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Alameda County Environmental Health



SNK Captec Andante LLC 3996 San Pablo Avenue, Suite A Emeryville, CA 94608,

Alarueda County Environmental Health Care Services Local Oversight Program 1131 Harbor Way Parkway, Suite 250 Alameda, California 94502-6577

Date: March 26, 2007

Your Reference: RO-0002530

Attn. Mr. Barney Chan, REHS

SUBJECT: Environmental Closure Report - Andante Project, Emeryville, CA

Dear Mr. Clian:

Out consultants, The San Joaquin Company Inc. (SJC), have prepared a report titled: Environmental Closure Report – Andante Project, 3992 San Pablo Avenue, dated March 2007. That report includes a summary of the environmental site characterization and corrective action program that has been conducted on the subject property. It includes SJC's recommendation that the Andante site be "closed" as a site under environmental regulatory oversight. If you concur with our consultant's recommendation, following your issuance of a notice to that effect, we plan to close the monitoring well currently extant on the site under the permit and oversight of Alameda County Public Works Agency. The report will be uploaded to the Alameda County Environmental Health Care Agency's web site.

Please note that SNK Captec Andante LLC, which redeveloped the Andante property, was not responsible for the releases of petroleum hydrocarbons at off-site locations that contaminated the property at 3992 San Pablo Avenue.

With respect to the environmental closure report cited above, I state the following:

"I declare under penalty of perjury, that the information and recommendations contained in the cited document are true and correct to the best of my knowledge"

If you have any technical questions about the material contained in environmental closure report please call Dr. Dai Watkins of The San Joaquin Company Inc. at (510) 336-9118. For administrative questions please call me at (626) 396-1600.

Sincerely,

Don Peterson Vice President, SNK Captec Andante LLC

ec: Dr. Dai Watkins- The San Joaquin Company Inc.

THE SAN JOAQUIN COMPANY INC. 1120 Hollywood Avenue, Suite 3, Oakland, California 94602

ENVIRONMENTAL CLOSURE REPORT

Andante Project

3992 San Pablo Avenue Emeryville, California

Prepared for:

SNK CAPTEC ANDANTE LLC

March 2007

Project No. 9401.206

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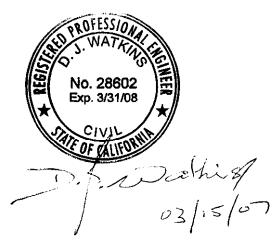
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PROFESSIONAL CERTIFICATION AND LIMITATIONS

This report was prepared under the direction of the engineer whose seal and signature appear below. The work was performed in accordance with generally accepted standards of engineering practice based on information available to us at the time of its preparation and within the limits of the scope of work directed by the client. No other representation, express or implied, and no warranty or guarantee is included or intended as to professional opinions, recommendations, or field or laboratory data provided.



D. J. Watkins, Ph.D., P.E. Civil Engineer The San Joaquin Company Inc.

1.0 INTRODUCTION

This environmental closure report was prepared by The San Joaquin Company Inc. (**SJC**) for the property commonly known as Andante. Prior to its redevelopment as a mixed commercial and residential property, that site had the address 3992 San Pablo Avenue, Emeryville, California. The site location is shown on Figure 1.

The site has a total area of some 79,360 sq. ft. (1.8 acres) and occupies a major part of the triangular city block that is bounded by 40th Street, Adeline Street, and San Pablo Avenue. Figure 2 is a plan of the site prior to its redevelopment.

The Andante site has a mean elevation of approximately 43 ft. above the National Vertical Datum (**NAVD**). It has a slight downward slope from east to west (*i.e.*, from Adeline Street to San Pablo Avenue). The site is surrounded by public streets except along its southern boundary, beyond which, on an adjacent property, are a parking lot and the Bank Club building at 3900 San Pablo Avenue. The Bank Club houses a restaurant (see Figure 2 for location).

In 2003, SNK Captec LLC, which was succeeded by SNK Captec Andante LLC, purchased the property at 3992 San Pablo Avenue and planned to redevelop it. Initial subsurface investigations revealed that soil and groundwater beneath an area in the northwestern portion of the site were affected by petroleum hydrocarbons released at sites to the north of the subject property. The affected area is shown on Figure 3.

Following implementation of an environmental site characterization effort and completion of a corrective action program, the site was redeveloped for mixed residential and commercial use. Construction for the project was completed in 2004, at which time residences and commercial units that had been constructed on the property were occupied. Figure 4 is a ground floor plan of the redeveloped site.

After completion of the redevelopment, the residential units on the Andante Site were assigned the address 1121 40th Street, ground floor retail units that front onto San Pablo Avenue were given the address 3996 San Pablo Avenue, and the ground floor restaurant space at the intersection of San Pablo Avenue and 40th Street was assigned the address 1147 40th Street. As noted above, the redeveloped community is known as "Andante."

This report summarizes the data and findings developed by the site characterization program, the corrective action measures undertaken and the results of a Tier 2 risk-based environmental assessment of the Andante Site in its post-remediation condition. It also presents the results of post-remediation monitoring of groundwater and documents the administrative measures taken to ensure that site occupants will not be exposed to the residual petroleum hydrocarbons that remain in the subsurface beneath the affected area of the site.

1.1 Site Name and Case Number

For the purposes of regulatory oversight, Alameda County Environmental Health Care Services (**ACEHCS**) assigned the following Site Name and Case Number to the 3992 San Pablo Avenue site:

Site Name: SNK Andante Project Case No .: RO-0002530

The California State Water Resources Control Board (SWRCB) has established the following Global ID to the 3992 San Pablo Avenue site:

Global ID: T06019738255

The assignment of a case number to the site by ACEHCS does not indicate that the property was identified by that agency as the site of an unauthorized release of regulated petroleum hydrocarbons to the subsurface. ACEHCS recognizes that the hydrocarbons that affected the subsurface beneath the Andante property were discharged at sites to the north and that no discharge occurred on the subject property itself.

1.2 Site North

As is shown on Figure 2, true north at the Andante site is slightly to the west of the center line of Adeline Street, which runs along the eastern frontage of the property. However, to simplify discussion, we have established a "Site North" that parallels the alignment of San Pablo Avenue, which runs along the western side of the property. Thus, the boundary of the Andante Site along its 40th Street frontage will be assumed to run from east to west and will be designated the "northern" boundary. Other references to boundaries and features of the site and adjacent property will be consistently based on that assigned "Site North." Unless otherwise stated, or in cases where true north is shown on drawings, all compass directions referenced in this report should be interpreted in the context of that directional construction.

2.0 GEOLOGIC, HYDROLOGIC AND HYDROGEOLOGIC SETTINGS

The general geologic, hydrologic and hydrogeologic settings of the Andante site are discussed below.

2.1 Geology

The subject property is situated on the eastern side of San Francisco Bay in the California Coast Ranges section of the Pacific Border physiographic province.

The soils beneath the fill that covers the site are strata of the alluvial fan deposits of the Quaternary-age Temescal Formation that is comprised of inter-fingering lenses of clayey gravel, sandy silty clay and sand-clay-silt mixtures (Radbruch 1957). At the site, this formation is some 20 ft. to 30 ft. thick and lies unconformably over the Quaternary age Alameda Formation which is composed of continental and marine sands, clays and gravels. Although the maximum thickness of the Alameda Formation has not been fully explored in the region around the subject property, it is known in some locations to exceed 1,050 feet.

Prior to its redevelopment, the entire area of the property was paved, either with concrete or with bituminous macadam. In the first several feet, varying in depth between some two and seven feet below the ground surface (**BGS**), was road-base material, imported fill, reworked and re-graded local soils, and the bricks and concrete that formed building foundations. Except for the road base and other engineering materials, the fill material generally consisted of soft to very stiff silty clay, sandy and clayey silts, and, in isolated areas, loose- to medium-density sands and gravels. In some areas of the site, the concrete and brick foundations associated with the structures previously located on the site were extensive and included concrete floor slabs and brick rubble buried at depths between one and ten ft. BGS. Today, the surface of the redeveloped Andante site is, with the exception of minor areas of landscaping, entirely covered by buildings or pavement. Below the surficial materials are inter-bedded layers of firm to hard silty clays, sandy silts, clayey silts and medium-dense, clayey sands to the maximum depth of geotechnical engineering borings that have been drilled on the site (approximately 81 ft. BGS). Those materials are typical of the Temescal Formation.

2.2 Hydrology

Temescal Creek flows in underground culverts along a generally east to west course approximately 0.5 miles to the north of the subject property and discharges into San Francisco Bay, the shore of which is today some 0.8 miles to the west of the site. Prior to circa 1880, after which it was filled to become the site of a housing tract, there was a 30-acre tidal flat that formed an embayment in the shoreline of the Bay at a distance of some 0.5 miles southwest of the Andante site.

Temescal Creek and the tidal flats of San Francisco Bay dominated the regional hydrology of the area prior to its urbanization in the late 19th Century. Today, substantially all precipitation running from roofs and paved areas on the site flow to storm water drains that

are part of the City of Emeryville's storm water management system. That system drains to San Francisco Bay.

2.3 Hydrogeology

The depth to the groundwater table in the area of the subject property reflects long term weather cycles as well as seasonal variations in local precipitation in the San Francisco Bay Area. Depending upon those factors, the piezometric level of the regional groundwater may be at depths that vary between approximately 6 and 12 feet BGS. However, at the time that the site was re-graded for construction, perched groundwater was encountered over wide areas where the surficial fill that covered the Andante property had moderate to high hydraulic conductivity. In those areas, and similar fill areas on adjacent property, during periods of unusually prolonged or intense precipitation, the depth to first groundwater could be as shallow as 1 to 5 ft. BGS. Because during redevelopment and grading of the site, the surficial fill originally present was excavated from the entire area of the Andante property and replaced by a very low permeability engineered fill, the localized zones of perched groundwater no longer develop on the site.

Regionally, the general direction of groundwater flow is west toward San Francisco Bay. The local direction of groundwater flow beneath the Andante property itself was, prior to redevelopment, to the west-southwest at a gradient that was typically 0.02 ft/ft. That flow regime was influenced by the local hydrostratigraphy, which included a well-defined paleo stream channel filled with coarse sand and gravel deposits. The paleo stream channel, as shown on Figure 5, crossed the site from its northern boundary to its western boundary. However, as part of the remediation work conducted on the property, the length of the paleo-channel that lay within the site's boundaries was excavated and clay cutoffs were placed at the points where it had entered and exited the site.

3.0 ENVIRONMENTAL SITE CHARACTERIZATION

Prior to the redevelopment of the Andante site, several stages of pre-remediation site characterization were undertaken to investigate the extent to which the property had been affected by releases of petroleum hydrocarbons at off-site locations.

3.1 Phase I Environmental Assessments

A Phase I Environmental Site Assessment was conducted for the City of Emeryville's Economic Redevelopment Agency (**ERDA**) by Woodward Clyde in 1998 for the King Midas Club, which at that time was present on, and occupied the greater part of what is today the Andante site (Woodward-Clyde International Americas 1998b). That Phase I indicated that the Andante property may have been affected by contaminants released at the former Celis Alliance service station (**Celis Site**) (see Figure 5 for location). In September 2000, SJC conducted a Phase I Site Assessment of the Andante site for SNK Development Inc. (The San Joaquin Company Inc. 2000) that indicated that there was a high probability that the subsurface beneath a strip of land in the northwestern corner of the Andante site was affected by petroleum hydrocarbons released from the Celis Site.

3.2 Geotechnical Engineering Investigation

Between July 28 and September 25, 2000, Harza Engineering Company, Inc. (Harza) of Oakland, California, which subsequently merged with Fugro West, Inc. (Fugro) also of Oakland, California, conducted a geotechnical engineering site investigation at the Andante property (Harza Engineering Company, Inc. 2000).

Harza drilled a total of twelve exploratory borings at the locations shown on Figure 2. The maximum depth of exploration was reached in Boring HEB-11 to a total depth of approximately 81 ft. In addition, Harza also conducted three cone penetration tests that reached a maximum depth of 50 ft. The locations of those tests are also shown on Figure 2 and copies of the boring logs and graphic logs from the CPT tests are included in Appendix A of this report.

3.3 Initial Environmental Subsurface Investigation

In early February 2003, in preparation for the anticipated construction of the Andante project, Apex Envirotech, Inc. (Apex) of Gold River, California was retained to drill smalldiameter, exploratory borings and recover soil samples from the subsurface beneath the subject property. Samples recovered from the borings were analyzed for total petroleum hydrocarbons quantified as diesel (TPHd), total petroleum hydrocarbons quantified as gasoline (TPHg), benzene, toluene, ethyl benzene, and total xylene isomers (the BTEX compounds), methyl tertiary butyl ether (MTBE) and total lead. The locations of the borings drilled by Apex are shown on Figure 2. Copies of the boring logs are compiled in Appendix A. Due to refusal of the push-probe system used to open the borings when hard objects were encountered at shallow depths, Apex did not recover samples from their borings at locations AE GP-14, AE GP-15, AE GP-19, and AE GP-20.

Note:

On several of the Apex's boring logs, where they encountered clayey soils in the subsurface, they are described as "OH-Bay Mud." We assume that the "OH" means that Apex classified the clay under the United Soil Classification System as OH, an organic clay of medium to high plasticity. However, there is, in fact, no Bay Mud in the subsurface directly beneath or in the area around the Andante site. As is clearly shown on available geological maps such as that included in the United States Geological Survey publication *Areal and Engineering Geology of the Oakland West Quadrangle, California* (Radbruch, 1957), the closest formations of Bay Mud occur more than one-half mile to the west of the Andante site. As has been correctly reported by Harza (Harza Engineering Company, Inc. 2000) and SJC (The San Joaquin Company Inc. 2000), the clayey soils beneath the site (other than the widespread random fill) are typical of those found in the Temescal Formation, which strata contain no Bay Mud.

The results of analyses performed on the soil samples recovered from the Apex borings are compiled in Table 1. In Table 1 and in all similar tables documenting the analyses of soil and groundwater that appear in this report, concentrations of analytes that exceeded the Tier I Risk-based Screening Levels (**RBSL**s) published by the RWQCB that were in effect in 2003 are in **bold** font. The RBSLs cited are for soil and groundwater at sites where the water table is at a depth of less than 3 meters (9 ft.) BGS and the soil materials are assumed to be porous and groundwater beneath a site is not a source of drinking water. At sites where the concentrations of analytes of concern in soil or groundwater exceed the RBSLs, it is necessary to perform a site-specific Tier II Risk Assessment (American Society for Testing and Materials 2000a) before the property may be used for a given purpose (*e.g.*, residential construction or commercial development).

Note:

Subsequent to completion of the remediation program for the Andante property, revisions were made to the site-screening procedures promulgated by the RWQCB and the screening criteria known as RBSLs were re-designated as Environmental Screening Levels - **ESL**s. Unless otherwise stated, "RBSL" will be used throughout this report as the applicable screening values.

3.4 Extended Environmental Subsurface Investigation

In March 2003, SJC submitted a remediation work plan for the Andante that included provision for extending the site characterization work begun by Apex so that the full lateral and vertical extent of the contamination beneath the Andante property could be defined and the site adequately characterized (The San Joaquin Company Inc. 2003b). That work plan was approved by the ACEHCS (Alameda County Environmental Health Care Services 2003c)

The extended site characterization program included excavation of three exploratory trenches designed to find the lateral limits of the area of the site affected by petroleum hydrocarbons

and installation of ten small-diameter, temporary groundwater quality monitoring wells designed to elucidate the characteristics of the groundwater regime beneath the site and explore the vertical extent to which the subsurface was affected by petroleum hydrocarbons. The temporary wells were installed in compliance with permits issued by the Alameda County Public Works Agency (**ACPWA**). The location of those trenches and wells are shown on Figure 6 which also shows the locations of the borings drilled by Apex during earlier stages of site investigation. Logs of the trenches and the well borings, which included details of the well construction, are included in Appendix A.

3.4.1 Exploratory Trenches

Based on an analysis of the hydrosratigraphic and geochemical data obtained from the borings drilled on the site by Apex and Fugro, the lateral extent to which the subsurface beneath the site was affected by hydrocarbons was tentatively outlined. Three 5-ft. wide exploratory trenches were excavated at the locations shown on Figure 6 in March 2003 so that the precise lateral extent of the affected area could be assessed. Each of the exploratory trenches was logged and copies of the logs are compiled in Appendix A.

The exploratory trenches revealed that beneath the surficial concrete, bituminous macadam and aggregate paving-base material that was typically 1 ft. thick, there were assorted fill materials down to a depth of approximately 5 ft. BGS. That fill material included brown fine to coarse sands, gravel and some silty clay. Below the fill materials were moderately stiff to stiff and highly impermeable dark gray-black silty clays, typical of those seen in the undisturbed Temescal Formation.

Significant findings developed by excavation of exploratory trenches included discovery of a number of brick walls that extended to considerable depth up to 9 ft. BGS. Examples are shown in the logs of exploratory Trenches 1 and 2 that are presented in Appendix A. These walls were remnants of the foundations of the industrial warehouse complex that was at one time situated on the property. It was clear from the visual and olfactory indicators that the excavations that had been made to install the buried walls became associated with preferential pathways for contaminant migration through the subsurface of the site.

Excavation of the trenches also demonstrated that groundwater, which others had mistakenly believed to be at depths greater than 80 ft. BGS, was, in fact, at very shallow depths beneath the site. However, some of the clay fill and much of the soil in the Temescal formation beneath the site is extremely impermeable, so that at some locations observable quantities of groundwater would not flow into borings or pits opened on the site until 24 hours or more had passed. At other locations, where borings or trenches intersected permeable zones within the fill or underlying Temescal formations, they would fill rapidly with water to within a few feet of the ground surface. In fact, in mid-April 2003, the depth to groundwater at some locations on the site was as shallow as 0.2 ft. BGS.

Soil and groundwater samples recovered from the exploratory trenches were analyzed for TPHd, TPHg and the BTEX compounds. The results are shown in Tables 2 and 4.

3.4.2 Temporary Groundwater-quality Monitoring Wells

Although SJC's Phase I Report (The San Joaquin Company Inc. 2000) had identified the water table to be at shallow depth in the neighborhood of the site and had warned of the likelihood that the groundwater beneath at least a portion of the property was likely affected by fuel hydrocarbons released from the Celis property, little or no groundwater was detected in any of the borings drilled on the Andante property by either Apex or Harza (Apex Envirotech, Inc. 2003, Harza Engineering Company, Inc. 2000). Although many of the Apex borings did not penetrate to the depth of the groundwater table, some were sufficiently deep. All of the Harza borings were drilled to depths sufficient to penetrate below the water table. However, it appears that both the Harza borings and the deep Apex borings were closed by grouting before sufficient time had elapsed for groundwater to flow into them through the generally low-permeability soils in the subsurface. Thus, prior to implementing a remediation program, it was necessary to obtain information regarding local groundwater gradients and flow directions and to assess the concentrations of analytes of concern in the groundwater beneath the site.

Gregg Drilling and Testing, Inc. of Martinez, California (**Gregg**), which holds a C-57 contractor's license issued by the California Contractors State License Board, installed ten small diameter wells on the locations shown in Figure 7 on April 11, 2003. Permits to install these temporary groundwater-quality monitoring wells were obtained from the Alameda County Public Works Agency (**ACPWA**). The boring logs, which include well construction detail, are presented in Appendix A.

The temporary wells were installed in two groups. The first, consisting of SJC MW-T1, SJC MW-T1, SJC MW-T2, SJC MW-T3, SJC MW-T4, SJC MW-T5, SJC MW-T6 and SJC MW-T7, were constructed as simple 0.75-in. diameter PVC standpipes with 0.01-in. aperture, machine-cut slots over their whole length. They were set in 2-in. diameter borings opened by direct push technology that were drilled to depths between 8 and 12 ft. BGS. Those relatively shallow wells were installed to investigate the concentration and distribution of chemicals of concern (**COC**) in the affected area of the site.

The second group of wells, which included SJC MW-T2A, SJC MW-T4A and SJC MW-T5A, had total depths of 20 ft. BGS. They were also installed in 2-in. diameter push-probe borings, but, unlike the simple standpipe wells described above, these wells were screened, as is shown on their well logs in Appendix A, over only the bottom 5 ft. of the 0.75-in. diameter PVC well casing. Those wells were equipped with a prefabricated bentonite seal located approximately 2 ft. above the top of the screened interval. The deeper wells were installed to ensure that computed groundwater flow directions were relevant to the regional groundwater table as opposed to any perched water temporarily present in the surficial soils beneath the site. Those wells also permitted investigation of soil contamination and groundwater quality in areas that appeared to be severely affected by the fuel hydrocarbons migrating to the Andante site from the Celis Site and other locations to the north.

Drill cuttings produced by the drilling operations were temporarily stockpiled on the site and later incorporated into loads of affected soil that were shipped off-site as part of the remediation program described in Section 5.0 below.

3.4.2.1 Analysis of Soil Samples Recovered from Temporary Wells

While the borings for the temporary monitoring wells were being drilled, soil samples were recovered at approximately 5 ft. depth intervals. The recovered samples were analyzed for TPHd, TPHg, the BTEX compounds, and selectively for mineral spirits, MTBE, TBA, TAME, DIPE, ETBE, EDB, 1,2-DCA, ethanol and polynuclear aromatic compounds. The results of the analyses are presented in Table 2.

3.4.2.2 Groundwater Elevations, Gradient and Flow Direction

The locations of the temporary wells were established by a triangulation survey. The elevations of the tops of the well casings were established relative to the United States Geodetic Survey's Sea Level Datum of 1929. The casing elevations are recorded in Table 3.

On the date the wells described above were first installed, they remained dry throughout the day. However, over the next several days, water accumulated in the wells. This is consistent with observations made in the exploratory trenches described in Section 3.4.1 above. In the trenches it was observed that groundwater would not flow into the trenches for at least several days in those areas where the fill and natural materials in the subsurface consisted of highly-impermeable clayey soil, even though, at other locations intersected by the trenches, where more permeable strata were locally present, water would appear in the excavations a short time after they were opened.

To permit groundwater elevations in the temporary wells to reach equilibrium, they were left undisturbed for three days following completion of development. However, within 24 hours of the installation of the wells, heavy precipitation had fallen on the site and, over the following two weeks, heavy rainfall recurred periodically, so that, by the end of the month, the National Weather Service reported the wettest conditions for the month of April ever recorded in the Oakland-Emeryville area. These conditions raised concern that depths to groundwater, particularly in the shallower wells, might reflect temporarily perched water that had percolated from the surface through local pockets of permeable fill material. If that had occurred, in the manner that was observed in some of the exploratory trenches, the perched water would have taken some time to dissipate, so that the depth to water measured in the wells a short period after the rain had fallen would not represent the static piezometric level of the groundwater.

To observe the fluctuations in the depth to groundwater following the storms that swept over the region in the days following the installation of the wells, the depth to groundwater in each temporary well was checked on April 14, 16 and 21, 2003. Those measurements are recorded in Table 3. Over the one week period April 14-21, 2003, the groundwater elevations in each of the shallow standpipe-type wells fell some 1 to 2 ft. However, they remained some

1.5 to 2 ft. higher than the elevations in the deeper wells that had bentonite seals above their screened intervals, which were located between approximately 15 and 20 ft. BGS.

From the above observations, it was concluded that during the wet season rainfall seeping into the surficial fill that overlay the site could produce local zones of perched water. Those conclusions were later confirmed when very shallow groundwater percolated into the floor of the excavations during periods when no precipitation fell on the site.

On April 21, 2003, a conductivity probe was used to measure the depth to the water table in each well. The depths to groundwater measured in only the deeper temporary wells (see below) were used to construct the groundwater contours shown in Figure 7 and to assess the direction and gradient of groundwater flow.

The direction of groundwater flow computed from the depth measurements made in Monitoring Wells SJC MW-2A, SJC MW-4A and SJC MW-5A on April 21, 2003, was to the southwest, as is shown on Figure 7, at a gradient of 0.02 ft/ft.

3.4.2.3 Analysis of Groundwater Samples Recovered from Temporary Wells

On April 16, 2003, groundwater samples were recovered from each of the temporary monitoring wells. Those samples were analyzed for TPHd, TPHg, the BTEX compounds, mineral spirits, MTBE, TBA, TAME, DIPE, ETBE, EDB, 1,2-DCA, and ethanol. The results of those analyses are presented in Table 4.

3.4.2.4 Closure of Temporary Wells

When groundwater-quality monitoring using the temporary wells was complete, they were closed by removing the casings and pressure grouting the boreholes with Type II Portland cement. The well closures were performed by Gregg Drilling on April 21, 2003 in compliance with permits issued by the ACPWA.

In compliance with Sections 13700 through 13806 of the California Water Code regulatory requirements, Well Closure Reports (Form 188), together with attached boring logs, well construction details and groundwater quality data were completed for each of the wells and filed with the California Department of Water Resources (**DWR**) and the ACPWA.

3.4.3 Geotechnical and Groundwater-quality Data Obtained in Remedial Excavation

During the excavation work to remove affected soil from the subsurface that is described in Section 5.2, the geology, hydrogeology and concentrations of analytes of concern in soil and groundwater were found to be generally consistent with the interpretations made from the data gathered by the several stages of site investigation performed that had been completed on the subject property. However, during the progress of the remedial excavation work, several features of the subsurface were revealed, improving the understanding of the hydrogeology and distribution of analytes of concern beneath the site.

3.4.3.1 Channel of Streambed Deposits

The excavation work exposed a natural, buried channel filled with coarse sands with some gravel that cut across the northwest area of the site. It was found at depths varying between 6 and 8 ft. BGS and, as is shown on Figure 8, crossed the 40th Street frontage of the site some 200 ft. east of San Pablo Avenue. From there it ran in a generally southwesterly direction and crossed the San Pablo Avenue frontage of the site some 120 ft. south of 40th Street.

It was apparent that the high-energy clastic materials in the channel were deposited by a paleo stream that had crossed the site during a late stage of the Holocene geological epoch. The paleo stream was judged to be of geological rather than historic age because there are no records of such a watercourse on any historical map of the area, some of which date back to the 1870s.

On its southern side, the stream channel had a clearly delineable cut bank, while on its northern edge, the sands and gravels were inter-fingered with the silty clays that dominate the whole area of the subject property at that depth. These paleo-morphological features are consistent with a rapidly-flowing stream that was cutting its southern bank along the length of a slight curve (see Figure 8 for geometry) as its alignment moved from approximately southwest on the northern boundary of the Andante site to south-southwest on the western boundary of the site. While the southern side of the channel was being cut, the velocity of the water was generally slower on the northern bank, which, depending upon flood stage, permitted more fine-grained clastic materials to be deposited there. This is typical of the comparative depositional environment frequently observed on the cut banks and inner curve banks of modern streams.

3.4.3.2 Permeable Zones Associated with Buried Walls and Building Foundations

As soil was removed from the remedial excavation, a large number of masonry walls and massive step-masonry foundations supported on concrete strips were found. The walls were generally similar to those encountered in the exploratory trenches and which are shown in the logs of Trench Nos. 1 and 2 in Appendix A. The bottoms of the walls' foundations were at depths varying from 6 to 9 ft. BGS.

The locations of the walls coincided with the perimeters of buildings, some of which had been present on the site through the mid-1960s. A copy of the Sanborn Fire Insurance Map for 1951 is included in Appendix B. It shows that on the San Pablo Avenue frontage of the Andante site, there was a large wholesale facility, which included a railroad siding branching off the Atchison Topeka and Santa Fe railroad line that passed along what is today 40th Street. The wholesale facility included shipping docks along the siding and a large shipping dock used for trucks along the east side of the building. To the south of that facility was a row of shops, restaurants and other businesses that also fronted onto San Pablo Avenue. A few structures, including a restaurant, were also present on the eastern side of the site and a wood-working enterprise that manufactured butter molds and cutters was located in the northeastern corner with a frontage on Adeline Street. The locations of the masonry walls and foundations that were discovered in the subsurface were in good agreement with the footprints of the buildings shown on the 1951 Sanborn Map. The massive foundation structures exposed by the remedial excavation were located in the areas where the road and rail shipping docks are shown on the Sanborn Map. Lesser walls surrounding concrete basement slabs were discovered a few feet beneath the surface of the site in the area noted above where shops and restaurants had fronted onto San Pablo Avenue. In addition, a buried retaining wall that separated the back of the sidewalk on San Pablo Avenue from the basements of those buildings extended along a part of that frontage of the site.

As these buried masonry and concrete structures were being removed, it was evident from visual and olfactory indicators that the relatively permeable backfill that had been placed around the foundation masonry and beneath the basement slabs had acted as a preferential pathway for the migration of fuel hydrocarbons released from the Celis Site that is located immediately to the north of the Andante property.

The preferential pathways for contaminant transport created by the paleo streambed channel and the excavations that had been made to install the masonry foundations resulted in the migration of contaminants to a considerably greater distance south and east from the point of discharge at the Celis Site than might otherwise have been expected based on consideration of co-gradient and up-gradient dispersion at a typical fuel hydrocarbon release site.

3.5 Analytes of Concern Beneath the Andante Property

As can be seen in Tables 1, 2 and 4, which show the concentrations of analytes of concern detected in samples of soil and groundwater recovered from the borings and wells drilled on the Andante property (see Figure 6 for locations), high concentrations of contaminants were found to be present in the northwestern area of the Andante property.

In the affected area, the concentrations of diesel-range fuel hydrocarbons were, locally, as high as 1,100 mg/kg in a sample of soil recovered from a depth of 5 ft. BGS in Boring AE GP-9. Gasoline was detected in the same sample at 12,000 mg/kg. In that northwestern area of the site, the concentrations of the BTEX compounds in soil were commensurate with the detected concentrations of gasoline, with a high concentration of benzene of 9.1 mg/kg found in the sample recovered from the boring for well SJC-MWT-7 at a depth of 7.5 ft. BGS. Traces of MTBE and TBA were also detected in soil samples recovered from the affected area.

As was noted previously, the subsurface investigations conducted by Apex Environmental, Inc. and Harza consisted only of soil borings that were not left open for sufficient time for groundwater to flow into their borings. This deficiency was corrected by SJC's excavation of exploratory trenches and the installation of temporary groundwater-quality monitoring wells, the locations of which are shown on Figure 6.

A grab sample of groundwater, designated ET2-C-W, recovered from exploratory Trench No. 2 contained 20,000 μ/L of compounds in the diesel range, 510,000 μ/L of TPHg, with 1,100 μ/L , 3,700 μ/L , 10,000 μ/L and 65,000 μ/L of benzene, toluene, ethyl benzene and total

xylene isomers, respectively. In the temporary groundwater-quality monitoring wells installed in the northwestern area of the subject property, the highest concentration of diesel-range compounds in the groundwater was 7,900 μ /L in SJC-MWT-2, which monitoring well was 8 ft. deep. The highest concentration of gasoline was 63,000 μ /L, detected in monitoring well SJC-MWT-2A, which well was 20 ft. deep. The highest concentration of the BTEX compounds were benzene, at 2,400 μ /L in monitoring well SJC-MWT-7; toluene at 4,800 μ /L in monitoring well SJC-MWT-2A; and total xylene isomers at 9,300 μ /L in monitoring well SJC-MWT-7. The fuel oxygenate MTBE was also detected in some of the temporary wells and, in SJC-MWT-4A, was present at a concentration of 78 μ /L.

3.5.1 Apparent Mineral Spirits in Groundwater

Following excavation of the exploratory trenches and analysis of the sample of groundwater that flowed into exploratory Trench No. 1, the ACEHCS Case Officer requested that SJC investigate whether or not any of the diesel-range petroleum hydrocarbons found in the groundwater beneath the Andante site were components of mineral spirits. This request was made because potential discharges of mineral spirits or similar solvents were known to have occurred at the Frank Dunne and Boysen paint manufacturing sites located to the northeast of the Andante property at the intersection of 41st and Adeline Streets (see Figure 5 for locations). Mineral spirits is a solvent that is used in industrial applications and, historically, was the principal cleaning agent used by dry cleaners. In the dry cleaning industry the commonly used name for that petroleum product is Stoddard Solvent. In addition, mineral spirits is frequently associated with the manufacture and use of paint.

In response to the request made by the ACEHCS Case Officer, SJC studied the diesel chromatogram from the analysis of the grab groundwater sample recovered from exploratory Trench No. 2 (see Appendix C for a copy). The results of the analysis of sample ET2-C-W, presented in Table 4, show that it contained 20,000 μ /L of a diesel-range petroleum hydrocarbon material. However, the chromatogram for the total extractable petroleum hydrocarbons (**TEPHs**), when compared with standard chromatograms for diesel and mineral spirits, reveals that the diesel-range compounds detected in that sample were dominantly those found in mineral spirits rather than those that typify diesel fuel.

Following the finding that the semi-volatile petroleum hydrocarbon found in sample ET2-C-W was, in fact, largely composed of the compounds that are found in mineral spirits, the suite of analyses specified for samples of groundwater recovered from SJC's temporary groundwater-quality monitoring wells was revised to include specific detection of mineral spirits in addition to diesel. The results of those analyses are also presented in Table 4. As is shown in the table, the laboratory detected no material that could be specifically identified as mineral spirits in any of those samples. However, it is noted that, in each case, the array of compounds in the samples that were, for the purposes of data presentation, quantified as being in the diesel range did not actually match the laboratory's standard for diesel.

Such lack of precise matching between the diesel standard and the chromatogram from samples of soil or groundwater that have been affected by diesel is not uncommon. The

divergences from the standard chromatographic pattern that are commonly seen are those associated with biodegradation of diesel that has been present in the subsurface for long periods following its release from underground storage tanks. Such diesel is sometimes described as "weathered" diesel, but variations from the standard chromatogram can also occur due to that fuel being mixed with other biodegraded petroleum hydrocarbons. Similarly, it may not be possible reliably to identify degraded mineral spirits in samples of soil or groundwater. As is noted in Table 4, the laboratory could not assign specifically the compounds in the diesel range in the samples recovered from the temporary monitoring wells to be mineral spirits or as diesel that matched the laboratory standards for those materials even though, for the purpose of data presentation, the extractable petroleum hydrocarbons present in the samples were quantified as diesel.

Additional examples of chromatograms from samples recovered from the temporary groundwater-quality monitoring wells - those from Samples SJCMWT-2A and SJCMWT-5A are included in Appendix C. For comparison, that appendix also includes chromatograms from laboratory standards for gasoline, mineral spirits, Stoddard Solvent and other petroleum products.

Selected samples of soil recovered from the floor and walls of the remedial excavation were also analyzed for mineral spirits, but none were detected that could be reliably designated as such by the laboratory based on comparison of their chromatograms with the mineral spirits standard.

There was no known source of mineral spirits on the Andante site and, as discussed above, none of the samples of soil or groundwater recovered from the property contained any mixtures of petroleum hydrocarbons that matched the laboratory standards for mineral spirits, Stoddard Solvent or paint thinner. However, given the characteristics of the chromatograms generated from the analyses of groundwater sample No. ET2-C-W, the lack of specific detections of those solvents is not definitive evidence that components of such materials are not present in the subsurface beneath the Andante site. Conversely, SJC believes that there is insufficient evidence to definitively demonstrate that such industrial solvents have migrated to the property from the former paint manufacturing sites at 41st and Adeline Streets.

3.5.2 Lateral Extent of Contamination

Figure 8 shows the lateral extent of the contamination of the Andante site that principally resulted from the releases of fuel hydrocarbons on the Celis Site and, possibly, to some limited degree, by releases at other sites to the north of the property that are described in Section 4.0 below. As shown on Figure 8, the southerly extent of the affected area is essentially limited by the southern bank of the paleo streambed channel that crossed the Andante site from 40th Street to San Pablo Avenue. That portion of the site had an area of some 14,975 sq. ft. and extended 125 ft. southward from the northwest corner of the subject property along its San Pablo Avenue frontage. The migration of contamination south along the San Pablo Avenue frontage was aided by a relatively high permeability zone associated with a basement wall of a commercial building that was historically present along that

frontage. Along the 40th Street frontage of the site, the affected area stretched some 230 ft. from the northwest corner of the property to a point just beyond the eastern cut bank of the paleo streambed.

Beyond the area of the site affected by off-site releases of petroleum hydrocarbons, some of the soil samples recovered from borings drilled by Apex did contain very low concentrations of compounds within the diesel range, though none were of a magnitude sufficient to be of more than *de minimus* environmental significance. The concentrations of diesel-range compounds detected in those samples were typical of those commonly found in soils containing organic matter and that can usually be attributed to vegetative sources. However, unless samples are prepared using the EPA Method 3630 silica gel clean-up procedure before they are introduced into the chromatograph, such compounds, as they are reflected in a chromatogram, cannot be reliably specified to have either a petroleum hydrocarbon or natural organic source. The soil samples recovered by Apex that are listed in Table 1 were not prepared using silica gel cleanup.

