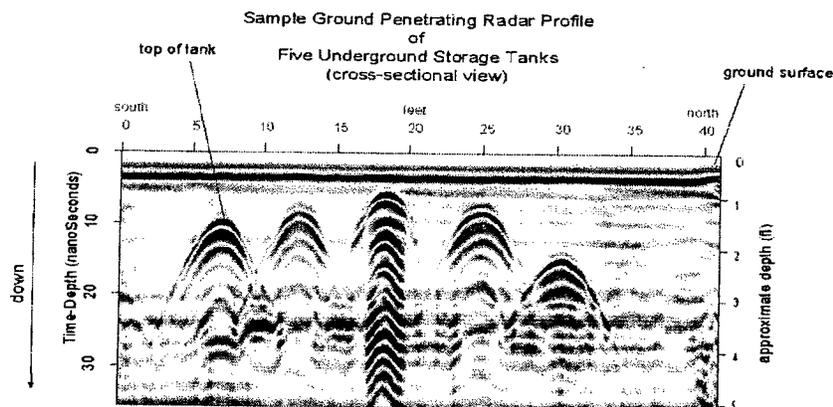
We typically perform GPR surveys using a Geophysical Survey Systems, Inc. SIR-3000 Subsurface Interface Radar System equipped with either a 400- or 500-megahertz (MHz) transducer. This unit is comprised of a combined control/data recording console that is connected by a telemetry cable to the antenna, with both mounted on a wheeled cart. This system is often chosen for investigating environmental sites since it usually provides both the resolution and depth penetration needed for characterizing the upper three to four feet of the subsurface.

Data Interpretation

The interpretation of GPR data involves examining the graphical records for reflections from buried objects. GPR records display changes in reflected signal strength and arrival time with changes in horizontal position. Strong signals appear dark and weak reflections appear light. Reflections that arrive earlier in time are placed in the upper portions of the record and reflections that arrive later are placed lower, towards the bottom of the records. Horizontal position is across the top of the record.

In areas with relatively uniform conditions, with no buried objects producing reflections, the records typically appear as a series of alternating dark and light horizontal bands. In areas where there are subsurface objects producing reflections, the horizontal banding is disrupted. Discrete objects typically produce reflections having the appearance of inverted "U"s, forming what are known as "hyperbolic reflections". Metallic objects often produce markedly strong reflections, in many cases forming multiple reflections appearing as a series of inverted U's cascading down the record. Non-metallic objects can produce similar reflections, but the multiples are typically much weaker.

A sample profile from a different site with five adjacent steel USTs is presented below:





An object's burial depth may also be estimated from GPR profiles. As mentioned above, GPR measures signal amplitude as a function of time. However, the translation of the radar signal's travel time (technically known as time-depth) to an actual distance (true depth) is not always a simple one. Strictly speaking, in order to translate from time-depth to true depth the signal velocity within each time interval must be known. Since this is not routinely determined in the field, estimated velocities are often used for determining the approximate depth to a reflector. The empirical values for GPR signal propagation velocities within commonly encountered soils are obtained from published tables.

Limitations

The ability to detect subsurface targets is dependent on specific site conditions. These conditions include depth of burial, the size or diameter of the target, the condition of the specific target in question, the type of backfill material associated with the target, and the surface conditions over the target. Typically, the depth of detection will be reduced as the clay and/or moisture content in the subsurface increases. As a result, depths of detection (using a 500 Mhz antenna) typically range from as deep as six feet to as little as a few inches.

APPENDIX B

ENTECH ANALYTICAL LABS, INC.

Laboratory Analytical Results

7862.3.002.01
November 28, 2007
Revised February 1, 2008

Entech Analytical Labs, Inc.

3334 Victor Court , Santa Clara, CA 95054

Phone: (408) 588-0200

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Shawn Munger
Engeo, Inc.-SJ
6288 San Ignacio Suite A
San Jose, Ca 95119

Lab Certificate Number: 56594

Issued: 08/07/2007

Project Number: 7862.3.002.01

Project Name: 199 River Oaks Parkway

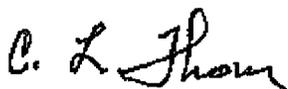
Certificate of Analysis - Final Report

On August 01, 2007, samples were received under chain of custody for analysis.
Entech analyzes samples "as received" unless otherwise noted. The following results are included:

<u>Matrix</u>	<u>Test / Comments</u>
Liquid	Fluoride by ISE w/o Distillation: EPA 340.2/Std. Methods (18th Ed.) 4500-F-C Mercury: EPA 7470A for Water and Groundwater / EPA 245.1 for Wastewater Metals by ICP: EPA 3010A / EPA 6010B for Groundwater and Water - EPA 200.7 for Wastewater Subcontract - RCI- Alpha SVOCs: EPA 3535A / EPA 3510C / EPA 8270C VOCs: EPA 5030B / EPA 8260B for Groundwater and Water - EPA 624 for Wastewater
Solid	Fluoride by ISE w/o Distillation: EPA 9214 Mercury: EPA 7471B Metals by ICP: EPA 3050B / EPA 6010B Subcontract - RCI- Alpha SVOCs: EPA 3545A / EPA 8270C VOCs: EPA 5030B (or 5035A for Encore Samples only)/EPA 8260B

Entech Analytical Labs, Inc. is certified for environmental analyses by the State of California (#2346).
If you have any questions regarding this report, please call us at 408-588-0200 ext. 225.

Sincerely,



C. L. Thom
Laboratory Director

Entech Analytical Labs, Inc.

3334 Victor Court , Santa Clara, CA 95054

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Engeo, Inc.-SJ
6288 San Ignacio Suite A
San Jose, Ca 95119
Attn: Shawn Munger

Project Number: 7862.3.002.01
Project Name: 199 River Oaks Parkway

Certificate of Analysis - Data Report

Samples Received: 08/01/2007
Sample Collected by: Client

Lab # : 56594-001 Sample ID: DP-6@6-8

Matrix: Solid Sample Date: 8/1/2007

VOCs: EPA 5030B (or 5035A for Encore Samples only)/EPA 8260B

Parameter	Result	Qual	D/P-F	Detection Limit	Units	Prep Date	Prep Batch	Analysis Date	QC Batch
1,1,1,2-Tetrachloroethane	ND		1.0	5.0	µg/Kg	N/A	N/A	8/2/2007	SM3E070802E
1,1,1-Trichloroethane	ND		1.0	5.0	µg/Kg	N/A	N/A	8/2/2007	SM3E070802E
1,1,2,2-Tetrachloroethane	ND		1.0	5.0	µg/Kg	N/A	N/A	8/2/2007	SM3E070802E
1,1,2-Trichloroethane	ND		1.0	5.0	µg/Kg	N/A	N/A	8/2/2007	SM3E070802E
1,1-Dichloroethane	ND		1.0	5.0	µg/Kg	N/A	N/A	8/2/2007	SM3E070802E
1,1-Dichloroethene	ND		1.0	5.0	µg/Kg	N/A	N/A	8/2/2007	SM3E070802E
1,1-Dichloropropene	ND		1.0	5.0	µg/Kg	N/A	N/A	8/2/2007	SM3E070802E
1,2,3-Trichlorobenzene	ND		1.0	5.0	µg/Kg	N/A	N/A	8/2/2007	SM3E070802E
1,2,3-Trichloropropane	ND		1.0	5.0	µg/Kg	N/A	N/A	8/2/2007	SM3E070802E
1,2,4-Trichlorobenzene	ND		1.0	5.0	µg/Kg	N/A	N/A	8/2/2007	SM3E070802E
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1,2-Dibromoethane (EDB)	ND		1.0	5.0	µg/Kg	N/A	N/A	8/2/2007	SM3E070802E
1,2-Dichlorobenzene	ND		1.0	5.0	µg/Kg	N/A	N/A	8/2/2007	SM3E070802E
1,2-Dichloroethane	ND		1.0	5.0	µg/Kg	N/A	N/A	8/2/2007	SM3E070802E
1,2-Dichloropropane	ND		1.0	5.0	µg/Kg	N/A	N/A	8/2/2007	SM3E070802E
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1,4-Dioxane	ND		1.0	200	µg/Kg	N/A	N/A	8/2/2007	SM3E070802E
2,2-Dichloropropane	ND		1.0	5.0	µg/Kg	N/A	N/A	8/2/2007	SM3E070802E
2-Butanone (MEK)	ND		1.0	40	µg/Kg	N/A	N/A	8/2/2007	SM3E070802E
2-Chloroethyl-vinyl Ether	ND		1.0	5.0	µg/Kg	N/A	N/A	8/2/2007	SM3E070802E
2-Chlorotoluene	ND		1.0	5.0	µg/Kg	N/A	N/A	8/2/2007	SM3E070802E
2-Hexanone	ND		1.0	40	µg/Kg	N/A	N/A	8/2/2007	SM3E070802E
4-Chlorotoluene	ND		1.0	5.0	µg/Kg	N/A	N/A	8/2/2007	SM3E070802E
4-Methyl-2-Pentanone(MIBK)	ND		1.0	40	µg/Kg	N/A	N/A	8/2/2007	SM3E070802E
Acetone	ND		1.0	100	µg/Kg	N/A	N/A	8/2/2007	SM3E070802E
Acetonitrile	ND		1.0	40	µg/Kg	N/A	N/A	8/2/2007	SM3E070802E
Acrolein	ND		1.0	5.0	µg/Kg	N/A	N/A	8/2/2007	SM3E070802E
Acrylonitrile	ND		1.0	5.0	µg/Kg	N/A	N/A	8/2/2007	SM3E070802E
Benzene	ND		1.0	5.0	µg/Kg	N/A	N/A	8/2/2007	SM3E070802E
Benzyl Chloride	ND		1.0	5.0	µg/Kg	N/A	N/A	8/2/2007	SM3E070802E
Bromobenzene	ND		1.0	5.0	µg/Kg	N/A	N/A	8/2/2007	SM3E070802E
Bromochloromethane	ND		1.0	5.0	µg/Kg	N/A	N/A	8/2/2007	SM3E070802E
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Bromoform	ND		1.0	5.0	µg/Kg	N/A	N/A	8/2/2007	SM3E070802E
Bromomethane	ND		1.0	5.0	µg/Kg	N/A	N/A	8/2/2007	SM3E070802E
Carbon Disulfide	ND		1.0	5.0	µg/Kg	N/A	N/A	8/2/2007	SM3E070802E
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Chlorobenzene	ND		1.0	5.0	µg/Kg	N/A	N/A	8/2/2007	SM3E070802E
Chloroethane	ND		1.0	5.0	µg/Kg	N/A	N/A	8/2/2007	SM3E070802E
Chloroform	ND		1.0	5.0	µg/Kg	N/A	N/A	8/2/2007	SM3E070802E
Chloromethane	ND		1.0	5.0	µg/Kg	N/A	N/A	8/2/2007	SM3E070802E

Detection Limit = Detection Limit for Reporting.

ND = Not Detected at or above the Detection Limit.

D/P-F = Dilution and/or Prep Factor includes sample volume adjustments.

Qual = Data Qualifier

8/7/2007 4:28:33 PM - E.Ling

Entech Analytical Labs, Inc.

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6288 San Ignacio Suite A
San Jose, Ca 95119
Attn: Shawn Munger

Project Number: 7862.3.002.01
Project Name: 199 River Oaks Parkway

Certificate of Analysis - Data Report

Samples Received: 08/01/2007
Sample Collected by: Client

Lab # : 56594-001

Sample ID: DP-6@6-8

Matrix: Solid

Sample Date: 8/1/2007

VOCs: EPA 5030B (or 5035A for Encore Samples only)/EPA 8260B

Parameter	Result	Qual	D/P-F	Detection Limit	Units	Prep Date	Prep Batch	Analysis Date	QC Batch
cis-1,2-Dichloroethene	ND		1.0	5.0	µg/Kg	N/A	N/A	8/2/2007	SM3E070802E
cis-1,3-Dichloropropene	ND		1.0	5.0	µg/Kg	N/A	N/A	8/2/2007	SM3E070802E
Cyclohexanone	ND		1.0	40	µg/Kg	N/A	N/A	8/2/2007	SM3E070802E
Dibromochloromethane	ND		1.0	5.0	µg/Kg	N/A	N/A	8/2/2007	SM3E070802E
Dibromomethane	ND		1.0	5.0	µg/Kg	N/A	N/A	8/2/2007	SM3E070802E
Dichlorodifluoromethane	ND		1.0	5.0	µg/Kg	N/A	N/A	8/2/2007	SM3E070802E
Diisopropyl Ether	ND		1.0	5.0	µg/Kg	N/A	N/A	8/2/2007	SM3E070802E
Ethyl Benzene	ND		1.0	5.0	µg/Kg	N/A	N/A	8/2/2007	SM3E070802E
Freon 113	ND		1.0	10	µg/Kg	N/A	N/A	8/2/2007	SM3E070802E
Hexachlorobutadiene	ND		1.0	5.0	µg/Kg	N/A	N/A	8/2/2007	SM3E070802E
Iodomethane	ND		1.0	10	µg/Kg	N/A	N/A	8/2/2007	SM3E070802E
Isopropanol	ND		1.0	100	µg/Kg	N/A	N/A	8/2/2007	SM3E070802E
Isopropylbenzene	ND		1.0	5.0	µg/Kg	N/A	N/A	8/2/2007	SM3E070802E
Methyl-t-butyl Ether	ND		1.0	5.0	µg/Kg	N/A	N/A	8/2/2007	SM3E070802E
Methylene Chloride	ND		1.0	50	µg/Kg	N/A	N/A	8/2/2007	SM3E070802E
n-Butylbenzene	ND		1.0	5.0	µg/Kg	N/A	N/A	8/2/2007	SM3E070802E
n-Propylbenzene	ND		1.0	5.0	µg/Kg	N/A	N/A	8/2/2007	SM3E070802E
Naphthalene	ND		1.0	5.0	µg/Kg	N/A	N/A	8/2/2007	SM3E070802E
p-Isopropyltoluene	ND		1.0	5.0	µg/Kg	N/A	N/A	8/2/2007	SM3E070802E
Pentachloroethane	ND		1.0	5.0	µg/Kg	N/A	N/A	8/2/2007	SM3E070802E
sec-Butylbenzene	ND		1.0	5.0	µg/Kg	N/A	N/A	8/2/2007	SM3E070802E
Styrene	ND		1.0	5.0	µg/Kg	N/A	N/A	8/2/2007	SM3E070802E
tert-Amyl Methyl Ether	ND		1.0	5.0	µg/Kg	N/A	N/A	8/2/2007	SM3E070802E
tert-Butanol (TBA)	ND		1.0	40	µg/Kg	N/A	N/A	8/2/2007	SM3E070802E
tert-Butyl Ethyl Ether	ND		1.0	5.0	µg/Kg	N/A	N/A	8/2/2007	SM3E070802E
tert-Butylbenzene	ND		1.0	5.0	µg/Kg	N/A	N/A	8/2/2007	SM3E070802E
Tetrachloroethene	ND		1.0	5.0	µg/Kg	N/A	N/A	8/2/2007	SM3E070802E
Tetrahydrofuran	ND		1.0	40	µg/Kg	N/A	N/A	8/2/2007	SM3E070802E
Toluene	ND		1.0	5.0	µg/Kg	N/A	N/A	8/2/2007	SM3E070802E
trans-1,2-Dichloroethene	ND		1.0	5.0	µg/Kg	N/A	N/A	8/2/2007	SM3E070802E
trans-1,3-Dichloropropene	ND		1.0	5.0	µg/Kg	N/A	N/A	8/2/2007	SM3E070802E
trans-1,4-Dichloro-2-butene	ND		1.0	10	µg/Kg	N/A	N/A	8/2/2007	SM3E070802E
Trichloroethene	ND		1.0	5.0	µg/Kg	N/A	N/A	8/2/2007	SM3E070802E
Trichlorofluoromethane	ND		1.0	5.0	µg/Kg	N/A	N/A	8/2/2007	SM3E070802E
Vinyl Acetate	ND		1.0	5.0	µg/Kg	N/A	N/A	8/2/2007	SM3E070802E
Vinyl Chloride	ND		1.0	5.0	µg/Kg	N/A	N/A	8/2/2007	SM3E070802E
Xylenes, Total	ND		1.0	10	µg/Kg	N/A	N/A	8/2/2007	SM3E070802E

Surrogate	Surrogate Recovery	Control Limits (%)
4-Bromofluorobenzene	97.3	60 - 130
Dibromofluoromethane	122	60 - 130
Toluene-d8	102	60 - 130

Analyzed by: MaiChiTu

Reviewed by: EricKum

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D/P-F = Dilution and/or Prep Factor includes sample volume adjustments.

Qual = Data Qualifier

8/7/2007 4:28:33 PM - ELing

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Engeo, Inc.-SJ
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San Jose, Ca 95119
Attn: Shawn Munger

Project Number: 7862.3.002.01
Project Name: 199 River Oaks Parkway

Certificate of Analysis - Data Report

Samples Received: 08/01/2007
Sample Collected by: Client

Lab # : 56594-001

Sample ID: DP-6@6-8

Matrix: Solid

Sample Date: 8/1/2007

SVOCs: EPA 3545A / EPA 8270C

Parameter	Result	Qual	D/P-F	Detection Limit	Units	Prep Date	Prep Batch	Analysis Date	QC Batch
1,2,4-Trichlorobenzene	ND		1.0	0.50	mg/Kg	8/1/2007	SVS070801	8/3/2007	SVS070801
1,2-Dichlorobenzene	ND		1.0	0.50	mg/Kg	8/1/2007	SVS070801	8/3/2007	SVS070801
1,2-Dinitrobenzene	ND		1.0	0.50	mg/Kg	8/1/2007	SVS070801	8/3/2007	SVS070801
1,3-Dichlorobenzene	ND		1.0	0.50	mg/Kg	8/1/2007	SVS070801	8/3/2007	SVS070801
1,3-Dinitrobenzene	ND		1.0	0.50	mg/Kg	8/1/2007	SVS070801	8/3/2007	SVS070801
1,4-Dichlorobenzene	ND		1.0	0.50	mg/Kg	8/1/2007	SVS070801	8/3/2007	SVS070801
1,4-Dinitrobenzene	ND		1.0	0.50	mg/Kg	8/1/2007	SVS070801	8/3/2007	SVS070801
1-Methylnaphthalene	ND		1.0	0.50	mg/Kg	8/1/2007	SVS070801	8/3/2007	SVS070801
2,3,4,6-Tetrachlorophenol	ND		1.0	0.50	mg/Kg	8/1/2007	SVS070801	8/3/2007	SVS070801
2,3,5,6-Tetrachlorophenol	ND		1.0	0.50	mg/Kg	8/1/2007	SVS070801	8/3/2007	SVS070801
2,4,5-Trichlorophenol	ND		1.0	0.50	mg/Kg	8/1/2007	SVS070801	8/3/2007	SVS070801
2,4,6-Trichlorophenol	ND		1.0	0.50	mg/Kg	8/1/2007	SVS070801	8/3/2007	SVS070801
2,4-Dichlorophenol	ND		1.0	0.50	mg/Kg	8/1/2007	SVS070801	8/3/2007	SVS070801
2,4-Dimethylphenol	ND		1.0	0.50	mg/Kg	8/1/2007	SVS070801	8/3/2007	SVS070801
2,4-Dinitrophenol	ND		1.0	2.5	mg/Kg	8/1/2007	SVS070801	8/3/2007	SVS070801
2,4-Dinitrotoluene	ND		1.0	0.50	mg/Kg	8/1/2007	SVS070801	8/3/2007	SVS070801
2,6-Dinitrotoluene	ND		1.0	1.0	mg/Kg	8/1/2007	SVS070801	8/3/2007	SVS070801
2-Chloronaphthalene	ND		1.0	0.50	mg/Kg	8/1/2007	SVS070801	8/3/2007	SVS070801
2-Chlorophenol	ND		1.0	1.0	mg/Kg	8/1/2007	SVS070801	8/3/2007	SVS070801
2-Methylnaphthalene	ND		1.0	0.50	mg/Kg	8/1/2007	SVS070801	8/3/2007	SVS070801
2-Methylphenol	ND		1.0	0.50	mg/Kg	8/1/2007	SVS070801	8/3/2007	SVS070801
2-Nitroaniline	ND		1.0	0.50	mg/Kg	8/1/2007	SVS070801	8/3/2007	SVS070801
2-Nitrophenol	ND		1.0	0.50	mg/Kg	8/1/2007	SVS070801	8/3/2007	SVS070801
3&4-Methylphenol	ND		1.0	0.50	mg/Kg	8/1/2007	SVS070801	8/3/2007	SVS070801
3,3'-Dichlorobenzidine	ND		1.0	2.5	mg/Kg	8/1/2007	SVS070801	8/3/2007	SVS070801
3-Nitroaniline	ND		1.0	0.50	mg/Kg	8/1/2007	SVS070801	8/3/2007	SVS070801
4,6-Dinitro-2-methylphenol	ND		1.0	2.0	mg/Kg	8/1/2007	SVS070801	8/3/2007	SVS070801
4-Bromophenyl Phenyl Ether	ND		1.0	0.50	mg/Kg	8/1/2007	SVS070801	8/3/2007	SVS070801
4-Chloro-3-methylphenol	ND		1.0	0.50	mg/Kg	8/1/2007	SVS070801	8/3/2007	SVS070801
4-Chloroaniline	ND		1.0	0.50	mg/Kg	8/1/2007	SVS070801	8/3/2007	SVS070801
4-Chlorophenyl-phenylether	ND		1.0	0.50	mg/Kg	8/1/2007	SVS070801	8/3/2007	SVS070801
4-Nitroaniline	ND		1.0	0.50	mg/Kg	8/1/2007	SVS070801	8/3/2007	SVS070801
4-Nitrophenol	ND		1.0	2.0	mg/Kg	8/1/2007	SVS070801	8/3/2007	SVS070801
Acenaphthene	ND		1.0	1.0	mg/Kg	8/1/2007	SVS070801	8/3/2007	SVS070801
Acenaphthylene	ND		1.0	0.50	mg/Kg	8/1/2007	SVS070801	8/3/2007	SVS070801
Aniline	ND		1.0	0.50	mg/Kg	8/1/2007	SVS070801	8/3/2007	SVS070801
Anthracene	ND		1.0	0.50	mg/Kg	8/1/2007	SVS070801	8/3/2007	SVS070801
Azobenzene	ND		1.0	0.50	mg/Kg	8/1/2007	SVS070801	8/3/2007	SVS070801
Benzo(a)anthracene	ND		1.0	0.50	mg/Kg	8/1/2007	SVS070801	8/3/2007	SVS070801
Benzo(a)pyrene	ND		1.0	0.50	mg/Kg	8/1/2007	SVS070801	8/3/2007	SVS070801
Benzo(b)fluoranthene	ND		1.0	0.50	mg/Kg	8/1/2007	SVS070801	8/3/2007	SVS070801
Benzo(g,h,i)perylene	ND		1.0	0.50	mg/Kg	8/1/2007	SVS070801	8/3/2007	SVS070801
Benzo(k)fluoranthene	ND		1.0	0.50	mg/Kg	8/1/2007	SVS070801	8/3/2007	SVS070801
Benzoic Acid	ND		1.0	1.0	mg/Kg	8/1/2007	SVS070801	8/3/2007	SVS070801
Benzyl Alcohol	ND		1.0	1.0	mg/Kg	8/1/2007	SVS070801	8/3/2007	SVS070801

Detection Limit = Detection Limit for Reporting.

ND = Not Detected at or above the Detection Limit.

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Qual = Data Qualifier

8/7/2007 4:28:33 PM - E.Ling

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6288 San Ignacio Suite A
San Jose, Ca 95119
Attn: Shawn Munger

Project Number: 7862.3.002.01
Project Name: 199 River Oaks Parkway

Certificate of Analysis - Data Report

Samples Received: 08/01/2007
Sample Collected by: Client

Lab # : 56594-001

Sample ID: DP-6@6-8

Matrix: Solid

Sample Date: 8/1/2007

SVOCs: EPA 3545A / EPA 8270C

Parameter	Result	Qual	D/P-F	Detection Limit	Units	Prep Date	Prep Batch	Analysis Date	QC Batch
bis-(2-Chloroethoxy)methane	ND		1.0	0.50	mg/Kg	8/1/2007	SVS070801	8/3/2007	SVS070801
bis-(2-Chloroethyl)ether	ND		1.0	0.50	mg/Kg	8/1/2007	SVS070801	8/3/2007	SVS070801
bis(2-Chloroisopropyl)ether	ND		1.0	0.50	mg/Kg	8/1/2007	SVS070801	8/3/2007	SVS070801
bis(2-Ethylhexyl)adipate	ND		1.0	0.50	mg/Kg	8/1/2007	SVS070801	8/3/2007	SVS070801
bis(2-Ethylhexyl)phthalate	ND		1.0	0.50	mg/Kg	8/1/2007	SVS070801	8/3/2007	SVS070801
Butylbenzylphthalate	ND		1.0	0.50	mg/Kg	8/1/2007	SVS070801	8/3/2007	SVS070801
Carbazole	ND		1.0	0.50	mg/Kg	8/1/2007	SVS070801	8/3/2007	SVS070801
Chrysene	ND		1.0	0.50	mg/Kg	8/1/2007	SVS070801	8/3/2007	SVS070801
Di-n-butylphthalate	ND		1.0	0.50	mg/Kg	8/1/2007	SVS070801	8/3/2007	SVS070801
Di-n-octylphthalate	ND		1.0	0.50	mg/Kg	8/1/2007	SVS070801	8/3/2007	SVS070801
Dibenzo(a,h)anthracene	ND		1.0	0.50	mg/Kg	8/1/2007	SVS070801	8/3/2007	SVS070801
Dibenzofuran	ND		1.0	0.50	mg/Kg	8/1/2007	SVS070801	8/3/2007	SVS070801
Diethylphthalate	ND		1.0	0.50	mg/Kg	8/1/2007	SVS070801	8/3/2007	SVS070801
Dimethylphthalate	ND		1.0	0.50	mg/Kg	8/1/2007	SVS070801	8/3/2007	SVS070801
Diphenylamine	ND		1.0	0.50	mg/Kg	8/1/2007	SVS070801	8/3/2007	SVS070801
Fluoranthene	ND		1.0	0.50	mg/Kg	8/1/2007	SVS070801	8/3/2007	SVS070801
Fluorene	ND		1.0	0.50	mg/Kg	8/1/2007	SVS070801	8/3/2007	SVS070801
Hexachlorobenzene	ND		1.0	0.50	mg/Kg	8/1/2007	SVS070801	8/3/2007	SVS070801
Hexachlorobutadiene	ND		1.0	0.50	mg/Kg	8/1/2007	SVS070801	8/3/2007	SVS070801
Hexachlorocyclopentadiene	ND		1.0	0.50	mg/Kg	8/1/2007	SVS070801	8/3/2007	SVS070801
Hexachloroethane	ND		1.0	0.50	mg/Kg	8/1/2007	SVS070801	8/3/2007	SVS070801
Indeno(1,2,3-cd)pyrene	ND		1.0	0.50	mg/Kg	8/1/2007	SVS070801	8/3/2007	SVS070801
Isophorone	ND		1.0	0.50	mg/Kg	8/1/2007	SVS070801	8/3/2007	SVS070801
N-Nitroso-di-n-propylamine	ND		1.0	1.0	mg/Kg	8/1/2007	SVS070801	8/3/2007	SVS070801
N-Nitrosodimethylamine	ND		1.0	5.0	mg/Kg	8/1/2007	SVS070801	8/3/2007	SVS070801
Naphthalene	ND		1.0	0.50	mg/Kg	8/1/2007	SVS070801	8/3/2007	SVS070801
Nitrobenzene	ND		1.0	0.50	mg/Kg	8/1/2007	SVS070801	8/3/2007	SVS070801
1-Methyl-2-pyrrolidinone (NMP)	ND		1.0	0.50	mg/Kg	8/1/2007	SVS070801	8/3/2007	SVS070801
Pentachlorophenol	ND		1.0	0.50	mg/Kg	8/1/2007	SVS070801	8/3/2007	SVS070801
Phenanthrene	ND		1.0	0.50	mg/Kg	8/1/2007	SVS070801	8/3/2007	SVS070801
Phenol	ND		1.0	2.0	mg/Kg	8/1/2007	SVS070801	8/3/2007	SVS070801
Pyrene	ND		1.0	1.0	mg/Kg	8/1/2007	SVS070801	8/3/2007	SVS070801
Pyridine	ND		1.0	2.0	mg/Kg	8/1/2007	SVS070801	8/3/2007	SVS070801

Surrogate	Surrogate Recovery	Control Limits (%)
2,4,6-Tribromophenol	84.9	30 - 100
2-Fluorobiphenyl	30.7	20 - 100
2-Fluorophenol	27.4	20 - 100
Nitrobenzene-d5	26.6	20 - 100
Phenol-d6	38.4	20 - 100
p-Terphenyl-d14	89.1	55 - 130

Analyzed by: LYU

Reviewed by: mtran

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8/7/2007 4:28:34 PM - E.Ling

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Attn: Shawn Munger

Project Number: 7862.3.002.01
Project Name: 199 River Oaks Parkway

Certificate of Analysis - Data Report

Samples Received: 08/01/2007
Sample Collected by: Client

Lab #: 56594-001 Sample ID: DP-6@6-8 Matrix: Solid Sample Date: 8/1/2007

Fluoride by ISE w/o Distillation: EPA 9214

Parameter	Result	Qual	D/P-F	Detection Limit	Units	Prep Date	Prep Batch	Analysis Date	QC Batch
Fluoride	ND		1.0	1.0	mg/Kg	8/2/2007	SF070802	8/2/2007	SF070802

Analyzed by: EBlanco
Reviewed by: HDINH

Mercury: EPA 7471B

Parameter	Result	Qual	D/P-F	Detection Limit	Units	Prep Date	Prep Batch	Analysis Date	QC Batch
Mercury	0.066		1.0	0.050	mg/Kg	8/3/2007	SHG070803	8/3/2007	SHG070803

Analyzed by: Hdinh
Reviewed by: RWipfler

Metals by ICP: EPA 3050B / EPA 6010B

Parameter	Result	Qual	D/P-F	Detection Limit	Units	Prep Date	Prep Batch	Analysis Date	QC Batch
Antimony	ND		1.0	1.0	mg/Kg	8/3/2007	SM070803	8/6/2007	SM070803
Arsenic	1.9		1.0	1.0	mg/Kg	8/3/2007	SM070803	8/6/2007	SM070803
Barium	200		1.0	1.0	mg/Kg	8/3/2007	SM070803	8/6/2007	SM070803
Beryllium	ND		1.0	1.0	mg/Kg	8/3/2007	SM070803	8/6/2007	SM070803
Cadmium	ND		1.0	1.0	mg/Kg	8/3/2007	SM070803	8/6/2007	SM070803
Chromium	47		1.0	1.0	mg/Kg	8/3/2007	SM070803	8/6/2007	SM070803
Cobalt	9.9		1.0	1.0	mg/Kg	8/3/2007	SM070803	8/6/2007	SM070803
Copper	37		1.0	1.0	mg/Kg	8/3/2007	SM070803	8/6/2007	SM070803
Lead	6.2		1.0	1.0	mg/Kg	8/3/2007	SM070803	8/6/2007	SM070803
Molybdenum	ND		1.0	1.0	mg/Kg	8/3/2007	SM070803	8/6/2007	SM070803
Nickel	63		1.0	1.0	mg/Kg	8/3/2007	SM070803	8/6/2007	SM070803
Selenium	ND		1.0	2.0	mg/Kg	8/3/2007	SM070803	8/6/2007	SM070803
Silver	ND		1.0	1.0	mg/Kg	8/3/2007	SM070803	8/6/2007	SM070803
Thallium	ND		1.0	2.0	mg/Kg	8/3/2007	SM070803	8/6/2007	SM070803
Vanadium	42		1.0	1.0	mg/Kg	8/3/2007	SM070803	8/6/2007	SM070803
Zinc	46		1.0	2.0	mg/Kg	8/3/2007	SM070803	8/6/2007	SM070803

Analyzed by: CTran
Reviewed by: HDINH

Detection Limit = Detection Limit for Reporting.

ND = Not Detected at or above the Detection Limit.

D/P-F = Dilution and/or Prep Factor includes sample volume adjustments.

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6288 San Ignacio Suite A
San Jose, Ca 95119
Attn: Shawn Munger

Project Number: 7862.3.002.01
Project Name: 199 River Oaks Parkway

Certificate of Analysis - Data Report

Samples Received: 08/01/2007
Sample Collected by: Client

Lab # : 56594-002 Sample ID: DP-6@8-10

Matrix: Solid Sample Date: 8/1/2007

VOCs: EPA 5030B (or 5035A for Encore Samples only)/EPA 8260B

Parameter	Result	Qual	D/P-F	Detection Limit	Units	Prep Date	Prep Batch	Analysis Date	QC Batch
1,1,1,2-Tetrachloroethane	ND		1.0	5.0	µg/Kg	N/A	N/A	8/2/2007	SM3E070802E
1,1,1-Trichloroethane	ND		1.0	5.0	µg/Kg	N/A	N/A	8/2/2007	SM3E070802E
1,1,2,2-Tetrachloroethane	ND		1.0	5.0	µg/Kg	N/A	N/A	8/2/2007	SM3E070802E
1,1,2-Trichloroethane	ND		1.0	5.0	µg/Kg	N/A	N/A	8/2/2007	SM3E070802E
1,1-Dichloroethane	ND		1.0	5.0	µg/Kg	N/A	N/A	8/2/2007	SM3E070802E
1,1-Dichloroethene	ND		1.0	5.0	µg/Kg	N/A	N/A	8/2/2007	SM3E070802E
1,1-Dichloropropene	ND		1.0	5.0	µg/Kg	N/A	N/A	8/2/2007	SM3E070802E
1,2,3-Trichlorobenzene	ND		1.0	5.0	µg/Kg	N/A	N/A	8/2/2007	SM3E070802E
1,2,3-Trichloropropane	ND		1.0	5.0	µg/Kg	N/A	N/A	8/2/2007	SM3E070802E
1,2,4-Trichlorobenzene	ND		1.0	5.0	µg/Kg	N/A	N/A	8/2/2007	SM3E070802E
1,2,4-Trimethylbenzene	ND		1.0	5.0	µg/Kg	N/A	N/A	8/2/2007	SM3E070802E
1,2-Dibromo-3-Chloropropane	ND		1.0	5.0	µg/Kg	N/A	N/A	8/2/2007	SM3E070802E
1,2-Dibromoethane (EDB)	ND		1.0	5.0	µg/Kg	N/A	N/A	8/2/2007	SM3E070802E
1,2-Dichlorobenzene	ND		1.0	5.0	µg/Kg	N/A	N/A	8/2/2007	SM3E070802E
1,2-Dichloroethane	ND		1.0	5.0	µg/Kg	N/A	N/A	8/2/2007	SM3E070802E
1,2-Dichloropropane	ND		1.0	5.0	µg/Kg	N/A	N/A	8/2/2007	SM3E070802E
1,3,5-Trimethylbenzene	ND		1.0	5.0	µg/Kg	N/A	N/A	8/2/2007	SM3E070802E
1,3-Dichlorobenzene	ND		1.0	5.0	µg/Kg	N/A	N/A	8/2/2007	SM3E070802E
1,3-Dichloropropane	ND		1.0	5.0	µg/Kg	N/A	N/A	8/2/2007	SM3E070802E
1,4-Dichlorobenzene	ND		1.0	5.0	µg/Kg	N/A	N/A	8/2/2007	SM3E070802E
1,4-Dioxane	ND		1.0	200	µg/Kg	N/A	N/A	8/2/2007	SM3E070802E
2,2-Dichloropropane	ND		1.0	5.0	µg/Kg	N/A	N/A	8/2/2007	SM3E070802E
2-Butanone (MEK)	ND		1.0	40	µg/Kg	N/A	N/A	8/2/2007	SM3E070802E
2-Chloroethyl-vinyl Ether	ND		1.0	5.0	µg/Kg	N/A	N/A	8/2/2007	SM3E070802E
2-Chlorotoluene	ND		1.0	5.0	µg/Kg	N/A	N/A	8/2/2007	SM3E070802E
2-Hexanone	ND		1.0	40	µg/Kg	N/A	N/A	8/2/2007	SM3E070802E
4-Chlorotoluene	ND		1.0	5.0	µg/Kg	N/A	N/A	8/2/2007	SM3E070802E
4-Methyl-2-Pentanone(MIBK)	ND		1.0	40	µg/Kg	N/A	N/A	8/2/2007	SM3E070802E
Acetone	ND		1.0	100	µg/Kg	N/A	N/A	8/2/2007	SM3E070802E
Acetonitrile	ND		1.0	40	µg/Kg	N/A	N/A	8/2/2007	SM3E070802E
Acrolein	ND		1.0	5.0	µg/Kg	N/A	N/A	8/2/2007	SM3E070802E
Acrylonitrile	ND		1.0	5.0	µg/Kg	N/A	N/A	8/2/2007	SM3E070802E
Benzene	ND		1.0	5.0	µg/Kg	N/A	N/A	8/2/2007	SM3E070802E
Benzyl Chloride	ND		1.0	5.0	µg/Kg	N/A	N/A	8/2/2007	SM3E070802E
Bromobenzene	ND		1.0	5.0	µg/Kg	N/A	N/A	8/2/2007	SM3E070802E
Bromochloromethane	ND		1.0	5.0	µg/Kg	N/A	N/A	8/2/2007	SM3E070802E
Bromodichloromethane	ND		1.0	5.0	µg/Kg	N/A	N/A	8/2/2007	SM3E070802E
Bromoform	ND		1.0	5.0	µg/Kg	N/A	N/A	8/2/2007	SM3E070802E
Bromomethane	ND		1.0	5.0	µg/Kg	N/A	N/A	8/2/2007	SM3E070802E
Carbon Disulfide	ND		1.0	5.0	µg/Kg	N/A	N/A	8/2/2007	SM3E070802E
Carbon Tetrachloride	ND		1.0	5.0	µg/Kg	N/A	N/A	8/2/2007	SM3E070802E
Chlorobenzene	ND		1.0	5.0	µg/Kg	N/A	N/A	8/2/2007	SM3E070802E
Chloroethane	ND		1.0	5.0	µg/Kg	N/A	N/A	8/2/2007	SM3E070802E
Chloroform	ND		1.0	5.0	µg/Kg	N/A	N/A	8/2/2007	SM3E070802E
Chloromethane	ND		1.0	5.0	µg/Kg	N/A	N/A	8/2/2007	SM3E070802E

Detection Limit = Detection Limit for Reporting.

ND = Not Detected at or above the Detection Limit.

D/P-F = Dilution and/or Prep Factor includes sample volume adjustments.

Qual = Data Qualifier

8/7/2007 4:28:34 PM - E.Ling

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6288 San Ignacio Suite A
San Jose, Ca 95119
Attn: Shawn Munger

Project Number: 7862.3.002.01
Project Name: 199 River Oaks Parkway

Certificate of Analysis - Data Report

Samples Received: 08/01/2007
Sample Collected by: Client

Lab # : 56594-002 Sample ID: DP-6@8-10

Matrix: Solid Sample Date: 8/1/2007

VOCs: EPA 5030B (or 5035A for Encore Samples only)/EPA 8260B

Parameter	Result	Qual	D/P-F	Detection Limit	Units	Prep Date	Prep Batch	Analysis Date	QC Batch
cis-1,2-Dichloroethene	ND		1.0	5.0	µg/Kg	N/A	N/A	8/2/2007	SM3E070802E
cis-1,3-Dichloropropene	ND		1.0	5.0	µg/Kg	N/A	N/A	8/2/2007	SM3E070802E
Cyclohexanone	ND		1.0	40	µg/Kg	N/A	N/A	8/2/2007	SM3E070802E
Dibromochloromethane	ND		1.0	5.0	µg/Kg	N/A	N/A	8/2/2007	SM3E070802E
Dibromomethane	ND		1.0	5.0	µg/Kg	N/A	N/A	8/2/2007	SM3E070802E
Dichlorodifluoromethane	ND		1.0	5.0	µg/Kg	N/A	N/A	8/2/2007	SM3E070802E
Diisopropyl Ether	ND		1.0	5.0	µg/Kg	N/A	N/A	8/2/2007	SM3E070802E
Ethyl Benzene	ND		1.0	5.0	µg/Kg	N/A	N/A	8/2/2007	SM3E070802E
Freon 113	ND		1.0	10	µg/Kg	N/A	N/A	8/2/2007	SM3E070802E
Hexachlorobutadiene	ND		1.0	5.0	µg/Kg	N/A	N/A	8/2/2007	SM3E070802E
Iodomethane	ND		1.0	10	µg/Kg	N/A	N/A	8/2/2007	SM3E070802E
Isopropanol	ND		1.0	100	µg/Kg	N/A	N/A	8/2/2007	SM3E070802E
Isopropylbenzene	ND		1.0	5.0	µg/Kg	N/A	N/A	8/2/2007	SM3E070802E
Methyl-t-butyl Ether	ND		1.0	5.0	µg/Kg	N/A	N/A	8/2/2007	SM3E070802E
Methylene Chloride	ND		1.0	50	µg/Kg	N/A	N/A	8/2/2007	SM3E070802E
n-Butylbenzene	ND		1.0	5.0	µg/Kg	N/A	N/A	8/2/2007	SM3E070802E
n-Propylbenzene	ND		1.0	5.0	µg/Kg	N/A	N/A	8/2/2007	SM3E070802E
Naphthalene	ND		1.0	5.0	µg/Kg	N/A	N/A	8/2/2007	SM3E070802E
p-Isopropyltoluene	ND		1.0	5.0	µg/Kg	N/A	N/A	8/2/2007	SM3E070802E
Pentachloroethane	ND		1.0	5.0	µg/Kg	N/A	N/A	8/2/2007	SM3E070802E
sec-Butylbenzene	ND		1.0	5.0	µg/Kg	N/A	N/A	8/2/2007	SM3E070802E
Styrene	ND		1.0	5.0	µg/Kg	N/A	N/A	8/2/2007	SM3E070802E
tert-Amyl Methyl Ether	ND		1.0	5.0	µg/Kg	N/A	N/A	8/2/2007	SM3E070802E
tert-Butanol (TBA)	ND		1.0	40	µg/Kg	N/A	N/A	8/2/2007	SM3E070802E
tert-Butyl Ethyl Ether	ND		1.0	5.0	µg/Kg	N/A	N/A	8/2/2007	SM3E070802E
tert-Butylbenzene	ND		1.0	5.0	µg/Kg	N/A	N/A	8/2/2007	SM3E070802E
Tetrachloroethene	ND		1.0	5.0	µg/Kg	N/A	N/A	8/2/2007	SM3E070802E
Tetrahydrofuran	ND		1.0	40	µg/Kg	N/A	N/A	8/2/2007	SM3E070802E
Toluene	ND		1.0	5.0	µg/Kg	N/A	N/A	8/2/2007	SM3E070802E
trans-1,2-Dichloroethene	ND		1.0	5.0	µg/Kg	N/A	N/A	8/2/2007	SM3E070802E
trans-1,3-Dichloropropene	ND		1.0	5.0	µg/Kg	N/A	N/A	8/2/2007	SM3E070802E
trans-1,4-Dichloro-2-butene	ND		1.0	10	µg/Kg	N/A	N/A	8/2/2007	SM3E070802E
Trichloroethene	ND		1.0	5.0	µg/Kg	N/A	N/A	8/2/2007	SM3E070802E
Trichlorofluoromethane	ND		1.0	5.0	µg/Kg	N/A	N/A	8/2/2007	SM3E070802E
Vinyl Acetate	ND		1.0	5.0	µg/Kg	N/A	N/A	8/2/2007	SM3E070802E
Vinyl Chloride	ND		1.0	5.0	µg/Kg	N/A	N/A	8/2/2007	SM3E070802E
Xylenes, Total	ND		1.0	10	µg/Kg	N/A	N/A	8/2/2007	SM3E070802E

Surrogate	Surrogate Recovery	Control Limits (%)
4-Bromofluorobenzene	96.3	60 - 130
Dibromofluoromethane	119	60 - 130
Toluene-d8	101	60 - 130

Analyzed by: MaiChiTu

Reviewed by: EricKum

Detection Limit = Detection Limit for Reporting.

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Qual = Data Qualifier

8/7/2007 4:28:34 PM - E.Ling

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Engeo, Inc.-SJ
6288 San Ignacio Suite A
San Jose, Ca 95119
Attn: Shawn Munger

Project Number: 7862.3.002.01
Project Name: 199 River Oaks Parkway

Certificate of Analysis - Data Report

Samples Received: 08/01/2007
Sample Collected by: Client

Lab # : 56594-002 Sample ID: DP-6@8-10

Matrix: Solid Sample Date: 8/1/2007

SVOCs: EPA 3545A / EPA 8270C

Parameter	Result	Qual	D/P-F	Detection Limit	Units	Prep Date	Prep Batch	Analysis Date	QC Batch
1,2,4-Trichlorobenzene	ND		5.0	2.5	mg/Kg	8/1/2007	SVS070801	8/3/2007	SVS070801
1,2-Dichlorobenzene	ND		5.0	2.5	mg/Kg	8/1/2007	SVS070801	8/3/2007	SVS070801
1,2-Dinitrobenzene	ND		5.0	2.5	mg/Kg	8/1/2007	SVS070801	8/3/2007	SVS070801
1,3-Dichlorobenzene	ND		5.0	2.5	mg/Kg	8/1/2007	SVS070801	8/3/2007	SVS070801
1,3-Dinitrobenzene	ND		5.0	2.5	mg/Kg	8/1/2007	SVS070801	8/3/2007	SVS070801
1,4-Dichlorobenzene	ND		5.0	2.5	mg/Kg	8/1/2007	SVS070801	8/3/2007	SVS070801
1,4-Dinitrobenzene	ND		5.0	2.5	mg/Kg	8/1/2007	SVS070801	8/3/2007	SVS070801
1-Methylnaphthalene	ND		5.0	2.5	mg/Kg	8/1/2007	SVS070801	8/3/2007	SVS070801
2,3,4,6-Tetrachlorophenol	ND		5.0	2.5	mg/Kg	8/1/2007	SVS070801	8/3/2007	SVS070801
2,3,5,6-Tetrachlorophenol	ND		5.0	2.5	mg/Kg	8/1/2007	SVS070801	8/3/2007	SVS070801
2,4,5-Trichlorophenol	ND		5.0	2.5	mg/Kg	8/1/2007	SVS070801	8/3/2007	SVS070801
2,4,6-Trichlorophenol	ND		5.0	2.5	mg/Kg	8/1/2007	SVS070801	8/3/2007	SVS070801
2,4-Dichlorophenol	ND		5.0	2.5	mg/Kg	8/1/2007	SVS070801	8/3/2007	SVS070801
2,4-Dimethylphenol	ND		5.0	2.5	mg/Kg	8/1/2007	SVS070801	8/3/2007	SVS070801
2,4-Dinitrophenol	ND		5.0	12	mg/Kg	8/1/2007	SVS070801	8/3/2007	SVS070801
2,4-Dinitrotoluene	ND		5.0	2.5	mg/Kg	8/1/2007	SVS070801	8/3/2007	SVS070801
2,6-Dinitrotoluene	ND		5.0	5.0	mg/Kg	8/1/2007	SVS070801	8/3/2007	SVS070801
2-Chloronaphthalene	ND		5.0	2.5	mg/Kg	8/1/2007	SVS070801	8/3/2007	SVS070801
2-Chlorophenol	ND		5.0	5.0	mg/Kg	8/1/2007	SVS070801	8/3/2007	SVS070801
2-Methylnaphthalene	ND		5.0	2.5	mg/Kg	8/1/2007	SVS070801	8/3/2007	SVS070801
2-Methylphenol	ND		5.0	2.5	mg/Kg	8/1/2007	SVS070801	8/3/2007	SVS070801
2-Nitroaniline	ND		5.0	2.5	mg/Kg	8/1/2007	SVS070801	8/3/2007	SVS070801
2-Nitrophenol	ND		5.0	2.5	mg/Kg	8/1/2007	SVS070801	8/3/2007	SVS070801
3&4-Methylphenol	ND		5.0	2.5	mg/Kg	8/1/2007	SVS070801	8/3/2007	SVS070801
3,3'-Dichlorobenzidine	ND		5.0	12	mg/Kg	8/1/2007	SVS070801	8/3/2007	SVS070801
3-Nitroaniline	ND		5.0	2.5	mg/Kg	8/1/2007	SVS070801	8/3/2007	SVS070801
4,6-Dinitro-2-methylphenol	ND		5.0	10	mg/Kg	8/1/2007	SVS070801	8/3/2007	SVS070801
4-Bromophenyl Phenyl Ether	ND		5.0	2.5	mg/Kg	8/1/2007	SVS070801	8/3/2007	SVS070801
4-Chloro-3-methylphenol	ND		5.0	2.5	mg/Kg	8/1/2007	SVS070801	8/3/2007	SVS070801
4-Chloroaniline	ND		5.0	2.5	mg/Kg	8/1/2007	SVS070801	8/3/2007	SVS070801
4-Chlorophenyl-phenylether	ND		5.0	2.5	mg/Kg	8/1/2007	SVS070801	8/3/2007	SVS070801
4-Nitroaniline	ND		5.0	2.5	mg/Kg	8/1/2007	SVS070801	8/3/2007	SVS070801
4-Nitrophenol	ND		5.0	10	mg/Kg	8/1/2007	SVS070801	8/3/2007	SVS070801
Acenaphthene	ND		5.0	5.0	mg/Kg	8/1/2007	SVS070801	8/3/2007	SVS070801
Acenaphthylene	ND		5.0	2.5	mg/Kg	8/1/2007	SVS070801	8/3/2007	SVS070801
Aniline	ND		5.0	2.5	mg/Kg	8/1/2007	SVS070801	8/3/2007	SVS070801
Anthracene	ND		5.0	2.5	mg/Kg	8/1/2007	SVS070801	8/3/2007	SVS070801
Azobenzene	ND		5.0	2.5	mg/Kg	8/1/2007	SVS070801	8/3/2007	SVS070801
Benzo(a)anthracene	ND		5.0	2.5	mg/Kg	8/1/2007	SVS070801	8/3/2007	SVS070801
Benzo(a)pyrene	ND		5.0	2.5	mg/Kg	8/1/2007	SVS070801	8/3/2007	SVS070801
Benzo(b)fluoranthene	ND		5.0	2.5	mg/Kg	8/1/2007	SVS070801	8/3/2007	SVS070801
Benzo(g,h,i)perylene	ND		5.0	2.5	mg/Kg	8/1/2007	SVS070801	8/3/2007	SVS070801
Benzo(k)fluoranthene	ND		5.0	2.5	mg/Kg	8/1/2007	SVS070801	8/3/2007	SVS070801
Benzoic Acid	ND		5.0	5.0	mg/Kg	8/1/2007	SVS070801	8/3/2007	SVS070801
Benzyl Alcohol	ND		5.0	5.0	mg/Kg	8/1/2007	SVS070801	8/3/2007	SVS070801

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Qual = Data Qualifier

8/7/2007 4:28:34 PM - ELing

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Attn: Shawn Munger

Project Number: 7862.3.002.01
Project Name: 199 River Oaks Parkway

Certificate of Analysis - Data Report

Samples Received: 08/01/2007
Sample Collected by: Client

Lab # : 56594-002

Sample ID: DP-6@8-10

Matrix: Solid

Sample Date: 8/1/2007

SVOCs: EPA 3545A / EPA 8270C

Parameter	Result	Qual	D/P-F	Detection Limit	Units	Prep Date	Prep Batch	Analysis Date	QC Batch
bis-(2-Chloroethoxy)methane	ND		5.0	2.5	mg/Kg	8/1/2007	SVS070801	8/3/2007	SVS070801
bis-(2-Chloroethyl)ether	ND		5.0	2.5	mg/Kg	8/1/2007	SVS070801	8/3/2007	SVS070801
bis(2-Chloroisopropyl)ether	ND		5.0	2.5	mg/Kg	8/1/2007	SVS070801	8/3/2007	SVS070801
bis(2-Ethylhexyl)adipate	ND		5.0	2.5	mg/Kg	8/1/2007	SVS070801	8/3/2007	SVS070801
bis(2-Ethylhexyl)phthalate	ND		5.0	2.5	mg/Kg	8/1/2007	SVS070801	8/3/2007	SVS070801
Butylbenzylphthalate	ND		5.0	2.5	mg/Kg	8/1/2007	SVS070801	8/3/2007	SVS070801
Carbazole	ND		5.0	2.5	mg/Kg	8/1/2007	SVS070801	8/3/2007	SVS070801
Chrysene	ND		5.0	2.5	mg/Kg	8/1/2007	SVS070801	8/3/2007	SVS070801
Di-n-butylphthalate	ND		5.0	2.5	mg/Kg	8/1/2007	SVS070801	8/3/2007	SVS070801
Di-n-octylphthalate	ND		5.0	2.5	mg/Kg	8/1/2007	SVS070801	8/3/2007	SVS070801
Dibenzo(a,h)anthracene	ND		5.0	2.5	mg/Kg	8/1/2007	SVS070801	8/3/2007	SVS070801
Dibenzofuran	ND		5.0	2.5	mg/Kg	8/1/2007	SVS070801	8/3/2007	SVS070801
Diethylphthalate	ND		5.0	2.5	mg/Kg	8/1/2007	SVS070801	8/3/2007	SVS070801
Dimethylphthalate	ND		5.0	2.5	mg/Kg	8/1/2007	SVS070801	8/3/2007	SVS070801
Diphenylamine	ND		5.0	2.5	mg/Kg	8/1/2007	SVS070801	8/3/2007	SVS070801
Fluoranthene	ND		5.0	2.5	mg/Kg	8/1/2007	SVS070801	8/3/2007	SVS070801
Fluorene	ND		5.0	2.5	mg/Kg	8/1/2007	SVS070801	8/3/2007	SVS070801
Hexachlorobenzene	ND		5.0	2.5	mg/Kg	8/1/2007	SVS070801	8/3/2007	SVS070801
Hexachlorobutadiene	ND		5.0	2.5	mg/Kg	8/1/2007	SVS070801	8/3/2007	SVS070801
Hexachlorocyclopentadiene	ND		5.0	2.5	mg/Kg	8/1/2007	SVS070801	8/3/2007	SVS070801
Hexachloroethane	ND		5.0	2.5	mg/Kg	8/1/2007	SVS070801	8/3/2007	SVS070801
Indeno(1,2,3-cd)pyrene	ND		5.0	2.5	mg/Kg	8/1/2007	SVS070801	8/3/2007	SVS070801
Isophorone	ND		5.0	2.5	mg/Kg	8/1/2007	SVS070801	8/3/2007	SVS070801
N-Nitroso-di-n-propylamine	ND		5.0	5.0	mg/Kg	8/1/2007	SVS070801	8/3/2007	SVS070801
N-Nitrosodimethylamine	ND		5.0	2.5	mg/Kg	8/1/2007	SVS070801	8/3/2007	SVS070801
Naphthalene	ND		5.0	2.5	mg/Kg	8/1/2007	SVS070801	8/3/2007	SVS070801
Nitrobenzene	ND		5.0	2.5	mg/Kg	8/1/2007	SVS070801	8/3/2007	SVS070801
1-Methyl-2-pyrrolidinone (NMP)	ND		5.0	2.5	mg/Kg	8/1/2007	SVS070801	8/3/2007	SVS070801
Pentachlorophenol	ND		5.0	2.5	mg/Kg	8/1/2007	SVS070801	8/3/2007	SVS070801
Phenanthrene	ND		5.0	2.5	mg/Kg	8/1/2007	SVS070801	8/3/2007	SVS070801
Phenol	ND		5.0	10	mg/Kg	8/1/2007	SVS070801	8/3/2007	SVS070801
Pyrene	ND		5.0	5.0	mg/Kg	8/1/2007	SVS070801	8/3/2007	SVS070801
Pyridine	ND		5.0	10	mg/Kg	8/1/2007	SVS070801	8/3/2007	SVS070801

The reporting limits are increased due to presence of non-target hydrocarbons in the sample.

Surrogate	Surrogate Recovery	Control Limits (%)
2,4,6-Tribromophenol	77.2	30 - 100
2-Fluorobiphenyl	56.6	20 - 100
2-Fluorophenol	59.8	20 - 100
Nitrobenzene-d5	58.3	20 - 100
Phenol-d6	67.5	20 - 100
p-Terphenyl-d14	87.4	55 - 130

Analyzed by: LYU

Reviewed by: mtran

Detection Limit = Detection Limit for Reporting.

ND = Not Detected at or above the Detection Limit.

D/P-F = Dilution and/or Prep Factor includes sample volume adjustments.

Qual = Data Qualifier

8/7/2007 4:28:34 PM - E Ling

Entech Analytical Labs, Inc.

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Engeo, Inc.-SJ
6288 San Ignacio Suite A
San Jose, Ca 95119
Attn: Shawn Munger

Project Number: 7862.3.002.01
Project Name: 199 River Oaks Parkway

Certificate of Analysis - Data Report

Samples Received: 08/01/2007
Sample Collected by: Client

Lab # : 56594-002 Sample ID: DP-6@8-10

Matrix: Solid Sample Date: 8/1/2007

Fluoride by ISE w/o Distillation: EPA 9214

Parameter	Result	Qual	D/P-F	Detection Limit	Units	Prep Date	Prep Batch	Analysis Date	QC Batch
Fluoride	ND		1.0	1.0	mg/Kg	8/2/2007	SF070802	8/2/2007	SF070802

Analyzed by: EBlanco

Reviewed by: HDINH

Mercury: EPA 7471B

Parameter	Result	Qual	D/P-F	Detection Limit	Units	Prep Date	Prep Batch	Analysis Date	QC Batch
Mercury	0.060		1.0	0.050	mg/Kg	8/3/2007	SHG070803	8/3/2007	SHG070803

Analyzed by: Hdinh

Reviewed by: RWipfler

Metals by ICP: EPA 3050B / EPA 6010B

Parameter	Result	Qual	D/P-F	Detection Limit	Units	Prep Date	Prep Batch	Analysis Date	QC Batch
Antimony	ND		1.0	1.0	mg/Kg	8/3/2007	SM070803	8/6/2007	SM070803
Arsenic	3.0		1.0	1.0	mg/Kg	8/3/2007	SM070803	8/6/2007	SM070803
Barium	210		1.0	1.0	mg/Kg	8/3/2007	SM070803	8/6/2007	SM070803
Beryllium	ND		1.0	1.0	mg/Kg	8/3/2007	SM070803	8/6/2007	SM070803
Cadmium	ND		1.0	1.0	mg/Kg	8/3/2007	SM070803	8/6/2007	SM070803
Chromium	62		1.0	1.0	mg/Kg	8/3/2007	SM070803	8/6/2007	SM070803
Cobalt	11		1.0	1.0	mg/Kg	8/3/2007	SM070803	8/6/2007	SM070803
Copper	29		1.0	1.0	mg/Kg	8/3/2007	SM070803	8/6/2007	SM070803
Lead	7.3		1.0	1.0	mg/Kg	8/3/2007	SM070803	8/6/2007	SM070803
Molybdenum	ND		1.0	1.0	mg/Kg	8/3/2007	SM070803	8/6/2007	SM070803
Nickel	86		1.0	1.0	mg/Kg	8/3/2007	SM070803	8/6/2007	SM070803
Selenium	ND		1.0	2.0	mg/Kg	8/3/2007	SM070803	8/6/2007	SM070803
Silver	ND		1.0	1.0	mg/Kg	8/3/2007	SM070803	8/6/2007	SM070803
Thallium	ND		1.0	2.0	mg/Kg	8/3/2007	SM070803	8/6/2007	SM070803
Vanadium	40		1.0	1.0	mg/Kg	8/3/2007	SM070803	8/6/2007	SM070803
Zinc	47		1.0	2.0	mg/Kg	8/3/2007	SM070803	8/6/2007	SM070803

Analyzed by: CTran

Reviewed by: HDINH

Detection Limit = Detection Limit for Reporting.

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D/P-F = Dilution and/or Prep Factor includes sample volume adjustments.

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8/7/2007 4:28:34 PM - ELing

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Attn: Shawn Munger

Project Number: 7862.3.002.01
Project Name: 199 River Oaks Parkway

Certificate of Analysis - Data Report

Samples Received: 08/01/2007
Sample Collected by: Client

Lab #: 56594-003 Sample ID: GW-1 Matrix: Liquid Sample Date: 8/1/2007 10:55 AM

VOCs: EPA 5030B / EPA 8260B for Groundwater and Water - EPA 624 for Wastewater

Parameter	Result	Qual	D/P-F	Detection Limit	Units	Prep Date	Prep Batch	Analysis Date	QC Batch
1,1,1,2-Tetrachloroethane	ND		1.0	0.50	µg/L	N/A	N/A	8/3/2007	WM2C070803C
1,1,1-Trichloroethane	ND		1.0	0.50	µg/L	N/A	N/A	8/3/2007	WM2C070803C
1,1,2,2-Tetrachloroethane	ND		1.0	0.50	µg/L	N/A	N/A	8/3/2007	WM2C070803C
1,1,2-Trichloroethane	ND		1.0	0.50	µg/L	N/A	N/A	8/3/2007	WM2C070803C
1,1-Dichloroethane	ND		1.0	0.50	µg/L	N/A	N/A	8/3/2007	WM2C070803C
1,1-Dichloroethene	ND		1.0	0.50	µg/L	N/A	N/A	8/3/2007	WM2C070803C
1,1-Dichloropropene	ND		1.0	0.50	µg/L	N/A	N/A	8/3/2007	WM2C070803C
1,2,3-Trichlorobenzene	ND		1.0	5.0	µg/L	N/A	N/A	8/3/2007	WM2C070803C
1,2,3-Trichloropropane	ND		1.0	5.0	µg/L	N/A	N/A	8/3/2007	WM2C070803C
1,2,4-Trichlorobenzene	ND		1.0	5.0	µg/L	N/A	N/A	8/3/2007	WM2C070803C
1,2,4-Trimethylbenzene	ND		1.0	5.0	µg/L	N/A	N/A	8/3/2007	WM2C070803C
1,2-Dibromo-3-Chloropropane	ND		1.0	5.0	µg/L	N/A	N/A	8/3/2007	WM2C070803C
1,2-Dibromoethane (EDB)	ND		1.0	0.50	µg/L	N/A	N/A	8/3/2007	WM2C070803C
1,2-Dichlorobenzene	ND		1.0	0.50	µg/L	N/A	N/A	8/3/2007	WM2C070803C
1,2-Dichloroethane	ND		1.0	0.50	µg/L	N/A	N/A	8/3/2007	WM2C070803C
1,2-Dichloropropane	ND		1.0	0.50	µg/L	N/A	N/A	8/3/2007	WM2C070803C
1,3,5-Trimethylbenzene	ND		1.0	5.0	µg/L	N/A	N/A	8/3/2007	WM2C070803C
1,3-Dichlorobenzene	ND		1.0	0.50	µg/L	N/A	N/A	8/3/2007	WM2C070803C
1,3-Dichloropropane	ND		1.0	0.50	µg/L	N/A	N/A	8/3/2007	WM2C070803C
1,4-Dichlorobenzene	ND		1.0	0.50	µg/L	N/A	N/A	8/3/2007	WM2C070803C
1,4-Dioxane	ND		1.0	50	µg/L	N/A	N/A	8/3/2007	WM2C070803C
2,2-Dichloropropane	ND		1.0	0.50	µg/L	N/A	N/A	8/3/2007	WM2C070803C
2-Butanone (MEK)	ND		1.0	20	µg/L	N/A	N/A	8/3/2007	WM2C070803C
2-Chloroethyl-vinyl Ether	ND		1.0	5.0	µg/L	N/A	N/A	8/3/2007	WM2C070803C
2-Chlorotoluene	ND		1.0	5.0	µg/L	N/A	N/A	8/3/2007	WM2C070803C
2-Hexanone	ND		1.0	20	µg/L	N/A	N/A	8/3/2007	WM2C070803C
4-Chlorotoluene	ND		1.0	5.0	µg/L	N/A	N/A	8/3/2007	WM2C070803C
4-Methyl-2-Pentanone(MIBK)	ND		1.0	20	µg/L	N/A	N/A	8/3/2007	WM2C070803C
Acetone	ND		1.0	20	µg/L	N/A	N/A	8/3/2007	WM2C070803C
Acetonitrile	ND		1.0	5.0	µg/L	N/A	N/A	8/3/2007	WM2C070803C
Acrolein	ND		1.0	5.0	µg/L	N/A	N/A	8/3/2007	WM2C070803C
Acrylonitrile	ND		1.0	5.0	µg/L	N/A	N/A	8/3/2007	WM2C070803C
Benzene	ND		1.0	0.50	µg/L	N/A	N/A	8/3/2007	WM2C070803C
Benzyl Chloride	ND		1.0	5.0	µg/L	N/A	N/A	8/3/2007	WM2C070803C
Bromobenzene	ND		1.0	0.50	µg/L	N/A	N/A	8/3/2007	WM2C070803C
Bromochloromethane	ND		1.0	0.50	µg/L	N/A	N/A	8/3/2007	WM2C070803C
Bromodichloromethane	ND		1.0	0.50	µg/L	N/A	N/A	8/3/2007	WM2C070803C
Bromoform	ND		1.0	0.50	µg/L	N/A	N/A	8/3/2007	WM2C070803C
Bromomethane	ND		1.0	0.50	µg/L	N/A	N/A	8/3/2007	WM2C070803C
Carbon Disulfide	ND		1.0	0.50	µg/L	N/A	N/A	8/3/2007	WM2C070803C
Carbon Tetrachloride	ND		1.0	0.50	µg/L	N/A	N/A	8/3/2007	WM2C070803C
Chlorobenzene	ND		1.0	0.50	µg/L	N/A	N/A	8/3/2007	WM2C070803C
Chloroethane	ND		1.0	0.50	µg/L	N/A	N/A	8/3/2007	WM2C070803C
Chloroform	ND		1.0	0.50	µg/L	N/A	N/A	8/3/2007	WM2C070803C
Chloromethane	ND		1.0	0.50	µg/L	N/A	N/A	8/3/2007	WM2C070803C

Detection Limit = Detection Limit for Reporting.

ND = Not Detected at or above the Detection Limit.

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Qual = Data Qualifier

8/7/2007 4:28:34 PM - ELing

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Attn: Shawn Munger

Project Number: 7862.3.002.01
Project Name: 199 River Oaks Parkway

Certificate of Analysis - Data Report

Samples Received: 08/01/2007
Sample Collected by: Client

Lab # : 56594-003 Sample ID: GW-1 Matrix: Liquid Sample Date: 8/1/2007 10:55 AM

VOCs: EPA 5030B / EPA 8260B for Groundwater and Water - EPA 624 for Wastewater

Parameter	Result	Qual	D/P-F	Detection Limit	Units	Prep Date	Prep Batch	Analysis Date	QC Batch
cis-1,2-Dichloroethene	ND		1.0	0.50	µg/L	N/A	N/A	8/3/2007	WM2C070803C
cis-1,3-Dichloropropene	ND		1.0	0.50	µg/L	N/A	N/A	8/3/2007	WM2C070803C
Cyclohexanone	ND		1.0	20	µg/L	N/A	N/A	8/3/2007	WM2C070803C
Dibromochloromethane	ND		1.0	0.50	µg/L	N/A	N/A	8/3/2007	WM2C070803C
Dibromomethane	ND		1.0	0.50	µg/L	N/A	N/A	8/3/2007	WM2C070803C
Dichlorodifluoromethane	ND		1.0	0.50	µg/L	N/A	N/A	8/3/2007	WM2C070803C
Diisopropyl Ether	ND		1.0	5.0	µg/L	N/A	N/A	8/3/2007	WM2C070803C
Ethyl Benzene	ND		1.0	0.50	µg/L	N/A	N/A	8/3/2007	WM2C070803C
Freon 113	ND		1.0	5.0	µg/L	N/A	N/A	8/3/2007	WM2C070803C
Hexachlorobutadiene	ND		1.0	5.0	µg/L	N/A	N/A	8/3/2007	WM2C070803C
Iodomethane	ND		1.0	5.0	µg/L	N/A	N/A	8/3/2007	WM2C070803C
Isopropanol	ND		1.0	20	µg/L	N/A	N/A	8/3/2007	WM2C070803C
Isopropylbenzene	ND		1.0	1.0	µg/L	N/A	N/A	8/3/2007	WM2C070803C
Methyl-t-butyl Ether	ND		1.0	1.0	µg/L	N/A	N/A	8/3/2007	WM2C070803C
Methylene Chloride	ND		1.0	20	µg/L	N/A	N/A	8/3/2007	WM2C070803C
n-Butylbenzene	ND		1.0	5.0	µg/L	N/A	N/A	8/3/2007	WM2C070803C
n-Propylbenzene	ND		1.0	5.0	µg/L	N/A	N/A	8/3/2007	WM2C070803C
Naphthalene	ND		1.0	5.0	µg/L	N/A	N/A	8/3/2007	WM2C070803C
p-Isopropyltoluene	ND		1.0	5.0	µg/L	N/A	N/A	8/3/2007	WM2C070803C
Pentachloroethane	ND		1.0	0.50	µg/L	N/A	N/A	8/3/2007	WM2C070803C
sec-Butylbenzene	ND		1.0	5.0	µg/L	N/A	N/A	8/3/2007	WM2C070803C
Styrene	ND		1.0	0.50	µg/L	N/A	N/A	8/3/2007	WM2C070803C
tert-Amyl Methyl Ether	ND		1.0	5.0	µg/L	N/A	N/A	8/3/2007	WM2C070803C
tert-Butanol (TBA)	ND		1.0	10	µg/L	N/A	N/A	8/3/2007	WM2C070803C
tert-Butyl Ethyl Ether	ND		1.0	5.0	µg/L	N/A	N/A	8/3/2007	WM2C070803C
tert-Butylbenzene	ND		1.0	5.0	µg/L	N/A	N/A	8/3/2007	WM2C070803C
Tetrachloroethene	ND		1.0	0.50	µg/L	N/A	N/A	8/3/2007	WM2C070803C
Tetrahydrofuran	ND		1.0	20	µg/L	N/A	N/A	8/3/2007	WM2C070803C
Toluene	ND		1.0	0.50	µg/L	N/A	N/A	8/3/2007	WM2C070803C
trans-1,2-Dichloroethene	ND		1.0	0.50	µg/L	N/A	N/A	8/3/2007	WM2C070803C
trans-1,3-Dichloropropene	ND		1.0	0.50	µg/L	N/A	N/A	8/3/2007	WM2C070803C
trans-1,4-Dichloro-2-butene	ND		1.0	5.0	µg/L	N/A	N/A	8/3/2007	WM2C070803C
Trichloroethene	ND		1.0	0.50	µg/L	N/A	N/A	8/3/2007	WM2C070803C
Trichlorofluoromethane	ND		1.0	0.50	µg/L	N/A	N/A	8/3/2007	WM2C070803C
Vinyl Acetate	ND		1.0	5.0	µg/L	N/A	N/A	8/3/2007	WM2C070803C
Vinyl Chloride	ND		1.0	0.50	µg/L	N/A	N/A	8/3/2007	WM2C070803C
Xylenes, Total	ND		1.0	0.50	µg/L	N/A	N/A	8/3/2007	WM2C070803C

Surrogate	Surrogate Recovery	Control Limits (%)
4-Bromofluorobenzene	92.5	60 - 130
Dibromofluoromethane	99.5	60 - 130
Toluene-d8	95.6	60 - 130

Analyzed by: TAF

Reviewed by: MaiChiTu

Detection Limit = Detection Limit for Reporting.

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8/7/2007 4:28:35 PM - ELing

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Project Number: 7862.3.002.01
Project Name: 199 River Oaks Parkway

Certificate of Analysis - Data Report

Samples Received: 08/01/2007
Sample Collected by: Client

Lab #: 56594-003 Sample ID: GW-1

Matrix: Liquid Sample Date: 8/1/2007 10:55 AM

SVOCs: EPA 3535A / EPA 3510C / EPA 8270C

Parameter	Result	Qual	D/P-F	Detection Limit	Units	Prep Date	Prep Batch	Analysis Date	QC Batch
1,2,4-Trichlorobenzene	ND		1.0	25	µg/L	8/2/2007	SVW070802	8/2/2007	SVW070802
1,2-Dichlorobenzene	ND		1.0	10	µg/L	8/2/2007	SVW070802	8/2/2007	SVW070802
1,2-Dinitrobenzene	ND		1.0	10	µg/L	8/2/2007	SVW070802	8/2/2007	SVW070802
1,3-Dichlorobenzene	ND		1.0	25	µg/L	8/2/2007	SVW070802	8/2/2007	SVW070802
1,3-Dinitrobenzene	ND		1.0	15	µg/L	8/2/2007	SVW070802	8/2/2007	SVW070802
1,4-Dichlorobenzene	ND		1.0	25	µg/L	8/2/2007	SVW070802	8/2/2007	SVW070802
1,4-Dinitrobenzene	ND		1.0	10	µg/L	8/2/2007	SVW070802	8/2/2007	SVW070802
1-Methylnaphthalene	ND		1.0	25	µg/L	8/2/2007	SVW070802	8/2/2007	SVW070802
2,3,4,6-Tetrachlorophenol	ND		1.0	10	µg/L	8/2/2007	SVW070802	8/2/2007	SVW070802
2,3,5,6-Tetrachlorophenol	ND		1.0	10	µg/L	8/2/2007	SVW070802	8/2/2007	SVW070802
2,4,5-Trichlorophenol	ND		1.0	10	µg/L	8/2/2007	SVW070802	8/2/2007	SVW070802
2,4,6-Trichlorophenol	ND		1.0	10	µg/L	8/2/2007	SVW070802	8/2/2007	SVW070802
2,4-Dichlorophenol	ND		1.0	25	µg/L	8/2/2007	SVW070802	8/2/2007	SVW070802
2,4-Dimethylphenol	ND		1.0	10	µg/L	8/2/2007	SVW070802	8/2/2007	SVW070802
2,4-Dinitrophenol	ND		1.0	20	µg/L	8/2/2007	SVW070802	8/2/2007	SVW070802
2,4-Dinitrotoluene	ND		1.0	10	µg/L	8/2/2007	SVW070802	8/2/2007	SVW070802
2,6-Dinitrotoluene	ND		1.0	10	µg/L	8/2/2007	SVW070802	8/2/2007	SVW070802
2-Chloronaphthalene	ND		1.0	10	µg/L	8/2/2007	SVW070802	8/2/2007	SVW070802
2-Chlorophenol	ND		1.0	10	µg/L	8/2/2007	SVW070802	8/2/2007	SVW070802
2-Methylnaphthalene	ND		1.0	25	µg/L	8/2/2007	SVW070802	8/2/2007	SVW070802
2-Methylphenol	ND		1.0	10	µg/L	8/2/2007	SVW070802	8/2/2007	SVW070802
2-Nitroaniline	ND		1.0	15	µg/L	8/2/2007	SVW070802	8/2/2007	SVW070802
2-Nitrophenol	ND		1.0	10	µg/L	8/2/2007	SVW070802	8/2/2007	SVW070802
3&4-Methylphenol	ND		1.0	15	µg/L	8/2/2007	SVW070802	8/2/2007	SVW070802
3,3'-Dichlorobenzidine	ND		1.0	15	µg/L	8/2/2007	SVW070802	8/2/2007	SVW070802
3-Nitroaniline	ND		1.0	10	µg/L	8/2/2007	SVW070802	8/2/2007	SVW070802
4,6-Dinitro-2-methylphenol	ND		1.0	10	µg/L	8/2/2007	SVW070802	8/2/2007	SVW070802
4-Bromophenyl Phenyl Ether	ND		1.0	20	µg/L	8/2/2007	SVW070802	8/2/2007	SVW070802
4-Chloro-3-methylphenol	ND		1.0	10	µg/L	8/2/2007	SVW070802	8/2/2007	SVW070802
4-Chloroaniline	ND		1.0	20	µg/L	8/2/2007	SVW070802	8/2/2007	SVW070802
4-Chlorophenyl-phenylether	ND		1.0	10	µg/L	8/2/2007	SVW070802	8/2/2007	SVW070802
4-Nitroaniline	ND		1.0	20	µg/L	8/2/2007	SVW070802	8/2/2007	SVW070802
4-Nitrophenol	ND		1.0	15	µg/L	8/2/2007	SVW070802	8/2/2007	SVW070802
Acenaphthene	ND		1.0	10	µg/L	8/2/2007	SVW070802	8/2/2007	SVW070802
Acenaphthylene	ND		1.0	10	µg/L	8/2/2007	SVW070802	8/2/2007	SVW070802
Aniline	ND		1.0	20	µg/L	8/2/2007	SVW070802	8/2/2007	SVW070802
Anthracene	ND		1.0	10	µg/L	8/2/2007	SVW070802	8/2/2007	SVW070802
Azobenzene	ND		1.0	10	µg/L	8/2/2007	SVW070802	8/2/2007	SVW070802
Benzo(a)anthracene	ND		1.0	20	µg/L	8/2/2007	SVW070802	8/2/2007	SVW070802
Benzo(a)pyrene	ND		1.0	30	µg/L	8/2/2007	SVW070802	8/2/2007	SVW070802
Benzo(b)fluoranthene	ND		1.0	10	µg/L	8/2/2007	SVW070802	8/2/2007	SVW070802
Benzo(g,h,i)perylene	ND		1.0	10	µg/L	8/2/2007	SVW070802	8/2/2007	SVW070802
Benzo(k)fluoranthene	ND		1.0	10	µg/L	8/2/2007	SVW070802	8/2/2007	SVW070802
Benzoic Acid	ND		1.0	15	µg/L	8/2/2007	SVW070802	8/2/2007	SVW070802
Benzyl Alcohol	ND		1.0	20	µg/L	8/2/2007	SVW070802	8/2/2007	SVW070802

Detection Limit = Detection Limit for Reporting.

ND = Not Detected at or above the Detection Limit.

D/P-F = Dilution and/or Prep Factor includes sample volume adjustments.

Qual = Data Qualifier

8/7/2007 4:28:35 PM - ELing

Entech Analytical Labs, Inc.

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Engeo, Inc.-SJ
6288 San Ignacio Suite A
San Jose, Ca 95119
Attn: Shawn Munger

Project Number: 7862.3.002.01
Project Name: 199 River Oaks Parkway

Certificate of Analysis - Data Report

Samples Received: 08/01/2007
Sample Collected by: Client

Lab #: 56594-003 Sample ID: GW-1 Matrix: Liquid Sample Date: 8/1/2007 10:55 AM

SVOCs: EPA 3535A / EPA 3510C / EPA 8270C

Parameter	Result	Qual	D/P-F	Detection Limit	Units	Prep Date	Prep Batch	Analysis Date	QC Batch
bis-(2-Chloroethoxy)methane	ND		1.0	25	µg/L	8/2/2007	SVW070802	8/2/2007	SVW070802
bis-(2-Chloroethyl)ether	ND		1.0	10	µg/L	8/2/2007	SVW070802	8/2/2007	SVW070802
bis-(2-Chloroisopropyl)ether	ND		1.0	10	µg/L	8/2/2007	SVW070802	8/2/2007	SVW070802
bis-(2-Ethylhexyl)adipate	ND		1.0	10	µg/L	8/2/2007	SVW070802	8/2/2007	SVW070802
bis-(2-Ethylhexyl)phthalate	ND		1.0	10	µg/L	8/2/2007	SVW070802	8/2/2007	SVW070802
Butylbenzylphthalate	ND		1.0	25	µg/L	8/2/2007	SVW070802	8/2/2007	SVW070802
Carbazole	ND		1.0	10	µg/L	8/2/2007	SVW070802	8/2/2007	SVW070802
Chrysene	ND		1.0	20	µg/L	8/2/2007	SVW070802	8/2/2007	SVW070802
Di-n-butylphthalate	ND		1.0	25	µg/L	8/2/2007	SVW070802	8/2/2007	SVW070802
Di-n-octylphthalate	ND		1.0	10	µg/L	8/2/2007	SVW070802	8/2/2007	SVW070802
Dibenzo(a,h)anthracene	ND		1.0	10	µg/L	8/2/2007	SVW070802	8/2/2007	SVW070802
Dibenzofuran	ND		1.0	15	µg/L	8/2/2007	SVW070802	8/2/2007	SVW070802
Diethylphthalate	ND		1.0	10	µg/L	8/2/2007	SVW070802	8/2/2007	SVW070802
Dimethylphthalate	ND		1.0	10	µg/L	8/2/2007	SVW070802	8/2/2007	SVW070802
Diphenylamine	ND		1.0	10	µg/L	8/2/2007	SVW070802	8/2/2007	SVW070802
Fluoranthene	ND		1.0	20	µg/L	8/2/2007	SVW070802	8/2/2007	SVW070802
Fluorene	ND		1.0	10	µg/L	8/2/2007	SVW070802	8/2/2007	SVW070802
Hexachlorobenzene	ND		1.0	20	µg/L	8/2/2007	SVW070802	8/2/2007	SVW070802
Hexachlorobutadiene	ND		1.0	20	µg/L	8/2/2007	SVW070802	8/2/2007	SVW070802
Hexachlorocyclopentadiene	ND		1.0	25	µg/L	8/2/2007	SVW070802	8/2/2007	SVW070802
Hexachloroethane	ND		1.0	10	µg/L	8/2/2007	SVW070802	8/2/2007	SVW070802
Indeno(1,2,3-cd)pyrene	ND		1.0	15	µg/L	8/2/2007	SVW070802	8/2/2007	SVW070802
Isophorone	ND		1.0	10	µg/L	8/2/2007	SVW070802	8/2/2007	SVW070802
N-Nitroso-di-n-propylamine	ND		1.0	10	µg/L	8/2/2007	SVW070802	8/2/2007	SVW070802
Naphthalene	ND		1.0	25	µg/L	8/2/2007	SVW070802	8/2/2007	SVW070802
Nitrobenzene	ND		1.0	10	µg/L	8/2/2007	SVW070802	8/2/2007	SVW070802
Pentachlorophenol	ND		1.0	10	µg/L	8/2/2007	SVW070802	8/2/2007	SVW070802
Phenanthrene	ND		1.0	10	µg/L	8/2/2007	SVW070802	8/2/2007	SVW070802
Phenol	ND		1.0	10	µg/L	8/2/2007	SVW070802	8/2/2007	SVW070802
Pyrene	ND		1.0	20	µg/L	8/2/2007	SVW070802	8/2/2007	SVW070802

Surrogate	Surrogate Recovery	Control Limits (%)
2,4,6-Tribromophenol	61.6	25 - 115
2-Fluorobiphenyl	38.1	20 - 100
2-Fluorophenol	21.9	10 - 100
Nitrobenzene-d5	40.6	25 - 100
Phenol-d6	17.2	10 - 100
p-Terphenyl-d14	88.3	35 - 130

Analyzed by: LYu
Reviewed by: mtran

Fluoride by ISE w/o Distillation: EPA 340.2/Std. Methods (18th Ed.) 4500-F-C

Parameter	Result	Qual	D/P-F	Detection Limit	Units	Prep Date	Prep Batch	Analysis Date	QC Batch
Fluoride	0.42		1.0	0.10	mg/L	N/A	N/A	8/1/2007	WF070801

Analyzed by: EBlanco
Reviewed by: HDINH

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Project Number: 7862.3.002.01
Project Name: 199 River Oaks Parkway

Certificate of Analysis - Data Report

Samples Received: 08/01/2007
Sample Collected by: Client

Lab # : 56594-003 Sample ID: GW-1 Matrix: Liquid Sample Date: 8/1/2007 10:55 AM

Mercury: EPA 7470A for Water and Groundwater / EPA 245.1 for Wastewater

Parameter	Result	Qual	D/P-F	Detection Limit	Units	Prep Date	Prep Batch	Analysis Date	QC Batch
Mercury	0.0016		1.0	0.0002	mg/L	8/6/2007	WHG070806	8/6/2007	WHG070806

Analyzed by: Hdinh

Reviewed by: RWipfler

Metals by ICP: EPA 3010A / EPA 6010B for Groundwater and Water - EPA 200.7 for Wastewater

Parameter	Result	Qual	D/P-F	Detection Limit	Units	Prep Date	Prep Batch	Analysis Date	QC Batch
Antimony	ND		1.0	0.010	mg/L	8/1/2007	WM070801	8/2/2007	WM070801
Arsenic	0.076		1.0	0.010	mg/L	8/1/2007	WM070801	8/2/2007	WM070801
Barium	2.5		1.0	0.0050	mg/L	8/1/2007	WM070801	8/2/2007	WM070801
Beryllium	ND		1.0	0.0050	mg/L	8/1/2007	WM070801	8/2/2007	WM070801
Cadmium	0.0032		1.0	0.0020	mg/L	8/1/2007	WM070801	8/2/2007	WM070801
Chromium	0.79		1.0	0.0050	mg/L	8/1/2007	WM070801	8/2/2007	WM070801
Cobalt	0.17		1.0	0.0050	mg/L	8/1/2007	WM070801	8/2/2007	WM070801
Copper	0.48		1.0	0.0050	mg/L	8/1/2007	WM070801	8/2/2007	WM070801
Lead	0.12		1.0	0.0050	mg/L	8/1/2007	WM070801	8/2/2007	WM070801
Molybdenum	0.12		1.0	0.0050	mg/L	8/1/2007	WM070801	8/2/2007	WM070801
Nickel	1.1		1.0	0.0050	mg/L	8/1/2007	WM070801	8/2/2007	WM070801
Selenium	ND		1.0	0.020	mg/L	8/1/2007	WM070801	8/2/2007	WM070801
Silver	ND		1.0	0.0050	mg/L	8/1/2007	WM070801	8/2/2007	WM070801
Thallium	ND		1.0	0.020	mg/L	8/1/2007	WM070801	8/2/2007	WM070801
Vanadium	0.70		1.0	0.0050	mg/L	8/1/2007	WM070801	8/2/2007	WM070801
Zinc	0.85		1.0	0.010	mg/L	8/1/2007	WM070801	8/2/2007	WM070801

Analyzed by: CTran

Reviewed by: HDINH

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8/7/2007 4:28:35 PM - E.Ling

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Attn: Shawn Munger

Project Number: 7862.3.002.01
Project Name: 199 River Oaks Parkway

Certificate of Analysis - Data Report

Samples Received: 08/01/2007
Sample Collected by: Client

Lab # : 56594-004 Sample ID: GW-2 Matrix: Liquid Sample Date: 8/1/2007 11:50 AM

VOCs: EPA 5030B / EPA 8260B for Groundwater and Water - EPA 624 for Wastewater

Parameter	Result	Qual	D/P-F	Detection Limit	Units	Prep Date	Prep Batch	Analysis Date	QC Batch
1,1,1,2-Tetrachloroethane	ND		1.0	0.50	µg/L	N/A	N/A	8/3/2007	WM2C070803C
1,1,1-Trichloroethane	ND		1.0	0.50	µg/L	N/A	N/A	8/3/2007	WM2C070803C
1,1,2,2-Tetrachloroethane	ND		1.0	0.50	µg/L	N/A	N/A	8/3/2007	WM2C070803C
1,1,2-Trichloroethane	ND		1.0	0.50	µg/L	N/A	N/A	8/3/2007	WM2C070803C
1,1-Dichloroethane	ND		1.0	0.50	µg/L	N/A	N/A	8/3/2007	WM2C070803C
1,1-Dichloroethene	ND		1.0	0.50	µg/L	N/A	N/A	8/3/2007	WM2C070803C
1,1-Dichloropropene	ND		1.0	0.50	µg/L	N/A	N/A	8/3/2007	WM2C070803C
1,2,3-Trichlorobenzene	ND		1.0	5.0	µg/L	N/A	N/A	8/3/2007	WM2C070803C
1,2,3-Trichloropropane	ND		1.0	5.0	µg/L	N/A	N/A	8/3/2007	WM2C070803C
1,2,4-Trichlorobenzene	ND		1.0	5.0	µg/L	N/A	N/A	8/3/2007	WM2C070803C
1,2,4-Trimethylbenzene	ND		1.0	5.0	µg/L	N/A	N/A	8/3/2007	WM2C070803C
1,2-Dibromo-3-Chloropropane	ND		1.0	5.0	µg/L	N/A	N/A	8/3/2007	WM2C070803C
1,2-Dibromoethane (EDB)	ND		1.0	0.50	µg/L	N/A	N/A	8/3/2007	WM2C070803C
1,2-Dichlorobenzene	ND		1.0	0.50	µg/L	N/A	N/A	8/3/2007	WM2C070803C
1,2-Dichloroethane	ND		1.0	0.50	µg/L	N/A	N/A	8/3/2007	WM2C070803C
1,2-Dichloropropane	ND		1.0	0.50	µg/L	N/A	N/A	8/3/2007	WM2C070803C
1,3,5-Trimethylbenzene	ND		1.0	5.0	µg/L	N/A	N/A	8/3/2007	WM2C070803C
1,3-Dichlorobenzene	ND		1.0	0.50	µg/L	N/A	N/A	8/3/2007	WM2C070803C
1,3-Dichloropropane	ND		1.0	0.50	µg/L	N/A	N/A	8/3/2007	WM2C070803C
1,4-Dichlorobenzene	ND		1.0	0.50	µg/L	N/A	N/A	8/3/2007	WM2C070803C
1,4-Dioxane	ND		1.0	50	µg/L	N/A	N/A	8/3/2007	WM2C070803C
2,2-Dichloropropane	ND		1.0	0.50	µg/L	N/A	N/A	8/3/2007	WM2C070803C
2-Butanone (MEK)	ND		1.0	20	µg/L	N/A	N/A	8/3/2007	WM2C070803C
2-Chloroethyl-vinyl Ether	ND		1.0	5.0	µg/L	N/A	N/A	8/3/2007	WM2C070803C
2-Chlorotoluene	ND		1.0	5.0	µg/L	N/A	N/A	8/3/2007	WM2C070803C
2-Hexanone	ND		1.0	20	µg/L	N/A	N/A	8/3/2007	WM2C070803C
4-Chlorotoluene	ND		1.0	5.0	µg/L	N/A	N/A	8/3/2007	WM2C070803C
4-Methyl-2-Pentanone(MIBK)	ND		1.0	20	µg/L	N/A	N/A	8/3/2007	WM2C070803C
Acetone	ND		1.0	20	µg/L	N/A	N/A	8/3/2007	WM2C070803C
Acetonitrile	ND		1.0	5.0	µg/L	N/A	N/A	8/3/2007	WM2C070803C
Acrolein	ND		1.0	5.0	µg/L	N/A	N/A	8/3/2007	WM2C070803C
Acrylonitrile	ND		1.0	5.0	µg/L	N/A	N/A	8/3/2007	WM2C070803C
Benzene	ND		1.0	0.50	µg/L	N/A	N/A	8/3/2007	WM2C070803C
Benzyl Chloride	ND		1.0	5.0	µg/L	N/A	N/A	8/3/2007	WM2C070803C
Bromobenzene	ND		1.0	0.50	µg/L	N/A	N/A	8/3/2007	WM2C070803C
Bromochloromethane	ND		1.0	0.50	µg/L	N/A	N/A	8/3/2007	WM2C070803C
Bromodichloromethane	ND		1.0	0.50	µg/L	N/A	N/A	8/3/2007	WM2C070803C
Bromoform	ND		1.0	0.50	µg/L	N/A	N/A	8/3/2007	WM2C070803C
Bromomethane	ND		1.0	0.50	µg/L	N/A	N/A	8/3/2007	WM2C070803C
Carbon Disulfide	ND		1.0	0.50	µg/L	N/A	N/A	8/3/2007	WM2C070803C
Carbon Tetrachloride	ND		1.0	0.50	µg/L	N/A	N/A	8/3/2007	WM2C070803C
Chlorobenzene	ND		1.0	0.50	µg/L	N/A	N/A	8/3/2007	WM2C070803C
Chloroethane	ND		1.0	0.50	µg/L	N/A	N/A	8/3/2007	WM2C070803C
Chloroform	ND		1.0	0.50	µg/L	N/A	N/A	8/3/2007	WM2C070803C
Chloromethane	ND		1.0	0.50	µg/L	N/A	N/A	8/3/2007	WM2C070803C

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Project Number: 7862.3.002.01
Project Name: 199 River Oaks Parkway

Certificate of Analysis - Data Report

Samples Received: 08/01/2007
Sample Collected by: Client

Lab # : 56594-004 Sample ID: GW-2 Matrix: Liquid Sample Date: 8/1/2007 11:50 AM

VOCs: EPA 5030B / EPA 8260B for Groundwater and Water - EPA 624 for Wastewater

Parameter	Result	Qual	D/P-F	Detection Limit	Units	Prep Date	Prep Batch	Analysis Date	QC Batch
cis-1,2-Dichloroethene	ND		1.0	0.50	µg/L	N/A	N/A	8/3/2007	WM2C070803C
cis-1,3-Dichloropropene	ND		1.0	0.50	µg/L	N/A	N/A	8/3/2007	WM2C070803C
Cyclohexanone	ND		1.0	20	µg/L	N/A	N/A	8/3/2007	WM2C070803C
Dibromochloromethane	ND		1.0	0.50	µg/L	N/A	N/A	8/3/2007	WM2C070803C
Dibromomethane	ND		1.0	0.50	µg/L	N/A	N/A	8/3/2007	WM2C070803C
Dichlorodifluoromethane	ND		1.0	0.50	µg/L	N/A	N/A	8/3/2007	WM2C070803C
Diisopropyl Ether	ND		1.0	5.0	µg/L	N/A	N/A	8/3/2007	WM2C070803C
Ethyl Benzene	ND		1.0	0.50	µg/L	N/A	N/A	8/3/2007	WM2C070803C
Freon 113	ND		1.0	5.0	µg/L	N/A	N/A	8/3/2007	WM2C070803C
Hexachlorobutadiene	ND		1.0	5.0	µg/L	N/A	N/A	8/3/2007	WM2C070803C
Iodomethane	ND		1.0	5.0	µg/L	N/A	N/A	8/3/2007	WM2C070803C
Isopropanol	ND		1.0	20	µg/L	N/A	N/A	8/3/2007	WM2C070803C
Isopropylbenzene	ND		1.0	1.0	µg/L	N/A	N/A	8/3/2007	WM2C070803C
Methyl-t-butyl Ether	ND		1.0	1.0	µg/L	N/A	N/A	8/3/2007	WM2C070803C
Methylene Chloride	ND		1.0	20	µg/L	N/A	N/A	8/3/2007	WM2C070803C
n-Butylbenzene	ND		1.0	5.0	µg/L	N/A	N/A	8/3/2007	WM2C070803C
n-Propylbenzene	ND		1.0	5.0	µg/L	N/A	N/A	8/3/2007	WM2C070803C
Naphthalene	ND		1.0	5.0	µg/L	N/A	N/A	8/3/2007	WM2C070803C
p-Isopropyltoluene	ND		1.0	5.0	µg/L	N/A	N/A	8/3/2007	WM2C070803C
Pentachloroethane	ND		1.0	0.50	µg/L	N/A	N/A	8/3/2007	WM2C070803C
sec-Butylbenzene	ND		1.0	5.0	µg/L	N/A	N/A	8/3/2007	WM2C070803C
Styrene	ND		1.0	0.50	µg/L	N/A	N/A	8/3/2007	WM2C070803C
tert-Amyl Methyl Ether	ND		1.0	5.0	µg/L	N/A	N/A	8/3/2007	WM2C070803C
tert-Butanol (TBA)	ND		1.0	10	µg/L	N/A	N/A	8/3/2007	WM2C070803C
tert-Butyl Ethyl Ether	ND		1.0	5.0	µg/L	N/A	N/A	8/3/2007	WM2C070803C
tert-Butylbenzene	ND		1.0	5.0	µg/L	N/A	N/A	8/3/2007	WM2C070803C
Tetrachloroethene	ND		1.0	0.50	µg/L	N/A	N/A	8/3/2007	WM2C070803C
Tetrahydrofuran	ND		1.0	20	µg/L	N/A	N/A	8/3/2007	WM2C070803C
Toluene	ND		1.0	0.50	µg/L	N/A	N/A	8/3/2007	WM2C070803C
trans-1,2-Dichloroethene	ND		1.0	0.50	µg/L	N/A	N/A	8/3/2007	WM2C070803C
trans-1,3-Dichloropropene	ND		1.0	0.50	µg/L	N/A	N/A	8/3/2007	WM2C070803C
trans-1,4-Dichloro-2-butene	ND		1.0	5.0	µg/L	N/A	N/A	8/3/2007	WM2C070803C
Trichloroethene	ND		1.0	0.50	µg/L	N/A	N/A	8/3/2007	WM2C070803C
Trichlorofluoromethane	ND		1.0	0.50	µg/L	N/A	N/A	8/3/2007	WM2C070803C
Vinyl Acetate	ND		1.0	5.0	µg/L	N/A	N/A	8/3/2007	WM2C070803C
Vinyl Chloride	ND		1.0	0.50	µg/L	N/A	N/A	8/3/2007	WM2C070803C
Xylenes, Total	ND		1.0	0.50	µg/L	N/A	N/A	8/3/2007	WM2C070803C

Surrogate	Surrogate Recovery	Control Limits (%)
4-Bromofluorobenzene	92.8	60 - 130
Dibromofluoromethane	101	60 - 130
Toluene-d8	94.9	60 - 130

Analyzed by: TAF
Reviewed by: MaiChiTu

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Project Number: 7862.3.002.01
Project Name: 199 River Oaks Parkway

Certificate of Analysis - Data Report

Samples Received: 08/01/2007
Sample Collected by: Client

Lab # : 56594-004 Sample ID: GW-2

Matrix: Liquid Sample Date: 8/1/2007 11:50 AM

SVOCs: EPA 3535A / EPA 3510C / EPA 8270C

Parameter	Result	Qual	D/P-F	Detection Limit	Units	Prep Date	Prep Batch	Analysis Date	QC Batch
1,2,4-Trichlorobenzene	ND		1.0	25	µg/L	8/2/2007	SVW070802	8/3/2007	SVW070802
1,2-Dichlorobenzene	ND		1.0	10	µg/L	8/2/2007	SVW070802	8/3/2007	SVW070802
1,2-Dinitrobenzene	ND		1.0	10	µg/L	8/2/2007	SVW070802	8/3/2007	SVW070802
1,3-Dichlorobenzene	ND		1.0	25	µg/L	8/2/2007	SVW070802	8/3/2007	SVW070802
1,3-Dinitrobenzene	ND		1.0	15	µg/L	8/2/2007	SVW070802	8/3/2007	SVW070802
1,4-Dichlorobenzene	ND		1.0	25	µg/L	8/2/2007	SVW070802	8/3/2007	SVW070802
1,4-Dinitrobenzene	ND		1.0	10	µg/L	8/2/2007	SVW070802	8/3/2007	SVW070802
1-Methylnaphthalene	ND		1.0	25	µg/L	8/2/2007	SVW070802	8/3/2007	SVW070802
2,3,4,6-Tetrachlorophenol	ND		1.0	10	µg/L	8/2/2007	SVW070802	8/3/2007	SVW070802
2,3,5,6-Tetrachlorophenol	ND		1.0	10	µg/L	8/2/2007	SVW070802	8/3/2007	SVW070802
2,4,5-Trichlorophenol	ND		1.0	10	µg/L	8/2/2007	SVW070802	8/3/2007	SVW070802
2,4,6-Trichlorophenol	ND		1.0	10	µg/L	8/2/2007	SVW070802	8/3/2007	SVW070802
2,4-Dichlorophenol	ND		1.0	25	µg/L	8/2/2007	SVW070802	8/3/2007	SVW070802
2,4-Dimethylphenol	ND		1.0	10	µg/L	8/2/2007	SVW070802	8/3/2007	SVW070802
2,4-Dinitrophenol	ND		1.0	20	µg/L	8/2/2007	SVW070802	8/3/2007	SVW070802
2,4-Dinitrotoluene	ND		1.0	10	µg/L	8/2/2007	SVW070802	8/3/2007	SVW070802
2,6-Dinitrotoluene	ND		1.0	10	µg/L	8/2/2007	SVW070802	8/3/2007	SVW070802
2-Chloronaphthalene	ND		1.0	10	µg/L	8/2/2007	SVW070802	8/3/2007	SVW070802
2-Chlorophenol	ND		1.0	10	µg/L	8/2/2007	SVW070802	8/3/2007	SVW070802
2-Methylnaphthalene	ND		1.0	25	µg/L	8/2/2007	SVW070802	8/3/2007	SVW070802
2-Methylphenol	ND		1.0	10	µg/L	8/2/2007	SVW070802	8/3/2007	SVW070802
2-Nitroaniline	ND		1.0	15	µg/L	8/2/2007	SVW070802	8/3/2007	SVW070802
2-Nitrophenol	ND		1.0	10	µg/L	8/2/2007	SVW070802	8/3/2007	SVW070802
3&4-Methylphenol	ND		1.0	15	µg/L	8/2/2007	SVW070802	8/3/2007	SVW070802
3,3'-Dichlorobenzidine	ND		1.0	15	µg/L	8/2/2007	SVW070802	8/3/2007	SVW070802
3-Nitroaniline	ND		1.0	10	µg/L	8/2/2007	SVW070802	8/3/2007	SVW070802
4,6-Dinitro-2-methylphenol	ND		1.0	10	µg/L	8/2/2007	SVW070802	8/3/2007	SVW070802
4-Bromophenyl Phenyl Ether	ND		1.0	20	µg/L	8/2/2007	SVW070802	8/3/2007	SVW070802
4-Chloro-3-methylphenol	ND		1.0	10	µg/L	8/2/2007	SVW070802	8/3/2007	SVW070802
4-Chloroaniline	ND		1.0	20	µg/L	8/2/2007	SVW070802	8/3/2007	SVW070802
4-Chlorophenyl-phenylether	ND		1.0	10	µg/L	8/2/2007	SVW070802	8/3/2007	SVW070802
4-Nitroaniline	ND		1.0	20	µg/L	8/2/2007	SVW070802	8/3/2007	SVW070802
4-Nitrophenol	ND		1.0	15	µg/L	8/2/2007	SVW070802	8/3/2007	SVW070802
Acenaphthene	ND		1.0	10	µg/L	8/2/2007	SVW070802	8/3/2007	SVW070802
Acenaphthylene	ND		1.0	10	µg/L	8/2/2007	SVW070802	8/3/2007	SVW070802
Aniline	ND		1.0	20	µg/L	8/2/2007	SVW070802	8/3/2007	SVW070802
Anthracene	ND		1.0	10	µg/L	8/2/2007	SVW070802	8/3/2007	SVW070802
Azobenzene	ND		1.0	10	µg/L	8/2/2007	SVW070802	8/3/2007	SVW070802
Benzo(a)anthracene	ND		1.0	20	µg/L	8/2/2007	SVW070802	8/3/2007	SVW070802
Benzo(a)pyrene	ND		1.0	30	µg/L	8/2/2007	SVW070802	8/3/2007	SVW070802
Benzo(b)fluoranthene	ND		1.0	10	µg/L	8/2/2007	SVW070802	8/3/2007	SVW070802
Benzo(g,h,i)perylene	ND		1.0	10	µg/L	8/2/2007	SVW070802	8/3/2007	SVW070802
Benzo(k)fluoranthene	ND		1.0	10	µg/L	8/2/2007	SVW070802	8/3/2007	SVW070802
Benzoic Acid	ND		1.0	15	µg/L	8/2/2007	SVW070802	8/3/2007	SVW070802
Benzyl Alcohol	ND		1.0	20	µg/L	8/2/2007	SVW070802	8/3/2007	SVW070802

Detection Limit = Detection Limit for Reporting.

ND = Not Detected at or above the Detection Limit.

D/P-F = Dilution and/or Prep Factor includes sample volume adjustments.

Qual = Data Qualifier

8/7/2007 4:28:35 PM - ELing

Entech Analytical Labs, Inc.

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Engeo, Inc.-SJ
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San Jose, Ca 95119
Attn: Shawn Munger

Project Number: 7862.3.002.01
Project Name: 199 River Oaks Parkway

Certificate of Analysis - Data Report

Samples Received: 08/01/2007
Sample Collected by: Client

Lab # : 56594-004 Sample ID: GW-2 Matrix: Liquid Sample Date: 8/1/2007 11:50 AM

SVOCs: EPA 3535A / EPA 3510C / EPA 8270C

Parameter	Result	Qual	D/P-F	Detection Limit	Units	Prep Date	Prep Batch	Analysis Date	QC Batch
bis-(2-Chloroethoxy)methane	ND		1.0	25	µg/L	8/2/2007	SVW070802	8/3/2007	SVW070802
bis-(2-Chloroethyl)ether	ND		1.0	10	µg/L	8/2/2007	SVW070802	8/3/2007	SVW070802
bis(2-Chloroisopropyl)ether	ND		1.0	10	µg/L	8/2/2007	SVW070802	8/3/2007	SVW070802
bis(2-Ethylhexyl)adipate	ND		1.0	10	µg/L	8/2/2007	SVW070802	8/3/2007	SVW070802
bis(2-Ethylhexyl)phthalate	ND		1.0	10	µg/L	8/2/2007	SVW070802	8/3/2007	SVW070802
Butylbenzylphthalate	ND		1.0	25	µg/L	8/2/2007	SVW070802	8/3/2007	SVW070802
Carbazole	ND		1.0	10	µg/L	8/2/2007	SVW070802	8/3/2007	SVW070802
Chrysene	ND		1.0	20	µg/L	8/2/2007	SVW070802	8/3/2007	SVW070802
Di-n-butylphthalate	ND		1.0	25	µg/L	8/2/2007	SVW070802	8/3/2007	SVW070802
Di-n-octylphthalate	ND		1.0	10	µg/L	8/2/2007	SVW070802	8/3/2007	SVW070802
Dibenzo(a,h)anthracene	ND		1.0	10	µg/L	8/2/2007	SVW070802	8/3/2007	SVW070802
Dibenzofuran	ND		1.0	15	µg/L	8/2/2007	SVW070802	8/3/2007	SVW070802
Diethylphthalate	ND		1.0	10	µg/L	8/2/2007	SVW070802	8/3/2007	SVW070802
Dimethylphthalate	ND		1.0	10	µg/L	8/2/2007	SVW070802	8/3/2007	SVW070802
Diphenylamine	ND		1.0	10	µg/L	8/2/2007	SVW070802	8/3/2007	SVW070802
Fluoranthene	ND		1.0	20	µg/L	8/2/2007	SVW070802	8/3/2007	SVW070802
Fluorene	ND		1.0	10	µg/L	8/2/2007	SVW070802	8/3/2007	SVW070802
Hexachlorobenzene	ND		1.0	20	µg/L	8/2/2007	SVW070802	8/3/2007	SVW070802
Hexachlorobutadiene	ND		1.0	20	µg/L	8/2/2007	SVW070802	8/3/2007	SVW070802
Hexachlorocyclopentadiene	ND		1.0	25	µg/L	8/2/2007	SVW070802	8/3/2007	SVW070802
Hexachloroethane	ND		1.0	10	µg/L	8/2/2007	SVW070802	8/3/2007	SVW070802
Indeno(1,2,3-cd)pyrene	ND		1.0	15	µg/L	8/2/2007	SVW070802	8/3/2007	SVW070802
Isophorone	ND		1.0	10	µg/L	8/2/2007	SVW070802	8/3/2007	SVW070802
N-Nitroso-di-n-propylamine	ND		1.0	10	µg/L	8/2/2007	SVW070802	8/3/2007	SVW070802
Naphthalene	ND		1.0	25	µg/L	8/2/2007	SVW070802	8/3/2007	SVW070802
Nitrobenzene	ND		1.0	10	µg/L	8/2/2007	SVW070802	8/3/2007	SVW070802
Pentachlorophenol	ND		1.0	10	µg/L	8/2/2007	SVW070802	8/3/2007	SVW070802
Phenanthrene	ND		1.0	10	µg/L	8/2/2007	SVW070802	8/3/2007	SVW070802
Phenol	ND		1.0	10	µg/L	8/2/2007	SVW070802	8/3/2007	SVW070802
Pyrene	ND		1.0	20	µg/L	8/2/2007	SVW070802	8/3/2007	SVW070802

Surrogate	Surrogate Recovery	Control Limits (%)
2,4,6-Tribromophenol	61.6	25 - 115
2-Fluorobiphenyl	42.4	20 - 100
2-Fluorophenol	23.6	10 - 100
Nitrobenzene-d5	44.6	25 - 100
Phenol-d6	17.4	10 - 100
p-Terphenyl-d14	68.6	35 - 130

Analyzed by: LYU

Reviewed by: mtran

Fluoride by ISE w/o Distillation: EPA 340.2/Std. Methods (18th Ed.) 4500-F-C

Parameter	Result	Qual	D/P-F	Detection Limit	Units	Prep Date	Prep Batch	Analysis Date	QC Batch
Fluoride	0.44		1.0	0.10	mg/L	N/A	N/A	8/1/2007	WF070801

Analyzed by: EBlanco

Reviewed by: HDINH

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8/7/2007 4:28:35 PM - E.Ling

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Attn: Shawn Munger

Project Number: 7862.3.002.01
Project Name: 199 River Oaks Parkway

Certificate of Analysis - Data Report

Samples Received: 08/01/2007
Sample Collected by: Client

Lab #: 56594-004 Sample ID: GW-2 Matrix: Liquid Sample Date: 8/1/2007 11:50 AM

Mercury: EPA 7470A for Water and Groundwater / EPA 245.1 for Wastewater

Parameter	Result	Qual	D/P-F	Detection Limit	Units	Prep Date	Prep Batch	Analysis Date	QC Batch
Mercury	0.00054		1.0	0.0002	mg/L	8/6/2007	WHG070806	8/6/2007	WHG070806

Analyzed by: Hdinh
Reviewed by: RWipfler

Metals by ICP: EPA 3010A / EPA 6010B for Groundwater and Water - EPA 200.7 for Wastewater

Parameter	Result	Qual	D/P-F	Detection Limit	Units	Prep Date	Prep Batch	Analysis Date	QC Batch
Antimony	ND		1.0	0.010	mg/L	8/1/2007	WM070801	8/3/2007	WM070801
Arsenic	0.019		1.0	0.010	mg/L	8/1/2007	WM070801	8/3/2007	WM070801
Barium	0.78		1.0	0.0050	mg/L	8/1/2007	WM070801	8/3/2007	WM070801
Beryllium	ND		1.0	0.0050	mg/L	8/1/2007	WM070801	8/3/2007	WM070801
Cadmium	ND		1.0	0.0020	mg/L	8/1/2007	WM070801	8/3/2007	WM070801
Chromium	0.23		1.0	0.0050	mg/L	8/1/2007	WM070801	8/3/2007	WM070801
Cobalt	0.046		1.0	0.0050	mg/L	8/1/2007	WM070801	8/3/2007	WM070801
Copper	0.14		1.0	0.0050	mg/L	8/1/2007	WM070801	8/3/2007	WM070801
Lead	0.033		1.0	0.0050	mg/L	8/1/2007	WM070801	8/3/2007	WM070801
Molybdenum	0.0054		1.0	0.0050	mg/L	8/1/2007	WM070801	8/3/2007	WM070801
Nickel	0.30		1.0	0.0050	mg/L	8/1/2007	WM070801	8/3/2007	WM070801
Selenium	ND		1.0	0.020	mg/L	8/1/2007	WM070801	8/3/2007	WM070801
Silver	ND		1.0	0.0050	mg/L	8/1/2007	WM070801	8/3/2007	WM070801
Thallium	ND		1.0	0.020	mg/L	8/1/2007	WM070801	8/3/2007	WM070801
Vanadium	0.21		1.0	0.0050	mg/L	8/1/2007	WM070801	8/3/2007	WM070801
Zinc	0.26		1.0	0.010	mg/L	8/1/2007	WM070801	8/3/2007	WM070801

Analyzed by: CTran
Reviewed by: HDINH

Detection Limit = Detection Limit for Reporting.