3.5.3 Vertical Extent of Subsurface Affected by Fuel Hydrocarbons

Unfortunately, the borings drilled by Apex on the Andante site as part of the first environmental subsurface investigation of the property did not penetrate below a maximum of 11 ft. BGS and many had a total depth of 5 ft. or less. Consequently, in the area of the site that was most severely affected by contaminants, the Apex borings failed to determine the total vertical extent to which the subsurface soil was affected by analytes of concern and, apparently because the borings were not left open for a sufficient period to permit groundwater to flow into them, the degree to which groundwater beneath the site was affected was not explored.

However, from study of records of site investigations conducted by Levine-Fricke and Woodward-Clyde on the Celis Site and areas beneath the 40th Street right-of-way to the east of that property (Levine-Fricke 1994a, 1994c, 1993a; Woodward-Clyde International Americas 1998b, 1997a, 1997b, 1995, 1994), the results of which are summarized in Tables 5 and 6, it is apparent that analytes of concern could be detected at depths as great as 14.5 ft. BGS in the subsurface immediately to the north of the northern boundary of the Andante property. Furthermore, the groundwater data gathered by those consulting engineers clearly indicated, as is recorded in Table 3, that groundwater was present at depths between 6 and 10 ft., depending upon the season in which it was measured. Accordingly, SJC designed its temporary groundwater-quality monitoring wells on the Andante property to be installed in borings that penetrated to depths greater than those that had been drilled by Apex. The SJC wells included an array with a total depth of 20 ft., which were designed to penetrate below the expected maximum depth to which soil was affected by the contaminants that had been released on the Celis Site, as well as to detect the piezometric levels of groundwater in the strata well below the surficial fill that covered the site.

As can be seen by inspection of Tables 2 and 4, if less than *de minimus* concentrations of diesel-range compounds of the type discussed in Section 3.5.1 above are discounted, soil and groundwater samples recovered from SJC's array of monitoring wells successfully

demonstrated that the maximum vertical extent of analytes of concern in the subsurface below the Andante site was limited to a zone having its lowest elevation at a depth between 10 and 15.5 ft. BGS. The maximum depth at which any significant concentration of contaminants of concern was detected was 11.5 ft. in well SJC MWT-7, where gasoline was present in soil at a concentration of 1,600 mg/kg. As has been previously noted, because SJC's exploratory trenches and borings were held open for a sufficient time (*i.e.*, four weeks for the trenches and one week for the monitoring wells) for the water table to reach equilibrium, it was possible to recover groundwater samples. The analyses of those samples yielded the results shown in Table 4.

The geological and hydrogeologic information gathered from various stages of site characterization and remedial excavation were used to develop the hydrosratigraphic sections along the lines A-A', B-B' and C-C' that are located as shown on Figure 8. The sections are shown on Figures 9, 10 and 11, respectively.

The hydrostratigraphy shown in the cross sections is an interpretation of the stratigraphic data from the boring, trench and monitoring well logs. The sections show the fill material that covers the site and the underlying alluvial sediments, which are divided into four classes: the very low permeability clays and silty clays, the somewhat more permeable sandy and clayey silt, the permeable sands, silty sands and silts with some gravel, and the highly permeable course sand and gravel stream-bed deposits found in the paleo-channel that crosses the northwestern portion of the site. That presentation makes it possible to reduce the details of the stratigraphy to a tractable degree of complexity by distinguishing between the different soil types based on the properties that are of importance to the understanding of the distribution and transport of analytes of concern in the subsurface.

Also shown on the cross sections are the locations of the borings and monitoring wells from which soil samples were recovered. Note that these are located on, or close to, the section lines. The concentrations of TPHg, TPHd and the critical analyte, benzene, that were detected in those samples are also noted on the cross sections.

As was to be expected, when the remedial excavation was opened, it was found that the maximum depth at which soil affected by analytes of concern was detected varied locally within the area of the excavation. To check the maximum depth of affected soils in the area and permit a sample of groundwater to be recovered from beneath the bottom of the remedial excavation, a pit with its bottom at a total depth of 15 ft. below the original ground surface was opened in the floor of the remedial excavation. Analysis of that groundwater sample showed it to contain 3,200 μ g/L of diesel-range petroleum hydrocarbons and 23,000 μ g/L of gasoline, with commensurate concentrations of the BTEX compounds. It also contained traces of MTBE and naphthalene (see data for Sample No. 30S-40E in Table 4).

In no case was the maximum depth of soil contamination established by analyses of samples recovered from the floor of the remedial excavation greater than had been found in samples from soil recovered from SJC's groundwater-quality monitoring wells.

4.0 SOURCES OF CONTAMINATION

There are a total of five locations in the neighborhood of the Andante site where petroleum hydrocarbons are known to have been released into the subsurface. These are:

<u>The Celis Site.</u> The former Celis Site had the address 4000 San Pablo Avenue. However, the property today is beneath the right-of-way of 40th Street where that thoroughfare joins the eastern side of San Pablo Avenue.

The California State Water Resources Control Board (**SWRCB**) has established the following Global ID for the Celis Site: T0600101794

The California Regional Water Quality Control Board - San Francisco Bay Region (**RWQCB**) has been assigned the following Case Number to the Celis Site: 01-1938

The ACEHCS Local Oversight Program (**LOP**), which is the lead agency for the site, has assigned the following Case Number to the Celis Site: 567

Former San Francisco Bread Storage Tanks. One diesel and one gasoline underground storage tank were formerly located at 4070 San Pablo Avenue and operated by the San Francisco French Bread Company (**SFFBC**). As is shown on Figure 5, the former site of the tanks is today partially located beneath the 40th Street right-of-way which was constructed after the tanks had been removed from the site and partially beneath the remaining property at the address 4070 San Pablo Avenue.

The SWRCB has established the following Global ID for the SFFBC site: T0600101186

The RWQCB has been assigned the following case number to the SFFBC site: 01-1289

The ACEHCS LOP, which is the lead agency for the site, has assigned the following case number to the SFFBC site: RO171

<u>Fidelity Roof Company.</u> A leaking underground gasoline storage tank was formerly located on the Fidelity Roof Company (**Fidelity**) property at 1075 40th Street. The Fidelity site is located to the east of the Andante property beyond the residences that front onto the eastern side of Adeline Street between 40th Street and Yerba Buena Avenue (see Figure 5 for street locations).

The SWRCB has established the following Global ID for the Fidelity Roofing site: T0600102117

The RWQCB has been assigned the following case number to the Fidelity site: 01-2301

The ACEHCS LOP, which is the lead agency for the site, has assigned the following case number to the Fidelity site: RO0000186

Former Frank Dunne Paint Manufacturing Site. Significant releases of paint thinner and other solvents occurred at the former Frank W. Dunne Company's paint manufacturing facility (**Frank Dunne**) at 4050 Adeline Street/1007 41st Street. That site which is in the City of Emeryville is located some 500 ft. to the northeast of the Andante property at the intersection of Adeline and 41st Streets (see Figure 5 for location).

The SWRCB has established the following Global ID for the Dunne Paint site: T0600101693

The RWQCB has been assigned the following case numbers to the Dunne Paint site: SLT2O147153, 01-1827

The ACEHCS LOP has assigned the following case number to the Dunne Paint site: RO72/RO73

Former Boysen Paint Manufacturing Site. A second paint manufacturing company, the Boysen Paint Company (**Boysen**), formerly occupied a site which now has the address 1001 42nd Street in Oakland. Paint thinners and other solvent mixtures with similar components to those found in mineral spirits, were discharged into a dry sump on that site and also leaked from an underground storage tank. (Note: The former Boysen Paint site is also referenced as the "Oakland National Engravers" or "Oakland One" site in some regulatory databases and in reports prepared by others.)

The SWRCB has established the following Global ID for the Boysen Paint/Oakland National Engravers site: T0600101659

The RWQCB has been assigned the following case number to the Boysen Paint/Oakland National Engravers site: 01-1791

The ACEHCS LOP has assigned the following case number to the Boysen Paint/Oakland National Engravers site: RO79

4.1 Celis Alliance Service Station

Prior to 1995, 40th Street terminated on the western side of San Pablo Avenue. However, the City of Emeryville Redevelopment Agency (**ERDA**) initiated site investigation and engineering studies for construction of an extension of that street from San Pablo Avenue to Adeline Street. And, as is shown on Figure 12, the street extension was later constructed along the northern frontage of the Andante site.

4.1.1 Environmental Conditions Beneath 40th Street

Preparatory to the construction of the 40th Street extension, subsurface investigations were conducted by Science and Engineering Analysis Corporation (**SECOR**), Levine-Fricke, and Woodward Clyde.

As can be seen from inspection of Tables 5, 6 and 7, borings and groundwater-quality monitoring wells installed in 40th Street at the locations shown on Figure 12, had shown that soil and groundwater beneath that thoroughfare had been affected by fuel hydrocarbons and other contaminants.

Those investigations included a program of site characterization for the former site of the Celis Alliance Service Station which, prior to 1994, was located on the eastern side of San Pablo Avenue at the location where today the extension of 40th Street joins that thoroughfare. The area formerly occupied by the Celis Site is also shown on Figure 12.

Analytes of concern in soil samples recovered from beneath the 40th Street right of way included total recoverable petroleum hydrocarbons (**TRPH**) at concentrations up to 4,600 mg/kg (in soil boring LFSB12 at a depth of 1 ft. BGS); motor oil up to 400 mg/kg (in soil boring LFSB at a depth of 1 ft. BGS); diesel up to 790 mg/kg (in soil boring LFSB2 at a depth of 7 ft. BGS); gasoline up to 8,800 mg/kg (in soil boring LF-B4 at a depth of 5 ft. BGS) with associated concentrations of benzene, toluene, ethyl benzene and total xylene isomers at concentrations up to 190 mg/kg in LFSB17 at a depth of 5 ft., 50 mg/kg in LFSB3 at a depth of 5 ft., respectively; concentrations of methylene chloride up to 2.6 mg/kg in LFSB17 at 4.5 ft.; Alaclor 1260 up to 0.22 mg/kg in LFSB14 at 2 ft.; naphthalene up to 1.7 mg/kg in LFSB17 at 12 ft.; 2-methylnaphthalene at 1.8 mg/kg in LFSB17 at both 4.5 and 12.0 ft.; and a trace of 4-methylphenol, which was detected at a concentration of 0.4 mg/kg in boring LFSB17 at a depth of 4.5 ft. BGS.

The results of laboratory tests on samples of groundwater recovered from beneath the 40th Street right of way were also affected by high concentrations of components of fuel hydrocarbons. As is recorded in Table 6, the sample of groundwater recovered from Well WCEW-1 in the northwestern corner of the former Celis Site contained 41,000 μ /L of diesel; 180,000 μ /L of gasoline, with associated high concentrations of the BTEX compounds; and up to 570 μ /L of MTBE, which was detected in the sample recovered from that well on March 13, 1998. The polynuclear aromatic compound naphthalene was also present in samples recovered from well WCEW-1, and, on June 2, 1998, rose to a concentration of 1,000 μ /L.

In a group of wells (LF-1AG - LF-3AG) located across San Pablo Avenue and downgradient from the Celis Site, similar high concentrations of components of fuel hydrocarbons were detected in groundwater, with the concentration of diesel reaching as high as 41,000 μ/L and gasoline reaching 100,000 μ/L .

4.1.1.1 Remediation of Affected Soils Beneath 40th Street

Prior to the construction of the extension of 40th Street, soil affected by high concentrations of total petroleum hydrocarbons or BTEX compounds was excavated from selected locations

within that right-of-way and disposed off site. The excavated areas are shown on Figure 13. The most significant soil remediation occurred on the Celis Site and that work is discussed below in section 4.1.3. At other locations beneath the right-of-way, the remedial excavations included a 20 x 20 ft. area in the vicinity of LFB-4, a 15 x 15 ft. area in the vicinity of LFB-3, a 10 x 10 ft. area around LFSB12, LFSB15 and LFSB16, a 10 x 10 ft. area centered around LFSB18, and a 10 x 10 ft. area around LFSB19 (Levine-Fricke 1994a).

4.1.2 <u>Releases of Fuel Hydrocarbons at the Celis Site</u>

The Celis' Alliance Service Station had been owned by a succession of petroleum companies and independent owners and had operated from approximately 1936 until 1993 on the land that, over those years, had the address 4000 San Pablo Avenue, which was adjacent to and north of the Andante property at 3992 San Pablo Avenue. The last owner of the service station was Constantino Celis and in the latter years of its operation, it was known as Celis' Alliance Service Station. The former location of the service station is shown on Figure 13, which also shows the former locations of six underground fuel and waste oil tanks that were present on that site. Over their lifetime, those tanks leaked diesel, gasoline and waste oil into the subsurface. The sizes and uses of the tanks are tabulated below (Woodward-Clyde Consultants 1994).

One 7,000 gallon tank containing diesel One 6,000 gallon tank containing regular gasoline One 4,000 gallon tank containing unleaded gasoline One 2,000 gallon tank containing unleaded gasoline One 3,500 gallon tank containing high-octane unleaded gasoline One 550 gallon tank containing waste oil

At the time that the environmental quality of the subsurface beneath 40th Street was investigated, the soil and groundwater beneath the Celis Site were not analyzed for MTBE. However, later investigations by Woodward-Clyde demonstrated that the gasoline that had leaked into the subsurface during the most recent period when the service station was operating contained significant concentrations of MTBE (up to 570 mg/L - See Table 6) and, as is evident in Table 4, gasoline had spread from that site onto the adjacent portion of the Andante property. That finding is consistent with the operating life of the fueling station because it did not close until 1993, well after the first use of MTBE in fuels, which began in the late 1980s, and later than October 1992, when its use in gasoline was mandated in California Environmental Protection Agency 1997).

4.1.3 <u>Remediation of the Celis Site</u>

The tanks were removed from the former Celis Site in May 1994 (Levine-Fricke 1994b). Prior to the construction of the 40th Street extension in 1995, the City of Emeryville Redevelopment Agency (**ERDA**) took title to the land by condemnation. By that action, the City of Emeryville became a "responsible party" for the former Celis Site at 4000 San Pablo Avenue.

In June 1994, at the direction of ERDA, Woodward-Clyde prepared a Remediation Work Plan for the 4000 San Pablo Avenue site (Woodward-Clyde International Americas 1994) that was approved by ACEHCS. That engineering company then oversaw the initial phases of the remediation program. In 1994, affected soil within the property boundaries of the 4000 San Pablo Avenue was removed by excavation to a depth of approximately 9.5 ft. Some 3,200 cu. yds. (loose measure) of affected soil were shipped from the Celis Site to a permitted disposal facility. As can be seen by inspection of Table 7, because the remedial excavation did not extend below the groundwater table and, because it did not extend beyond the site boundaries, soil affected by components of fuel hydrocarbons remained present at depth beneath 40th Street in the area where the Celis service station had been located.

The results of analyses of the confirmation samples recovered by Woodward-Clyde from the floor and walls of the remedial excavation opened on the Celis Site are reproduced in Table 7. The sampling locations are shown on Figure 14.

Concentrations of gasoline (**TPHg**) in the soil in the floor of the remedial excavation on the 4000 San Pablo Avenue site ranged from 540 mg/kg to 1,000 mg/kg at sampling locations WC B-G-1 and WC BC-2, respectively. Those locations were near the southern boundary of the site, which is in close proximity to the Andante property. The concentrations of diesel in the samples recovered from those locations ranged from undetectable to 75 mg/kg. As can be seen in Table 7, at both locations low concentrations of benzene, toluene, ethyl benzene and xylene isomers (the **BTEX** compounds) were detected in soil in the floor of the remedial excavation. Analysis of the sample from location WC B-G-1 detected the presence of 120 mg/kg of total recoverable petroleum hydrocarbons (**TRPH**), but none were detectable in the sample from location WC B-C-2 at a concentration above 50 mg/kg.

At the sampling locations numbered WC S-1 through WC S-4 which, as is shown in Figure 14, were distributed along the southern wall of the remedial excavation at 4000 San Pablo Avenue, concentrations of gasoline ranged from 20 mg/kg to 730 mg/kg, diesel concentrations ranged from undetectable to 69 mg/kg, and the concentrations of the BTEX compounds were all very low.

After the affected soil had been excavated from the former Celis Site, the remedial excavation on that property was backfilled with clean, engineered fill. The 40th Street extension now occupies the former Celis Site and runs along the northern boundary of the Andante property from Adeline Street to San Pablo Avenue.

Although all work required by the approved, but area-limited, remediation plan for removal

of contaminated soil from the Celis Site was completed, it did not address the soil affected by hydrocarbons that had migrated under a portion of the Andante property.

To remove LNAPL (floating product) that had been observed on the water table beneath the former Celis Site, Woodward-Clyde installed a recovery well in the northwestern corner of the property. They also installed an ejector pump in that well that was used to conduct a pilot floating product removal program. A total of 2,035 gallons of free product and water was removed from the subsurface between September 1996 and July 1998. However, a full-scale program of groundwater remediation was not completed.

As a matter of record, it should be noted that the Celis Site has not yet been "closed" by ACEHCS or the RWQCB. Although ACEHCS concurred with ERDA's consulting engineers that no additional remediation of soil on the Celis property was required after the remediation program that was conducted on that site had removed a large mass of soil affected by fuel hydrocarbons from the subsurface, the Agency directed, *inter alia*, that a groundwater-quality monitoring program be implemented. The groundwater monitoring program was to be designed to define adequately the lateral extent of the groundwater plume and to demonstrate that the plume emanating from that site was stable (Alameda County Health Care Services Agency 1997). SJC is aware that some phases of the required groundwater-quality monitoring program have been completed and a work plan has been developed for the installation of additional monitoring wells. However, as of this writing (March 2007), that work has not yet been completed and, for that reason, among others, the Celis Site remains as an "open" case in ACEHCS records.

4.2 Former San Francisco French Bread Storage Tanks

The San Francisco French Bread Company (**SFFBC**) owned and operated two 10,000-gallon underground fuel storage tanks on its property at 4070 San Pablo Avenue (see Figure 5 for locations). One had held diesel and the other had held gasoline. At the time they were removed in May 1989, they were found to have leaked (Levine-Fricke 1994b). Later, when the extension of 40th Street was constructed, half of the former SFFBC tank site was located beneath the 40th Street right-of-way, while the other half was beneath the remaining portion of the 4070 San Pablo Avenue property which, at that time, had been acquired by the Oaks Club, a California Limited Partnership (**Oaks Club**).

At the direction of ACEHCS, prior to the construction of the 40th Street extension, a groundwater-quality monitoring well (SMW-1 on Figure 12) was installed a short distance down-gradient from the SFFBC tank site in September 1992. Groundwater samples were recovered from the well and analyzed at quarterly intervals from September 11, 1992, through March 8, 1994. The results of those analyses are included in Table 6. During that period, concentrations of gasoline in the samples ranged from undetectable to 5,800 μ g/L. The concentration ranges for benzene, toluene, ethyl benzene and total xylene isomers were undetectable to 1,700 μ g/L, undetectable to 430 μ g/L, undetectable to 230 μ g/L, and undetectable to 490 μ g/L, respectively.

To construct the extension of 40th Street from Adeline Street to San Pablo Avenue, the City of Emeryville took ownership of the greater part of the former location of the underground

storage tanks at the 4070 San Pablo Avenue property by eminent domain. When that street extension was constructed, Monitoring Well SMW-1 was destroyed and groundwater-quality monitoring ceased. The well was never replaced by the City of Emeryville. However, in May 2004, as a part of the site characterization program for the Oak Walk redevelopment site shown on Figure 5, SJC installed a monitoring well numbered MW-3 which replaced destroyed well SMW-1 (The San Joaquin Company Inc. 2005). A groundwater sample was recovered from MW-3 on May 19, 2004. The results of analyses of that sample are included in Table 6. As can be seen in the table, that sample contained mineral spirits at a concentration of 420 μ g/L and gasoline at a concentration of 1,300 μ g/L with traces of total xylene isomers, MTBE, n-butyl benzene, and 1,3,5-trimethyl benzene.

Since completion of the corrective action program conducted on the Andante project, investigations have been completed on the Oak Walk redevelopment site located on north side 40th Street (The San Joaquin Company Inc. 2005). Those studies found what appears to be an extension of the paleo streambed channel that crossed the latter site (see Section 3.4.3.1, above) The extended channel is shown on Figure 5, and is seen to cross over the former site of the SFFBC tanks and extends from there onto the Ennis property to the northeast of the Oak Walk property.

Given the very high concentrations of fuel hydrocarbons affecting the subsurface of the Andante property, which included concentrations of MTBE which was not present in the gasoline stored in the SFFBC tanks, it is SJC's opinion that leakage from SFFBC tanks did not make a major contribution to contamination on the Andante property. However, given the location of the SFFBC tank site in the course of the paleo streambed channel that appears to connect the Oak Walk property to the Andante property, there is a possibility that some quantity of gasoline leaking from the SFFBC tanks may have commingled with the fuels released on the Celis Site and spread southward onto the Andante property.

4.2.1 Remediation at San Francisco French Bread Site

Prior to the construction of the 40th Street extension, as was noted in section 4.1.1.1, soil affected by high concentrations of fuel hydrocarbons that had leaked from the SFFBC tanks was excavated from a 20 x 20 x 10 ft. deep area in the 40th Street right-of-way to the south of, and adjacent to, those underground storage tanks.

4.3 Fidelity Roof Company

On December 19, 1995, one 1,000 gallon underground diesel storage tank and one 500 gallon underground gasoline storage tank were removed from the Fidelity Roof Company at 1075 40th Street in Oakland. That site is to the east of the Andante property, across Adeline Street and behind the structures that front onto the eastern side of that thoroughfare. At the time they were removed, the tanks were found to have leaked and high concentrations of diesel-and gasoline-affected soil and groundwater were detected in the area around the tank site. When groundwater monitoring wells were installed, it was found that there was LNAPL floating on the groundwater. The reported direction of groundwater flow at that site is to the northwest (AEI Consultants 2006a).

Groundwater remediation by pumping of floating product supplemented by vacuum extraction is currently (March 2007) in progress at the Fidelity site (AEI Consultants 2006b).

If contaminants originating at the Fidelity site had affected the Andante site, they would have been encountered in areas along the Adeline Street frontage of the latter property. However, no contamination of soil or groundwater was detected along the Adeline Street frontage of the Andante site and it is concluded that the fuel hydrocarbon released at the Fidelity site did not migrate onto the Andante property (The San Joaquin Company 2003a).

4.4 Sites of Former Paint Manufacturing Plants on 41st Street

Two paint manufacturing facilities were formerly located on 41st Street close to where that street joins Adeline Street some 600 ft. to the northeast of the Andante site. One of the facilities was operated by the Frank Dunne Paint Company at the address 1700 41st Street and the other, located across 41st Street from the Dunne site, was operated by the Boysen Paint Company at the address 1001 42nd Street, Oakland. Those locations are shown on Figure 5.

Mineral spirits, paint thinner, and similar solvents were released under the sidewalk of Adeline Street from six underground tanks at the Frank Dunne site. On the Boysen site, there were two solvent tanks that had leaked, as well as a sump into which waste had been discharged. Due to the presence of paleo streambed and other high-permeability deposits present beneath Adeline Street as is shown on Figure 5, the contaminants emanating from the two sites have commingled.

4.4.1 <u>The Former Frank Dunne Paint Company Site</u>

A Phase I environmental assessment of the Dunne site was conducted in 2003 by the Clayton Services Group (**Clayton**). The assessment found that the soil and groundwater beneath that site was affected by petroleum hydrocarbons and other contaminants that included paint thinners, mineral spirits and similar solvents (Clayton Services Group 2003). The condition of the subsurface within the boundaries of the Dunne site and, to a limited extent, adjacent areas of Adeline Street and 41st Street has been characterized by Clayton for the current property owner, Green City Lofts LLC. Following the site characterization, a limited program of remediation of soil and groundwater beneath that property was completed and the ACEHCS released the site for construction of a multi-family residence (Green City Lofts).

Site characterization studies to define fully the lateral and vertical extent of the contaminant plume emanating from the former Dunne Paint site are currently incomplete (March 2007), but borings and groundwater-quality monitoring wells have been installed along both sides of Adeline Street, a short distance to the west of that street on the south side of 41st Street, and on the northern portion of the Ennis property (see Figure 5). However, site characterization studies conducted on the Oak Walk site (located to the north of the Andante property across 40th street) have shown that soil and groundwater beneath that property is locally affected by high concentrations of mineral spirits and similar solvents. Although at lower concentrations,

the subsurface beneath the Oak Walk property is affected by that class of petroleum hydrocarbons over essentially the whole of its area.

4.4.2 <u>The Former Boysen Paint Manufacturing Site</u>

Site characterization studies conducted at the Boysen Paint site and at adjacent areas of 41st and Adeline Streets have shown that paint thinners and similar solvents released at that site have resulted in the presence of LNAPL in the subsurface along the southern boundary of that property. Those studies have also demonstrated that, as noted above, petroleum hydrocarbons released on the Boysen site have commingled with those released on the Frank Dunne site and have migrated away from the site via paleo streambed channels and high permeability alluvial fan deposits.

4.4.3 Migration of Contaminants from Former Paint Manufacturing Plants

At the time SJC prepared the corrective action report for Andante, (The San Joaquin Company 2003a) while there was some evidence that components of mineral spirits or a similar industrial solvent were present in the subsurface beneath that site and beneath parts of the 40th street right-of-way to its north, there was insufficient regional hydrogeologic and chemical data available to support a definitive conclusion that contaminants migrating from the former paint manufacturing sites on 41st Street had affected the Andante property.

Subsequently, site characterization studies for the Frank Dunne site and the Boysen site have been considerably advanced (Clayton Group Services 2004, Aqua Science Engineers Inc. 2005a, Aqua Science Engineers Inc. 2005b, Environmental Resources Management 2006). From those investigations, it is now clear that mineral spirits and similar solvents migrated westward from the former paint manufacturing sites affecting essentially the whole of the area of the Oak Walk property and, at least the northern portion of the Ennis property. Mineral spirits have also been detected in groundwater monitoring wells on the western side of San Pablo Avenue (URS Corporation 2006). As is shown on Figure 5, a principal pathway for the migration of those petroleum hydrocarbons has been the complex array of paleo streambed channels in the local area.

There is as yet no direct evidence that a paleo streambed channel connects the former paint manufacturing sites to the Andante property. The presence or absence of such a connection has not been determined because, as is shown on Figure 5, no groundwater-quality monitoring wells or borings have been installed on the southern portion of the Ennis property. However, as can also be envisioned by inspection of that figure, it would not be unreasonable to hypothesize that the paleo streambed channel that crosses the Andante property and is interpreted to connect to the streambed channel that crosses the southern boundary of the Oak Walk property and continues from there to the boundary the Ennis property may well extend northeastward to connect with the paleo streambed deposits in the area around the intersection of Adeline and 41st Streets. That hypothesis is supported by the fact that chromatograms from the analyses of a groundwater sample recovered from monitoring well MWT-3 on the Oak Walk property (see Figure 5 for location) showed that it contained components of mineral spirits, but the chromatogram generated by the analysis did

not have characteristics associated with fuel hydrocarbons. In addition, monitoring well MW-3 located in the paleo streambed channel where it crosses the southern boundary of the Oak Walk property, while containing concentrations of gasoline, also contained significant concentrations of mineral spirits (The San Joaquin Company Inc. 2005).

Based on the above observations, it appears that there is plausible evidence that paint thinners and similar products released at the Frank Dunne and Boysen sites had migrated to the Andante property. However, SJC believes that the available evidence is not sufficient for that conclusion to be unequivocally supported. Furthermore, to the extent it may be correct, we do not believe that any contamination that had its source at the paint manufacturing sites made more than a minor contribution to the contamination of the subsurface of the Andante site compared to the large preponderance of contamination which had its source at the former Celis Site.

5.0 REMEDIATION OF THE SUBSURFACE BENEATH THE ANDANTE SITE

In March of 2003, SJC submitted a work plan for the remediation of the Andante property to ACEHCS and that plan was approved by that agency (The San Joaquin Company Inc. 2003b). On April 21, 2003, Dietz Irrigation of Tracy, California, an experienced remediation contractor holding a Class A Engineering license with Hazardous Waste operations endorsement issued by the California Contractors State License Board, mobilized to the Andante site to implement the soil excavation phases of the remediation work. For the excavation work to proceed, a permit for excavation of contaminated soil was obtained from the San Francisco Bay Area Air Quality Management District (SFBAAQMD) in compliance with that Agency's Regulation 8, Rule 40.

5.1 Removal of Pavement and Clean Shallow Soil

To allow excavation of the affected soil at depth beneath the surface of the site, bituminous macadam and concrete paving covering the affected area of the site was broken up and stockpiled on site for later transport to recycling facilities, where, after processing, they were recycled in beneficial use in the construction industry.

Clean, unaffected soil was then stripped from the surface of the site to depths that generally varied between 1 and 3 ft. BGS, but which, depending upon the environmental condition of the soil, locally extended down to 4-5 ft. BGS. This material was stockpiled in the northeastern area of the subject property.

It was also necessary to remove large volumes of buried masonry foundations and structural walls that had been constructed on the site in the early part of the 20th Century when the property was occupied by warehouses and other commercial buildings. As was the case for the concrete paving slabs at the site, the concrete components of these foundation and slab systems were disposed for recycling in beneficial use. However, because no recycling facility could be found that could accept such large volumes of the mass masonry material, it was shipped off-site for disposal at a permitted landfill.

5.2 Removal of Affected Soil from the Subsurface

After the clean overburden, buried masonry foundations and concrete floor slabs described above were removed, excavation of the hydrocarbon-affected soil was initiated. To comply with the requirements of the newly-enacted SFBAAQMD Rule 40 regulations, the soil excavated from the subsurface was, in large measure, directly loaded into end-dump trucks by the excavators for off-site disposal at the facilities described in Section 5.6 below. When use of small, temporary stockpiles was necessary to balance the excavation operations with the arrivals of trucks, the working stockpiles were held at the site for no more than one or two hours before they were loaded using a front loader into arriving trucks.

As the remedial excavation was expanded laterally and vertically, visual and olfactory indicators of the presence of fuel hydrocarbons in the soil and observation of stratigraphic markers together with the data previously obtained from the exploratory trenches and

groundwater-quality monitoring wells were used to assess preliminarily the required depth and lateral extent of the excavation.

5.2.1 Excavation Below the Groundwater Table

The depth of the remedial excavation generally ranged between 8 ft. and 13 ft. BGS. Locally, the depth of excavation was controlled by the depth required to reach soil unaffected by analytes of concern or the limiting depth beneath which additional excavation would have rendered the Andante redevelopment project economically unviable.

To permit excavation below the water table a technique developed by SJC for remediating sites under similar conditions to those present at the Andante property was applied. That technique involves use of large-sized crushed or river-run rock to stabilize the submerged walls and floor of small excavation cells opened within the area of the final large-scale excavation. These cells are left open for only the minimum time necessary for spoil to be removed from them and a confirmation soil sample to be recovered from the bottom of the cell. They are then backfilled with clean crushed rock, which, at the Andante property, was in the 2 in. to 6 in. gradation range. The rock backfill is raised to an elevation such that excavators and other earth-moving equipment can operate over it without their tracks or wheels being under water. The cells are excavated so as to overlap to achieve complete excavation over the whole of the hydrocarbon-affected area. When it can be conveniently scheduled during the earth-moving excavations, the rock fill is thoroughly compacted using a vibratory roller. The use of crushed rock with no fines backfill is chosen so that adequate compaction of the material can be achieved and so that in its final condition, the material will have a high shear strength and a very high permeability. These properties permit it to bear heavy foundation loads and to be immune to liquefaction under earthquake loading.

5.2.2 <u>Removal of Paleo Streambed Deposits</u>

When affected soil in the eastern end of the excavation close to the 40th Street frontage of the Andante property was in progress, a subsurface zone characterized by the presence of coarse sands with some gravels was encountered. At first, operations to remove the affected soil and selection of the required depth of excavation in this area proceeded in the same manner as had been adopted over the rest of the excavation that had been completed by that time. However, when an attempt was made to compact the rock placed to fill the excavation cell opened at that location; it became apparent that the local geology was significantly different from that which had been encountered on the site previously. As the compactor first advanced over the rock fill, its vibratory mode was not activated and, under these conditions, the compaction work proceeded as normal. Immediately after the compactor was set to vibrate, it began to sink into the rock backfill and jets of water rose vertically from the fill and sand boils rapidly accumulated around the equipment. Based on these observations, it was quickly determined that severe liquefaction of the formation beneath the rock fill was occurring in response to the compression waves transmitted through the ground from the vibratory compactor.

Further exploration in the subsurface around the location where the vibratory compactor had induced soil liquefaction revealed that the excavation had encountered a buried paleo

streambed, which crossed onto the site from the up-gradient area beneath 40th Street. Later, as the excavation work proceeded, the full extent of the paleo stream deposits, as is shown on Figure 8, became apparent.

It was evident that the paleo streambed deposits represented a major pathway for transport of contaminants across the Andante property from its 40th Street frontage to its San Pablo Avenue frontage. The deposits also played a major role in the extensive distribution of fuel hydrocarbons emanating from the Celis Site onto the northwestern portion of the Andante property. In addition, as had been so dramatically demonstrated by the liquefaction of those deposits and the near-submersion of the vibratory compactor, the streambed posed an extremely high risk to the stability of building foundations subject to seismic loading. For these reasons, the sands and gravels in the paleo steam channel were excavated over its whole length beneath the Andante property and shipped off-site for disposal at a permitted facility.

Because the streambed deposits were located beneath the groundwater table, after the sands and gravels were removed it was necessary to backfill the channel with rock in the manner described in Section 5.2.1 above. As this backfill is highly permeable, without preventative measures, it would constitute a major pathway by which groundwater migrating from 40th Street could be transported across the Andante property and emerge beneath San Pablo Avenue to the west. To prevent this, impermeable clay plugs were placed across the full width of the backfilled streambed at the point where it entered the site at the 40th Street frontage and where it left the site at the San Pablo Avenue frontage. These clay plugs extended to a depth at least 2 ft. beneath the bed of the paleo channel, to an elevation at least 2 ft. above the highest elevation of the streambed deposits where they were exposed in the remedial excavation walls and to a minimum width of 4 ft. beyond either bank of the buried stream channel.

Because the coarse sand and gravel deposits in the streambed were unusually deep where the stream had crossed onto the site from what is today the 40th Street right-of-way, it was necessary to dewater that area before the clay plug could be placed. This was achieved by suctioning water into a vacuum truck from a temporary coffer dam constructed from the local clays. To ensure that most contaminated water was evacuated, this dewatering was performed by maintaining the vacuum truck suction pipe at all times at, or close to, the surface of the water.

The contaminated water extracted during the dewatering operation described above amounted to some 2,000 gallons which was shipped off-site for recycling under control of a hazardous waste manifest.

5.3 Soil Sampling in Remedial Excavation

As the remedial excavation was deepened and extended laterally, visual and olfactory indicators together with stratigraphic markers were used to make preliminary judgments as to whether or not the excavation had reached sufficient depth or was sufficiently extensive to have removed substantially all of the affected soil in the subsurface beneath the Andante

property. Confirmation samples were then recovered from the floor and walls of the remedial excavation.

The remediation work plan set an optimal goal that called for all contaminated soil to be excavated from the subsurface until no detectable concentrations of any of the analytes of concern remained within the boundaries of the site, or, if that was impracticable, to remove sufficient material that any remaining traces of analytes of concern were at concentrations less than the applicable site-screening concentrations. The work plan further recognized that, in some circumstances, particularly when it was necessary to excavate to considerable depth beneath the groundwater table, it might be necessary to leave some localized areas of soil affected by higher concentrations of analytes of concern in situ if they could not be safely removed by the mobilized remediation equipment or if the cost of such removal would imperil the economic viability of the redevelopment project. Accordingly, if the results of analyses of confirmation samples indicated the presence of contaminants at higher concentrations than those specified in the work plan, the excavation was continued to greater depth or lateral extent until the preferred criteria were met or, if that were found to be impracticable due either to limitations of the equipment or excessive cost, the remaining pockets of affected soil were left in place.

When the remedial excavation was judged to have reached a depth and lateral extent sufficient to comply with the work plan objectives, soil samples were recovered from its walls and floor.

Confirmation samples were recovered from the walls at points located approximately one foot above the floor of the excavation at 20 ft. intervals along each sidewall. Confirmation soil samples were recovered from the floor of the excavation at points located at the intersections of a 20 ft. by 20 ft. grid that extended to the east and to the south over the remedial excavation and had its point of origination at the extreme northwestern corner of the site at the location shown on Figure 15. However, as is shown on that figure, in some instances, variations occurred in the gridded sampling pattern at the direction of the project engineer to permit adequate characterization of local areas of the floor or to account for the geometry of the southern limit of the remedial excavation. A total of 100 confirmation samples were recovered from the floor and walls of the remedial excavation.

The samples recovered from the remedial excavation were shipped to Severn Trent Laboratory's (**STL**) laboratory in Pleasanton, California for analysis.

All soil samples submitted to the laboratory were analyzed for the following suite of analytes:

| Analyte | Method of Analysis |
|--|--------------------|
| Total Petroleum Hydrocarbons (quantified as Diesel) | EPA Method 8015M |
| Total Petroleum Hydrocarbons (quantified as Gasoline) | EPA Method 8260B |
| Benzene | EPA Method 8260B |
| Toluene | EPA Method 8260B |
| Ethyl benzene | EPA Method 8260B |
| Total Xylene Isomers | EPA Method 8260B |

The site characterization investigations described in Section 3.0 had shown that there were trace concentrations of fuel oxygenates and lead scavengers in the subsurface beneath the Andante property. To ensure that no unexpectedly high concentrations of those analytes were present in the remedial excavation, selected samples were also analyzed for:

| Ethanol | EPA Method 8260B |
|------------------------------------|------------------|
| Tertiary-Butyl alcohol (TBA) | EPA Method 8260B |
| Methyl-tertiary butyl ether (MTBE) | EPA Method 8260B |
| Di-isopropyl ether (DIPE) | EPA Method 8260B |
| Ethyl tertiary-butyl ether (ETBE) | EPA Method 8260B |
| Tertiary-amyl methyl ether (TAME) | EPA Method 8260B |
| 1,2-Dichloroethane (DCA) | EPA Method 8260B |
| Ethylene dibromide (EDB) | EPA Method 8260B |

In addition, during the early phases of the excavation work, some soil samples were also analyzed for the following:

| Mineral Spirits | EPA Method 8015M |
|--------------------------------|------------------|
| Polynuclear Aromatic Compounds | EPA Method 8270 |

In the case of the PNAs, analysis was performed only in cases where diesel-range petroleum hydrocarbons had been detected in a specific sample. The only PNA detected in the samples analyzed for those compounds was naphthalene, at extremely low concentrations, which was present in only two samples.

After a substantial number of soil samples had been recovered from the remedial excavation and had been analyzed for PNAs and mineral spirits, it was concluded that continuing to analyze samples for PNAs and mineral spirits was not cost-effective and that it would be prudent to reduce the analytic costs to make more funds available for removal of affected soil from the subsurface. Accordingly, with the concurrence of the ACEHCS Case Officer, analysis of samples for those compounds was discontinued.

The completed remedial excavation is shown in plan on Figure 15. That drawing also shows the concentrations of diesel-range compounds, gasoline and benzene detected in samples from the soil remaining in situ in the floor of the excavation.

5.4 Results of Analyses of Confirmation Samples from Remedial Excavation

The results of the analyses of confirmation samples recovered from the remedial excavation are presented in Table 8. Where data in the Table is in **gray script**, that data applies to soil samples recovered at locations where it was possible to deepen the excavation or extend it laterally after analysis of the sample initially taken from the location indicated that, when possible, additional soil should be removed to match more closely the preferred cleanup standards set in the work plan. Thus, such **grayed data** does not represent analytes of concern left in situ beneath the site.

The analytical results shown in **bold script** in Table 8 are those that exceed the RBSLs established by the RWQCB that were in effect in mid-2003 (California Regional Water Quality Control Board - San Francisco Bay Region 2001). The RBSL criteria applied in Table 8 are, as was appropriate at this stage of the remediation program, those related to human health risks at sites where surficial soils are of low permeability, the depth to groundwater is less than 3 meters (9 ft.) BGS and the groundwater is not a source of drinking water. Those limits, as they apply to soil and groundwater at residential sites are summarized in Table 9.

5.5 Utilities Crossing the Perimeter of the Remedial Excavation

The only utility found crossing the walls of the remedial excavation at depths below the groundwater table was a sewer pipe that had passed from the Andante property to San Pablo Avenue. This sewer pipe was sealed with an iron closure plug equipped with an O-ring in accordance with the requirements of the City of Emeryville. After placing the plug, impermeable clay was carefully placed in maximum 6 in. lifts around the end of the pipe and compacted using a vibratory compactor to a minimum distance of 3 ft. below, 6 ft. on each side and 4 ft. above the pipe invert. This construction ensured that the pipe and any disturbed backfill around it would not serve as a future preferential pathway for migration of contaminated groundwater.

5.6 Disposal of Hydrocarbon-affected Soil

A total of some 8,000 cubic yards of soil affected by petroleum hydrocarbons as measured in bulk after excavation was removed from the Andante property. That material, which amounted to approximately 7,000 tons, was transported, in 410 truckloads, to permitted Class II landfills (Dietz Irrigation 2003a). Of that total, 332 truckloads weighing a total of 7,585.21 tons were disposed at Allied Waste's Keller Canyon Landfill in Pittsburg, California and 78 truckloads, weighing 1,289.37 tons, were transported to that company's Forward Landfill facility in Manteca, California. Each truckload was transported for disposal under control of a Special Waste Manifest, copies of which were included in the contractor's report of remediation that was submitted to ACEHCS (Dietz Irrigation 2003a).

5.7 Removal of Underground Tanks Discovered During Excavation

When affected soil was being removed from the excavation on April 22, 2003, a 1.5 in. diameter steel pipe containing heating oil was found at the location shown on Figure 8. When the route of that pipe was traced, it lead to a 1,500 gallon underground heating oil storage tank located, as is also shown on Figure 8, to the south of the remedial excavation.

Following that discovery, Dietz Irrigation, the remediation contractor, immediately contacted ACEHCS and prepared an underground tank closure plan. The plan was approved by ACEHCS and, as is documented in the Contractor's Report of Tank Closure (Dietz Irrigation 2003c), after emptying the tank of 1,200 gallons of mixed heating oil and water, it was removed from the site, together with 50 ft. of associated piping, on April 29, 2003. This tank was designated Tank No. 1.

Unexpectedly, as soil was being removed from around Tank No. 1 to permit it to be raised from the subsurface, a second, small 100 gallon capacity tank, designated Tank No. 2 was found at a shallow depth close to the southeast corner of Tank No. 1. This tank was badly damaged and was dry. However, based on olfactory indicators, it is suspected that, at one time, Tank No. 2 contained gasoline or a similar low specific gravity petroleum hydrocarbon. As directed by the ACEHCS field representative, a limited volume of soft soil affected by fuel hydrocarbons that had accumulated in the bottom of the common pit in which both tanks had been located was excavated before soil samples were recovered from the floor of that pit at its northern and southern ends. Those samples were designated Tank 1-N and Tank 1-S, respectively. Samples were also recovered at 20 ft. intervals along the length of the trench from which the 1.5 in. diameter steel pipe had been removed. These samples were designated Tank 1P-20N, Tank 1P-40N. The results of the analyses performed on those four samples are included in Table 2. It was not possible to obtain a groundwater sample from the tank pit because, due to the very low permeability of the soil in which the tanks had been situated, water from the surrounding formations did not flow into the pit when the tanks were removed.

Based on its location on the site, it is surmised that Tank No. 1 was used to store heating oil for the warehouse facility that had previously been located on that part of the Andante property. That warehouse can be seen on the 1951 Sanborn Map included in Appendix B. The former use of the small 100 gallon Tank No. 2 was not apparent, but, due to its size and location, it was speculated that it may have been used to fuel forklifts used in the warehouse operations.

After soft material was removed from the pit excavated to exhume Tank Nos. 1 and 2, and samples were taken from its floor, it was partially backfilled with crushed rock and then brought to the grade of the surrounding area of the site with thoroughly compacted, low permeability silty clay.

As is also documented in the contractor's report of the tank closures, the mixture of water and heating oil in Tank No. 1 was transported off-site for treatment and disposal at a permitted recycling facility under a Hazardous Waste Manifest. The soft contaminated soil that was removed from around the tanks was shipped off-site for disposal at a permitted landfill under the control of a Special Waste Manifest. The storage tanks and piping were also shipped off-site under a Hazardous Waste Manifest to a permitted facility where they were decontaminated and the waste metal recycled in beneficial use.

On May 20, 2003, when the remedial excavation was nearing completion, a large block of concrete was discovered, as shown on Figure 8, just to the south of the remedial excavation on the San Pablo Avenue frontage of the site. The block of concrete was initially assessed to be a foundation structure, however further investigation revealed that the massive block of concrete actually contained a 1,500 gallon storage tank that contained a mixture of Bunker-C heating oil and water. Bunker-C is a heavy oil that, prior to 1945, was commonly used to fire boilers. This tank was of an obsolescent design and constructed from riveted steel plates. These features indicate that it had been installed in the 1920s or 1930s and is believed to have supplied heating fuel to one or more of the restaurants and stores that fronted onto San Pablo Avenue in the first half of the 20th Century.

Following a similar procedure to that used in the removal Tank Nos. 1 and 2, the remediation contractor prepared a tank closure plan for the tank described above, which was designated Tank No. 3. On May 22, 2003, it was removed under the permit and oversight of ACEHCS and the City of Emeryville Fire Department. It was not necessary to excavate soil from beneath Tank No. 3 and, due to its location close to the walls of the remedial excavation, the void left after its mass concrete enclosure was removed was backfilled.

The tank itself and the Bunker-C oil and water that had been present in the tank (no piping was found at the site) were shipped to permitted disposal facilities in the same manner used to dispose of Tank Nos. 1 and 2. The applicable waste manifests were included in the addendum to the contractor's report of tank closure prepared by the remediation contractor and submitted to the ACEHCS (Dietz Irrigation 2003b).

After Tank No. 3 was removed from the subsurface, at the direction of the ACEHCS field representative a single soil sample was recovered from the soil that had underlain the concrete encasement. The results of the analyses of that sample, which was given the sample number Tank 3, are also recorded in Table 2.

After the tanks described above had been removed and the results of the analyses of the soil samples recovered from their pit bottoms were available, Dietz Irrigation filed tank closure reports with ACEHCS (Dietz Irrigation 2003b, 2003c). Because the soil samples contained no significant concentrations of analytes of concern and the tanks had been located in highly-impermeable clayey soils, it was clear that none of the tanks could have been the source of an unauthorized release of fuel hydrocarbons to the subsurface and had not, in any way, contributed to the extensive contamination that had been found affecting the northwestern portion of the Andante property. Accordingly, the contractor's reports included recommendations that the tank sites be closed without further action. ACEHCS concurred with those recommendations and no unauthorized release filings were issued for the subject tanks.

5.8 Backfilling of Remedial Excavation

When the remedial excavation was complete and all confirmation samples had been recovered, the site was, with the approval of the ACEHCS Case Officer, returned to the control of Andante's earthworks contractor so that the site could be graded according to the redevelopment plan. Prior to the backfilling, SJC sampled the clean overburden soil that had been stockpiled in the northeastern area of the site to evaluate its suitability for use as engineered backfill for the remediated area of the site that would also serve as a low permeability cap over that portion of the property.

A five-gallon sample of the stockpiled material was transported to Fugro West's laboratory in Hayward, California, where a compaction curve was developed and its maximum dry density and optimum moisture content measured according to procedure D1557-00 published by the ASTM (American Society for Testing and Materials 2000c). That test demonstrated that the stockpiled material was suitable for placement as a low permeability backfill in the remedial excavation. To investigate its hydraulic properties, a portion of the sample was compacted to 90% relative density in a laboratory mold and a constant-head permeability test was conducted on a 3 in. diameter by 6 in. long core of the compacted material. The permeability of the compacted fill material as measured in that test was 5.65×10^7 cm/sec.

After SJC established that the stockpiled clean soil was suitable for use as an engineered backfill for the remedial excavation and would provide a low permeability cap over that area, Andante's earthworks contractor backfilled the excavation by placing that soil in shallow lifts and compacting it to a relative density of 95%.

Because the off-site disposal of affected soil removed from the northwestern area of the site generated an imbalance in the cut and fill volumes required to comply with the development project's grading plan, clay soil having the same properties as the clean soil that had been stockpiled was used to bring the remediated area up to grade. The excess borrow that was required in the southern portion of the site to provide material for the engineered cap over the remediated area was restored by importation of off-site material having suitable engineering properties. In that way, the low permeability characteristics of the cap were maintained. The completed cap varied in thickness between 7 ft. and 13 .5 ft., depending on the local depth of the remedial excavation.

Figures 16, 17 and 18 show cross sections through the backfilled and graded remedial excavation. The cross sections show the locations of exploratory borings and groundwaterquality monitoring wells on or close to the section line and, where applicable, the concentrations of diesel, gasoline and benzene that were detected in samples recovered from beneath the floor of the remedial excavation are also noted on those figures.

5.9 Affected Soil Remaining In Situ after Completion of Remedial Excavation

After the remedial excavation was complete, only minor quantities of soil affected by petroleum hydrocarbons remained in the subsurface beneath the Andante site. As noted previously, these included localized areas at depth in the floor of the remedial excavation. The concentrations of analytes of concern affecting pockets of soil left in the floor of the remedial excavation are recorded in Table 8. Concentrations of petroleum hydrocarbons left in situ at the locations of wells and borings where the soil was not fully excavated as part of the remediation program are noted in Table 10. As can be seen in the tables, soil containing analytes of concern at concentrations slightly above the applicable RBSLs for human health risks were left at depth beneath the site at only a few locations.

6.0 INSTALLATION OF IMPERMEABLE MEMBRANES

When the buildings on the Andante site were being constructed, a 60-mil. thick impermeable Liquid Boot® membrane was placed beneath the floor slabs of the buildings which meet the following criteria: the ground floors of the building is occupied by residences or commercial units and is located in the area of the site that had been affected by petroleum hydrocarbons.

Figure 15 shows the footprints of the buildings that have been constructed on the northern portion of the Andante site. Each building has a designated number. As can be seen on the figure, the whole of Building 1, the first floor of which is operated by a restaurant, is within the remediated area of the site. In addition, part of the slab beneath the ground floor of the two northern-most ground-floor units in Building 2-A, which are occupied by commercial and retail businesses, are also in the remediated area of the site. Similarly, a portion of the slab beneath the two northern-most "Type A" units on the ground floor of Building 3-A, which is residential, also encroaches onto the remediated area.

The Liquid Boot[®] membrane was placed beneath the whole of the ground floor slab under Building 1 and under the floor slab of the most northerly units in Buildings 2-A and 3-A. The arrangement of the Liquid Boot[®] membrane is illustrated in Figure 19. To ensure full coverage of any sub-floor areas that might serve as pathways for gases or vapors migrating from the subsurface, the areas beneath Buildings 2-A and 3-A that are underlain by Liquid Boot[®] extend further to the south than the southern limit of the remediated area of the property.

Liquid Boot® membrane is a seamless, elastomeric material that is impermeable to the gaseous phases of petroleum hydrocarbons. It has been tested according to ASTM Standard D543-95 and found to be resistant to deterioration in the presence of components of fuel hydrocarbons such as benzene (American Society for Testing and Materials 2001). As applied beneath the floor slabs of buildings on the Andante project site, it was sprayed over a geotechnical fabric substrate by a qualified subcontractor approved by LBI Technologies, Inc. of Santa Ana, California, the manufacturer of Liquid Boot®. The membrane was also installed vertically along the sides of buildings' exterior strip footings, column bases and around each utility pipe or other penetration passing through the floor slabs, all of which were installed prior to its application. That application technique ensures that the membrane formed a complete seal against ingress of vapors or gases into the buildings' interior spaces.

The ground floor slab of the multi-story parking structure included as part of the development (see Building 6 on Figure 15) and the ground floor slabs of the buildings constructed on areas of the site that have not been affected by petroleum hydrocarbons were underlain by a 10-mil. thick, Visqueen[™] polyethylene membrane with watertight sealed joints that overlapped a minimum of 6 inches. The placement of the Visqueen[™] membrane beneath the floor slabs of the buildings is shown on Figure 20. Visqueen[™] is an effective barrier to migration of moisture and vapor upward into the interior space of a building and provides a significant barrier to gases migrating along the same pathway. However, unlike

the Liquid Boot® membrane that was placed beneath the floor slabs located in the affected area of the site, it is not designed as a gas-proof membrane.

7.0 TIER 2 RISK-BASED ENVIRONMENTAL ASSESSMENT

The potential risks associated with exposure of persons resident or temporarily present on the Andante site to Chemicals of Concern (**COC**) in the environment were assessed by a tiered protocol. In a Tier 1 evaluation, concentrations of COC present in soil or groundwater beneath a site are compared to limiting screening values such as the RBSLs and were promulgated by the RWQCB and were in use at the time the site was remediated. Since the corrective action work at the Andante property was completed, the nomenclature RBSLs was replaced by the term Environmental Screening Levels (**ESLs**). For some COCs the limiting screening concentrations specified by the ESLs were changed from the original RBSL concentrations. As is appropriate, unless otherwise stated, the screening criteria used throughout this document are the RBSLs that were current at the time the corrective action program for the Andante property was undertaken (California Regional Water Quality Control Board 2001).

If COC concentrations are lower than the applicable Tier 1 screening values for a given usage and such use is not otherwise contraindicated, the site passes the Tier 1 screening process and no active remediation is required. However, if concentrations of COC affecting a site exceed the Tier 1 screening levels, this does not necessarily indicate that the site is unsuitable for a proposed use. What it does indicate is that additional investigation and analysis is required before potential risks to site occupants can be evaluated reliably and the site's suitability for its proposed use adjudicated. The investigation and analyses that are required for that evaluation to be made are known as a Tier 2 risk assessment.

As previously noted, it was necessary to leave some small, isolated volumes of affected soil in place in the floor and walls of the remedial excavation opened on the Andante property. The concentrations of COCs in some of those materials were somewhat elevated relative to the RBSLs. Thus, the site did not pass the Tier 1 test for unrestricted occupancy based on a Tier 1 screening. That finding demonstrated that a Tier 2 environmental risk analysis was required. To perform the Tier 2 analysis, highly conservative models of the geology, hydrogeology and the structures to be built on the site were developed by SJC. Based on those models, Tier 2 health risk assessments were performed in compliance with the 2000 edition of the American Society for Testing and Materials' *Standard Guide for Risk-Based Corrective Action* (ASTM Standard E2081-00).

Health risks are expressed in two forms by the ASTM Standard E2081-00 protocol: the carcinogenic risk factor and the toxic hazard quotient. Carcinogenic risk is expressed as the projected increase in the number of persons that become affected by cancer due to extended exposure to the conditions on the subject site compared to the general population not exposed to the site conditions. For example, a carcinogenic risk factor of 1.0×10^{-6} expresses the risk that one additional occurrence of cancer in a population of one million persons exposed to the conditions at the site, compared to the number of incidents of cancer found in a reference population of one million persons not exposed to the environmental conditions at the site.

The toxic hazard quotient is a measure of the severity of exposure for a period of time to a given COC that can be tolerated by a person exposed to that chemical by any pathway (e.g., inhalation of contaminated air, ingestion of contaminated soil, or dermal contact with

contaminated soil) or combination of pathways without suffering any toxicological symptoms due to that exposure. It is expressed as a ratio between the toxic effects on a person exposed to a given COC compared to the effects on that receptor if they had been exposed to an established reference dose below which no adverse health effects are experienced even when exposure is prolonged. A closely related parameter is the "toxicity hazard index" which is the sum of the toxic hazard quotients of two or more COC at a given site due to the exposure of a particular receptor. A toxicity hazard index of 1.0 reflects the maximum tolerable limit to which a person can be exposed without suffering negative health effects. A toxic hazard index of less than 1.0 reflects the degree to which the anticipated exposure is less than that required to induce negative health effects. As the toxic hazard index rises above 1.0, its value reflects the severity of the toxicity of the environment to which a receptor is exposed.

On a given site, persons may be exposed to risks due to the presence of more than one carcinogenic and/or toxic chemical and exposures may be via more than one pathway. Accordingly, to assess health risks properly, it is necessary to consider the effects of exposure to each COC present as well as the cumulative effect of exposure to the COCs by each of the separate pathways via which the receptor may be exposed to the COCs.

7.1 Risk Assessment Software

The *RBCA Toolkit for Chemical Releases, Version 1.3a* computer software, published by Groundwater Services, Inc. of Houston, Texas, was used to perform the mathematical computations necessary to derive the carcinogenic risk factors and toxic hazard quotients at the Andante property (Groundwater Services, Inc. 2000).

7.2 Building-specific Models

To assess reliably the risk to the occupants of the different types of buildings were constructed on the remediated area of the Andante property, SJC developed separate building-specific models for Building 1, 2-A, 3-A and 6, which, as shown on Figure 15, are either in whole or in part located on the remediated area of the site. In each case, as is shown in Table 11, the use of the ground floor of each of those buildings, either residential or commercial, was considered in the risk assessment models to reflect the duration and frequency to which their occupants might, theoretically, be exposed to indoor air affected by COCs. However, regardless of the use of a specific building, the models were designed so that any person at any outdoor location on the redeveloped site would be treated as a permanent resident on the property. That conservative assumption was made because it was assumed that all outdoor areas of the site would be freely available to all occupants of the property regardless of the use of a specific building. Although the multi-storey parking structure built on the site (Building 6) has nearly continuous-large openings on each of its floors, for the purpose of environmental risk analyses, it was assumed that the building was enclosed and that its occupancy was equivalent to that of a commercial building.

Complete details of the environmental modeling procedures, the input parameters selected for the risk assessment analyses, including discussion of the reasoning behind the selection of parameters applicable to the site-specific conditions, and the geotechnical, geochemical and contaminant transport equations and protocols employed by the software used to perform the calculations are fully documented in Volume II of the Corrective Action Report for the Andante property. That report was submitted to, and approved by the ACEHCS (The San Joaquin Company 2003a) and the RWQCB.

Computations of cumulative carcinogenic risk and toxic hazard quotients were made for a conservative model of each of the building-specific situations on the Andante site. In addition, sensitivity studies were performed to assess the effect of varying key model parameters. The sensitivity studies included analyses of limit conditions where it was assumed that certain key parameters might range from extreme low to extreme high values, which were not actually anticipated to occur in the natural environment of the subject property. For example, conditions where the groundwater was at unusually low elevation during a period of extreme drought or at extremely shallow depth during a period of extraordinarily high precipitation were investigated.

7.3 Results of Health Risk Assessments

Table 11 presents the principal results of the Tier 2 health risk assessment performed for the Andante property. It includes results for risks associated with both indoor and outdoor exposures for occupants of both residential and commercial units. In the case of exposure to indoor air, Table 11 includes results for a "Conservative" model that was based on highly-conservative assumptions and parametric values representative of normal groundwater conditions beneath the site. Also included are the results for "Limit" models for the rare site condition where the groundwater table would be at an elevation between 3.5 ft. to 5 ft. BGS, depending upon the area of the site. That limited condition (for which the purpose of the modeling calculations was assumed to be permanent) generated the highest numerical values of cumulative cancer risk and toxic hazard index produced from the range of model conditions analyzed.

To evaluate whether or not the numerical values of the health risks computed from the sitespecific building models were sufficiently low to safely permit use of the Andante site as mixed commercial and residential property, they were compared with the conservativelyselected "target limits" of 1.0×10^{-6} for cumulative carcinogenic risk and 2.0×10^{-1} for the toxic hazard index. Those were the values established by the RWQCB in its applicable guidance document (California Regional Water Quality Control Board - San Francisco Bay Region 2001).

The unusually conservative nature of the target limits used to assess the Andante property can be judged in the context of the values set for those target levels by Federal, State and local agencies. For non-carcinogenic health effects, the results of most health risk assessments are compared with a toxic hazard quotient of 1.0, which represents the threshold value below which no adverse health effects are experienced by exposed populations. This

value is also the ASTM default value for Tier 2 risk assessments. It is based on the precedents set by the US-EPA in its Risk Assessment Guidance for Superfund (**RAGS**) (United States Environmental Protection Agency 1989). It was also adopted by the City of Oakland, but with a requirement to address cumulative risk, if necessary (*i.e.*, to consider the toxic hazard *index*), when it developed its guidelines for Tier 2 health risk assessments for sites in that City (Spence and Gomez 1999). The target limit of 2.0 x 10⁻¹ for the toxic hazard index that was used to evaluate the safety of the Andante property was five times more stringent than the target used by those agencies.

With respect to the potential health effects of carcinogenic COC, there is a general perception that a risk factor of 1.0×10^{-6} represents an established upper limit of acceptable carcinogenic health risk promulgated in State and Federal regulations. That is not, in fact, the case. The USEPA has indicated that the appropriate risk limit applicable to a specific site or a specific form of exposure should fall within the range 1.0×10^{-6} to 1.0×10^{-4} . ASTM recommends a target carcinogenic health risk of 1.0×10^{-5} for risk-based assessments at petroleum release sites and describes that value as representative of *de minimus* risk (American Society for Testing and Materials 2002).

California State Proposition 65 (The Safe Drinking Water and Toxic Enforcement Act of 1986) enforcement is also based on a limiting target risk of 1.0×10^{-5} . Proposition 65 requires the governor of California to publish annually a list of chemicals known to the State to cause cancer or reproductive toxicity. All businesses that might expose individuals to a listed chemical must post a clear warning of such risk on the business premises, unless there is "no significant risk" posed by the chemical in question. The State of California has defined "no significant risk" as less than one excess case of cancer per one-hundred thousand individuals, which corresponds to target risk of 1.0×10^{-5} .

The origin of the $1.0 \ge 10^{-6}$ limit appears to have been a recommended risk-based limit for residues of animal drugs found in human food-grade meat (United States Food and Drug Administration 1973). That target risk level represents, essentially, a zero risk (Malander 2002).

In practical terms, when carcinogenic risk factors of 1.0×10^{-6} or lower are computed for a site, those numerical values have no quantitative meaning other than to indicate that use of a site carries no risks whatsoever to human health beyond those that are routinely present in the general environment.

As can be seen by inspection of Table 11, all of the cumulative carcinogenic risk and toxic hazard index parameters produced by the building-specific health risk assessments are well below the respective target limits of 1.0×10^{-6} and 2.0×10^{-1} , respectively. In fact, the computed values are more than an order of magnitude lower than those target limits. This is not only the case for calculations based on the "Conservative" model, but also for the "Limit" model that assumed that the groundwater would permanently be at extreme high elevations beneath the site. As has been noted above, the computed carcinogenic risk values show that the environmental condition of the Andante property poses no human health risk whatsoever.

7.4 Redundant Protection Provided by Impermeable Membranes Beneath Buildings

The health risk analyses described above demonstrated that there would have been no health risk posed by residential and commercial occupancy of the buildings constructed over the affected area of the Andante property had it been constructed on grade. However, as was discussed in Section 6.0, a 60-mil. Liquid Boot® impermeable, gas-tight barrier was placed beneath the ground floors of Buildings 1, 2-A and 3-A. The Liquid Boot® barriers were not represented in the building-specific models that were used to perform the Tier 2 health risk assessments described herein. Had the barriers been included in the models, its presence would have reduced all calculated health risks to a numerical value of zero. Accordingly, the fact that they were installed beneath the buildings provides an extraordinarily high level of redundancy with respect to elimination of any site-specific environmental risk to the occupants.

8.0 REQUIREMENTS FOR ENVIRONMENTAL CLOSURE OF SITE

Throughout the progress of the remediation program conducted at the Andante site, SJC maintained close communication and coordination with the ACEHCS Case Officer having oversight of the property and supplied the ACEHCS with the results of all the soil and groundwater analyses and the geological and hydrogeologic details of the site as they were developed. In June 2003, Dietz Irrigation, the remediation contractor, prepared a contractor's report of remediation that described the remediation of the subsurface beneath the affected area of the site and provided a compilation of the special waste manifests that controlled the offsite disposal of the affected soil (Dietz Irrigation 2003a). On June 23, 2003, SJC presented the Tier 2 health risk assessment that is described in the section above to the staff of the ACEHCS and the RWQCB.

Following the submittals described above, on July 2, 2003, ACEHCS authorized SNK Captec to proceed with redevelopment of the site and place it into high density residential and commercial use provided that the following conditions were met (Alameda County Environmental Health Care Services 2003b):

- An impermeable, vapor tight membrane be placed beneath all structures within the remediated area except for the parking lot structure
- Clean soil should comprise the upper three feet of all landscaped areas, planting boxes, etc.
- A groundwater quality monitoring program of one year duration be conducted to assess the effectiveness of the remediation conducted in the affected area of the property
- That the property be subject to a deed restriction that specified the terms sited above and that included the following:
 - A drawing delineating where soil, present prior to the remediation of the site, had exceeded screening levels for unrestricted land use as well as a drawing delineating where soil remaining in the subsurface exceeded the same screening levels after remediation. The drawings should include depth contours to depict the estimated vertical depth to which the subsurface was affected prior to the remediation and the equivalent depth following remediation.
 - That the installation of water supply wells and single family residences be prohibited on the property.

8.1 Impermeable Membranes

As has been described in Section 6.0 above, the specified impermeable membranes were installed beneath the floor slabs of each of the structures built over the remediated area with the exception of the parking structure.

8.2 Clean Surficial Soil

Due to the large volume of soil that had been removed from the site as part of the remediation program, it was necessary to import clean soil from offsite to restore the property to grade level. That material covered the whole of the site and was at no point less than three feet thick.

8.3 Post-Remediation Water Quality Monitoring

To comply with the ACEHCS directive to conduct a post-remediation water quality monitoring program, monitoring well SJC-MW-8 was installed in the remediated area on August 20th 2004. As is described in Section 9.0 below, groundwater samples were recovered for analysis from that well on a quarterly basis from that date through September 25th 2005.

8.4 Deed Restriction

In compliance with the ACEHCS directive, a deed restriction for the property citing the requirements and limitations specified by that agency together with the requisite drawings was filed with Alameda County Recorder on December 21st, 2004. A copy, together with the notary's statement certifying the authenticity of the signature applied to the document and a separate certification of the authenticity of the copy as being same as the document on file with the Alameda County Recorder, is included in Appendix D.

9.0 POST-REMEDIATION GROUNDWATER-QUALITY MONITORING

To implement the post-remediation groundwater-quality monitoring program, SJC installed monitoring well SJC-MW-8 within the area that had been remediated at the location shown on Figure 21. That location was chosen because it was the only location within the remediated area that was outside the footprint of the new structures and where underground utilities did not prevent drilling of a well boring.

9.1 Installation of Monitoring Well

Permits to install the temporary groundwater-quality monitoring wells were obtained from the Alameda County Public Works Agency (**ACPWA**).

9.1.1 Well Construction

On August 20, 2004, a boring for a 2-in. diameter monitoring well was drilled using an 8-in., open-stem auger mounted on a drilling rig operated by Gregg Drilling, Inc. of Martinez, California, which holds the requisite C-57 contractor's license issued by the California Contractors State License Board. The well boring was drilled to an approximate depth of 25 ft. BGS. The PVC well casing featured 0.02 in., machine-cut slots from between approximately 5 ft. BGS to the total depth of the well. Number 2 Monterey sand filter material was placed between the screened casing and the wall of the boring. A 2 ft. thick bentonite seal with its bottom approximately 1 ft. above the screened interval of the casing was placed to fill the annular space between the casing and the boring wall. The well head, which is fitted with lockable casing caps, was enclosed in a flush-mounted, steel well vault with steel cover. SJC's California-licensed geologist logged the boring. A.

9.1.2 Disposal of Drill Cuttings

The drill cuttings generated from the boring were temporarily stored in a 55 gal., closed top, steel drum. Because analysis of the soil samples recovered from the boring demonstrated that the drill cuttings contain no analytes of concern, see Section 9.2 below, the contents of the drum were disposed off site as clean material.

9.1.3 <u>Well Development</u>

Following installation of the well No. SJC-MW-8, it was developed by bailing, false bailing and pumping until a minimum of 20 casing volumes had been removed. The well development water was discharged into a 55 gal., closed top, steel drum before it was transferred to a holding tank located at 4070 San Pablo Avenue. That tank is being used to hold development and purge water from wells on that property and will be discharged off site at a permitted facility when sufficient volume has been accumulated for it to be disposed of economically.

9.1.4 Well-head Survey

The elevation of the top of the well casing for SJC-MW-8 was surveyed to an accuracy of plus or minus 0.01 ft. relative to the National Vertical Datum (**NAVD**) by the project engineer. The Geodetic Survey Benchmark No. 7 was used as an elevation reference. The benchmark is a bronze disk that was established by the City of Oakland (but which is located within the City of Emeryville) on the west side of the concrete deck of the bridge that carries San Pablo Avenue over MacArthur Boulevard near the intersection of San Pablo Avenue, Adeline Street and 38th Street. That benchmark has an elevation of 34.78 ft. above the United States Geodetic Survey's Sea Level Datum of 1929. As is noted in Table 3, the casing elevation was 42.58 ft. above NAVD.

9.2 Soil Sampling

While the boring for Monitoring Well SJC-MW-8 was being drilled, the drilling equipment was used to recover soil samples in 2 in. diameter by 6 in. long copper tubes. Discrete samples were recovered from the subsurface at 5 ft. intervals. Each sample tube was then cleaned externally, its ends covered with Teflon foil and closed with tightly-fitted plastic caps secured with adhesive-less tape. Each tube was then labeled for identification, entered into chain-of-custody control and packed on chemical ice for transport to Severn Trent Laboratories, Inc.'s (**STL**) Pleasanton, California laboratory within 10 hours.

Each soil sample was analyzed for the following suite of analytes.

| Analyte | Method of Analysis |
|---|--------------------|
| Total Petroleum Hydrocarbons (quantified as Diesel) | EPA Method 8015M |
| Mineral Spirits | EPA Method 8015M |
| Total Petroleum Hydrocarbons | EPA Method 8260B |
| (quantified as Gasoline) | |
| Benzene | EPA Method 8260B |
| Toluene | EPA Method 8260B |
| Ethyl benzene | EPA Method 8260B |
| Total Xylene Isomers | EPA Method 8260B |
| Tertiary-Butyl alcohol (TBA) | EPA Method 8260B |
| Methyl-tertiary butyl ether (MTBE) | EPA Method 8260B |
| Di-isopropyl ether (DIPE) | EPA Method 8260B |
| Ethyl tertiary-butyl ether (ETBE) | EPA Method 8260B |
| Tertiary-amyl methyl ether (TAME) | EPA Method 8260B |

The certificates of analysis listed by the laboratory are included in Appendix E. As is noted in Table 2, none of the soil samples contained any of the analytes for which they were tested. This is consistent with the well's location in the remediated area of the site where all soil affected by the releases of petroleum hydrocarbons had been removed.

9.3 Quarterly Groundwater Quality Monitoring

Quarterly rounds of groundwater quality monitoring using well SJC-MW-8 were conducted on September 8, 2004, December 9, 2004, March 9, 2005, June 22, 2005 and September 25, 2005. Measurements of depth to groundwater, sample recovery and sample analyses were performed according to the following protocols.

9.3.1 Depths to Groundwater

On each groundwater quality monitoring date a conductivity probe was used to measure the depth to the water table in the well. Those data are recorded in Table 3 which also records the associated groundwater elevations.

9.3.2 Well Purging

After the depths to groundwater were measured, a small-diameter, submersible pump was used to purge Monitoring Well SJC-MW-8 of stagnant water. The pumped water was discharged into 5-gallon pails, each of which was, in turn, discharged into a 55-gallon drum.

During the purging procedure, the temperature, pH and electrical conductivity of the stream of purge water were monitored by checking those parameters periodically using a multi-function electronic meter. Purging continued until both parameters stabilized (*i.e.*, variations between measurements were less than 10%) or, until a minimum of 15 gallons of groundwater had been removed, whichever was greater.

The purge water was managed in the same manner as was the well development water (see Section 9.1.3 above).

9.3.3 Sample Recovery

Samples were recovered from the monitoring well using a disposable, 2 in. diameter bailer. Water brought to the surface was decanted so as to completely fill clean glassware supplied by the laboratory. Sub-samples that were to be analyzed for extractable hydrocarbons were contained in 1-liter amber jars. The sub-samples to be analyzed for volatile organic compounds were contained in volatile organic analysis vials (VOAs) into which 1.0 ml. of hydrochloric acid had been dispensed as a preservative. The sample jars and VOAs were then tightly closed, labeled for identification, entered into chain-of-custody control and packed on chemical ice for transport, within 10 hours, to STL's laboratory in Pleasanton, California.