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8/7/2007 4:28:35 PM - ELing

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San Jose, Ca 95119
Attn: Shawn Munger

Project Number: 7862.3.002.01
Project Name: 199 River Oaks Parkway

Certificate of Analysis - Data Report

Samples Received: 08/01/2007
Sample Collected by: Client

Lab # : 56594-005 Sample ID: DP-2@3-4 Matrix: Solid Sample Date: 8/1/2007 9:50 AM

VOCs: EPA 5030B (or 5035A for Encore Samples only)/EPA 8260B

Parameter	Result	Qual	D/P-F	Detection Limit	Units	Prep Date	Prep Batch	Analysis Date	QC Batch
1,1,1,2-Tetrachloroethane	ND		1.0	5.0	µg/Kg	N/A	N/A	8/2/2007	SM3E070802E
1,1,1-Trichloroethane	ND		1.0	5.0	µg/Kg	N/A	N/A	8/2/2007	SM3E070802E
1,1,2,2-Tetrachloroethane	ND		1.0	5.0	µg/Kg	N/A	N/A	8/2/2007	SM3E070802E
1,1,2-Trichloroethane	ND		1.0	5.0	µg/Kg	N/A	N/A	8/2/2007	SM3E070802E
1,1-Dichloroethane	ND		1.0	5.0	µg/Kg	N/A	N/A	8/2/2007	SM3E070802E
1,1-Dichloroethene	ND		1.0	5.0	µg/Kg	N/A	N/A	8/2/2007	SM3E070802E
1,1-Dichloropropene	ND		1.0	5.0	µg/Kg	N/A	N/A	8/2/2007	SM3E070802E
1,2,3-Trichlorobenzene	ND		1.0	5.0	µg/Kg	N/A	N/A	8/2/2007	SM3E070802E
1,2,3-Trichloropropane	ND		1.0	5.0	µg/Kg	N/A	N/A	8/2/2007	SM3E070802E
1,2,4-Trichlorobenzene	ND		1.0	5.0	µg/Kg	N/A	N/A	8/2/2007	SM3E070802E
1,2,4-Trimethylbenzene	ND		1.0	5.0	µg/Kg	N/A	N/A	8/2/2007	SM3E070802E
1,2-Dibromo-3-Chloropropane	ND		1.0	5.0	µg/Kg	N/A	N/A	8/2/2007	SM3E070802E
1,2-Dibromoethane (EDB)	ND		1.0	5.0	µg/Kg	N/A	N/A	8/2/2007	SM3E070802E
1,2-Dichlorobenzene	ND		1.0	5.0	µg/Kg	N/A	N/A	8/2/2007	SM3E070802E
1,2-Dichloroethane	ND		1.0	5.0	µg/Kg	N/A	N/A	8/2/2007	SM3E070802E
1,2-Dichloropropane	ND		1.0	5.0	µg/Kg	N/A	N/A	8/2/2007	SM3E070802E
1,3,5-Trimethylbenzene	ND		1.0	5.0	µg/Kg	N/A	N/A	8/2/2007	SM3E070802E
1,3-Dichlorobenzene	ND		1.0	5.0	µg/Kg	N/A	N/A	8/2/2007	SM3E070802E
1,3-Dichloropropane	ND		1.0	5.0	µg/Kg	N/A	N/A	8/2/2007	SM3E070802E
1,4-Dichlorobenzene	ND		1.0	5.0	µg/Kg	N/A	N/A	8/2/2007	SM3E070802E
1,4-Dioxane	ND		1.0	200	µg/Kg	N/A	N/A	8/2/2007	SM3E070802E
2,2-Dichloropropane	ND		1.0	5.0	µg/Kg	N/A	N/A	8/2/2007	SM3E070802E
2-Butanone (MEK)	ND		1.0	40	µg/Kg	N/A	N/A	8/2/2007	SM3E070802E
2-Chloroethyl-vinyl Ether	ND		1.0	5.0	µg/Kg	N/A	N/A	8/2/2007	SM3E070802E
2-Chlorotoluene	ND		1.0	5.0	µg/Kg	N/A	N/A	8/2/2007	SM3E070802E
2-Hexanone	ND		1.0	40	µg/Kg	N/A	N/A	8/2/2007	SM3E070802E
4-Chlorotoluene	ND		1.0	5.0	µg/Kg	N/A	N/A	8/2/2007	SM3E070802E
4-Methyl-2-Pentanone(MIBK)	ND		1.0	40	µg/Kg	N/A	N/A	8/2/2007	SM3E070802E
Acetone	ND		1.0	100	µg/Kg	N/A	N/A	8/2/2007	SM3E070802E
Acetonitrile	ND		1.0	40	µg/Kg	N/A	N/A	8/2/2007	SM3E070802E
Acrolein	ND		1.0	5.0	µg/Kg	N/A	N/A	8/2/2007	SM3E070802E
Acrylonitrile	ND		1.0	5.0	µg/Kg	N/A	N/A	8/2/2007	SM3E070802E
Benzene	ND		1.0	5.0	µg/Kg	N/A	N/A	8/2/2007	SM3E070802E
Benzyl Chloride	ND		1.0	5.0	µg/Kg	N/A	N/A	8/2/2007	SM3E070802E
Bromobenzene	ND		1.0	5.0	µg/Kg	N/A	N/A	8/2/2007	SM3E070802E
Bromochloromethane	ND		1.0	5.0	µg/Kg	N/A	N/A	8/2/2007	SM3E070802E
Bromodichloromethane	ND		1.0	5.0	µg/Kg	N/A	N/A	8/2/2007	SM3E070802E
Bromoform	ND		1.0	5.0	µg/Kg	N/A	N/A	8/2/2007	SM3E070802E
Bromomethane	ND		1.0	5.0	µg/Kg	N/A	N/A	8/2/2007	SM3E070802E
Carbon Disulfide	ND		1.0	5.0	µg/Kg	N/A	N/A	8/2/2007	SM3E070802E
Carbon Tetrachloride	ND		1.0	5.0	µg/Kg	N/A	N/A	8/2/2007	SM3E070802E
Chlorobenzene	ND		1.0	5.0	µg/Kg	N/A	N/A	8/2/2007	SM3E070802E
Chloroethane	ND		1.0	5.0	µg/Kg	N/A	N/A	8/2/2007	SM3E070802E
Chloroform	ND		1.0	5.0	µg/Kg	N/A	N/A	8/2/2007	SM3E070802E
Chloromethane	ND		1.0	5.0	µg/Kg	N/A	N/A	8/2/2007	SM3E070802E

Detection Limit = Detection Limit for Reporting.

ND = Not Detected at or above the Detection Limit.

D/P-F = Dilution and/or Prep Factor includes sample volume adjustments.

Qual = Data Qualifier

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Project Number: 7862.3.002.01
Project Name: 199 River Oaks Parkway

Certificate of Analysis - Data Report

Samples Received: 08/01/2007
Sample Collected by: Client

Lab # : 56594-005 Sample ID: DP-2@3-4 Matrix: Solid Sample Date: 8/1/2007 9:50 AM

VOCs: EPA 5030B (or 5035A for Encore Samples only)/EPA 8260B

Parameter	Result	Qual	D/P-F	Detection Limit	Units	Prep Date	Prep Batch	Analysis Date	QC Batch
cis-1,2-Dichloroethene	ND		1.0	5.0	µg/Kg	N/A	N/A	8/2/2007	SM3E070802E
cis-1,3-Dichloropropene	ND		1.0	5.0	µg/Kg	N/A	N/A	8/2/2007	SM3E070802E
Cyclohexanone	ND		1.0	40	µg/Kg	N/A	N/A	8/2/2007	SM3E070802E
Dibromochloromethane	ND		1.0	5.0	µg/Kg	N/A	N/A	8/2/2007	SM3E070802E
Dibromomethane	ND		1.0	5.0	µg/Kg	N/A	N/A	8/2/2007	SM3E070802E
Dichlorodifluoromethane	ND		1.0	5.0	µg/Kg	N/A	N/A	8/2/2007	SM3E070802E
Diisopropyl Ether	ND		1.0	5.0	µg/Kg	N/A	N/A	8/2/2007	SM3E070802E
Ethyl Benzene	ND		1.0	5.0	µg/Kg	N/A	N/A	8/2/2007	SM3E070802E
Freon 113	ND		1.0	10	µg/Kg	N/A	N/A	8/2/2007	SM3E070802E
Hexachlorobutadiene	ND		1.0	5.0	µg/Kg	N/A	N/A	8/2/2007	SM3E070802E
Iodomethane	ND		1.0	10	µg/Kg	N/A	N/A	8/2/2007	SM3E070802E
Isopropanol	ND		1.0	100	µg/Kg	N/A	N/A	8/2/2007	SM3E070802E
Isopropylbenzene	ND		1.0	5.0	µg/Kg	N/A	N/A	8/2/2007	SM3E070802E
Methyl-t-butyl Ether	ND		1.0	5.0	µg/Kg	N/A	N/A	8/2/2007	SM3E070802E
Methylene Chloride	ND		1.0	50	µg/Kg	N/A	N/A	8/2/2007	SM3E070802E
n-Butylbenzene	ND		1.0	5.0	µg/Kg	N/A	N/A	8/2/2007	SM3E070802E
n-Propylbenzene	ND		1.0	5.0	µg/Kg	N/A	N/A	8/2/2007	SM3E070802E
Naphthalene	ND		1.0	5.0	µg/Kg	N/A	N/A	8/2/2007	SM3E070802E
p-Isopropyltoluene	ND		1.0	5.0	µg/Kg	N/A	N/A	8/2/2007	SM3E070802E
Pentachloroethane	ND		1.0	5.0	µg/Kg	N/A	N/A	8/2/2007	SM3E070802E
sec-Butylbenzene	ND		1.0	5.0	µg/Kg	N/A	N/A	8/2/2007	SM3E070802E
Styrene	ND		1.0	5.0	µg/Kg	N/A	N/A	8/2/2007	SM3E070802E
tert-Amyl Methyl Ether	ND		1.0	5.0	µg/Kg	N/A	N/A	8/2/2007	SM3E070802E
tert-Butanol (TBA)	ND		1.0	40	µg/Kg	N/A	N/A	8/2/2007	SM3E070802E
tert-Butyl Ethyl Ether	ND		1.0	5.0	µg/Kg	N/A	N/A	8/2/2007	SM3E070802E
tert-Butylbenzene	ND		1.0	5.0	µg/Kg	N/A	N/A	8/2/2007	SM3E070802E
Tetrachloroethene	ND		1.0	5.0	µg/Kg	N/A	N/A	8/2/2007	SM3E070802E
Tetrahydrofuran	ND		1.0	40	µg/Kg	N/A	N/A	8/2/2007	SM3E070802E
Toluene	ND		1.0	5.0	µg/Kg	N/A	N/A	8/2/2007	SM3E070802E
trans-1,2-Dichloroethene	ND		1.0	5.0	µg/Kg	N/A	N/A	8/2/2007	SM3E070802E
trans-1,3-Dichloropropene	ND		1.0	5.0	µg/Kg	N/A	N/A	8/2/2007	SM3E070802E
trans-1,4-Dichloro-2-butene	ND		1.0	10	µg/Kg	N/A	N/A	8/2/2007	SM3E070802E
Trichloroethene	ND		1.0	5.0	µg/Kg	N/A	N/A	8/2/2007	SM3E070802E
Trichlorofluoromethane	ND		1.0	5.0	µg/Kg	N/A	N/A	8/2/2007	SM3E070802E
Vinyl Acetate	ND		1.0	5.0	µg/Kg	N/A	N/A	8/2/2007	SM3E070802E
Vinyl Chloride	ND		1.0	5.0	µg/Kg	N/A	N/A	8/2/2007	SM3E070802E
Xylenes, Total	ND		1.0	10	µg/Kg	N/A	N/A	8/2/2007	SM3E070802E

Surrogate	Surrogate Recovery	Control Limits (%)
4-Bromofluorobenzene	98.6	60 - 130
Dibromofluoromethane	125	60 - 130
Toluene-d8	102	60 - 130

Analyzed by: MaiChiTu
Reviewed by: EricKum

Detection Limit = Detection Limit for Reporting.

ND = Not Detected at or above the Detection Limit.

D/P-F = Dilution and/or Prep Factor includes sample volume adjustments.

Qual = Data Qualifier

8/7/2007 4:28:36 PM - ELing

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6288 San Ignacio Suite A
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Attn: Shawn Munger

Project Number: 7862.3.002.01
Project Name: 199 River Oaks Parkway

Certificate of Analysis - Data Report

Samples Received: 08/01/2007
Sample Collected by: Client

Lab #: 56594-005 Sample ID: DP-2@3-4 Matrix: Solid Sample Date: 8/1/2007 9:50 AM

SVOCs: EPA 3545A / EPA 8270C

Parameter	Result	Qual	D/P-F	Detection Limit	Units	Prep Date	Prep Batch	Analysis Date	QC Batch
1,2,4-Trichlorobenzene	ND		2.0	1.0	mg/Kg	8/1/2007	SVS070801	8/3/2007	SVS070801
1,2-Dichlorobenzene	ND		2.0	1.0	mg/Kg	8/1/2007	SVS070801	8/3/2007	SVS070801
1,2-Dinitrobenzene	ND		2.0	1.0	mg/Kg	8/1/2007	SVS070801	8/3/2007	SVS070801
1,3-Dichlorobenzene	ND		2.0	1.0	mg/Kg	8/1/2007	SVS070801	8/3/2007	SVS070801
1,3-Dinitrobenzene	ND		2.0	1.0	mg/Kg	8/1/2007	SVS070801	8/3/2007	SVS070801
1,4-Dichlorobenzene	ND		2.0	1.0	mg/Kg	8/1/2007	SVS070801	8/3/2007	SVS070801
1,4-Dinitrobenzene	ND		2.0	1.0	mg/Kg	8/1/2007	SVS070801	8/3/2007	SVS070801
1-Methylnaphthalene	ND		2.0	1.0	mg/Kg	8/1/2007	SVS070801	8/3/2007	SVS070801
2,3,4,6-Tetrachlorophenol	ND		2.0	1.0	mg/Kg	8/1/2007	SVS070801	8/3/2007	SVS070801
2,3,5,6-Tetrachlorophenol	ND		2.0	1.0	mg/Kg	8/1/2007	SVS070801	8/3/2007	SVS070801
2,4,5-Trichlorophenol	ND		2.0	1.0	mg/Kg	8/1/2007	SVS070801	8/3/2007	SVS070801
2,4,6-Trichlorophenol	ND		2.0	1.0	mg/Kg	8/1/2007	SVS070801	8/3/2007	SVS070801
2,4-Dichlorophenol	ND		2.0	1.0	mg/Kg	8/1/2007	SVS070801	8/3/2007	SVS070801
2,4-Dimethylphenol	ND		2.0	1.0	mg/Kg	8/1/2007	SVS070801	8/3/2007	SVS070801
2,4-Dinitrophenol	ND		2.0	5.0	mg/Kg	8/1/2007	SVS070801	8/3/2007	SVS070801
2,4-Dinitrotoluene	ND		2.0	1.0	mg/Kg	8/1/2007	SVS070801	8/3/2007	SVS070801
2,6-Dinitrotoluene	ND		2.0	2.0	mg/Kg	8/1/2007	SVS070801	8/3/2007	SVS070801
2-Chloronaphthalene	ND		2.0	1.0	mg/Kg	8/1/2007	SVS070801	8/3/2007	SVS070801
2-Chlorophenol	ND		2.0	2.0	mg/Kg	8/1/2007	SVS070801	8/3/2007	SVS070801
2-Methylnaphthalene	ND		2.0	1.0	mg/Kg	8/1/2007	SVS070801	8/3/2007	SVS070801
2-Methylphenol	ND		2.0	1.0	mg/Kg	8/1/2007	SVS070801	8/3/2007	SVS070801
2-Nitroaniline	ND		2.0	1.0	mg/Kg	8/1/2007	SVS070801	8/3/2007	SVS070801
2-Nitrophenol	ND		2.0	1.0	mg/Kg	8/1/2007	SVS070801	8/3/2007	SVS070801
3&4-Methylphenol	ND		2.0	1.0	mg/Kg	8/1/2007	SVS070801	8/3/2007	SVS070801
3,3'-Dichlorobenzidine	ND		2.0	5.0	mg/Kg	8/1/2007	SVS070801	8/3/2007	SVS070801
3-Nitroaniline	ND		2.0	1.0	mg/Kg	8/1/2007	SVS070801	8/3/2007	SVS070801
4,6-Dinitro-2-methylphenol	ND		2.0	4.0	mg/Kg	8/1/2007	SVS070801	8/3/2007	SVS070801
4-Bromophenyl Phenyl Ether	ND		2.0	1.0	mg/Kg	8/1/2007	SVS070801	8/3/2007	SVS070801
4-Chloro-3-methylphenol	ND		2.0	1.0	mg/Kg	8/1/2007	SVS070801	8/3/2007	SVS070801
4-Chloroaniline	ND		2.0	1.0	mg/Kg	8/1/2007	SVS070801	8/3/2007	SVS070801
4-Chlorophenyl-phenylether	ND		2.0	1.0	mg/Kg	8/1/2007	SVS070801	8/3/2007	SVS070801
4-Nitroaniline	ND		2.0	1.0	mg/Kg	8/1/2007	SVS070801	8/3/2007	SVS070801
4-Nitrophenol	ND		2.0	4.0	mg/Kg	8/1/2007	SVS070801	8/3/2007	SVS070801
Acenaphthene	ND		2.0	2.0	mg/Kg	8/1/2007	SVS070801	8/3/2007	SVS070801
Acenaphthylene	ND		2.0	1.0	mg/Kg	8/1/2007	SVS070801	8/3/2007	SVS070801
Aniline	ND		2.0	1.0	mg/Kg	8/1/2007	SVS070801	8/3/2007	SVS070801
Anthracene	ND		2.0	1.0	mg/Kg	8/1/2007	SVS070801	8/3/2007	SVS070801
Azobenzene	ND		2.0	1.0	mg/Kg	8/1/2007	SVS070801	8/3/2007	SVS070801
Benzo(a)anthracene	ND		2.0	1.0	mg/Kg	8/1/2007	SVS070801	8/3/2007	SVS070801
Benzo(a)pyrene	ND		2.0	1.0	mg/Kg	8/1/2007	SVS070801	8/3/2007	SVS070801
Benzo(b)fluoranthene	ND		2.0	1.0	mg/Kg	8/1/2007	SVS070801	8/3/2007	SVS070801
Benzo(g,h,i)perylene	ND		2.0	1.0	mg/Kg	8/1/2007	SVS070801	8/3/2007	SVS070801
Benzo(k)fluoranthene	ND		2.0	1.0	mg/Kg	8/1/2007	SVS070801	8/3/2007	SVS070801
Benzoic Acid	ND		2.0	2.0	mg/Kg	8/1/2007	SVS070801	8/3/2007	SVS070801
Benzyl Alcohol	ND		2.0	2.0	mg/Kg	8/1/2007	SVS070801	8/3/2007	SVS070801

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ND = Not Detected at or above the Detection Limit.

D/P-F = Dilution and/or Prep Factor includes sample volume adjustments.

Qual = Data Qualifier

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6288 San Ignacio Suite A
San Jose, Ca 95119
Attn: Shawn Munger

Project Number: 7862.3.002.01
Project Name: 199 River Oaks Parkway

Certificate of Analysis - Data Report

Samples Received: 08/01/2007
Sample Collected by: Client

Lab #: 56594-005 Sample ID: DP-2@3-4 Matrix: Solid Sample Date: 8/1/2007 9:50 AM

SVOCs: EPA 3545A / EPA 8270C

Parameter	Result	Qual	D/P-F	Detection Limit	Units	Prep Date	Prep Batch	Analysis Date	QC Batch
bis-(2-Chloroethoxy)methane	ND		2.0	1.0	mg/Kg	8/1/2007	SVS070801	8/3/2007	SVS070801
bis-(2-Chloroethyl)ether	ND		2.0	1.0	mg/Kg	8/1/2007	SVS070801	8/3/2007	SVS070801
bis(2-Chloroisopropyl)ether	ND		2.0	1.0	mg/Kg	8/1/2007	SVS070801	8/3/2007	SVS070801
bis(2-Ethylhexyl)adipate	ND		2.0	1.0	mg/Kg	8/1/2007	SVS070801	8/3/2007	SVS070801
bis(2-Ethylhexyl)phthalate	ND		2.0	1.0	mg/Kg	8/1/2007	SVS070801	8/3/2007	SVS070801
Butylbenzylphthalate	ND		2.0	1.0	mg/Kg	8/1/2007	SVS070801	8/3/2007	SVS070801
Carbazole	ND		2.0	1.0	mg/Kg	8/1/2007	SVS070801	8/3/2007	SVS070801
Chrysene	ND		2.0	1.0	mg/Kg	8/1/2007	SVS070801	8/3/2007	SVS070801
Di-n-butylphthalate	ND		2.0	1.0	mg/Kg	8/1/2007	SVS070801	8/3/2007	SVS070801
Di-n-octylphthalate	ND		2.0	1.0	mg/Kg	8/1/2007	SVS070801	8/3/2007	SVS070801
Dibenzo(a,h)anthracene	ND		2.0	1.0	mg/Kg	8/1/2007	SVS070801	8/3/2007	SVS070801
Dibenzofuran	ND		2.0	1.0	mg/Kg	8/1/2007	SVS070801	8/3/2007	SVS070801
Diethylphthalate	ND		2.0	1.0	mg/Kg	8/1/2007	SVS070801	8/3/2007	SVS070801
Dimethylphthalate	ND		2.0	1.0	mg/Kg	8/1/2007	SVS070801	8/3/2007	SVS070801
Diphenylamine	ND		2.0	1.0	mg/Kg	8/1/2007	SVS070801	8/3/2007	SVS070801
Fluoranthene	ND		2.0	1.0	mg/Kg	8/1/2007	SVS070801	8/3/2007	SVS070801
Fluorene	ND		2.0	1.0	mg/Kg	8/1/2007	SVS070801	8/3/2007	SVS070801
Hexachlorobenzene	ND		2.0	1.0	mg/Kg	8/1/2007	SVS070801	8/3/2007	SVS070801
Hexachlorobutadiene	ND		2.0	1.0	mg/Kg	8/1/2007	SVS070801	8/3/2007	SVS070801
Hexachlorocyclopentadiene	ND		2.0	1.0	mg/Kg	8/1/2007	SVS070801	8/3/2007	SVS070801
Hexachloroethane	ND		2.0	1.0	mg/Kg	8/1/2007	SVS070801	8/3/2007	SVS070801
Indeno(1,2,3-cd)pyrene	ND		2.0	1.0	mg/Kg	8/1/2007	SVS070801	8/3/2007	SVS070801
Isophorone	ND		2.0	1.0	mg/Kg	8/1/2007	SVS070801	8/3/2007	SVS070801
N-Nitroso-di-n-propylamine	ND		2.0	2.0	mg/Kg	8/1/2007	SVS070801	8/3/2007	SVS070801
N-Nitrosodimethylamine	ND		2.0	10	mg/Kg	8/1/2007	SVS070801	8/3/2007	SVS070801
Naphthalene	ND		2.0	1.0	mg/Kg	8/1/2007	SVS070801	8/3/2007	SVS070801
Nitrobenzene	ND		2.0	1.0	mg/Kg	8/1/2007	SVS070801	8/3/2007	SVS070801
1-Methyl-2-pyrrolidinone (NMP)	ND		2.0	1.0	mg/Kg	8/1/2007	SVS070801	8/3/2007	SVS070801
Pentachlorophenol	ND		2.0	1.0	mg/Kg	8/1/2007	SVS070801	8/3/2007	SVS070801
Phenanthrene	ND		2.0	1.0	mg/Kg	8/1/2007	SVS070801	8/3/2007	SVS070801
Phenol	ND		2.0	4.0	mg/Kg	8/1/2007	SVS070801	8/3/2007	SVS070801
Pyrene	ND		2.0	2.0	mg/Kg	8/1/2007	SVS070801	8/3/2007	SVS070801
Pyridine	ND		2.0	4.0	mg/Kg	8/1/2007	SVS070801	8/3/2007	SVS070801

The reporting limits are increased due to presence of non-target hydrocarbons in the sample.

Surrogate	Surrogate Recovery	Control Limits (%)
2,4,6-Tribromophenol	85.9	30 - 100
2-Fluorobiphenyl	51.5	20 - 100
2-Fluorophenol	42.3	20 - 100
Nitrobenzene-d5	45.9	20 - 100
Phenol-d6	52.8	20 - 100
p-Terphenyl-d14	109	55 - 130

Analyzed by: LYu
Reviewed by: mtran

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San Jose, Ca 95119
Attn: Shawn Munger

Project Number: 7862.3.002.01
Project Name: 199 River Oaks Parkway

Certificate of Analysis - Data Report

Samples Received: 08/01/2007
Sample Collected by: Client

Lab # : 56594-005 Sample ID: DP-2@3-4 Matrix: Solid Sample Date: 8/1/2007 9:50 AM

Fluoride by ISE w/o Distillation: EPA 9214

Parameter	Result	Qual	D/P-F	Detection Limit	Units	Prep Date	Prep Batch	Analysis Date	QC Batch
Fluoride	1.1		1.0	1.0	mg/Kg	8/2/2007	SF070802	8/2/2007	SF070802

Analyzed by: EBlanco

Reviewed by: HDINH

Mercury: EPA 7471B

Parameter	Result	Qual	D/P-F	Detection Limit	Units	Prep Date	Prep Batch	Analysis Date	QC Batch
Mercury	ND		1.0	0.050	mg/Kg	8/3/2007	SHG070803	8/3/2007	SHG070803

Analyzed by: HdinH

Reviewed by: RWipfler

Metals by ICP: EPA 3050B / EPA 6010B

Parameter	Result	Qual	D/P-F	Detection Limit	Units	Prep Date	Prep Batch	Analysis Date	QC Batch
Antimony	ND		1.0	1.0	mg/Kg	8/3/2007	SM070803	8/6/2007	SM070803
Arsenic	7.2		1.0	1.0	mg/Kg	8/3/2007	SM070803	8/6/2007	SM070803
Barium	310		1.0	1.0	mg/Kg	8/3/2007	SM070803	8/6/2007	SM070803
Beryllium	ND		1.0	1.0	mg/Kg	8/3/2007	SM070803	8/6/2007	SM070803
Cadmium	ND		1.0	1.0	mg/Kg	8/3/2007	SM070803	8/6/2007	SM070803
Chromium	210		1.0	1.0	mg/Kg	8/3/2007	SM070803	8/6/2007	SM070803
Cobalt	21		1.0	1.0	mg/Kg	8/3/2007	SM070803	8/6/2007	SM070803
Copper	31		1.0	1.0	mg/Kg	8/3/2007	SM070803	8/6/2007	SM070803
Lead	16		1.0	1.0	mg/Kg	8/3/2007	SM070803	8/6/2007	SM070803
Molybdenum	ND		1.0	1.0	mg/Kg	8/3/2007	SM070803	8/6/2007	SM070803
Nickel	290		1.0	1.0	mg/Kg	8/3/2007	SM070803	8/6/2007	SM070803
Selenium	ND		1.0	2.0	mg/Kg	8/3/2007	SM070803	8/6/2007	SM070803
Silver	ND		1.0	1.0	mg/Kg	8/3/2007	SM070803	8/6/2007	SM070803
Thallium	ND		1.0	2.0	mg/Kg	8/3/2007	SM070803	8/6/2007	SM070803
Vanadium	35		1.0	1.0	mg/Kg	8/3/2007	SM070803	8/6/2007	SM070803
Zinc	50		1.0	2.0	mg/Kg	8/3/2007	SM070803	8/6/2007	SM070803

Analyzed by: CTran

Reviewed by: HDINH

Detection Limit = Detection Limit for Reporting.

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Attn: Shawn Munger

Project Number: 7862.3.002.01
Project Name: 199 River Oaks Parkway

Certificate of Analysis - Data Report

Samples Received: 08/01/2007
Sample Collected by: Client

Lab # : 56594-006 Sample ID: DP-2@6-7 Matrix: Solid Sample Date: 8/1/2007 9:55 AM

VOCs: EPA 5030B (or 5035A for Encore Samples only)/EPA 8260B

Parameter	Result	Qual	D/P-F	Detection Limit	Units	Prep Date	Prep Batch	Analysis Date	QC Batch
1,1,1,2-Tetrachloroethane	ND		1.0	5.0	µg/Kg	N/A	N/A	8/3/2007	SM3E070803E
1,1,1-Trichloroethane	ND		1.0	5.0	µg/Kg	N/A	N/A	8/3/2007	SM3E070803E
1,1,2,2-Tetrachloroethane	ND		1.0	5.0	µg/Kg	N/A	N/A	8/3/2007	SM3E070803E
1,1,2-Trichloroethane	ND		1.0	5.0	µg/Kg	N/A	N/A	8/3/2007	SM3E070803E
1,1-Dichloroethane	ND		1.0	5.0	µg/Kg	N/A	N/A	8/3/2007	SM3E070803E
1,1-Dichloroethene	ND		1.0	5.0	µg/Kg	N/A	N/A	8/3/2007	SM3E070803E
1,1-Dichloropropene	ND		1.0	5.0	µg/Kg	N/A	N/A	8/3/2007	SM3E070803E
1,2,3-Trichlorobenzene	ND		1.0	5.0	µg/Kg	N/A	N/A	8/3/2007	SM3E070803E
1,2,3-Trichloropropane	ND		1.0	5.0	µg/Kg	N/A	N/A	8/3/2007	SM3E070803E
1,2,4-Trichlorobenzene	ND		1.0	5.0	µg/Kg	N/A	N/A	8/3/2007	SM3E070803E
1,2,4-Trimethylbenzene	ND		1.0	5.0	µg/Kg	N/A	N/A	8/3/2007	SM3E070803E
1,2-Dibromo-3-Chloropropane	ND		1.0	5.0	µg/Kg	N/A	N/A	8/3/2007	SM3E070803E
1,2-Dibromoethane (EDB)	ND		1.0	5.0	µg/Kg	N/A	N/A	8/3/2007	SM3E070803E
1,2-Dichlorobenzene	ND		1.0	5.0	µg/Kg	N/A	N/A	8/3/2007	SM3E070803E
1,2-Dichloroethane	ND		1.0	5.0	µg/Kg	N/A	N/A	8/3/2007	SM3E070803E
1,2-Dichloropropane	ND		1.0	5.0	µg/Kg	N/A	N/A	8/3/2007	SM3E070803E
1,3,5-Trimethylbenzene	ND		1.0	5.0	µg/Kg	N/A	N/A	8/3/2007	SM3E070803E
1,3-Dichlorobenzene	ND		1.0	5.0	µg/Kg	N/A	N/A	8/3/2007	SM3E070803E
1,3-Dichloropropane	ND		1.0	5.0	µg/Kg	N/A	N/A	8/3/2007	SM3E070803E
1,4-Dichlorobenzene	ND		1.0	5.0	µg/Kg	N/A	N/A	8/3/2007	SM3E070803E
1,4-Dioxane	ND		1.0	200	µg/Kg	N/A	N/A	8/3/2007	SM3E070803E
2,2-Dichloropropane	ND		1.0	5.0	µg/Kg	N/A	N/A	8/3/2007	SM3E070803E
2-Butanone (MEK)	ND		1.0	40	µg/Kg	N/A	N/A	8/3/2007	SM3E070803E
2-Chloroethyl-vinyl Ether	ND		1.0	5.0	µg/Kg	N/A	N/A	8/3/2007	SM3E070803E
2-Chlorotoluene	ND		1.0	5.0	µg/Kg	N/A	N/A	8/3/2007	SM3E070803E
2-Hexanone	ND		1.0	40	µg/Kg	N/A	N/A	8/3/2007	SM3E070803E
4-Chlorotoluene	ND		1.0	5.0	µg/Kg	N/A	N/A	8/3/2007	SM3E070803E
4-Methyl-2-Pentanone(MIBK)	ND		1.0	40	µg/Kg	N/A	N/A	8/3/2007	SM3E070803E
Acetone	ND		1.0	100	µg/Kg	N/A	N/A	8/3/2007	SM3E070803E
Acetonitrile	ND		1.0	40	µg/Kg	N/A	N/A	8/3/2007	SM3E070803E
Acrolein	ND		1.0	5.0	µg/Kg	N/A	N/A	8/3/2007	SM3E070803E
Acrylonitrile	ND		1.0	5.0	µg/Kg	N/A	N/A	8/3/2007	SM3E070803E
Benzene	ND		1.0	5.0	µg/Kg	N/A	N/A	8/3/2007	SM3E070803E
Benzyl Chloride	ND		1.0	5.0	µg/Kg	N/A	N/A	8/3/2007	SM3E070803E
Bromobenzene	ND		1.0	5.0	µg/Kg	N/A	N/A	8/3/2007	SM3E070803E
Bromochloromethane	ND		1.0	5.0	µg/Kg	N/A	N/A	8/3/2007	SM3E070803E
Bromodichloromethane	ND		1.0	5.0	µg/Kg	N/A	N/A	8/3/2007	SM3E070803E
Bromoform	ND		1.0	5.0	µg/Kg	N/A	N/A	8/3/2007	SM3E070803E
Bromomethane	ND		1.0	5.0	µg/Kg	N/A	N/A	8/3/2007	SM3E070803E
Carbon Disulfide	ND		1.0	5.0	µg/Kg	N/A	N/A	8/3/2007	SM3E070803E
Carbon Tetrachloride	ND		1.0	5.0	µg/Kg	N/A	N/A	8/3/2007	SM3E070803E
Chlorobenzene	ND		1.0	5.0	µg/Kg	N/A	N/A	8/3/2007	SM3E070803E
Chloroethane	ND		1.0	5.0	µg/Kg	N/A	N/A	8/3/2007	SM3E070803E
Chloroform	ND		1.0	5.0	µg/Kg	N/A	N/A	8/3/2007	SM3E070803E
Chloromethane	ND		1.0	5.0	µg/Kg	N/A	N/A	8/3/2007	SM3E070803E

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Qual = Data Qualifier

8/7/2007 4:28:36 PM - E.Ling

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Engeo, Inc.-SJ
6288 San Ignacio Suite A
San Jose, Ca 95119
Attn: Shawn Munger

Project Number: 7862.3.002.01
Project Name: 199 River Oaks Parkway

Certificate of Analysis - Data Report

Samples Received: 08/01/2007
Sample Collected by: Client

Lab # : 56594-006

Sample ID: DP-2@6-7

Matrix: Solid

Sample Date: 8/1/2007

9:55 AM

VOCs: EPA 5030B (or 5035A for Encore Samples only)/EPA 8260B

Parameter	Result	Qual	D/P-F	Detection Limit	Units	Prep Date	Prep Batch	Analysis Date	QC Batch
cis-1,2-Dichloroethene	ND		1.0	5.0	µg/Kg	N/A	N/A	8/3/2007	SM3E070803E
cis-1,3-Dichloropropene	ND		1.0	5.0	µg/Kg	N/A	N/A	8/3/2007	SM3E070803E
Cyclohexanone	ND		1.0	40	µg/Kg	N/A	N/A	8/3/2007	SM3E070803E
Dibromochloromethane	ND		1.0	5.0	µg/Kg	N/A	N/A	8/3/2007	SM3E070803E
Dibromomethane	ND		1.0	5.0	µg/Kg	N/A	N/A	8/3/2007	SM3E070803E
Dichlorodifluoromethane	ND		1.0	5.0	µg/Kg	N/A	N/A	8/3/2007	SM3E070803E
Diisopropyl Ether	ND		1.0	5.0	µg/Kg	N/A	N/A	8/3/2007	SM3E070803E
Ethyl Benzene	ND		1.0	5.0	µg/Kg	N/A	N/A	8/3/2007	SM3E070803E
Freon 113	ND		1.0	10	µg/Kg	N/A	N/A	8/3/2007	SM3E070803E
Hexachlorobutadiene	ND		1.0	5.0	µg/Kg	N/A	N/A	8/3/2007	SM3E070803E
Iodomethane	ND		1.0	10	µg/Kg	N/A	N/A	8/3/2007	SM3E070803E
Isopropanol	ND		1.0	100	µg/Kg	N/A	N/A	8/3/2007	SM3E070803E
Isopropylbenzene	ND		1.0	5.0	µg/Kg	N/A	N/A	8/3/2007	SM3E070803E
Methyl-t-butyl Ether	ND		1.0	5.0	µg/Kg	N/A	N/A	8/3/2007	SM3E070803E
Methylene Chloride	ND		1.0	50	µg/Kg	N/A	N/A	8/3/2007	SM3E070803E
n-Butylbenzene	ND		1.0	5.0	µg/Kg	N/A	N/A	8/3/2007	SM3E070803E
n-Propylbenzene	ND		1.0	5.0	µg/Kg	N/A	N/A	8/3/2007	SM3E070803E
Naphthalene	ND		1.0	5.0	µg/Kg	N/A	N/A	8/3/2007	SM3E070803E
p-Isopropyltoluene	ND		1.0	5.0	µg/Kg	N/A	N/A	8/3/2007	SM3E070803E
Pentachloroethane	ND		1.0	5.0	µg/Kg	N/A	N/A	8/3/2007	SM3E070803E
sec-Butylbenzene	ND		1.0	5.0	µg/Kg	N/A	N/A	8/3/2007	SM3E070803E
Styrene	ND		1.0	5.0	µg/Kg	N/A	N/A	8/3/2007	SM3E070803E
tert-Amyl Methyl Ether	ND		1.0	5.0	µg/Kg	N/A	N/A	8/3/2007	SM3E070803E
tert-Butanol (TBA)	ND		1.0	40	µg/Kg	N/A	N/A	8/3/2007	SM3E070803E
tert-Butyl Ethyl Ether	ND		1.0	5.0	µg/Kg	N/A	N/A	8/3/2007	SM3E070803E
tert-Butylbenzene	ND		1.0	5.0	µg/Kg	N/A	N/A	8/3/2007	SM3E070803E
Tetrachloroethene	ND		1.0	5.0	µg/Kg	N/A	N/A	8/3/2007	SM3E070803E
Tetrahydrofuran	ND		1.0	40	µg/Kg	N/A	N/A	8/3/2007	SM3E070803E
Toluene	ND		1.0	5.0	µg/Kg	N/A	N/A	8/3/2007	SM3E070803E
trans-1,2-Dichloroethene	ND		1.0	5.0	µg/Kg	N/A	N/A	8/3/2007	SM3E070803E
trans-1,3-Dichloropropene	ND		1.0	5.0	µg/Kg	N/A	N/A	8/3/2007	SM3E070803E
trans-1,4-Dichloro-2-butene	ND		1.0	10	µg/Kg	N/A	N/A	8/3/2007	SM3E070803E
Trichloroethene	ND		1.0	5.0	µg/Kg	N/A	N/A	8/3/2007	SM3E070803E
Trichlorofluoromethane	ND		1.0	5.0	µg/Kg	N/A	N/A	8/3/2007	SM3E070803E
Vinyl Acetate	ND		1.0	5.0	µg/Kg	N/A	N/A	8/3/2007	SM3E070803E
Vinyl Chloride	ND		1.0	5.0	µg/Kg	N/A	N/A	8/3/2007	SM3E070803E
Xylenes, Total	ND		1.0	10	µg/Kg	N/A	N/A	8/3/2007	SM3E070803E

Surrogate	Surrogate Recovery	Control Limits (%)
4-Bromofluorobenzene	99.6	60 - 130
Dibromofluoromethane	106	60 - 130
Toluene-d8	101	60 - 130

Analyzed by: MaiChiTu

Reviewed by: EricKum

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6288 San Ignacio Suite A
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Attn: Shawn Munger

Project Number: 7862.3.002.01
Project Name: 199 River Oaks Parkway

Certificate of Analysis - Data Report

Samples Received: 08/01/2007
Sample Collected by: Client

Lab # : 56594-006 Sample ID: DP-2@6-7 Matrix: Solid Sample Date: 8/1/2007 9:55 AM

SVOCs: EPA 3545A / EPA 8270C

Parameter	Result	Qual	D/P-F	Detection Limit	Units	Prep Date	Prep Batch	Analysis Date	QC Batch
1,2,4-Trichlorobenzene	ND		1.0	0.50	mg/Kg	8/3/2007	SVS070803	8/3/2007	SVS070803
1,2-Dichlorobenzene	ND		1.0	0.50	mg/Kg	8/3/2007	SVS070803	8/3/2007	SVS070803
1,2-Dinitrobenzene	ND		1.0	0.50	mg/Kg	8/3/2007	SVS070803	8/3/2007	SVS070803
1,3-Dichlorobenzene	ND		1.0	0.50	mg/Kg	8/3/2007	SVS070803	8/3/2007	SVS070803
1,3-Dinitrobenzene	ND		1.0	0.50	mg/Kg	8/3/2007	SVS070803	8/3/2007	SVS070803
1,4-Dichlorobenzene	ND		1.0	0.50	mg/Kg	8/3/2007	SVS070803	8/3/2007	SVS070803
1,4-Dinitrobenzene	ND		1.0	0.50	mg/Kg	8/3/2007	SVS070803	8/3/2007	SVS070803
1-Methylnaphthalene	ND		1.0	0.50	mg/Kg	8/3/2007	SVS070803	8/3/2007	SVS070803
2,3,4,6-Tetrachlorophenol	ND		1.0	0.50	mg/Kg	8/3/2007	SVS070803	8/3/2007	SVS070803
2,3,5,6-Tetrachlorophenol	ND		1.0	0.50	mg/Kg	8/3/2007	SVS070803	8/3/2007	SVS070803
2,4,5-Trichlorophenol	ND		1.0	0.50	mg/Kg	8/3/2007	SVS070803	8/3/2007	SVS070803
2,4,6-Trichlorophenol	ND		1.0	0.50	mg/Kg	8/3/2007	SVS070803	8/3/2007	SVS070803
2,4-Dichlorophenol	ND		1.0	0.50	mg/Kg	8/3/2007	SVS070803	8/3/2007	SVS070803
2,4-Dimethylphenol	ND		1.0	0.50	mg/Kg	8/3/2007	SVS070803	8/3/2007	SVS070803
2,4-Dinitrophenol	ND		1.0	2.5	mg/Kg	8/3/2007	SVS070803	8/3/2007	SVS070803
2,4-Dinitrotoluene	ND		1.0	0.50	mg/Kg	8/3/2007	SVS070803	8/3/2007	SVS070803
2,6-Dinitrotoluene	ND		1.0	1.0	mg/Kg	8/3/2007	SVS070803	8/3/2007	SVS070803
2-Chloronaphthalene	ND		1.0	0.50	mg/Kg	8/3/2007	SVS070803	8/3/2007	SVS070803
2-Chlorophenol	ND		1.0	1.0	mg/Kg	8/3/2007	SVS070803	8/3/2007	SVS070803
2-Methylnaphthalene	ND		1.0	0.50	mg/Kg	8/3/2007	SVS070803	8/3/2007	SVS070803
2-Methylphenol	ND		1.0	0.50	mg/Kg	8/3/2007	SVS070803	8/3/2007	SVS070803
2-Nitroaniline	ND		1.0	0.50	mg/Kg	8/3/2007	SVS070803	8/3/2007	SVS070803
2-Nitrophenol	ND		1.0	0.50	mg/Kg	8/3/2007	SVS070803	8/3/2007	SVS070803
3&4-Methylphenol	ND		1.0	0.50	mg/Kg	8/3/2007	SVS070803	8/3/2007	SVS070803
3,3'-Dichlorobenzidine	ND		1.0	2.5	mg/Kg	8/3/2007	SVS070803	8/3/2007	SVS070803
3-Nitroaniline	ND		1.0	0.50	mg/Kg	8/3/2007	SVS070803	8/3/2007	SVS070803
4,6-Dinitro-2-methylphenol	ND		1.0	2.0	mg/Kg	8/3/2007	SVS070803	8/3/2007	SVS070803
4-Bromophenyl Phenyl Ether	ND		1.0	0.50	mg/Kg	8/3/2007	SVS070803	8/3/2007	SVS070803
4-Chloro-3-methylphenol	ND		1.0	0.50	mg/Kg	8/3/2007	SVS070803	8/3/2007	SVS070803
4-Chloroaniline	ND		1.0	0.50	mg/Kg	8/3/2007	SVS070803	8/3/2007	SVS070803
4-Chlorophenyl-phenylether	ND		1.0	0.50	mg/Kg	8/3/2007	SVS070803	8/3/2007	SVS070803
4-Nitroaniline	ND		1.0	0.50	mg/Kg	8/3/2007	SVS070803	8/3/2007	SVS070803
4-Nitrophenol	ND		1.0	2.0	mg/Kg	8/3/2007	SVS070803	8/3/2007	SVS070803
Acenaphthene	ND		1.0	1.0	mg/Kg	8/3/2007	SVS070803	8/3/2007	SVS070803
Acenaphthylene	ND		1.0	0.50	mg/Kg	8/3/2007	SVS070803	8/3/2007	SVS070803
Aniline	ND		1.0	0.50	mg/Kg	8/3/2007	SVS070803	8/3/2007	SVS070803
Anthracene	ND		1.0	0.50	mg/Kg	8/3/2007	SVS070803	8/3/2007	SVS070803
Azobenzene	ND		1.0	0.50	mg/Kg	8/3/2007	SVS070803	8/3/2007	SVS070803
Benzo(a)anthracene	ND		1.0	0.50	mg/Kg	8/3/2007	SVS070803	8/3/2007	SVS070803
Benzo(a)pyrene	ND		1.0	0.50	mg/Kg	8/3/2007	SVS070803	8/3/2007	SVS070803
Benzo(b)fluoranthene	ND		1.0	0.50	mg/Kg	8/3/2007	SVS070803	8/3/2007	SVS070803
Benzo(g,h,i)perylene	ND		1.0	0.50	mg/Kg	8/3/2007	SVS070803	8/3/2007	SVS070803
Benzo(k)fluoranthene	ND		1.0	0.50	mg/Kg	8/3/2007	SVS070803	8/3/2007	SVS070803
Benzoic Acid	ND		1.0	1.0	mg/Kg	8/3/2007	SVS070803	8/3/2007	SVS070803
Benzyl Alcohol	ND		1.0	1.0	mg/Kg	8/3/2007	SVS070803	8/3/2007	SVS070803

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8/7/2007 4:28:36 PM - E.Ling

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Attn: Shawn Munger

Project Number: 7862.3.002.01
Project Name: 199 River Oaks Parkway

Certificate of Analysis - Data Report

Samples Received: 08/01/2007
Sample Collected by: Client

Lab # : 56594-006

Sample ID: DP-2@6-7

Matrix: Solid

Sample Date: 8/1/2007

9:55 AM

SVOCs: EPA 3545A / EPA 8270C

Parameter	Result	Qual	D/P-F	Detection Limit	Units	Prep Date	Prep Batch	Analysis Date	QC Batch
bis-(2-Chloroethoxy)methane	ND		1.0	0.50	mg/Kg	8/3/2007	SVS070803	8/3/2007	SVS070803
bis-(2-Chloroethyl)ether	ND		1.0	0.50	mg/Kg	8/3/2007	SVS070803	8/3/2007	SVS070803
bis(2-Chloroisopropyl)ether	ND		1.0	0.50	mg/Kg	8/3/2007	SVS070803	8/3/2007	SVS070803
bis(2-Ethylhexyl)adipate	ND		1.0	0.50	mg/Kg	8/3/2007	SVS070803	8/3/2007	SVS070803
bis(2-Ethylhexyl)phthalate	ND		1.0	0.50	mg/Kg	8/3/2007	SVS070803	8/3/2007	SVS070803
Butylbenzylphthalate	ND		1.0	0.50	mg/Kg	8/3/2007	SVS070803	8/3/2007	SVS070803
Carbazole	ND		1.0	0.50	mg/Kg	8/3/2007	SVS070803	8/3/2007	SVS070803
Chrysene	ND		1.0	0.50	mg/Kg	8/3/2007	SVS070803	8/3/2007	SVS070803
Di-n-butylphthalate	ND		1.0	0.50	mg/Kg	8/3/2007	SVS070803	8/3/2007	SVS070803
Di-n-octylphthalate	ND		1.0	0.50	mg/Kg	8/3/2007	SVS070803	8/3/2007	SVS070803
Dibenzo(a,h)anthracene	ND		1.0	0.50	mg/Kg	8/3/2007	SVS070803	8/3/2007	SVS070803
Dibenzofuran	ND		1.0	0.50	mg/Kg	8/3/2007	SVS070803	8/3/2007	SVS070803
Diethylphthalate	ND		1.0	0.50	mg/Kg	8/3/2007	SVS070803	8/3/2007	SVS070803
Dimethylphthalate	ND		1.0	0.50	mg/Kg	8/3/2007	SVS070803	8/3/2007	SVS070803
Diphenylamine	ND		1.0	0.50	mg/Kg	8/3/2007	SVS070803	8/3/2007	SVS070803
Fluoranthene	ND		1.0	0.50	mg/Kg	8/3/2007	SVS070803	8/3/2007	SVS070803
Fluorene	ND		1.0	0.50	mg/Kg	8/3/2007	SVS070803	8/3/2007	SVS070803
Hexachlorobenzene	ND		1.0	0.50	mg/Kg	8/3/2007	SVS070803	8/3/2007	SVS070803
Hexachlorobutadiene	ND		1.0	0.50	mg/Kg	8/3/2007	SVS070803	8/3/2007	SVS070803
Hexachlorocyclopentadiene	ND		1.0	0.50	mg/Kg	8/3/2007	SVS070803	8/3/2007	SVS070803
Hexachloroethane	ND		1.0	0.50	mg/Kg	8/3/2007	SVS070803	8/3/2007	SVS070803
Indeno(1,2,3-cd)pyrene	ND		1.0	0.50	mg/Kg	8/3/2007	SVS070803	8/3/2007	SVS070803
Isophorone	2.6		1.0	0.50	mg/Kg	8/3/2007	SVS070803	8/3/2007	SVS070803
N-Nitroso-di-n-propylamine	ND		1.0	1.0	mg/Kg	8/3/2007	SVS070803	8/3/2007	SVS070803
N-Nitrosodimethylamine	ND		1.0	5.0	mg/Kg	8/3/2007	SVS070803	8/3/2007	SVS070803
Naphthalene	ND		1.0	0.50	mg/Kg	8/3/2007	SVS070803	8/3/2007	SVS070803
Nitrobenzene	ND		1.0	0.50	mg/Kg	8/3/2007	SVS070803	8/3/2007	SVS070803
1-Methyl-2-pyrrolidinone (NMP)	ND		1.0	0.50	mg/Kg	8/3/2007	SVS070803	8/3/2007	SVS070803
Pentachlorophenol	ND		1.0	0.50	mg/Kg	8/3/2007	SVS070803	8/3/2007	SVS070803
Phenanthrene	ND		1.0	0.50	mg/Kg	8/3/2007	SVS070803	8/3/2007	SVS070803
Phenol	ND		1.0	2.0	mg/Kg	8/3/2007	SVS070803	8/3/2007	SVS070803
Pyrene	ND		1.0	1.0	mg/Kg	8/3/2007	SVS070803	8/3/2007	SVS070803
Pyridine	ND		1.0	2.0	mg/Kg	8/3/2007	SVS070803	8/3/2007	SVS070803

Surrogate	Surrogate Recovery	Control Limits (%)
2,4,6-Tribromophenol	39.7	30 - 100
2-Fluorobiphenyl	44.6	20 - 100
2-Fluorophenol	25.6	20 - 100
Nitrobenzene-d5	51.4	20 - 100
Phenol-d6	40.1	20 - 100
p-Terphenyl-d14	74.7	55 - 130

Analyzed by: JHsiang

Reviewed by: mtran

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Project Number: 7862.3.002.01
Project Name: 199 River Oaks Parkway

Certificate of Analysis - Data Report

Samples Received: 08/01/2007
Sample Collected by: Client

Lab # : 56594-006 Sample ID: DP-2@6-7 Matrix: Solid Sample Date: 8/1/2007 9:55 AM

Fluoride by ISE w/o Distillation: EPA 9214

Parameter	Result	Qual	D/P-F	Detection Limit	Units	Prep Date	Prep Batch	Analysis Date	QC Batch
Fluoride	ND		1.0	1.0	mg/Kg	8/2/2007	SF070802	8/2/2007	SF070802

Analyzed by: EBlanco

Reviewed by: HDINH

Mercury: EPA 7471B

Parameter	Result	Qual	D/P-F	Detection Limit	Units	Prep Date	Prep Batch	Analysis Date	QC Batch
Mercury	ND		1.0	0.050	mg/Kg	8/3/2007	SHG070803	8/3/2007	SHG070803

Analyzed by: HdinH

Reviewed by: RWipfler

Metals by ICP: EPA 3050B / EPA 6010B

Parameter	Result	Qual	D/P-F	Detection Limit	Units	Prep Date	Prep Batch	Analysis Date	QC Batch
Antimony	ND		1.0	1.0	mg/Kg	8/3/2007	SM070803	8/6/2007	SM070803
Arsenic	3.1		1.0	1.0	mg/Kg	8/3/2007	SM070803	8/6/2007	SM070803
Barium	100		1.0	1.0	mg/Kg	8/3/2007	SM070803	8/6/2007	SM070803
Beryllium	ND		1.0	1.0	mg/Kg	8/3/2007	SM070803	8/6/2007	SM070803
Cadmium	ND		1.0	1.0	mg/Kg	8/3/2007	SM070803	8/6/2007	SM070803
Chromium	29		1.0	1.0	mg/Kg	8/3/2007	SM070803	8/6/2007	SM070803
Cobalt	8.1		1.0	1.0	mg/Kg	8/3/2007	SM070803	8/6/2007	SM070803
Copper	20		1.0	1.0	mg/Kg	8/3/2007	SM070803	8/6/2007	SM070803
Lead	6.3		1.0	1.0	mg/Kg	8/3/2007	SM070803	8/6/2007	SM070803
Molybdenum	ND		1.0	1.0	mg/Kg	8/3/2007	SM070803	8/6/2007	SM070803
Nickel	40		1.0	1.0	mg/Kg	8/3/2007	SM070803	8/6/2007	SM070803
Selenium	ND		1.0	2.0	mg/Kg	8/3/2007	SM070803	8/6/2007	SM070803
Silver	ND		1.0	1.0	mg/Kg	8/3/2007	SM070803	8/6/2007	SM070803
Thallium	ND		1.0	2.0	mg/Kg	8/3/2007	SM070803	8/6/2007	SM070803
Vanadium	30		1.0	1.0	mg/Kg	8/3/2007	SM070803	8/6/2007	SM070803
Zinc	45		1.0	2.0	mg/Kg	8/3/2007	SM070803	8/6/2007	SM070803

Analyzed by: CTran

Reviewed by: HDINH

Detection Limit = Detection Limit for Reporting.

D/P-F = Dilution and/or Prep Factor includes sample volume adjustments.

ND = Not Detected at or above the Detection Limit.

Qual = Data Qualifier

8/7/2007 4:28:36 PM - ELing

Entech Analytical Labs, Inc.