Each groundwater sample recovered from the temporary monitoring wells was submitted to the laboratory and analyzed for the following suite of analytes.

| Analyte | Method of Analysis |
|---|--------------------|
| Total Petroleum Hydrocarbons (quantified as Diesel) | EPA Method 8015M |
| Mineral Spirits | EPA Method 8015M |
| Total Petroleum Hydrocarbons | EPA Method 8260B |
| (quantified as Gasoline) | |
| Benzene | EPA Method 8260B |
| Toluene | EPA Method 8260B |
| Ethyl benzene | EPA Method 8260B |
| Total Xylene Isomers | EPA Method 8260B |
| Tertiary-Butyl alcohol (TBA) | EPA Method 8260B |
| Methyl-tertiary butyl ether (MTBE) | EPA Method 8260B |
| Di-isopropyl ether (DIPE) | EPA Method 8260B |
| Ethyl tertiary-butyl ether (ETBE) | EPA Method 8260B |
| Tertiary-amyl methyl ether (TAME) | EPA Method 8260B |

The results of analyses of all groundwater samples recovered from Monitoring Well SJC-MW-8 are presented in Table 4.

9.4 Results of Post-Remediation Groundwater Quality Monitoring

As can be seen in Table 4, at various times over the period September 8, 2004 to September 25, 2005 when groundwater quality of SJC-MW-8 was monitored low concentrations of gasoline, diesel, mineral spirits, benzene, toluene, ethyl-benzene, xylene isomers, TBA and MTBE were detected in the groundwater samples. However, all of the concentrations of the detected analytes were very much lower than the applicable ESLs for contaminants in groundwater with respect to their potential affects on human health that were promolgated by the RWQCB in February 2005 (California Regional Water Quality Control Board - San Francisco Bay Region 2005).

Petroleum hydrocarbons in the range of mineral spirits were detected only in the sample recovered on July 22, 2005, but the laboratory could not identify those molecules as being consistent with the mixture of compounds that typically comprise a mineral spirits product. The persistent presence of MTBE, although at low concentrations, is consistent with SJC's previously stated opinion that the great majority of the fuel hydrocarbons that had affected the Andante property had their source on the Celis Site, which was the only neighboring location at which gasoline containing MTBE had been stored.

By October 25, 2005, only diesel with a concentration of 74 μ g/L, benzene at 0.52 μ g/L, and MTBE at 15 μ g/L were present in monitoring well SJC-MW-8.

10.0 CONCLUSIONS

The Andante site that, prior to its redevelopment, had the address 3999 San Pablo Avenue was affected by fuel hydrocarbons and waste oil that had been released by the former Celis' Alliance Service Station that was located on its northern 40th Street frontage (see Figure 5 for location). It is also possible that some of the petroleum hydrocarbons detected on the Andante site originated at the former San Francisco French Bread Company tank site at 4070 San Pablo Avenue and at the former Boysen and Frank Dunne paint manufacturing sites located at the intersection of 41st and Adeline Streets, which location is some 600 ft. to the northeast of the subject property (see Section 4.0). However, subsurface investigations on the Andante property support a conclusion that the extent of any contamination from the San Francisco French Bread Company site or the paint manufacturing sites was of minor significance compared to contamination that had migrated from the former Celis Site.

A phased program of subsurface investigation successfully delineated the lateral and vertical extent of soil and groundwater contamination (see Section 3.0). The affected area is shown on Figure 3. As discussed in Section 5.0, contaminated soil was remediated by excavation to a depth sufficient to either remove all affected material or to the practical limit to which soil could be excavated beneath the water table. Approximately 8,000 cubic yards of the affected material was shipped offsite to permitted disposal facilities. The remedial excavation revealed the presence of a paleo streambed channel that crossed the Andante property from its 40th Street frontage to its San Pablo Avenue frontage. Those deposits, shown on Figure 8, were loose sandy and gravely materials that would have posed a liquefaction risk under seismic loading. These deposits were also removed from the site and replaced with clean, compacted crushed rock. In addition, the paleo streambed channel was plugged where it entered the site at 40th Street and where it left the site at San Pablo Avenue.

As discussed in Section 5.8, the remedial excavation was filled with a clean low-permeability engineered backfill, and the rest of the site was backfilled with similar material at a minimum thickness of three feet. The backfill served to isolate the new structures built on the site from the small pockets of contaminated soil that had to be left in place and from the chemicals of concern that remained in the groundwater beneath the affected area of the site. The success of the remediation program in reducing human health risks both indoor and outdoor was demonstrated by a Tier 2 environmental risk assessment (see Section 7.0). From the assessment, the risk to the future occupants of the site will be well below the "target limits" of 1.0×10^{-6} for cumulative carcinogenic risk and 2.0×10^{-1} for the toxic hazard index. Both of those values comply with the requirements of the RWQCB (California Regional Water Quality Control Board - San Francisco Bay Region 2001) and, in practice, equate to a zero risk to residents of the site.

The Tier 2 environmental risk assessment demonstrated that remediation work completed up through backfilling of the remedial excavation was sufficient to eliminate any significant health risk to future residents of the property. However, to entirely eliminate any risk whatsoever a 60 mil. thickness of Liquid Boot® membrane was placed, with the exception of the parking structure, beneath the floor slabs of each of the new buildings constructed on the affected area of the site.

Following completion of the corrective action work, a corrective action report was prepared by SJC (The San Joaquin Company Inc. 2003a) and submitted to and approved by the ACEHCS and the RWQCB.

As conditions for occupation and use of the redeveloped Andante property and as prerequisites to environmental closure of the site, the ACEHCS specified, as discussed in Section 8.0, that the impermeable membrane discussed above should be installed beneath foundations of occupied structures that are within the affected area of the site. That agency also called for a deed restriction to be included in the title of each of the residential condominiums and retail units that comprise the Andante property. That deed restriction included *inter alia* installation and maintenance of the impermeable membrane described above, use of a minimum thickness of three feet of clean soil in all landscaped and planted areas, prohibition of future use of the property for single family housing and prohibition of installation of water supply wells. A copy of the deed restriction that was filed at the office of the Alameda County Recorder on December 21, 2004 is included in Appendix D.

In addition to the conditions stated above, the ACEHCS called for implementation of a postremediation groundwater-quality monitoring program, which was also specified in the deed restriction, which would extend over a period of one year following completion of the redevelopment of the Andante property. As was discussed in Section 9.0, the required groundwater-quality monitoring program was completed on September 25, 2005.

11.0 RECOMMENDATIONS

SJC recommends that, subject to the concurrence of the RWQCB, that the ACEHCS "close" the Andante property at 3992 San Pablo Avenue as a site under environmental regulatory control without requiring any further action other than to close monitoring well SJCMW-8 under the permit and oversight of the ACPWA.

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RESULTS OF ANALYSES OF SOIL SAMPLES FROM BORINGS DRILLED BY APEX¹ ON ANDANTE PROJECT SITE

| Sample ID | Date Sampled | Depth BGS ft. | TPHd (diesel) mg/Kg | TPHg (gasoline) mg/Kg | Benzene mg/Kg | Toluene mg/Kg | Ethyl- benzene mg/Kg | Total Xylenes mg/Kg | MTBE mg/Kg | Total Lead mg/Kg |
|-----------------------------|----------------------|---------------------|----------------------------------|-----------------------------|----------------------|-------------------------|----------------------------|---------------------------|---------------|------------------------|
| AE GP-1@5' | 02/05/03 | 5 | ND ² | ND | ND | ND | ND | ND | ND | 6.35 |
| AE GP-2@5' AE GP-2@8' | 02/05/03 02/05/03 | 5 8 | ND 69 | ND 1,600 | 0.0093 6.6 | ND 30 | ND 19 | ND 150 | ND ND | 8.83 4.16 |
| AE GP-3@5' | 02/05/03 | 5 | 1.6 | ND | 0.0081 | ND | 0.014 | ND | ND | 6.70 |
| AE GP-4@8' | 02/05/03 | 8 | 34 | 400 | 1.6 | 1.9 | 7.7 | 35 | ND | 4.58 |
| AE GP-5@5' AE GP-5@10' | 02/05/03 02/05/03 | 5 10 | 130 1.2 | 42 31 | 0.17 0.31 | 0.013 ND | 0.69 0.53 | 0.48 1.7 | ND 0.0086 | 8.07 3.80 |
| AE GP-6@5' AE GP-6@11' | 02/05/03 02/05/03 | 5 11 | ND ND | ND ND | ND ND | ND ND | ND ND | ND ND | ND ND | 10.3 6.03 |
| AE GP-7@5' AE GP-7@10' | 02/05/03 02/05/03 | 5 10 | 13 11 | 1.8 25 | ND 0.12 | 0.0061 ND | 0.019 1.2 | 0.0055 0.23 | ND 0.0069 | 10.3 5.42 |
| AE GP-8@10' | 02/05/03 | 10 | 3.4 | ND | ND | ND | ND | ND | ND | 3.01 |
| AE GP-9@5' | 02/05/03 | 5 | 1,100 | 12,000 | 19 | 270 | 230 | 1,300 | 0.061 | 16.7 |
| AE GP-10@6' | 02/05/03 | 6 | 420 | 870 | 3.0 | 8.8 | 9.3 | 46 | ND | 8.41 |
| AE GP-11@5' AE GP-11@10' | 02/05/03 02/05/03 | 5 10 | 6.2 630 | 4,900 26 | 3.3 0.34 | 61 0.5 | 92 0.61 | 590 2.5 | ND ND | 7.92 6.84 |
| AE GP-12@8' | 02/05/03 | 8 | ND | ND | ND | ND | ND | ND | ND | 6.05 |
| AE GP-13@8' | 02/05/03 | 8 | 1.5 | 40 | 0.66 | ND | 1.6 | 3.2 | 0.0075 | 2.83 |
| AE GP-16@5' | 02/05/03 | 5 | 1.4 | 1.3 | ND | ND | ND | ND | ND | 5.57 |
| AE GP-17@5' | 02/05/03 | 5 | ND | ND | ND | ND | ND | ND | ND | 5.06 |
| AE GP-18@5' AE GP-18@10' | 02/05/03 02/05/03 | 5 10 | ND 15 | ND ND | ND ND | ND ND | ND ND | ND ND | ND ND | 6.52 2.17 |
| AE GP-21@7' | 02/05/03 | 7 | ND | ND | ND | ND | ND | ND | ND | 6.10 |
| AE GP-22@7' | 02/05/03 | 7 | ND | ND | ND | ND | ND | ND | ND | 4.46 |
| AE GP-23@7' | 02/05/03 | 7 | 41 | ND | ND | ND | ND | ND | ND | 4.58 |
| AE GP-24@7' | 02/05/03 | 7 | 140 | ND | ND | ND | ND | ND | ND | 4.28 |
| AE GP-25@7' | 02/05/03 | 7 | 54 | ND | ND | ND | ND | ND | ND | 4.58 |
| AE GP-26@5' | 02/05/03 | 5 | ND | ND | ND | ND | ND | ND | ND | 5.31 |
| AE GP-27@5' | 02/05/03 | 5 | ND | ND | ND | ND | ND | ND | ND | 4.14 |
| AE GP-28@5' | 02/05/03 | 5 | ND | ND | ND | ND | ND | ND | ND | 3.73 |
| AE GP-29@5' | 02/05/03 | 5 | ND | ND | ND | ND | ND | ND | ND | 5.05 |

Notes:

Data Apex Envirotech, Inc., (2003) *Results of Limited Subsurface Invesigation*, Table 1
 ND = Not Detected above the Method Detection Limit (MDL).

Concentrations in **bold** script exceed the San Francisco Bay Area RWQCB's RBSL limits for (3) residential sites where groundwater is at less than 3 meters BGS in porous soils where groundwater is not a source of drinking water (Interim Final Edition December 2001).

RESULTS OF ANALYSES OF SOIL SAMPLES RECOVERED FROM EXPLORATORY TRENCHES, TANK PITS AND WELLS ON ANDANTE PROJECT SITE

| Sample ID | Date Sampled | Depth BGS ft. | TPHd (diesel) mg/Kg | Mineral Spirits mg/Kg | TPHg (gasoline) mg/Kg | Benzene mg/Kg | Toluene mg/Kg | Ethyl- benzene mg/Kg | Total Xylenes mg/Kg | TBA mg/Kg | MTBE mg/Kg | TAME mg/Kg | DIPE mg/Kg | ETBE mg/Kg | 1,2-DCA mg/Kg | EDB mg/Kg | Ethanol mg/Kg | PNA (Napthalene) mg/Kg | Total Lead mg/Kg |
|-----------------|-----------------|---------------------|----------------------------------|-----------------------------|------------------------------------|-------------------------|-------------------------|----------------------------|---------------------------|---------------------|---------------|----------------------|----------------------|----------------------|-------------------------|---------------------|-------------------------|-------------------------------------|-------------------------------|
| ET2-N-6.5 | 03/24/03 | 6.5 | 110 ³ | n/a² | 510 ⁵ | 1.1 | 3.7 | 10 | 65 | ND | ND | ND | ND | ND | ND | ND | ND | n/a | n/a |
| ET2-N-9 | 03/24/03 | 9.0 | 46 ³ | n/a | 400 | 2.8 | 8.2 | 7.9 | 45 | ND | ND | ND | ND | ND | ND | ND | ND | n/a | n/a |
| ET2-S-7 | 03/24/03 | 7.0 | ND ¹ | n/a | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | n/a | n/a |
| - | | | | | | | | | | | | | | | | | | | |
| ET1-S-6 | 03/25/03 | 6.0 | ND | n/a | ND | ND | ND | ND | ND | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a |
| | 00/05/00 | | 4.0 | . /- | 4.0 | 0.000 | ND | ND | ND | - 1- | - 1- | . /- | . /- | . /- | - 1- | - 1- | - 1- | - 1- | - 1- |
| ET3-E-8 | 03/25/03 | 8.0 | 1.2 | n/a | 1.2 | 0.030 | ND | ND | ND | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a |
| Tank 1 - N | 04/29/03 | 10.0 | ND | 54 | 31 ⁴ | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | n/a | n/a | 5.6 |
| Tank 1 - S | 04/29/03 | 10.0 | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | n/a | n/a | 2.4 |
| Tank 1P - 20N | 04/29/03 | 3.0 | 230 ³ | ND | ND | ND | ND | 2 | ND | ND | ND | ND | ND | ND | ND | ND | n/a | n/a | n/a |
| Tank 1P - 40N | 04/29/03 | 3.0 | 1.2 ³ | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | n/a | n/a | n/a |
| Tarly 0 | 05/00/00 | 7.0 | | | | | | | | 0.0000 | 0.0004 | | | | | | | | - /- |
| Tank 3 | 05/22/03 | 7.8 | ND | ND | n/a | ND | ND | ND | ND | 0.0080 | 0.0081 | ND | ND | ND | ND | ND | n/a | n/a | n/a |
| SJC-MW-T1-7.5 | 04/11/03 | 7.5 | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | n/a | n/a | n/a | ND | n/a |
| SJC-MW-T1-11.5 | 04/11/03 | 11.5 | 3.5 ³ | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | n/a | n/a | n/a | ND | n/a |
| | | | 2 | | | | | | | | | | | | | | | | |
| SJC-MW-T2-8 | 04/11/03 | 8.0 | 18 ³ | ND | 250 | 1.4 | 3.5 | 5.2 | 27 | ND | ND | ND | ND | ND | n/a | n/a | n/a | ND | n/a |
| SJC-MW-T2A-5 | 04/11/03 | 5.0 | 130 ³ | ND | 660 | ND | 1.4 | 9.9 | 75 | ND | ND | ND | ND | ND | n/a | n/a | n/a | 1.8 | n/a |
| SJC-MW-T2A-9 | 04/11/03 | 9.0 | 8.3 ³ | ND | 500 | 0.5 | 0.5 | 0.5 | 2 | ND | ND | ND | ND | ND | n/a | n/a | n/a | ND | n/a |
| SJC-MW-T2A-15.5 | 04/11/03 | 15.5 | 6.1 ³ | ND | ND | ND | ND | ND | 0.012 | ND | ND | ND | ND | ND | n/a | n/a | n/a | ND | n/a |
| SJC-MW-T2A-19.5 | 04/11/03 | 19.5 | 1.2 ³ | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | n/a | n/a | n/a | ND | n/a |
| | | | | | | | | | | | | | | | | | | | |
| SJC-MW-T3-8 | 04/11/03 | 8.0 | 2.4 ³ | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | n/a | n/a | n/a | ND | n/a |
| SJC-MW-T3-12 | 04/11/03 | 12.0 | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | n/a | n/a | n/a | n/a | n/a |
| | 0.444.65 | | 40.3 | | | | | | | | | | | | , | , | , | | , |
| SJC-MW-T4-8 | 04/11/03 | 8.0 | 12 ³ | ND | ND | ND | ND | ND | 1.8 | 0.01 | ND | ND | ND | ND | n/a | n/a | n/a | ND | n/a |

Andante Project, 3992 San Pablo Ave., Emeryville, CA

| Sample ID | Date Sampled | Depth BGS ft. | TPHd (diesel) mg/Kg | Mineral Spirits mg/Kg | TPHg (gasoline) mg/Kg | Benzene | Toluene mg/Kg | Ethyl- benzene mg/Kg | Total Xylenes mg/Kg | TBA mg/Kg | MTBE | TAME mg/Kg | DIPE mg/Kg | ETBE | 1,2-DCA mg/Kg | EDB mg/Kg | Ethanol | PNA (Napthalene) mg/Kg | Total Lead mg/Kg |
|--------------------------------|----------------------|---------------------|---------------------------|-----------------------------|-----------------------------|----------|-------------------------|----------------------------|---------------------------|---------------------|----------|----------------------|----------------------|----------|-------------------------|---------------------|------------|-------------------------------------|------------------------|
| | | | 0 0 | 0 0 | 0 0 | 0 0 | 0 0 | 0 0 | 0 0 | 0 0 | 0 0 | 0 0 | 0 0 | 0 0 | 0 0 | 0 0 | 0 0 | 0 0 | 0 0 |
| SJC-MW-T4A-5 | 04/11/03 | 5.0 | 2.9 ³ | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | n/a | n/a | n/a | ND | n/a |
| SJC-MW-T4A-12 | 04/11/03 | 12.0 | 14 ³ | ND | 76 | ND | ND | 0.98 | 3.1 | ND | ND | ND | ND | ND | n/a | n/a | n/a | ND | n/a |
| SJC-MW-T4A-15.5 | 04/11/03 | 15.5 | 4.2 ³ | ND | ND | ND | ND | ND | ND | ND | 0.0052 | ND | ND | ND | n/a | n/a | n/a | ND | n/a |
| SJC-MW-T4A-20 | 04/11/03 | 20.0 | 4.6 ³ | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | n/a | n/a | n/a | ND | n/a |
| SJC-MW-T5-5 | 04/11/03 | 5.0 | 34 ³ | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | n/a | n/a | n/a | ND | n/a |
| SJC-MW-T5-7.5 | 04/11/03 | 7.5 | 12 ³ | ND | ND | ND | ND | 0.57 | 2.4 | ND | ND | ND | ND | ND | n/a | n/a | n/a | ND | n/a |
| SJC-MW-T5A-5 | 04/11/03 | 5.0 | 9.3 ³ | ND | ND | 0.0086 | ND | 0.019 | ND | 0.0068 | ND | ND | ND | ND | n/a | n/a | n/a | 0.29 | n/a |
| SJC-MW-T5A-10 | 04/11/03 | 10.0 | 71 ³ | ND | 1,500 | 4.40 | 17.0 | 26.0 | 150.0 | ND | ND | ND | ND | ND | n/a | n/a | n/a | 0.35 | n/a |
| SJC-MW-T5A-15.5 | 04/11/03 | 15.5 | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | n/a | n/a | n/a | n/a | n/a |
| SJC-MW-T5A-19.5 | 04/11/03 | 19.5 | ND | ND | ND | ND | ND | ND | 0.011 | ND | 0.014 | ND | ND | ND | n/a | n/a | n/a | n/a | n/a |
| | | | | | | | | | | | | | | | | | | | n/a |
| SJC-MW-T6-5 | 04/11/03 | 5.0 | 48 ³ | ND | 1,300 | 4.2 | 15 | 23 | 140 | ND | ND | ND | ND | ND | n/a | n/a | n/a | 1.1 | n/a |
| SJC-MW-T6-11.5 | 04/11/03 | 11.5 | 20 ³ | ND | 180 | ND | ND | 2.3 | 120 | ND | ND | ND | ND | ND | n/a | n/a | n/a | 0.50 | n/a |
| SJC-MW-T7-7.5 | 04/11/03 | 7.5 | 37 ³ | ND | 2,000 | 9.1 | 41 | 35 | 230 | ND | ND | ND | ND | ND | n/a | n/a | n/a | 0.91 | n/a |
| SJC-MW-T7-11.5 | 04/11/03 | 11.5 | 150 ³ | ND | 1,600 | 8.2 | 33 | 31 | 200 | ND | ND | ND | ND | ND | n/a | n/a | n/a | 2.1 | n/a |
| SJC-MW-8-6.5 | 08/20/04 | 6.5 | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | n/a | n/a | n/a | n/a | n/a |
| SJC-MW-8-11.0 | 08/20/04 | 11.0 | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | n/a | n/a | n/a | n/a | n/a |
| SJC-MW-8-16.0 | 08/20/04 | 16.0 | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | n/a | n/a | n/a | n/a | n/a |
| SJC-MW-8-20.5 SJC-MW-8-24.0 | 08/20/04 08/20/04 | 20.5 24.0 | ND ND | ND ND | ND ND | ND ND | ND ND | ND ND | ND ND | ND ND | ND ND | ND ND | ND ND | ND ND | n/a n/a | n/a n/a | n/a n/a | n/a n/a | n/a n/a |
| 330-10100-0-24.0 | 00/20/04 | 24.0 | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | n/d | n/a | n/d | n/d | n/d |

Notes:

(1) ND = Not Detected above the Method Detection Limit (MDL).

(2) n/a = Not analyzed

(3) The laboratory reports that the detected hydrocarbon does not match its Diesel standard. The hydrocarbon detected appears to be a mixture of Diesel and Mineral Spirits, but the components of the mixture, all of which were in the Diesel range, were insufficiently distinct to quantify them separately.

(4) Does not match laboratory's standard for gasoline.

(5) Concentrations in **bold** script exceed the San Francisco Bay Area RWQCB's RBSL limits for residential sites were groundwater is at less than 3 meters BGS in porous soils where groundwater is not a source of drinking water (Interim Final Edition December 2001).

DEPTHS TO GROUNDWATER

| Well No. | Date Measured | Casing Elevation | Ground Elevation | Depth below Top of Well Casing | Depth below Ground Level | Groundwater Elevation |
|--------------------|--|--|---------------------|---|---------------------------------|---|
| | | ft. NAVD | ft. NAVD | ft. | ft. | ft. NAVD |
| SMW-1 ¹ | 09/11/92 12/03/92 03/04/93 06/04/93 09/02/93 12/01/93 | n/a ² n/a n/a n/a n/a | | 9.10 9.55 7.82 5.15 8.00 11.82 | n/a n/a n/a n/a n/a | n/a n/a n/a n/a n/a |
| WC-EW-1 | 03/08/94 12/05/97 09/26/97 06/02/98 03/13/98 | n/a 39.04 | n/a | 5.08 6.00 8.06 7.24 5.92 | n/a n/a n/a n/a | n/a 33.04 30.98 31.80 33.12 |
| LF-LF-1 | 08/08/93 08/20/93 | 38.95 | n/a | 9.40 10.00 | n/a | 29.55 28.95 |
| LF-LF-2 | 08/08/93 08/20/93 | 40.25 | n/a | 7.97 8.29 | n/a n/a | 32.28 31.96 |
| LF-LF-3 | 08/08/93 08/07/93 | 39.35 | n/a | 8.90 9.18 | n/a n/a | 30.45 30.17 |
| LF-LF-4 | 06/02/98 03/13/98 12/05/97 09/26/97 01/28/94 | 38.08 | n/a | 6.99 6.58 6.28 8.25 6.77 | n/a n/a n/a n/a | 31.09 31.50 31.80 29.83 31.31 |
| SJC-MW-T1 | 04/14/03 04/16/03 04/21/03 | 46.99 | 43.51 | 6.69 6.84 8.14 | 3.21 3.36 4.66 | 40.30 40.15 38.85 |
| SJC-MW-T2 | 04/14/03 04/16/03 04/21/03 | 43.26 | 41.54 | 2.83 3.42 4.22 | 1.11 1.70 2.50 | 40.43 39.84 39.04 |
| SJC-MW-T2A | 04/14/03 04/16/03 04/21/03 | 43.99 | 41.52 | 7.49 7.52 7.00 | 5.02 5.05 4.53 | 36.50 36.47 36.99 |
| SJC-MW-T3 | 04/14/03 04/16/03 | 46.01 | 42.50 | 7.77 7.89 | 4.26 4.38 | 38.24 38.12 |

| Well No. | Date Measured | Casing Elevation | Ground Elevation | Depth below Top of Well Casing | Depth below Ground Level | Groundwater Elevation |
|-------------|--|---------------------|---------------------|--------------------------------------|--------------------------------------|---|
| | | ft. NAVD | ft. NAVD | ft. | ft. | ft. NAVD |
| | 04/21/03 | | | 8.12 | 4.61 | 37.89 |
| SJC-MW-T4 | 04/14/03 04/16/03 04/21/03 | 41.01 | 39.73 | 3.32 3.54 5.14 | 2.04 2.26 3.86 | 37.69 37.47 35.87 |
| SJC-MW-T4A | 04/14/03 04/16/03 04/21/03 | 42.70 | 39.69 | 8.81 8.10 8.00 | 5.80 5.09 4.99 | 33.89 34.60 34.70 |
| SJC-MW-T5 | 04/14/03 04/11/02 04/21/03 | 41.79 | 39.64 | 2.33 3.52 5.22 | 0.18 1.37 3.07 | 39.46 38.27 36.57 |
| SJC-MW-T5A | 04/14/03 04/16/03 04/21/03 | 42.30 | 39.52 | 4.20 6.62 7.56 | 1.42 3.84 4.78 | 38.10 35.68 34.74 |
| SJC-MW-T6 | 04/14/03 04/16/03 04/21/03 | 44.02 | 40.73 | 5.28 5.99 7.07 | 1.99 2.70 3.78 | 38.74 38.03 36.95 |
| SJC-MW-T7 | 04/14/03 04/16/03 04/21/03 | 44.10 | 40.55 | 5.86 6.24 6.86 | 2.31 2.69 3.31 | 38.24 37.86 37.24 |
| SJC-MW-8 | 09/08/04 12/09/04 03/24/05 06/22/05 09/22/05 | 42.58 | 43.07 | 5.69 3.90 3.66 4.78 5.53 | 6.18 4.39 4.15 5.27 6.02 | 36.89 38.68 38.92 37.80 37.05 |

RESULTS OF ANALYSES OF GROUNDWATER SAMPLES RECOVERED FROM EXPLORATORY TRENCHES AND TEMPORARY WELLS ON ANDANTE PROJECT SITE

| Sample ID | Date Sampled | TPHd (diesel) | Mineral Spirits | TPHg (gasoline) | Benzene | Toluene | Ethyl- benzene | Total Xylenes | TBA | MTBE | TAME | DIPE | ETBE | 1,2-DCA | EDB | Ethanol | PNA (Naphthalene) |
|-----------------|-----------------|---------------------|--------------------|--------------------|--------------|---------|-------------------|------------------|-----------------|------|------|------|------|---------|------|---------|----------------------|
| | Campica | μg/L | μg/L | μg/L | μ g/L | μg/L | μg/L | μg/L | μg/L | μg/L | μg/L | μg/L | μg/L | μg/L | μg/L | μg/L | μg/L |
| ET2-C-W | 03/24/03 | 20,000 ³ | n/a | 510,000 | 1,100 | 3,700 | 10,000 | 65,000 | ND ¹ | ND | ND | ND | ND | ND | ND | ND | n/a² |
| SJC-MW-T1 | 04/16/03 | 380 ⁴ | ND | 280 | 1.7 | ND | 0.54 | ND | ND | 6.3 | ND | ND | ND | ND | ND | ND | n/a |
| SJC-MW-T2 | 04/16/03 | 7,900 ⁴ | ND | 33,000 | 460 | 1,200 | 1,300 | 8,300 | ND | 15 | ND | ND | ND | ND | ND | ND | n/a |
| SJC-MW-T2A | 04/16/03 | 6,700 ⁴ | ND | 63,000 | 1,400 | 2,000 | 3,300 | 17,000 | ND | ND | ND | ND | ND | ND | ND | ND | n/a |
| SJC-MW-T3 | 04/16/03 | 320 ⁴ | ND | ND | ND | 0.71 | ND | ND | ND | 0.59 | ND | ND | ND | ND | ND | ND | n/a |
| SJC-MW-T4 | 04/16/03 | 360 4 | ND | 670 | 94 | 1.9 | 83 | 120 | ND | 0.93 | ND | ND | ND | ND | ND | ND | n/a |
| SJC-MW-T4A | 04/16/03 | 740 ⁴ | ND | 5,700 | 120 | 4 | 630 | 790 | ND | 78 | ND | ND | ND | ND | ND | ND | n/a |
| SJC-MW-T5 | 04/16/03 | 320 ⁴ | ND | 610 | 130 | 2.1 | 54 | 90 | ND | 1.4 | ND | ND | ND | ND | ND | ND | n/a |
| SJC-MW-T5A | 04/16/03 | 5,400 ⁴ | ND | 34,000 | 2,700 | 2,200 | 2,100 | 9,000 | ND | ND | ND | ND | ND | ND | ND | ND | n/a |
| SJC-MW-T6 | 04/16/03 | 4,500 ⁴ | ND | 24,000 | 1,900 | 1,900 | 1,100 | 6,200 | ND | ND | ND | ND | ND | ND | ND | ND | n/a |
| SJC-MW-T7 | 04/16/03 | 6,100 ^₄ | ND | 45,000 | 3,400 | 4,800 | 1,700 | 9,300 | ND | ND | ND | ND | ND | ND | ND | ND | n/a |
| 30S-40E (Water) | 05/15/03 | 3,200 ⁴ | ND | 23,000 | 1,500 | 2,400 | 730 | 3,700 | ND | 74 | ND | ND | ND | ND | ND | ND | 140 |
| SJC-MW-8 | 09/08/04 | ND | ND | 60 | ND | ND | ND | ND | ND | 26 | ND | ND | ND | na | na | na | na |
| | 12/09/04 | 53 ⁴ | ND | 100 | 3 | ND | ND | ND | 0.91 | 26 | ND | ND | ND | na | na | na | na |
| | 03/09/05 | 130 4 | ND | 180 | 14 | 22 | 11 | 20 | ND | 17 | ND | ND | ND | na | na | na | na |
| | 06/22/05 | 230 4 | 59 ⁶ | 60 | ND | ND | ND | ND | ND | 15 | ND | ND | ND | na | na | na | na |
| | 09/25/05 | 74 ⁴ | ND | ND | 0.52 | ND | ND | ND | ND | 15 | ND | ND | ND | na | na | na | na |

Notes:

(1) ND = Not Detected above the Method Detection Limit (MDL).

(2) n/a = Not Analyzed.

(3) Chromatogram for this sample indicates that the only analyte in the C 9 to C 24 range is Mineral Spirits.

(4) The laboratory reports that the detected hydrocarbon does not match its Diesel Standard.

(5) Concentrations in **bold** script exceed the San Francisco Bay Area RWQCB's RBSL limits for residential sites where groundwater is at less than 3 meters BGS in porous soils where groundwater is not a source of drinking water (Interim Final Edition December 2001).

(6) Laboratory reports unknown hydrocarbons quantified as Mineral Spirits

RESULTS OF ANALYSES OF SOIL SAMPLES RECOVERED FROM 40TH STREET RIGHT-OF-WAY¹

| Sample ID | Date Sampled | Depth BGS | TRPH ² | TPHd Diesel | TPHg (gaso- line) | TPHmo (motor oil) | Ben- zene | Toluene | Ethyl- ben- zene | Total Xylenes | Methy- lene Chloride | Alaclor 1260 | Naphth- alene | 2-Methyl- naphth- alene | 4-Methyl- phenol |
|--------------|-----------------|--------------|-------------------|----------------|-------------------------|-------------------------|--------------|-----------------|------------------------|------------------|----------------------------|-----------------|------------------|-------------------------------|---------------------|
| | | ft. | mg/Kg | mg/Kg | mg/Kg | mg/Kg | mg/Kg | mg/Kg | mg/Kg | mg/Kg | mg/Kg | mg/Kg | mg/Kg | mg/Kg | mg/Kg |
| LFSB1-7.0 | 08/08/93 | 7 | 290 | 240 | 850 | 27 | 5.4 | ND ⁴ | 25 | 42 | n/a ³ | n/a | n/a | n/a | n/a |
| LFSB1-9.5 | 08/08/93 | 9.5 | 130 | 220 | 180 | ND | 0.89 | 1.1 | 4.3 | 18 | n/a | n/a | n/a | n/a | n/a |
| LFSB1-14.5 | 08/08/93 | 14.5 | 60 | ND | 7.4 | ND | 0.44 | 0.44 | 0.14 | 0.61 | n/a | n/a | n/a | n/a | n/a |
| LFSB2-7.0 | 08/08/93 | 7 | 160 | 790 | 780 | 57 | 8 | ND | 31 | 140 | n/a | ND | n/a | n/a | n/a |
| LFSB2-9.5 | 08/08/93 | 9.5 | 210 | 200 | 720 | ND | 2.4 | 5.2 | 15 | 59 | n/a | n/a | n/a | n/a | n/a |
| LFSB2-14.5 | 08/08/93 | 14.5 | 43 | ND | 1.0 | 12 | 0.2 | 0.21 | 0.021 | 0.12 | n/a | ND | n/a | n/a | n/a |
| LFSB3-9.5 | 08/07/93 | 9.5 | 37 | 11 | 580 | ND | 9.7 | 50 | 15 | 90 | n/a | ND | n/a | n/a | n/a |
| LFSB3-14.5 | 08/07/93 | 14.5 | 37 | ND | 0.9 | ND | 0.092 | 0.16 | 0.031 | 0.17 | n/a | ND | n/a | n/a | n/a |
| LFSB4-7.0 | 08/08/93 | 7 | 70 | 13 | 380 | ND | 3 | 5.2 | 8.2 | 18 | n/a | n/a | n/a | n/a | n/a |
| LFSB4-14.5 | 08/08/93 | 14.5 | 210 | ND | ND | ND | 0.026 | 0.005 | 0.019 | 0.023 | n/a | n/a | n/a | n/a | n/a |
| LFSB5-7.0 | 08/08/93 | 7 | 37 | 15 | 410 | ND | 2.4 | 0.6 | 16 | 6.3 | n/a | n/a | n/a | n/a | n/a |
| LFSB5-14.5 | 08/08/93 | 14.5 | 93 | ND | ND | ND | 0.011 | ND | 0.008 | 0.008 | n/a | n/a | n/a | n/a | n/a |
| LFSB6-9.5 | 08/08/93 | 9.5 | 67 | 51 | 490 | ND | 2.7 | ND | 15 | 15 | n/a | n/a | n/a | n/a | n/a |
| LFSB6-14.5 | 08/08/93 | 14.5 | ND | ND | ND | ND | ND | ND | ND | ND | n/a | n/a | n/a | n/a | n/a |
| LFSB7-9.5 | 08/07/93 | 9.5 | 170 | 52 | 750 | 66 | 2.5 | 8.5 | 22 | 93 | n/a | n/a | n/a | n/a | n/a |
| LFSB7-14.5 | 08/07/93 | 14.5 | ND | ND | 2.8 | ND | ND | ND | 0.029 | 0.03 | n/a | n/a | n/a | n/a | n/a |
| LFSB8-9.5 | 08/08/93 | 9.5 | 130 | 110 | 2,800 | ND | 22 | 9.5 | 82 | 290 | n/a | n/a | n/a | n/a | n/a |
| LFSB8-14.5 | 08/08/93 | 14.5 | 37 | ND | ND | 11 | 0.009 | ND | ND | ND | n/a | n/a | n/a | n/a | n/a |
| LFSB9-7.0 | 08/07/93 | 7 | ND | 14 | 210 | ND | 2.8 | 13 | 5.1 | 29 | n/a | n/a | n/a | n/a | n/a |
| LFSB9-9.5 | 08/07/93 | 9.5 | n/a | n/a | 1,200 | n/a | 14 | 81 | 26 | 140 | n/a | n/a | n/a | n/a | n/a |
| LFSB9-14.5 | 08/07/93 | 14.5 | 77 | ND | ND | ND | 0.079 | 0.059 | 0.011 | 0.041 | n/a | n/a | n/a | n/a | n/a |
| LFSB10-7.0 | 08/07/93 | 7 | n/a | n/a | 73 | n/a | 2.6 | 4.7 | 1.6 | 7.7 | n/a | n/a | n/a | n/a | n/a |
| LFSB10-9.5 | 08/07/93 | 9.5 | 40 | ND | 1,100 | ND | ND | 7.8 | ND | 22 | n/a | n/a | n/a | n/a | n/a |
| LFSB10-14.5 | 08/07/93 | 14.5 | ND | ND | 8.6 | ND | 0.48 | 0.29 | 0.1 | 0.48 | n/a | n/a | n/a | n/a | n/a |

| Sample ID | Date Sampled | Depth BGS | TRPH ² | TPHd Diesel | TPHg (gaso- line) | TPHmo (motor oil) | Ben- zene | Toluene | Ethyl- ben- zene | Total Xylenes | Methy- lene Chloride | Alaclor 1260 | Naphth- alene | 2-Methyl- naphth- alene | 4-Methyl- phenol |
|--------------|-----------------|--------------|-------------------|----------------|-------------------------|-------------------------|--------------|---------|------------------------|------------------|----------------------------|-----------------|------------------|-------------------------------|---------------------|
| | | ft. | mg/Kg | mg/Kg | mg/Kg | mg/Kg | mg/Kg | mg/Kg | mg/Kg | mg/Kg | mg/Kg | mg/Kg | mg/Kg | mg/Kg | mg/Kg |
| LFSB11-14.5 | 08/09/93 | 14.5 | 40 | ND | ND | 11 | ND | ND | ND | ND | n/a | n/a | n/a | n/a | n/a |
| LFSB12-1.0 | 08/09/93 | 1 | 4,600 | ND | ND | 400 | n/a | n/a | n/a | n/a | n/a | ND | n/a | n/a | n/a |
| LFSB12-3.0 | 08/09/93 | 3 | 420 | 560 | 6,500 | 64 | n/a | n/a | n/a | n/a | n/a | ND | n/a | n/a | n/a |
| LFSB13-5.0 | 08/09/93 | 5 | 63 | ND | 23 | ND | n/a | n/a | n/a | n/a | n/a | ND | n/a | n/a | n/a |
| LFSB13-6.5 | 08/09/93 | 6.5 | 37 | ND | 13 | ND | n/a | n/a | n/a | n/a | n/a | ND | n/a | n/a | n/a |
| LFSB14-2.0 | 08/09/93 | 2 | 2,200 | ND | 42 | 480 | n/a | n/a | n/a | n/a | n/a | 0.22 | n/a | n/a | n/a |
| LFSB14-4.5 | 08/09/93 | 4.5 | 47 | ND | ND | ND | n/a | n/a | n/a | n/a | n/a | ND | n/a | n/a | n/a |
| LFSB15-4.5 | 08/09/93 | 4.5 | 480 | 140 | 4,700 | 12 | n/a | n/a | n/a | n/a | n/a | ND | n/a | n/a | n/a |
| LFSB15-6.0 | 08/09/93 | 6 | 120 | 59 | 3,700 | 14 | n/a | n/a | n/a | n/a | n/a | ND | n/a | n/a | n/a |
| LFSB16-4.5 | 08/09/93 | 4.5 | 60 | ND | 9 | ND | n/a | n/a | n/a | n/a | n/a | ND | n/a | n/a | n/a |
| LFSB16-6.0 | 08/09/93 | 6 | 53 | ND | 8 | ND | n/a | n/a | n/a | n/a | n/a | ND | n/a | n/a | n/a |
| LFSB17-4.5 | 08/09/93 | 4.5 | 70 | 40 | 260 | ND | ND | 22 | 12 | 69 | 2.6 | ND | 1.6 | 1.8 | 0.4 |
| LFSB17-6.0 | 08/09/93 | 7 | 50 | 70 | 440 | ND | ND | 27 | 8 | 43 | 2.0 | ND | 0.57 | 0.63 | ND |
| LFSB17-12.0 | 08/09/93 | 12 | 47 | 130 | 500 | 190 | 190 | 9 | 4 | 23 | 0.660 | ND | 1.7 | 1.8 | ND |
| LFSB18-1.0 | 08/09/93 | 1 | 2,200 | ND | 1 | 320 | n/a | n/a | n/a | n/a | n/a | ND | n/a | n/a | n/a |
| LFSB18-3.0 | 08/09/93 | 3 | 1,100 | ND | ND | 390 | n/a | n/a | n/a | n/a | n/a | ND | n/a | n/a | n/a |
| LFSB19-1.5 | 08/09/93 | 1.5 | 2,200 | ND | ND | 530 | n/a | n/a | n/a | n/a | n/a | ND | n/a | n/a | n/a |
| LFSB19-3.0 | 08/09/93 | 3 | 3,600 | ND | 1 | 740 | n/a | n/a | n/a | n/a | n/a | ND | n/a | n/a | n/a |
| LF-1-4.5 | 08/07/93 | 4.5 | 77 | 220 | 550 | 16 | 0.84 | 1.2 | 5.6 | 2.7 | n/a | n/a | n/a | n/a | n/a |
| LF-1-9.5 | 08/07/93 | 9.5 | ND 4 | 18 | 470 | ND | 0.97 | ND | 6.6 | 8.9 | n/a | n/a | n/a | n/a | n/a |
| LF-1-14.5 | 08/07/93 | 14.5 | 60 | 16 | 8.4 | ND | 0.14 | 0.17 | 0.081 | 0.37 | n/a | n/a | n/a | n/a | n/a |
| LF-2-9.5 | 08/07/93 | 9.5 | 30 | 14 | 740 | ND | 4.70 | 35 | 13 | 68 | n/a | n/a | n/a | n/a | n/a |
| LF-2-14.5 | 08/07/93 | 14.5 | ND | ND | ND | ND | 0.009 | 0.012 | ND | 0.015 | n/a | n/a | n/a | n/a | n/a |
| LF-3-9.5 | 08/07/93 | 9.5 | 37 | ND | 75 | ND | 0.062 | 0.28 | 1.1 | 1.1 | n/a | n/a | n/a | n/a | n/a |
| LF-3-14.5 | 08/07/93 | 14.5 | ND | ND | ND | ND | 0.014 | ND | 0.01 | 0.007 | n/a | n/a | n/a | n/a | n/a |
| LF-B1-2 | 08/30/94 | 2 | ND | ND | 0.8 | n/a | 0.008 | ND | 0.016 | 0.085 | n/a | n/a | n/a | n/a | n/a |
| LF-B1-5 | 08/30/94 | 5 | 30 | ND | 110 | n/a | 0.840 | 0.520 | 3.200 | 12 | n/a | n/a | n/a | n/a | n/a |
| LF-B1-10 | 08/30/94 | 10 | 30 | ND | 690 | n/a | 12 | 50 | 18 | 99 | n/a | n/a | n/a | n/a | n/a |
| LF-B2-2 | 08/30/94 | 2 | 10 | ND | 110 | n/a | 0.6 | 2.9 | 3.3 | 16 | n/a | n/a | n/a | n/a | n/a |
| LF-B2-5 | 08/30/94 | 5 | 10 | 1 | 66 | n/a | 0.37 | 0.8 | 0.79 | 3.5 | n/a | n/a | n/a | n/a | n/a |

| Sample ID | Date Sampled | Depth BGS | TRPH ² | TPHd Diesel | TPHg (gaso- line) | TPHmo (motor oil) | Ben- zene | Toluene | Ethyl- ben- zene | Total Xylenes | Methy- lene Chloride | Alaclor 1260 | Naphth- alene | 2-Methyl- naphth- alene | 4-Methyl- phenol |
|--------------|-----------------|--------------|-------------------|----------------|-------------------------|-------------------------|--------------|---------|------------------------|------------------|----------------------------|-----------------|------------------|-------------------------------|---------------------|
| | | ft. | mg/Kg | mg/Kg | mg/Kg | mg/Kg | mg/Kg | mg/Kg | mg/Kg | mg/Kg | mg/Kg | mg/Kg | mg/Kg | mg/Kg | mg/Kg |
| LF-B2-10 | 08/30/94 | 10 | 30 | ND | 830 | n/a | 13 | 52 | 21 | 110 | n/a | n/a | n/a | n/a | n/a |
| LF-B3-2 | 08/30/94 | 2 | 80 | ND | 440 | n/a | 8.5 | 36 | 12 | 58 | n/a | n/a | n/a | n/a | n/a |
| LF-B3-5 | 08/30/94 | 5 | 200 | 8 | 810 | n/a | 14 | 62 | 22 | 100 | n/a | n/a | n/a | n/a | n/a |
| LF-B3-10 | 08/30/94 | 10 | 50 | ND | 390 | n/a | 7.1 | 22 | 7.2 | 38 | n/a | n/a | n/a | n/a | n/a |
| LF-B4-2 | 08/30/94 | 2 | 40 | ND | 49 | n/a | 0.14 | 0.12 | 2.3 | 11 | n/a | n/a | n/a | n/a | n/a |
| LF-B4-5 | 08/30/94 | 5 | 1,300 | 28 | 8,800 | n/a | 6.8 | 7.3 | 190 | 870 | n/a | n/a | n/a | n/a | n/a |
| LF-B4-10 | 08/30/94 | 10 | 110 | 3 | 510 | n/a | 1.1 | 0.96 | 3.4 | 13 | n/a | n/a | n/a | n/a | n/a |
| LF-B5-2 | 08/30/94 | 2 | 10 | ND | 0.4 | n/a | ND | ND | ND | ND | n/a | n/a | n/a | n/a | n/a |
| LF-B5-5 | 08/30/94 | 5 | 2,400 | ND | ND | n/a | ND | ND | ND | ND | n/a | n/a | n/a | n/a | n/a |
| LF-B5-10 | 08/30/94 | 10 | ND | ND | ND | n/a | ND | ND | ND | ND | n/a | n/a | n/a | n/a | n/a |
| LF-B6-2 | 08/30/94 | 2 | 20 | ND | ND | n/a | ND | ND | ND | ND | n/a | n/a | n/a | n/a | n/a |
| LF-B6-5 | 08/30/94 | 5 | 10 | ND | ND | n/a | ND | ND | ND | ND | n/a | n/a | n/a | n/a | n/a |
| LF-B6-10 | 08/30/94 | 10 | ND | ND | ND | n/a | ND | ND | ND | ND | n/a | n/a | n/a | n/a | n/a |
| LF-B7-2 | 08/30/94 | 2 | 10 | ND | 27 | n/a | 0.42 | ND | 0.75 | 0.05 | n/a | n/a | n/a | n/a | n/a |
| LF-B7-5 | 08/30/94 | 5 | ND | ND | 16 | n/a | 0.67 | ND | ND | 0.025 | n/a | n/a | n/a | n/a | n/a |
| LF-B7-10 | 08/30/94 | 10 | 20 | ND | 520 | n/a | 7.4 | 30 | 14 | 78 | n/a | n/a | n/a | n/a | n/a |
| LF-B8-2 | 08/30/94 | 2 | 50 | 5 | 3.4 | n/a | 0.2 | ND | 0.56 | 0.02 | n/a | n/a | n/a | n/a | n/a |
| LF-B8-5 | 08/30/94 | 5 | ND | ND | 14 | n/a | 0.3 | 0.01 | 0.26 | ND | n/a | n/a | n/a | n/a | n/a |
| LF-B8-10 | 08/30/94 | 10 | 20 | ND | 140 | n/a | 2.1 | 5.8 | 4 | 21 | n/a | n/a | n/a | n/a | n/a |
| LF-B9-2 | 08/30/94 | 2 | 20 | ND | 2.8 | n/a | 0.33 | 0.005 | 0.41 | 0.07 | n/a | n/a | n/a | n/a | n/a |
| LF-B9-5 | 08/30/94 | 5 | ND | ND | 40 | n/a | 1.2 | 0.013 | 2.6 | 0.15 | n/a | n/a | n/a | n/a | n/a |
| LF-B9-10 | 08/30/94 | 10 | 20 | ND | 190 | n/a | 4.3 | 11 | 5.5 | 28 | n/a | n/a | n/a | n/a | n/a |
| LF-B10-2 | 08/30/94 | 2 | 150 | ND | 29 | n/a | 0.038 | 0.048 | 0.18 | 1.2 | n/a | n/a | n/a | n/a | n/a |
| LF-B10-5 | 08/30/94 | 5 | 30 | ND | 13 | n/a | ND | 0.02 | 0.05 | ND | n/a | n/a | n/a | n/a | n/a |
| LF-B10-10 | 08/30/94 | 10 | ND | ND | ND | n/a | ND | ND | ND | ND | n/a | n/a | n/a | n/a | n/a |
| LF-B11-2 | 08/30/94 | 2 | 20 | ND | ND | n/a | ND | ND | ND | ND | n/a | n/a | n/a | n/a | n/a |
| LF-B11-5 | 08/30/94 | 5 | ND | ND | 1 | n/a | ND | ND | ND | ND | n/a | n/a | n/a | n/a | n/a |
| LF-B11-10 | 08/30/94 | 10 | 40 | ND | 250 | n/a | 1.1 | 0.35 | 4.4 | 21 | n/a | n/a | n/a | n/a | n/a |
| | 08/30/94 | 2 | 30 | ND | ND | n/a | ND | ND | ND | ND | n/a | n/a | n/a | n/a | n/a |
| LF-B12-5 | 08/30/94 | 5 | ND | ND | 0.9 | n/a | ND | ND | ND | ND | n/a | n/a | n/a | n/a | n/a |
| LF-B12-10 | 08/30/94 | 10 | 30 | ND | 160 | n/a | 0.97 | 0.19 | 4.1 | 20 | n/a | n/a | n/a | n/a | n/a |
| LF-B13-2 | 08/30/94 | 2 | 600 | 220 | ND | n/a | ND | ND | ND | ND | n/a | n/a | n/a | n/a | n/a |

| Sample ID | Date Sampled | Depth BGS | TRPH ² | TPHd Diesel | TPHg (gaso- line) | TPHmo (motor oil) | Ben- zene | Toluene | Ethyl- ben- zene | Total Xylenes | Methy- lene Chloride | Alaclor 1260 | Naphth- alene | 2-Methyl- naphth- alene | 4-Methyl- phenol |
|--------------|-----------------|--------------|-------------------|----------------|-------------------------|-------------------------|--------------|---------|------------------------|------------------|----------------------------|-----------------|------------------|-------------------------------|---------------------|
| | | ft. | mg/Kg | mg/Kg | mg/Kg | mg/Kg | mg/Kg | mg/Kg | mg/Kg | mg/Kg | mg/Kg | mg/Kg | mg/Kg | mg/Kg | mg/Kg |
| LF-B13-5 | 08/30/94 | 5 | 40 | 10 | 4.2 | n/a | ND | ND | 0.02 | ND | n/a | n/a | n/a | n/a | n/a |
| LF-B13-10 | 08/30/94 | 10 | 20 | 3 | 6.9 | n/a | 0.36 | ND | 0.45 | 0.13 | n/a | n/a | n/a | n/a | n/a |
| LF-B14-2 | 08/30/94 | 2 | 410 | ND | ND | n/a | ND | ND | ND | ND | 0.670 | n/a | n/a | n/a | n/a |
| LF-B14-5 | 08/30/94 | 5 | ND | ND | 1.6 | n/a | 0.01 | ND | ND | ND | n/a | n/a | n/a | n/a | n/a |
| LF-B14-10 | 08/30/94 | 10 | ND | ND | 2.9 | n/a | 0.006 | ND | 0.01 | ND | 1.1 | n/a | n/a | n/a | n/a |
| LF-B15-2 | 08/30/94 | 2 | 420 | ND | ND | n/a | ND | ND | ND | ND | n/a | n/a | n/a | n/a | n/a |
| LF-B15-5 | 08/30/94 | 5 | ND | ND | ND | n/a | ND | ND | ND | ND | n/a | n/a | n/a | n/a | n/a |
| LF-B15-10 | 08/30/94 | 10 | 20 | ND | ND | n/a | ND | ND | ND | ND | n/a | n/a | n/a | n/a | n/a |
| LF-B16-2 | 08/30/94 | 2 | 50 | 10 | ND | n/a | ND | ND | ND | ND | n/a | n/a | n/a | n/a | n/a |
| LF-B16-5 | 08/30/94 | 5 | ND | ND | 28 | n/a | 0.16 | ND | 0.96 | 0.037 | n/a | n/a | n/a | n/a | n/a |
| LF-B16-10 | 08/30/94 | 10 | 20 | ND | 130 | n/a | 2.5 | 5.4 | 2.6 | 15 | n/a | n/a | n/a | n/a | n/a |

Notes:

(2) TRPH = Total Recoverable Petroleum Hydrocarbons

(3) n/a = Not Analyzed

- (4) ND = Not Detected above the Method Detection Limit (MDL).
- (5) Concentrations in **bold** script exceed the San Francisco Bay Area RWQCB's RBSL limits for residential sites were groundwater is at less than 3 meters BGS in porous soils where groundwater is not a source of drinking water (Interim Final Edition Dece

⁽¹⁾ Data Source: Levine-Fricke (1994a)

RESULTS OF ANALYSES OF GROUNDWATER SAMPLES RECOVERED FROM 40TH STREET RIGHT-OF-WAY¹

| Sample ID | Date Sampled | TRPH ² μg/L | TPHd (diesel) μg/L | Mineral Spirits µg/L | TPHg (gasoline) μg/L | TPHmo (motor oil) μg/L | Benzene μg/L | Toluene μg/L | Ethyl- benzene μg/L | Total Xylenes μg/L | MTBE μg/L | n-Butyl Benzene μg/L | 1,3,5-Trimethyl benzene μg/L | PNA (Napthalene) μg/L |
|--------------|-----------------|----------------------------------|---------------------------------|----------------------------|-----------------------------------|--------------------------------------|------------------------|------------------------|----------------------------------|--------------------------|---------------------|------------------------------------|---|------------------------------------|
| SMW-1 | 09/11/92 | n/a | n/a | n/a | 1,400 | n/a | 470 | 45 | 43 | 100 | n/a | n/a | n/a | n/a |
| | 12/03/92 | n/a | n/a | n/a | ND | n/a | ND | ND | 1.6 | ND | n/a | n/a | n/a | n/a |
| | 03/04/93 | n/a | n/a | n/a | 700 | n/a | 1.1 | ND | ND | 1.1 | n/a | n/a | n/a | n/a |
| | 06/04/93 | n/a | n/a | n/a | 2,900 | n/a | 340 | 58 | 50 | 140 | n/a | n/a | n/a | n/a |
| | 09/02/93 | n/a | n/a | n/a | 1,500 | n/a | 340 | ND | ND | 140 | n/a | n/a | n/a | n/a |
| | 12/01/93 | n/a | n/a | n/a | 810 | n/a | 170 | 23 | 22 | 39 | n/a | n/a | n/a | n/a |
| | 03/08/94 | n/a | n/a | n/a | 5,800 | n/a | 1,700 | 430 | 230 | 490 | n/a | n/a | n/a | n/a |
| LF-1AG | 08/07/93 | 11,000 | 41,000 | n/a | 100,000 | ND | 13,000 | 9,400 | 3,100 | 14,000 | n/a | n/a | n/a | n/a |
| LF-2AG | 08/07/93 | ND ³ | 95 | n/a | 13,000 | ND | 2,400 | 2,900 | 500 | 2,000 | n/a | n/a | n/a | n/a |
| LF-3AG | 08/07/93 | ND | 780 | n/a | 11,000 | ND | 1,500 | 170 | 2,900 | 5,100 | n/a | n/a | n/a | n/a |
| WCEW-1 | 09/26/97 | n/a ⁴ | 41,000 | n/a | 180,000 | ND | 2,800 | 4,900 | 3,100 | 12,000 | ND | n/a | n/a | 120 |
| | 12/05/97 | n/a | 95 | n/a | 4,700 | ND | 2,100 | 1,800 | 2,500 | 10,000 | 340 | n/a | n/a | 170 |
| | 03/13/98 | n/a | 780 | n/a | 7,700 | ND | 2,500 | 1,300 | 1,000 | 3,400 | 570 | n/a | n/a | 420 |
| | 06/02/98 | n/a | 780 | n/a | 3,400 | 550 | 2,100 | 460 | 910 | 2,990 | 350 | n/a | n/a | 1,000 |
| MW-3 | 05/19/04 | n/a | ND | 420 | 1,300 | n/a | ND | ND | ND | 1.1 | 5.8 | 14 | 12 | ND |

Notes:

(1) Data Sources: Levine-Fricke (1994c), Woodward-Clyde International-Americas (1998a)

(2) TRPH = Total Recoverable Petroleum Hydrocarbons

(3) ND = Not Detected above the Method Detection Limit (MDL).

(4) n/a = Not Analyzed.

(5) Concentrations in **bold** script exceed the San Francisco Bay Area RWQCB's RBSL limits for residential sites where groundwater is at less than 3 meters BGS in porous soils where groundwater is not a source of drinking water. (Interim Final Edition December 2001).

RESULTS OF ANALYSES OF SOIL SAMPLES FROM REMEDIAL EXCAVATION AT FORMER CELIS' ALLIANCE SERVICE STATION 4000 SAN PABLO AVENUE¹

| Sample ID | TRPH mg/Kg | TPHd (diesel) mg/Kg | TPHg (gasoline) mg/Kg | Benzene mg/Kg | Toluene mg/Kg | Ethyl- benzene mg/Kg | Total Xylenes mg/Kg |
|-----------------------|----------------------|----------------------------------|------------------------------------|-------------------------|-------------------------|-----------------------------------|---------------------------|
| Samples Recov | vered from | Walls of Exc | avation ³ | | | | |
| WC N-1 | ND ² | 21 | 920 | 2.6 | 21 | 11 | 57 |
| WC N-2 | ND | 10 | 250 | 0.097 | 0.83 | 2.5 | 11 |
| WC N-3 | ND | 96 | 390 | 0.38 | 3 | 3.6 | 17 |
| WC N-4 | 160 | 310 | 85 | 0.16 | ND | 1 | 1.3 |
| WC W-1 ⁵ | ND | ND | ND | ND | ND | ND | ND |
| WC W-2 | ND | 34 | 230 | 0.34 | 0.61 | 2.3 | 6.9 |
| WC W-3 | ND | 180 | 20 | 0.012 | 0.01 | 0.029 | 0.043 |
| WC W-4 | 150 | 500 | 80 | ND | 0.073 | 0.26 | 0.99 |
| WC S-1 ⁵ | n/a ⁶ | n/a | 800 | 1.7 | 6 | 9.9 | 41 |
| WC S-2 ⁵ | ND | 60 | 430 | 0.4 | 0.2 | 4 | 12 |
| WC S-3 ⁵ | n/a | n/a | 730 | 1.4 | ND | 11 | 1.7 |
| WC S-4 ⁵ | ND | 25 | 560 | ND | ND | 5.6 | 13 |
| WC E-1 | n/a | n/a | 240 | 0.33 | 3.5 | 3.4 | 16 |
| WC E-2 | ND | 2 | 170 | 0.81 | 3.4 | 1.8 | 8.9 |
| WC E-3 | n/a | n/a | 660 | 2.9 | 18 | 9.2 | 46 |
| WC E-4 ⁵ | ND | 5.2 | 380 | 2.6 | 12 | 4.9 | 24 |
| Samples Reco | vered From | n Floor of Exc | cavation ⁴ | | | | |
| WC B-C-1 | ND | 68 | 260 | 0.081 | 0.11 | 2 | 8.4 |
| WC B-O&G-1 | ND | 160 | 490 | 2.4 | 9.9 | 6.3 | 27 |
| WC B-D-1 | 15,000 | 18,000 | 650 | 3.8 | 1.7 | 8.1 | 17 |
| WC B-G-1 ⁵ | 120 | ND | 540 | 0.64 | ND | 6.5 | 12 |
| WC B-C-2 ⁵ | ND | 75 | 1,000 | 2.4 | 10 | 11 | 49 |

Notes:

WC B-C-3

Data: Woodward-Clyde Consultants, Remediation Report, January 1995, Figure 4. (1)

690

2.2

15

ND = Not Detected above the Method Detection Limit (MDL). (2)

29

- Soil samples recovered from approx. 8 ft. B.G.S. (3)
- (4) Floor of excavation approx. 9.5 ft. B.G.S.

ND

- (5) Sampling location near property boundary shared with 3992 San Pablo Avenue.
- n/a = Not Analyzed. (6)
- Concentrations in **bold** script exceed the San Francisco Bay Area RWQCB's RBSL limits for (7) residential sites were groundwater is at less than 3 meters BGS in porous soils where groundwater is not a source of drinking water (Interim Final Edition December 2001).

7.3

39

RESULTS OF ANALYSES OF CONFIRMATION SOIL SAMPLES RECOVERED FROM REMEDIAL EXCAVATION ON SNK ANDANTE SITE

| Sample ID | Date Sampled | Elevation MSL ft. | Depth BGS ft. | TPHd (diesel) mg/Kg | Mineral Spirits mg/Kg | TPHg (gasoline) mg/Kg | Benzene mg/Kg | Toluene mg/Kg | Ethyl- benzene mg/Kg | Total Xylenes mg/Kg | TBA mg/Kg | MTBE mg/Kg | TAME mg/Kg | DIPE mg/Kg | ETBE mg/Kg | 1,2- DCA mg/Kg | EDB mg/Kg | Etha- nol mg/Kg | PNA ^(Naphthalene) mg/Kg |
|-------------------|-----------------|-------------------------|---------------------|----------------------------------|-----------------------------|-----------------------------|------------------|-------------------------|----------------------------|---------------------------|---------------------|---------------|----------------------|----------------------|----------------------|-----------------------------|---------------------|-----------------------|--|
| 0S-40E | 05/09/03 | 30.90 | 9.62 | 110 ³ | n/a | 150 | ND ¹ | ND | ND | 13 | n/a² | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a |
| 0S-40E Wall (N) | 05/15/03 | 31.90 | 8.62 | 3.9 ³ | n/a | 540 | ND | ND | 8.8 | 45 | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a |
| 0S-60E | 05/09/03 | 32.40 | 8.08 | 69 ³ | n/a | 2,300 | ND | 37 | 44 | 240 | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a |
| 0S-60E Wall (N)) | 05/15/03 | 33.40 | 7.08 | 10 ³ | n/a | 320 | ND | ND | 4.2 | 14 | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a |
| 0S-80E | 05/09/03 | 31.90 | 8.94 | 8.1 | n/a | 870 | 6.0 | 15 | 16 | 79 | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a |
| 0S-80E Wall (N) | 05/15/03 | 32.90 | 7.94 | 31 ³ | n/a | 630 | ND | 13 | 11 | 74 | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a |
| 0S-100E | 05/16/03 | 30.84 | 10.21 | 21 ³ | n/a | 890 | ND | 20 | 17 | 100 | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a |
| 0S-100E Wall (N) | 05/16/03 | 31.84 | 9.21 | 21 ³ | n/a | 1,200 | ND | 30 | 29 | 160 | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a |
| 0S-120E | 05/14/03 | 31.10 | 10.16 | 7.2 | n/a | 1.74 | 0.031 | ND | 0.037 | ND | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a |
| 0S-120E Wall (N) | 05/15/03 | 32.10 | 9.16 | 66 ³ | n/a | 1,100 | 8.1 | ND | 17 | 100 | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a |
| 0S-140E | 05/14/03 | 31.29 | 10.35 | 140 ³ | n/a | 90 ⁴ | ND | ND | 2.3 | 1.1 | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a |
| 0S-180E | 05/12/03 | 33.99 | 8.51 | 37 ³ | n/a | 110 ⁴ | ND | ND | 1.6 | 1.4 | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a |
| 0S-200E | 05/06/03 | 33.95 | 8.96 | 2.9 ³ | ND | 5.9 | 0.036 | ND | 0.13 | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| 0S-220E | 05/06/03 | 34.20 | 8.75 | 2.5 ³ | ND | 9.6 | 0.21 | ND | 0.68 | 0.058 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| 0S-230E Wall(N) | 05/28/03 | 33.20 | 9.89 | 34 ³ | ND | 450 | ND | 0.76 | 0.86 | 37 | ND | ND | ND | ND | ND | ND | ND | ND | 3.8 |
| 10S-225E Wall (E) | 05/27/03 | 33.20 | 9.83 | ND | n/a | ND | ND | ND | 0.013 | ND | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a |
| 20S-10E | 05/09/03 | 30.44 | 10.78 | 2.1 ³ | n/a | ND | ND | ND | ND | ND | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a |
| 20S-10E Wall (N) | 05/09/03 | 31.44 | 9.78 | ND | n/a | ND | ND | ND | ND | ND | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a |
| 20S-20E | 05/13/03 | 33.86 | 5.80 | 69 ³ | n/a | 350 | ND | 2.0 | 6.0 | 30 | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a |
| 20S-40E | 05/11/03 | 31.25 | 9.27 | 28 | n/a | 200 | 2.3 | 8.1 | 3.9 | 19 | ND | ND | ND | ND | ND | n/a | n/a | n/a | n/a |
| 20S-60E | 05/11/03 | 32.75 | 7.73 | 40 | n/a | 860 | 9.9 | 30 | 14 | 79 | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a |
| 20S-100E | 05/16/03 | 30.44 | 10.64 | 48 ³ | n/a | 2,000 | 18 | 43 | 39 | 190 | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a |

Andante Project, 3992 San Pablo Ave., Emeryville, CA

| Sample ID | Date Sampled | Elevation MSL ft. | Depth BGS ft. | TPHd (diesel) mg/Kg | Mineral Spirits mg/Kg | TPHg (gasoline) mg/Kg | Benzene mg/Kg | Toluene mg/Kg | Ethyl- benzene mg/Kg | Total Xylenes mg/Kg | TBA mg/Kg | MTBE | TAME mg/Kg | DIPE mg/Kg | ETBE | 1,2- DCA mg/Kg | EDB mg/Kg | Etha- nol mg/Kg | PNA (Naphthalene) mg/Kg |
|-----------------------------|-----------------|-------------------------|---------------------|----------------------------------|-----------------------------|-----------------------------|------------------|-------------------------|----------------------------|---------------------------|---------------------|------|----------------------|----------------------|------|-----------------------------|---------------------|-----------------------|-------------------------------|
| 20S-120E | 05/12/03 | 31.15 | 10.14 | 16 ³ | n/a | 1,100 | 6.4 | 22 | 19 | 93 | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a |
| 20S-140E | 05/12/03 | 31.29 | 10.81 | 120 ³ | n/a | 2.000 4 | ND | ND | 62 | 110 | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a |
| 20S-140E (Deep) | 05/27/03 | 30.45 | 11.65 | 70 ³ | n/a | 2,000 | 7.8 | ND | 38 | 87 | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a |
| 20S-160E | 05/13/03 | 31.10 | 11.00 | 84 ³ | n/a | 460 | ND | ND | 7.2 | 32 | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a |
| 20S-160E (Deep) | 05/13/03 | 28.26 | 13.50 | ND | n/a | ND | ND | ND | ND | ND | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a |
| 20S-180E | 05/12/03 | 34.18 | 8.01 | 6.5 ³ | n/a | 730 | 5 | ND | 14 | 49 | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a |
| 20S-180E(A) | 05/27/03 | 33.26 | 8.93 | 2.8 ³ | n/a | ND | ND | ND | ND | 0.02 | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a |
| 20S-200E | 05/07/03 | 35.44 | 7.50 | 2.9 | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| 20S-220E | 05/09/03 | 34.48 | 8.50 | 1.7 | n/a | ND | ND | ND | ND | ND | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a |
| 20S-220E Wall (E) | 05/09/03 | 35.48 | 7.50 | 2.1 ³ | n/a | ND | ND | ND | ND | ND | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a |
| 30S-40E (13.6) ⁷ | 05/15/03 | 26.92 | 13.60 | 2.1 ³ | ND | ND | ND | ND | ND | ND | 0.0051 | ND | ND | ND | ND | ND | ND | ND | ND |
| 30S-40E (15.0) | 05/15/03 | 24.52 | 15.00 | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| 35S-200E | 05/09/03 | 34.45 | 8.46 | ND | n/a | ND ND | ND ND | ND | ND | ND | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a |
| 35S-200E Wall (S) | 05/09/03 | 35.45 | 7.47 | ND | n/a | ND | ND | ND | ND | ND | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a |
| 40S-0E | 05/09/03 | 34.73 | 4.97 | 1.5 ³ | n/a | ND | ND | ND | ND | 0.057 | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a |
| 40S-0E Wall (W) | 05/09/03 | 35.73 | 3.97 | ND | n/a | ND | ND | ND | ND | 0.018 | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a |
| 40S-20E | 05/13/03 | 32.46 | 7.67 | 140 ³ | n/a | 840 | 3.3 | 19 | 14 | 74 | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a |
| 40S-20E (A) | 05/14/03 | 32.13 | 7.95 | 13 ³ | n/a | 200 | 1.9 | 3.0 | 3.5 | 18 | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a |
| 40S-60E | 05/15/03 | 31.64 | 8.83 | 75 ³ | n/a | 1,100 | 6.7 | 15 | 18 | 110 | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a |
| 40S-80E | 05/14/03 | 31.10 | 9.62 | 110 ³ | n/a | 2,400 | 15 | 35 | 46 | 250 | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a |
| 40S-80E(Deep) | 05/27/03 | 28.00 | 12.73 | 1.0 ³ | n/a | ND | ND | ND | ND | 0.02 | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a |
| 40S-100E | 05/27/03 | 30.00 | 11.04 | ND | n/a | 78 | 0.72 | ND | 1.8 | 8.6 | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a |
| 40S-120E | 05/27/03 | 30.69 | 10.56 | 4.9 ³ | n/a | 440 | 3.6 | 3.7 | 8.4 | 39 | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a |
| 40S-140E | 05/12/03 | 31.31 | 10.32 | 21 ³ | n/a | 65 | ND | ND | 1.1 | 6.8 | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a |
| 40S-140E | 05/21/03 | 30.21 | 11.39 | ND | n/a | ND | ND | ND | ND | ND | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a |
| 40S-160E | 05/08/03 | 35.56 | 6.50 | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | n/a |
| 40S-160E Wall(S) | 05/08/03 | 36.56 | 5.50 | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | n/a |
| 40S-160E | 05/21/03 | 35.05 | 6.50 | 3.7 ³ | n/a | ND | ND | ND | 0.0097 | 0.018 | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a |