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Engeo, Inc.-SJ
6288 San Ignacio Suite A
San Jose, Ca 95119
Attn: Shawn Munger

Project Number: 7862.3.002.01
Project Name: 199 River Oaks Parkway

Certificate of Analysis - Data Report

Samples Received: 08/01/2007
Sample Collected by: Client

Lab # : 56594-008 Sample ID: DP-3@11-12 Matrix: Solid Sample Date: 8/1/2007 10:33 AM

VOCs: EPA 5030B (or 5035A for Encore Samples only)/EPA 8260B

Parameter	Result	Qual	D/P-F	Detection Limit	Units	Prep Date	Prep Batch	Analysis Date	QC Batch
1,1,1,2-Tetrachloroethane	ND		1.0	5.0	µg/Kg	N/A	N/A	8/2/2007	SM3E070802E
1,1,1-Trichloroethane	ND		1.0	5.0	µg/Kg	N/A	N/A	8/2/2007	SM3E070802E
1,1,2,2-Tetrachloroethane	ND		1.0	5.0	µg/Kg	N/A	N/A	8/2/2007	SM3E070802E
1,1,2-Trichloroethane	ND		1.0	5.0	µg/Kg	N/A	N/A	8/2/2007	SM3E070802E
1,1-Dichloroethane	ND		1.0	5.0	µg/Kg	N/A	N/A	8/2/2007	SM3E070802E
1,1-Dichloroethene	ND		1.0	5.0	µg/Kg	N/A	N/A	8/2/2007	SM3E070802E
1,1-Dichloropropene	ND		1.0	5.0	µg/Kg	N/A	N/A	8/2/2007	SM3E070802E
1,2,3-Trichlorobenzene	ND		1.0	5.0	µg/Kg	N/A	N/A	8/2/2007	SM3E070802E
1,2,3-Trichloropropane	ND		1.0	5.0	µg/Kg	N/A	N/A	8/2/2007	SM3E070802E
1,2,4-Trichlorobenzene	ND		1.0	5.0	µg/Kg	N/A	N/A	8/2/2007	SM3E070802E
1,2,4-Trimethylbenzene	ND		1.0	5.0	µg/Kg	N/A	N/A	8/2/2007	SM3E070802E
1,2-Dibromo-3-Chloropropane	ND		1.0	5.0	µg/Kg	N/A	N/A	8/2/2007	SM3E070802E
1,2-Dibromoethane (EDB)	ND		1.0	5.0	µg/Kg	N/A	N/A	8/2/2007	SM3E070802E
1,2-Dichlorobenzene	ND		1.0	5.0	µg/Kg	N/A	N/A	8/2/2007	SM3E070802E
1,2-Dichloroethane	ND		1.0	5.0	µg/Kg	N/A	N/A	8/2/2007	SM3E070802E
1,2-Dichloropropane	ND		1.0	5.0	µg/Kg	N/A	N/A	8/2/2007	SM3E070802E
1,3,5-Trimethylbenzene	ND		1.0	5.0	µg/Kg	N/A	N/A	8/2/2007	SM3E070802E
1,3-Dichlorobenzene	ND		1.0	5.0	µg/Kg	N/A	N/A	8/2/2007	SM3E070802E
1,3-Dichloropropane	ND		1.0	5.0	µg/Kg	N/A	N/A	8/2/2007	SM3E070802E
1,4-Dichlorobenzene	ND		1.0	5.0	µg/Kg	N/A	N/A	8/2/2007	SM3E070802E
1,4-Dioxane	ND		1.0	200	µg/Kg	N/A	N/A	8/2/2007	SM3E070802E
2,2-Dichloropropane	ND		1.0	5.0	µg/Kg	N/A	N/A	8/2/2007	SM3E070802E
2-Butanone (MEK)	ND		1.0	40	µg/Kg	N/A	N/A	8/2/2007	SM3E070802E
2-Chloroethyl-vinyl Ether	ND		1.0	5.0	µg/Kg	N/A	N/A	8/2/2007	SM3E070802E
2-Chlorotoluene	ND		1.0	5.0	µg/Kg	N/A	N/A	8/2/2007	SM3E070802E
2-Hexanone	ND		1.0	40	µg/Kg	N/A	N/A	8/2/2007	SM3E070802E
4-Chlorotoluene	ND		1.0	5.0	µg/Kg	N/A	N/A	8/2/2007	SM3E070802E
4-Methyl-2-Pentanone(MIBK)	ND		1.0	40	µg/Kg	N/A	N/A	8/2/2007	SM3E070802E
Acetone	ND		1.0	100	µg/Kg	N/A	N/A	8/2/2007	SM3E070802E
Acetonitrile	ND		1.0	40	µg/Kg	N/A	N/A	8/2/2007	SM3E070802E
Acrolein	ND		1.0	5.0	µg/Kg	N/A	N/A	8/2/2007	SM3E070802E
Acrylonitrile	ND		1.0	5.0	µg/Kg	N/A	N/A	8/2/2007	SM3E070802E
Benzene	ND		1.0	5.0	µg/Kg	N/A	N/A	8/2/2007	SM3E070802E
Benzyl Chloride	ND		1.0	5.0	µg/Kg	N/A	N/A	8/2/2007	SM3E070802E
Bromobenzene	ND		1.0	5.0	µg/Kg	N/A	N/A	8/2/2007	SM3E070802E
Bromochloromethane	ND		1.0	5.0	µg/Kg	N/A	N/A	8/2/2007	SM3E070802E
Bromodichloromethane	ND		1.0	5.0	µg/Kg	N/A	N/A	8/2/2007	SM3E070802E
Bromoform	ND		1.0	5.0	µg/Kg	N/A	N/A	8/2/2007	SM3E070802E
Bromomethane	ND		1.0	5.0	µg/Kg	N/A	N/A	8/2/2007	SM3E070802E
Carbon Disulfide	ND		1.0	5.0	µg/Kg	N/A	N/A	8/2/2007	SM3E070802E
Carbon Tetrachloride	ND		1.0	5.0	µg/Kg	N/A	N/A	8/2/2007	SM3E070802E
Chlorobenzene	ND		1.0	5.0	µg/Kg	N/A	N/A	8/2/2007	SM3E070802E
Chloroethane	ND		1.0	5.0	µg/Kg	N/A	N/A	8/2/2007	SM3E070802E
Chloroform	ND		1.0	5.0	µg/Kg	N/A	N/A	8/2/2007	SM3E070802E
Chloromethane	ND		1.0	5.0	µg/Kg	N/A	N/A	8/2/2007	SM3E070802E

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Qual = Data Qualifier

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Attn: Shawn Munger

Project Number: 7862.3.002.01
Project Name: 199 River Oaks Parkway

Certificate of Analysis - Data Report

Samples Received: 08/01/2007
Sample Collected by: Client

Lab # : 56594-008 Sample ID: DP-3@11-12 Matrix: Solid Sample Date: 8/1/2007 10:33 AM

VOCs: EPA 5030B (or 5035A for Encore Samples only)/EPA 8260B

Parameter	Result	Qual	D/P-F	Detection Limit	Units	Prep Date	Prep Batch	Analysis Date	QC Batch
cis-1,2-Dichloroethene	ND		1.0	5.0	µg/Kg	N/A	N/A	8/2/2007	SM3E070802E
cis-1,3-Dichloropropene	ND		1.0	5.0	µg/Kg	N/A	N/A	8/2/2007	SM3E070802E
Cyclohexanone	ND		1.0	40	µg/Kg	N/A	N/A	8/2/2007	SM3E070802E
Dibromochloromethane	ND		1.0	5.0	µg/Kg	N/A	N/A	8/2/2007	SM3E070802E
Dibromomethane	ND		1.0	5.0	µg/Kg	N/A	N/A	8/2/2007	SM3E070802E
Dichlorodifluoromethane	ND		1.0	5.0	µg/Kg	N/A	N/A	8/2/2007	SM3E070802E
Diisopropyl Ether	ND		1.0	5.0	µg/Kg	N/A	N/A	8/2/2007	SM3E070802E
Ethyl Benzene	ND		1.0	5.0	µg/Kg	N/A	N/A	8/2/2007	SM3E070802E
Freon 113	ND		1.0	10	µg/Kg	N/A	N/A	8/2/2007	SM3E070802E
Hexachlorobutadiene	ND		1.0	5.0	µg/Kg	N/A	N/A	8/2/2007	SM3E070802E
Iodomethane	ND		1.0	10	µg/Kg	N/A	N/A	8/2/2007	SM3E070802E
Isopropanol	ND		1.0	100	µg/Kg	N/A	N/A	8/2/2007	SM3E070802E
Isopropylbenzene	ND		1.0	5.0	µg/Kg	N/A	N/A	8/2/2007	SM3E070802E
Methyl-t-butyl Ether	ND		1.0	5.0	µg/Kg	N/A	N/A	8/2/2007	SM3E070802E
Methylene Chloride	ND		1.0	50	µg/Kg	N/A	N/A	8/2/2007	SM3E070802E
n-Butylbenzene	ND		1.0	5.0	µg/Kg	N/A	N/A	8/2/2007	SM3E070802E
n-Propylbenzene	ND		1.0	5.0	µg/Kg	N/A	N/A	8/2/2007	SM3E070802E
Naphthalene	ND		1.0	5.0	µg/Kg	N/A	N/A	8/2/2007	SM3E070802E
p-Isopropyltoluene	ND		1.0	5.0	µg/Kg	N/A	N/A	8/2/2007	SM3E070802E
Pentachloroethane	ND		1.0	5.0	µg/Kg	N/A	N/A	8/2/2007	SM3E070802E
sec-Butylbenzene	ND		1.0	5.0	µg/Kg	N/A	N/A	8/2/2007	SM3E070802E
Styrene	ND		1.0	5.0	µg/Kg	N/A	N/A	8/2/2007	SM3E070802E
tert-Amyl Methyl Ether	ND		1.0	5.0	µg/Kg	N/A	N/A	8/2/2007	SM3E070802E
tert-Butanol (TBA)	ND		1.0	40	µg/Kg	N/A	N/A	8/2/2007	SM3E070802E
tert-Butyl Ethyl Ether	ND		1.0	5.0	µg/Kg	N/A	N/A	8/2/2007	SM3E070802E
tert-Butylbenzene	ND		1.0	5.0	µg/Kg	N/A	N/A	8/2/2007	SM3E070802E
Tetrachloroethene	ND		1.0	5.0	µg/Kg	N/A	N/A	8/2/2007	SM3E070802E
Tetrahydrofuran	ND		1.0	40	µg/Kg	N/A	N/A	8/2/2007	SM3E070802E
Toluene	ND		1.0	5.0	µg/Kg	N/A	N/A	8/2/2007	SM3E070802E
trans-1,2-Dichloroethene	ND		1.0	5.0	µg/Kg	N/A	N/A	8/2/2007	SM3E070802E
trans-1,3-Dichloropropene	ND		1.0	5.0	µg/Kg	N/A	N/A	8/2/2007	SM3E070802E
trans-1,4-Dichloro-2-butene	ND		1.0	10	µg/Kg	N/A	N/A	8/2/2007	SM3E070802E
Trichloroethene	ND		1.0	5.0	µg/Kg	N/A	N/A	8/2/2007	SM3E070802E
Trichlorofluoromethane	ND		1.0	5.0	µg/Kg	N/A	N/A	8/2/2007	SM3E070802E
Vinyl Acetate	ND		1.0	5.0	µg/Kg	N/A	N/A	8/2/2007	SM3E070802E
Vinyl Chloride	ND		1.0	5.0	µg/Kg	N/A	N/A	8/2/2007	SM3E070802E
Xylenes, Total	ND		1.0	10	µg/Kg	N/A	N/A	8/2/2007	SM3E070802E

Surrogate	Surrogate Recovery	Control Limits (%)
4-Bromofluorobenzene	101	60 - 130
Dibromofluoromethane	121	60 - 130
Toluene-d8	101	60 - 130

Analyzed by: MaiChiTu
Reviewed by: EricKum

Detection Limit = Detection Limit for Reporting.

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D/P-F = Dilution and/or Prep Factor includes sample volume adjustments.

Qual = Data Qualifier

8/7/2007 4:28:37 PM - ELing

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Engeo, Inc.-SJ
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San Jose, Ca 95119
Attn: Shawn Munger

Project Number: 7862.3.002.01
Project Name: 199 River Oaks Parkway

Certificate of Analysis - Data Report

Samples Received: 08/01/2007
Sample Collected by: Client

Lab # : 56594-008 Sample ID: DP-3@11-12 Matrix: Solid Sample Date: 8/1/2007 10:33 AM

SVOCs: EPA 3545A / EPA 8270C

Parameter	Result	Qual	D/P-F	Detection Limit	Units	Prep Date	Prep Batch	Analysis Date	QC Batch
1,2,4-Trichlorobenzene	ND		1.0	0.50	mg/Kg	8/1/2007	SVS070801	8/2/2007	SVS070801
1,2-Dichlorobenzene	ND		1.0	0.50	mg/Kg	8/1/2007	SVS070801	8/2/2007	SVS070801
1,2-Dinitrobenzene	ND		1.0	0.50	mg/Kg	8/1/2007	SVS070801	8/2/2007	SVS070801
1,3-Dichlorobenzene	ND		1.0	0.50	mg/Kg	8/1/2007	SVS070801	8/2/2007	SVS070801
1,3-Dinitrobenzene	ND		1.0	0.50	mg/Kg	8/1/2007	SVS070801	8/2/2007	SVS070801
1,4-Dichlorobenzene	ND		1.0	0.50	mg/Kg	8/1/2007	SVS070801	8/2/2007	SVS070801
1,4-Dinitrobenzene	ND		1.0	0.50	mg/Kg	8/1/2007	SVS070801	8/2/2007	SVS070801
1-Methylnaphthalene	ND		1.0	0.50	mg/Kg	8/1/2007	SVS070801	8/2/2007	SVS070801
2,3,4,6-Tetrachlorophenol	ND		1.0	0.50	mg/Kg	8/1/2007	SVS070801	8/2/2007	SVS070801
2,3,5,6-Tetrachlorophenol	ND		1.0	0.50	mg/Kg	8/1/2007	SVS070801	8/2/2007	SVS070801
2,4,5-Trichlorophenol	ND		1.0	0.50	mg/Kg	8/1/2007	SVS070801	8/2/2007	SVS070801
2,4,6-Trichlorophenol	ND		1.0	0.50	mg/Kg	8/1/2007	SVS070801	8/2/2007	SVS070801
2,4-Dichlorophenol	ND		1.0	0.50	mg/Kg	8/1/2007	SVS070801	8/2/2007	SVS070801
2,4-Dimethylphenol	ND		1.0	0.50	mg/Kg	8/1/2007	SVS070801	8/2/2007	SVS070801
2,4-Dinitrophenol	ND		1.0	2.5	mg/Kg	8/1/2007	SVS070801	8/2/2007	SVS070801
2,4-Dinitrotoluene	ND		1.0	0.50	mg/Kg	8/1/2007	SVS070801	8/2/2007	SVS070801
2,6-Dinitrotoluene	ND		1.0	1.0	mg/Kg	8/1/2007	SVS070801	8/2/2007	SVS070801
2-Chloronaphthalene	ND		1.0	0.50	mg/Kg	8/1/2007	SVS070801	8/2/2007	SVS070801
2-Chlorophenol	ND		1.0	1.0	mg/Kg	8/1/2007	SVS070801	8/2/2007	SVS070801
2-Methylnaphthalene	ND		1.0	0.50	mg/Kg	8/1/2007	SVS070801	8/2/2007	SVS070801
2-Methylphenol	ND		1.0	0.50	mg/Kg	8/1/2007	SVS070801	8/2/2007	SVS070801
2-Nitroaniline	ND		1.0	0.50	mg/Kg	8/1/2007	SVS070801	8/2/2007	SVS070801
2-Nitrophenol	ND		1.0	0.50	mg/Kg	8/1/2007	SVS070801	8/2/2007	SVS070801
3&4-Methylphenol	ND		1.0	0.50	mg/Kg	8/1/2007	SVS070801	8/2/2007	SVS070801
3,3'-Dichlorobenzidine	ND		1.0	2.5	mg/Kg	8/1/2007	SVS070801	8/2/2007	SVS070801
3-Nitroaniline	ND		1.0	0.50	mg/Kg	8/1/2007	SVS070801	8/2/2007	SVS070801
4,6-Dinitro-2-methylphenol	ND		1.0	2.0	mg/Kg	8/1/2007	SVS070801	8/2/2007	SVS070801
4-Bromophenyl Phenyl Ether	ND		1.0	0.50	mg/Kg	8/1/2007	SVS070801	8/2/2007	SVS070801
4-Chloro-3-methylphenol	ND		1.0	0.50	mg/Kg	8/1/2007	SVS070801	8/2/2007	SVS070801
4-Chloroaniline	ND		1.0	0.50	mg/Kg	8/1/2007	SVS070801	8/2/2007	SVS070801
4-Chlorophenyl-phenylether	ND		1.0	0.50	mg/Kg	8/1/2007	SVS070801	8/2/2007	SVS070801
4-Nitroaniline	ND		1.0	0.50	mg/Kg	8/1/2007	SVS070801	8/2/2007	SVS070801
4-Nitrophenol	ND		1.0	2.0	mg/Kg	8/1/2007	SVS070801	8/2/2007	SVS070801
Acenaphthene	ND		1.0	1.0	mg/Kg	8/1/2007	SVS070801	8/2/2007	SVS070801
Acenaphthylene	ND		1.0	0.50	mg/Kg	8/1/2007	SVS070801	8/2/2007	SVS070801
Aniline	ND		1.0	0.50	mg/Kg	8/1/2007	SVS070801	8/2/2007	SVS070801
Anthracene	ND		1.0	0.50	mg/Kg	8/1/2007	SVS070801	8/2/2007	SVS070801
Azobenzene	ND		1.0	0.50	mg/Kg	8/1/2007	SVS070801	8/2/2007	SVS070801
Benzo(a)anthracene	ND		1.0	0.50	mg/Kg	8/1/2007	SVS070801	8/2/2007	SVS070801
Benzo(a)pyrene	ND		1.0	0.50	mg/Kg	8/1/2007	SVS070801	8/2/2007	SVS070801
Benzo(b)fluoranthene	ND		1.0	0.50	mg/Kg	8/1/2007	SVS070801	8/2/2007	SVS070801
Benzo(g,h,i)perylene	ND		1.0	0.50	mg/Kg	8/1/2007	SVS070801	8/2/2007	SVS070801
Benzo(k)fluoranthene	ND		1.0	0.50	mg/Kg	8/1/2007	SVS070801	8/2/2007	SVS070801
Benzoic Acid	ND		1.0	1.0	mg/Kg	8/1/2007	SVS070801	8/2/2007	SVS070801
Benzyl Alcohol	ND		1.0	1.0	mg/Kg	8/1/2007	SVS070801	8/2/2007	SVS070801

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D/P-F = Dilution and/or Prep Factor includes sample volume adjustments.

Qual = Data Qualifier

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Attn: Shawn Munger

Project Number: 7862.3.002.01
Project Name: 199 River Oaks Parkway

Certificate of Analysis - Data Report

Samples Received: 08/01/2007
Sample Collected by: Client

Lab # : 56594-008 Sample ID: DP-3@11-12 Matrix: Solid Sample Date: 8/1/2007 10:33 AM

SVOCs: EPA 3545A / EPA 8270C

Parameter	Result	Qual	D/P-F	Detection Limit	Units	Prep Date	Prep Batch	Analysis Date	QC Batch
bis-(2-Chloroethoxy)methane	ND		1.0	0.50	mg/Kg	8/1/2007	SVS070801	8/2/2007	SVS070801
bis-(2-Chloroethyl)ether	ND		1.0	0.50	mg/Kg	8/1/2007	SVS070801	8/2/2007	SVS070801
bis(2-Chloroisopropyl)ether	ND		1.0	0.50	mg/Kg	8/1/2007	SVS070801	8/2/2007	SVS070801
bis(2-Ethylhexyl)adipate	ND		1.0	0.50	mg/Kg	8/1/2007	SVS070801	8/2/2007	SVS070801
bis(2-Ethylhexyl)phthalate	ND		1.0	0.50	mg/Kg	8/1/2007	SVS070801	8/2/2007	SVS070801
Butylbenzylphthalate	ND		1.0	0.50	mg/Kg	8/1/2007	SVS070801	8/2/2007	SVS070801
Carbazole	ND		1.0	0.50	mg/Kg	8/1/2007	SVS070801	8/2/2007	SVS070801
Chrysene	ND		1.0	0.50	mg/Kg	8/1/2007	SVS070801	8/2/2007	SVS070801
Di-n-butylphthalate	ND		1.0	0.50	mg/Kg	8/1/2007	SVS070801	8/2/2007	SVS070801
Di-n-octylphthalate	ND		1.0	0.50	mg/Kg	8/1/2007	SVS070801	8/2/2007	SVS070801
Dibenzo(a,h)anthracene	ND		1.0	0.50	mg/Kg	8/1/2007	SVS070801	8/2/2007	SVS070801
Dibenzofuran	ND		1.0	0.50	mg/Kg	8/1/2007	SVS070801	8/2/2007	SVS070801
Diethylphthalate	ND		1.0	0.50	mg/Kg	8/1/2007	SVS070801	8/2/2007	SVS070801
Dimethylphthalate	ND		1.0	0.50	mg/Kg	8/1/2007	SVS070801	8/2/2007	SVS070801
Diphenylamine	ND		1.0	0.50	mg/Kg	8/1/2007	SVS070801	8/2/2007	SVS070801
Fluoranthene	ND		1.0	0.50	mg/Kg	8/1/2007	SVS070801	8/2/2007	SVS070801
Fluorene	ND		1.0	0.50	mg/Kg	8/1/2007	SVS070801	8/2/2007	SVS070801
Hexachlorobenzene	ND		1.0	0.50	mg/Kg	8/1/2007	SVS070801	8/2/2007	SVS070801
Hexachlorobutadiene	ND		1.0	0.50	mg/Kg	8/1/2007	SVS070801	8/2/2007	SVS070801
Hexachlorocyclopentadiene	ND		1.0	0.50	mg/Kg	8/1/2007	SVS070801	8/2/2007	SVS070801
Hexachloroethane	ND		1.0	0.50	mg/Kg	8/1/2007	SVS070801	8/2/2007	SVS070801
Indeno(1,2,3-cd)pyrene	ND		1.0	0.50	mg/Kg	8/1/2007	SVS070801	8/2/2007	SVS070801
Isophorone	ND		1.0	0.50	mg/Kg	8/1/2007	SVS070801	8/2/2007	SVS070801
N-Nitroso-di-n-propylamine	ND		1.0	1.0	mg/Kg	8/1/2007	SVS070801	8/2/2007	SVS070801
N-Nitrosodimethylamine	ND		1.0	5.0	mg/Kg	8/1/2007	SVS070801	8/2/2007	SVS070801
Naphthalene	ND		1.0	0.50	mg/Kg	8/1/2007	SVS070801	8/2/2007	SVS070801
Nitrobenzene	ND		1.0	0.50	mg/Kg	8/1/2007	SVS070801	8/2/2007	SVS070801
Pentachlorophenol	ND		1.0	0.50	mg/Kg	8/1/2007	SVS070801	8/2/2007	SVS070801
Phenanthrene	ND		1.0	0.50	mg/Kg	8/1/2007	SVS070801	8/2/2007	SVS070801
Phenol	ND		1.0	2.0	mg/Kg	8/1/2007	SVS070801	8/2/2007	SVS070801
Pyrene	ND		1.0	1.0	mg/Kg	8/1/2007	SVS070801	8/2/2007	SVS070801
Pyridine	ND		1.0	2.0	mg/Kg	8/1/2007	SVS070801	8/2/2007	SVS070801

Surrogate	Surrogate Recovery	Control Limits (%)
2,4,6-Tribromophenol	39.9	30 - 100
2-Fluorobiphenyl	21.8	20 - 100
2-Fluorophenol	20.3	20 - 100
Nitrobenzene-d5	26.2	20 - 100
Phenol-d6	28.3	20 - 100
p-Terphenyl-d14	82.2	55 - 130

Analyzed by: LYU
Reviewed by: mtran

Detection Limit = Detection Limit for Reporting.

ND = Not Detected at or above the Detection Limit.

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Qual = Data Qualifier

8/7/2007 4:28:37 PM - E.Ling

Entech Analytical Labs, Inc.

3334 Victor Court , Santa Clara, CA 95054

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Fax: (408) 588-0201

Engeo, Inc.-SJ
6288 San Ignacio Suite A
San Jose, Ca 95119
Attn: Shawn Munger

Project Number: 7862.3.002.01
Project Name: 199 River Oaks Parkway

Certificate of Analysis - Data Report

Samples Received: 08/01/2007
Sample Collected by: Client

Lab # : 56594-008 Sample ID: DP-3@11-12 Matrix: Solid Sample Date: 8/1/2007 10:33 AM

Fluoride by ISE w/o Distillation: EPA 9214

Parameter	Result	Qual	D/P-F	Detection Limit	Units	Prep Date	Prep Batch	Analysis Date	QC Batch
Fluoride	9.8		1.0	1.0	mg/Kg	8/2/2007	SF070802	8/2/2007	SF070802

Analyzed by: EBlanco
Reviewed by: HDINH

Mercury: EPA 7471B

Parameter	Result	Qual	D/P-F	Detection Limit	Units	Prep Date	Prep Batch	Analysis Date	QC Batch
Mercury	0.082		1.0	0.050	mg/Kg	8/3/2007	SHG070803	8/3/2007	SHG070803

Analyzed by: Hdinh
Reviewed by: RWipfler

Metals by ICP: EPA 3050B / EPA 6010B

Parameter	Result	Qual	D/P-F	Detection Limit	Units	Prep Date	Prep Batch	Analysis Date	QC Batch
Antimony	ND		1.0	1.0	mg/Kg	8/3/2007	SM070803	8/6/2007	SM070803
Arsenic	6.5		1.0	1.0	mg/Kg	8/3/2007	SM070803	8/6/2007	SM070803
Barium	52		1.0	1.0	mg/Kg	8/3/2007	SM070803	8/6/2007	SM070803
Beryllium	ND		1.0	1.0	mg/Kg	8/3/2007	SM070803	8/6/2007	SM070803
Cadmium	ND		1.0	1.0	mg/Kg	8/3/2007	SM070803	8/6/2007	SM070803
Chromium	69		1.0	1.0	mg/Kg	8/3/2007	SM070803	8/6/2007	SM070803
Cobalt	17		1.0	1.0	mg/Kg	8/3/2007	SM070803	8/6/2007	SM070803
Copper	44		1.0	1.0	mg/Kg	8/3/2007	SM070803	8/6/2007	SM070803
Lead	11		1.0	1.0	mg/Kg	8/3/2007	SM070803	8/6/2007	SM070803
Molybdenum	ND		1.0	1.0	mg/Kg	8/3/2007	SM070803	8/6/2007	SM070803
Nickel	100		1.0	1.0	mg/Kg	8/3/2007	SM070803	8/6/2007	SM070803
Selenium	ND		1.0	2.0	mg/Kg	8/3/2007	SM070803	8/6/2007	SM070803
Silver	ND		1.0	1.0	mg/Kg	8/3/2007	SM070803	8/6/2007	SM070803
Thallium	ND		1.0	2.0	mg/Kg	8/3/2007	SM070803	8/6/2007	SM070803
Vanadium	48		1.0	1.0	mg/Kg	8/3/2007	SM070803	8/6/2007	SM070803
Zinc	74		1.0	2.0	mg/Kg	8/3/2007	SM070803	8/6/2007	SM070803

Analyzed by: CTran
Reviewed by: HDINH

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8/7/2007 4:28:37 PM - ELing

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Attn: Shawn Munger

Project Number: 7862.3.002.01
Project Name: 199 River Oaks Parkway

Certificate of Analysis - Data Report

Samples Received: 08/01/2007
Sample Collected by: Client

Lab # : 56594-010 Sample ID: DP-4@11-12 Matrix: Solid Sample Date: 8/1/2007 11:35 AM

VOCs: EPA 5030B (or 5035A for Encore Samples only)/EPA 8260B

Parameter	Result	Qual	D/P-F	Detection Limit	Units	Prep Date	Prep Batch	Analysis Date	QC Batch
1,1,1,2-Tetrachloroethane	ND		1.0	5.0	µg/Kg	N/A	N/A	8/3/2007	SM3E070803E
1,1,1-Trichloroethane	ND		1.0	5.0	µg/Kg	N/A	N/A	8/3/2007	SM3E070803E
1,1,2,2-Tetrachloroethane	ND		1.0	5.0	µg/Kg	N/A	N/A	8/3/2007	SM3E070803E
1,1,2-Trichloroethane	ND		1.0	5.0	µg/Kg	N/A	N/A	8/3/2007	SM3E070803E
1,1-Dichloroethane	ND		1.0	5.0	µg/Kg	N/A	N/A	8/3/2007	SM3E070803E
1,1-Dichloroethene	ND		1.0	5.0	µg/Kg	N/A	N/A	8/3/2007	SM3E070803E
1,1-Dichloropropene	ND		1.0	5.0	µg/Kg	N/A	N/A	8/3/2007	SM3E070803E
1,2,3-Trichlorobenzene	ND		1.0	5.0	µg/Kg	N/A	N/A	8/3/2007	SM3E070803E
1,2,3-Trichloropropane	ND		1.0	5.0	µg/Kg	N/A	N/A	8/3/2007	SM3E070803E
1,2,4-Trichlorobenzene	ND		1.0	5.0	µg/Kg	N/A	N/A	8/3/2007	SM3E070803E
1,2,4-Trimethylbenzene	ND		1.0	5.0	µg/Kg	N/A	N/A	8/3/2007	SM3E070803E
1,2-Dibromo-3-Chloropropane	ND		1.0	5.0	µg/Kg	N/A	N/A	8/3/2007	SM3E070803E
1,2-Dibromoethane (EDB)	ND		1.0	5.0	µg/Kg	N/A	N/A	8/3/2007	SM3E070803E
1,2-Dichlorobenzene	ND		1.0	5.0	µg/Kg	N/A	N/A	8/3/2007	SM3E070803E
1,2-Dichloroethane	ND		1.0	5.0	µg/Kg	N/A	N/A	8/3/2007	SM3E070803E
1,2-Dichloropropane	ND		1.0	5.0	µg/Kg	N/A	N/A	8/3/2007	SM3E070803E
1,3,5-Trimethylbenzene	ND		1.0	5.0	µg/Kg	N/A	N/A	8/3/2007	SM3E070803E
1,3-Dichlorobenzene	ND		1.0	5.0	µg/Kg	N/A	N/A	8/3/2007	SM3E070803E
1,3-Dichloropropane	ND		1.0	5.0	µg/Kg	N/A	N/A	8/3/2007	SM3E070803E
1,4-Dichlorobenzene	ND		1.0	5.0	µg/Kg	N/A	N/A	8/3/2007	SM3E070803E
1,4-Dioxane	ND		1.0	200	µg/Kg	N/A	N/A	8/3/2007	SM3E070803E
2,2-Dichloropropane	ND		1.0	5.0	µg/Kg	N/A	N/A	8/3/2007	SM3E070803E
2-Butanone (MEK)	ND		1.0	40	µg/Kg	N/A	N/A	8/3/2007	SM3E070803E
2-Chloroethyl-vinyl Ether	ND		1.0	5.0	µg/Kg	N/A	N/A	8/3/2007	SM3E070803E
2-Chlorotoluene	ND		1.0	5.0	µg/Kg	N/A	N/A	8/3/2007	SM3E070803E
2-Hexanone	ND		1.0	40	µg/Kg	N/A	N/A	8/3/2007	SM3E070803E
4-Chlorotoluene	ND		1.0	5.0	µg/Kg	N/A	N/A	8/3/2007	SM3E070803E
4-Methyl-2-Pentanone(MIBK)	ND		1.0	40	µg/Kg	N/A	N/A	8/3/2007	SM3E070803E
Acetone	ND		1.0	100	µg/Kg	N/A	N/A	8/3/2007	SM3E070803E
Acetonitrile	ND		1.0	40	µg/Kg	N/A	N/A	8/3/2007	SM3E070803E
Acrolein	ND		1.0	5.0	µg/Kg	N/A	N/A	8/3/2007	SM3E070803E
Acrylonitrile	ND		1.0	5.0	µg/Kg	N/A	N/A	8/3/2007	SM3E070803E
Benzene	ND		1.0	5.0	µg/Kg	N/A	N/A	8/3/2007	SM3E070803E
Benzyl Chloride	ND		1.0	5.0	µg/Kg	N/A	N/A	8/3/2007	SM3E070803E
Bromobenzene	ND		1.0	5.0	µg/Kg	N/A	N/A	8/3/2007	SM3E070803E
Bromochloromethane	ND		1.0	5.0	µg/Kg	N/A	N/A	8/3/2007	SM3E070803E
Bromodichloromethane	ND		1.0	5.0	µg/Kg	N/A	N/A	8/3/2007	SM3E070803E
Bromoform	ND		1.0	5.0	µg/Kg	N/A	N/A	8/3/2007	SM3E070803E
Bromomethane	ND		1.0	5.0	µg/Kg	N/A	N/A	8/3/2007	SM3E070803E
Carbon Disulfide	ND		1.0	5.0	µg/Kg	N/A	N/A	8/3/2007	SM3E070803E
Carbon Tetrachloride	ND		1.0	5.0	µg/Kg	N/A	N/A	8/3/2007	SM3E070803E
Chlorobenzene	ND		1.0	5.0	µg/Kg	N/A	N/A	8/3/2007	SM3E070803E
Chloroethane	ND		1.0	5.0	µg/Kg	N/A	N/A	8/3/2007	SM3E070803E
Chloroform	ND		1.0	5.0	µg/Kg	N/A	N/A	8/3/2007	SM3E070803E
Chloromethane	ND		1.0	5.0	µg/Kg	N/A	N/A	8/3/2007	SM3E070803E

Detection Limit = Detection Limit for Reporting.

ND = Not Detected at or above the Detection Limit.

D/P-F = Dilution and/or Prep Factor includes sample volume adjustments.

Qual = Data Qualifier

8/7/2007 4:28:37 PM - E Ling

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Engeo, Inc.-SJ
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Attn: Shawn Munger

Project Number: 7862.3.002.01
Project Name: 199 River Oaks Parkway

Certificate of Analysis - Data Report

Samples Received: 08/01/2007
Sample Collected by: Client

Lab # : 56594-010 Sample ID: DP-4@11-12 Matrix: Solid Sample Date: 8/1/2007 11:35 AM

VOCs: EPA 5030B (or 5035A for Encore Samples only)/EPA 8260B

Parameter	Result	Qual	D/P-F	Detection Limit	Units	Prep Date	Prep Batch	Analysis Date	QC Batch
cis-1,2-Dichloroethene	ND		1.0	5.0	µg/Kg	N/A	N/A	8/3/2007	SM3E070803E
cis-1,3-Dichloropropene	ND		1.0	5.0	µg/Kg	N/A	N/A	8/3/2007	SM3E070803E
Cyclohexanone	ND		1.0	40	µg/Kg	N/A	N/A	8/3/2007	SM3E070803E
Dibromochloromethane	ND		1.0	5.0	µg/Kg	N/A	N/A	8/3/2007	SM3E070803E
Dibromomethane	ND		1.0	5.0	µg/Kg	N/A	N/A	8/3/2007	SM3E070803E
Dichlorodifluoromethane	ND		1.0	5.0	µg/Kg	N/A	N/A	8/3/2007	SM3E070803E
Diisopropyl Ether	ND		1.0	5.0	µg/Kg	N/A	N/A	8/3/2007	SM3E070803E
Ethyl Benzene	ND		1.0	5.0	µg/Kg	N/A	N/A	8/3/2007	SM3E070803E
Freon 113	ND		1.0	10	µg/Kg	N/A	N/A	8/3/2007	SM3E070803E
Hexachlorobutadiene	ND		1.0	5.0	µg/Kg	N/A	N/A	8/3/2007	SM3E070803E
Iodomethane	ND		1.0	10	µg/Kg	N/A	N/A	8/3/2007	SM3E070803E
Isopropanol	ND		1.0	100	µg/Kg	N/A	N/A	8/3/2007	SM3E070803E
Isopropylbenzene	ND		1.0	5.0	µg/Kg	N/A	N/A	8/3/2007	SM3E070803E
Methyl-t-butyl Ether	ND		1.0	5.0	µg/Kg	N/A	N/A	8/3/2007	SM3E070803E
Methylene Chloride	ND		1.0	50	µg/Kg	N/A	N/A	8/3/2007	SM3E070803E
n-Butylbenzene	ND		1.0	5.0	µg/Kg	N/A	N/A	8/3/2007	SM3E070803E
n-Propylbenzene	ND		1.0	5.0	µg/Kg	N/A	N/A	8/3/2007	SM3E070803E
Naphthalene	ND		1.0	5.0	µg/Kg	N/A	N/A	8/3/2007	SM3E070803E
p-Isopropyltoluene	ND		1.0	5.0	µg/Kg	N/A	N/A	8/3/2007	SM3E070803E
Pentachloroethane	ND		1.0	5.0	µg/Kg	N/A	N/A	8/3/2007	SM3E070803E
sec-Butylbenzene	ND		1.0	5.0	µg/Kg	N/A	N/A	8/3/2007	SM3E070803E
Styrene	ND		1.0	5.0	µg/Kg	N/A	N/A	8/3/2007	SM3E070803E
tert-Amyl Methyl Ether	ND		1.0	5.0	µg/Kg	N/A	N/A	8/3/2007	SM3E070803E
tert-Butanol (TBA)	ND		1.0	40	µg/Kg	N/A	N/A	8/3/2007	SM3E070803E
tert-Butyl Ethyl Ether	ND		1.0	5.0	µg/Kg	N/A	N/A	8/3/2007	SM3E070803E
tert-Butylbenzene	ND		1.0	5.0	µg/Kg	N/A	N/A	8/3/2007	SM3E070803E
Tetrachloroethene	ND		1.0	5.0	µg/Kg	N/A	N/A	8/3/2007	SM3E070803E
Tetrahydrofuran	ND		1.0	40	µg/Kg	N/A	N/A	8/3/2007	SM3E070803E
Toluene	ND		1.0	5.0	µg/Kg	N/A	N/A	8/3/2007	SM3E070803E
trans-1,2-Dichloroethene	ND		1.0	5.0	µg/Kg	N/A	N/A	8/3/2007	SM3E070803E
trans-1,3-Dichloropropene	ND		1.0	5.0	µg/Kg	N/A	N/A	8/3/2007	SM3E070803E
trans-1,4-Dichloro-2-butene	ND		1.0	10	µg/Kg	N/A	N/A	8/3/2007	SM3E070803E
Trichloroethene	ND		1.0	5.0	µg/Kg	N/A	N/A	8/3/2007	SM3E070803E
Trichlorofluoromethane	ND		1.0	5.0	µg/Kg	N/A	N/A	8/3/2007	SM3E070803E
Vinyl Acetate	ND		1.0	5.0	µg/Kg	N/A	N/A	8/3/2007	SM3E070803E
Vinyl Chloride	ND		1.0	5.0	µg/Kg	N/A	N/A	8/3/2007	SM3E070803E
Xylenes, Total	ND		1.0	10	µg/Kg	N/A	N/A	8/3/2007	SM3E070803E

Surrogate	Surrogate Recovery	Control Limits (%)
4-Bromofluorobenzene	96.2	60 - 130
Dibromofluoromethane	121	60 - 130
Toluene-d8	104	60 - 130

Analyzed by: MaiChiTu

Reviewed by: EricKum

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Attn: Shawn Munger

Project Number: 7862.3.002.01
Project Name: 199 River Oaks Parkway

Certificate of Analysis - Data Report

Samples Received: 08/01/2007
Sample Collected by: Client

Lab # : 56594-010 Sample ID: DP-4@11-12 Matrix: Solid Sample Date: 8/1/2007 11:35 AM

SVOCs: EPA 3545A / EPA 8270C

Parameter	Result	Qual	D/P-F	Detection Limit	Units	Prep Date	Prep Batch	Analysis Date	QC Batch
1,2,4-Trichlorobenzene	ND		1.0	0.50	mg/Kg	8/1/2007	SVS070801	8/2/2007	SVS070801
1,2-Dichlorobenzene	ND		1.0	0.50	mg/Kg	8/1/2007	SVS070801	8/2/2007	SVS070801
1,2-Dinitrobenzene	ND		1.0	0.50	mg/Kg	8/1/2007	SVS070801	8/2/2007	SVS070801
1,3-Dichlorobenzene	ND		1.0	0.50	mg/Kg	8/1/2007	SVS070801	8/2/2007	SVS070801
1,3-Dinitrobenzene	ND		1.0	0.50	mg/Kg	8/1/2007	SVS070801	8/2/2007	SVS070801
1,4-Dichlorobenzene	ND		1.0	0.50	mg/Kg	8/1/2007	SVS070801	8/2/2007	SVS070801
1,4-Dinitrobenzene	ND		1.0	0.50	mg/Kg	8/1/2007	SVS070801	8/2/2007	SVS070801
1-Methylnaphthalene	ND		1.0	0.50	mg/Kg	8/1/2007	SVS070801	8/2/2007	SVS070801
2,3,4,6-Tetrachlorophenol	ND		1.0	0.50	mg/Kg	8/1/2007	SVS070801	8/2/2007	SVS070801
2,3,5,6-Tetrachlorophenol	ND		1.0	0.50	mg/Kg	8/1/2007	SVS070801	8/2/2007	SVS070801
2,4,5-Trichlorophenol	ND		1.0	0.50	mg/Kg	8/1/2007	SVS070801	8/2/2007	SVS070801
2,4,6-Trichlorophenol	ND		1.0	0.50	mg/Kg	8/1/2007	SVS070801	8/2/2007	SVS070801
2,4-Dichlorophenol	ND		1.0	0.50	mg/Kg	8/1/2007	SVS070801	8/2/2007	SVS070801
2,4-Dimethylphenol	ND		1.0	0.50	mg/Kg	8/1/2007	SVS070801	8/2/2007	SVS070801
2,4-Dinitrophenol	ND		1.0	2.5	mg/Kg	8/1/2007	SVS070801	8/2/2007	SVS070801
2,4-Dinitrotoluene	ND		1.0	0.50	mg/Kg	8/1/2007	SVS070801	8/2/2007	SVS070801
2,6-Dinitrotoluene	ND		1.0	1.0	mg/Kg	8/1/2007	SVS070801	8/2/2007	SVS070801
2-Chloronaphthalene	ND		1.0	0.50	mg/Kg	8/1/2007	SVS070801	8/2/2007	SVS070801
2-Chlorophenol	ND		1.0	1.0	mg/Kg	8/1/2007	SVS070801	8/2/2007	SVS070801
2-Methylnaphthalene	ND		1.0	0.50	mg/Kg	8/1/2007	SVS070801	8/2/2007	SVS070801
2-Methylphenol	ND		1.0	0.50	mg/Kg	8/1/2007	SVS070801	8/2/2007	SVS070801
2-Nitroaniline	ND		1.0	0.50	mg/Kg	8/1/2007	SVS070801	8/2/2007	SVS070801
2-Nitrophenol	ND		1.0	0.50	mg/Kg	8/1/2007	SVS070801	8/2/2007	SVS070801
3&4-Methylphenol	ND		1.0	0.50	mg/Kg	8/1/2007	SVS070801	8/2/2007	SVS070801
3,3'-Dichlorobenzidine	ND		1.0	2.5	mg/Kg	8/1/2007	SVS070801	8/2/2007	SVS070801
3-Nitroaniline	ND		1.0	0.50	mg/Kg	8/1/2007	SVS070801	8/2/2007	SVS070801
4,6-Dinitro-2-methylphenol	ND		1.0	2.0	mg/Kg	8/1/2007	SVS070801	8/2/2007	SVS070801
4-Bromophenyl Phenyl Ether	ND		1.0	0.50	mg/Kg	8/1/2007	SVS070801	8/2/2007	SVS070801
4-Chloro-3-methylphenol	ND		1.0	0.50	mg/Kg	8/1/2007	SVS070801	8/2/2007	SVS070801
4-Chloroaniline	ND		1.0	0.50	mg/Kg	8/1/2007	SVS070801	8/2/2007	SVS070801
4-Chlorophenyl-phenylether	ND		1.0	0.50	mg/Kg	8/1/2007	SVS070801	8/2/2007	SVS070801
4-Nitroaniline	ND		1.0	0.50	mg/Kg	8/1/2007	SVS070801	8/2/2007	SVS070801
4-Nitrophenol	ND		1.0	2.0	mg/Kg	8/1/2007	SVS070801	8/2/2007	SVS070801
Acenaphthene	ND		1.0	1.0	mg/Kg	8/1/2007	SVS070801	8/2/2007	SVS070801
Acenaphthylene	ND		1.0	0.50	mg/Kg	8/1/2007	SVS070801	8/2/2007	SVS070801
Aniline	ND		1.0	0.50	mg/Kg	8/1/2007	SVS070801	8/2/2007	SVS070801
Anthracene	ND		1.0	0.50	mg/Kg	8/1/2007	SVS070801	8/2/2007	SVS070801
Azobenzene	ND		1.0	0.50	mg/Kg	8/1/2007	SVS070801	8/2/2007	SVS070801
Benzo(a)anthracene	ND		1.0	0.50	mg/Kg	8/1/2007	SVS070801	8/2/2007	SVS070801
Benzo(a)pyrene	ND		1.0	0.50	mg/Kg	8/1/2007	SVS070801	8/2/2007	SVS070801
Benzo(b)fluoranthene	ND		1.0	0.50	mg/Kg	8/1/2007	SVS070801	8/2/2007	SVS070801
Benzo(g,h,i)perylene	ND		1.0	0.50	mg/Kg	8/1/2007	SVS070801	8/2/2007	SVS070801
Benzo(k)fluoranthene	ND		1.0	0.50	mg/Kg	8/1/2007	SVS070801	8/2/2007	SVS070801
Benzoic Acid	ND		1.0	1.0	mg/Kg	8/1/2007	SVS070801	8/2/2007	SVS070801
Benzyl Alcohol	ND		1.0	1.0	mg/Kg	8/1/2007	SVS070801	8/2/2007	SVS070801

Detection Limit = Detection Limit for Reporting.

ND = Not Detected at or above the Detection Limit.

D/P-F = Dilution and/or Prep Factor includes sample volume adjustments.

Qual = Data Qualifier

8/7/2007 4:28:37 PM - ELing

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Attn: Shawn Munger

Project Number: 7862.3.002.01
Project Name: 199 River Oaks Parkway

Certificate of Analysis - Data Report

Samples Received: 08/01/2007
Sample Collected by: Client

Lab # : 56594-010 Sample ID: DP-4@11-12 Matrix: Solid Sample Date: 8/1/2007 11:35 AM

SVOCs: EPA 3545A / EPA 8270C

Parameter	Result	Qual	D/P-F	Detection Limit	Units	Prep Date	Prep Batch	Analysis Date	QC Batch
bis-(2-Chloroethoxy)methane	ND		1.0	0.50	mg/Kg	8/1/2007	SVS070801	8/2/2007	SVS070801
bis-(2-Chloroethyl)ether	ND		1.0	0.50	mg/Kg	8/1/2007	SVS070801	8/2/2007	SVS070801
bis(2-Chloroisopropyl)ether	ND		1.0	0.50	mg/Kg	8/1/2007	SVS070801	8/2/2007	SVS070801
bis(2-Ethylhexyl)adipate	ND		1.0	0.50	mg/Kg	8/1/2007	SVS070801	8/2/2007	SVS070801
bis(2-Ethylhexyl)phthalate	ND		1.0	0.50	mg/Kg	8/1/2007	SVS070801	8/2/2007	SVS070801
Butylbenzylphthalate	ND		1.0	0.50	mg/Kg	8/1/2007	SVS070801	8/2/2007	SVS070801
Carbazole	ND		1.0	0.50	mg/Kg	8/1/2007	SVS070801	8/2/2007	SVS070801
Chrysene	ND		1.0	0.50	mg/Kg	8/1/2007	SVS070801	8/2/2007	SVS070801
Di-n-butylphthalate	ND		1.0	0.50	mg/Kg	8/1/2007	SVS070801	8/2/2007	SVS070801
Di-n-octylphthalate	ND		1.0	0.50	mg/Kg	8/1/2007	SVS070801	8/2/2007	SVS070801
Dibenzo(a,h)anthracene	ND		1.0	0.50	mg/Kg	8/1/2007	SVS070801	8/2/2007	SVS070801
Dibenzofuran	ND		1.0	0.50	mg/Kg	8/1/2007	SVS070801	8/2/2007	SVS070801
Diethylphthalate	ND		1.0	0.50	mg/Kg	8/1/2007	SVS070801	8/2/2007	SVS070801
Dimethylphthalate	ND		1.0	0.50	mg/Kg	8/1/2007	SVS070801	8/2/2007	SVS070801
Diphenylamine	ND		1.0	0.50	mg/Kg	8/1/2007	SVS070801	8/2/2007	SVS070801
Fluoranthene	ND		1.0	0.50	mg/Kg	8/1/2007	SVS070801	8/2/2007	SVS070801
Fluorene	ND		1.0	0.50	mg/Kg	8/1/2007	SVS070801	8/2/2007	SVS070801
Hexachlorobenzene	ND		1.0	0.50	mg/Kg	8/1/2007	SVS070801	8/2/2007	SVS070801
Hexachlorobutadiene	ND		1.0	0.50	mg/Kg	8/1/2007	SVS070801	8/2/2007	SVS070801
Hexachlorocyclopentadiene	ND		1.0	0.50	mg/Kg	8/1/2007	SVS070801	8/2/2007	SVS070801
Hexachloroethane	ND		1.0	0.50	mg/Kg	8/1/2007	SVS070801	8/2/2007	SVS070801
Indeno(1,2,3-cd)pyrene	ND		1.0	0.50	mg/Kg	8/1/2007	SVS070801	8/2/2007	SVS070801
Isophorone	ND		1.0	0.50	mg/Kg	8/1/2007	SVS070801	8/2/2007	SVS070801
N-Nitroso-di-n-propylamine	ND		1.0	1.0	mg/Kg	8/1/2007	SVS070801	8/2/2007	SVS070801
N-Nitrosodimethylamine	ND		1.0	5.0	mg/Kg	8/1/2007	SVS070801	8/2/2007	SVS070801
Naphthalene	ND		1.0	0.50	mg/Kg	8/1/2007	SVS070801	8/2/2007	SVS070801
Nitrobenzene	ND		1.0	0.50	mg/Kg	8/1/2007	SVS070801	8/2/2007	SVS070801
1-Methyl-2-pyrrolidinone (NMP)	ND		1.0	0.50	mg/Kg	8/1/2007	SVS070801	8/2/2007	SVS070801
Pentachlorophenol	ND		1.0	0.50	mg/Kg	8/1/2007	SVS070801	8/2/2007	SVS070801
Phenanthrene	ND		1.0	0.50	mg/Kg	8/1/2007	SVS070801	8/2/2007	SVS070801
Phenol	ND		1.0	2.0	mg/Kg	8/1/2007	SVS070801	8/2/2007	SVS070801
Pyrene	ND		1.0	1.0	mg/Kg	8/1/2007	SVS070801	8/2/2007	SVS070801
Pyridine	ND		1.0	2.0	mg/Kg	8/1/2007	SVS070801	8/2/2007	SVS070801

Surrogate	Surrogate Recovery	Control Limits (%)
2,4,6-Tribromophenol	36.6	30 - 100
2-Fluorobiphenyl	23.8	20 - 100
2-Fluorophenol	22.5	20 - 100
Nitrobenzene-d5	24.3	20 - 100
Phenol-d6	29.3	20 - 100
p-Terphenyl-d14	68.4	55 - 130

Analyzed by: LYU
Reviewed by: ntran

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Attn: Shawn Munger

Project Number: 7862.3.002.01
Project Name: 199 River Oaks Parkway

Certificate of Analysis - Data Report

Samples Received: 08/01/2007
Sample Collected by: Client

Lab # : 56594-010 Sample ID: DP-4@11-12 Matrix: Solid Sample Date: 8/1/2007 11:35 AM

Fluoride by ISE w/o Distillation: EPA 9214

Parameter	Result	Qual	D/P-F	Detection Limit	Units	Prep Date	Prep Batch	Analysis Date	QC Batch
Fluoride	8.0		1.0	1.0	mg/Kg	8/2/2007	SF070802	8/2/2007	SF070802

Analyzed by: EBlanco
Reviewed by: HDINH

Mercury: EPA 7471B

Parameter	Result	Qual	D/P-F	Detection Limit	Units	Prep Date	Prep Batch	Analysis Date	QC Batch
Mercury	0.11		1.0	0.050	mg/Kg	8/3/2007	SHG070803	8/3/2007	SHG070803

Analyzed by: Hdhin
Reviewed by: RWipfler

Metals by ICP: EPA 3050B / EPA 6010B

Parameter	Result	Qual	D/P-F	Detection Limit	Units	Prep Date	Prep Batch	Analysis Date	QC Batch
Antimony	ND		1.0	1.0	mg/Kg	8/3/2007	SM070803	8/6/2007	SM070803
Arsenic	7.0		1.0	1.0	mg/Kg	8/3/2007	SM070803	8/6/2007	SM070803
Barium	65		1.0	1.0	mg/Kg	8/3/2007	SM070803	8/6/2007	SM070803
Beryllium	ND		1.0	1.0	mg/Kg	8/3/2007	SM070803	8/6/2007	SM070803
Cadmium	ND		1.0	1.0	mg/Kg	8/3/2007	SM070803	8/6/2007	SM070803
Chromium	63		1.0	1.0	mg/Kg	8/3/2007	SM070803	8/6/2007	SM070803
Cobalt	18		1.0	1.0	mg/Kg	8/3/2007	SM070803	8/6/2007	SM070803
Copper	40		1.0	1.0	mg/Kg	8/3/2007	SM070803	8/6/2007	SM070803
Lead	10		1.0	1.0	mg/Kg	8/3/2007	SM070803	8/6/2007	SM070803
Molybdenum	ND		1.0	1.0	mg/Kg	8/3/2007	SM070803	8/6/2007	SM070803
Nickel	100		1.0	1.0	mg/Kg	8/3/2007	SM070803	8/6/2007	SM070803
Selenium	ND		1.0	2.0	mg/Kg	8/3/2007	SM070803	8/6/2007	SM070803
Silver	ND		1.0	1.0	mg/Kg	8/3/2007	SM070803	8/6/2007	SM070803
Thallium	ND		1.0	2.0	mg/Kg	8/3/2007	SM070803	8/6/2007	SM070803
Vanadium	45		1.0	1.0	mg/Kg	8/3/2007	SM070803	8/6/2007	SM070803
Zinc	71		1.0	2.0	mg/Kg	8/3/2007	SM070803	8/6/2007	SM070803

Analyzed by: CTran
Reviewed by: HDINH

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D/P-F = Dilution and/or Prep Factor includes sample volume adjustments.