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| Sample ID | Date Sampled | Elevation MSL ft. | Depth BGS ft. | TPHd (diesel) mg/Kg | Mineral Spirits mg/Kg | TPHg (gasoline) mg/Kg | Benzene mg/Kg | Toluene mg/Kg | Ethyl- benzene mg/Kg | Total Xylenes mg/Kg | TBA mg/Kg | MTBE | TAME mg/Kg | DIPE mg/Kg | ETBE mg/Kg | 1,2- DCA mg/Kg | EDB mg/Kg | Etha- nol mg/Kg | PNA (Naphthalene) mg/Kg |
|-------------------------------|----------------------|-------------------------|---------------------|----------------------------------|-----------------------------|-----------------------------|------------------|-------------------------|-----------------------------------|---------------------------|---------------------|------------|----------------------|----------------------|----------------------|-----------------------------|--------------|-----------------------|-------------------------------|
| 40S-160E Wall(S) | 05/21/03 | 35.05 | 5.50 | ND | n/a | ND | ND | ND | ND | ND | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a |
| 40S-180E | 05/06/03 | 33.99 | 8.16 | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | n/a |
| 40S-180E Wall(E) | 05/06/03 | 34.99 | 7.16 | 1.0 | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| 40S-200E | 05/07/03 | 36.40 | 6.50 | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | n/a |
| 40S-200E Wall(E) | 05/07/03 | 37.40 | 5.50 | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | n/a |
| 50S-180E | 05/06/03 | 33.47 | 8.51 | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | n/a |
| 50S-180E Wall(S) | 05/06/03 | 34.47 | 7.51 | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | n/a |
| 60S-0E | 05/09/03 | 31.90 | 7.47 | 91 ³ | n/a | 1,100 | 3.4 | 20 | 22 | 120 | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a |
| 60S-20E | 05/16/03 | 30.93 | 8.92 | ND | n/a | ND | ND | ND | ND | ND | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a |
| 60S-40E | 05/16/03 | 31.59 | 8.26 | 20 ³ | n/a | 1,500 | 12 | 12 | 28 | 140 | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a |
| 60S-60E | 05/13/03 | 31.94 | 8.81 | 150 ³ | n/a | 600 | ND | ND | 8.0 | 37 | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a |
| 60S-80E | 05/14/03 | 31.94 | 8.50 | 17 ³ | n/a | 240 | 2.0 | ND | 3.0 | 11 | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a |
| 60S-80E(A) | 05/14/03 | 30.74 | 9.70 | 110 ³ | n/a | 2,500 | 12 | 16 | 41 | 230 | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a |
| 60S-80E(Deep) | 05/27/03 | 27.61 | 12.83 | ND | n/a | ND | ND | ND | ND | ND | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a |
| 60S-100E 60S-100E Wall (S) | 05/20/03 05/20/03 | 30.40 29.40 | 10.35 9.35 | 1.3 ³ ND | n/a n/a | ND ND | ND ND | ND ND | ND 0.011 | ND ND | n/a n/a | n/a n/a | n/a n/a | n/a n/a | n/a n/a | n/a n/a | n/a n/a | n/a n/a | n/a n/a |
| 60S-120E | 05/20/03 | 28.81 | 12.15 | ND | n/a | ND | ND | ND | ND | ND | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a |
| 60S-140E 60S-140E Wall (S) | 05/21/03 05/21/03 | 30.21 31.21 | 11.13 10.13 | ND ND | n/a n/a | ND ND | ND ND | ND ND | ND ND | ND ND | n/a n/a | n/a n/a | n/a n/a | n/a n/a | n/a n/a | n/a n/a | n/a n/a | n/a n/a | n/a n/a |
| 70S-135E | 05/20/03 | 28.81 | 12.15 | ND | n/a | ND | ND | ND | 0.012 | ND | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a |
| 70S-135E Wall (S) | 05/20/03 | 29.81 | 11.15 | 1.3 ³ | n/a | ND | ND | ND | ND | ND | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a |
| 80S-0E | 05/05/03 | 32.31 | 8.43 | 68 ³ | ND | 470 | ND | ND | 7.1 | 21 | ND | ND | ND | ND | ND | ND | ND | n/a | 0.46 |
| 80S-0E Wall (W) | 05/05/03 | 33.31 | 7.43 | 8.1 | ND | 100 | ND | ND | 1.4 | 1.4 | ND | ND | ND | ND | ND | ND | ND | n/a | ND |
| 80S-0E (DEEP) | 05/19/03 | 28.15 | 10.80 | 6.5 ³ | n/a | ND | ND | ND | 0.0068 | ND | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a |
| 80S-20E | 05/13/03 | 32.02 | 8.11 | 3.3 ³ | n/a | 51 | ND | ND | 0.91 | 2.4 | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a |
| 80S-40E | 05/20/03 | 29.04 | 11.58 | 14 ³ | n/a | 1,100 | ND | ND | 22 | 98 | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a |
| 80S-40E (DEEP) | 05/23/03 | 26.80 | 13.82 | ND | n/a | ND | ND | ND | ND | ND | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a |

| Sample ID | Date Sampled | Elevation MSL ft. | Depth BGS ft. | TPHd (diesel) mg/Kg | Mineral Spirits mg/Kg | TPHg (gasoline) mg/Kg | Benzene mg/Kg | Toluene mg/Kg | Ethyl- benzene mg/Kg | Total Xylenes mg/Kg | TBA mg/Kg | MTBE | TAME | DIPE | ETBE | 1,2- DCA mg/Kg | EDB | Etha- nol mg/Kg | PNA (Naphthalene) mg/Kg |
|-------------------|-----------------|-------------------------|---------------------|---------------------------|-----------------------------|-----------------------------|------------------|------------------|----------------------------|---------------------------|---------------------|--------|------|------|------|-----------------------------|-----|-----------------------|-------------------------------|
| | | | | | | | | | | | | | | | | | | | |
| 80S-60E | 05/23/03 | 26.75 | 13.09 | ND | n/a | ND | ND | ND | ND | ND | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a |
| 80S-80E | 05/19/03 | 28.70 | 11.40 | 4 ³ | n/a | 95 | 0.77 | ND | 2.3 | 7.6 | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a |
| 80S-80E Wall (S) | 05/19/03 | 29.70 | 10.40 | 47 ³ | n/a | 77 | 0.81 | ND | 1.7 | 7.3 | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a |
| 80S-80E(Deep) | 05/27/03 | 28.01 | 12.09 | 2.8 ³ | n/a | 1.0 | ND | ND | 0.017 | 0.0079 | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a |
| 80S-100E | 05/13/03 | 28.41 | 12.00 | 69 ³ | n/a | 500 | ND | ND | 8.8 | 28 | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a |
| 80S-120E | 05/15/03 | 32.42 | 8.20 | 1.4 ³ | n/a | 90 | 1.6 | ND | 3.3 | 2.8 | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a |
| 80S-120E Wall (S) | 05/15/03 | 33.42 | 7.20 | ND | n/a | ND | ND | ND | ND | ND | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a |
| 100S-0E | 05/05/03 | 31.08 | 7.61 | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | n/a | n/a |
| 100S-0E Wall (W) | 05/05/03 | 32.08 | 6.61 | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | n/a | n/a |
| 100S-20E | 05/16/03 | 30.24 | 8.91 | 71 ³ | n/a | 1,000 | ND | ND | 27 | 70 | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a |
| 100S-20E (A) | 05/19/03 | 26.91 | 12.24 | 9.6 ³ | 1.8 ⁴ | ND | ND | ND | 0.035 | 0.0074 | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a |
| 100S-40E | 05/21/03 | 26.45 | 12.80 | ND | n/a | ND | ND | ND | ND | ND | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a |
| 100S-60E | 05/22/03 | 29.06 | 9.33 | ND | n/a | ND | ND | ND | ND | ND | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a |
| 100S-60E Wall (S) | 05/23/03 | 30.03 | 8.33 | ND | n/a | ND | ND | ND | ND | ND | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a |
| 100S-80E | 05/22/03 | 29.06 | 10.78 | ND | n/a | ND | ND | ND | ND | ND | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a |
| 100S-80E Wall (S) | 05/22/03 | 30.06 | 9.78 | ND | n/a | ND | ND | ND | ND | ND | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a |
| 100S-100E | 05/13/03 | 32.65 | 8.65 | ND | n/a | ND | 0.087 | ND | 0.091 | 0.052 | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a |
| 115S-60E | 05/22/03 | 29.06 | 10.38 | 1.6 ³ | n/a | 2.2 | ND | ND | 0.023 | 0.034 | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a |
| 115S-60E Wall (S) | 05/22/03 | 30.06 | 9.38 | 4.3 ³ | n/a | 180 | ND | ND | 2.3 | 3.1 | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a |
| 120S-0E | 05/05/03 | 29.69 | 8.80 | 5.8 | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | n/a | ND |
| 120S-0E Wall (W) | 05/05/03 | 30.69 | 7.80 | ND | ND | 1.4 | ND | ND | 0.0083 | ND | ND | 0.0053 | ND | ND | ND | ND | ND | n/a | n/a |
| 120S-0E Wall (S) | 05/05/03 | 30.69 | 7.80 | ND | n/a | ND | ND | ND | 0.014 | ND | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a |
| 120S-20E | 05/15/03 | 29.23 | 9.72 | ND | n/a | ND | ND | ND | ND | ND | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a |
| 120S-40E | 05/16/03 | 29.33 | 9.73 | 6.8 ³ | n/a | 130 ⁴ | ND | ND | 3.2 | ND | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a |
| 120S-40E Wall (S) | 05/16/03 | 30.33 | 8.73 | ND | n/a | ND | ND | ND | ND | ND | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a |
| 120S-40E Wall (S) | 05/22/03 | 30.06 | 9.00 | ND | n/a | ND | ND | ND | 0.014 | ND | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a | n/a |

Notes:

(1) ND = Not Detected above the Method Detection Limit (MDL).

(2) n/a = Not analyzed

(3) The laboratory reports that the detected hydrocarbon does not match its Diesel Standard.

(4) The laboratory reports that the detected hydrocarbon does not match its Gasoline Standard.

(5) Concentrations in **bold** script exceed the San Francisco Bay Area RWQCB's limits for human health risk for indoor air impacts used to establish residential RBSLs for chemicals in

Andante Project, 3992 San Pablo Ave., Emeryville, CA

| Sample ID | Date Sampled | Elevation MSL | Depth BGS | TPHd (diesel) | Mineral Spirits | TPHg (gasoline) | Benzene | Toluene | Ethyl- benzene | Total Xylenes | ТВА | MTBE | TAME | DIPE | ETBE | 1,2- DCA | EDB | Etha- nol | PNA (Naphthalene) |
|--------------|-----------------|------------------|--------------|------------------|--------------------|--------------------|---------|---------|-------------------|------------------|-------|-------|-------|-------|-------|-------------|-------|--------------|----------------------|
| | | ft. | ft. | mg/Kg | mg/Kg | mg/Kg | mg/Kg | mg/Kg | mg/Kg | mg/Kg | mg/Kg | mg/Kg | mg/Kg | mg/Kg | mg/Kg | mg/Kg | mg/Kg | mg/Kg | mg/Kg |

fine-grained soils at sites where groundwater is not a source of drinking water (Interim Final Edition December 2001).

(6) Sample data in gray script are for samples recovered from locations where the excavation was later deeped or widened.

(7) Samples recovered from sampling location 30S-40E were taken from the bottom of a small pit dug beneath the local elevation of the floor of the remedial excavation.

SOIL RBSLs FOR HUMAN HEALTH (INDOOR AIR IMPACTS AT RESIDENTIAL SITES)¹

| Chemical | RBSL mg/Kg |
|---|----------------------|
| Benzene | 0.18 |
| 1,2-DCA | 0.85 |
| DIPE | ne ² |
| EDB | ne |
| Ethanol | ne |
| Ethylbenzene | 230 |
| МТВЕ | 68 |
| Naphtalene | 310 |
| TAME | ne |
| ТВА | ne |
| Total Petroleum Hydrocarbons (Gasoline) | na ³ |
| Total Petroleum Hydrocarbons (Mineral Spirits) | na ³ |
| Total Petroleum Hydrocarbons (Diesel) | na ³ |
| Toulene | 310 |
| Xylene Isomers | 210 |

Notes:

- Source: Application of Risk-Based Screening Levels and Decision Making at Sites With Impacted Soil and Groundwater Vol 2, Appendix 1 Table B-1 Impacted Soil and Groundwater Vol 2, Appendix 1 Table B-1, Interim Final Edition December 2001, San Francisco Bay Area RWQCB. Limits shown are for human health risk for indoor air impacts at residential sites where soils are fine grained, as is the case for the post-remediated Andante Project site.
- 2) ne = Not established.
- Not applicable. TPH limits in soil for human health risk apply only when direct contact may occur. Direct contact does not occur at the remediated Andante site.

CONCENTRATIONS OF PETROLEUM HYDROCARBONS DETECTED IN SOIL LEFT IN SITU AT BORING AND WELL LOCATIONS ON ANDANTE PROJECT SITE ¹

| Sample ID | Date Sampled | Depth BGS ft. | TPHd (diesel) mg/Kg | TPHg (gasoline) mg/Kg | Benzene mg/Kg | Toluene mg/Kg | Ethyl- benzene mg/Kg | Total Xylenes mg/Kg |
|---|----------------------------------|----------------------|---|-----------------------------|------------------|-------------------------|----------------------------|---------------------------|
| | | | | | | | | |
| SJC-MW-T1-7.5 SJC-MW-T1-11.5 | 04/11/03 04/11/03 | 7.5 11.5 | ND ² 3.5 ³ | ND ND | ND ND | ND ND | ND ND | ND ND |
| SJC-MW-T2A-15.5 SJC-MW-T2A-19.5 | 04/11/03 04/11/03 | 15.5 19.5 | 6.1 ³ 1.2 ³ | ND ND | ND ND | ND ND | ND ND | 0.012 ND |
| SJC-MW-T3-8 SJC-MW-T3-12 | 04/11/03 04/11/03 | 8.0 12.0 | 2.4 ³ ND | ND ND | ND ND | ND ND | ND ND | ND ND |
| SJC-MW-T4-8 | 04/11/03 | 8.0 | 12 ³ | ND | ND | ND | ND | 1.8 |
| SJC-MW-T4A-12 SJC-MW-T4A-15.5 SJC-MW-T4A-20 | 04/11/03 04/11/03 04/11/03 | 12.0 15.5 20.0 | 14 ³ 4.2 ³ 4.6 ³ | 76 ND ND | ND ND ND | ND ND ND | 0.98 ND ND | 3.1 ND ND |
| SJC-MW-T5A-15.5 SJC-MW-T5A-19.5 | 04/11/03 04/11/03 | 15.5 19.5 | ND ND | ND ND | ND ND | ND ND | ND ND | ND 0.011 |
| SJC-MW-T6-11.5 | 04/11/03 | 11.5 | 20 ³ | 180 | ND | ND | 2.3 | 120 |
| AE GP-8@10' | 02/05/03 | 10 | 3.4 | ND | ND | ND | ND | ND |
| AE GP-18@5' AE GP-18@10' | 02/05/03 02/05/03 | 5 10 | ND 15 | ND ND | ND ND | ND ND | ND ND | ND ND |
| AE GP-21@7' | 02/05/03 | 7 | ND | ND | ND | ND | ND | ND |
| AE GP-22@7' | 02/05/03 | 7 | ND | ND | ND | ND | ND | ND |
| AE GP-23@7' | 02/05/03 | 7 | 41 | ND | ND | ND | ND | ND |
| AE GP-24@7' | 02/05/03 | 7 | 140 | ND | ND | ND | ND | ND |
| AE GP-25@7' | 02/05/03 | 7 | 54 | ND | ND | ND | ND | ND |
| AE GP-26@5' | 02/05/03 | 5 | ND | ND | ND | ND | ND | ND |
| AE GP-27@5' | 02/05/03 | 5 | ND | ND | ND | ND | ND | ND |
| AE GP-28@5' | 02/05/03 | 5 | ND | ND | ND | ND | ND | ND |
| AE GP-29@5' | 02/05/03 | 5 | ND | ND | ND | ND | ND | ND |

Notes:

(1) Data from Apex Envirotech, Inc. (2003) and Table I-6 of this report.
(2) ND = Not Detected above the Method Detection Limit (MDL).

(3) The laboratory reports that the detected hydrocarbon does not match its Diesel Standard.

(4) No analytes of concern were found in soil samples recovered from the following borings: AE GP-6 and - 12

(5) The remedial excavation removed all soil to the full depth of the boring at the following well and boring sites: SJC MWT-2, -5 and -7 and AEGP-1, -2, -3, -4, -5, 6, 7, -9, -10, -11, -13, -16 and -17 (5) Apex Envirotech Inc. recovered no soil samples from the following borings:

AE GP-14, -15, -19, and -20

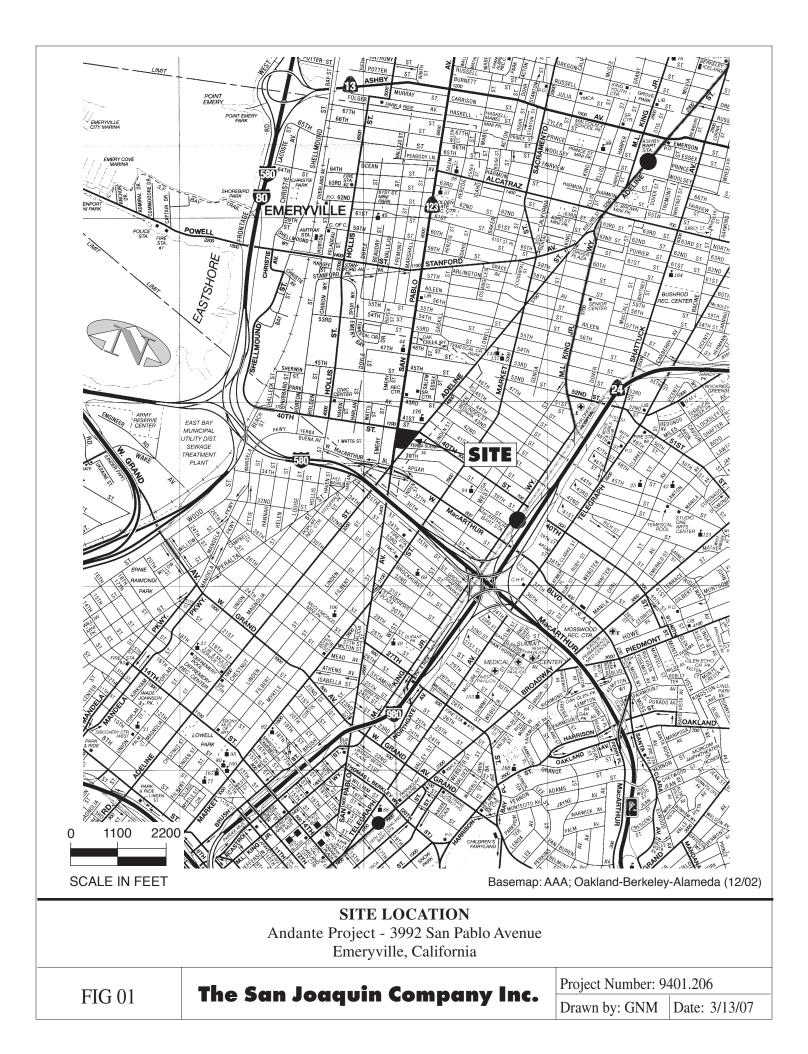
SNk Captec Andante Project, 3992 San Pablo Avenue, Emeryville, CA

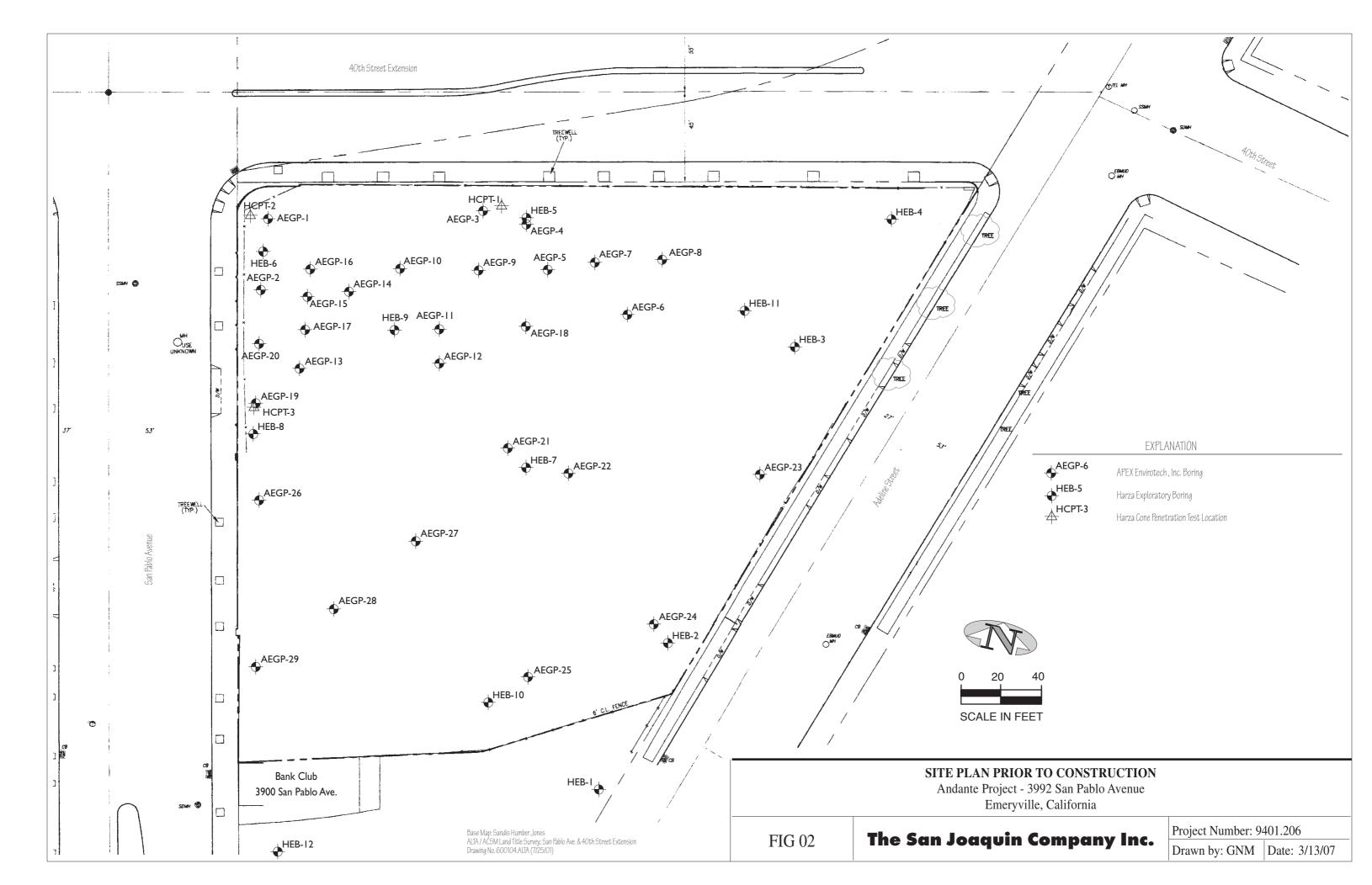
TABLE 11

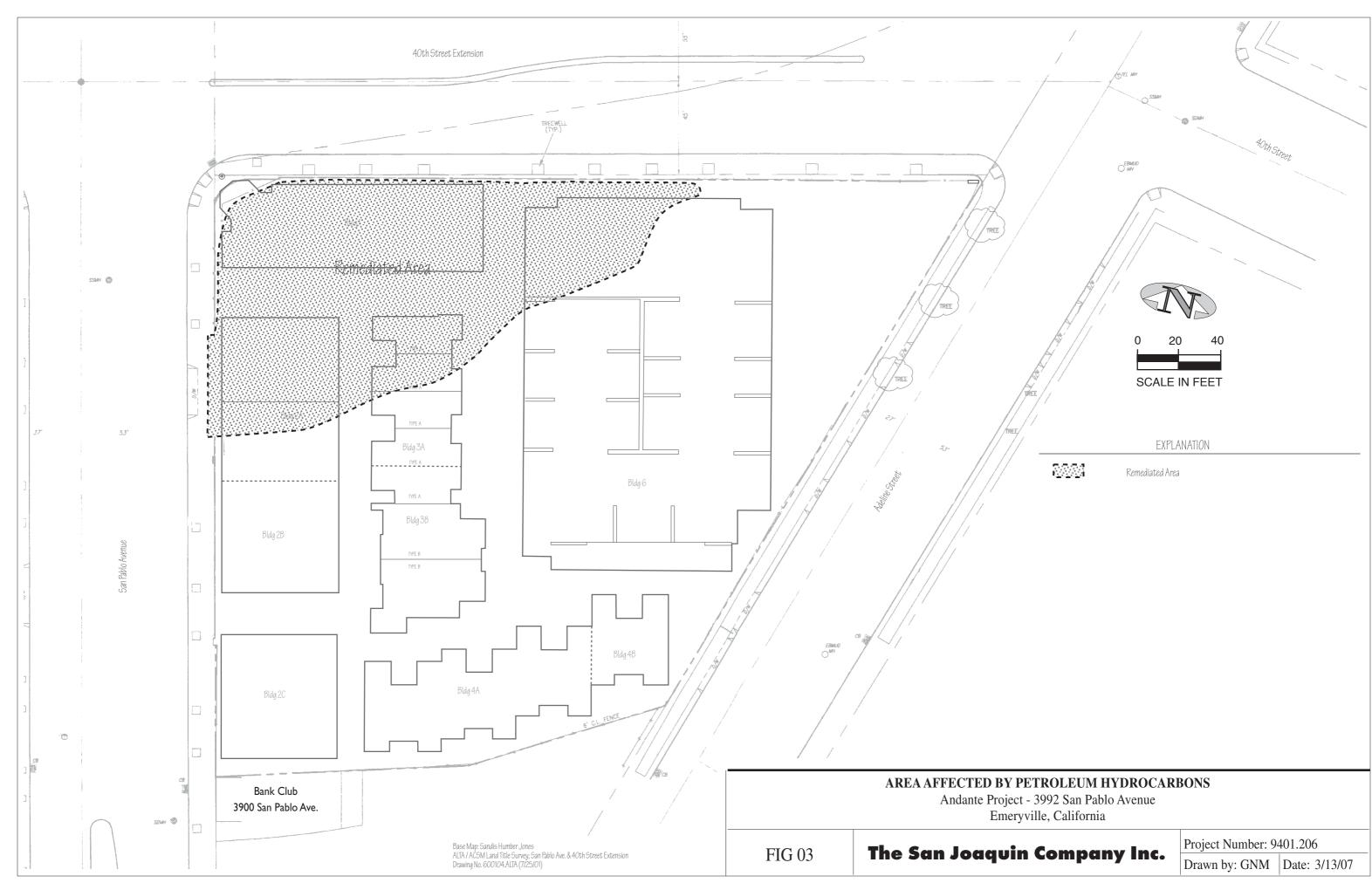
TIER 2 HEALTH RISK ASSESSMENT RESULTS

| | Outdoor Exposure | Indoor Exposure | Cur | nulative Carcino | genic Risk | | Toxic Hazard I | ndex |
|----------|------------------|-----------------------|-------------|------------------|-----------------|-------------|----------------|-----------------|
| Building | | | | Ind | loor Air | | Ind | loor Air |
| Building | Environment | Environment | Outdoor Air | Conservative | Limit Model for | Outdoor Air | Conservative | Limit Model for |
| | Classification | Classification | | Model | Extreme High GW | | Model | Extreme High GW |
| - | G | Fround Floor Occupanc | у | | | | | |

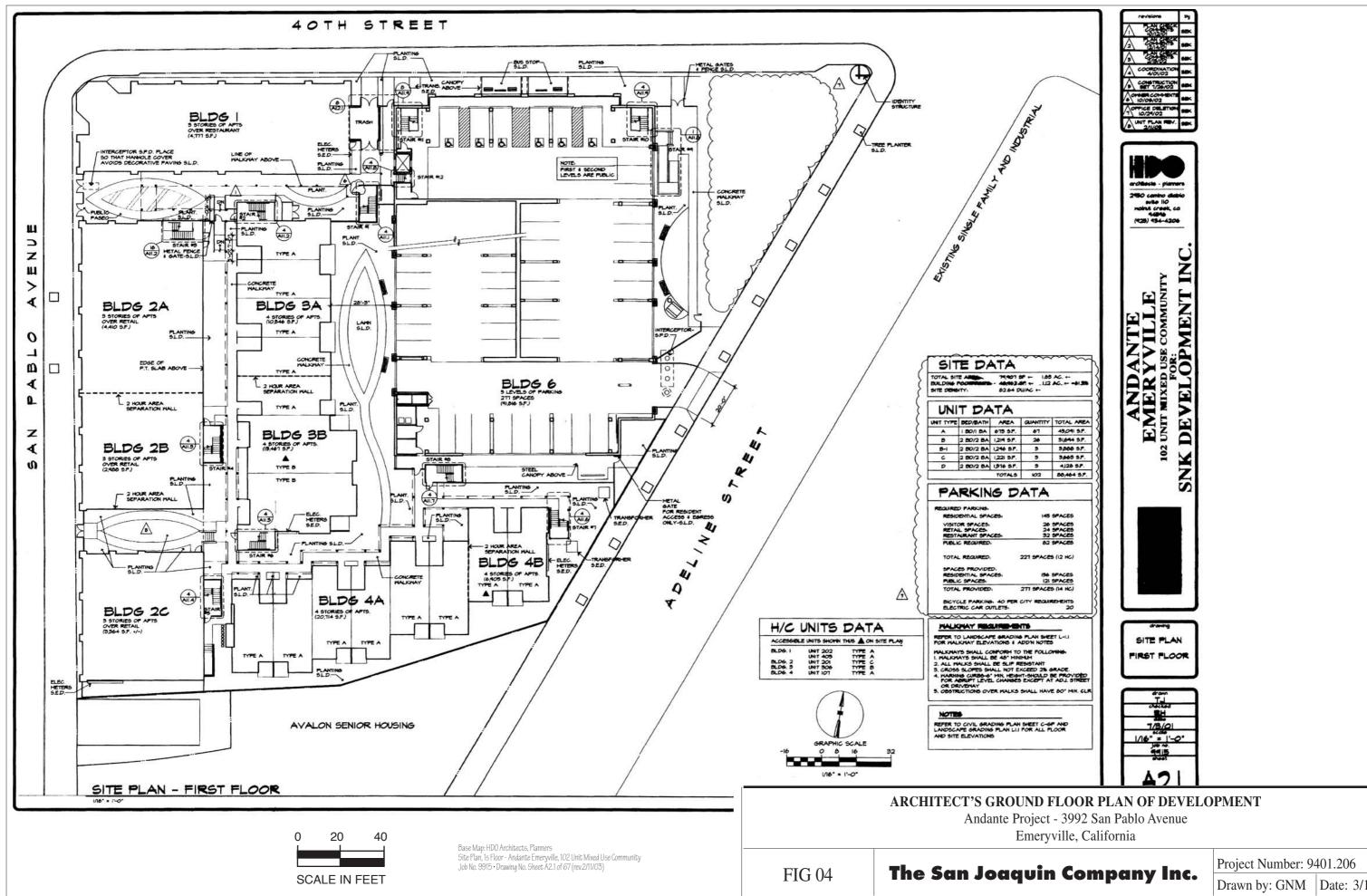
| 1 | Residential | Commercial | 4.0 x 10 ⁻⁹ | 7.4 x 10 ⁻⁸ | 8.9 x 10 ⁻⁸ | 1.9 x 10 ⁻⁴ | 4.3 x 10 ⁻³ | 5.2 x 10 ⁻³ |
|----|-------------|-------------|------------------------|------------------------|------------------------|------------------------|------------------------|------------------------|
| 2A | Residential | Commercial | 4.0 x 10 ⁻⁹ | 8.8 x 10 ⁻⁸ | 1.0 x 10 ⁻⁷ | 1.9 x 10 ⁻⁴ | 5.1 x 10 ⁻³ | 5.9 x 10 ⁻³ |
| ЗA | Residential | Residential | 3.9 x 10 ⁻⁹ | 4.3 x 10 ⁻⁷ | 4.5 x 10 ⁻⁷ | 1.9 x 10 ⁻⁴ | 2.1 x 10 ⁻² | 2.2 x 10 ⁻² |
| 6 | Residential | Commercial | 4.0 x 10 ⁻⁹ | 1.1 x 10 ⁻⁷ | 1.5 x 10 ⁻⁷ | 2.0 x 10 ⁻⁴ | 6.5 x 10 ⁻³ | 8.8 x 10 ⁻³ |



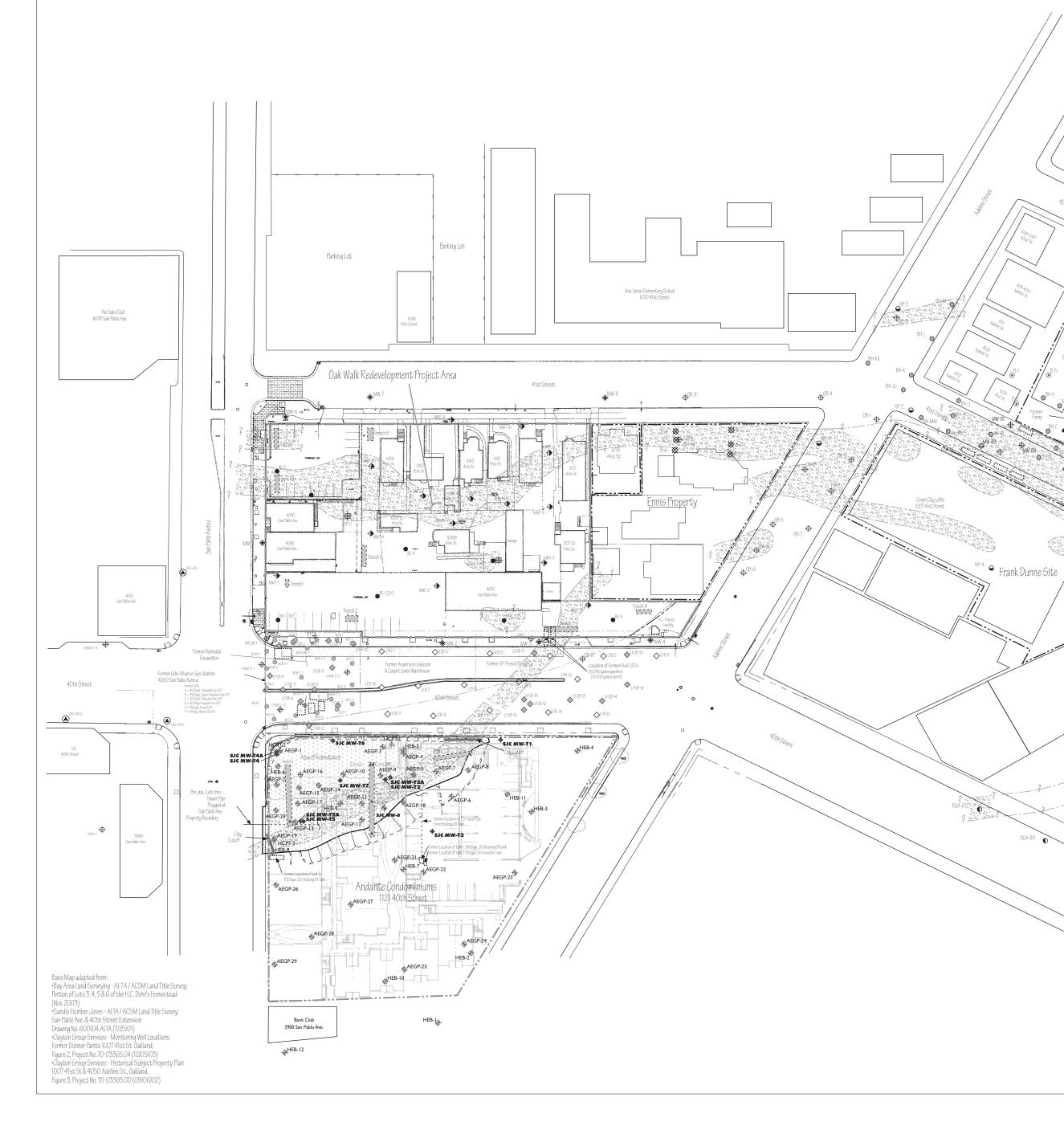


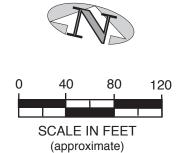


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| Company | INC. | T |



Drawn by: GNM | Date: 3/13/07





Adeline Co

CA Linen Rental Site 989 41st Street

FIG 05

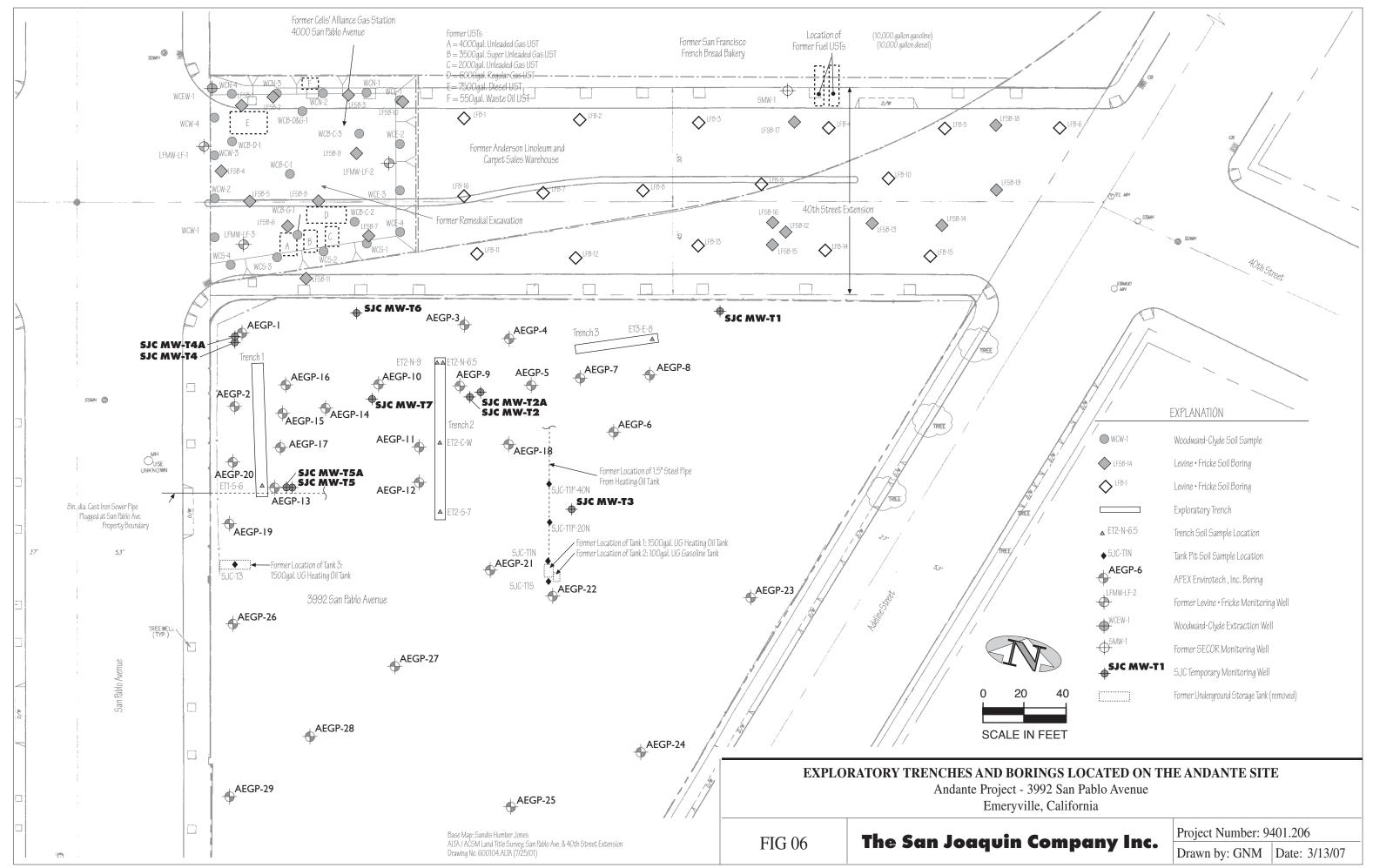
Note: Except on Andante and Frank Dunn sites, location and continuity of paleo streambed deposits are tentative. Continuity of paleo streambed channels as shown on Boyson Paint Site, 41st Street, Ennis Property, 40th Street, California Linen Rental, and Adeline Street are assumed based on a preponderance of available boring log, hydrostratigraphic and geochemical data.