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Attn: Shawn Munger

Project Number: 7862.3.002.01
Project Name: 199 River Oaks Parkway

Certificate of Analysis - Data Report

Samples Received: 08/01/2007
Sample Collected by: Client

Lab #: 56594-011

Sample ID: DP-5@10-11

Matrix: Solid

Sample Date: 8/1/2007

1:36 PM

VOCs: EPA 5030B (or 5035A for Encore Samples only)/EPA 8260B

Parameter	Result	Qual	D/P-F	Detection Limit	Units	Prep Date	Prep Batch	Analysis Date	QC Batch
1,1,1,2-Tetrachloroethane	ND		1.0	5.0	µg/Kg	N/A	N/A	8/3/2007	SM3E070803E
1,1,1-Trichloroethane	ND		1.0	5.0	µg/Kg	N/A	N/A	8/3/2007	SM3E070803E
1,1,2,2-Tetrachloroethane	ND		1.0	5.0	µg/Kg	N/A	N/A	8/3/2007	SM3E070803E
1,1,2-Trichloroethane	ND		1.0	5.0	µg/Kg	N/A	N/A	8/3/2007	SM3E070803E
1,1-Dichloroethane	ND		1.0	5.0	µg/Kg	N/A	N/A	8/3/2007	SM3E070803E
1,1-Dichloroethene	ND		1.0	5.0	µg/Kg	N/A	N/A	8/3/2007	SM3E070803E
1,1-Dichloropropene	ND		1.0	5.0	µg/Kg	N/A	N/A	8/3/2007	SM3E070803E
1,2,3-Trichlorobenzene	ND		1.0	5.0	µg/Kg	N/A	N/A	8/3/2007	SM3E070803E
1,2,3-Trichloropropane	ND		1.0	5.0	µg/Kg	N/A	N/A	8/3/2007	SM3E070803E
1,2,4-Trichlorobenzene	ND		1.0	5.0	µg/Kg	N/A	N/A	8/3/2007	SM3E070803E
1,2,4-Trimethylbenzene	ND		1.0	5.0	µg/Kg	N/A	N/A	8/3/2007	SM3E070803E
1,2-Dibromo-3-Chloropropane	ND		1.0	5.0	µg/Kg	N/A	N/A	8/3/2007	SM3E070803E
1,2-Dibromoethane (EDB)	ND		1.0	5.0	µg/Kg	N/A	N/A	8/3/2007	SM3E070803E
1,2-Dichlorobenzene	ND		1.0	5.0	µg/Kg	N/A	N/A	8/3/2007	SM3E070803E
1,2-Dichloroethane	ND		1.0	5.0	µg/Kg	N/A	N/A	8/3/2007	SM3E070803E
1,2-Dichloropropane	ND		1.0	5.0	µg/Kg	N/A	N/A	8/3/2007	SM3E070803E
1,3,5-Trimethylbenzene	ND		1.0	5.0	µg/Kg	N/A	N/A	8/3/2007	SM3E070803E
1,3-Dichlorobenzene	ND		1.0	5.0	µg/Kg	N/A	N/A	8/3/2007	SM3E070803E
1,3-Dichloropropane	ND		1.0	5.0	µg/Kg	N/A	N/A	8/3/2007	SM3E070803E
1,4-Dichlorobenzene	ND		1.0	5.0	µg/Kg	N/A	N/A	8/3/2007	SM3E070803E
1,4-Dioxane	ND		1.0	200	µg/Kg	N/A	N/A	8/3/2007	SM3E070803E
2,2-Dichloropropane	ND		1.0	5.0	µg/Kg	N/A	N/A	8/3/2007	SM3E070803E
2-Butanone (MEK)	ND		1.0	40	µg/Kg	N/A	N/A	8/3/2007	SM3E070803E
2-Chloroethyl-vinyl Ether	ND		1.0	5.0	µg/Kg	N/A	N/A	8/3/2007	SM3E070803E
2-Chlorotoluene	ND		1.0	5.0	µg/Kg	N/A	N/A	8/3/2007	SM3E070803E
2-Hexanone	ND		1.0	40	µg/Kg	N/A	N/A	8/3/2007	SM3E070803E
4-Chlorotoluene	ND		1.0	5.0	µg/Kg	N/A	N/A	8/3/2007	SM3E070803E
4-Methyl-2-Pentanone(MIBK)	ND		1.0	40	µg/Kg	N/A	N/A	8/3/2007	SM3E070803E
Acetone	ND		1.0	100	µg/Kg	N/A	N/A	8/3/2007	SM3E070803E
Acetonitrile	ND		1.0	40	µg/Kg	N/A	N/A	8/3/2007	SM3E070803E
Acrolein	ND		1.0	5.0	µg/Kg	N/A	N/A	8/3/2007	SM3E070803E
Acrylonitrile	ND		1.0	5.0	µg/Kg	N/A	N/A	8/3/2007	SM3E070803E
Benzene	ND		1.0	5.0	µg/Kg	N/A	N/A	8/3/2007	SM3E070803E
Benzyl Chloride	ND		1.0	5.0	µg/Kg	N/A	N/A	8/3/2007	SM3E070803E
Bromobenzene	ND		1.0	5.0	µg/Kg	N/A	N/A	8/3/2007	SM3E070803E
Bromochloromethane	ND		1.0	5.0	µg/Kg	N/A	N/A	8/3/2007	SM3E070803E
Bromodichloromethane	ND		1.0	5.0	µg/Kg	N/A	N/A	8/3/2007	SM3E070803E
Bromoform	ND		1.0	5.0	µg/Kg	N/A	N/A	8/3/2007	SM3E070803E
Bromomethane	ND		1.0	5.0	µg/Kg	N/A	N/A	8/3/2007	SM3E070803E
Carbon Disulfide	ND		1.0	5.0	µg/Kg	N/A	N/A	8/3/2007	SM3E070803E
Carbon Tetrachloride	ND		1.0	5.0	µg/Kg	N/A	N/A	8/3/2007	SM3E070803E
Chlorobenzene	ND		1.0	5.0	µg/Kg	N/A	N/A	8/3/2007	SM3E070803E
Chloroethane	ND		1.0	5.0	µg/Kg	N/A	N/A	8/3/2007	SM3E070803E
Chloroform	ND		1.0	5.0	µg/Kg	N/A	N/A	8/3/2007	SM3E070803E
Chloromethane	ND		1.0	5.0	µg/Kg	N/A	N/A	8/3/2007	SM3E070803E

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Project Number: 7862.3.002.01
Project Name: 199 River Oaks Parkway

Certificate of Analysis - Data Report

Samples Received: 08/01/2007
Sample Collected by: Client

Lab # : 56594-011 Sample ID: DP-5@10-11 Matrix: Solid Sample Date: 8/1/2007 1:36 PM

VOCs: EPA 5030B (or 5035A for Encore Samples only)/EPA 8260B

Parameter	Result	Qual	D/P-F	Detection Limit	Units	Prep Date	Prep Batch	Analysis Date	QC Batch
cis-1,2-Dichloroethene	ND		1.0	5.0	µg/Kg	N/A	N/A	8/3/2007	SM3E070803E
cis-1,3-Dichloropropene	ND		1.0	5.0	µg/Kg	N/A	N/A	8/3/2007	SM3E070803E
Cyclohexanone	ND		1.0	40	µg/Kg	N/A	N/A	8/3/2007	SM3E070803E
Dibromochloromethane	ND		1.0	5.0	µg/Kg	N/A	N/A	8/3/2007	SM3E070803E
Dibromomethane	ND		1.0	5.0	µg/Kg	N/A	N/A	8/3/2007	SM3E070803E
Dichlorodifluoromethane	ND		1.0	5.0	µg/Kg	N/A	N/A	8/3/2007	SM3E070803E
Diisopropyl Ether	ND		1.0	5.0	µg/Kg	N/A	N/A	8/3/2007	SM3E070803E
Ethyl Benzene	ND		1.0	5.0	µg/Kg	N/A	N/A	8/3/2007	SM3E070803E
Freon 113	ND		1.0	10	µg/Kg	N/A	N/A	8/3/2007	SM3E070803E
Hexachlorobutadiene	ND		1.0	5.0	µg/Kg	N/A	N/A	8/3/2007	SM3E070803E
Iodomethane	ND		1.0	10	µg/Kg	N/A	N/A	8/3/2007	SM3E070803E
Isopropanol	ND		1.0	100	µg/Kg	N/A	N/A	8/3/2007	SM3E070803E
Isopropylbenzene	ND		1.0	5.0	µg/Kg	N/A	N/A	8/3/2007	SM3E070803E
Methyl-t-butyl Ether	ND		1.0	5.0	µg/Kg	N/A	N/A	8/3/2007	SM3E070803E
Methylene Chloride	ND		1.0	50	µg/Kg	N/A	N/A	8/3/2007	SM3E070803E
n-Butylbenzene	ND		1.0	5.0	µg/Kg	N/A	N/A	8/3/2007	SM3E070803E
n-Propylbenzene	ND		1.0	5.0	µg/Kg	N/A	N/A	8/3/2007	SM3E070803E
Naphthalene	ND		1.0	5.0	µg/Kg	N/A	N/A	8/3/2007	SM3E070803E
p-Isopropyltoluene	ND		1.0	5.0	µg/Kg	N/A	N/A	8/3/2007	SM3E070803E
Pentachloroethane	ND		1.0	5.0	µg/Kg	N/A	N/A	8/3/2007	SM3E070803E
sec-Butylbenzene	ND		1.0	5.0	µg/Kg	N/A	N/A	8/3/2007	SM3E070803E
Styrene	ND		1.0	5.0	µg/Kg	N/A	N/A	8/3/2007	SM3E070803E
tert-Amyl Methyl Ether	ND		1.0	5.0	µg/Kg	N/A	N/A	8/3/2007	SM3E070803E
tert-Butanol (TBA)	ND		1.0	40	µg/Kg	N/A	N/A	8/3/2007	SM3E070803E
tert-Butyl Ethyl Ether	ND		1.0	5.0	µg/Kg	N/A	N/A	8/3/2007	SM3E070803E
tert-Butylbenzene	ND		1.0	5.0	µg/Kg	N/A	N/A	8/3/2007	SM3E070803E
Tetrachloroethene	ND		1.0	5.0	µg/Kg	N/A	N/A	8/3/2007	SM3E070803E
Tetrahydrofuran	ND		1.0	40	µg/Kg	N/A	N/A	8/3/2007	SM3E070803E
Toluene	ND		1.0	5.0	µg/Kg	N/A	N/A	8/3/2007	SM3E070803E
trans-1,2-Dichloroethene	ND		1.0	5.0	µg/Kg	N/A	N/A	8/3/2007	SM3E070803E
trans-1,3-Dichloropropene	ND		1.0	5.0	µg/Kg	N/A	N/A	8/3/2007	SM3E070803E
trans-1,4-Dichloro-2-butene	ND		1.0	10	µg/Kg	N/A	N/A	8/3/2007	SM3E070803E
Trichloroethene	ND		1.0	5.0	µg/Kg	N/A	N/A	8/3/2007	SM3E070803E
Trichlorofluoromethane	ND		1.0	5.0	µg/Kg	N/A	N/A	8/3/2007	SM3E070803E
Vinyl Acetate	ND		1.0	5.0	µg/Kg	N/A	N/A	8/3/2007	SM3E070803E
Vinyl Chloride	ND		1.0	5.0	µg/Kg	N/A	N/A	8/3/2007	SM3E070803E
Xylenes, Total	ND		1.0	10	µg/Kg	N/A	N/A	8/3/2007	SM3E070803E

Surrogate	Surrogate Recovery	Control Limits (%)
4-Bromofluorobenzene	101	60 - 130
Dibromofluoromethane	125	60 - 130
Toluene-d8	103	60 - 130

Analyzed by: MaiChiTu

Reviewed by: EricKum

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D/P-F = Dilution and/or Prep Factor includes sample volume adjustments.

Qual = Data Qualifier

8/7/2007 4:28:38 PM - ELing

Entech Analytical Labs, Inc.

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Phone: (408) 588-0200

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Engeo, Inc.-SJ
6288 San Ignacio Suite A
San Jose, Ca 95119
Attn: Shawn Munger

Project Number: 7862.3.002.01
Project Name: 199 River Oaks Parkway

Certificate of Analysis - Data Report

Samples Received: 08/01/2007
Sample Collected by: Client

Lab # : 56594-011 Sample ID: DP-5@10-11 Matrix: Solid Sample Date: 8/1/2007 1:36 PM

SVOCs: EPA 3545A / EPA 8270C

Parameter	Result	Qual	D/P-F	Detection Limit	Units	Prep Date	Prep Batch	Analysis Date	QC Batch
1,2,4-Trichlorobenzene	ND		5.0	2.5	mg/Kg	8/1/2007	SVS070801	8/3/2007	SVS070801
1,2-Dichlorobenzene	ND		5.0	2.5	mg/Kg	8/1/2007	SVS070801	8/3/2007	SVS070801
1,2-Dinitrobenzene	ND		5.0	2.5	mg/Kg	8/1/2007	SVS070801	8/3/2007	SVS070801
1,3-Dichlorobenzene	ND		5.0	2.5	mg/Kg	8/1/2007	SVS070801	8/3/2007	SVS070801
1,3-Dinitrobenzene	ND		5.0	2.5	mg/Kg	8/1/2007	SVS070801	8/3/2007	SVS070801
1,4-Dichlorobenzene	ND		5.0	2.5	mg/Kg	8/1/2007	SVS070801	8/3/2007	SVS070801
1,4-Dinitrobenzene	ND		5.0	2.5	mg/Kg	8/1/2007	SVS070801	8/3/2007	SVS070801
1-Methylnaphthalene	ND		5.0	2.5	mg/Kg	8/1/2007	SVS070801	8/3/2007	SVS070801
2,3,4,6-Tetrachlorophenol	ND		5.0	2.5	mg/Kg	8/1/2007	SVS070801	8/3/2007	SVS070801
2,3,5,6-Tetrachlorophenol	ND		5.0	2.5	mg/Kg	8/1/2007	SVS070801	8/3/2007	SVS070801
2,4,5-Trichlorophenol	ND		5.0	2.5	mg/Kg	8/1/2007	SVS070801	8/3/2007	SVS070801
2,4,6-Trichlorophenol	ND		5.0	2.5	mg/Kg	8/1/2007	SVS070801	8/3/2007	SVS070801
2,4-Dichlorophenol	ND		5.0	2.5	mg/Kg	8/1/2007	SVS070801	8/3/2007	SVS070801
2,4-Dimethylphenol	ND		5.0	2.5	mg/Kg	8/1/2007	SVS070801	8/3/2007	SVS070801
2,4-Dinitrophenol	ND		5.0	12	mg/Kg	8/1/2007	SVS070801	8/3/2007	SVS070801
2,4-Dinitrotoluene	ND		5.0	2.5	mg/Kg	8/1/2007	SVS070801	8/3/2007	SVS070801
2,6-Dinitrotoluene	ND		5.0	5.0	mg/Kg	8/1/2007	SVS070801	8/3/2007	SVS070801
2-Chloronaphthalene	ND		5.0	2.5	mg/Kg	8/1/2007	SVS070801	8/3/2007	SVS070801
2-Chlorophenol	ND		5.0	5.0	mg/Kg	8/1/2007	SVS070801	8/3/2007	SVS070801
2-Methylnaphthalene	ND		5.0	2.5	mg/Kg	8/1/2007	SVS070801	8/3/2007	SVS070801
2-Methylphenol	ND		5.0	2.5	mg/Kg	8/1/2007	SVS070801	8/3/2007	SVS070801
2-Nitroaniline	ND		5.0	2.5	mg/Kg	8/1/2007	SVS070801	8/3/2007	SVS070801
2-Nitrophenol	ND		5.0	2.5	mg/Kg	8/1/2007	SVS070801	8/3/2007	SVS070801
3&4-Methylphenol	ND		5.0	2.5	mg/Kg	8/1/2007	SVS070801	8/3/2007	SVS070801
3,3'-Dichlorobenzidine	ND		5.0	12	mg/Kg	8/1/2007	SVS070801	8/3/2007	SVS070801
3-Nitroaniline	ND		5.0	2.5	mg/Kg	8/1/2007	SVS070801	8/3/2007	SVS070801
4,6-Dinitro-2-methylphenol	ND		5.0	10	mg/Kg	8/1/2007	SVS070801	8/3/2007	SVS070801
4-Bromophenyl Phenyl Ether	ND		5.0	2.5	mg/Kg	8/1/2007	SVS070801	8/3/2007	SVS070801
4-Chloro-3-methylphenol	ND		5.0	2.5	mg/Kg	8/1/2007	SVS070801	8/3/2007	SVS070801
4-Chloroaniline	ND		5.0	2.5	mg/Kg	8/1/2007	SVS070801	8/3/2007	SVS070801
4-Chlorophenyl-phenylether	ND		5.0	2.5	mg/Kg	8/1/2007	SVS070801	8/3/2007	SVS070801
4-Nitroaniline	ND		5.0	2.5	mg/Kg	8/1/2007	SVS070801	8/3/2007	SVS070801
4-Nitrophenol	ND		5.0	10	mg/Kg	8/1/2007	SVS070801	8/3/2007	SVS070801
Acenaphthene	ND		5.0	5.0	mg/Kg	8/1/2007	SVS070801	8/3/2007	SVS070801
Acenaphthylene	ND		5.0	2.5	mg/Kg	8/1/2007	SVS070801	8/3/2007	SVS070801
Aniline	ND		5.0	2.5	mg/Kg	8/1/2007	SVS070801	8/3/2007	SVS070801
Anthracene	ND		5.0	2.5	mg/Kg	8/1/2007	SVS070801	8/3/2007	SVS070801
Azobenzene	ND		5.0	2.5	mg/Kg	8/1/2007	SVS070801	8/3/2007	SVS070801
Benzo(a)anthracene	ND		5.0	2.5	mg/Kg	8/1/2007	SVS070801	8/3/2007	SVS070801
Benzo(a)pyrene	ND		5.0	2.5	mg/Kg	8/1/2007	SVS070801	8/3/2007	SVS070801
Benzo(b)fluoranthene	ND		5.0	2.5	mg/Kg	8/1/2007	SVS070801	8/3/2007	SVS070801
Benzo(g,h,i)perylene	ND		5.0	2.5	mg/Kg	8/1/2007	SVS070801	8/3/2007	SVS070801
Benzo(k)fluoranthene	ND		5.0	2.5	mg/Kg	8/1/2007	SVS070801	8/3/2007	SVS070801
Benzoic Acid	ND		5.0	5.0	mg/Kg	8/1/2007	SVS070801	8/3/2007	SVS070801
Benzyl Alcohol	ND		5.0	5.0	mg/Kg	8/1/2007	SVS070801	8/3/2007	SVS070801

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Qual = Data Qualifier

8/7/2007 4:28:38 PM - E Ling

Entech Analytical Labs, Inc.

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Phone: (408) 588-0200

Fax: (408) 588-0201

Engeo, Inc.-SJ
6288 San Ignacio Suite A
San Jose, Ca 95119
Attn: Shawn Munger

Project Number: 7862.3.002.01
Project Name: 199 River Oaks Parkway

Certificate of Analysis - Data Report

Samples Received: 08/01/2007
Sample Collected by: Client

Lab # : 56594-011 Sample ID: DP-5@10-11 Matrix: Solid Sample Date: 8/1/2007 1:36 PM

SVOCs: EPA 3545A / EPA 8270C

Parameter	Result	Qual	D/P-F	Detection Limit	Units	Prep Date	Prep Batch	Analysis Date	QC Batch
bis-(2-Chloroethoxy)methane	ND		5.0	2.5	mg/Kg	8/1/2007	SVS070801	8/3/2007	SVS070801
bis-(2-Chloroethyl)ether	ND		5.0	2.5	mg/Kg	8/1/2007	SVS070801	8/3/2007	SVS070801
bis(2-Chloroisopropyl)ether	ND		5.0	2.5	mg/Kg	8/1/2007	SVS070801	8/3/2007	SVS070801
bis(2-Ethylhexyl)adipate	ND		5.0	2.5	mg/Kg	8/1/2007	SVS070801	8/3/2007	SVS070801
bis(2-Ethylhexyl)phthalate	ND		5.0	2.5	mg/Kg	8/1/2007	SVS070801	8/3/2007	SVS070801
Butylbenzylphthalate	ND		5.0	2.5	mg/Kg	8/1/2007	SVS070801	8/3/2007	SVS070801
Carbazole	ND		5.0	2.5	mg/Kg	8/1/2007	SVS070801	8/3/2007	SVS070801
Chrysene	ND		5.0	2.5	mg/Kg	8/1/2007	SVS070801	8/3/2007	SVS070801
Di-n-butylphthalate	ND		5.0	2.5	mg/Kg	8/1/2007	SVS070801	8/3/2007	SVS070801
Di-n-octylphthalate	ND		5.0	2.5	mg/Kg	8/1/2007	SVS070801	8/3/2007	SVS070801
Dibenzo(a,h)anthracene	ND		5.0	2.5	mg/Kg	8/1/2007	SVS070801	8/3/2007	SVS070801
Dibenzofuran	ND		5.0	2.5	mg/Kg	8/1/2007	SVS070801	8/3/2007	SVS070801
Diethylphthalate	ND		5.0	2.5	mg/Kg	8/1/2007	SVS070801	8/3/2007	SVS070801
Dimethylphthalate	ND		5.0	2.5	mg/Kg	8/1/2007	SVS070801	8/3/2007	SVS070801
Diphenylamine	ND		5.0	2.5	mg/Kg	8/1/2007	SVS070801	8/3/2007	SVS070801
Fluoranthene	ND		5.0	2.5	mg/Kg	8/1/2007	SVS070801	8/3/2007	SVS070801
Fluorene	ND		5.0	2.5	mg/Kg	8/1/2007	SVS070801	8/3/2007	SVS070801
Hexachlorobenzene	ND		5.0	2.5	mg/Kg	8/1/2007	SVS070801	8/3/2007	SVS070801
Hexachlorobutadiene	ND		5.0	2.5	mg/Kg	8/1/2007	SVS070801	8/3/2007	SVS070801
Hexachlorocyclopentadiene	ND		5.0	2.5	mg/Kg	8/1/2007	SVS070801	8/3/2007	SVS070801
Hexachloroethane	ND		5.0	2.5	mg/Kg	8/1/2007	SVS070801	8/3/2007	SVS070801
Indeno(1,2,3-cd)pyrene	ND		5.0	2.5	mg/Kg	8/1/2007	SVS070801	8/3/2007	SVS070801
Isophorone	ND		5.0	2.5	mg/Kg	8/1/2007	SVS070801	8/3/2007	SVS070801
N-Nitroso-di-n-propylamine	ND		5.0	5.0	mg/Kg	8/1/2007	SVS070801	8/3/2007	SVS070801
N-Nitrosodimethylamine	ND		5.0	25	mg/Kg	8/1/2007	SVS070801	8/3/2007	SVS070801
Naphthalene	ND		5.0	2.5	mg/Kg	8/1/2007	SVS070801	8/3/2007	SVS070801
Nitrobenzene	ND		5.0	2.5	mg/Kg	8/1/2007	SVS070801	8/3/2007	SVS070801
1-Methyl-2-pyrrolidinone (NMP)	ND		5.0	2.5	mg/Kg	8/1/2007	SVS070801	8/3/2007	SVS070801
Pentachlorophenol	ND		5.0	2.5	mg/Kg	8/1/2007	SVS070801	8/3/2007	SVS070801
Phenanthrene	ND		5.0	2.5	mg/Kg	8/1/2007	SVS070801	8/3/2007	SVS070801
Phenol	ND		5.0	10	mg/Kg	8/1/2007	SVS070801	8/3/2007	SVS070801
Pyrene	ND		5.0	5.0	mg/Kg	8/1/2007	SVS070801	8/3/2007	SVS070801
Pyridine	ND		5.0	10	mg/Kg	8/1/2007	SVS070801	8/3/2007	SVS070801

The reporting limits are increased due to nature of the sample matrix.

Surrogate	Surrogate Recovery	Control Limits (%)
2,4,6-Tribromophenol	49.1	30 - 100
2-Fluorobiphenyl	64.0	20 - 100
2-Fluorophenol	46.2	20 - 100
Nitrobenzene-d5	61.3	20 - 100
Phenol-d6	65.5	20 - 100
p-Terphenyl-d14	98.3	55 - 130

Analyzed by: JHsiang

Reviewed by: mtran

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8/7/2007 4:28:38 PM - ELing

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6288 San Ignacio Suite A
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Attn: Shawn Munger

Project Number: 7862.3.002.01
Project Name: 199 River Oaks Parkway

Certificate of Analysis - Data Report

Samples Received: 08/01/2007
Sample Collected by: Client

Lab # : 56594-011 Sample ID: DP-5@10-11 Matrix: Solid Sample Date: 8/1/2007 1:36 PM

Fluoride by ISE w/o Distillation: EPA 9214

Parameter	Result	Qual	D/P-F	Detection Limit	Units	Prep Date	Prep Batch	Analysis Date	QC Batch
Fluoride	9.8		1.0	1.0	mg/Kg	8/2/2007	SF070802	8/2/2007	SF070802

Analyzed by: EBlanco

Reviewed by: HDINH

Mercury: EPA 7471B

Parameter	Result	Qual	D/P-F	Detection Limit	Units	Prep Date	Prep Batch	Analysis Date	QC Batch
Mercury	0.11		1.0	0.050	mg/Kg	8/3/2007	SHG070803	8/3/2007	SHG070803

Analyzed by: Hdinh

Reviewed by: RWipfler

Metals by ICP: EPA 3050B / EPA 6010B

Parameter	Result	Qual	D/P-F	Detection Limit	Units	Prep Date	Prep Batch	Analysis Date	QC Batch
Antimony	ND		1.0	1.0	mg/Kg	8/3/2007	SM070803	8/6/2007	SM070803
Arsenic	7.9		1.0	1.0	mg/Kg	8/3/2007	SM070803	8/6/2007	SM070803
Barium	390		1.0	1.0	mg/Kg	8/3/2007	SM070803	8/6/2007	SM070803
Beryllium	ND		1.0	1.0	mg/Kg	8/3/2007	SM070803	8/6/2007	SM070803
Cadmium	ND		1.0	1.0	mg/Kg	8/3/2007	SM070803	8/6/2007	SM070803
Chromium	69		1.0	1.0	mg/Kg	8/3/2007	SM070803	8/6/2007	SM070803
Cobalt	18		1.0	1.0	mg/Kg	8/3/2007	SM070803	8/6/2007	SM070803
Copper	46		1.0	1.0	mg/Kg	8/3/2007	SM070803	8/6/2007	SM070803
Lead	13		1.0	1.0	mg/Kg	8/3/2007	SM070803	8/6/2007	SM070803
Molybdenum	ND		1.0	1.0	mg/Kg	8/3/2007	SM070803	8/6/2007	SM070803
Nickel	99		1.0	1.0	mg/Kg	8/3/2007	SM070803	8/6/2007	SM070803
Selenium	ND		1.0	2.0	mg/Kg	8/3/2007	SM070803	8/6/2007	SM070803
Silver	ND		1.0	1.0	mg/Kg	8/3/2007	SM070803	8/6/2007	SM070803
Thallium	ND		1.0	2.0	mg/Kg	8/3/2007	SM070803	8/6/2007	SM070803
Vanadium	55		1.0	1.0	mg/Kg	8/3/2007	SM070803	8/6/2007	SM070803
Zinc	78		1.0	2.0	mg/Kg	8/3/2007	SM070803	8/6/2007	SM070803

Analyzed by: CTran

Reviewed by: HDINH

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8/7/2007 4:28:38 PM - ELing

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3334 Victor Court , Santa Clara, CA 95054 Phone: (408) 588-0200 Fax: (408) 588-0201

Method Blank - Solid - VOCs: EPA 5030B (or 5035A for Encore Samples only)/EPA 8260B

QC Batch ID: SM3E070802E

Validated by: EricKum - 08/06/07

QC Batch Analysis Date: 8/2/2007

Parameter	Result	DF	PQLR	Units
1,1,1,2-Tetrachloroethane	ND	1	5.0	µg/Kg
1,1,1-Trichloroethane	ND	1	5.0	µg/Kg
1,1,2,2-Tetrachloroethane	ND	1	5.0	µg/Kg
1,1,2-Trichloroethane	ND	1	5.0	µg/Kg
1,1-Dichloroethane	ND	1	5.0	µg/Kg
1,1-Dichloroethene	ND	1	5.0	µg/Kg
1,1-Dichloropropene	ND	1	5.0	µg/Kg
1,2,3-Trichlorobenzene	ND	1	5.0	µg/Kg
1,2,3-Trichloropropane	ND	1	5.0	µg/Kg
1,2,4-Trichlorobenzene	ND	1	5.0	µg/Kg
1,2,4-Trimethylbenzene	ND	1	5.0	µg/Kg
1,2-Dibromo-3-Chloropropane	ND	1	5.0	µg/Kg
1,2-Dibromoethane (EDB)	ND	1	5.0	µg/Kg
1,2-Dichlorobenzene	ND	1	5.0	µg/Kg
1,2-Dichloroethane	ND	1	5.0	µg/Kg
1,2-Dichloropropane	ND	1	5.0	µg/Kg
1,3,5-Trimethylbenzene	ND	1	5.0	µg/Kg
1,3-Dichlorobenzene	ND	1	5.0	µg/Kg
1,3-Dichloropropane	ND	1	5.0	µg/Kg
1,4-Dichlorobenzene	ND	1	5.0	µg/Kg
1,4-Dioxane	ND	1	200	µg/Kg
2,2-Dichloropropane	ND	1	5.0	µg/Kg
2-Butanone (MEK)	ND	1	40	µg/Kg
2-Chloroethyl-vinyl Ether	ND	1	5.0	µg/Kg
2-Chlorotoluene	ND	1	5.0	µg/Kg
2-Hexanone	ND	1	40	µg/Kg
4-Chlorotoluene	ND	1	5.0	µg/Kg
4-Methyl-2-Pentanone(MIBK)	ND	1	40	µg/Kg
Acetone	ND	1	100	µg/Kg
Acetonitrile	ND	1	40	µg/Kg
Acrolein	ND	1	5.0	µg/Kg
Acrylonitrile	ND	1	5.0	µg/Kg
Benzene	ND	1	5.0	µg/Kg
Benzyl Chloride	ND	1	5.0	µg/Kg
Bromobenzene	ND	1	5.0	µg/Kg
Bromochloromethane	ND	1	5.0	µg/Kg
Bromodichloromethane	ND	1	5.0	µg/Kg
Bromoform	ND	1	5.0	µg/Kg
Bromomethane	ND	1	5.0	µg/Kg
Carbon Disulfide	ND	1	5.0	µg/Kg
Carbon Tetrachloride	ND	1	5.0	µg/Kg
Chlorobenzene	ND	1	5.0	µg/Kg
Chloroethane	ND	1	5.0	µg/Kg
Chloroform	ND	1	5.0	µg/Kg
Chloromethane	ND	1	5.0	µg/Kg
cis-1,2-Dichloroethene	ND	1	5.0	µg/Kg
cis-1,3-Dichloropropene	ND	1	5.0	µg/Kg
Cyclohexanone	ND	1	40	µg/Kg
Dibromochloromethane	ND	1	5.0	µg/Kg
Dibromomethane	ND	1	5.0	µg/Kg
Dichlorodifluoromethane	ND	1	5.0	µg/Kg

Entech Analytical Labs, Inc.

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Method Blank - Solid - VOCs: EPA 5030B (or 5035A for Encore Samples only)/EPA 8260B

QC Batch ID: SM3E070802E

Validated by: EricKum - 08/06/07

QC Batch Analysis Date: 8/2/2007

Parameter	Result	DF	PQLR	Units
Diisopropyl Ether	ND	1	5.0	µg/Kg
Ethyl Benzene	ND	1	5.0	µg/Kg
Freon 113	ND	1	10	µg/Kg
Hexachlorobutadiene	ND	1	5.0	µg/Kg
Iodomethane	ND	1	10	µg/Kg
Isopropanol	ND	1	100	µg/Kg
Isopropylbenzene	ND	1	5.0	µg/Kg
Methylene Chloride	ND	1	50	µg/Kg
Methyl-t-butyl Ether	ND	1	5.0	µg/Kg
Naphthalene	ND	1	5.0	µg/Kg
n-Butylbenzene	ND	1	5.0	µg/Kg
n-Propylbenzene	ND	1	5.0	µg/Kg
Pentachloroethane	ND	1	5.0	µg/Kg
p-Isopropyltoluene	ND	1	5.0	µg/Kg
sec-Butylbenzene	ND	1	5.0	µg/Kg
Styrene	ND	1	5.0	µg/Kg
tert-Amyl Methyl Ether	ND	1	5.0	µg/Kg
tert-Butanol (TBA)	ND	1	40	µg/Kg
tert-Butyl Ethyl Ether	ND	1	5.0	µg/Kg
tert-Butylbenzene	ND	1	5.0	µg/Kg
Tetrachloroethene	ND	1	5.0	µg/Kg
Tetrahydrofuran	ND	1	40	µg/Kg
Toluene	ND	1	5.0	µg/Kg
trans-1,2-Dichloroethene	ND	1	5.0	µg/Kg
trans-1,3-Dichloropropene	ND	1	5.0	µg/Kg
trans-1,4-Dichloro-2-butene	ND	1	10	µg/Kg
Trichloroethene	ND	1	5.0	µg/Kg
Trichlorofluoromethane	ND	1	5.0	µg/Kg
Vinyl Acetate	ND	1	5.0	µg/Kg
Vinyl Chloride	ND	1	5.0	µg/Kg
Xylenes, Total	ND	1	10	µg/Kg

Surrogate for Blank	% Recovery	Control Limits
4-Bromofluorobenzene	102	60 - 130
Dibromofluoromethane	129	60 - 130
Toluene-d8	101	60 - 130

Entech Analytical Labs, Inc.

3334 Victor Court , Santa Clara, CA 95054 Phone: (408) 588-0200 Fax: (408) 588-0201

LCS / LCSD - Solid - VOCs: EPA 5030B (or 5035A for Encore Samples only)/EPA 8260B

QC Batch ID: SM3E070802E

Reviewed by: EricKum - 08/06/07

QC Batch ID Analysis Date: 8/2/2007

LCS

Parameter	Method Blank	Spike Amt	SpikeResult	Units	% Recovery	Recovery Limits
1,1-Dichloroethene	<5.0	40	39.2	µg/Kg	98.0	65 - 135
Benzene	<5.0	40	39.1	µg/Kg	97.8	65 - 135
Chlorobenzene	<5.0	40	31.2	µg/Kg	78.0	65 - 135
Methyl-t-butyl Ether	<5.0	40	49.5	µg/Kg	124	65 - 135
Toluene	<5.0	40	33.2	µg/Kg	83.0	65 - 135
Trichloroethene	<5.0	40	28.4	µg/Kg	71.0	65 - 135

Surrogate	% Recovery	Control Limits
4-Bromofluorobenzene	102	60 - 130
Dibromofluoromethane	125	60 - 130
Toluene-d8	98.8	60 - 130

LCSD

Parameter	Method Blank	Spike Amt	SpikeResult	Units	% Recovery	RPD	RPD Limits	Recovery Limits
1,1-Dichloroethene	<5.0	40	41.9	µg/Kg	105	6.66	30.0	65 - 135
Benzene	<5.0	40	43.1	µg/Kg	108	9.73	30.0	65 - 135
Chlorobenzene	<5.0	40	34.2	µg/Kg	85.5	9.17	30.0	65 - 135
Methyl-t-butyl Ether	<5.0	40	53.3	µg/Kg	133	7.39	30.0	65 - 135
Toluene	<5.0	40	35.8	µg/Kg	89.5	7.54	30.0	65 - 135
Trichloroethene	<5.0	40	32.0	µg/Kg	80.0	11.9	30.0	65 - 135

Surrogate	% Recovery	Control Limits
4-Bromofluorobenzene	99.3	60 - 130
Dibromofluoromethane	122	60 - 130
Toluene-d8	100	60 - 130

Entech Analytical Labs, Inc.

3334 Victor Court , Santa Clara, CA 95054 Phone: (408) 588-0200 Fax: (408) 588-0201

MS / MSD - Solid - VOCs: EPA 5030B (or 5035A for Encore Samples only)/EPA 8260B

QC Batch ID: SM3E070802E

Reviewed by: EricKum - 08/06/07

QC Batch ID Analysis Date: 8/2/2007

MS Sample Spiked: 56594-001

Parameter	Sample Result	Spike Amount	Spike Result	Units	Analysis Date	% Recovery	Recovery Limits	
1,1-Dichloroethene	ND	40	54.9	µg/Kg	8/2/2007	137	65 - 135	***
Benzene	ND	40	52.4	µg/Kg	8/2/2007	131	65 - 135	
Chlorobenzene	ND	40	38.9	µg/Kg	8/2/2007	97.2	65 - 135	
Methyl-t-butyl Ether	ND	40	59.9	µg/Kg	8/2/2007	150	65 - 135	***
Toluene	ND	40	42.9	µg/Kg	8/2/2007	107	65 - 135	
Trichloroethene	ND	40	40.4	µg/Kg	8/2/2007	101	65 - 135	
Surrogate	% Recovery	Control Limits						
4-Bromofluorobenzene	99.9	60 - 130						
Dibromofluoromethane	125	60 - 130						
Toluene-d8	101	60 - 130						

MSD Sample Spiked: 56594-001

Parameter	Sample Result	Spike Amount	Spike Result	Units	Analysis Date	% Recovery	RPD	RPD Limits	Recovery Limits	
1,1-Dichloroethene	ND	40	52.0	µg/Kg	8/2/2007	130	5.43	30.0	65 - 135	
Benzene	ND	40	49.8	µg/Kg	8/2/2007	124	5.09	30.0	65 - 135	
Chlorobenzene	ND	40	37.7	µg/Kg	8/2/2007	94.2	3.13	30.0	65 - 135	
Methyl-t-butyl Ether	ND	40	61.6	µg/Kg	8/2/2007	154	2.80	30.0	65 - 135	***
Toluene	ND	40	41.9	µg/Kg	8/2/2007	105	2.36	30.0	65 - 135	
Trichloroethene	ND	40	38.8	µg/Kg	8/2/2007	97.0	4.04	30.0	65 - 135	
Surrogate	% Recovery	Control Limits								
4-Bromofluorobenzene	97.8	60 - 130								
Dibromofluoromethane	124	60 - 130								
Toluene-d8	102	60 - 130								

Comment: % Recoveries for MS/MSD were outside of the QC limits but the % recoveries for LCS/LCSD were inside of the QC limits. No corrective action needed.

Entech Analytical Labs, Inc.

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Method Blank - Solid - VOCs: EPA 5030B (or 5035A for Encore Samples only)/EPA 8260B

QC Batch ID: SM3E070803E

Validated by: EricKum - 08/07/07

QC Batch Analysis Date: 8/3/2007

Parameter	Result	DF	PQLR	Units
1,1,1,2-Tetrachloroethane	ND	1	5.0	µg/Kg
1,1,1-Trichloroethane	ND	1	5.0	µg/Kg
1,1,2,2-Tetrachloroethane	ND	1	5.0	µg/Kg
1,1,2-Trichloroethane	ND	1	5.0	µg/Kg
1,1-Dichloroethane	ND	1	5.0	µg/Kg
1,1-Dichloroethene	ND	1	5.0	µg/Kg
1,1-Dichloropropene	ND	1	5.0	µg/Kg
1,2,3-Trichlorobenzene	ND	1	5.0	µg/Kg
1,2,3-Trichloropropane	ND	1	5.0	µg/Kg
1,2,4-Trichlorobenzene	ND	1	5.0	µg/Kg
1,2,4-Trimethylbenzene	ND	1	5.0	µg/Kg
1,2-Dibromo-3-Chloropropane	ND	1	5.0	µg/Kg
1,2-Dibromoethane (EDB)	ND	1	5.0	µg/Kg
1,2-Dichlorobenzene	ND	1	5.0	µg/Kg
1,2-Dichloroethane	ND	1	5.0	µg/Kg
1,2-Dichloropropane	ND	1	5.0	µg/Kg
1,3,5-Trimethylbenzene	ND	1	5.0	µg/Kg
1,3-Dichlorobenzene	ND	1	5.0	µg/Kg
1,3-Dichloropropane	ND	1	5.0	µg/Kg
1,4-Dichlorobenzene	ND	1	5.0	µg/Kg
1,4-Dioxane	ND	1	200	µg/Kg
2,2-Dichloropropane	ND	1	5.0	µg/Kg
2-Butanone (MEK)	ND	1	40	µg/Kg
2-Chloroethyl-vinyl Ether	ND	1	5.0	µg/Kg
2-Chlorotoluene	ND	1	5.0	µg/Kg
2-Hexanone	ND	1	40	µg/Kg
4-Chlorotoluene	ND	1	5.0	µg/Kg
4-Methyl-2-Pentanone(MIBK)	ND	1	40	µg/Kg
Acetone	ND	1	100	µg/Kg
Acetonitrile	ND	1	40	µg/Kg
Acrolein	ND	1	5.0	µg/Kg
Acrylonitrile	ND	1	5.0	µg/Kg
Benzene	ND	1	5.0	µg/Kg
Benzyl Chloride	ND	1	5.0	µg/Kg
Bromobenzene	ND	1	5.0	µg/Kg
Bromochloromethane	ND	1	5.0	µg/Kg
Bromodichloromethane	ND	1	5.0	µg/Kg
Bromoform	ND	1	5.0	µg/Kg
Bromomethane	ND	1	5.0	µg/Kg
Carbon Disulfide	ND	1	5.0	µg/Kg
Carbon Tetrachloride	ND	1	5.0	µg/Kg
Chlorobenzene	ND	1	5.0	µg/Kg
Chloroethane	ND	1	5.0	µg/Kg
Chloroform	ND	1	5.0	µg/Kg
Chloromethane	ND	1	5.0	µg/Kg
cis-1,2-Dichloroethene	ND	1	5.0	µg/Kg
cis-1,3-Dichloropropene	ND	1	5.0	µg/Kg
Cyclohexanone	ND	1	40	µg/Kg
Dibromochloromethane	ND	1	5.0	µg/Kg
Dibromomethane	ND	1	5.0	µg/Kg
Dichlorodifluoromethane	ND	1	5.0	µg/Kg

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Method Blank - Solid - VOCs: EPA 5030B (or 5035A for Encore Samples only)/EPA 8260B

QC Batch ID: SM3E070803E

Validated by: EricKum - 08/07/07

QC Batch Analysis Date: 8/3/2007

Parameter	Result	DF	PQLR	Units
Diisopropyl Ether	ND	1	5.0	µg/Kg
Ethyl Benzene	ND	1	5.0	µg/Kg
Freon 113	ND	1	10	µg/Kg
Hexachlorobutadiene	ND	1	5.0	µg/Kg
Iodomethane	ND	1	10	µg/Kg
Isopropanol	ND	1	100	µg/Kg
Isopropylbenzene	ND	1	5.0	µg/Kg
Methylene Chloride	ND	1	50	µg/Kg
Methyl-t-butyl Ether	ND	1	5.0	µg/Kg
Naphthalene	ND	1	5.0	µg/Kg
n-Butylbenzene	ND	1	5.0	µg/Kg
n-Propylbenzene	ND	1	5.0	µg/Kg
Pentachloroethane	ND	1	5.0	µg/Kg
p-Isopropyltoluene	ND	1	5.0	µg/Kg
sec-Butylbenzene	ND	1	5.0	µg/Kg
Styrene	ND	1	5.0	µg/Kg
tert-Amyl Methyl Ether	ND	1	5.0	µg/Kg
tert-Butanol (TBA)	ND	1	40	µg/Kg
tert-Butyl Ethyl Ether	ND	1	5.0	µg/Kg
tert-Butylbenzene	ND	1	5.0	µg/Kg
Tetrachloroethene	ND	1	5.0	µg/Kg
Tetrahydrofuran	ND	1	40	µg/Kg
Toluene	ND	1	5.0	µg/Kg
trans-1,2-Dichloroethene	ND	1	5.0	µg/Kg
trans-1,3-Dichloropropene	ND	1	5.0	µg/Kg
trans-1,4-Dichloro-2-butene	ND	1	10	µg/Kg
Trichloroethene	ND	1	5.0	µg/Kg
Trichlorofluoromethane	ND	1	5.0	µg/Kg
Vinyl Acetate	ND	1	5.0	µg/Kg
Vinyl Chloride	ND	1	5.0	µg/Kg
Xylenes, Total	ND	1	10	µg/Kg
Surrogate for Blank	% Recovery	Control Limits		
4-Bromofluorobenzene	101	60 - 130		
Dibromofluoromethane	129	60 - 130		
Toluene-d8	101	60 - 130		

Entech Analytical Labs, Inc.

3334 Victor Court , Santa Clara, CA 95054 Phone: (408) 588-0200 Fax: (408) 588-0201

LCS / LCSD - Solid - VOCs: EPA 5030B (or 5035A for Encore Samples only)/EPA 8260B

QC Batch ID: SM3E070803E

Reviewed by: EricKum - 08/07/07

QC Batch ID Analysis Date: 8/3/2007

LCS

Parameter	Method Blank	Spike Amt	SpikeResult	Units	% Recovery	Recovery Limits
1,1-Dichloroethene	<5.0	40	39.1	µg/Kg	97.8	65 - 135
Benzene	<5.0	40	39.7	µg/Kg	99.2	65 - 135
Chlorobenzene	<5.0	40	32.2	µg/Kg	80.5	65 - 135
Methyl-t-butyl Ether	<5.0	40	52.0	µg/Kg	130	65 - 135
Toluene	<5.0	40	32.9	µg/Kg	82.2	65 - 135
Trichloroethene	<5.0	40	28.5	µg/Kg	71.2	65 - 135
Surrogate	% Recovery	Control Limits				
4-Bromofluorobenzene	100	60 - 130				
Dibromofluoromethane	130	60 - 130				
Toluene-d8	99.6	60 - 130				

LCSD

Parameter	Method Blank	Spike Amt	SpikeResult	Units	% Recovery	RPD	RPD Limits	Recovery Limits
1,1-Dichloroethene	<5.0	40	46.4	µg/Kg	116	17.1	30.0	65 - 135
Benzene	<5.0	40	43.9	µg/Kg	110	10.0	30.0	65 - 135
Chlorobenzene	<5.0	40	36.2	µg/Kg	90.5	11.7	30.0	65 - 135
Methyl-t-butyl Ether	<5.0	40	52.4	µg/Kg	131	0.766	30.0	65 - 135
Toluene	<5.0	40	37.5	µg/Kg	93.8	13.1	30.0	65 - 135
Trichloroethene	<5.0	40	31.5	µg/Kg	78.8	10.0	30.0	65 - 135
Surrogate	% Recovery	Control Limits						
4-Bromofluorobenzene	104	60 - 130						
Dibromofluoromethane	130	60 - 130						
Toluene-d8	101	60 - 130						

Entech Analytical Labs, Inc.

3334 Victor Court , Santa Clara, CA 95054 Phone: (408) 588-0200 Fax: (408) 588-0201

Method Blank - Solid - SVOCs: EPA 3545A / EPA 8270C

QC/Prep Batch ID: SVS070801

Validated by: mtran - 08/03/07

QC/Prep Date: 8/1/2007

Parameter	Result	DF	PQLR	Units
1,2,4-Trichlorobenzene	ND	1	0.50	mg/Kg
1,2-Dichlorobenzene	ND	1	0.50	mg/Kg
1,2-Dinitrobenzene	ND	1	0.50	mg/Kg
1,3-Dichlorobenzene	ND	1	0.50	mg/Kg
1,3-Dinitrobenzene	ND	1	0.50	mg/Kg
1,4-Dichlorobenzene	ND	1	0.50	mg/Kg
1,4-Dinitrobenzene	ND	1	0.50	mg/Kg
1-Methyl-2-pyrrolidinone (NMP)	ND	1	0.50	mg/Kg
1-Methylnaphthalene	ND	1	0.50	mg/Kg
2,3,4,6-Tetrachlorophenol	ND	1	0.50	mg/Kg
2,3,5,6-Tetrachlorophenol	ND	1	0.50	mg/Kg
2,4,5-Trichlorophenol	ND	1	0.50	mg/Kg
2,4,6-Trichlorophenol	ND	1	0.50	mg/Kg
2,4-Dichlorophenol	ND	1	0.50	mg/Kg
2,4-Dimethylphenol	ND	1	0.50	mg/Kg
2,4-Dinitrophenol	ND	1	2.5	mg/Kg
2,4-Dinitrotoluene	ND	1	0.50	mg/Kg
2,6-Dinitrotoluene	ND	1	1.0	mg/Kg
2-Chloronaphthalene	ND	1	0.50	mg/Kg
2-Chlorophenol	ND	1	1.0	mg/Kg
2-Methylnaphthalene	ND	1	0.50	mg/Kg
2-Methylphenol	ND	1	0.50	mg/Kg
2-Nitroaniline	ND	1	0.50	mg/Kg
2-Nitrophenol	ND	1	0.50	mg/Kg
3&4-Methylphenol	ND	1	0.50	mg/Kg
3,3'-Dichlorobenzidine	ND	1	2.5	mg/Kg
3-Nitroaniline	ND	1	0.50	mg/Kg
4,6-Dinitro-2-methylphenol	ND	1	2.0	mg/Kg
4-Bromophenyl Phenyl Ether	ND	1	0.50	mg/Kg
4-Chloro-3-methylphenol	ND	1	0.50	mg/Kg
4-Chloroaniline	ND	1	0.50	mg/Kg
4-Chlorophenyl-phenylether	ND	1	0.50	mg/Kg
4-Nitroaniline	ND	1	0.50	mg/Kg
4-Nitrophenol	ND	1	2.0	mg/Kg
Acenaphthene	ND	1	1.0	mg/Kg
Acenaphthylene	ND	1	0.50	mg/Kg
Aniline	ND	1	0.50	mg/Kg
Anthracene	ND	1	0.50	mg/Kg
Azobenzene	ND	1	0.50	mg/Kg
Benzo(a)anthracene	ND	1	0.50	mg/Kg
Benzo(a)pyrene	ND	1	0.50	mg/Kg
Benzo(b)fluoranthene	ND	1	0.50	mg/Kg
Benzo(g,h,i)perylene	ND	1	0.50	mg/Kg
Benzo(k)fluoranthene	ND	1	0.50	mg/Kg
Benzoic Acid	ND	1	1.0	mg/Kg
Benzyl Alcohol	ND	1	1.0	mg/Kg
bis-(2-Chloroethoxy)methane	ND	1	0.50	mg/Kg
bis-(2-Chloroethyl)ether	ND	1	0.50	mg/Kg
bis-(2-Chloroisopropyl)ether	ND	1	0.50	mg/Kg
bis-(2-Ethylhexyl)adipate	ND	1	0.50	mg/Kg
bis-(2-Ethylhexyl)phthalate	ND	1	0.50	mg/Kg

Entech Analytical Labs, Inc.

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Method Blank - Solid - SVOCs: EPA 3545A / EPA 8270C

QC/Prep Batch ID: SVS070801

Validated by: mtran - 08/03/07

QC/Prep Date: 8/1/2007

Parameter	Result	DF	PQLR	Units
Butylbenzylphthalate	ND	1	0.50	mg/Kg
Carbazole	ND	1	0.50	mg/Kg
Chrysene	ND	1	0.50	mg/Kg
Dibenzo(a,h)anthracene	ND	1	0.50	mg/Kg
Dibenzofuran	ND	1	0.50	mg/Kg
Diethylphthalate	ND	1	0.50	mg/Kg
Dimethylphthalate	ND	1	0.50	mg/Kg
Di-n-butylphthalate	ND	1	0.50	mg/Kg
Di-n-octylphthalate	ND	1	0.50	mg/Kg
Diphenylamine	ND	1	0.50	mg/Kg
Fluoranthene	ND	1	0.50	mg/Kg
Fluorene	ND	1	0.50	mg/Kg
Hexachlorobenzene	ND	1	0.50	mg/Kg
Hexachlorobutadiene	ND	1	0.50	mg/Kg
Hexachlorocyclopentadiene	ND	1	0.50	mg/Kg
Hexachloroethane	ND	1	0.50	mg/Kg
Indeno(1,2,3-cd)pyrene	ND	1	0.50	mg/Kg
Isophorone	ND	1	0.50	mg/Kg
Naphthalene	ND	1	0.50	mg/Kg
Nitrobenzene	ND	1	0.50	mg/Kg
N-Nitrosodimethylamine	ND	1	5.0	mg/Kg
N-Nitroso-di-n-propylamine	ND	1	1.0	mg/Kg
Pentachlorophenol	ND	1	0.50	mg/Kg
Phenanthrene	ND	1	0.50	mg/Kg
Phenol	ND	1	2.0	mg/Kg
Pyrene	ND	1	1.0	mg/Kg
Pyridine	ND	1	2.0	mg/Kg

Surrogate for Blank	% Recovery	Control Limits
2,4,6-Tribromophenol	52.7	30 - 100
2-Fluorobiphenyl	42.6	20 - 100
2-Fluorophenol	43.4	20 - 100
Nitrobenzene-d5	47.4	20 - 100
Phenol-d6	47.1	20 - 100
p-Terphenyl-d14	83.1	55 - 130

Entech Analytical Labs, Inc.

3334 Victor Court , Santa Clara, CA 95054 Phone: (408) 588-0200 Fax: (408) 588-0201

LCS / LCSD - Solid - SVOCs: EPA 3545A / EPA 8270C

QC Batch ID: SVS070801

Reviewed by: mtran - 08/03/07

QC/Prep Date: 8/1/2007

LCS

Parameter	Method Blank	Spike Amt	SpikeResult	Units	% Recovery	Recovery Limits
1,2,4-Trichlorobenzene	<0.50	1.25	0.450	mg/Kg	36.0	11 - 92.0
1,4-Dichlorobenzene	<0.50	1.25	0.420	mg/Kg	33.6	11 - 87.0
2,4-Dinitrotoluene	<0.50	1.25	0.240	mg/Kg	19.2	8.0 - 86.0
2-Chlorophenol	<1.0	1.88	0.760	mg/Kg	40.4	13 - 97.0
4-Chloro-3-methylphenol	<0.50	1.88	0.580	mg/Kg	30.9	7.0 - 94.0
4-Nitrophenol	<2.0	1.88	0.700	mg/Kg	37.2	9.0 - 80.0
Acenaphthene	<1.0	1.25	0.440	mg/Kg	35.2	18 - 93.0
N-Nitroso-di-n-propylamine	<1.0	1.25	0.470	mg/Kg	37.6	4.0 - 107
Pentachlorophenol	<0.50	1.88	0.950	mg/Kg	50.5	13 - 122
Phenol	<2.0	1.88	0.770	mg/Kg	41.0	15 - 87.0
Pyrene	<1.0	1.25	0.860	mg/Kg	68.8	38 - 122

Surrogate	% Recovery	Control Limits
2,4,6-Tribromophenol	46.9	30 - 100
2-Fluorobiphenyl	38.1	20 - 100
2-Fluorophenol	35.5	20 - 100
Nitrobenzene-d5	40.5	20 - 100
Phenol-d6	42.0	20 - 100
p-Terphenyl-d14	78.2	55 - 130

LCSD

Parameter	Method Blank	Spike Amt	SpikeResult	Units	% Recovery	RPD	RPD Limits	Recovery Limits
1,2,4-Trichlorobenzene	<0.50	1.25	0.550	mg/Kg	44.0	20.0	44.0	11 - 92.0
1,4-Dichlorobenzene	<0.50	1.25	0.420	mg/Kg	33.6	0.00	30.0	11 - 87.0
2,4-Dinitrotoluene	<0.50	1.25	0.320	mg/Kg	25.6	28.6	38.0	8.0 - 86.0
2-Chlorophenol	<1.0	1.88	0.820	mg/Kg	43.6	7.59	31.0	13 - 97.0
4-Chloro-3-methylphenol	<0.50	1.88	0.720	mg/Kg	38.3	21.5	38.0	7.0 - 94.0
4-Nitrophenol	<2.0	1.88	0.670	mg/Kg	35.6	4.38	56.0	9.0 - 80.0
Acenaphthene	<1.0	1.25	0.520	mg/Kg	41.6	16.7	31.0	18 - 93.0
N-Nitroso-di-n-propylamine	<1.0	1.25	0.470	mg/Kg	37.6	0.00	43.0	4.0 - 107
Pentachlorophenol	<0.50	1.88	0.880	mg/Kg	46.8	7.65	39.0	13 - 122
Phenol	<2.0	1.88	0.840	mg/Kg	44.7	8.70	38.0	15 - 87.0
Pyrene	<1.0	1.25	0.700	mg/Kg	56.0	20.5	27.0	38 - 122

Surrogate	% Recovery	Control Limits
2,4,6-Tribromophenol	55.5	30 - 100
2-Fluorobiphenyl	42.0	20 - 100
2-Fluorophenol	40.2	20 - 100
Nitrobenzene-d5	42.0	20 - 100
Phenol-d6	45.1	20 - 100
p-Terphenyl-d14	73.7	55 - 130

Entech Analytical Labs, Inc.

3334 Victor Court , Santa Clara, CA 95054 Phone: (408) 588-0200 Fax: (408) 588-0201

MS / MSD - Solid - SVOCs: EPA 3545A / EPA 8270C

QC/Prep Batch ID: SVS070801

Reviewed by: mtran - 08/03/07

QC/Prep Date: 8/1/2007

MS Sample Spiked: 56594-010

Parameter	Sample Result	Spike Amount	Spike Result	Units	Analysis Date	% Recovery	Recovery Limits
1,2,4-Trichlorobenzene	ND	1.25	0.250	mg/Kg	8/2/2007	20.0	16 - 120
1,4-Dichlorobenzene	ND	1.25	0.200	mg/Kg	8/2/2007	16.0	20 - 120 ***
2,4-Dinitrotoluene	ND	1.25	0.180	mg/Kg	8/2/2007	14.4	24 - 140 ***
2-Chlorophenol	ND	1.88	0.380	mg/Kg	8/2/2007	20.2	23 - 134 ***
4-Chloro-3-methylphenol	ND	1.88	0.400	mg/Kg	8/2/2007	21.3	22 - 140 ***
4-Nitrophenol	ND	1.88	0.670	mg/Kg	8/2/2007	35.6	5.0 - 130
Acenaphthene	ND	1.25	0.270	mg/Kg	8/2/2007	21.6	20 - 140
N-Nitroso-di-n-propylamine	ND	1.25	0.280	mg/Kg	8/2/2007	22.4	10 - 130
Pentachlorophenol	ND	1.88	0.750	mg/Kg	8/2/2007	39.9	15 - 140
Phenol	ND	1.88	0.500	mg/Kg	8/2/2007	26.6	5.0 - 110
Pyrene	ND	1.25	0.750	mg/Kg	8/2/2007	60.0	35 - 140

Surrogate	% Recovery	Control Limits
2,4,6-Tribromophenol	36.3	30 - 100
2-Fluorobiphenyl	20.2	20 - 100
2-Fluorophenol	20.2	20 - 100
Nitrobenzene-d5	22.5	20 - 100
Phenol-d6	28.6	20 - 100
p-Terphenyl-d14	81.3	55 - 130

MSD Sample Spiked: 56594-010

Parameter	Sample Result	Spike Amount	Spike Result	Units	Analysis Date	% Recovery	RPD	RPD Limits	Recovery Limits
1,2,4-Trichlorobenzene	ND	1.25	0.290	mg/Kg	8/2/2007	23.2	14.8	44.0	16 - 120
1,4-Dichlorobenzene	ND	1.25	0.230	mg/Kg	8/2/2007	18.4	14.0	30.0	20 - 120 ***
2,4-Dinitrotoluene	ND	1.25	0.200	mg/Kg	8/2/2007	16.0	10.5	38.0	24 - 140 ***
2-Chlorophenol	ND	1.88	0.490	mg/Kg	8/2/2007	26.1	25.3	31.0	23 - 134
4-Chloro-3-methylphenol	ND	1.88	0.470	mg/Kg	8/2/2007	25.0	16.1	38.0	22 - 140
4-Nitrophenol	ND	1.88	0.620	mg/Kg	8/2/2007	33.0	7.75	56.0	5.0 - 130
Acenaphthene	ND	1.25	0.320	mg/Kg	8/2/2007	25.6	16.9	31.0	20 - 140
N-Nitroso-di-n-propylamine	ND	1.25	0.310	mg/Kg	8/2/2007	24.8	10.2	43.0	10 - 130
Pentachlorophenol	ND	1.88	0.680	mg/Kg	8/2/2007	36.2	9.79	39.0	15 - 140
Phenol	ND	1.88	0.550	mg/Kg	8/2/2007	29.3	9.52	38.0	5.0 - 110
Pyrene	ND	1.25	0.630	mg/Kg	8/2/2007	50.4	17.4	27.0	35 - 140

***The % recoveries for some laboratory control spike compounds are outside of laboratory control limit in MS/MSD due to matrix interference.

Surrogate	% Recovery	Control Limits
2,4,6-Tribromophenol	36.6	30 - 100
2-Fluorobiphenyl	27.0	20 - 100
2-Fluorophenol	22.4	20 - 100
Nitrobenzene-d5	26.0	20 - 100
Phenol-d6	27.9	20 - 100
p-Terphenyl-d14	62.6	55 - 130

Entech Analytical Labs, Inc.

3334 Victor Court , Santa Clara, CA 95054 Phone: (408) 588-0200 Fax: (408) 588-0201

Method Blank - Solid - SVOCs: EPA 3545A / EPA 8270C

QC/Prep Batch ID: SVS070803

Validated by: mtran - 08/06/07

QC/Prep Date: 8/3/2007

Parameter	Result	DF	PQLR	Units
1,2,4-Trichlorobenzene	ND	1	0.50	mg/Kg
1,2-Dichlorobenzene	ND	1	0.50	mg/Kg
1,2-Dinitrobenzene	ND	1	0.50	mg/Kg
1,3-Dichlorobenzene	ND	1	0.50	mg/Kg
1,3-Dinitrobenzene	ND	1	0.50	mg/Kg
1,4-Dichlorobenzene	ND	1	0.50	mg/Kg
1,4-Dinitrobenzene	ND	1	0.50	mg/Kg
1-Methyl-2-pyrrolidinone (NMP)	ND	1	0.50	mg/Kg
1-Methylnaphthalene	ND	1	0.50	mg/Kg
2,3,4,6-Tetrachlorophenol	ND	1	0.50	mg/Kg
2,3,5,6-Tetrachlorophenol	ND	1	0.50	mg/Kg
2,4,5-Trichlorophenol	ND	1	0.50	mg/Kg
2,4,6-Trichlorophenol	ND	1	0.50	mg/Kg
2,4-Dichlorophenol	ND	1	0.50	mg/Kg
2,4-Dimethylphenol	ND	1	0.50	mg/Kg
2,4-Dinitrophenol	ND	1	2.5	mg/Kg
2,4-Dinitrotoluene	ND	1	0.50	mg/Kg
2,6-Dinitrotoluene	ND	1	1.0	mg/Kg
2-Chloronaphthalene	ND	1	0.50	mg/Kg
2-Chlorophenol	ND	1	1.0	mg/Kg
2-Methylnaphthalene	ND	1	0.50	mg/Kg
2-Methylphenol	ND	1	0.50	mg/Kg
2-Nitroaniline	ND	1	0.50	mg/Kg
2-Nitrophenol	ND	1	0.50	mg/Kg
3&4-Methylphenol	ND	1	0.50	mg/Kg
3,3'-Dichlorobenzidine	ND	1	2.5	mg/Kg
3-Nitroaniline	ND	1	0.50	mg/Kg
4,6-Dinitro-2-methylphenol	ND	1	2.0	mg/Kg
4-Bromophenyl Phenyl Ether	ND	1	0.50	mg/Kg
4-Chloro-3-methylphenol	ND	1	0.50	mg/Kg
4-Chloroaniline	ND	1	0.50	mg/Kg
4-Chlorophenyl-phenylether	ND	1	0.50	mg/Kg
4-Nitroaniline	ND	1	0.50	mg/Kg
4-Nitrophenol	ND	1	2.0	mg/Kg
Acenaphthene	ND	1	1.0	mg/Kg
Acenaphthylene	ND	1	0.50	mg/Kg
Aniline	ND	1	0.50	mg/Kg
Anthracene	ND	1	0.50	mg/Kg
Azobenzene	ND	1	0.50	mg/Kg
Benzo(a)anthracene	ND	1	0.50	mg/Kg
Benzo(a)pyrene	ND	1	0.50	mg/Kg
Benzo(b)fluoranthene	ND	1	0.50	mg/Kg
Benzo(g,h,i)perylene	ND	1	0.50	mg/Kg
Benzo(k)fluoranthene	ND	1	0.50	mg/Kg
Benzoic Acid	ND	1	1.0	mg/Kg
Benzyl Alcohol	ND	1	1.0	mg/Kg
bis-(2-Chloroethoxy)methane	ND	1	0.50	mg/Kg
bis-(2-Chloroethyl)ether	ND	1	0.50	mg/Kg
bis(2-Chloroisopropyl)ether	ND	1	0.50	mg/Kg
bis(2-Ethylhexyl)adipate	ND	1	0.50	mg/Kg
bis(2-Ethylhexyl)phthalate	ND	1	0.50	mg/Kg

Entech Analytical Labs, Inc.

3334 Victor Court , Santa Clara, CA 95054 Phone: (408) 588-0200 Fax: (408) 588-0201

Method Blank - Solid - SVOCs: EPA 3545A / EPA 8270C

QC/Prep Batch ID: SVS070803

Validated by: mtran - 08/06/07

QC/Prep Date: 8/3/2007

Parameter	Result	DF	PQLR	Units
Butylbenzylphthalate	ND	1	0.50	mg/Kg
Carbazole	ND	1	0.50	mg/Kg
Chrysene	ND	1	0.50	mg/Kg
Dibenzo(a,h)anthracene	ND	1	0.50	mg/Kg
Dibenzofuran	ND	1	0.50	mg/Kg
Diethylphthalate	ND	1	0.50	mg/Kg
Dimethylphthalate	ND	1	0.50	mg/Kg
Di-n-butylphthalate	ND	1	0.50	mg/Kg
Di-n-octylphthalate	ND	1	0.50	mg/Kg
Diphenylamine	ND	1	0.50	mg/Kg
Fluoranthene	ND	1	0.50	mg/Kg
Fluorene	ND	1	0.50	mg/Kg
Hexachlorobenzene	ND	1	0.50	mg/Kg
Hexachlorobutadiene	ND	1	0.50	mg/Kg
Hexachlorocyclopentadiene	ND	1	0.50	mg/Kg
Hexachloroethane	ND	1	0.50	mg/Kg
Indeno(1,2,3-cd)pyrene	ND	1	0.50	mg/Kg
Isophorone	ND	1	0.50	mg/Kg
Naphthalene	ND	1	0.50	mg/Kg
Nitrobenzene	ND	1	0.50	mg/Kg
N-Nitrosodimethylamine	ND	1	5.0	mg/Kg
N-Nitroso-di-n-propylamine	ND	1	1.0	mg/Kg
Pentachlorophenol	ND	1	0.50	mg/Kg
Phenanthrene	ND	1	0.50	mg/Kg
Phenol	ND	1	2.0	mg/Kg
Pyrene	ND	1	1.0	mg/Kg
Pyridine	ND	1	2.0	mg/Kg

Surrogate for Blank	% Recovery	Control Limits
2,4,6-Tribromophenol	45.2	30 - 100
2-Fluorobiphenyl	33.2	20 - 100
2-Fluorophenol	36.5	20 - 100
Nitrobenzene-d5	41.5	20 - 100
Phenol-d6	41.3	20 - 100
p-Terphenyl-d14	67.4	55 - 130

Entech Analytical Labs, Inc.

3334 Victor Court , Santa Clara, CA 95054 Phone: (408) 588-0200 Fax: (408) 588-0201

LCS / LCSD - Solid - SVOCs: EPA 3545A / EPA 8270C

QC Batch ID: SVS070803

Reviewed by: mtran - 08/06/07

QC/Prep Date: 8/3/2007

LCS

Parameter	Method Blank	Spike Amt	SpikeResult	Units	% Recovery	Recovery Limits
1,2,4-Trichlorobenzene	<0.50	1.25	0.420	mg/Kg	33.6	11 - 92.0
1,4-Dichlorobenzene	<0.50	1.25	0.350	mg/Kg	28.0	11 - 87.0
2,4-Dinitrotoluene	<0.50	1.25	0.250	mg/Kg	20.0	8.0 - 86.0
2-Chlorophenol	<1.0	1.88	0.630	mg/Kg	33.5	13 - 97.0
4-Chloro-3-methylphenol	<0.50	1.88	0.560	mg/Kg	29.8	7.0 - 94.0
4-Nitrophenol	<2.0	1.88	0.730	mg/Kg	38.8	9.0 - 80.0
Acenaphthene	<1.0	1.25	0.420	mg/Kg	33.6	18 - 93.0
N-Nitroso-di-n-propylamine	<1.0	1.25	0.370	mg/Kg	29.6	4.0 - 107
Pentachlorophenol	<0.50	1.88	0.850	mg/Kg	45.2	13 - 122
Phenol	<2.0	1.88	0.660	mg/Kg	35.1	15 - 87.0
Pyrene	<1.0	1.25	0.690	mg/Kg	55.2	38 - 122

Surrogate	% Recovery	Control Limits
2,4,6-Tribromophenol	42.3	30 - 100
2-Fluorobiphenyl	38.6	20 - 100
2-Fluorophenol	31.7	20 - 100
Nitrobenzene-d5	36.0	20 - 100
Phenol-d6	36.4	20 - 100
p-Terphenyl-d14	65.9	55 - 130

LCSD

Parameter	Method Blank	Spike Amt	SpikeResult	Units	% Recovery	RPD	RPD Limits	Recovery Limits
1,2,4-Trichlorobenzene	<0.50	1.25	0.400	mg/Kg	32.0	4.88	44.0	11 - 92.0
1,4-Dichlorobenzene	<0.50	1.25	0.400	mg/Kg	32.0	13.3	30.0	11 - 87.0
2,4-Dinitrotoluene	<0.50	1.25	0.280	mg/Kg	22.4	11.3	38.0	8.0 - 86.0
2-Chlorophenol	<1.0	1.88	0.640	mg/Kg	34.0	1.57	31.0	13 - 97.0
4-Chloro-3-methylphenol	<0.50	1.88	0.560	mg/Kg	29.8	0.00	38.0	7.0 - 94.0
4-Nitrophenol	<2.0	1.88	0.830	mg/Kg	44.1	12.8	56.0	9.0 - 80.0
Acenaphthene	<1.0	1.25	0.460	mg/Kg	36.8	9.09	31.0	18 - 93.0
N-Nitroso-di-n-propylamine	<1.0	1.25	0.430	mg/Kg	34.4	15.0	43.0	4.0 - 107
Pentachlorophenol	<0.50	1.88	0.780	mg/Kg	41.5	8.59	39.0	13 - 122
Phenol	<2.0	1.88	0.680	mg/Kg	36.2	2.99	38.0	15 - 87.0
Pyrene	<1.0	1.25	0.720	mg/Kg	57.6	4.26	27.0	38 - 122

Surrogate	% Recovery	Control Limits
2,4,6-Tribromophenol	35.5	30 - 100
2-Fluorobiphenyl	35.9	20 - 100
2-Fluorophenol	33.5	20 - 100
Nitrobenzene-d5	37.0	20 - 100
Phenol-d6	37.2	20 - 100
p-Terphenyl-d14	60.3	55 - 130

Entech Analytical Labs, Inc.

3334 Victor Court , Santa Clara, CA 95054 Phone: (408) 588-0200 Fax: (408) 588-0201

Method Blank - Liquid - SVOCs: EPA 3535A / EPA 3510C / EPA 8270C

QC/Prep Batch ID: SVW070802

Validated by: mtran - 08/03/07

QC/Prep Date: 8/2/2007

Parameter	Result	DF	PQLR	Units
1,2,4-Trichlorobenzene	ND	1	25	µg/L
1,2-Dichlorobenzene	ND	1	10	µg/L
1,2-Dinitrobenzene	ND	1	10	µg/L
1,3-Dichlorobenzene	ND	1	25	µg/L
1,3-Dinitrobenzene	ND	1	15	µg/L
1,4-Dichlorobenzene	ND	1	25	µg/L
1,4-Dinitrobenzene	ND	1	10	µg/L
1-Methylnaphthalene	ND	1	25	µg/L
2,3,4,6-Tetrachlorophenol	ND	1	10	µg/L
2,3,5,6-Tetrachlorophenol	ND	1	10	µg/L
2,4,5-Trichlorophenol	ND	1	10	µg/L
2,4,6-Trichlorophenol	ND	1	10	µg/L
2,4-Dichlorophenol	ND	1	25	µg/L
2,4-Dimethylphenol	ND	1	10	µg/L
2,4-Dinitrophenol	ND	1	20	µg/L
2,4-Dinitrotoluene	ND	1	10	µg/L
2,6-Dinitrotoluene	ND	1	10	µg/L
2-Chloronaphthalene	ND	1	10	µg/L
2-Chlorophenol	ND	1	10	µg/L
2-Methylnaphthalene	ND	1	25	µg/L
2-Methylphenol	ND	1	10	µg/L
2-Nitroaniline	ND	1	15	µg/L
2-Nitrophenol	ND	1	10	µg/L
3&4-Methylphenol	ND	1	15	µg/L
3,3'-Dichlorobenzidine	ND	1	15	µg/L
3-Nitroaniline	ND	1	10	µg/L
4,6-Dinitro-2-methylphenol	ND	1	10	µg/L
4-Bromophenyl Phenyl Ether	ND	1	20	µg/L
4-Chloro-3-methylphenol	ND	1	10	µg/L
4-Chloroaniline	ND	1	20	µg/L
4-Chlorophenyl-phenylether	ND	1	10	µg/L
4-Nitroaniline	ND	1	20	µg/L
4-Nitrophenol	ND	1	15	µg/L
Acenaphthene	ND	1	10	µg/L
Acenaphthylene	ND	1	10	µg/L
Aniline	ND	1	20	µg/L
Anthracene	ND	1	10	µg/L
Azobenzene	ND	1	10	µg/L
Benzo(a)anthracene	ND	1	20	µg/L
Benzo(a)pyrene	ND	1	30	µg/L
Benzo(b)fluoranthene	ND	1	10	µg/L
Benzo(g,h,i)perylene	ND	1	10	µg/L
Benzo(k)fluoranthene	ND	1	10	µg/L
Benzoic Acid	ND	1	15	µg/L
Benzyl Alcohol	ND	1	20	µg/L
bis-(2-Chloroethoxy)methane	ND	1	25	µg/L
bis-(2-Chloroethyl)ether	ND	1	10	µg/L
bis-(2-Chloroisopropyl)ether	ND	1	10	µg/L
bis-(2-Ethylhexyl)adipate	ND	1	10	µg/L
bis-(2-Ethylhexyl)phthalate	ND	1	10	µg/L
Butylbenzylphthalate	ND	1	25	µg/L

Entech Analytical Labs, Inc.

3334 Victor Court , Santa Clara, CA 95054 Phone: (408) 588-0200 Fax: (408) 588-0201

Method Blank - Liquid - SVOCs: EPA 3535A / EPA 3510C / EPA 8270C

QC/Prep Batch ID: SVW070802

Validated by: mtran - 08/03/07

QC/Prep Date: 8/2/2007

Parameter	Result	DF	PQLR	Units
Carbazole	ND	1	10	µg/L
Chrysene	ND	1	20	µg/L
Dibenzo(a,h)anthracene	ND	1	10	µg/L
Dibenzofuran	ND	1	15	µg/L
Diethylphthalate	ND	1	10	µg/L
Dimethylphthalate	ND	1	10	µg/L
Di-n-butylphthalate	ND	1	25	µg/L
Di-n-octylphthalate	ND	1	10	µg/L
Diphenylamine	ND	1	10	µg/L
Fluoranthene	ND	1	20	µg/L
Fluorene	ND	1	10	µg/L
Hexachlorobenzene	ND	1	20	µg/L
Hexachlorobutadiene	ND	1	20	µg/L
Hexachlorocyclopentadiene	ND	1	25	µg/L
Hexachloroethane	ND	1	10	µg/L
Indeno(1,2,3-cd)pyrene	ND	1	15	µg/L
Isophorone	ND	1	10	µg/L
Naphthalene	ND	1	25	µg/L
Nitrobenzene	ND	1	10	µg/L
N-Nitroso-di-n-propylamine	ND	1	10	µg/L
Pentachlorophenol	ND	1	10	µg/L
Phenanthrene	ND	1	10	µg/L
Phenol	ND	1	10	µg/L
Pyrene	ND	1	20	µg/L

Surrogate for Blank	% Recovery	Control Limits
2,4,6-Tribromophenol	49.0	25 - 115
2-Fluorobiphenyl	38.7	20 - 100
2-Fluorophenol	26.8	10 - 100
Nitrobenzene-d5	41.7	25 - 100
Phenol-d6	22.0	10 - 100
p-Terphenyl-d14	69.5	35 - 130

Entech Analytical Labs, Inc.

3334 Victor Court , Santa Clara, CA 95054 Phone: (408) 588-0200 Fax: (408) 588-0201

LCS / LCSD - Liquid - SVOCs: EPA 3535A / EPA 3510C / EPA 8270C

QC Batch ID: SVW070802

Reviewed by: mtran - 08/03/07

QC/Prep Date: 8/2/2007

LCS

Parameter	Method Blank	Spike Amt	SpikeResult	Units	% Recovery	Recovery Limits
1,2,4-Trichlorobenzene	<25	50	17.2	µg/L	34.4	15 - 130
1,4-Dichlorobenzene	<25	50	15.9	µg/L	31.8	24 - 130
2,4-Dinitrotoluene	<10	50	20.1	µg/L	40.2	26 - 130
2-Chlorophenol	<10	75	25.9	µg/L	34.5	23 - 130
4-Chloro-3-methylphenol	<10	75	30.0	µg/L	40.0	17 - 130
4-Nitrophenol	<15	75	32.5	µg/L	43.3	13 - 130
Acenaphthene	<10	50	17.8	µg/L	35.6	25 - 130
N-Nitroso-di-n-propylamine	<10	50	18.2	µg/L	36.4	16 - 130
Pentachlorophenol	<10	75	48.8	µg/L	65.1	24 - 130
Phenol	<10	75	11.2	µg/L	14.9	5.0 - 130
Pyrene	<20	50	36.4	µg/L	72.8	35 - 130

Surrogate	% Recovery	Control Limits
2,4,6-Tribromophenol	52.0	25 - 115
2-Fluorobiphenyl	31.0	20 - 100
2-Fluorophenol	18.6	10 - 100
Nitrobenzene-d5	37.5	25 - 100
Phenol-d6	13.2	10 - 100
p-Terphenyl-d14	76.8	35 - 130

LCSD

Parameter	Method Blank	Spike Amt	SpikeResult	Units	% Recovery	RPD	RPD Limits	Recovery Limits
1,2,4-Trichlorobenzene	<25	50	22.4	ug/L	44.8	26.3	29.0	15 - 130
1,4-Dichlorobenzene	<25	50	21.4	µg/L	42.8	29.5	38.0	24 - 130
2,4-Dinitrotoluene	<10	50	26.8	µg/L	53.6	28.6	37.0	26 - 130
2-Chlorophenol	<10	75	32.2	µg/L	42.9	21.7	29.0	23 - 130
4-Chloro-3-methylphenol	<10	75	40.2	µg/L	53.6	29.1	36.0	17 - 130
4-Nitrophenol	<15	75	43.8	µg/L	58.4	20.9	34.0	13 - 130
Acenaphthene	<10	50	22.3	µg/L	44.6	22.4	32.0	25 - 130
N-Nitroso-di-n-propylamine	<10	50	25.1	µg/L	50.2	31.9	38.0	16 - 130
Pentachlorophenol	<10	75	55.4	µg/L	73.9	12.7	36.0	24 - 130
Phenol	<10	75	14.9	µg/L	19.9	28.4	43.0	5.0 - 130
Pyrene	<20	50	42.6	µg/L	85.2	15.7	29.0	35 - 130

Surrogate	% Recovery	Control Limits
2,4,6-Tribromophenol	60.8	25 - 115
2-Fluorobiphenyl	43.6	20 - 100
2-Fluorophenol	28.3	10 - 100
Nitrobenzene-d5	49.7	25 - 100
Phenol-d6	19.1	10 - 100
p-Terphenyl-d14	88.2	35 - 130

Entech Analytical Labs, Inc.

3334 Victor Court , Santa Clara, CA 95054 Phone: (408) 588-0200 Fax: (408) 588-0201

Method Blank - Liquid - VOCs: EPA 5030B / EPA 8260B for Groundwater and Water - EPA 624 for Wastewater

QC Batch ID: WM2C070803C

Validated by: MaiChiTu - 08/06/07

QC Batch Analysis Date: 8/3/2007

Parameter	Result	DF	PQLR	Units
1,1,1,2-Tetrachloroethane	ND	1	0.50	µg/L
1,1,1-Trichloroethane	ND	1	0.50	µg/L
1,1,2,2-Tetrachloroethane	ND	1	0.50	µg/L
1,1,2-Trichloroethane	ND	1	0.50	µg/L
1,1-Dichloroethane	ND	1	0.50	µg/L
1,1-Dichloroethene	ND	1	0.50	µg/L
1,1-Dichloropropene	ND	1	0.50	µg/L
1,2,3-Trichlorobenzene	ND	1	5.0	µg/L
1,2,3-Trichloropropane	ND	1	5.0	µg/L
1,2,4-Trichlorobenzene	ND	1	5.0	µg/L
1,2,4-Trimethylbenzene	ND	1	5.0	µg/L
1,2-Dibromo-3-Chloropropane	ND	1	5.0	µg/L
1,2-Dibromoethane (EDB)	ND	1	0.50	µg/L
1,2-Dichlorobenzene	ND	1	0.50	µg/L
1,2-Dichloroethane	ND	1	0.50	µg/L
1,2-Dichloropropane	ND	1	0.50	µg/L
1,3,5-Trimethylbenzene	ND	1	5.0	µg/L
1,3-Dichlorobenzene	ND	1	0.50	µg/L
1,3-Dichloropropane	ND	1	0.50	µg/L
1,4-Dichlorobenzene	ND	1	0.50	µg/L
1,4-Dioxane	ND	1	50	µg/L
2,2-Dichloropropane	ND	1	0.50	µg/L
2-Butanone (MEK)	ND	1	20	µg/L
2-Chloroethyl-vinyl Ether	ND	1	5.0	µg/L
2-Chlorotoluene	ND	1	5.0	µg/L
2-Hexanone	ND	1	20	µg/L
4-Chlorotoluene	ND	1	5.0	µg/L
4-Methyl-2-Pentanone(MIBK)	ND	1	20	µg/L
Acetone	ND	1	20	µg/L
Acetonitrile	ND	1	5.0	µg/L
Acrolein	ND	1	5.0	µg/L
Acrylonitrile	ND	1	5.0	µg/L
Benzene	ND	1	0.50	µg/L
Benzyl Chloride	ND	1	5.0	µg/L
Bromobenzene	ND	1	0.50	µg/L
Bromochloromethane	ND	1	0.50	µg/L
Bromodichloromethane	ND	1	0.50	µg/L
Bromoform	ND	1	0.50	µg/L
Bromomethane	ND	1	0.50	µg/L
Carbon Disulfide	ND	1	0.50	µg/L
Carbon Tetrachloride	ND	1	0.50	µg/L
Chlorobenzene	ND	1	0.50	µg/L
Chloroethane	ND	1	0.50	µg/L
Chloroform	ND	1	0.50	µg/L
Chloromethane	ND	1	0.50	µg/L
cis-1,2-Dichloroethene	ND	1	0.50	µg/L
cis-1,3-Dichloropropene	ND	1	0.50	µg/L
Cyclohexanone	ND	1	20	µg/L
Dibromochloromethane	ND	1	0.50	µg/L
Dibromomethane	ND	1	0.50	µg/L

Entech Analytical Labs, Inc.

3334 Victor Court , Santa Clara, CA 95054 Phone: (408) 588-0200 Fax: (408) 588-0201

Method Blank - Liquid - VOCs: EPA 5030B / EPA 8260B for Groundwater and Water - EPA 624 for Wastewater

QC Batch ID: WM2C070803C

Validated by: MaiChiTu - 08/06/07

QC Batch Analysis Date: 8/3/2007

Parameter	Result	DF	PQLR	Units
Dichlorodifluoromethane	ND	1	0.50	µg/L
Diisopropyl Ether	ND	1	5.0	µg/L
Ethyl Benzene	ND	1	0.50	µg/L
Freon 113	ND	1	5.0	µg/L
Hexachlorobutadiene	ND	1	5.0	µg/L
Iodomethane	ND	1	5.0	µg/L
Isopropanol	ND	1	20	µg/L
Isopropylbenzene	ND	1	1.0	µg/L
Methylene Chloride	ND	1	20	µg/L
Methyl-t-butyl Ether	ND	1	1.0	µg/L
Naphthalene	ND	1	5.0	µg/L
n-Butylbenzene	ND	1	5.0	µg/L
n-Propylbenzene	ND	1	5.0	µg/L
Pentachloroethane	ND	1	0.50	µg/L
p-Isopropyltoluene	ND	1	5.0	µg/L
sec-Butylbenzene	ND	1	5.0	µg/L
Styrene	ND	1	0.50	µg/L
tert-Amyl Methyl Ether	ND	1	5.0	µg/L
tert-Butanol (TBA)	ND	1	10	µg/L
tert-Butyl Ethyl Ether	ND	1	5.0	µg/L
tert-Butylbenzene	ND	1	5.0	µg/L
Tetrachloroethene	ND	1	0.50	µg/L
Tetrahydrofuran	ND	1	20	µg/L
Toluene	ND	1	0.50	µg/L
trans-1,2-Dichloroethene	ND	1	0.50	µg/L
trans-1,3-Dichloropropene	ND	1	0.50	µg/L
trans-1,4-Dichloro-2-butene	ND	1	5.0	µg/L
Trichloroethene	ND	1	0.50	µg/L
Trichlorofluoromethane	ND	1	0.50	µg/L
Vinyl Acetate	ND	1	5.0	µg/L
Vinyl Chloride	ND	1	0.50	µg/L
Xylenes, Total	ND	1	0.50	µg/L
Surrogate for Blank	% Recovery	Control Limits		
4-Bromofluorobenzene	95.0	60 - 130		
Dibromofluoromethane	98.6	60 - 130		
Toluene-d8	96.6	60 - 130		

Entech Analytical Labs, Inc.

3334 Victor Court , Santa Clara, CA 95054 Phone: (408) 588-0200 Fax: (408) 588-0201

LCS / LCSD - Liquid - VOCs: EPA 5030B / EPA 8260B for Groundwater and Water - EPA 624 for Wastewater

QC Batch ID: WM2C070803C

Reviewed by: MaiChiTu - 08/06/07

QC Batch ID Analysis Date: 8/3/2007

LCS

Parameter	Method Blank	Spike Amt	SpikeResult	Units	% Recovery	Recovery Limits
1,1-Dichloroethene	<0.50	20	18.0	µg/L	90.0	70 - 130
Benzene	<0.50	20	18.9	µg/L	94.5	70 - 130
Chlorobenzene	<0.50	20	20.2	µg/L	101	70 - 130
Methyl-t-butyl Ether	<1.0	20	19.6	µg/L	98.0	70 - 130
Toluene	<0.50	20	18.6	µg/L	93.0	70 - 130
Trichloroethene	<0.50	20	20.0	µg/L	100	70 - 130

Surrogate	% Recovery	Control Limits
4-Bromofluorobenzene	95.4	60 - 130
Dibromofluoromethane	96.9	60 - 130
Toluene-d8	94.9	60 - 130

LCSD

Parameter	Method Blank	Spike Amt	SpikeResult	Units	% Recovery	RPD	RPD Limits	Recovery Limits
1,1-Dichloroethene	<0.50	20	17.1	µg/L	85.5	5.13	25.0	70 - 130
Benzene	<0.50	20	18.1	µg/L	90.5	4.32	25.0	70 - 130
Chlorobenzene	<0.50	20	19.9	µg/L	99.5	1.50	25.0	70 - 130
Methyl-t-butyl Ether	<1.0	20	18.4	µg/L	92.0	6.32	25.0	70 - 130
Toluene	<0.50	20	18.1	µg/L	90.5	2.72	25.0	70 - 130
Trichloroethene	<0.50	20	19.4	µg/L	97.0	3.05	25.0	70 - 130

Surrogate	% Recovery	Control Limits
4-Bromofluorobenzene	94.0	60 - 130
Dibromofluoromethane	93.2	60 - 130
Toluene-d8	94.0	60 - 130

Entech Analytical Labs, Inc.

3334 Victor Court , Santa Clara, CA 95054 Phone: (408) 588-0200 Fax: (408) 588-0201

LCS / LCSD - Solid - Fluoride by ISE w/o Distillation: EPA 9214

QC Batch ID: SF070802

Reviewed by: HDINH - 08/03/07

QC/Prep Date: 8/2/2007

LCS

Parameter	Method Blank	Spike Amt	SpikeResult	Units	% Recovery	Recovery Limits
Fluoride	<1.0	50	47.0	mg/Kg	94.0	75 - 125

LCSD

Parameter	Method Blank	Spike Amt	SpikeResult	Units	% Recovery	RPD	RPD Limits	Recovery Limits
Fluoride	<1.0	50	46.6	mg/Kg	93.2	0.855	30.0	75 - 125

Entech Analytical Labs, Inc.

3334 Victor Court , Santa Clara, CA 95054 Phone: (408) 588-0200 Fax: (408) 588-0201

MS / MSD - Solid - Fluoride by ISE w/o Distillation: EPA 9214

QC/Prep Batch ID: SF070802

Reviewed by: HDINH - 08/03/07

QC/Prep Date: 8/2/2007

MS Sample Spiked: 56594-001

Parameter	Sample Result	Spike Amount	Spike Result	Units	Analysis Date	% Recovery	Recovery Limits
Fluoride	ND	50	46.8	mg/Kg	8/2/2007	93.6	75 - 125

MSD Sample Spiked: 56594-001

Parameter	Sample Result	Spike Amount	Spike Result	Units	Analysis Date	% Recovery	RPD	RPD Limits	Recovery Limits
Fluoride	ND	50	46.0	mg/Kg	8/2/2007	92.0	1.72	30.0	75 - 125

Entech Analytical Labs, Inc.

3334 Victor Court , Santa Clara, CA 95054 Phone: (408) 588-0200 Fax: (408) 588-0201

LCS / LCSD - Solid - Mercury: EPA 7471B

QC Batch ID: SHG070803

Reviewed by: RWipfler - 08/07/07

QC/Prep Date: 8/3/2007

LCS

Parameter	Method Blank	Spike Amt	SpikeResult	Units	% Recovery	Recovery Limits
Mercury	<0.050	0.2	0.216	mg/Kg	108	75 - 125

LCSD

Parameter	Method Blank	Spike Amt	SpikeResult	Units	% Recovery	RPD	RPD Limits	Recovery Limits
Mercury	<0.050	0.2	0.205	mg/Kg	102	5.23	30.0	75 - 125

Entech Analytical Labs, Inc.

3334 Victor Court , Santa Clara, CA 95054 Phone: (408) 588-0200 Fax: (408) 588-0201

MS / MSD - Solid - Mercury: EPA 7471B

QC/Prep Batch ID: SHG070803

Reviewed by: RWipfler - 08/07/07

QC/Prep Date: 8/3/2007

MS Sample Spiked: 56594-001

Parameter	Sample Result	Spike Amount	Spike Result	Units	Analysis Date	% Recovery	Recovery Limits
Mercury	0.0660	0.4	0.496	mg/Kg	8/3/2007	108	70 - 130

MSD Sample Spiked: 56594-001

Parameter	Sample Result	Spike Amount	Spike Result	Units	Analysis Date	% Recovery	RPD	RPD Limits	Recovery Limits
Mercury	0.0660	0.4	0.522	mg/Kg	8/3/2007	114	5.11	30.0	70 - 130

Entech Analytical Labs, Inc.

3334 Victor Court , Santa Clara, CA 95054 Phone: (408) 588-0200 Fax: (408) 588-0201

LCS / LCSD - Solid - Metals by ICP: EPA 3050B / EPA 6010B

QC Batch ID: SM070803

Reviewed by: HDINH - 08/06/07

QC/Prep Date: 8/3/2007

LCS

Parameter	Method Blank	Spike Amt	SpikeResult	Units	% Recovery	Recovery Limits
Antimony	<1.0	50	46.6	mg/Kg	93.2	70 - 130
Arsenic	<1.0	50	44.2	mg/Kg	88.4	70 - 130
Barium	<1.0	50	48.0	mg/Kg	95.9	70 - 130
Beryllium	<1.0	50	46.9	mg/Kg	93.8	70 - 130
Cadmium	<1.0	50	46.6	mg/Kg	93.3	70 - 130
Chromium	<1.0	50	47.1	mg/Kg	94.3	70 - 130
Cobalt	<1.0	50	48.2	mg/Kg	96.3	70 - 130
Copper	<1.0	50	48.3	mg/Kg	96.6	70 - 130
Lead	<1.0	50	47.0	mg/Kg	94.0	70 - 130
Molybdenum	<1.0	50	48.0	mg/Kg	95.9	70 - 130
Nickel	<1.0	50	46.9	mg/Kg	93.7	70 - 130
Selenium	<2.0	50	42.6	mg/Kg	85.2	70 - 130
Silver	<1.0	50	47.9	mg/Kg	95.7	70 - 130
Thallium	<2.0	50	43.3	mg/Kg	86.6	70 - 130
Vanadium	<1.0	50	48.4	mg/Kg	96.9	70 - 130
Zinc	<2.0	50	47.7	mg/Kg	95.4	70 - 130

LCSD

Parameter	Method Blank	Spike Amt	SpikeResult	Units	% Recovery	RPD	RPD Limits	Recovery Limits
Antimony	<1.0	50	44.7	mg/Kg	89.4	4.17	30.0	70 - 130
Arsenic	<1.0	50	42.2	mg/Kg	84.5	4.54	30.0	70 - 130
Barium	<1.0	50	45.6	mg/Kg	91.2	5.09	30.0	70 - 130
Beryllium	<1.0	50	45.1	mg/Kg	90.1	3.97	30.0	70 - 130
Cadmium	<1.0	50	44.4	mg/Kg	88.9	4.87	30.0	70 - 130
Chromium	<1.0	50	45.2	mg/Kg	90.4	4.25	30.0	70 - 130
Cobalt	<1.0	50	45.7	mg/Kg	91.4	5.24	30.0	70 - 130
Copper	<1.0	50	45.9	mg/Kg	91.9	5.01	30.0	70 - 130
Lead	<1.0	50	45.4	mg/Kg	90.7	3.54	30.0	70 - 130
Molybdenum	<1.0	50	46.7	mg/Kg	93.4	2.67	30.0	70 - 130
Nickel	<1.0	50	44.5	mg/Kg	89.1	5.06	30.0	70 - 130
Selenium	<2.0	50	41.1	mg/Kg	82.2	3.59	30.0	70 - 130
Silver	<1.0	50	46.0	mg/Kg	92.0	3.92	30.0	70 - 130
Thallium	<2.0	50	42.5	mg/Kg	85.0	1.86	30.0	70 - 130
Vanadium	<1.0	50	46.5	mg/Kg	93.1	4.02	30.0	70 - 130
Zinc	<2.0	50	44.7	mg/Kg	89.3	6.55	30.0	70 - 130

Entech Analytical Labs, Inc.

3334 Victor Court , Santa Clara, CA 95054 Phone: (408) 588-0200 Fax: (408) 588-0201

LCS / LCSD - Liquid - Fluoride by ISE w/o Distillation: EPA 340.2/Std. Methods (18th Ed.) 4500-F-C

QC Batch ID: WF070801

Reviewed by: HDINH - 08/02/07

QC Batch ID Analysis Date: 8/1/2007

LCS

Parameter	Method Blank	Spike Amt	SpikeResult	Units	% Recovery	Recovery Limits
Fluoride	<0.10	5	4.82	mg/L	96.4	75 - 125

LCSD

Parameter	Method Blank	Spike Amt	SpikeResult	Units	% Recovery	RPD	RPD Limits	Recovery Limits
Fluoride	<0.10	5	4.56	mg/L	91.2	5.54	25.0	75 - 125

Entech Analytical Labs, Inc.

3334 Victor Court , Santa Clara, CA 95054 Phone: (408) 588-0200 Fax: (408) 588-0201

LCS / LCSD - Liquid - Mercury: EPA 7470A for Water and Groundwater / EPA 245.1 for Wastewater

QC Batch ID: WHG070806

Reviewed by: RWipfler - 08/06/07

QC/Prep Date: 8/6/2007

LCS

Parameter	Method Blank	Spike Amt	SpikeResult	Units	% Recovery	Recovery Limits
Mercury	<0.0002	0.002	0.00212	mg/L	106	85 - 115

LCSD

Parameter	Method Blank	Spike Amt	SpikeResult	Units	% Recovery	RPD	RPD Limits	Recovery Limits
Mercury	<0.0002	0.002	0.00209	mg/L	104	1.43	25.0	85 - 115

Entech Analytical Labs, Inc.

3334 Victor Court , Santa Clara, CA 95054 Phone: (408) 588-0200 Fax: (408) 588-0201

MS / MSD - Liquid - Mercury: EPA 7470A for Water and Groundwater / EPA 245.1 for Wastewater

QC/Prep Batch ID: WHG070806

Reviewed by: RWipfler - 08/06/07

QC/Prep Date: 8/6/2007

MS Sample Spiked: 56594-004

Parameter	Sample Result	Spike Amount	Spike Result	Units	Analysis Date	% Recovery	Recovery Limits
Mercury	0.00054	0.004	0.00436	mg/L	8/6/2007	95.5	70 - 130

MSD Sample Spiked: 56594-004

Parameter	Sample Result	Spike Amount	Spike Result	Units	Analysis Date	% Recovery	RPD	RPD Limits	Recovery Limits
Mercury	0.00054	0.004	0.00432	mg/L	8/6/2007	94.5	0.922	25.0	70 - 130

Entech Analytical Labs, Inc.

3334 Victor Court , Santa Clara, CA 95054 Phone: (408) 588-0200 Fax: (408) 588-0201

LCS / LCSD - Liquid - Metals by ICP: EPA 3010A / EPA 6010B for Groundwater and Water - EPA 200.7 for Wastewater

QC Batch ID: WM070801

Reviewed by: HDINH - 08/01/07

QC/Prep Date: 8/1/2007

LCS

Parameter	Method Blank	Spike Amt	SpikeResult	Units	% Recovery	Recovery Limits
Antimony	<0.010	0.5	0.512	mg/L	102	85 - 115
Arsenic	<0.010	0.5	0.491	mg/L	98.2	85 - 115
Barium	<0.0050	0.5	0.521	mg/L	104	85 - 115
Beryllium	<0.0050	0.5	0.520	mg/L	104	85 - 115
Bismuth	<0.050	1	0.995	mg/L	99.5	85 - 115
Cadmium	<0.0020	0.5	0.519	mg/L	104	85 - 115
Chromium	<0.0050	0.5	0.506	mg/L	101	85 - 115
Cobalt	<0.0050	0.5	0.524	mg/L	105	85 - 115
Copper	<0.0050	0.5	0.521	mg/L	104	85 - 115
Iron	<0.050	0.5	0.567	mg/L	113	85 - 115
Lead	<0.0050	0.5	0.522	mg/L	104	85 - 115
Manganese	<0.0020	0.5	0.540	mg/L	108	85 - 115
Molybdenum	<0.0050	0.5	0.518	mg/L	104	85 - 115
Nickel	<0.0050	0.5	0.510	mg/L	102	85 - 115
Selenium	<0.020	0.5	0.475	mg/L	95.0	85 - 115
Silver	<0.0050	0.5	0.515	mg/L	103	85 - 115
Thallium	<0.020	0.5	0.475	mg/L	95.0	85 - 115
Tin	<0.050	1	1.00	mg/L	100	85 - 115
Titanium	<0.0020	0.5	0.538	mg/L	108	85 - 115
Vanadium	<0.0050	0.5	0.524	mg/L	105	85 - 115
Zinc	<0.010	0.5	0.523	mg/L	105	85 - 115

LCSD

Parameter	Method Blank	Spike Amt	SpikeResult	Units	% Recovery	RPD	RPD Limits	Recovery Limits
Antimony	<0.010	0.5	0.504	mg/L	101	1.54	25.0	85 - 115
Arsenic	<0.010	0.5	0.488	mg/L	97.5	0.634	25.0	85 - 115
Barium	<0.0050	0.5	0.509	mg/L	102	2.43	25.0	85 - 115
Beryllium	<0.0050	0.5	0.509	mg/L	102	2.24	25.0	85 - 115
Bismuth	<0.050	1	0.982	mg/L	98.2	1.32	25.0	85 - 115
Cadmium	<0.0020	0.5	0.507	mg/L	101	2.26	25.0	85 - 115
Chromium	<0.0050	0.5	0.496	mg/L	99.2	1.96	25.0	85 - 115
Cobalt	<0.0050	0.5	0.515	mg/L	103	1.87	25.0	85 - 115
Copper	<0.0050	0.5	0.509	mg/L	102	2.23	25.0	85 - 115
Iron	<0.050	0.5	0.542	mg/L	108	4.44	25.0	85 - 115
Lead	<0.0050	0.5	0.516	mg/L	103	1.12	25.0	85 - 115
Manganese	<0.0020	0.5	0.527	mg/L	105	2.29	25.0	85 - 115
Molybdenum	<0.0050	0.5	0.511	mg/L	102	1.40	25.0	85 - 115
Nickel	<0.0050	0.5	0.501	mg/L	100	1.76	25.0	85 - 115
Selenium	<0.020	0.5	0.475	mg/L	95.0	0.0421	25.0	85 - 115
Silver	<0.0050	0.5	0.509	mg/L	102	1.13	25.0	85 - 115
Thallium	<0.020	0.5	0.474	mg/L	94.8	0.274	25.0	85 - 115
Tin	<0.050	1	1.01	mg/L	101	0.786	25.0	85 - 115
Titanium	<0.0020	0.5	0.527	mg/L	105	2.08	25.0	85 - 115
Vanadium	<0.0050	0.5	0.512	mg/L	102	2.28	25.0	85 - 115
Zinc	<0.010	0.5	0.510	mg/L	102	2.48	25.0	85 - 115



alpha

Alpha Analytical Laboratories Inc.

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06 August 2007

Entech Analytical Labs, Inc.

Attn: Simon Hague

3334 Victor Court

Santa Clara, CA 95054

RE: 199 River Oaks Parkway

Work Order: 07H0103

Enclosed are the results of analyses for samples received by the laboratory on 08/02/07 15:45. If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Nena M. Burgess For Robert C. Phillips
Project Manager



Alpha Analytical Laboratories Inc.

208 Mason Street, Ukiah, California 95482

e-mail: clientservices@alpha-labs.com • Phone: (707) 468-0401 • Fax: (707) 468-5267

CHEMICAL EXAMINATION REPORT

Page 1 of 6

Entech Analytical Labs, Inc.
3334 Victor Court
Santa Clara, CA 95054
Attn: Simon Hague

Report Date: 08/06/07 11:12
Project No: 56594
Project ID: 199 River Oaks Parkway

Order Number
07H0103

Receipt Date/Time
08/02/2007 15:45

Client Code
ENTECH

Client PO/Reference

ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
56594-001 DP-6@6-8	07H0103-01	Soil	08/01/07 00:00	08/02/07 15:45
56594-002 DP-6@8-10	07H0103-02	Soil	08/01/07 00:00	08/02/07 15:45
56594-003 GW-1	07H0103-03	Water	08/01/07 10:55	08/02/07 15:45
56594-004 GW-2	07H0103-04	Water	08/01/07 11:50	08/02/07 15:45
56594-005 DP-2@3-4	07H0103-05	Soil	08/01/07 09:50	08/02/07 15:45
56594-006 DP-2@6-7	07H0103-06	Soil	08/01/07 09:55	08/02/07 15:45
56594-007 DP-3@10-11	07H0103-07	Soil	08/01/07 10:30	08/02/07 15:45
56594-009 DP-4@10-11	07H0103-08	Soil	08/01/07 11:32	08/02/07 15:45
56594-012 DP-5@11-12	07H0103-09	Soil	08/01/07 13:39	08/02/07 15:45

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Bruce Gove
Laboratory Director

8/6/2007



Alpha Analytical Laboratories Inc.

208 Mason Street, Ukiah, California 95482

e-mail: clientservices@alpha-labs.com • Phone: (707) 468-0401 • Fax: (707) 468-5267

CHEMICAL EXAMINATION REPORT

Page 2 of 6

Entech Analytical Labs, Inc.
3334 Victor Court
Santa Clara, CA 95054
Attn: Simon Hague

Report Date: 08/06/07 11:12
Project No: 56594
Project ID: 199 River Oaks Parkway

Order Number 07H0103 Receipt Date/Time 08/02/2007 15:45 Client Code ENTECH Client PO/Reference

Alpha Analytical Laboratories, Inc.

METHOD	BATCH	PREPARED	ANALYZED	DILUTION	RESULT	PQL	NOTE
56594-001 DP-6@6-8 (07H0103-01)		Sample Type: Soil		Sampled: 08/01/07 00:00			
RCRA Hazardous Characteristics by EPA Methods							
Corrosivity	EPA 9045C	AH70314	08/03/07	08/06/07	1	9.0 pH Units	1.0
Reactive Sulfide	SW846 Ch.7	AH70501	08/03/07	08/05/07	"	ND mg/kg	500
Ignitability by Flashpoint	EPA 1010	AH70315	08/04/07	08/05/07	"	220 °F	40 F-03
Reactive Cyanide	SW846 Ch.7	AH70503	08/03/07	08/05/07	"	ND mg/kg	250
56594-002 DP-6@8-10 (07H0103-02)		Sample Type: Soil		Sampled: 08/01/07 00:00			
RCRA Hazardous Characteristics by EPA Methods							
Corrosivity	EPA 9045C	AH70314	08/03/07	08/06/07	1	9.4 pH Units	1.0
Reactive Sulfide	SW846 Ch.7	AH70501	08/03/07	08/05/07	"	ND mg/kg	500
Ignitability by Flashpoint	EPA 1010	AH70315	08/04/07	08/05/07	"	220 °F	40 F-03
Reactive Cyanide	SW846 Ch.7	AH70503	08/03/07	08/05/07	"	ND mg/kg	250
56594-003 GW-1 (07H0103-03)		Sample Type: Water		Sampled: 08/01/07 10:55			
RCRA Hazardous Characteristics by EPA Methods							
Corrosivity	EPA 9040B	AH70202	08/02/07	08/02/07	1	7.3 pH Units	1.0
Reactive Sulfide	SW846 Ch.7	AH70502	08/03/07	08/05/07	"	ND mg/kg	500
Ignitability by Flashpoint	EPA 1010	AH70315	08/04/07	08/05/07	"	220 °F	40 F-03
Reactive Cyanide	SW 846 Ch.7	AH70504	08/04/07	08/05/07	"	ND mg/l	250
56594-004 GW-2 (07H0103-04)		Sample Type: Water		Sampled: 08/01/07 11:50			
RCRA Hazardous Characteristics by EPA Methods							
Corrosivity	EPA 9040B	AH70202	08/02/07	08/02/07	1	7.2 pH Units	1.0
Reactive Sulfide	SW846 Ch.7	AH70502	08/03/07	08/05/07	"	ND mg/kg	500
Ignitability by Flashpoint	EPA 1010	AH70315	08/04/07	08/05/07	"	220 °F	40 F-03
Reactive Cyanide	SW 846 Ch.7	AH70504	08/04/07	08/05/07	"	ND mg/l	250
56594-005 DP-2@3-4 (07H0103-05)		Sample Type: Soil		Sampled: 08/01/07 09:50			
RCRA Hazardous Characteristics by EPA Methods							
Corrosivity	EPA 9045C	AH70314	08/03/07	08/06/07	1	12 pH Units	1.0
Reactive Sulfide	SW846 Ch.7	AH70501	08/03/07	08/05/07	"	ND mg/kg	500
Ignitability by Flashpoint	EPA 1010	AH70315	08/04/07	08/05/07	"	220 °F	40 F-03

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Bruce Gove
Laboratory Director

8/6/2007



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CHEMICAL EXAMINATION REPORT

Page 3 of 6

Entech Analytical Labs, Inc.
3334 Victor Court
Santa Clara, CA 95054
Attn: Simon Hague

Report Date: 08/06/07 11:12
Project No: 56594
Project ID: 199 River Oaks Parkway

Order Number: 07H0103 Receipt Date/Time: 08/02/2007 15:45 Client Code: ENTECH Client PO/Reference:

Alpha Analytical Laboratories, Inc.

METHOD	BATCH	PREPARED	ANALYZED	DILUTION	RESULT	PQL	NOTE
56594-005 DP-2@3-4 (07H0103-05)		Sample Type: Soil			Sampled: 08/01/07 09:50		
RCRA Hazardous Characteristics by EPA Methods (cont'd)							
Reactive Cyanide	SW846 Ch.7	AH70503	08/03/07	08/05/07	"	ND mg/kg	250
56594-006 DP-2@6-7 (07H0103-06)		Sample Type: Soil			Sampled: 08/01/07 09:55		
RCRA Hazardous Characteristics by EPA Methods							
Corrosivity	EPA 9045C	AH70314	08/03/07	08/06/07	1	11 pH Units	1.0
Reactive Sulfide	SW846 Ch.7	AH70501	08/03/07	08/05/07	"	ND mg/kg	500
Ignitability by Flashpoint	EPA 1010	AH70315	08/04/07	08/05/07	"	220 °F	40 F-03
Reactive Cyanide	SW846 Ch.7	AH70503	08/03/07	08/05/07	"	ND mg/kg	250
56594-007 DP-3@10-11 (07H0103-07)		Sample Type: Soil			Sampled: 08/01/07 10:30		
RCRA Hazardous Characteristics by EPA Methods							
Corrosivity	EPA 9045C	AH70314	08/03/07	08/06/07	1	8.2 pH Units	1.0
Reactive Sulfide	SW846 Ch.7	AH70501	08/04/07	08/05/07	"	ND mg/kg	500
Ignitability by Flashpoint	EPA 1010	AH70315	08/04/07	08/05/07	"	220 °F	40 F-03
Reactive Cyanide	SW846 Ch.7	AH70503	08/03/07	08/05/07	"	ND mg/kg	250
56594-009 DP-4@10-11 (07H0103-08)		Sample Type: Soil			Sampled: 08/01/07 11:32		
RCRA Hazardous Characteristics by EPA Methods							
Corrosivity	EPA 9045C	AH70314	08/03/07	08/06/07	1	8.4 pH Units	1.0
Reactive Sulfide	SW846 Ch.7	AH70501	08/04/07	08/05/07	"	ND mg/kg	500
Ignitability by Flashpoint	EPA 1010	AH70315	08/04/07	08/05/07	"	220 °F	40 F-03
Reactive Cyanide	SW846 Ch.7	AH70503	08/03/07	08/05/07	"	ND mg/kg	250
56594-012 DP-5@11-12 (07H0103-09)		Sample Type: Soil			Sampled: 08/01/07 13:39		
RCRA Hazardous Characteristics by EPA Methods							
Corrosivity	EPA 9045C	AH70314	08/03/07	08/06/07	1	7.9 pH Units	1.0
Reactive Sulfide	SW846 Ch.7	AH70501	08/04/07	08/05/07	"	ND mg/kg	500
Ignitability by Flashpoint	EPA 1010	AH70315	08/04/07	08/05/07	"	220 °F	40 F-03
Reactive Cyanide	SW846 Ch.7	AH70503	08/03/07	08/05/07	"	ND mg/kg	250

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Laboratory Director

8/6/2007



Alpha

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CHEMICAL EXAMINATION REPORT

Page 5 of 6

Entech Analytical Labs, Inc.
3334 Victor Court
Santa Clara, CA 95054
Attn: Simon Hague

Report Date: 08/06/07 11:12
Project No: 56594
Project ID: 199 River Oaks Parkway

Order Number
07H0103

Receipt Date/Time
08/02/2007 15:45

Client Code
ENTECH

Client PO/Reference

RCRA Hazardous Characteristics by EPA Methods - Quality Control

Analyte(s)	Result	PQL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Flag
Batch AH70502 - General Preparation										
Blank (AH70502-BLK1)				Prepared: 08/04/07 Analyzed: 08/05/07						
Reactive Sulfide	ND	500	mg/kg							
LCS (AH70502-BS1)				Prepared: 08/04/07 Analyzed: 08/05/07						
Reactive Sulfide	280	500	mg/kg	590		47.5	30-65			RxS
LCS Dup (AH70502-BSD1)				Prepared: 08/04/07 Analyzed: 08/05/07						
Reactive Sulfide	276	500	mg/kg	590		46.8	30-65	1.44	20	
Batch AH70503 - General Preparation										
LCS (AH70503-BS1)				Prepared: 08/03/07 Analyzed: 08/05/07						
Reactive Cyanide	0.933	5000	mg/kg	19.8		4.71	0-10			
LCS Dup (AH70503-BSD1)				Prepared: 08/03/07 Analyzed: 08/05/07						
Reactive Cyanide	0.933	5000	mg/kg	19.8		4.71	0-10	0.00	200	
Batch AH70504 - General Preparation										
LCS (AH70504-BS1)				Prepared & Analyzed: 08/05/07						
Reactive Cyanide	0.0466	250	mg/l	19.8		0.235	0-10			
LCS Dup (AH70504-BSD1)				Prepared & Analyzed: 08/05/07						
Reactive Cyanide	0.0466	250	mg/l	19.8		0.235	0-10	0.00	200	

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Bruce Gove
Laboratory Director

8/6/2007



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208 Mason Street, Ukiah, California 95482

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CHEMICAL EXAMINATION REPORT

Page 6 of 6

Entech Analytical Labs, Inc.
3334 Victor Court
Santa Clara, CA 95054
Attn: Simon Hague

Report Date: 08/06/07 11:12
Project No: 56594
Project ID: 199 River Oaks Parkway

Order Number
07H0103

Receipt Date/Time
08/02/2007 15:45

Client Code
ENTECH

Client PO/Reference

Notes and Definitions

RxS This sample does not contain levels of reactive sulfide that are characteristic of a reactive waste as defined by 40CFR 261.23. Concentration is below 500 ppm.