| | E. | XPLANATION | |
|------------------|--|-------------------|---|
| - (MW-1 | SJC Monitoring Well (Oak Walk) | WCW-1 | Woodward-Clyde Soil Sample |
| - MWT-1 | SJC Temporary Monitoring Well (Oak Walk) | LFSB-14 | Levine • Fricke Soil Boring |
| ● BE-1 | SJC Environmental Boring (Oak Walk) | LEB-1 | Levine • Fricke Soil Boring |
| B G-1 | SJC Geotech Boring (Oak Walk) | - | Levine • Fricke Monitoring Well |
| CPT-1 | Cone Penetrometer Test Location (Oak Walk) | HEB-2 | Harza Exploratory Boring |
| 000000 | Exploratory Trench | | SECOR Monitoring Well |
| () | Underground Storage Tank (removed) | AEGP-6 | APEX Envirotech, Inc. Boring |
| - WCEW-1 | Woodward-Clyde Extraction Well | SJC MW-T1 | SJC Temporary Monitoring Well (SNK Andante) |
| ⊕08-6 | Clayton Monitoring Well (CW) & Temporary Monitoring Well (OB) | .0.0.0 | Paleo Streambed, Gravelly Areas |
| ₩ ^{B-2} | Clayton Boring | ▲ ET1-S-6 | Trench Soil Sample Location |
| B-2 | ERM Boring (6/06) | | Dunne Paints Monitoring Well |
| - HW-B1 | Kozel Property Monitoring Well | ● ^{HP-2} | ASE Boring |
| ↓ (IR5-58-1 | URS Geoprobe Soil Boring | ● ^{BH-5} | ASE Temporary Well |
| ● RGA-B17 | RGA Environmental boring | €9C-MW-1 ⊕ | Environmental Strategies Corp Monitoring Well |

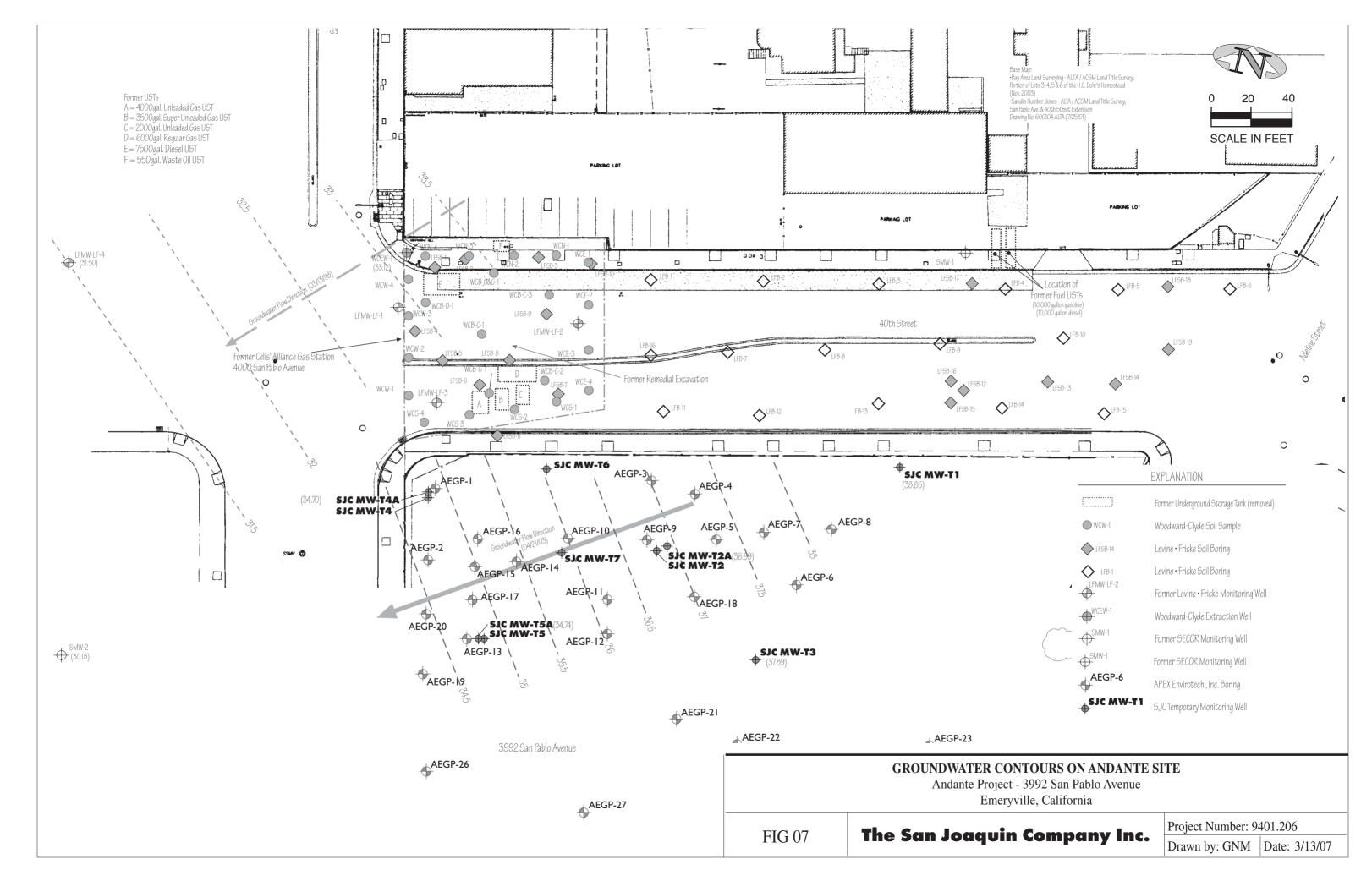
UNAUTHORIZED RELEASE SITES IN NEIGHBORHOOD OF THE ANDANTE SITE Andante Project - 3992 San Pablo Avenue

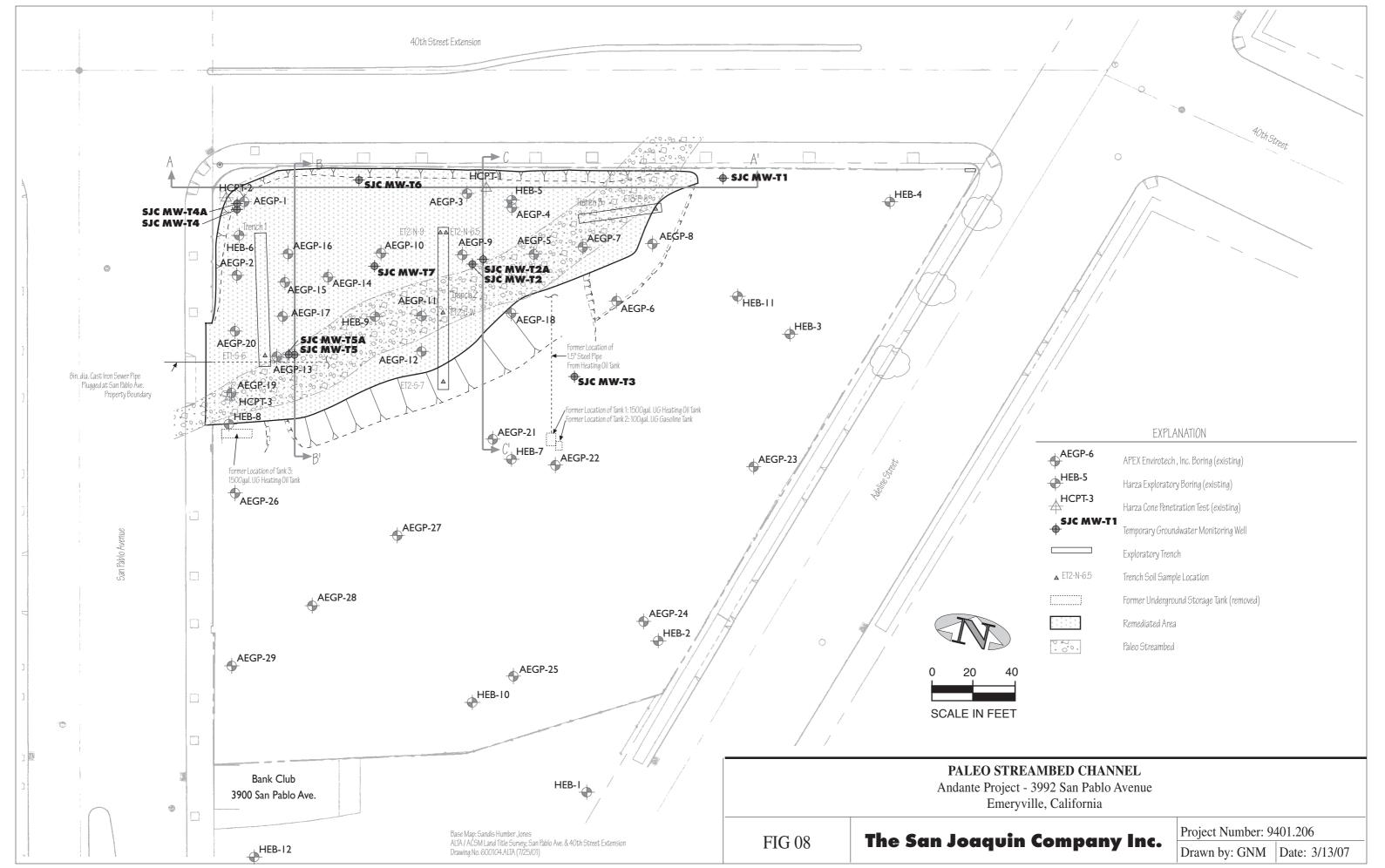
Emeryville, California

The San Joaquin Company Inc.



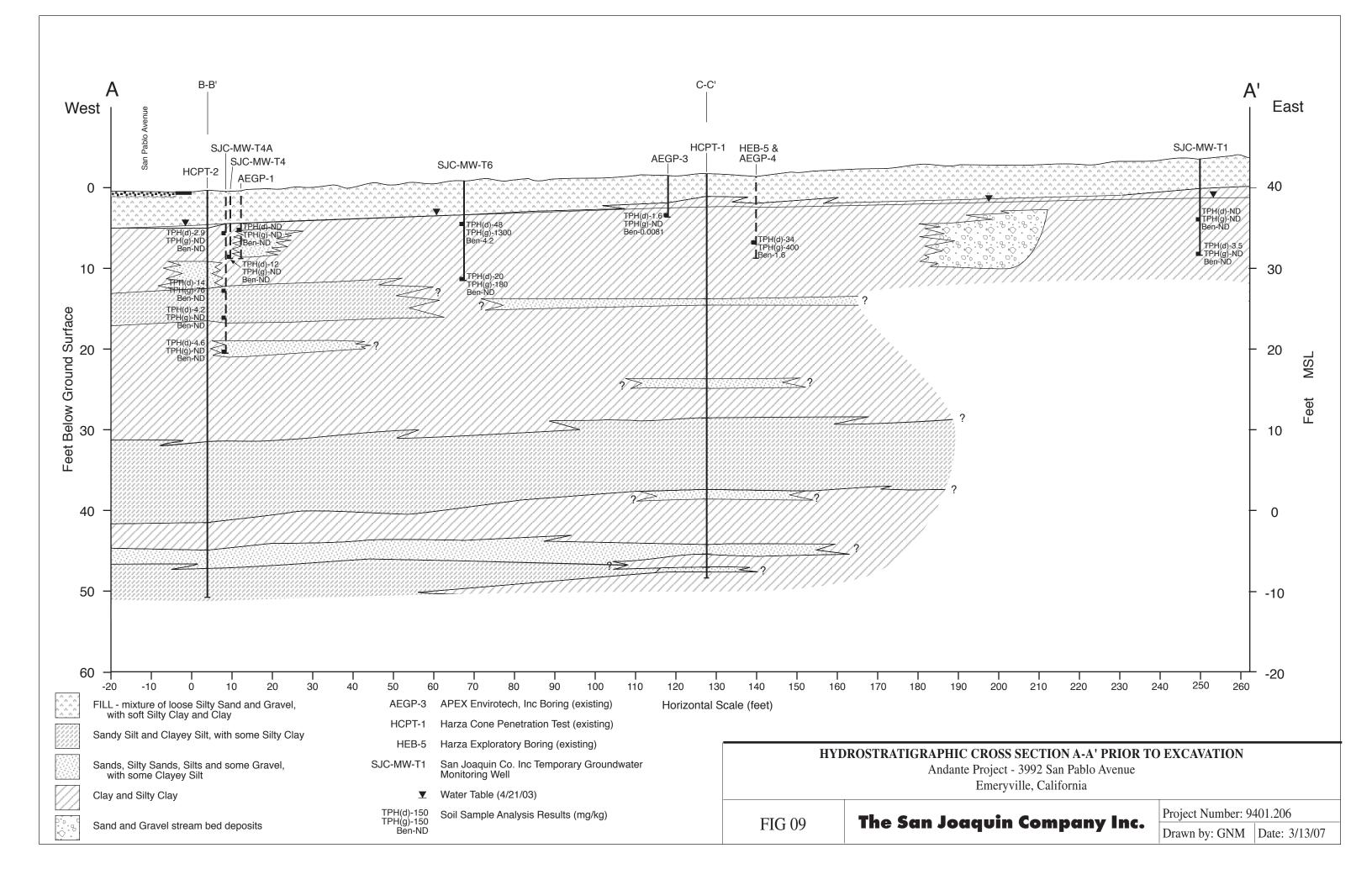
| | Project Number: 9401.206 | | | | | | | | |
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| nc. | Drawn by: GNM | Date: 3/13/07 | | | | | | | |

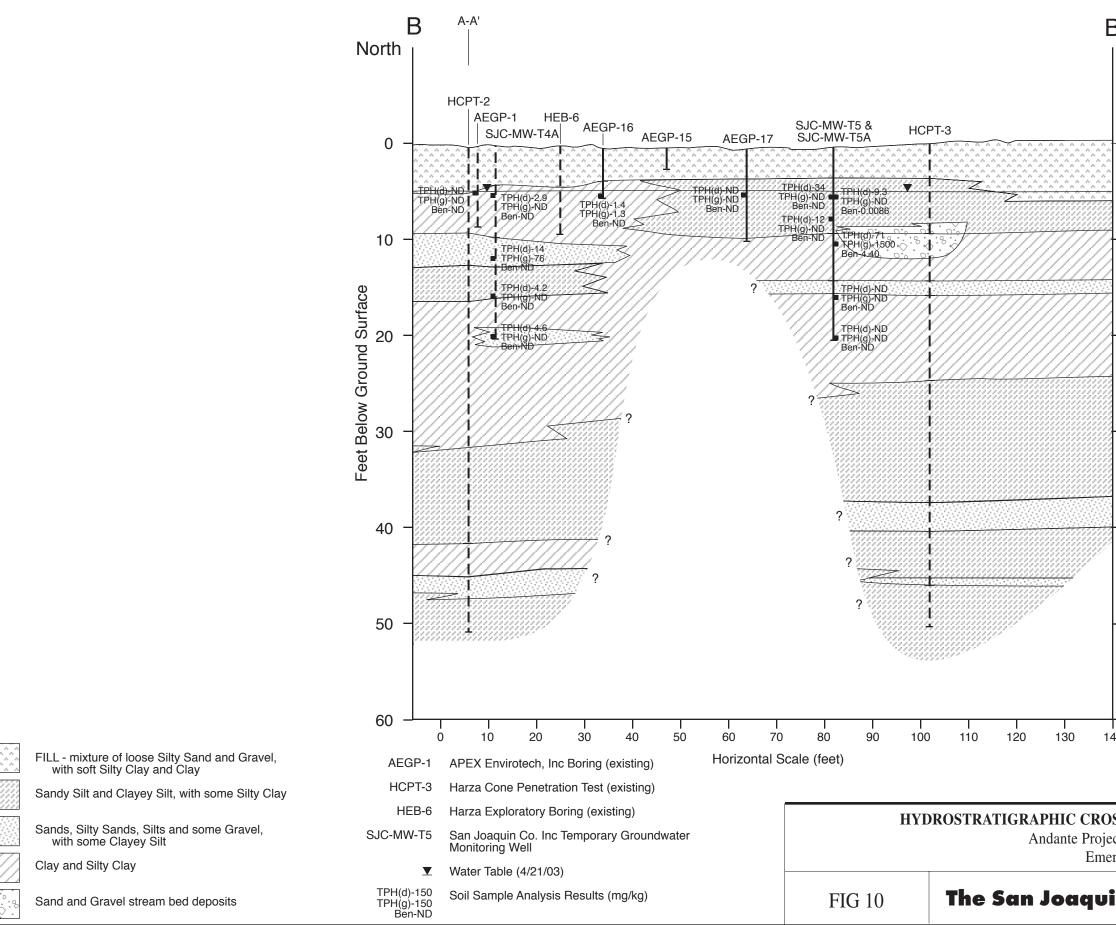




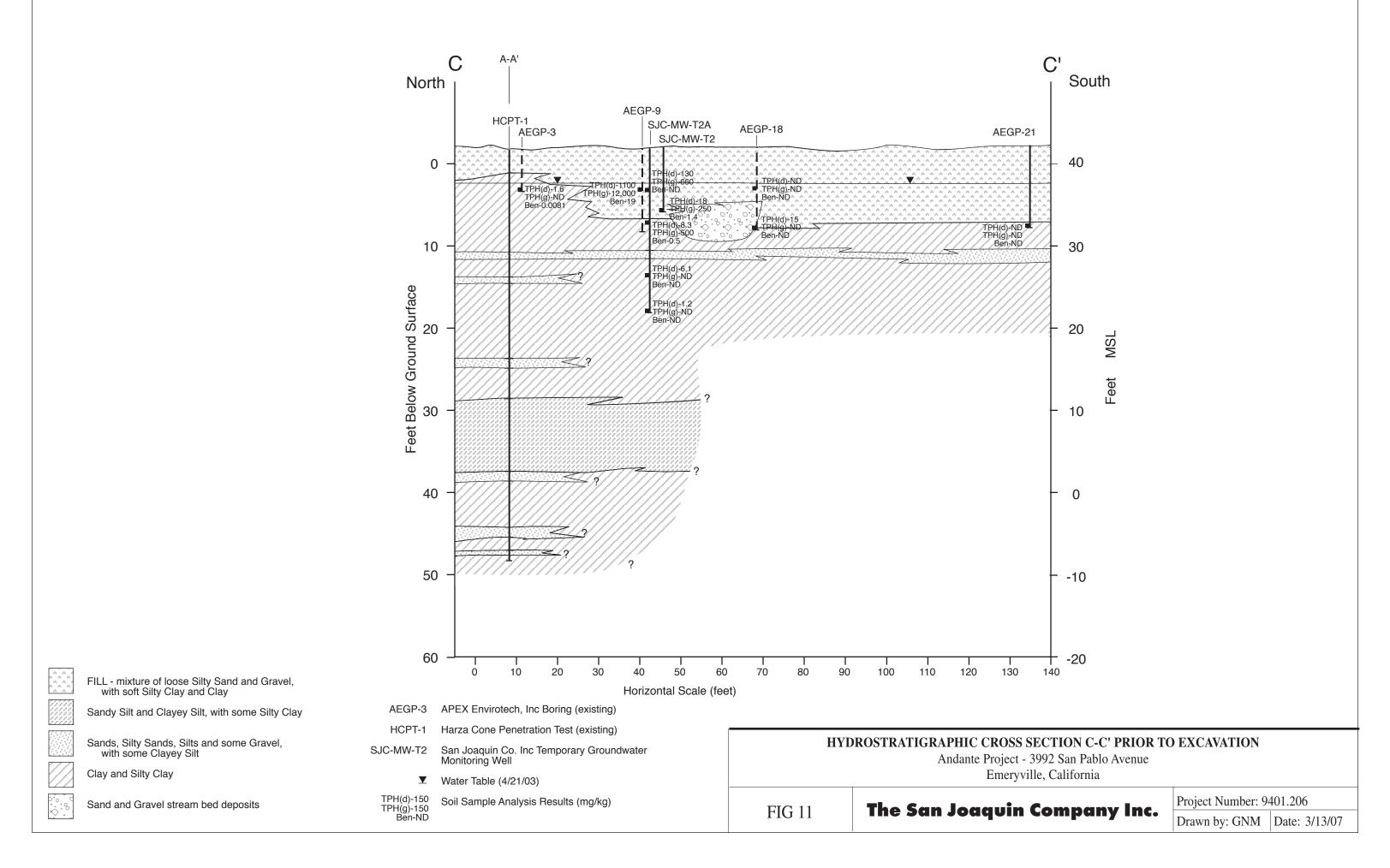
| Vi | lle, | Ca | lito | rnia | ì | |
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| | | | | | | _ |

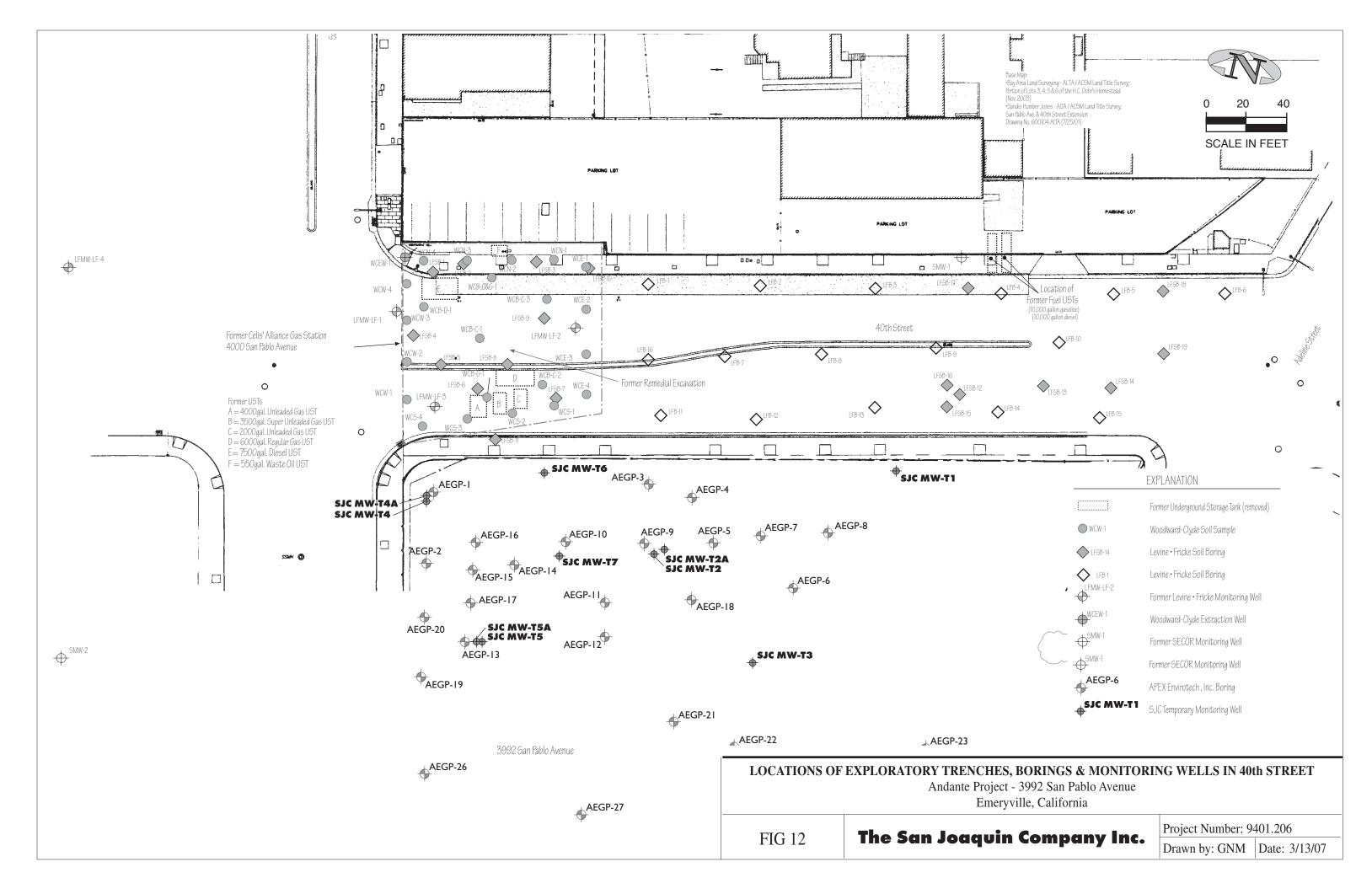
| | | Project Number: 9 | 401.206 |
|-----------|----|-------------------|---------------|
| ompany In | G. | Drawn by: GNM | Date: 3/13/07 |

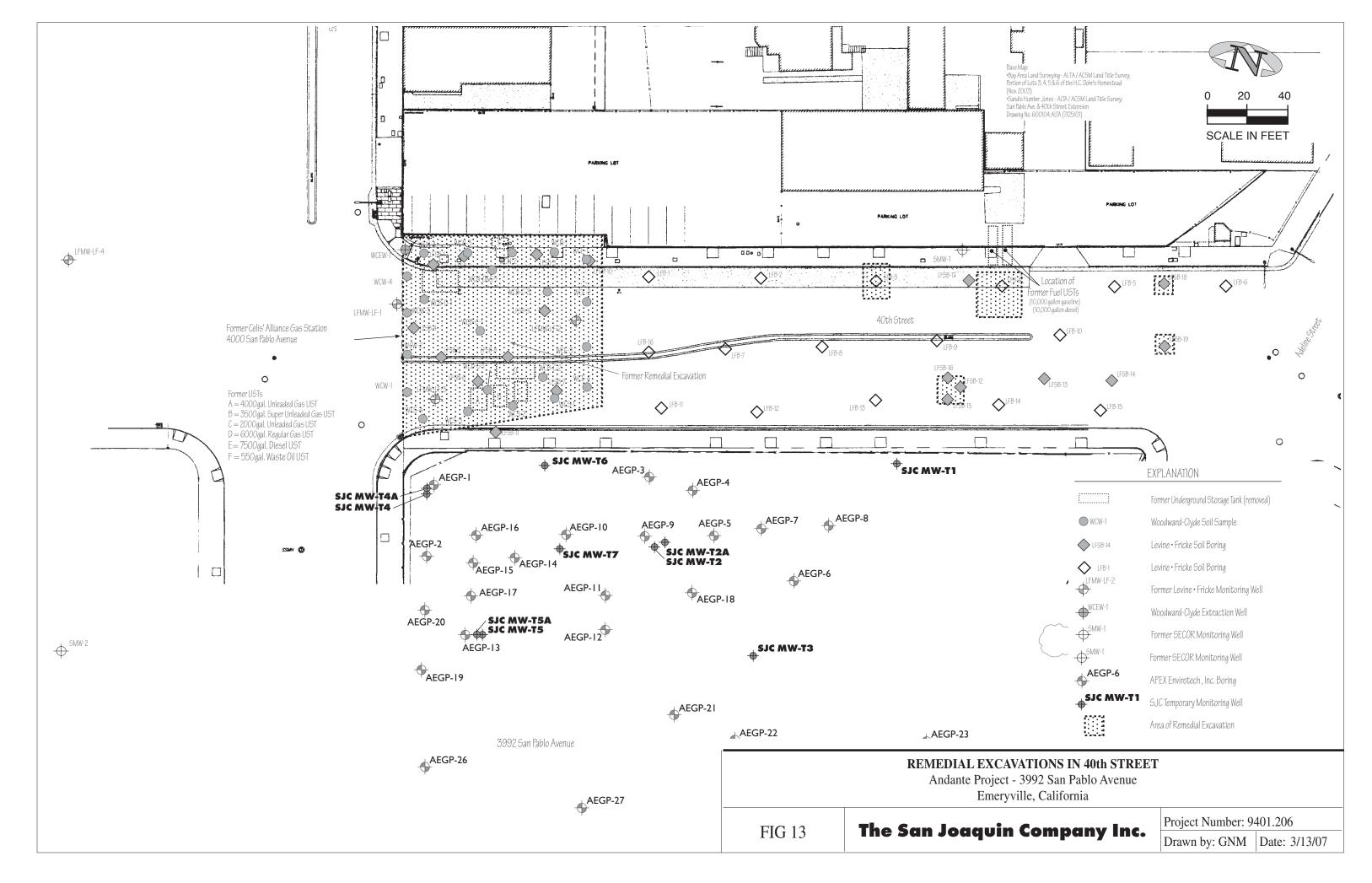


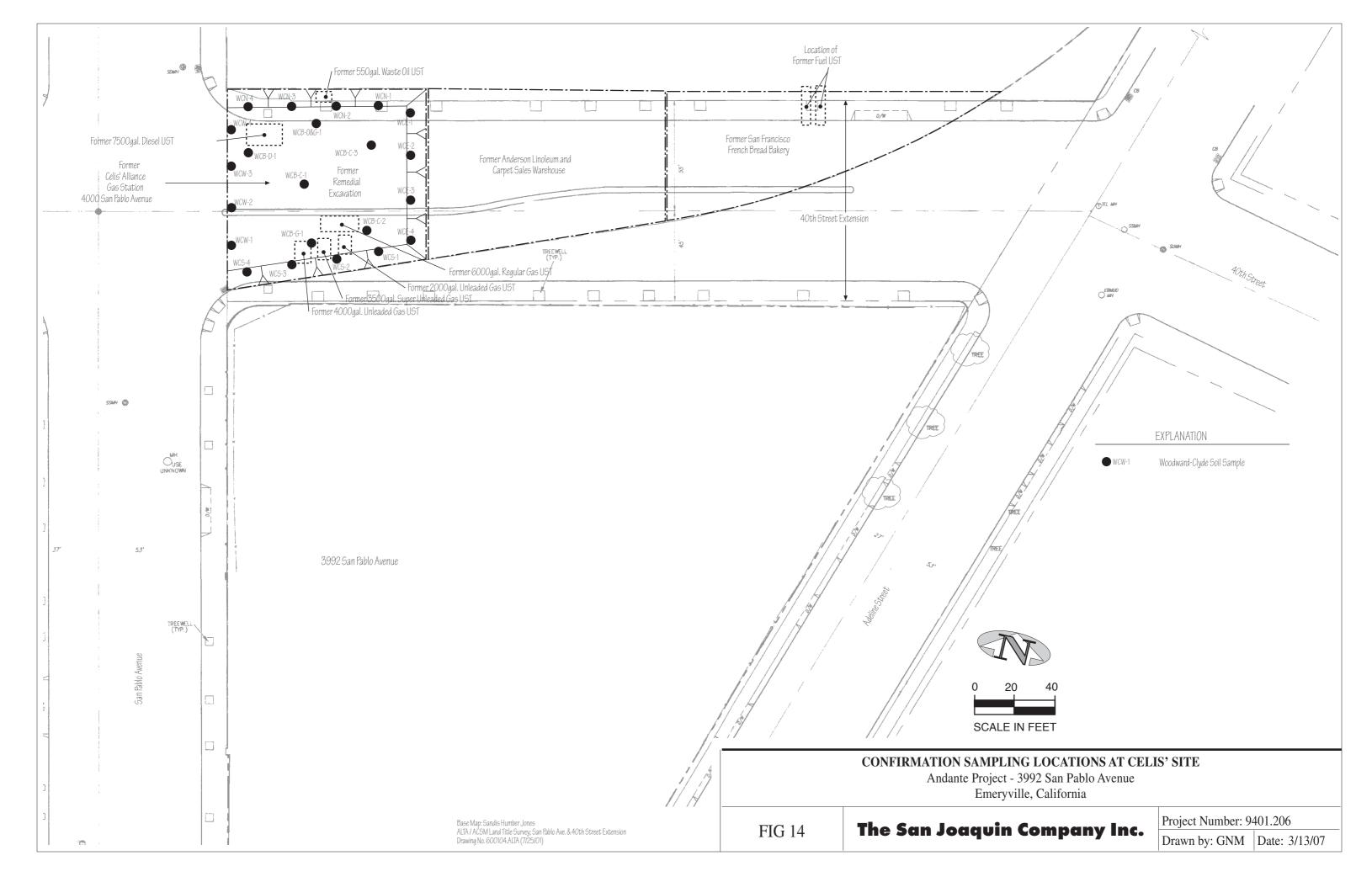


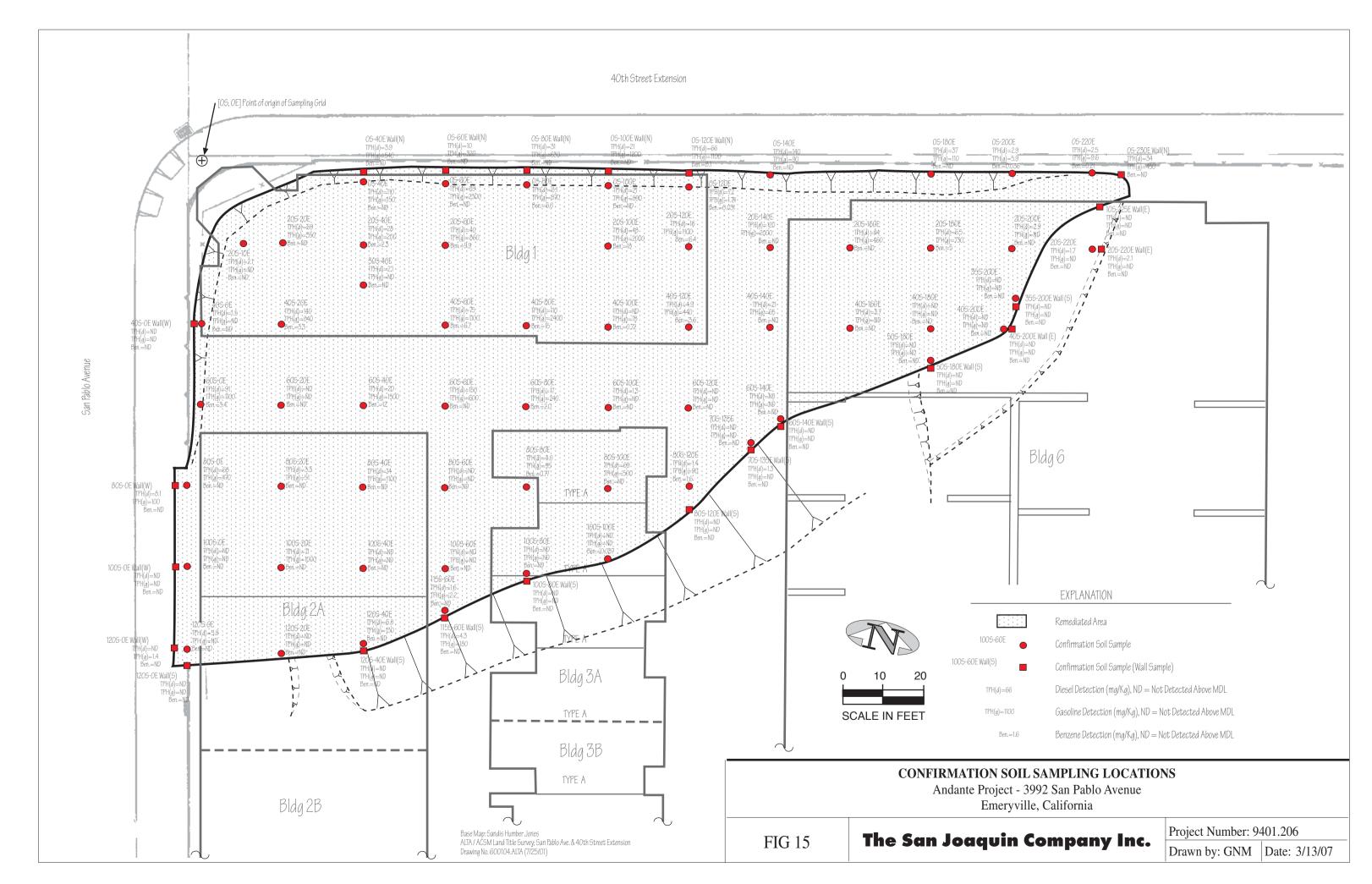
| B' | South | | |
|-------|--|-------------------------------------|--------------------------|
| ~ | 40 | | |
| | 30 | | |
| | Feet MSL 05 | | |
| - | tə ə L 10 | | |
| | 0 | | |
| | -10 | | |
| 40 | -20 | | |
| ect - | SECTION B-B' PRIOR TO 3992 San Pablo Avenue ille, California | EXCAVATION | |
| | Company Inc. | Project Number: 94 Drawn by: GNM | 401.206 Date: 3/13/07 |