F-03 No flash detected up to 220 °F.

> 220

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

PQL Practical Quantitation Limit

Entech Analytical Labs, Inc.

42^c
Entech ID and PO#: 56594

3334 Victor Court, Santa Clara, CA 95054

(408) 588-0200

FAX (408) 588-0201

Subcontract Chain of Custody

Subcontract Lab: Alpha Analytical

Date Sent: 8/2/07

Date Due: 8/8/07

07H0103

8/8/07

Project Number: 7862.3.002.01

Project Name: 199 River Oaks Parkway

Entech LabNumber	Customer Sample Name/Field Point ID	Matrix	Method	Collect Date	Collect Time
56594-001	DP-6@6-8	Solid	RCI- Alpha	8/1/2007	
56594-002	DP-6@8-10	Solid	RCI- Alpha	8/1/2007	
56594-003	GW-1	Liquid	RCI- Alpha	8/1/2007	10:55
56594-004	GW-2	Liquid	RCI- Alpha	8/1/2007	11:50
56594-005	DP-2@3-4	Solid	RCI- Alpha	8/1/2007	9:50
56594-006	DP-2@6-7	Solid	RCI- Alpha	8/1/2007	9:55
56594-007	DP-3@10-11	Solid	RCI- Alpha	8/1/2007	10:30
56594-009	DP-4@10-11	Solid	RCI- Alpha	8/1/2007	11:32
56594-012	DP-5@11-12	Solid	RCI- Alpha	8/1/2007	13:39

Comments:

Relinquished By: <i>Joseph Machado</i>	Received By: <i>[Signature]</i>	Date: 08/02/07	Time: 10:00
Relinquished By: <i>[Signature]</i>	Received By: <i>[Signature]</i>	Date: 8-2-7	Time: 13:30
Relinquished By: <i>[Signature]</i>	Received By: <i>[Signature]</i>	Date: 8-2-7	Time: 1545

Send the Report to: DATA@ENTECHLABS.COM

2072

CHAIN OF CUSTODY RECORD

PROJECT NUMBER: 7862.3.002.01		PROJECT NAME: 199 River Oaks Parkway		ROUTING: E-MAIL afirmin@engco.com		Hard Copy				
SAMPLER BY: (SIGNATURE/PRINT) Andy Firmin		PROJECT MANAGER: Shawn Munger		DATE		TIME				
SAMPLE NUMBER	DATE	MATRIX	NUMBER OF CONTAINERS	CONTAINER SIZE	PRESERVATIVE	Fluoride (EPA 300.1)	VOC	sVOC	RCI	REMARKS REQUIRED DETECTION LIMITS
DP-2 @ 3-4	8/1/2007	Soil	1	1"	Ice	✓	✓	✓	✓	56594
DP-2 @ 6-7	8/1/2007		1		Ice	✓	✓	✓	✓	205
DP-3 @ 2-3	8/1/2007		1		Ice	✓	✓	✓	✓	206
DP-3 @ 3-4	8/1/2007		1		Ice					
DP-3 @ 6-7	8/1/2007		1		Ice					
DP-3 @ 7-9	8/1/2007		1		Ice					
DP-3 @ 10-11	8/1/2007		1		Ice					
DP-3 @ 11-12	8/1/2007		1		Ice	✓	✓	✓	✓	107
DP-4 @ 2-3	8/1/2007		1	1.5"	Ice					
DP-4 @ 3-4	8/1/2007		1		Ice					
DP-4 @ 6-7	8/1/2007		1		Ice					
DP-4 @ 7-9	8/1/2007		1		Ice					
DP-4 @ 10-11	8/1/2007		1		Ice					
DP-4 @ 11-12	8/1/2007		1		Ice					
DP-5 @ 2-3	8/1/2007		1		Ice	✓	✓	✓	✓	100
DP-5 @ 3-4	8/1/2007		1		Ice					
DP-5 @ 6-7	8/1/2007		1		Ice					
DP-5 @ 7-9	8/1/2007		1		Ice					
DP-5 @ 10-11	8/1/2007		1		Ice					
DP-5 @ 11-12	8/1/2007		1		Ice					
DP-5 @ 14-15	8/1/2007		1		Ice					
DP-5 @ 16-17	8/1/2007		1		Ice					
DP-5 @ 18-19	8/1/2007		1		Ice					
DP-5 @ 20-21	8/1/2007		1		Ice					
DP-5 @ 22-23	8/1/2007		1		Ice					
DP-5 @ 24-25	8/1/2007		1		Ice					
DP-5 @ 26-27	8/1/2007		1		Ice					
DP-5 @ 28-29	8/1/2007		1		Ice					
DP-5 @ 30-31	8/1/2007		1		Ice					
DP-5 @ 32-33	8/1/2007		1		Ice					
DP-5 @ 34-35	8/1/2007		1		Ice					
DP-5 @ 36-37	8/1/2007		1		Ice					
DP-5 @ 38-39	8/1/2007		1		Ice					
DP-5 @ 40-41	8/1/2007		1		Ice					
DP-5 @ 42-43	8/1/2007		1		Ice					
DP-5 @ 44-45	8/1/2007		1		Ice					
DP-5 @ 46-47	8/1/2007		1		Ice					
DP-5 @ 48-49	8/1/2007		1		Ice					
DP-5 @ 50-51	8/1/2007		1		Ice					
DP-5 @ 52-53	8/1/2007		1		Ice					
DP-5 @ 54-55	8/1/2007		1		Ice					
DP-5 @ 56-57	8/1/2007		1		Ice					
DP-5 @ 58-59	8/1/2007		1		Ice					
DP-5 @ 60-61	8/1/2007		1		Ice					
DP-5 @ 62-63	8/1/2007		1		Ice					
DP-5 @ 64-65	8/1/2007		1		Ice					
DP-5 @ 66-67	8/1/2007		1		Ice					
DP-5 @ 68-69	8/1/2007		1		Ice					
DP-5 @ 70-71	8/1/2007		1		Ice					
DP-5 @ 72-73	8/1/2007		1		Ice					
DP-5 @ 74-75	8/1/2007		1		Ice					
DP-5 @ 76-77	8/1/2007		1		Ice					
DP-5 @ 78-79	8/1/2007		1		Ice					
DP-5 @ 80-81	8/1/2007		1		Ice					
DP-5 @ 82-83	8/1/2007		1		Ice					
DP-5 @ 84-85	8/1/2007		1		Ice					
DP-5 @ 86-87	8/1/2007		1		Ice					
DP-5 @ 88-89	8/1/2007		1		Ice					
DP-5 @ 90-91	8/1/2007		1		Ice					
DP-5 @ 92-93	8/1/2007		1		Ice					
DP-5 @ 94-95	8/1/2007		1		Ice					
DP-5 @ 96-97	8/1/2007		1		Ice					
DP-5 @ 98-99	8/1/2007		1		Ice					
DP-5 @ 100-101	8/1/2007		1		Ice					
DP-5 @ 102-103	8/1/2007		1		Ice					
DP-5 @ 104-105	8/1/2007		1		Ice					
DP-5 @ 106-107	8/1/2007		1		Ice					
DP-5 @ 108-109	8/1/2007		1		Ice					
DP-5 @ 110-111	8/1/2007		1		Ice					
DP-5 @ 112-113	8/1/2007		1		Ice					
DP-5 @ 114-115	8/1/2007		1		Ice					
DP-5 @ 116-117	8/1/2007		1		Ice					
DP-5 @ 118-119	8/1/2007		1		Ice					
DP-5 @ 120-121	8/1/2007		1		Ice					
DP-5 @ 122-123	8/1/2007		1		Ice					
DP-5 @ 124-125	8/1/2007		1		Ice					
DP-5 @ 126-127	8/1/2007		1		Ice					
DP-5 @ 128-129	8/1/2007		1		Ice					
DP-5 @ 130-131	8/1/2007		1		Ice					
DP-5 @ 132-133	8/1/2007		1		Ice					
DP-5 @ 134-135	8/1/2007		1		Ice					
DP-5 @ 136-137	8/1/2007		1		Ice					
DP-5 @ 138-139	8/1/2007		1		Ice					
DP-5 @ 140-141	8/1/2007		1		Ice					
DP-5 @ 142-143	8/1/2007		1		Ice					
DP-5 @ 144-145	8/1/2007		1		Ice					
DP-5 @ 146-147	8/1/2007		1		Ice					
DP-5 @ 148-149	8/1/2007		1		Ice					
DP-5 @ 150-151	8/1/2007		1		Ice					
DP-5 @ 152-153	8/1/2007		1		Ice					
DP-5 @ 154-155	8/1/2007		1		Ice					
DP-5 @ 156-157	8/1/2007		1		Ice					
DP-5 @ 158-159	8/1/2007		1		Ice					
DP-5 @ 160-161	8/1/2007		1		Ice					
DP-5 @ 162-163	8/1/2007		1		Ice					
DP-5 @ 164-165	8/1/2007		1		Ice					
DP-5 @ 166-167	8/1/2007		1		Ice					
DP-5 @ 168-169	8/1/2007		1		Ice					
DP-5 @ 170-171	8/1/2007		1		Ice					
DP-5 @ 172-173	8/1/2007		1		Ice					
DP-5 @ 174-175	8/1/2007		1		Ice					
DP-5 @ 176-177	8/1/2007		1		Ice					
DP-5 @ 178-179	8/1/2007		1		Ice					
DP-5 @ 180-181	8/1/2007		1		Ice					
DP-5 @ 182-183	8/1/2007		1		Ice					
DP-5 @ 184-185	8/1/2007		1		Ice					
DP-5 @ 186-187	8/1/2007		1		Ice					
DP-5 @ 188-189	8/1/2007		1		Ice					
DP-5 @ 190-191	8/1/2007		1		Ice					
DP-5 @ 192-193	8/1/2007		1		Ice					
DP-5 @ 194-195	8/1/2007		1		Ice					
DP-5 @ 196-197	8/1/2007		1		Ice					
DP-5 @ 198-199	8/1/2007		1		Ice					
DP-5 @ 200-201	8/1/2007		1		Ice					
DP-5 @ 202-203	8/1/2007		1		Ice					
DP-5 @ 204-205	8/1/2007		1		Ice					
DP-5 @ 206-207	8/1/2007		1		Ice					
DP-5 @ 208-209	8/1/2007		1		Ice					
DP-5 @ 210-211	8/1/2007		1		Ice					
DP-5 @ 212-213	8/1/2007		1		Ice					
DP-5 @ 214-215	8/1/2007		1		Ice					
DP-5 @ 216-217	8/1/2007		1		Ice					
DP-5 @ 218-219	8/1/2007		1		Ice					
DP-5 @ 220-221	8/1/2007		1		Ice					
DP-5 @ 222-223	8/1/2007		1		Ice					
DP-5 @ 224-225	8/1/2007		1		Ice					
DP-5 @ 226-227	8/1/2007		1		Ice					
DP-5 @ 228-229	8/1/2007		1		Ice					
DP-5 @ 230-231	8/1/2007		1		Ice					
DP-5 @ 232-233	8/1/2007		1		Ice					
DP-5 @ 234-235	8/1/2007		1		Ice					
DP-5 @ 236-237	8/1/2007		1		Ice					
DP-5 @ 238-239	8/1/2007		1		Ice					
DP-5 @ 240-241	8/1/2007		1		Ice					
DP-5 @ 242-243	8/1/2007		1		Ice					
DP-5 @ 244-245	8/1/2007		1		Ice					
DP-5 @ 246-247	8/1/2007		1		Ice					

Project No.
7862.300.201

April 18, 2008
Revised April 22, 2008

Mr. Kevin Ma
BRE Properties, Inc.
525 Market Street, 4th Floor
San Francisco, CA 94105

Subject: 199 River Oaks Parkway
San Jose, California

SOIL SAMPLING AND LABORATORY TEST RESULTS

Reference: ENGEO Inc.; Phase One Environmental Site Assessment, 199 River Oaks Parkway, San Jose, California; Revised February 1, 2008; Project No 7862.300.201.

Dear Mr. Ma:

ENGEO Incorporated is pleased to present the findings of the soil sampling with laboratory testing conducted at 199 River Oaks Parkway in San Jose, California (Figure 1). The site has historically been used for agricultural purposes. As such, persistent agrichemicals may have been used in the past. The purpose of this study was to conduct a screening of the near surface soils to check for potential environmental impacts from past agricultural use.

SCOPE OF WORK

The study included the following field and laboratory activities:

- Recovery of 12 soil samples from approximately 3 to 9 inches below the ground surface.
- Laboratory analysis of the 12 discrete soil samples for Organochlorine Pesticides (EPA 8081), lead (Pb) and arsenic (As).
- Preparation of this report with our findings and recommendations.

FIELD ACTIVITIES

On April 9, 2008, an ENGEO representative recovered 12 soil samples from depths of approximately 3 to 9 inches below the existing ground surface using hand sampling equipment. Samples recovered from asphaltic areas were first cored and the aggregate base was then

removed. Soil samples were then collected from beneath the aggregate base. Each soil sample was recovered in a 6-inch-long stainless steel tube which was sealed at each end with Teflon sheets and tight fitting plastic caps. Between sample locations, the sampling equipment was washed with an Alquinox/water solution and rinsed with distilled water. Following recovery, the soil samples were labeled, placed in an ice-cooled chest, and delivered under documented chain-of-custody to Accutest Laboratories, in Santa Clara, California for testing.

LABORATORY TESTING

The 12 soil samples were analyzed for Organochlorine Pesticides (EPA 8081) and the metals, lead (Pb) and arsenic (As). Table 1 provides a summary of the laboratory results. Review of the laboratory test reports found trace levels of Organochlorine Pesticides (4,4'-DDE, 4,4'-DDD, and 4,4'-DDT) in two of the 12 samples. However, the reported concentrations are well below the California Environmental Protection Agency's California Human Health Screening Levels (CHHSLs) for residential soils and the Regional Water Quality Control Board's Environmental Screening Levels (ESL) for residential land use (Table A).

Concentrations of lead ranged from 3 to 94 milligrams per kilogram (mg/kg). Concentrations of arsenic ranged from 3.1 to 78 mg/kg. The reported lead concentrations are below the ESL for residential land use of 200 mg/kg (RWQCB 2007). The reported arsenic concentrations exceed the residential ESL of 0.38 mg/kg; however, the mean arsenic concentration of 16.58 mg/kg is consistent with background soil concentrations for Santa Clara County and the State of California (Bradford et. al, 1996; LBNL, 2002, Shacklette et. al., 1984, Dragun et. al, 1991).

TABLE 1
 LABORATORY ANALYSIS SUMMARY

SAMPLE	4,4'-DDD	4,4'-DDE	4,4'-DDT	ARSENIC	LEAD
AG-1	<0.050	0.17	<0.050	31	33
AG-2	<0.050	<0.050	<0.050	6.9	8.7
AG-3	<0.050	<0.050	<0.050	6.6	12
AG-4	0.10	0.95	0.24	78	94
AG-5	<0.050	<0.050	<0.050	14	40
AG-6	<0.050	<0.050	<0.050	7.3	19
AG-7	<0.050	<0.050	<0.050	12	23
AG-8	<0.050	<0.050	<0.050	3.1	3.0
AG-9	<0.050	<0.050	<0.050	7.8	16
AG-10	<0.050	<0.050	<0.050	4.2	6.7
AG-11	<0.050	<0.050	<0.050	11	6.6
AG-12	<0.050	<0.050	<0.050	17	9.1
ESL	2.3	1.6	1.6	0.38	200
CHHSL	2.3	1.6	1.6	0.07	150

(All concentrations reported in mg/kg)

FINDINGS

Based on the architectural plans dated March 3, 2008, prepared by TCA Architects, the proposed development consists of a podium-style residential complex. The proposed six-story podium structure will consist of two levels of parking garage and four stories of wood-frame construction for residential use. A courtyard is planned in level three. There will be no yard areas associated with the residences and no opportunity for end-user excavations. In addition, much of the property is planned to have significant hardscape with no end-user excavations.

Based on the results of the soil sampling, laboratory testing, and the planned development of the property, the reported pesticides and metal concentrations would not pose a health risk for the future development. ENGEO does not recommend additional soil sampling at this time. The laboratory analysis reports and chain-of-custody documentation can be found in Appendix A.

LIMITATIONS

The field services completed at the site were performed to assess specific soil conditions at the points of collection. The results of laboratory analyses are not intended to consider concentrations of other organic or inorganic substances which were not reported. No groundwater samples were recovered in association with this scope of work.

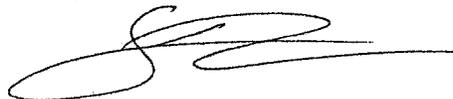
We are pleased to be of continued service to you with regard to this project. If you have any questions, please contact us.

Very truly yours,

ENGEO Incorporated



Kelly Krohn
kk/smc



Shawn Munger, CHG, REAII

Attachments: Figures 1 and 2
Appendix A – Accutest Laboratories, Laboratory Report

REFERENCES

CAL-EPA; California Human Health Screening Levels (CHHSLs), January 2005.

Bradford, G. R., A. C. Chang, A. L. Page, D. Bakhtar, J. A. Frampton, and H. Wright; Background Concentrations of Trace and Major Elements in California Soils; Kearney Foundation of Soil Science, Division of Agriculture and Natural Resources, University of California; March 1996.

Dragun, James, and Andrew Chiasson, "Elements in North American Soils," Hazardous Materials Control Resources Institute, Greenbelt, MD, 1991

Lawrence Berkeley National Laboratory, Analysis of Background Distributions of Metals in the Soil at Lawrence Berkeley National Laboratory: University of California (Berkeley), Lawrence Berkeley Laboratory, June 2002.

San Francisco Bay Regional Water Quality Control Board; Interim Final, Screening for Environmental Concerns at Site with Contaminated Soil and Groundwater, November 2006.

Shacklette, H. J., and Boerngen, J. G.; Element Concentrations in Soils and Other Surficial Materials of the Conterminous United States; U.S.G.S. Professional Paper 1270; 1984.

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BASE MAP SOURCE: MS STREETS AND TRIPS

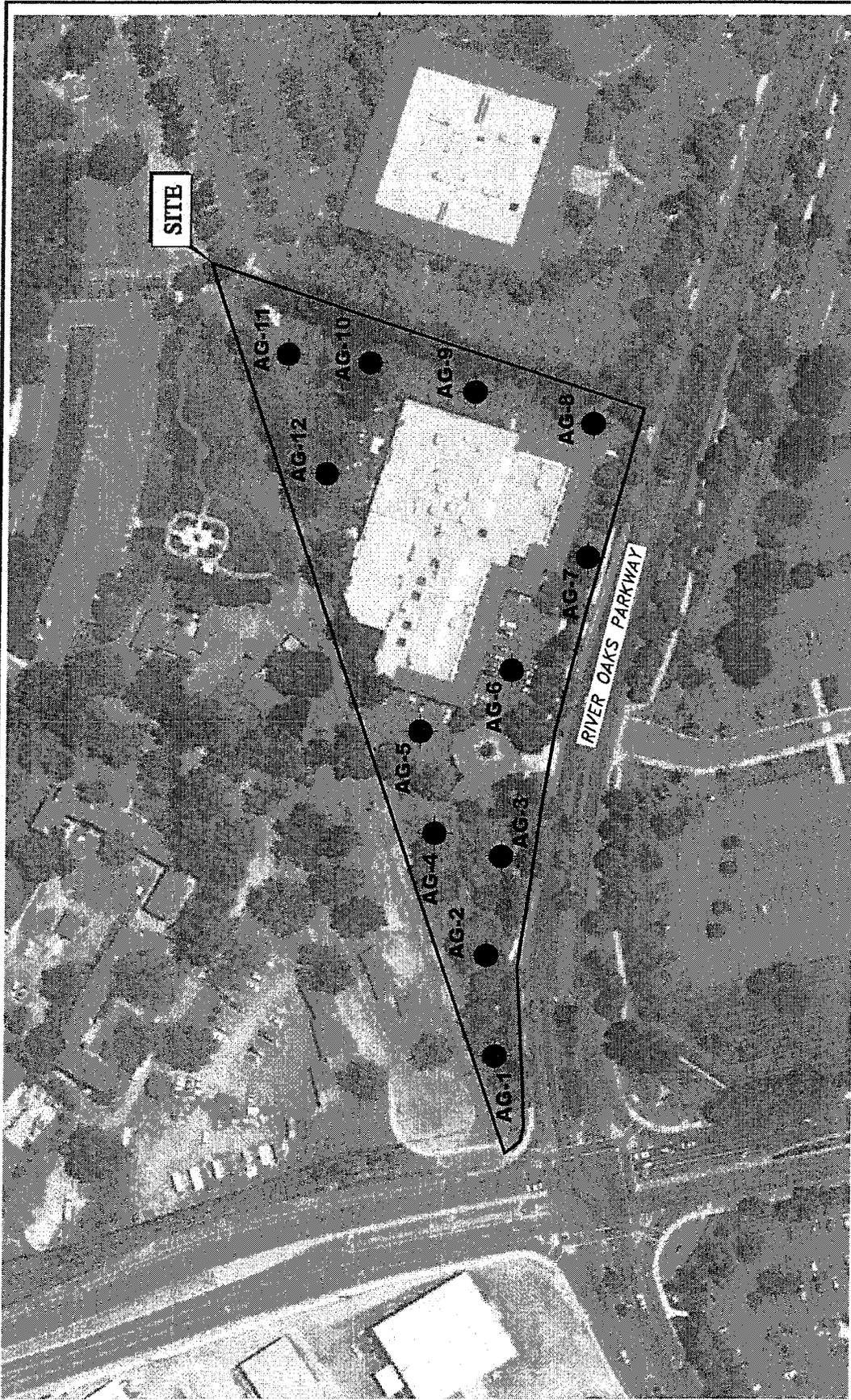


VICINITY MAP
 199 RIVER OAKS PARKWAY
 SAN JOSE, CALIFORNIA

PROJECT NO.: 7862.300.201
 DATE: APRIL 2008
 DRAWN BY: SRP CHECKED BY: SPM

FIGURE NO.
 1

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EXPLANATION

AG-12 ● APPROXIMATE LOCATION OF SOIL SAMPLE

BASE MAP SOURCE: GOOGLE EARTH PRO



SITE PLAN
 199 RIVER OAKS PARKWAY
 SAN JOSE, CALIFORNIA

PROJECT NO.: 7682.300.201	FIGURE NO. 2
DATE: APRIL 2008	
DRAWN BY: SRP	CHECKED BY: SPM

ORIGINAL FIGURE PRINTED IN COLOR

APPENDIX A

Accutest Laboratories

Laboratory Report

7862.300.201
April 18, 2008

Scott Johns
Engeo, Inc.-SJ
6399 San Ignacio Ave, Suite 150
San Jose, CA 95119

Lab Order Number: C0501
Issued: 04/17/2008

Project Number: 7862.300.201
Project Name: River Oaks Parkway
Project Location: San Jose, CA

Certificate of Analysis - Final Report

On April 09, 2008, samples were received under chain of custody for analysis.
Entech analyzes samples "as received" unless otherwise noted. The following results are included:

<u>Matrix</u>	<u>Test / Comments</u>
Solid	Organochlorine Pesticides: EPA 3545A / EPA 8081A Metals by ICP: EPA 3050B / EPA 6010B

Entech Analytical Labs, Inc. is certified for environmental analyses by the State of California (#2346).
Subcontracted work is the responsibility of the subcontract laboratory, this includes turn-around-time and data quality.
If you have any questions regarding this report, please call us at 408-588-0200 ext. 225.

Sincerely,



Laurie Glantz-Murphy
Laboratory Director



Northern California

3334 Victor Court, Santa Clara, CA 95054

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Fax: (408) 588-0201

Engeo, Inc.-SJ
 6399 San Ignacio Ave, Suite 150
 San Jose, CA 95119
 Attn: Scott Johns

Project Number: 7862.300.201
 Project Name: River Oaks Parkway
 Project Location: San Jose, CA

Certificate of Analysis - Data Report

Samples Received: 04/09/2008
 Sample Collected by: Client

Lab #: C0501-001 Sample ID: AG-1 Matrix: Solid Sample Date: 4/9/2008 12:25 PM

Metals by ICP: EPA 3050B / EPA 6010B

Parameter	Result	Qual	D/P-F	Detection Limit	Units	Prep Date	Prep Batch	Analysis Date	QC Batch
Arsenic	31		1.0	1.0	mg/Kg	4/14/2008	SM080414	4/14/2008	SM080414
Lead	33		1.0	1.0	mg/Kg	4/14/2008	SM080414	4/14/2008	SM080414

Analyzed by: CTran
 Reviewed by: HDINH

Organochlorine Pesticides: EPA 3545A / EPA 8081A

Parameter	Result	Qual	D/P-F	Detection Limit	Units	Prep Date	Prep Batch	Analysis Date	QC Batch
Alpha-BHC	ND		1.0	0.050	mg/Kg	4/9/2008	PES080409B	4/11/2008	PES080409B
Gamma-BHC (Lindane)	ND		1.0	0.050	mg/Kg	4/9/2008	PES080409B	4/11/2008	PES080409B
Beta-BHC	ND		1.0	0.050	mg/Kg	4/9/2008	PES080409B	4/11/2008	PES080409B
Heptachlor	ND		1.0	0.050	mg/Kg	4/9/2008	PES080409B	4/11/2008	PES080409B
delta-BHC	ND		1.0	0.050	mg/Kg	4/9/2008	PES080409B	4/11/2008	PES080409B
Aldrin	ND		1.0	0.050	mg/Kg	4/9/2008	PES080409B	4/11/2008	PES080409B
Heptachlor Epoxide	ND		1.0	0.050	mg/Kg	4/9/2008	PES080409B	4/11/2008	PES080409B
Endosulfan I	ND		1.0	0.050	mg/Kg	4/9/2008	PES080409B	4/11/2008	PES080409B
4,4'-DDE	0.17		1.0	0.050	mg/Kg	4/9/2008	PES080409B	4/11/2008	PES080409B
Dieldrin	ND		1.0	0.050	mg/Kg	4/9/2008	PES080409B	4/11/2008	PES080409B
Endrin	ND		1.0	0.050	mg/Kg	4/9/2008	PES080409B	4/11/2008	PES080409B
4,4'-DDD	ND		1.0	0.050	mg/Kg	4/9/2008	PES080409B	4/11/2008	PES080409B
Endosulfan II	ND		1.0	0.050	mg/Kg	4/9/2008	PES080409B	4/11/2008	PES080409B
4,4'-DDT	ND		1.0	0.050	mg/Kg	4/9/2008	PES080409B	4/11/2008	PES080409B
Endrin Aldehyde	ND		1.0	0.050	mg/Kg	4/9/2008	PES080409B	4/11/2008	PES080409B
Endosulfan Sulfate	ND		1.0	0.050	mg/Kg	4/9/2008	PES080409B	4/11/2008	PES080409B
Methoxychlor	ND		1.0	0.050	mg/Kg	4/9/2008	PES080409B	4/11/2008	PES080409B
Endrin Ketone	ND		1.0	0.050	mg/Kg	4/9/2008	PES080409B	4/11/2008	PES080409B
Toxaphene	ND		1.0	0.10	mg/Kg	4/9/2008	PES080409B	4/11/2008	PES080409B
Chlordane (technical)	ND		1.0	0.10	mg/Kg	4/9/2008	PES080409B	4/11/2008	PES080409B

Surrogate	Surrogate Recovery	Control Limits (%)
Decachlorobiphenyl	97.4	37 - 135

Analyzed by: NBocalan
 Reviewed by: mtran

Detection Limit = Detection Limit for Reporting.

ND = Not Detected at or above the Detection Limit.

D/P-F = Dilution and/or Prep Factor includes sample volume adjustments.

Qual = Data Qualifier



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 Attn: Scott Johns

Project Number: 7862.300.201
 Project Name: River Oaks Parkway
 Project Location: San Jose, CA

Certificate of Analysis - Data Report

Samples Received: 04/09/2008
 Sample Collected by: Client

Lab #: C0501-002 Sample ID: AG-2 Matrix: Solid Sample Date: 4/9/2008 12:05 PM

Metals by ICP: EPA 3050B / EPA 6010B

Parameter	Result	Qual	D/P-F	Detection Limit	Units	Prep Date	Prep Batch	Analysis Date	QC Batch
Arsenic	6.9		1.0	1.0	mg/Kg	4/14/2008	SM080414	4/15/2008	SM080414
Lead	8.7		1.0	1.0	mg/Kg	4/14/2008	SM080414	4/15/2008	SM080414

Analyzed by: CTran

Reviewed by: mfelix

Organochlorine Pesticides: EPA 3545A / EPA 8081A

Parameter	Result	Qual	D/P-F	Detection Limit	Units	Prep Date	Prep Batch	Analysis Date	QC Batch
Alpha-BHC	ND		1.0	0.050	mg/Kg	4/9/2008	PES080409B	4/11/2008	PES080409B
Gamma-BHC (Lindane)	ND		1.0	0.050	mg/Kg	4/9/2008	PES080409B	4/11/2008	PES080409B
Beta-BHC	ND		1.0	0.050	mg/Kg	4/9/2008	PES080409B	4/11/2008	PES080409B
Heptachlor	ND		1.0	0.050	mg/Kg	4/9/2008	PES080409B	4/11/2008	PES080409B
delta-BHC	ND		1.0	0.050	mg/Kg	4/9/2008	PES080409B	4/11/2008	PES080409B
Aldrin	ND		1.0	0.050	mg/Kg	4/9/2008	PES080409B	4/11/2008	PES080409B
Heptachlor Epoxide	ND		1.0	0.050	mg/Kg	4/9/2008	PES080409B	4/11/2008	PES080409B
Endosulfan I	ND		1.0	0.050	mg/Kg	4/9/2008	PES080409B	4/11/2008	PES080409B
4,4'-DDE	ND		1.0	0.050	mg/Kg	4/9/2008	PES080409B	4/11/2008	PES080409B
Dieldrin	ND		1.0	0.050	mg/Kg	4/9/2008	PES080409B	4/11/2008	PES080409B
Endrin	ND		1.0	0.050	mg/Kg	4/9/2008	PES080409B	4/11/2008	PES080409B
4,4'-DDD	ND		1.0	0.050	mg/Kg	4/9/2008	PES080409B	4/11/2008	PES080409B
Endosulfan II	ND		1.0	0.050	mg/Kg	4/9/2008	PES080409B	4/11/2008	PES080409B
4,4'-DDT	ND		1.0	0.050	mg/Kg	4/9/2008	PES080409B	4/11/2008	PES080409B
Endrin Aldehyde	ND		1.0	0.050	mg/Kg	4/9/2008	PES080409B	4/11/2008	PES080409B
Endosulfan Sulfate	ND		1.0	0.050	mg/Kg	4/9/2008	PES080409B	4/11/2008	PES080409B
Methoxychlor	ND		1.0	0.050	mg/Kg	4/9/2008	PES080409B	4/11/2008	PES080409B
Endrin Ketone	ND		1.0	0.050	mg/Kg	4/9/2008	PES080409B	4/11/2008	PES080409B
Toxaphene	ND		1.0	0.10	mg/Kg	4/9/2008	PES080409B	4/11/2008	PES080409B
Chlordane (technical)	ND		1.0	0.10	mg/Kg	4/9/2008	PES080409B	4/11/2008	PES080409B

Surrogate	Surrogate Recovery	Control Limits (%)
Decachlorobiphenyl	113	37 - 135

Analyzed by: NBocalan

Reviewed by: mtran

Detection Limit = Detection Limit for Reporting.

ND = Not Detected at or above the Detection Limit.

D/P-F = Dilution and/or Prep Factor includes sample volume adjustments.

Qual = Data Qualifier

4/17/2008 11:39:13 AM - mfelix



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 Attn: Scott Johns

Project Number: 7862.300.201
 Project Name: River Oaks Parkway
 Project Location: San Jose, CA

Certificate of Analysis - Data Report

Samples Received: 04/09/2008
 Sample Collected by: Client

Lab #: C0501-003 Sample ID: AG-3 Matrix: Solid Sample Date: 4/9/2008 11:45 AM

Metals by ICP: EPA 3050B / EPA 6010B

Parameter	Result	Qual	D/P-F	Detection Limit	Units	Prep Date	Prep Batch	Analysis Date	QC Batch
Arsenic	6.6		1.0	1.0	mg/Kg	4/14/2008	SM080414	4/15/2008	SM080414
Lead	12		1.0	1.0	mg/Kg	4/14/2008	SM080414	4/15/2008	SM080414

Analyzed by: CTran

Reviewed by: mfelix

Organochlorine Pesticides: EPA 3545A / EPA 8081A

Parameter	Result	Qual	D/P-F	Detection Limit	Units	Prep Date	Prep Batch	Analysis Date	QC Batch
Alpha-BHC	ND		1.0	0.050	mg/Kg	4/9/2008	PES080409B	4/11/2008	PES080409B
Gamma-BHC (Lindane)	ND		1.0	0.050	mg/Kg	4/9/2008	PES080409B	4/11/2008	PES080409B
Beta-BHC	ND		1.0	0.050	mg/Kg	4/9/2008	PES080409B	4/11/2008	PES080409B
Heptachlor	ND		1.0	0.050	mg/Kg	4/9/2008	PES080409B	4/11/2008	PES080409B
delta-BHC	ND		1.0	0.050	mg/Kg	4/9/2008	PES080409B	4/11/2008	PES080409B
Aldrin	ND		1.0	0.050	mg/Kg	4/9/2008	PES080409B	4/11/2008	PES080409B
Heptachlor Epoxide	ND		1.0	0.050	mg/Kg	4/9/2008	PES080409B	4/11/2008	PES080409B
Endosulfan I	ND		1.0	0.050	mg/Kg	4/9/2008	PES080409B	4/11/2008	PES080409B
4,4'-DDE	ND		1.0	0.050	mg/Kg	4/9/2008	PES080409B	4/11/2008	PES080409B
Dieldrin	ND		1.0	0.050	mg/Kg	4/9/2008	PES080409B	4/11/2008	PES080409B
Endrin	ND		1.0	0.050	mg/Kg	4/9/2008	PES080409B	4/11/2008	PES080409B
4,4'-DDD	ND		1.0	0.050	mg/Kg	4/9/2008	PES080409B	4/11/2008	PES080409B
Endosulfan II	ND		1.0	0.050	mg/Kg	4/9/2008	PES080409B	4/11/2008	PES080409B
4,4'-DDT	ND		1.0	0.050	mg/Kg	4/9/2008	PES080409B	4/11/2008	PES080409B
Endrin Aldehyde	ND		1.0	0.050	mg/Kg	4/9/2008	PES080409B	4/11/2008	PES080409B
Endosulfan Sulfate	ND		1.0	0.050	mg/Kg	4/9/2008	PES080409B	4/11/2008	PES080409B
Methoxychlor	ND		1.0	0.050	mg/Kg	4/9/2008	PES080409B	4/11/2008	PES080409B
Endrin Ketone	ND		1.0	0.050	mg/Kg	4/9/2008	PES080409B	4/11/2008	PES080409B
Toxaphene	ND		1.0	0.10	mg/Kg	4/9/2008	PES080409B	4/11/2008	PES080409B
Chlordane (technical)	ND		1.0	0.10	mg/Kg	4/9/2008	PES080409B	4/11/2008	PES080409B

Surrogate	Surrogate Recovery	Control Limits (%)
Decachlorobiphenyl	107	37 - 135

Analyzed by: NBocalan

Reviewed by: ntran

Detection Limit = Detection Limit for Reporting.

ND = Not Detected at or above the Detection Limit.

D/P-F = Dilution and/or Prep Factor includes sample volume adjustments.

Qual = Data Qualifier

4/17/2008 11:39:13 AM - mfelix



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 Attn: Scott Johns

Project Number: 7862.300.201
 Project Name: River Oaks Parkway
 Project Location: San Jose, CA

Certificate of Analysis - Data Report

Samples Received: 04/09/2008
 Sample Collected by: Client

Lab #: C0501-004 Sample ID: AG-4 Matrix: Solid Sample Date: 4/9/2008 11:20 AM

Metals by ICP: EPA 3050B / EPA 6010B

Parameter	Result	Qual	D/P-F	Detection Limit	Units	Prep Date	Prep Batch	Analysis Date	QC Batch
Arsenic	78		1.0	1.0	mg/Kg	4/14/2008	SM080414	4/15/2008	SM080414
Lead	94		1.0	1.0	mg/Kg	4/14/2008	SM080414	4/15/2008	SM080414

Analyzed by: CTran

Reviewed by: mfelix

Organochlorine Pesticides: EPA 3545A / EPA 8081A

Parameter	Result	Qual	D/P-F	Detection Limit	Units	Prep Date	Prep Batch	Analysis Date	QC Batch
Alpha-BHC	ND		1.0	0.050	mg/Kg	4/9/2008	PES080409B	4/12/2008	PES080409B
Gamma-BHC (Lindane)	ND		1.0	0.050	mg/Kg	4/9/2008	PES080409B	4/12/2008	PES080409B
Beta-BHC	ND		1.0	0.050	mg/Kg	4/9/2008	PES080409B	4/12/2008	PES080409B
Heptachlor	ND		1.0	0.050	mg/Kg	4/9/2008	PES080409B	4/12/2008	PES080409B
delta-BHC	ND		1.0	0.050	mg/Kg	4/9/2008	PES080409B	4/12/2008	PES080409B
Aldrin	ND		1.0	0.050	mg/Kg	4/9/2008	PES080409B	4/12/2008	PES080409B
Heptachlor Epoxide	ND		1.0	0.050	mg/Kg	4/9/2008	PES080409B	4/12/2008	PES080409B
Endosulfan I	ND		1.0	0.050	mg/Kg	4/9/2008	PES080409B	4/12/2008	PES080409B
4,4'-DDE	0.95		10	0.50	mg/Kg	4/9/2008	PES080409B	4/12/2008	PES080409B
4,4'-DDE result reported at a 10 X dilution, analyzed on 4-16-08. Surrogate recovery was 123.8%.									
Dieldrin	ND		1.0	0.050	mg/Kg	4/9/2008	PES080409B	4/12/2008	PES080409B
Endrin	ND		1.0	0.050	mg/Kg	4/9/2008	PES080409B	4/12/2008	PES080409B
4,4'-DDD	0.10		1.0	0.050	mg/Kg	4/9/2008	PES080409B	4/12/2008	PES080409B
Endosulfan II	ND		1.0	0.050	mg/Kg	4/9/2008	PES080409B	4/12/2008	PES080409B
4,4'-DDT	0.24		1.0	0.050	mg/Kg	4/9/2008	PES080409B	4/12/2008	PES080409B
Endrin Aldehyde	ND		1.0	0.050	mg/Kg	4/9/2008	PES080409B	4/12/2008	PES080409B
Endosulfan Sulfate	ND		1.0	0.050	mg/Kg	4/9/2008	PES080409B	4/12/2008	PES080409B
Methoxychlor	ND		1.0	0.050	mg/Kg	4/9/2008	PES080409B	4/12/2008	PES080409B
Endrin Ketone	ND		1.0	0.050	mg/Kg	4/9/2008	PES080409B	4/12/2008	PES080409B
Toxaphene	ND		1.0	0.10	mg/Kg	4/9/2008	PES080409B	4/12/2008	PES080409B
Chlordane (technical)	ND		1.0	0.10	mg/Kg	4/9/2008	PES080409B	4/12/2008	PES080409B

Surrogate	Surrogate Recovery	Control Limits (%)
Decachlorobiphenyl	99.6	37 - 135

Analyzed by: Nbocalan

Reviewed by: mtran

Detection Limit = Detection Limit for Reporting.

ND = Not Detected at or above the Detection Limit.

D/P-F = Dilution and/or Prep Factor includes sample volume adjustments.

Qual = Data Qualifier



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 Attn: Scott Johns

Project Number: 7862.300.201
 Project Name: River Oaks Parkway
 Project Location: San Jose, CA

Certificate of Analysis - Data Report

Samples Received: 04/09/2008
 Sample Collected by: Client

Lab #: C0501-005 Sample ID: AG-5 Matrix: Solid Sample Date: 4/9/2008 8:30 AM

Metals by ICP: EPA 3050B / EPA 6010B

Parameter	Result	Qual	D/P-F	Detection Limit	Units	Prep Date	Prep Batch	Analysis Date	QC Batch
Arsenic	14		1.0	1.0	mg/Kg	4/14/2008	SM080414	4/15/2008	SM080414
Lead	40		1.0	1.0	mg/Kg	4/14/2008	SM080414	4/15/2008	SM080414

Analyzed by: CTran

Reviewed by: mfelix

Organochlorine Pesticides: EPA 3545A / EPA 8081A

Parameter	Result	Qual	D/P-F	Detection Limit	Units	Prep Date	Prep Batch	Analysis Date	QC Batch
Alpha-BHC	ND		1.0	0.050	mg/Kg	4/9/2008	PES080409B	4/12/2008	PES080409B
Gamma-BHC (Lindane)	ND		1.0	0.050	mg/Kg	4/9/2008	PES080409B	4/12/2008	PES080409B
Beta-BHC	ND		1.0	0.050	mg/Kg	4/9/2008	PES080409B	4/12/2008	PES080409B
Heptachlor	ND		1.0	0.050	mg/Kg	4/9/2008	PES080409B	4/12/2008	PES080409B
delta-BHC	ND		1.0	0.050	mg/Kg	4/9/2008	PES080409B	4/12/2008	PES080409B
Aldrin	ND		1.0	0.050	mg/Kg	4/9/2008	PES080409B	4/12/2008	PES080409B
Heptachlor Epoxide	ND		1.0	0.050	mg/Kg	4/9/2008	PES080409B	4/12/2008	PES080409B
Endosulfan I	ND		1.0	0.050	mg/Kg	4/9/2008	PES080409B	4/12/2008	PES080409B
4,4'-DDE	ND		1.0	0.050	mg/Kg	4/9/2008	PES080409B	4/12/2008	PES080409B
Dieldrin	ND		1.0	0.050	mg/Kg	4/9/2008	PES080409B	4/12/2008	PES080409B
Endrin	ND		1.0	0.050	mg/Kg	4/9/2008	PES080409B	4/12/2008	PES080409B
4,4'-DDD	ND		1.0	0.050	mg/Kg	4/9/2008	PES080409B	4/12/2008	PES080409B
Endosulfan II	ND		1.0	0.050	mg/Kg	4/9/2008	PES080409B	4/12/2008	PES080409B
4,4'-DDT	ND		1.0	0.050	mg/Kg	4/9/2008	PES080409B	4/12/2008	PES080409B
Endrin Aldehyde	ND		1.0	0.050	mg/Kg	4/9/2008	PES080409B	4/12/2008	PES080409B
Endosulfan Sulfate	ND		1.0	0.050	mg/Kg	4/9/2008	PES080409B	4/12/2008	PES080409B
Methoxychlor	ND		1.0	0.050	mg/Kg	4/9/2008	PES080409B	4/12/2008	PES080409B
Endrin Ketone	ND		1.0	0.050	mg/Kg	4/9/2008	PES080409B	4/12/2008	PES080409B
Toxaphene	ND		1.0	0.10	mg/Kg	4/9/2008	PES080409B	4/12/2008	PES080409B
Chlordane (technical)	ND		1.0	0.10	mg/Kg	4/9/2008	PES080409B	4/12/2008	PES080409B

Surrogate	Surrogate Recovery	Control Limits (%)
Decachlorobiphenyl	100	37 - 135

Analyzed by: NBocalan

Reviewed by: mtran

Detection Limit = Detection Limit for Reporting.

ND = Not Detected at or above the Detection Limit.

D/P-F = Dilution and/or Prep Factor includes sample volume adjustments.

Qual = Data Qualifier



Northern California

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 San Jose, CA 95119
 Attn: Scott Johns

Project Number: 7862.300.201
 Project Name: River Oaks Parkway
 Project Location: San Jose, CA

Certificate of Analysis - Data Report

Samples Received: 04/09/2008
 Sample Collected by: Client

Lab #: C0501-006 Sample ID: AG-6 Matrix: Solid Sample Date: 4/9/2008 8:55 AM

Metals by ICP: EPA 3050B / EPA 6010B

Parameter	Result	Qual	D/P-F	Detection Limit	Units	Prep Date	Prep Batch	Analysis Date	QC Batch
Arsenic	7.3		1.0	1.0	mg/Kg	4/14/2008	SM080414	4/15/2008	SM080414
Lead	19		1.0	1.0	mg/Kg	4/14/2008	SM080414	4/15/2008	SM080414

Analyzed by: CTran

Reviewed by: mfelix

Organochlorine Pesticides: EPA 3545A / EPA 8081A

Parameter	Result	Qual	D/P-F	Detection Limit	Units	Prep Date	Prep Batch	Analysis Date	QC Batch
Alpha-BHC	ND		1.0	0.050	mg/Kg	4/9/2008	PES080409B	4/12/2008	PES080409B
Gamma-BHC (Lindane)	ND		1.0	0.050	mg/Kg	4/9/2008	PES080409B	4/12/2008	PES080409B
Beta-BHC	ND		1.0	0.050	mg/Kg	4/9/2008	PES080409B	4/12/2008	PES080409B
Heptachlor	ND		1.0	0.050	mg/Kg	4/9/2008	PES080409B	4/12/2008	PES080409B
delta-BHC	ND		1.0	0.050	mg/Kg	4/9/2008	PES080409B	4/12/2008	PES080409B
Aldrin	ND		1.0	0.050	mg/Kg	4/9/2008	PES080409B	4/12/2008	PES080409B
Heptachlor Epoxide	ND		1.0	0.050	mg/Kg	4/9/2008	PES080409B	4/12/2008	PES080409B
Endosulfan I	ND		1.0	0.050	mg/Kg	4/9/2008	PES080409B	4/12/2008	PES080409B
4,4'-DDE	ND		1.0	0.050	mg/Kg	4/9/2008	PES080409B	4/12/2008	PES080409B
Dieldrin	ND		1.0	0.050	mg/Kg	4/9/2008	PES080409B	4/12/2008	PES080409B
Endrin	ND		1.0	0.050	mg/Kg	4/9/2008	PES080409B	4/12/2008	PES080409B
4,4'-DDD	ND		1.0	0.050	mg/Kg	4/9/2008	PES080409B	4/12/2008	PES080409B
Endosulfan II	ND		1.0	0.050	mg/Kg	4/9/2008	PES080409B	4/12/2008	PES080409B
4,4'-DDT	ND		1.0	0.050	mg/Kg	4/9/2008	PES080409B	4/12/2008	PES080409B
Endrin Aldehyde	ND		1.0	0.050	mg/Kg	4/9/2008	PES080409B	4/12/2008	PES080409B
Endosulfan Sulfate	ND		1.0	0.050	mg/Kg	4/9/2008	PES080409B	4/12/2008	PES080409B
Methoxychlor	ND		1.0	0.050	mg/Kg	4/9/2008	PES080409B	4/12/2008	PES080409B
Endrin Ketone	ND		1.0	0.050	mg/Kg	4/9/2008	PES080409B	4/12/2008	PES080409B
Toxaphene	ND		1.0	0.10	mg/Kg	4/9/2008	PES080409B	4/12/2008	PES080409B
Chlordane (technical)	ND		1.0	0.10	mg/Kg	4/9/2008	PES080409B	4/12/2008	PES080409B

Surrogate	Surrogate Recovery	Control Limits (%)
Decachlorobiphenyl	96.0	37 - 135

Analyzed by: NBocalan

Reviewed by: mtran

Detection Limit = Detection Limit for Reporting.

ND = Not Detected at or above the Detection Limit.

D/P-F = Dilution and/or Prep Factor includes sample volume adjustments.

Qual = Data Qualifier

4/17/2008 11:39:13 AM - mfelix



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Attn: Scott Johns

Project Number: 7862.300.201
Project Name: River Oaks Parkway
Project Location: San Jose, CA

Certificate of Analysis - Data Report

Samples Received: 04/09/2008
Sample Collected by: Client

Lab #: C0501-007 Sample ID: AG-7 Matrix: Solid Sample Date: 4/9/2008 10:50 AM

Metals by ICP: EPA 3050B / EPA 6010B

Parameter	Result	Qual	D/P-F	Detection Limit	Units	Prep Date	Prep Batch	Analysis Date	QC Batch
Arsenic	12		1.0	1.0	mg/Kg	4/14/2008	SM080414	4/15/2008	SM080414
Lead	23		1.0	1.0	mg/Kg	4/14/2008	SM080414	4/15/2008	SM080414

Analyzed by: CTran

Reviewed by: mfelix

Organochlorine Pesticides: EPA 3545A / EPA 8081A

Parameter	Result	Qual	D/P-F	Detection Limit	Units	Prep Date	Prep Batch	Analysis Date	QC Batch
Alpha-BHC	ND		1.0	0.050	mg/Kg	4/9/2008	PES080409B	4/12/2008	PES080409B
Gamma-BHC (Lindane)	ND		1.0	0.050	mg/Kg	4/9/2008	PES080409B	4/12/2008	PES080409B
Beta-BHC	ND		1.0	0.050	mg/Kg	4/9/2008	PES080409B	4/12/2008	PES080409B
Heptachlor	ND		1.0	0.050	mg/Kg	4/9/2008	PES080409B	4/12/2008	PES080409B
delta-BHC	ND		1.0	0.050	mg/Kg	4/9/2008	PES080409B	4/12/2008	PES080409B
Aldrin	ND		1.0	0.050	mg/Kg	4/9/2008	PES080409B	4/12/2008	PES080409B
Heptachlor Epoxide	ND		1.0	0.050	mg/Kg	4/9/2008	PES080409B	4/12/2008	PES080409B
Endosulfan I	ND		1.0	0.050	mg/Kg	4/9/2008	PES080409B	4/12/2008	PES080409B
4,4'-DDE	ND		1.0	0.050	mg/Kg	4/9/2008	PES080409B	4/12/2008	PES080409B
Dieldrin	ND		1.0	0.050	mg/Kg	4/9/2008	PES080409B	4/12/2008	PES080409B
Endrin	ND		1.0	0.050	mg/Kg	4/9/2008	PES080409B	4/12/2008	PES080409B
4,4'-DDD	ND		1.0	0.050	mg/Kg	4/9/2008	PES080409B	4/12/2008	PES080409B
Endosulfan II	ND		1.0	0.050	mg/Kg	4/9/2008	PES080409B	4/12/2008	PES080409B
4,4'-DDT	ND		1.0	0.050	mg/Kg	4/9/2008	PES080409B	4/12/2008	PES080409B
Endrin Aldehyde	ND		1.0	0.050	mg/Kg	4/9/2008	PES080409B	4/12/2008	PES080409B
Endosulfan Sulfate	ND		1.0	0.050	mg/Kg	4/9/2008	PES080409B	4/12/2008	PES080409B
Methoxychlor	ND		1.0	0.050	mg/Kg	4/9/2008	PES080409B	4/12/2008	PES080409B
Endrin Ketone	ND		1.0	0.050	mg/Kg	4/9/2008	PES080409B	4/12/2008	PES080409B
Toxaphene	ND		1.0	0.10	mg/Kg	4/9/2008	PES080409B	4/12/2008	PES080409B
Chlordane (technical)	ND		1.0	0.10	mg/Kg	4/9/2008	PES080409B	4/12/2008	PES080409B

Surrogate	Surrogate Recovery	Control Limits (%)
Decachlorobiphenyl	105	37 - 135

Analyzed by: NBocalan

Reviewed by: mtran

Detection Limit = Detection Limit for Reporting.

ND = Not Detected at or above the Detection Limit.

D/P-F = Dilution and/or Prep Factor includes sample volume adjustments.

Qual = Data Qualifier



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 Attn: Scott Johns

Project Number: 7862.300.201
 Project Name: River Oaks Parkway
 Project Location: San Jose, CA

Certificate of Analysis - Data Report

Samples Received: 04/09/2008
 Sample Collected by: Client

Lab #: C0501-008 Sample ID: AG-8 Matrix: Solid Sample Date: 4/9/2008 9:15 AM

Metals by ICP: EPA 3050B / EPA 6010B

Parameter	Result	Qual	D/P-F	Detection Limit	Units	Prep Date	Prep Batch	Analysis Date	QC Batch
Arsenic	3.1		1.0	1.0	mg/Kg	4/14/2008	SM080414	4/15/2008	SM080414
Lead	3.0		1.0	1.0	mg/Kg	4/14/2008	SM080414	4/15/2008	SM080414

Analyzed by: CTran

Reviewed by: mfelix

Organochlorine Pesticides: EPA 3545A / EPA 8081A

Parameter	Result	Qual	D/P-F	Detection Limit	Units	Prep Date	Prep Batch	Analysis Date	QC Batch
Alpha-BHC	ND		1.0	0.050	mg/Kg	4/9/2008	PES080409B	4/12/2008	PES080409B
Gamma-BHC (Lindane)	ND		1.0	0.050	mg/Kg	4/9/2008	PES080409B	4/12/2008	PES080409B
Beta-BHC	ND		1.0	0.050	mg/Kg	4/9/2008	PES080409B	4/12/2008	PES080409B
Heptachlor	ND		1.0	0.050	mg/Kg	4/9/2008	PES080409B	4/12/2008	PES080409B
delta-BHC	ND		1.0	0.050	mg/Kg	4/9/2008	PES080409B	4/12/2008	PES080409B
Aldrin	ND		1.0	0.050	mg/Kg	4/9/2008	PES080409B	4/12/2008	PES080409B
Heptachlor Epoxide	ND		1.0	0.050	mg/Kg	4/9/2008	PES080409B	4/12/2008	PES080409B
Endosulfan I	ND		1.0	0.050	mg/Kg	4/9/2008	PES080409B	4/12/2008	PES080409B
4,4'-DDE	ND		1.0	0.050	mg/Kg	4/9/2008	PES080409B	4/12/2008	PES080409B
Dieldrin	ND		1.0	0.050	mg/Kg	4/9/2008	PES080409B	4/12/2008	PES080409B
Endrin	ND		1.0	0.050	mg/Kg	4/9/2008	PES080409B	4/12/2008	PES080409B
4,4'-DDD	ND		1.0	0.050	mg/Kg	4/9/2008	PES080409B	4/12/2008	PES080409B
Endosulfan II	ND		1.0	0.050	mg/Kg	4/9/2008	PES080409B	4/12/2008	PES080409B
4,4'-DDT	ND		1.0	0.050	mg/Kg	4/9/2008	PES080409B	4/12/2008	PES080409B
Endrin Aldehyde	ND		1.0	0.050	mg/Kg	4/9/2008	PES080409B	4/12/2008	PES080409B
Endosulfan Sulfate	ND		1.0	0.050	mg/Kg	4/9/2008	PES080409B	4/12/2008	PES080409B
Methoxychlor	ND		1.0	0.050	mg/Kg	4/9/2008	PES080409B	4/12/2008	PES080409B
Endrin Ketone	ND		1.0	0.050	mg/Kg	4/9/2008	PES080409B	4/12/2008	PES080409B
Toxaphene	ND		1.0	0.10	mg/Kg	4/9/2008	PES080409B	4/12/2008	PES080409B
Chlordane (technical)	ND		1.0	0.10	mg/Kg	4/9/2008	PES080409B	4/12/2008	PES080409B

Surrogate	Surrogate Recovery	Control Limits (%)
Decachlorobiphenyl	97.6	37 - 135

Analyzed by: NBocalan

Reviewed by: mtran

Detection Limit = Detection Limit for Reporting.

ND = Not Detected at or above the Detection Limit.

D/P-F = Dilution and/or Prep Factor includes sample volume adjustments.

Qual = Data Qualifier



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Project Number: 7862.300.201
 Project Name: River Oaks Parkway
 Project Location: San Jose, CA

Certificate of Analysis - Data Report

Samples Received: 04/09/2008
 Sample Collected by: Client

Lab #: C0501-009 Sample ID: AG-9 Matrix: Solid Sample Date: 4/9/2008 9:40 AM

Metals by ICP: EPA 3050B / EPA 6010B

Parameter	Result	Qual	D/P-F	Detection Limit	Units	Prep Date	Prep Batch	Analysis Date	QC Batch
Arsenic	7.8		1.0	1.0	mg/Kg	4/14/2008	SM080414	4/15/2008	SM080414
Lead	16		1.0	1.0	mg/Kg	4/14/2008	SM080414	4/15/2008	SM080414

Analyzed by: CTran

Reviewed by: mfelix

Organochlorine Pesticides: EPA 3545A / EPA 8081A

Parameter	Result	Qual	D/P-F	Detection Limit	Units	Prep Date	Prep Batch	Analysis Date	QC Batch
Alpha-BHC	ND		1.0	0.050	mg/Kg	4/9/2008	PES080409B	4/12/2008	PES080409B
Gamma-BHC (Lindane)	ND		1.0	0.050	mg/Kg	4/9/2008	PES080409B	4/12/2008	PES080409B
Beta-BHC	ND		1.0	0.050	mg/Kg	4/9/2008	PES080409B	4/12/2008	PES080409B
Heptachlor	ND		1.0	0.050	mg/Kg	4/9/2008	PES080409B	4/12/2008	PES080409B
delta-BHC	ND		1.0	0.050	mg/Kg	4/9/2008	PES080409B	4/12/2008	PES080409B
Aldrin	ND		1.0	0.050	mg/Kg	4/9/2008	PES080409B	4/12/2008	PES080409B
Heptachlor Epoxide	ND		1.0	0.050	mg/Kg	4/9/2008	PES080409B	4/12/2008	PES080409B
Endosulfan I	ND		1.0	0.050	mg/Kg	4/9/2008	PES080409B	4/12/2008	PES080409B
4,4'-DDE	ND		1.0	0.050	mg/Kg	4/9/2008	PES080409B	4/12/2008	PES080409B
Dieldrin	ND		1.0	0.050	mg/Kg	4/9/2008	PES080409B	4/12/2008	PES080409B
Endrin	ND		1.0	0.050	mg/Kg	4/9/2008	PES080409B	4/12/2008	PES080409B
4,4'-DDD	ND		1.0	0.050	mg/Kg	4/9/2008	PES080409B	4/12/2008	PES080409B
Endosulfan II	ND		1.0	0.050	mg/Kg	4/9/2008	PES080409B	4/12/2008	PES080409B
4,4'-DDT	ND		1.0	0.050	mg/Kg	4/9/2008	PES080409B	4/12/2008	PES080409B
Endrin Aldehyde	ND		1.0	0.050	mg/Kg	4/9/2008	PES080409B	4/12/2008	PES080409B
Endosulfan Sulfate	ND		1.0	0.050	mg/Kg	4/9/2008	PES080409B	4/12/2008	PES080409B
Methoxychlor	ND		1.0	0.050	mg/Kg	4/9/2008	PES080409B	4/12/2008	PES080409B
Endrin Ketone	ND		1.0	0.050	mg/Kg	4/9/2008	PES080409B	4/12/2008	PES080409B
Toxaphene	ND		1.0	0.10	mg/Kg	4/9/2008	PES080409B	4/12/2008	PES080409B
Chlordane (technical)	ND		1.0	0.10	mg/Kg	4/9/2008	PES080409B	4/12/2008	PES080409B

Surrogate	Surrogate Recovery	Control Limits (%)
Decachlorobiphenyl	97.3	37 - 135

Analyzed by: NBocalan

Reviewed by: mtran

Detection Limit = Detection Limit for Reporting.

ND = Not Detected at or above the Detection Limit.

D/P-F = Dilution and/or Prep Factor includes sample volume adjustments.

Qual = Data Qualifier

4/17/2008 11:39:14 AM - mfelix



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Project Number: 7862.300.201
Project Name: River Oaks Parkway
Project Location: San Jose, CA

Certificate of Analysis - Data Report

Samples Received: 04/09/2008
Sample Collected by: Client

Lab #: C0501-010 Sample ID: AG-10 Matrix: Solid Sample Date: 4/9/2008 10:00 AM

Metals by ICP: EPA 3050B / EPA 6010B

Parameter	Result	Qual	D/P-F	Detection Limit	Units	Prep Date	Prep Batch	Analysis Date	QC Batch
Arsenic	4.2		1.0	1.0	mg/Kg	4/14/2008	SM080414	4/15/2008	SM080414
Lead	6.7		1.0	1.0	mg/Kg	4/14/2008	SM080414	4/15/2008	SM080414

Analyzed by: CTran
Reviewed by: mfelix

Organochlorine Pesticides: EPA 3545A / EPA 8081A

Parameter	Result	Qual	D/P-F	Detection Limit	Units	Prep Date	Prep Batch	Analysis Date	QC Batch
Alpha-BHC	ND		1.0	0.050	mg/Kg	4/9/2008	PES080409B	4/12/2008	PES080409B
Gamma-BHC (Lindane)	ND		1.0	0.050	mg/Kg	4/9/2008	PES080409B	4/12/2008	PES080409B
Beta-BHC	ND		1.0	0.050	mg/Kg	4/9/2008	PES080409B	4/12/2008	PES080409B
Heptachlor	ND		1.0	0.050	mg/Kg	4/9/2008	PES080409B	4/12/2008	PES080409B
delta-BHC	ND		1.0	0.050	mg/Kg	4/9/2008	PES080409B	4/12/2008	PES080409B
Aldrin	ND		1.0	0.050	mg/Kg	4/9/2008	PES080409B	4/12/2008	PES080409B
Heptachlor Epoxide	ND		1.0	0.050	mg/Kg	4/9/2008	PES080409B	4/12/2008	PES080409B
Endosulfan I	ND		1.0	0.050	mg/Kg	4/9/2008	PES080409B	4/12/2008	PES080409B
4,4'-DDE	ND		1.0	0.050	mg/Kg	4/9/2008	PES080409B	4/12/2008	PES080409B
Dieldrin	ND		1.0	0.050	mg/Kg	4/9/2008	PES080409B	4/12/2008	PES080409B
Endrin	ND		1.0	0.050	mg/Kg	4/9/2008	PES080409B	4/12/2008	PES080409B
4,4'-DDD	ND		1.0	0.050	mg/Kg	4/9/2008	PES080409B	4/12/2008	PES080409B
Endosulfan II	ND		1.0	0.050	mg/Kg	4/9/2008	PES080409B	4/12/2008	PES080409B
4,4'-DDT	ND		1.0	0.050	mg/Kg	4/9/2008	PES080409B	4/12/2008	PES080409B
Endrin Aldehyde	ND		1.0	0.050	mg/Kg	4/9/2008	PES080409B	4/12/2008	PES080409B
Endosulfan Sulfate	ND		1.0	0.050	mg/Kg	4/9/2008	PES080409B	4/12/2008	PES080409B
Methoxychlor	ND		1.0	0.050	mg/Kg	4/9/2008	PES080409B	4/12/2008	PES080409B
Endrin Ketone	ND		1.0	0.050	mg/Kg	4/9/2008	PES080409B	4/12/2008	PES080409B
Toxaphene	ND		1.0	0.10	mg/Kg	4/9/2008	PES080409B	4/12/2008	PES080409B
Chlordane (technical)	ND		1.0	0.10	mg/Kg	4/9/2008	PES080409B	4/12/2008	PES080409B

Surrogate Surrogate Recovery Control Limits (%)
Decachlorobiphenyl 96.7 37 - 135

Analyzed by: NBocalan
Reviewed by: mtran



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Project Number: 7862.300.201
 Project Name: River Oaks Parkway
 Project Location: San Jose, CA

Certificate of Analysis - Data Report

Samples Received: 04/09/2008
 Sample Collected by: Client

Lab #: C0501-011 Sample ID: AG-11 Matrix: Solid Sample Date: 4/9/2008 10:15 AM

Metals by ICP: EPA 3050B / EPA 6010B

Parameter	Result	Qual	D/P-F	Detection Limit	Units	Prep Date	Prep Batch	Analysis Date	QC Batch
Arsenic	11		1.0	1.0	mg/Kg	4/14/2008	SM080414	4/15/2008	SM080414
Lead	6.6		1.0	1.0	mg/Kg	4/14/2008	SM080414	4/15/2008	SM080414

Analyzed by: CTran
 Reviewed by: mlfelix

Organochlorine Pesticides: EPA 3545A / EPA 8081A

Parameter	Result	Qual	D/P-F	Detection Limit	Units	Prep Date	Prep Batch	Analysis Date	QC Batch
Alpha-BHC	ND		1.0	0.050	mg/Kg	4/9/2008	PES080409B	4/12/2008	PES080409B
Gamma-BHC (Lindane)	ND		1.0	0.050	mg/Kg	4/9/2008	PES080409B	4/12/2008	PES080409B
Beta-BHC	ND		1.0	0.050	mg/Kg	4/9/2008	PES080409B	4/12/2008	PES080409B
Heptachlor	ND		1.0	0.050	mg/Kg	4/9/2008	PES080409B	4/12/2008	PES080409B
delta-BHC	ND		1.0	0.050	mg/Kg	4/9/2008	PES080409B	4/12/2008	PES080409B
Aldrin	ND		1.0	0.050	mg/Kg	4/9/2008	PES080409B	4/12/2008	PES080409B
Heptachlor Epoxide	ND		1.0	0.050	mg/Kg	4/9/2008	PES080409B	4/12/2008	PES080409B
Endosulfan I	ND		1.0	0.050	mg/Kg	4/9/2008	PES080409B	4/12/2008	PES080409B
4,4'-DDE	ND		1.0	0.050	mg/Kg	4/9/2008	PES080409B	4/12/2008	PES080409B
Dieldrin	ND		1.0	0.050	mg/Kg	4/9/2008	PES080409B	4/12/2008	PES080409B
Endrin	ND		1.0	0.050	mg/Kg	4/9/2008	PES080409B	4/12/2008	PES080409B
4,4'-DDD	ND		1.0	0.050	mg/Kg	4/9/2008	PES080409B	4/12/2008	PES080409B
Endosulfan II	ND		1.0	0.050	mg/Kg	4/9/2008	PES080409B	4/12/2008	PES080409B
4,4'-DDT	ND		1.0	0.050	mg/Kg	4/9/2008	PES080409B	4/12/2008	PES080409B
Endrin Aldehyde	ND		1.0	0.050	mg/Kg	4/9/2008	PES080409B	4/12/2008	PES080409B
Endosulfan Sulfate	ND		1.0	0.050	mg/Kg	4/9/2008	PES080409B	4/12/2008	PES080409B
Methoxychlor	ND		1.0	0.050	mg/Kg	4/9/2008	PES080409B	4/12/2008	PES080409B
Endrin Ketone	ND		1.0	0.050	mg/Kg	4/9/2008	PES080409B	4/12/2008	PES080409B
Toxaphene	ND		1.0	0.10	mg/Kg	4/9/2008	PES080409B	4/12/2008	PES080409B
Chlordane (technical)	ND		1.0	0.10	mg/Kg	4/9/2008	PES080409B	4/12/2008	PES080409B

Surrogate	Surrogate Recovery	Control Limits (%)
Decachlorobiphenyl	101	37 - 135

Analyzed by: NBocalan
 Reviewed by: mtran

Detection Limit = Detection Limit for Reporting.

ND = Not Detected at or above the Detection Limit.

D/P-F = Dilution and/or Prep Factor includes sample volume adjustments.

Qual = Data Qualifier

4/17/2008 11:39:14 AM - mlfelix



Northern California

3334 Victor Court, Santa Clara, CA 95054

Phone: (408) 588-0200

Fax: (408) 588-0201

Engeo, Inc.-SJ
 6399 San Ignacio Ave, Suite 150
 San Jose, CA 95119
 Attn: Scott Johns

Project Number: 7862.300.201
 Project Name: River Oaks Parkway
 Project Location: San Jose, CA

Certificate of Analysis - Data Report

Samples Received: 04/09/2008
 Sample Collected by: Client

Lab #: C0501-012 Sample ID: AG-12 Matrix: Solid Sample Date: 4/9/2008 10:30 AM

Metals by ICP: EPA 3050B / EPA 6010B

Parameter	Result	Qual	D/P-F	Detection Limit	Units	Prep Date	Prep Batch	Analysis Date	QC Batch
Arsenic	17		1.0	1.0	mg/Kg	4/14/2008	SM080414	4/15/2008	SM080414
Lead	9.1		1.0	1.0	mg/Kg	4/14/2008	SM080414	4/15/2008	SM080414

Analyzed by: CTran
 Reviewed by: mfelix

Organochlorine Pesticides: EPA 3545A / EPA 8081A

Parameter	Result	Qual	D/P-F	Detection Limit	Units	Prep Date	Prep Batch	Analysis Date	QC Batch
Alpha-BHC	ND		1.0	0.050	mg/Kg	4/9/2008	PES080409B	4/12/2008	PES080409B
Gamma-BHC (Lindane)	ND		1.0	0.050	mg/Kg	4/9/2008	PES080409B	4/12/2008	PES080409B
Beta-BHC	ND		1.0	0.050	mg/Kg	4/9/2008	PES080409B	4/12/2008	PES080409B
Heptachlor	ND		1.0	0.050	mg/Kg	4/9/2008	PES080409B	4/12/2008	PES080409B
delta-BHC	ND		1.0	0.050	mg/Kg	4/9/2008	PES080409B	4/12/2008	PES080409B
Aldrin	ND		1.0	0.050	mg/Kg	4/9/2008	PES080409B	4/12/2008	PES080409B
Heptachlor Epoxide	ND		1.0	0.050	mg/Kg	4/9/2008	PES080409B	4/12/2008	PES080409B
Endosulfan I	ND		1.0	0.050	mg/Kg	4/9/2008	PES080409B	4/12/2008	PES080409B
4,4'-DDE	ND		1.0	0.050	mg/Kg	4/9/2008	PES080409B	4/12/2008	PES080409B
Dieldrin	ND		1.0	0.050	mg/Kg	4/9/2008	PES080409B	4/12/2008	PES080409B
Endrin	ND		1.0	0.050	mg/Kg	4/9/2008	PES080409B	4/12/2008	PES080409B
4,4'-DDD	ND		1.0	0.050	mg/Kg	4/9/2008	PES080409B	4/12/2008	PES080409B
Endosulfan II	ND		1.0	0.050	mg/Kg	4/9/2008	PES080409B	4/12/2008	PES080409B
4,4'-DDT	ND		1.0	0.050	mg/Kg	4/9/2008	PES080409B	4/12/2008	PES080409B
Endrin Aldehyde	ND		1.0	0.050	mg/Kg	4/9/2008	PES080409B	4/12/2008	PES080409B
Endosulfan Sulfate	ND		1.0	0.050	mg/Kg	4/9/2008	PES080409B	4/12/2008	PES080409B
Methoxychlor	ND		1.0	0.050	mg/Kg	4/9/2008	PES080409B	4/12/2008	PES080409B
Endrin Ketone	ND		1.0	0.050	mg/Kg	4/9/2008	PES080409B	4/12/2008	PES080409B
Toxaphene	ND		1.0	0.10	mg/Kg	4/9/2008	PES080409B	4/12/2008	PES080409B
Chlordane (technical)	ND		1.0	0.10	mg/Kg	4/9/2008	PES080409B	4/12/2008	PES080409B

Surrogate	Surrogate Recovery	Control Limits (%)
Decachlorobiphenyl	90.6	37 - 135

Analyzed by: NBocalan
 Reviewed by: mtran

Detection Limit = Detection Limit for Reporting.

ND = Not Detected at or above the Detection Limit.

D/P-F = Dilution and/or Prep Factor includes sample volume adjustments.

Qual = Data Qualifier



Northern California 3334 Victor Court, Santa Clara, CA 95054 Phone: (408) 588-0200 Fax: (408) 588-0201

Method Blank - Solid - Organochlorine Pesticides: EPA 3545A / EPA 8081A

QC/Prep Batch ID: PES080409B

Validated by: mtran - 04/11/08

QC/Prep Date: 4/9/2008

Parameter	Result	DF	PQLR	Units
4,4'-DDD	ND	1	0.050	mg/Kg
4,4'-DDE	ND	1	0.050	mg/Kg
4,4'-DDT	ND	1	0.050	mg/Kg
Aldrin	ND	1	0.050	mg/Kg
Alpha-BHC	ND	1	0.050	mg/Kg
Beta-BHC	ND	1	0.050	mg/Kg
Chlordane (technical)	ND	1	0.10	mg/Kg
delta-BHC	ND	1	0.050	mg/Kg
Dieldrin	ND	1	0.050	mg/Kg
Endosulfan I	ND	1	0.050	mg/Kg
Endosulfan II	ND	1	0.050	mg/Kg
Endosulfan Sulfate	ND	1	0.050	mg/Kg
Endrin	ND	1	0.050	mg/Kg
Endrin Aldehyde	ND	1	0.050	mg/Kg
Endrin Ketone	ND	1	0.050	mg/Kg
Gamma-BHC (Lindane)	ND	1	0.050	mg/Kg
Heptachlor	ND	1	0.050	mg/Kg
Heptachlor Epoxide	ND	1	0.050	mg/Kg
Methoxychlor	ND	1	0.050	mg/Kg
Toxaphene	ND	1	0.10	mg/Kg
Surrogate for Blank	% Recovery	Control Limits		
Decachlorobiphenyl	105	37 - 135		



Northern California 3334 Victor Court, Santa Clara, CA 95054 Phone: (408) 588-0200 Fax: (408) 588-0201

LCS / LCSD - Solid - Organochlorine Pesticides: EPA 3545A / EPA 8081A

QC Batch ID: PES080409B

Reviewed by: mtran - 04/11/08

QC/Prep Date: 4/9/2008

LCS

Parameter	Method Blank	Spike Amt	SpikeResult	Units	% Recovery	Recovery Limits
4,4'-DDT	<0.050	0.10	0.105	mg/Kg	105	40 - 140
Aldrin	<0.050	0.10	0.101	mg/Kg	101	40 - 140
Dieldrin	<0.050	0.10	0.100	mg/Kg	100	40 - 145
Endrin	<0.050	0.10	0.103	mg/Kg	103	40 - 145
Gamma-BHC (Lindane)	<0.050	0.10	0.102	mg/Kg	102	40 - 140
Heptachlor	<0.050	0.10	0.0989	mg/Kg	98.9	40 - 140

Surrogate	% Recovery	Control Limits
Decachlorobiphenyl	108.0	37 - 135

LCSD

Parameter	Method Blank	Spike Amt	SpikeResult	Units	% Recovery	RPD	RPD Limits	Recovery Limits
4,4'-DDT	<0.050	0.10	0.0998	mg/Kg	99.8	4.8	40.0	40 - 140
Aldrin	<0.050	0.10	0.0962	mg/Kg	96.2	4.8	40.0	40 - 140
Dieldrin	<0.050	0.10	0.0950	mg/Kg	95.0	5.3	40.0	40 - 145
Endrin	<0.050	0.10	0.0958	mg/Kg	95.8	6.9	40.0	40 - 145
Gamma-BHC (Lindane)	<0.050	0.10	0.0980	mg/Kg	98.0	4.5	40.0	40 - 140
Heptachlor	<0.050	0.10	0.0955	mg/Kg	95.5	3.5	40.0	40 - 140

Surrogate	% Recovery	Control Limits
Decachlorobiphenyl	104.0	37 - 135



Northern California 3334 Victor Court, Santa Clara, CA 95054 Phone: (408) 588-0200 Fax: (408) 588-0201

LCS / LCSD - Solid - Metals by ICP: EPA 3050B / EPA 6010B

QC Batch ID: SM080414

QC/Prep Date: 4/14/2008

LCS

Parameter	Method Blank	Spike Amt	SpikeResult	Units	% Recovery	Recovery Limits
Aluminum	<1.0	50	0	mg/Kg	97.0	70 - 130
Antimony	<1.0	50	48.9	mg/Kg	97.8	70 - 130
Arsenic	<1.0	50	47.5	mg/Kg	95.1	70 - 130
Barium	<1.0	50	51.7	mg/Kg	103	70 - 130
Beryllium	<1.0	50	48.7	mg/Kg	97.4	70 - 130
Cadmium	<1.0	50	47.6	mg/Kg	95.1	70 - 130
Chromium	<1.0	50	50.8	mg/Kg	102	70 - 130
Cobalt	<1.0	50	49.9	mg/Kg	99.7	70 - 130
Copper	<1.0	50	49.3	mg/Kg	98.5	70 - 130
Lead	<1.0	50	49.4	mg/Kg	98.8	70 - 130
Molybdenum	<1.0	50	50.6	mg/Kg	101	70 - 130
Nickel	<1.0	50	49.9	mg/Kg	99.7	70 - 130
Selenium	<2.0	50	44.6	mg/Kg	89.1	70 - 130
Silver	<1.0	50	49.5	mg/Kg	99.0	70 - 130
Thallium	<2.0	50	47.3	mg/Kg	94.6	70 - 130
Vanadium	<1.0	50	50.1	mg/Kg	100	70 - 130
Zinc	<2.0	50	47.9	mg/Kg	95.8	70 - 130

LCSD

Parameter	Method Blank	Spike Amt	SpikeResult	Units	% Recovery	RPD	RPD Limits	Recovery Limits
Antimony	<1.0	50	48.5	mg/Kg	97.0	0.81	30.0	70 - 130
Arsenic	<1.0	50	47.9	mg/Kg	95.9	0.83	30.0	70 - 130
Barium	<1.0	50	50.8	mg/Kg	102	1.6	30.0	70 - 130
Beryllium	<1.0	50	49.9	mg/Kg	99.7	2.4	30.0	70 - 130
Cadmium	<1.0	50	49.0	mg/Kg	98.0	2.9	30.0	70 - 130
Chromium	<1.0	50	52.3	mg/Kg	105	2.7	30.0	70 - 130
Cobalt	<1.0	50	51.3	mg/Kg	103	2.8	30.0	70 - 130
Copper	<1.0	50	50.6	mg/Kg	101	2.6	30.0	70 - 130
Lead	<1.0	50	49.4	mg/Kg	98.8	0.016	30.0	70 - 130
Molybdenum	<1.0	50	50.8	mg/Kg	102	0.29	30.0	70 - 130
Nickel	<1.0	50	51.2	mg/Kg	102	2.6	30.0	70 - 130
Selenium	<2.0	50	43.6	mg/Kg	87.2	2.2	30.0	70 - 130
Silver	<1.0	50	50.5	mg/Kg	101	2.1	30.0	70 - 130
Thallium	<2.0	50	47.8	mg/Kg	95.6	1.1	30.0	70 - 130
Vanadium	<1.0	50	51.4	mg/Kg	103	2.6	30.0	70 - 130
Zinc	<2.0	50	49.4	mg/Kg	98.7	3.0	30.0	70 - 130



Northern California 3334 Victor Court, Santa Clara, CA 95054 Phone: (408) 588-0200 Fax: (408) 588-0201

MS / MSD - Solid - Organochlorine Pesticides: EPA 3545A / EPA 8081A

QC/Prep Batch ID: PES080409B

Reviewed by: mtran - 04/15/08

QC/Prep Date: 4/9/2008

MS Sample Spiked: C0501-001

Parameter	Sample Result	DF	Spike Amount	Spike Result	Units	Analysis Date	% Recovery	Recovery Limits
4,4'-DDT	0.0195	1	0.10	0.120	mg/Kg	4/10/2008	101	40 - 140
Aldrin	ND	1	0.10	0.0911	mg/Kg	4/10/2008	91.1	40 - 140
Dieldrin	ND	1	0.10	0.0984	mg/Kg	4/10/2008	98.4	40 - 145
Endrin	ND	1	0.10	0.0965	mg/Kg	4/10/2008	96.5	40 - 145
Gamma-BHC (Lindane)	ND	1	0.10	0.0923	mg/Kg	4/10/2008	92.3	40 - 140
Heptachlor	ND	1	0.10	0.0898	mg/Kg	4/10/2008	89.8	40 - 140

Surrogate	% Recovery	Control Limits
Decachlorobiphenyl	97.5	37 - 135

MSD Sample Spiked: C0501-001

Parameter	Sample Result	DF	Spike Amount	Spike Result	Units	Analysis Date	% Recovery	RPD	RPD Limits	Recovery Limits
4,4'-DDT	0.0195	1	0.10	0.126	mg/Kg	4/10/2008	106	4.2	40.0	40 - 140
Aldrin	ND	1	0.10	0.0970	mg/Kg	4/10/2008	97.0	6.3	40.0	40 - 140
Dieldrin	ND	1	0.10	0.102	mg/Kg	4/10/2008	102	3.4	40.0	40 - 145
Endrin	ND	1	0.10	0.100	mg/Kg	4/10/2008	100	3.6	40.0	40 - 145
Gamma-BHC (Lindane)	ND	1	0.10	0.0987	mg/Kg	4/10/2008	98.7	6.7	40.0	40 - 140
Heptachlor	ND	1	0.10	0.0951	mg/Kg	4/10/2008	95.1	5.7	40.0	40 - 140

Surrogate	% Recovery	Control Limits
Decachlorobiphenyl	100.0	37 - 135

CHAIN OF CUSTODY RECORD

PROJECT NUMBER: 7862-300-201		PROJECT NAME: River Oaks Parkway, San Jose		Organochlorine Pesticides (EPA 8081A0)		Lead		Arsenic		REMARKS REQUIRED DETECTION LIMITS													
SAMPLED BY: (SIGNATURE/PRINT) <i>Scott Johns / Scott Johns</i>		PROJECT MANAGER: Scott Johns		ROUTING: E-MAIL: sjohns@engco.com		Hard Copy		Scott Johns		C0501													
SAMPLE NUMBER	DATE	TIME	MATRIX	NUMBER OF CONTAINERS	CONTAINER SIZE	PRESERVATIVE	AG-1	AG-2	AG-3	AG-4	AG-5	AG-6	AG-7	AG-8	AG-9	AG-10	AG-11	AG-12	RELINQUISHED BY: (SIGNATURE)	DATE/TIME	RECEIVED BY: (SIGNATURE)	DATE/TIME	
AG-1	4/09/08	12:25	Soil	1	2x6 Liner	Ice	X	X	X	X	X	X	X	X	X	X	X	X					
AG-2		12:05	Soil	1	2x6 Liner	Ice	X	X	X	X	X	X	X	X	X	X	X	X					
AG-3		11:45	Soil	1	2x6 Liner	Ice	X	X	X	X	X	X	X	X	X	X	X	X					
AG-4		11:20	Soil	1	2x6 Liner	Ice	X	X	X	X	X	X	X	X	X	X	X	X					
AG-5		8:30	Soil	1	2x6 Liner	Ice	X	X	X	X	X	X	X	X	X	X	X	X					
AG-6		8:55	Soil	1	2x6 Liner	Ice	X	X	X	X	X	X	X	X	X	X	X	X					
AG-7		10:50	Soil	1	2x6 Liner	Ice	X	X	X	X	X	X	X	X	X	X	X	X					
AG-8		9:35	Soil	1	2x6 Liner	Ice	X	X	X	X	X	X	X	X	X	X	X	X					
AG-9		9:40	Soil	1	2x6 Liner	Ice	X	X	X	X	X	X	X	X	X	X	X	X					
AG-10		10:00	Soil	1	2x6 Liner	Ice	X	X	X	X	X	X	X	X	X	X	X	X					
AG-11		10:15	Soil	1	2x6 Liner	Ice	X	X	X	X	X	X	X	X	X	X	X	X					
AG-12		10:30	Soil	1	2x6 Liner	Ice	X	X	X	X	X	X	X	X	X	X	X	X					
12 (2"X6")			Stainless Steel		Liners																		
Revid @ 5.5°C																							
RELINQUISHED BY: (SIGNATURE) <i>Scott Johns</i>		DATE/TIME 4/09/08 13:10		RECEIVED BY: (SIGNATURE) <i>Scott Johns</i>		DATE/TIME 4/09/08 13:10		RECEIVED BY: (SIGNATURE) <i>Scott Johns</i>		DATE/TIME		RECEIVED BY: (SIGNATURE)		DATE/TIME		RECEIVED BY: (SIGNATURE)		DATE/TIME		RECEIVED BY: (SIGNATURE)		DATE/TIME	

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SUITE 26
SAN JOSE, CA 95125

Acoustical Consultants

TEL: 408-371-1195
FAX: 408-371-1196
www.packassociates.com

June 11, 2008
Project No 40-025

Mr. Kevin Ma
BRE Properties, Inc.
525 Market Street
4th Floor
San Francisco, CA 94105

Subject: Noise Assessment Study for the Planned Multi-Family Development,
River Oaks Parkway, San Jose

Dear Mr. Ma:

This report presents the results of a noise assessment study for the planned multi-family development along River Oaks Parkway in San Jose, as shown on the General Development Plans, Ref. (a). The noise exposures at the site were evaluated against the standards of the City of San Jose Noise Element, Ref. (b), and the State of California Code of Regulations, Title 24, Ref. (c). The analysis of the on-site sound level measurements indicates that the existing noise environment is due primarily to vehicular traffic sources on River Oaks Parkway with a minor contribution from traffic sources on Zanker Road at the westerly end of the site. The results of the study indicate that interior noise exposure excesses will occur and mitigation measures will be required. Mitigation for exterior areas, beyond the planned Podium barrier, will not be required.

Sections I and II of this report contain a summary of our findings and recommendations, respectively. Subsequent sections contain the site, traffic, and project descriptions, analyses, and evaluations. Attached hereto are Appendices A, B, and C, which include the list of references, descriptions of the applicable standards, definitions of terminology, descriptions of the acoustical instrumentation used for the field survey, ventilation requirements, general building shell controls, and the on-site noise measurement data and calculation tables.

I. Summary of Findings

The noise assessment results presented in the findings were evaluated against the standards of the City of San Jose Noise Element, which utilizes the Day-Night Level (DNL) descriptor. The Noise Element standards specify an exterior limit of 60 dB DNL for residential land use impacted by transportation related noise sources. A limit of 45 dB DNL is specified for interior living spaces. The City of San Jose Noise Element also contains wording that states that some development sites in the Downtown Core Area, in the vicinity of San Jose International Airport and along major roadways are exposed to noise levels that may not be able to meet the noise standards in the time frame of the General Plan.

It is our understanding that noise controls for individual balconies will be waived if the noise environment in the Podium swimming pool/common area can achieve City of San Jose noise standard compliance.

The Title 24 standards also use the DNL descriptor and specify that when the exterior noise exposures exceed 60 dB DNL at planned dwelling units, an acoustical analysis must be performed to limit interior noise exposures to 45 dB DNL or less.

The Title 24 standards also specify minimum sound insulation ratings for common partitions separating different dwelling units and dwelling units from interior common spaces. The standards specify that common walls and floor/ceiling assemblies must have a design Sound Transmission Class (STC) rating of 50 or higher. As design details for the interior partitions of the project were not available at the time of this study, an evaluation of the interior partitions has not been made.

The noise levels shown below are without the application of mitigation measures and represent the noise environment for existing and project site conditions. A 42" high acoustically-effective barrier is planned for the edge of the Podium deck (common area). The noise exposures reported in this study include the sound attenuation provided by this barrier.

TABLE I			
Exterior Noise Exposures at the Minimum Building Setbacks, dB DNL			
River Oaks Pkwy. @ 50 ft.	Existing	Future	Title 24 Eval.
Ground	63	66	+6 dB
Podium	64	67	+7 dB
Third Floor	65	68	+8 dB
Fourth Floor	65	68	+8 dB
Fifth Floor	64	67	+7 dB
Zanker Rd. @ 270 ft. & River Oaks Pkwy @ 72 ft.	Existing	Future	Title 24 Eval.
Ground	57 Zanker Rd. 61 ROP 62 Total	60 Zanker Rd. 64 ROP 65 Total	+5 dB
Podium	57 Zanker Rd. 62 ROP 63 Total	60 Zanker Rd. 65 ROP 66 Total	+6 dB
Third Floor	57 Zanker Rd. 63 ROP 64 Total	60 Zanker Rd. 66 ROP 67 Total	+7 dB
Fourth Floor	57 Zanker Rd. 63 ROP 64 Total	60 Zanker Rd. 66 ROP 67 Total	+7 dB
Fifth Floor	57 Zanker Rd. 62 ROP 63 Total	60 Zanker Rd. 65 ROP 66 Total	+6 dB

As shown in Table I, the exterior noise exposures at the planned building setbacks along River Oaks Parkway will be up to 8 dB in excess of the 60 dB DNL criterion of Title 24. The exterior noise exposures at the west end of the will be up to 7 dB in excess of the Title 24 criterion. At the westerly end of the project, Zanker Road traffic will be up to 60 dB DNL and by itself will not impact the project, however, it will add 1 decibel to the traffic noise exposure generated by River Oaks Parkway. Note that at the west end of the site, the building setback from River Oaks Parkway is greater (-1 dB) compared to the easterly end of the site.

Table II, below, provides the noise exposures at the Podium swimming pool area with and without the planned noise control barrier/railing (for informational purposes).

TABLE II					
Exterior Noise Exposures at Swimming Pool, dB DNL					
Receptor Position	Distance from Podium Edge	Existing		Future	
		w/Barrier	w/o Barrier	w/Barrier	w/o Barrier
Lying Down	10 ft.	54	58	57	61
Lying Down	50 ft.	46	47	49	50
Seated	10 ft.	57	63	60	66 **
Seated	50 ft.	46	48	49	51
** 65 dB DNL occurs when a person is seated at 20 ft. from the Podium edge					

The data in Table II reveal that with the inclusion of the planned noise control barrier (solid railing), the noise exposures throughout the swimming pool common area will be with the 60 dB DNL limit of the City of San Jose Noise Element standards.

As the noise exposures exceed the 60 dB DNL criterion of Title 24, an acoustical analysis is required by the State Building Code. This study is intended to satisfy that requirement.

B. Interior Noise Exposures

- The interior noise exposures in the most impacted dwelling units closest to River Oaks Parkway will be up to 50 and 53 dB DNL under existing and future conditions, respectively. Thus, the interior noise exposures will exceed the 45 dB DNL interior limit of the City of San Jose and Title 24 standards by up to 8 dB.

As shown above, exterior and interior noise exposure excesses will occur. Mitigation measures will be required. The recommended measures are described in Section II, below.

II. Recommendations

A. Interior Noise Controls

To achieve compliance with the 45 dB DNL standards of the City of San Jose Noise Element and Title 24, the following window controls will be required. In addition, general construction measures affecting the building shell are also recommended, as described in Appendix B.

- Maintain closed at all times all windows and glass doors of living spaces within 140 ft. of the centerline of River Oaks Parkway and with a direct or side view of the road. Install windows and glass door rated minimum Sound Transmission Class (STC) 28 at these spaces. Provide some type of mechanical ventilation.

When windows are kept closed for noise control, they are to be operable, as the requirement does not imply a “fixed” condition. In addition, some form of mechanical ventilation which brings in fresh air from the outside of the unit must be provided. Ventilation requirements specified in the Uniform Building Code are shown in Appendix B. All other windows of the development and all bathroom windows may use any type of glazing and may be kept open as desired.

In addition to the required STC ratings, the windows and glass doors shall be installed in an acoustically-effective manner. To achieve an acoustically-effective window and glass door construction, the sliding window and glass door panels must form an air-tight seal when in the closed position and the window and glass door frames must be caulked to the wall opening around their entire perimeter with a non-hardening caulking compound to prevent sound infiltration.

Please be aware that many dual-pane window and glass door assemblies have inherent noise reduction problems in the traffic noise frequency spectrum due to resonance that occurs within the air space between the glass lites, and the noise reduction capabilities vary from manufacturer to manufacturer. Therefore, the acoustical test report of all sound rated windows and glass doors should be reviewed by a qualified acoustician to ensure that the chosen windows and glass doors will adequately reduce traffic noise to acceptable levels.

The implementation of the above recommended measures will reduce excess noise exposures for achieve compliance with the 45 dB DNL interior standards of the City of San Jose Noise Element and Title 24.

III. Site, Traffic and Project Descriptions

The proposed development site is located along River Oaks Parkway just east of Zanker Road in San Jose and presently contains a two story office building. Surrounding land uses include Agnews Development Center adjacent to the north, a two-story office building adjacent to the east, the presently vacant Sony site across River Oaks Parkway to the south (slated for residential development) and agricultural use across Zanker Road to the west. The site is relatively flat and approximately 2 ft. above the grade of River Oaks Parkway.

The primary source of noise at the site is traffic on River Oaks Parkway, which carries an existing Average Daily Traffic (ADT) volume of 7,500 vehicles. Zanker Road traffic is a minor secondary source of noise and carries an existing ADT of 17,500, as reported by the City of San Jose, Ref. (d).

The planned development includes the construction of a multi-family project with four floors of residential uses on a podium. Both residential and parking will be located below the podium on the ground floor. A common area with a swimming pool will be located at the southeasterly corner of the project on the podium level, which will be 20 ft. above the elevation of River Oaks Parkway. Ingress and egress to the development will be by way of a driveway off of River Oaks Parkway.

IV. Analysis of the Noise Levels

A. Existing Noise Levels

To determine the existing noise environment at the site, continuous recordings of the sound levels were made at two locations. Location 1 was 50 ft. from the centerline of River Oaks Parkway near the easterly corner of the site where traffic noise from Zanker Road did not influence the noise data. This location also represents the planned minimum building setback from River Oaks Parkway. Location 2 was 86 ft. from the centerline of River Oaks Parkway and 235 ft. from the centerline of Zanker Road near the easterly "point" of the site. This location was chosen for security of the sound measuring instrument. The measurements were made on June 2-3, 2008 for a continuous period of 24 hours at each and included representative hours of the DNL index. The noise levels were recorded and processed using Larson-Davis Model 812 Precision Integrating Sound Level Meters. The meters yield, by direct readout, a series of descriptors of the sound levels versus time, which are commonly used to describe community noise, as described in Appendix B. The measured descriptors include the L_1 , L_{10} , L_{50} , and L_{90} , i.e., those levels exceeded 1%, 10%, 50% and 90% of the time. Also measured were the maximum and minimum levels and the equivalent-energy levels (L_{eq}), which are used to calculate the DNL. The results of the measurements are shown in the data tables in Appendix C.

The results of the field survey reveal that the L_{eq} 's at 50 ft. from the centerline of River Oaks Parkway ranged from 57.4 to 65.3 dBA during the daytime and from 44.7 to 58.3 dBA at night. The L_{eq} 's at 86 ft. from the centerline of River Oaks Parkway and 235 ft. from Zanker Road ranged from 49.9 to 63.5 dBA during the daytime and from 42.2 to 55.1 dBA at night.

Traffic noise dissipates at the rate of 3 to 6 dB for each doubling of the distance from the source (centerline of the roadway). Thus, locations on the site at greater distances from River Oaks Parkway or Zanker Road will have lower noise levels.

Vehicular traffic noise and aircraft noise contain wide spectra of frequency components (from 100 to 10,000 Hertz), which are associated with engine, tire, drive-train, exhaust and other sources. The frequency components are centered primarily in the 250, 500 Hz octave bands and were used in determining the noise control measures recommended for this project.

B. Future Noise Levels

The future traffic volume on River Oaks Parkway is predicted to increase from the existing 7,500 ADT to 15,000 ADT for future year 2030, as reported by the City of San Jose, Ref. (d). This traffic volume increase reflects a 3 dB increase in the traffic noise levels. The future traffic volume on Zanker Road is predicted to increase from the existing 17,500 ADT to 37,500 ADT for future year 2030. This traffic volume increase reflects a 3 dB increase in the traffic noise levels.

V. Evaluation of the Noise Exposures

A. Exterior Noise Exposures

To evaluate the on-site noise levels against the City of San Jose standards and the Title 24 criterion, the DNL's for the survey locations were calculated by decibel averaging of the L_{eq} 's as they apply to the daily time periods of the DNL index. The DNL is a 24-hour noise descriptor that uses the measured L_{eq} values to calculate a 24-hour time-weighted average noise exposure. Adjustments were made to the measured noise levels to account for differences in building setback and receptor locations from the measurement location using methods established by the Highway Research Board, Ref. (e). The formula used to calculate the DNL is described in Appendix B. The results of the calculations indicate that the exterior noise exposure at measurement Location 1, 50 ft. from the centerline of River Oaks Parkway, is 63 dB DNL.

At the minimum planned building setback, the existing noise exposures were calculated to be 63, 64, 65, 65 and 64 dB DNL at ground level, Podium level, 3rd floor, 4th floor and 5th floor elevations, respectively. Under future traffic conditions, the noise exposures are expected to increase by 3 dB to 66, 67, 68, 68 and 67 dB DNL at ground level, Podium level, 3rd floor, 4th floor and 5th floor elevations, respectively. Thus, the noise exposures will be up to 8 dB in excess of the Title 24 criterion.

The existing noise exposure in the Podium common area will range from 46 dB DNL to 54 dB DNL for a person lying down (typical around a swimming pool). Under future traffic conditions, the noise exposures are expected to increase by 3 dB to 49 to 57 dB DNL. For a person seated in a chair on the Podium level, the noise exposures were calculated to be 46 to 57 dB DNL under existing conditions and 49 to 60 dB DNL under future traffic conditions. The above noise exposures include the noise reduction provided by the planned 42" high solid (air-tight) railing at the edge of the Podium common area. Also included was an additional 3 dB factor due to sound reflection off the building for locations closer to the building. Thus, the noise exposures will be within the limits of the City of San Jose Noise Element standards.

The noise exposure at measurement Location 2, 86 ft. from the centerline of River Oaks Parkway and 235 ft. from the centerline of Zanker Road, was calculated to be 60 dB DNL. Of this 60 dB, 56 dB is due to River Oaks Parkway traffic and 58 dB is due to Zanker Road traffic. At the minimum planned building setback from River Oaks Parkway (72 ft.) and from Zanker Road (270 ft.), the existing noise exposures were calculated to be 61 dB DNL from River Oaks Parkway and 57 dB DNL from Zanker Road. The combined noise exposure is 62 dB DNL at the ground floor elevation, 63 dB DNL at the Podium level, 64 dB DNL at the 3rd floor and 4th floor and 63 dB DNL at the 5th floor. Under future traffic conditions, the noise exposures were calculated to be 65, 66, 67, 67 and 66 dB DNL at ground level, Podium level, 3rd floor, 4th floor and 5th floor elevations, respectively. Note that due to the distance to Zanker Road, Zanker Road traffic noise does not increase with floor elevation (up to the 4th floor) as does River Oaks Parkway.

B. Interior Noise Exposures

To evaluate the interior noise exposures in project living spaces, a 15 dB reduction was applied to the exterior noise exposures to represent the attenuation provided by the building shell under *annual-average* conditions. The *annual-average* condition assumes that windows have single-pane, single-strength (3/32") glass and are kept open up to 50 % of the time for ventilation.

The interior noise exposures in the most impacted living spaces closest to River Oaks Parkway will be 48, 49, 50, 50 and 49 dB DNL at ground level, Podium level, 3rd floor, 4th floor and 5th floor elevations, respectively, under existing traffic conditions. Under future traffic conditions, the noise exposures are expected to increase to 51, 52, 53, 53 and 52 dB DNL at ground level, Podium level, 3rd floor, 4th floor and 5th floor elevations, respectively. Thus, the interior noise exposures will be up to 8 dB in excess of the City of San Jose Noise Element and Title 24 standards.

As shown by the above evaluations, the interior noise exposures excesses will occur and mitigation measures will be required. The recommended mitigation measures are in described in Section II of this report.

This report presents the results of a noise assessment study for the planned multi-family development along River Oaks Parkway in San Jose. The study findings and recommendations for present conditions are based on field measurements and other data and are correct to the best of our knowledge. Future noise level predictions were based upon information provided by the City of San Jose. Significant changes in River Oaks Parkway or Zanker Road traffic volumes, changes in speed limits, motor vehicle technology, noise regulations, or other changes beyond our control may produce long range noise results different from our estimates.

If you need any additional information or would like an elaboration on this report, please call me.

Sincerely,

EDWARD L. PACK ASSOC., INC.

A handwritten signature in black ink, appearing to read "Jeffrey K. Pack", is written over a horizontal line.

Jeffrey K. Pack
President

Attachments: Appendices A, B, and C

APPENDIX A

References

- (a) General Development Plans, by Thomas P. Cox Architects, May 1, 2008
- (b) San Jose 2020 General Plan, Focus on the Future, City of San Jose, Department of City Planning and Building, August 16, 1994
- (c) California Code of Regulations, Title 24, Part II, "Sound Transmission Control", Revised 1989
- (d) Information on Existing and Future Traffic Volumes Provided by Mr. Casey Hirasaki, City of San Jose Transportation Planning, by Transmittal to Edward L. Pack Associates, Inc., March 14, 2007
- (e) Highway Research Board, "Highway Noise – A Design Guide for Highway Engineers", Report 117, 1971

APPENDIX B

Noise Standards, Terminology, Instrumentation Ventilation Requirements, and Building Shell Controls

1. Noise Standards

A. City of San Jose “Noise Element” Standards

The noise section of the San Jose 2020 General Plan, Focus on the Future, adopted August 16, 1994 identifies an exterior limit of 60 dB Day-Night Level (DNL) at outdoor living or recreation areas of residential developments. This standard applies at the property line of residential areas impacted by transportation related noise sources. For off-site noise sources, such as commercial and industrial operations, an exterior limit of 55 dB DNL for residential areas is specified. A long-term goal of 55 dB DNL from transportation sources anticipates future reductions in transportation noise due to improvements in design, such as quieter engines and improved muffler systems.

For commercial uses whose exterior noise exposure is 76 dB DNL or lower, the interior is limited to 45 dB DNL.

At interior living spaces of residential area, the standards established an interior limit of 45 dB DNL for noise levels due to exterior sources.

B. Title 24 Noise Standards

The California Code of Regulations, "Sound Transmission Control", Title 24, Part II, applies to all new multi-family dwellings including condominiums, townhouses, apartments, hotels and motels. The standards, which utilize the Day-Night Level (DNL) descriptor, establish an exterior reference or criterion level of 60 dB DNL, and specify that multi-family buildings to be located within an annual DNL zone of 60 dB or greater require an acoustical analysis. The analysis report must show that the planned buildings provide adequate attenuation to limit intruding noise from exterior sources to an annual DNL of 45 dB or less in any habitable space. The Community Noise Equivalent Level (DNL) descriptor, which is similar to the DNL, may also be used, as the CNEL and DNL are considered to be equivalent, typically.

The Title 24 standards also establish minimum sound insulation requirements for interior partitions separating different dwelling units from each other and dwelling units from common spaces such as garages, corridors, equipment rooms, etc. The common interior walls and floor/ceiling assemblies must achieve a minimum Sound Transmission Class (STC) rating of 50 for airborne noise. Common floor/ceiling assemblies must achieve an Impact Insulation Class (IIC) rating of 50 for impact noise. These ratings are based on laboratory tested partitions. Field tested partitions must achieve ratings of NIC and FIIC 45.

2. Terminology

A. Statistical Noise Levels

Due to the fluctuating character of urban traffic noise, statistical procedures are needed to provide an adequate description of the environment. A series of statistical descriptors have been developed which represent the noise levels exceeded a given percentage of the time. These descriptors are obtained by direct readout of the Community Noise Analyzer. Some of the statistical levels used to describe community noise are defined as follows:

- L_1 - A noise level exceeded for 1% of the time.
- L_{10} - A noise level exceeded for 10% of the time, considered to be an “intrusive” level.
- L_{50} - The noise level exceeded 50% of the time representing an “average” sound level.
- L_{90} - The noise level exceeded 90 % of the time, designated as a “background” noise level.
- L_{eq} - The continuous equivalent-energy level is that level of a steady state noise having the same energy as a given time-varying noise. The L_{eq} represents the decibel level of the time-averaged value of sound energy or sound pressure squared, and is used to calculate the DNL and CNEL.

B. Day-Night Level (DNL)

Noise levels utilized in the standards are described in terms of the Day-Night Level (DNL). The DNL rating is determined by the cumulative noise exposures occurring over a 24-hour day in terms of A-Weighted sound energy. The 24-hour day is divided into two subperiods for the DNL index, i.e., the daytime period from 7:00 a.m. to 10:00 p.m., and the nighttime period from 10:00 p.m. to 7:00 a.m. A 10 dBA weighting factor is applied (added) to the noise levels occurring during the nighttime period to account for the greater sensitivity of people to noise during these hours. The DNL is calculated from the measured L_{eq} in accordance with the following mathematical formula:

$$DNL = [(L_d + 10 \log_{10} 15) \& (L_n + 10 + 10 \log_{10} 9)] - 10 \log_{10} 24$$

Where:

- L_d = L_{eq} for the daytime (7:00 a.m. to 10:00 p.m.)
- L_n = L_{eq} for the nighttime (10:00 p.m. to 7:00 a.m.)
- 24 indicates the 24-hour period
- & denotes decibel addition.

C. A-Weighted Sound Level

The decibel measure of the sound level utilizing the “A” weighted network of a sound level meter is referred to as “dBA”. The “A” weighting is the accepted standard weighting system used when noise is measured and recorded for the purpose of determining total noise levels and conducting statistical analyses of the environment so that the output correlates well with the response of the human ear.

3. Instrumentation

The on-site field measurement data were acquired by the use of one or more of the sound analyzer listed below. The instrumentation provides a direct readout of the L exceedance statistical levels including the equivalent-energy level (L_{eq}). Input to the meters were provided by microphones extended to a height of 5 ft. above the ground. The "A" weighting network and the "Fast" response setting of the meters were used in conformance with the applicable standards. The Larson-Davis meters were factory modified to conform with the Type 1 performance standards of ANSI S1.4. All instrumentation was acoustically calibrated before and after field tests to assure accuracy.

Bruel & Kjaer 2231 Precision Integrating Sound Level Meter
Larson Davis LDL 812 Precision Integrating Sound Level Meter
Larson Davis 2900 Real Time Analyzer

4. Ventilation Requirements

Ventilation requirements to be applied when windows are maintained closed for noise control are specified in the Uniform Building Code (UBC), 1997 edition, Section 12.03.3 as follows:

"In lieu of required exterior openings for natural ventilation, a mechanical ventilating system may be provided. Such system shall be capable of providing two air changes per hour in guest rooms, dormitories, habitable rooms, and in public corridors with a minimum of 15 cubic feet per minute (7L/s) of outside air per occupant during such time as the building is occupied."

Based on our previous experience, a "summer switch" on the furnace fan is normally considered acceptable as a ventilation system by FHA and other agencies. Air-conditioning is also an acceptable system.

5. **Building Shell Controls**

The following additional precautionary measures are required to assure the greatest potential for exterior-to-interior noise attenuation by the recommended mitigation measures. These measures apply at those units where closed windows are required:

- Unshielded entry doors having a direct or side orientation toward the primary noise source must be 1-5/8" or 1-3/4" thick, insulated metal or solid-core wood construction with effective weather seals around the full perimeter. Mail slots should not be used in these doors or in the wall of a living space, as a significant noise leakage can occur through them.
- If any penetrations in the building shell are required for vents, piping, conduit, etc., sound leakage around these penetrations can be controlled by sealing all cracks and clearance spaces with a non-hardening caulking compound.
- Fireplaces should be provided with tight-fitting dampers.

APPENDIX C

Noise Measurement Data and Calculation Tables

DNL CALCULATIONS

CLIENT: EAH, INC.
 FILE: 40-025
 PROJECT: RIVER OAKS MULTI-FAMILY
 DATE: 6/2-3/2008
 SOURCE: RIVER OAKS PKWY, ZANKER RD.

LOCATION 1 River Oaks Parkway			
Dist. To Source		50 ft.	
TIME	Leq	10 ⁿ Leq/10	
7:00 AM	63.7	2344228.8	
8:00 AM	65.3	3388441.6	
9:00 AM	64.9	3090295.4	
10:00 AM	62.5	1778279.4	
11:00 AM	62.2	1659586.9	
12:00 PM	62.3	1698243.7	
1:00 PM	61.8	1513561.2	
2:00 PM	61.3	1348962.9	
3:00 PM	61.4	1380384.3	
4:00 PM	63.3	2137962.1	
5:00 PM	65.2	3311311.2	
6:00 PM	64.1	2570395.8	
7:00 PM	61.3	1348962.9	
8:00 PM	60.3	1071519.3	
9:00 PM	57.4	549540.9	SUM= 29191676
10:00 PM	55.4	346736.9	Ld= 62.9
11:00 PM	52.0	158489.3	
12:00 AM	50.3	107151.9	
1:00 AM	48.1	64565.4	
2:00 AM	50.7	117489.8	
3:00 AM	47.0	50118.7	
4:00 AM	44.7	29512.1	
5:00 AM	54.3	269153.5	
6:00 AM	58.3	676083.0	SUM= 1819301
		1.0 Ld=	53.1
		1.0	
	Daytime Level=	74.7	
	Nighttime Level=	72.6	
	DNL=	63	
	24-Hour Leq=	61.1	

LOCATION 2 Zanker Rd, River Oaks			
Dist. To Source		235 ft., 86 ft.	
TIME	Leq	10 ⁿ Leq/10	
7:00 AM	62.2	1659586.9	
8:00 AM	63.5	2238721.1	
9:00 AM	62.2	1659586.9	
10:00 AM	60.2	1047128.5	
11:00 AM	59.9	977237.2	
12:00 PM	60.6	1148153.6	
1:00 PM	60.2	1047128.5	
2:00 PM	59.8	954992.6	
3:00 PM	60.5	1122018.5	
4:00 PM	62.1	1621810.1	
5:00 PM	62.0	1584893.2	
6:00 PM	61.4	1380384.3	
7:00 PM	59.1	812830.5	
8:00 PM	60.0	1000000.0	
9:00 PM	49.9	97723.7	SUM= 18352196
10:00 PM	48.8	75857.8	Ld= 60.9
11:00 PM	46.2	41686.9	
12:00 AM	45.2	33113.1	
1:00 AM	43.1	20417.4	
2:00 AM	45.2	33113.1	
3:00 AM	42.2	16595.9	
4:00 AM	45.5	35481.3	
5:00 AM	48.8	75857.8	
6:00 AM	55.1	323593.7	SUM= 655717
		1.0 Ld=	48.6
	Daytime Level=	72.7	
	Nighttime Level=	68.1	
	DNL=	60	
	24-Hour Leq=	59.0	