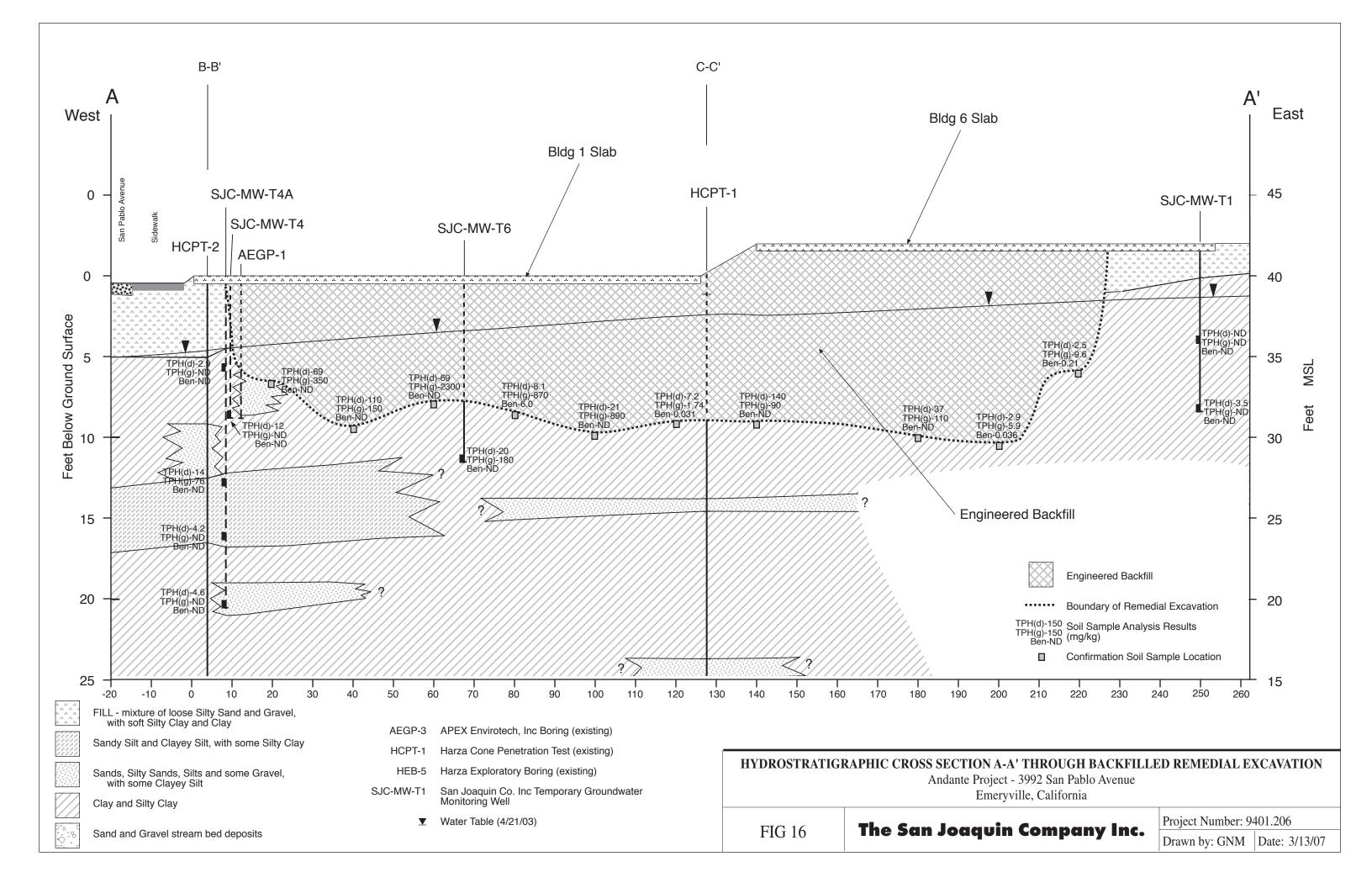


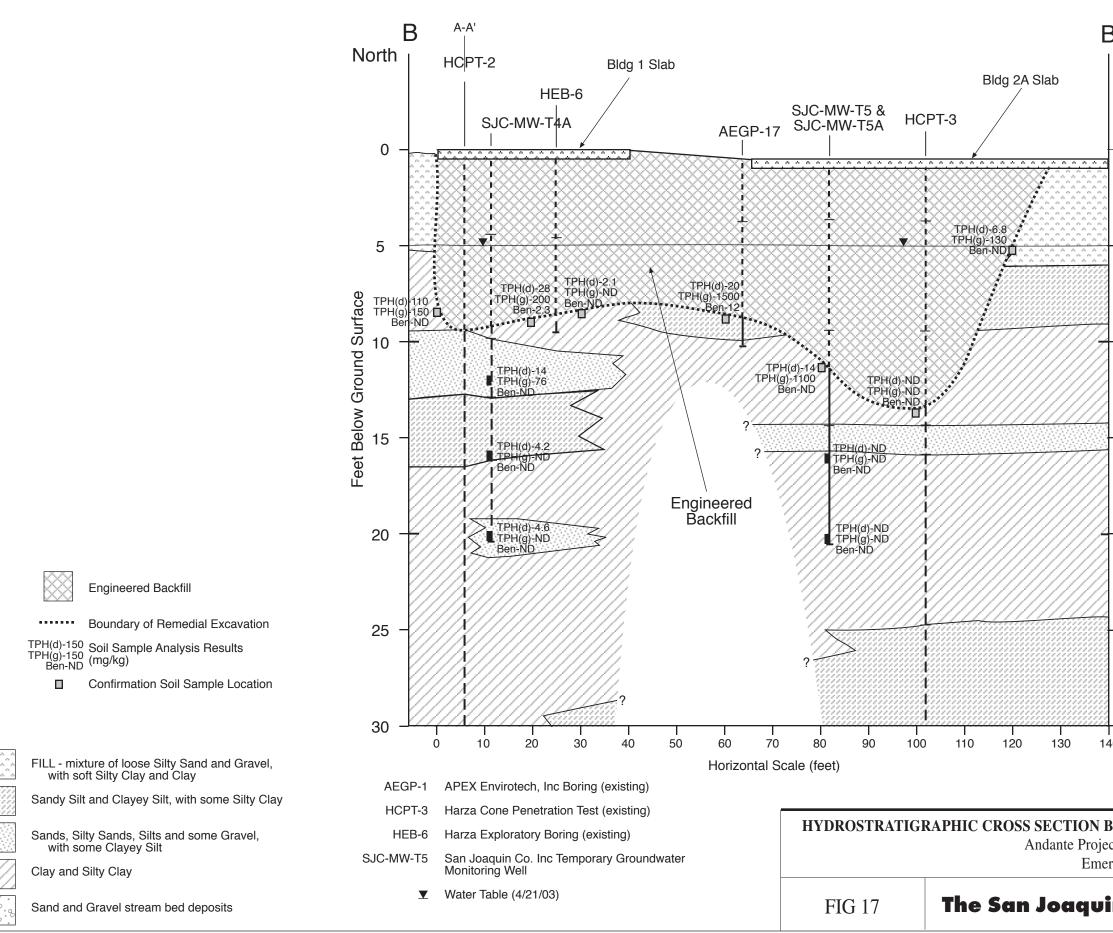










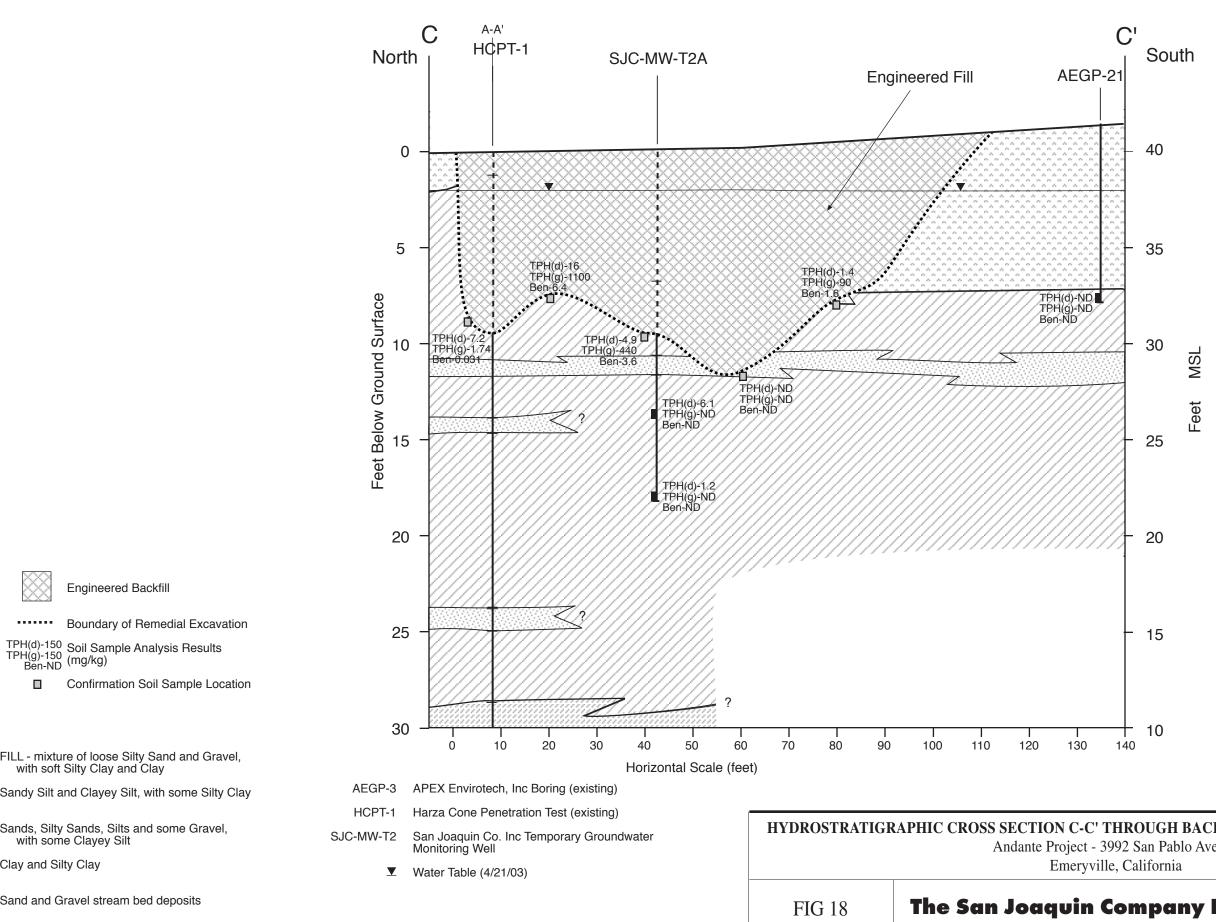


| B' | Sout | h | | | | |
|----|------|----------|--|--|--|--|
| - | 40 | | | | | |
| | 35 | | | | | |
| | 30 | Feet MSL | | | | |
| | 25 | Feet | | | | |
| | 20 | | | | | |
| | 15 | | | | | |
| 40 | 10 | | | | | |
| | | | | | | |

HYDROSTRATIGRAPHIC CROSS SECTION B-B' THROUGH BACKFILLED REMEDIAL EXCAVATION Andante Project - 3992 San Pablo Avenue Emeryville, California

| Company | INC. | I |
|---------|------|---|

Project Number: 9401.206 Drawn by: GNM Date: 3/13/07



FILL - mixture of loose Silty Sand and Gravel, with soft Silty Clay and Clay Sandy Silt and Clayey Silt, with some Silty Clay

Sands, Silty Sands, Silts and some Gravel, with some Clayey Silt

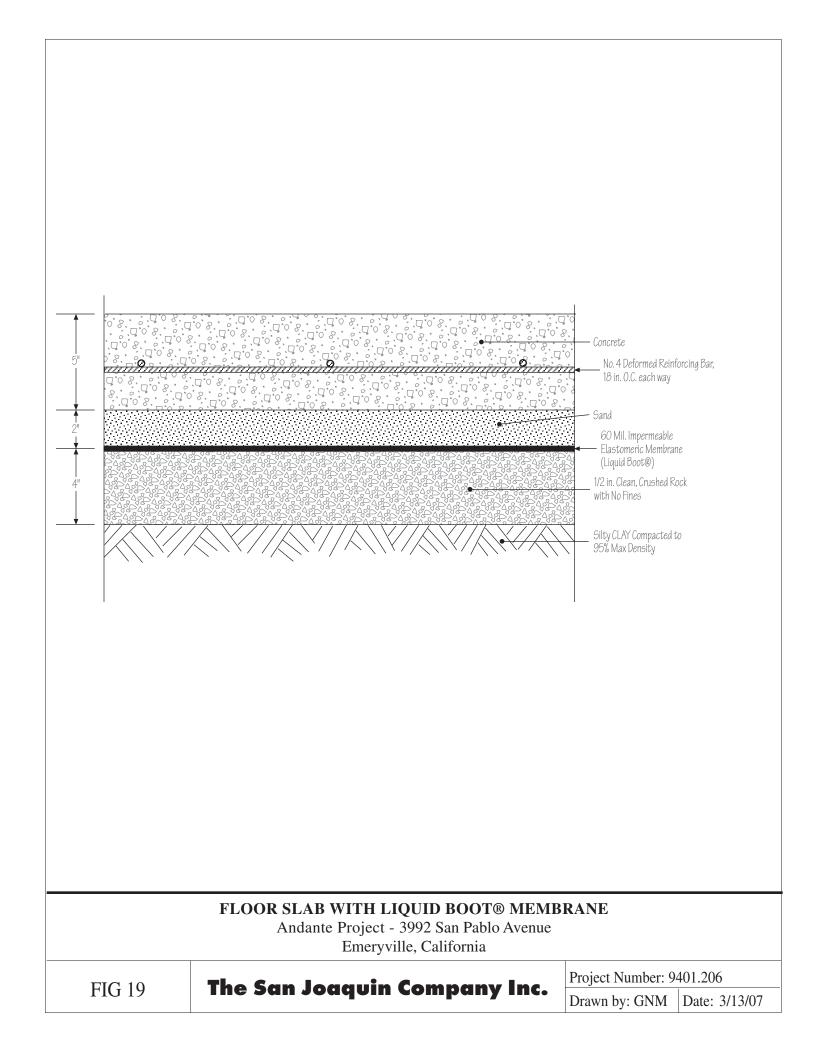
Clay and Silty Clay

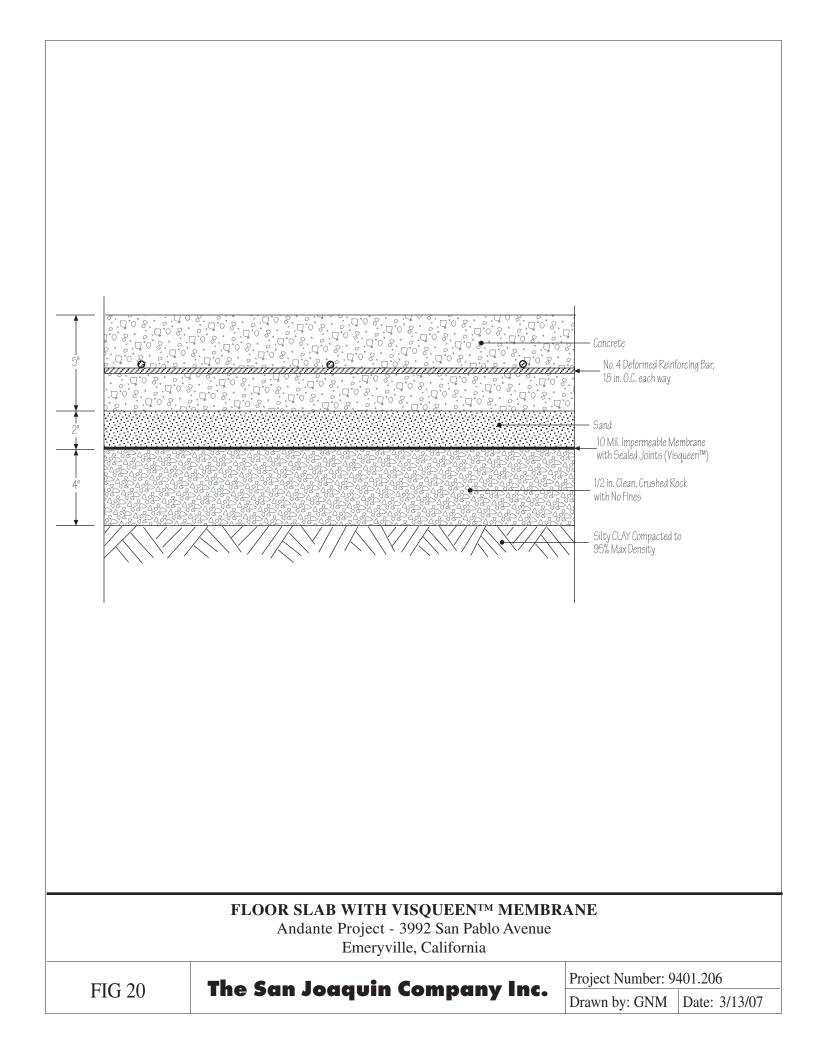
2

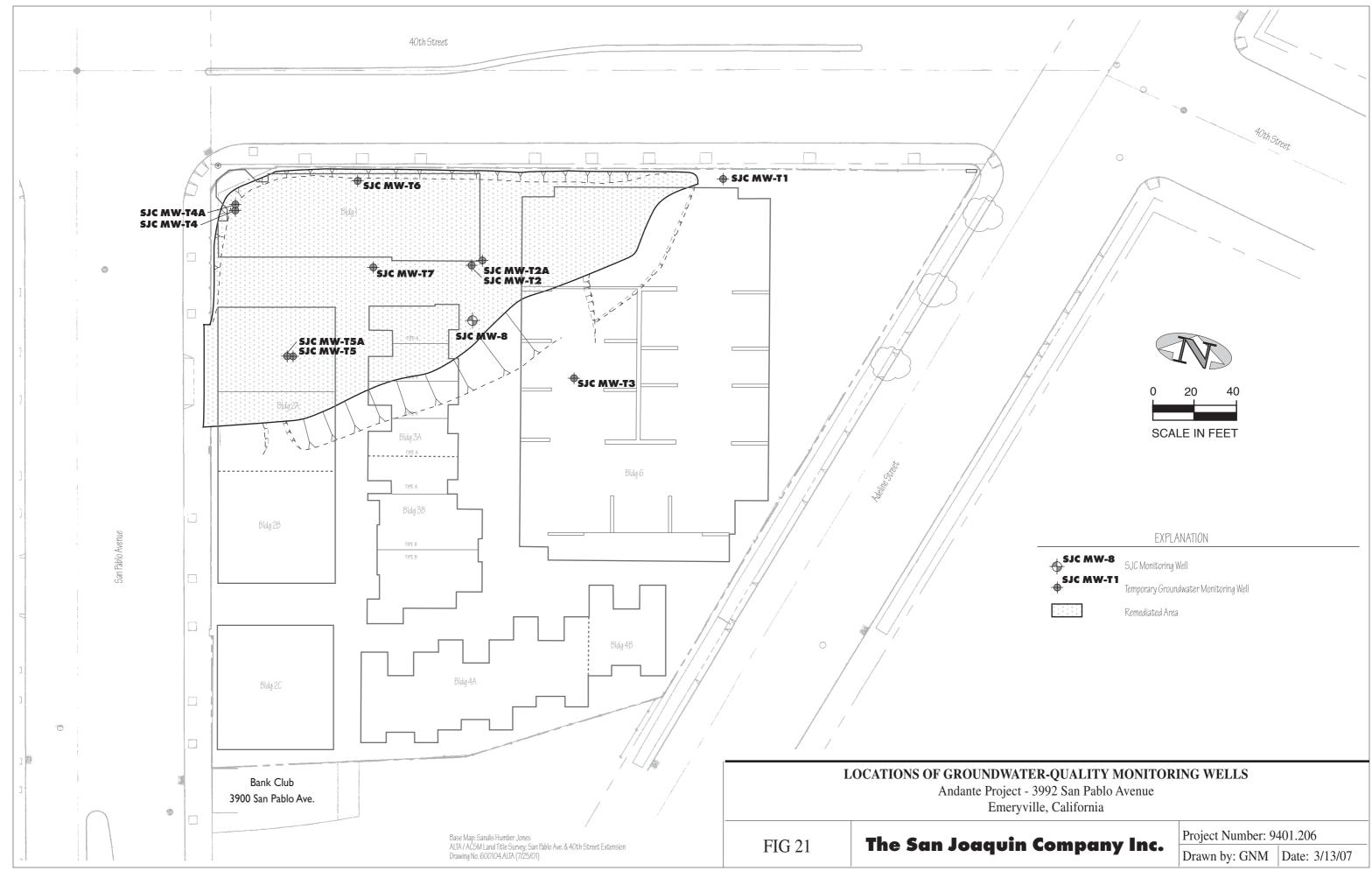
Sand and Gravel stream bed deposits

| C' THROUGH BACK-FILLI - 3992 San Pablo Avenue vville, California | ED REMEDIAL EXCAVATION |
|---|--------------------------|
| n Company Inc. | Project Number: 9401.206 |

| | Project Number: 94 | 401.206 |
|--------------|--------------------|---------------|
| Company Inc. | Drawn by: GNM | Date: 3/13/07 |







Environmental Closure Report: Andante Project, Emeryville, California.

APPENDIX A

Trench, Boring and Well Logs

| DRILL RIG Mobile B-53, HSA | SURFACE | ELEVA | TION | | | L | GGED | BY | VWC |
|--|------------|-------|-----------------|----------|--|---------------------|----------------------|---|----------------|
| DEPTH TO GROUND WATER Not Encountered | BORING D | IAMET | ER | 8 | inch | DA | ATE DRI | ILLED | 8/2/00 |
| DESCRIPTION AND CLASSIFICA | ATION | SOIL | DEPTH (FEET) | SAMPLER | ENETRATION RESISTANCE (BLOWS/FT) | WATER CONTENT(%) | DRY DENSITY (PCF) | CONFINED APRESSIVE (KSF) (KSF) | OTHER TESTS |
| DESCRIPTION AND REMARKS | CONSIST | TYPE | (11.1.1) | s, | | - <u>8</u> | DR | SOUN | 1013 |
| PAVEMENT: 3 inches of AC over 8 inches of AB FILL: CLAY (CL), dark brown to black, silty, trace gravel (fine, angular), moist | Very Stiff | | | X | 37 | | | | PP > 4.5 tsf |
| some silt below 3 feet | | | | ∇ | 28 | 22 | 104 | | rr > 4.3 (Si |
| CLAY (CL), light brown, moist | Very Stiff | | - 5 | | 16 | | | | PP = 2.25 tsf |
| mottled orange & black, some sand (fine-grained) below 8½ feet | | | | X | 41 | | | | PP = 1.75 tsf |
| brown, mottled black, some sand (fine- & medium-grained) below 13½ feet | Hard | | - 15 | X | 64 | | | | PP > 4.5 tsf |
| CLAY (CL), rusted brown, with sand (fine- to coarse-grained), moist to wet | Very Stiff | | - 20 - | X | 40 | 22 | 106 | | PP = 1.75 tsf |
| some sand, moist within this sample | Hard | | | X | 50/6" | | | | |
| | | | EXPL | .OF | VATO | RYB | ORIN | IG LO | G |
| HARZA | | AN | DANTE | | MERY neryvil | | | | MENT |
| Engineering Company | j | OJECT | | De | DAT | | ····· | ORING NO. | EB-1 |

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| ILL RIG Mobile B-53, HSA SURFACE ELEVATION | | | | | | | GGED E | BY | VWC |
|--|---|---------------------------|--------|---------|---------------------------------------|---------------------|----------------------|--|---|
| DEPTH TO GROUND WATER Not Encountered | BORING D | NG DIAMETER 8-inch | | | DA | TE DRI | LLED | 8/2/00 | |
| DESCRIPTION AND CLASSIFICA | ATION | | DEPTH | SAMPLER | ETRATION LISTANCE OWS/FT) | WATER CONTENT(%) | DRY DENSITY (PCF) | CONFINED IPRESSIVE RENGTH (KSF) | OTHER |
| DESCRIPTION AND REMARKS | CONSIST | SOIL TYPE | (FEET) | s | PENET RESIS (BLO' | ⁻ lo | DRY | CONC ST ST | 12313 |
| CLAY (CL), continued SAND (SC), rusted brown, mottled black, fine- to coarse-grained, with clay, trace gravel (fine, subangular), wet to saturated interbedded layers of fine-grained sand and clay within this sample | Hard Medium . Dense_ | | - 30 - | | 24 50 15 | 25 | 99 | | Gradation Test Passing No.200 Sieve = 78% |
| Bottom of Boring = 40 Feet Notes: 1. The stratification lines represent the appro 2. For an explanation of penetration resistant 3. A Safety Hammer was used to drive samp 4. Ground water was not encountered during 5. The boring was grouted with neat cement 6. PP = Pocket Penetrometer, tsf = tons per s LICRRZA Engineering Company | ce values, s lers. drilling. immediate quare feet | ee the ly upor | EXF | PLC | Appen h. DRAT(EMER Emery | DRY YVILI | BORI | ING LO VELO nia | DG PMENT |
| Engineering Company | | PROJEC | | | D. Decem | ATE ber 20 | 00 | BORING NO. | EB-1 |

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| DRILL RIG Mobile B-53, HSA SURFAC | | | | | TION | | | LO | GGED F | BY | VWC |
|---|---------------------------------|--------------------------------|------------|-------------------|--------|---------|---------------------------|---------------------|----------------------|------------------------------------|---|
| DEPTH TO GRO | UND WATER | 18.5 feet | BORING D | RING DIAMETER 8-i | | | inch | DA | TE DRI | LLED | 8/2/00 |
| DES | CRIPTION A | ND CLASSIFICA | ATION | | DEPTH | SAMPLER | RATION TANCE WS/FT) | WATER CONTENT(%) | DRY DENSITY (PCF) | NFINED RESSIVE ENGTH (SF) | OTHER |
| DESC | UPTION AND R | EMARKS | CONSIST | SOIL TYPE | (FEET) | SAN | PENET RESIS (BLOV | W/ CONT | DRY D (F | UNCO COMP STRI (K | TESTS |
| PAVEMENT | : 3 inches of | AC over 8 | | \overline{O} | | | | | | | |
| inches of AB FILL: CLAY | (CL), black, | silty, moist | Very Stiff | | | X | 39 | 25 | 96 | | PP = 2.5 tsf LL=40, PI=21, |
| | | | | | | Ķ | 38 | | | | Passing No.200 Sieve = 75% PP = 2.5 tsf |
| CLAY (CL), (fine- to coars angular), mois | e-grained), tra | ome sand ice gravel (fine, | Very Stift | | - 5 - | | 20 | | | | |
| mottled orang angular to sub | e & black, sor angular) belo | ne gravel (fine, w 8 ½ feet | | | - 10 - | X | 44 | 19 | 111 | | PP = 3.25 tsf |
| brown, mottle | d black below | 7 13½ feet | Hard | | - 15 - | | 90 | | | | PP > 4.5 tsf |
| SAND (SC), coarse-graine angular to sub | d, with clay, ti | fine- to ace gravel (fine, | Dense | | 20 - | | 52 | Ā | | | |
| mottled black | below 23½ fe | eet | | | | | 50 | | | | |
| | | | | | EXP | LO | RAT | DRY | BORI | NG LO | DG |
| | | ZA | | А | NDANI | | MER Emeryv | | | | PMENT |
| Enę | gineering | Company | | PROJEC | T NO. | | D/ | \TE | | BORING | EB-2 |
| | | | 17752 | -CA | I | Decem | ber 20 | 00 | NO. | DD*# | |

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| DRILL RIG Mobile B-53, HSA SURFACE ELEVATION | | | | | | LO | GGED E | BY | VWC | | |
|---|---------|------------------|------------------------|--|---------|---|---------------------|----------------------|--|----------------|--|
| DEPTH TO GROUND WATER 18.5 feet B | | | BORING DIAMETER 8-inch | | | | DATE DRILLED | | | 8/2/00 | |
| DESCRIPTION AND CLASSIFICA DESCRIPTION AND REMARKS | | ATION CONSIST | SOIL TYPE | DEPTH (FEET) | SAMPLER | PENETRATION RESISTANCE (BLOWS/FT) | WATER CONTENT(%) | DRY DENSITY (PCF) | UNCONFINED COMPRESSIVE STRENGTH (KSF) | OTHER TESTS | |
| SAND (SC), continued | | Dense | | | <u></u> | | | | | | |
| clayey below 28½ feet | | Medium Dense | | - 30 - | | 24 | | | | | |
| CLAY (CL), brown, mottled red | | Hard | | | | 36 | | | | | |
| The stratification lines represent the approximate boundaries between soil types and the transition may be gradual. For an explanation of penetration resistance values, see the first page of Appendix A. A Safety Hammer was used to drive samplers. Ground water was encountered at 18 ½ feet during drilling. The boring was grouted with neat cement immediately upon completion. PP = Pocket Penetrometer, tsf = tons per square feet LL = Liquid Limit, PI = Plasticity Index. | | | | | | | | | | | |
| LLAR Engineering (| | | | | | | | | | | |
| | | | EXPLORATORY BORING LOG | | | | | | | | |
| HARZA | | | | ANDANTE EMERYVILLE DEVELOPMENT Emeryville, California | | | | | | | |
| Engineering (| Jompany | | PROJEC 17752 | | | D/ Decem | TE ber 20 | ····· | BORING NO. | EB-2 | |

| DRILL RIG | Mobile H | 1-53, HSA | SURFACE | ELEVA | TION | | | LO | GGED E | 3Y | VWC |
|--|-----------------------------------|------------------------------------|-----------------|-------------------------|-------------------|---------|---|---------------------|----------------------|------------------------------------|----------------|
| DEPTH TO GRO | UND WATER | 20 feet | BORING | DIAMET | ER | 8- | inch | DA | TE DRI | LLED | 8/2/00 |
| DES | CRIPTION A | ND CLASSIFIC | ATION | - | DEPTH | SAMPLER | PENETRATION RESISTANCE (BLOWS/FT) | WATER CONTENT(%) | DRY DENSITY (PCF) | NFINED RESSIVE ENGTH (SF) | OTHER |
| DESC | RIPTION AND R | EMARKS | CONSIST | SOIL TYPE | (FEET) | SAN | PENET RESIS (BLO | W/ CONT | DRY I (f | UNCO COMP STRI (H | TESTS |
| | : 4 inches of | AC over 8 | | P.O. | | T | | | | | |
| inches of AB FILL: CLAY brown, trace | Y (CL), black, sand (fine-grai | mottled dark ned), moist | Stiff | | | X | 20 | | | | PP = 0.75 tsf |
| | | | | | | X | 24 | | | | |
| SAND (SC), fine- to coarse | light brown, n e-grained, with | nottled orange, a clay, moist | Mediun Dense | | - 5 - | | 22 | 26 | 98 | 2.3 | |
| some clay, tra subangular), s | ace gravel (fin wet below 8½ | e, angular to feet | | | - 10 - | | 32 | 22 | 103 | | |
| CLAY (CL) some sand (fi | , light brown, ine- to coarse- | mottled orange, grained), moist | Very Sti | ţ1 | - 15 - | | 22 | | | | |
| SAND (SC), fine- to coars | rusted brown e-grained, wit | mottled black, h clay, moist | Mediur Dense | | - 20 - | | 31 | ¥ | | | |
| | | | Dense | | the second second | | 43 | | | | |
| | | | | | EXI | PLC | RAT | ORY | BOR | ING L | OG |
| J. | LAR | ZA | | A | NDAN | | EMER Emery | | | | PMENT |
| En | gineering | Company | | PROJECT NO. DATE BORING | | | | | EB-3 | | |
| | 1775 | | | | | | Decem | ber 20 | 00 | NO. | ED-3 |

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| DRILL RIG | Mobile B- | 53, HSA | SURFACE ELEVATION — | | | | | | GGED E | BY | VWC |
|--|---|--|---|------------------|-----------|---------|---|---------------------|----------------------|--|----------------|
| DEPTH TO GROU | IND WATER | 20 feet | BORING D | IAMETT | ËR | 8- | inch | DA | TE DRI | LLED | 8/2/00 |
| DESC | CRIPTION AN | D CLASSIFICA | ATION | | DEPTH | SAMPLER | PENETRATION RESISTANCE (BLOWS/FT) | WATER CONTENT(%) | DRY DENSITY (PCF) | CONFINED APRESSIVE RENGTH (KSF) | OTHER TESTS |
| DESCR | IPTION AND REI | MARKS | CONSIST | SOIL TYPE | (FEET) | 'S | PEN RES (BL | C C | DRY | SICUN | 12515 |
| SAND (SC), o CLAY (CL), (fine- to coars) trace sand bel | rusted brown, s e-grained) | ome sand | Dense Very Stiff | | - 30 - | | 22 | | | | |
| Notes: 1. The stratifi 2. For an exp 3. A Safety H 4. Ground wa 5. The boring | anation of pene ammer was use ter was encoun was grouted w | resent the appro etration resistan ed to drive samp tered at 20 feet with neat cement r, tsf = tons per | ce values, s plers. during drill t immediate | ling. ly upor | nrst page | eoi | Appen | s and tl dix A. | ne tran | sition ma | ny be gradual. |
| | | | | | | | | | | | |
| | | <u></u> . | | | EX | PLC | ORAT | ORY | BOR | ING L | OG |
| . | | ZA | | 1 | ANDAN | | EMER Emery | | | | PMENT |
| | gineering (| | | | | | r | DATE | | | |
| L.I.I | gineering | Sompany | | | CT NO. | | Decem | | | BORINC NO. | EB-3 |

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| DRILL RIG | Mobile B-53, HSA | SURFAC | E ELEVA | TION | | | LO | GGED E | VWC | |
|--|--|----------|---------|--------------|---------|-------------------------------|---------------------|----------------------|--|--------------|
| DEPTH TO GROU | ND WATER Not Encountered | BORING | DIAMET | ER | 8 | -inch | DA | TE DRI | LLED | 8/2/00 |
| DESC | RIPTION AND CLASSIFICA | TION | | DEPTH | SAMPLER | TRATION ISTANCE OWS/FT) | WATER CONTENT(%) | DRY DENSITY (PCF) | ONFINED PRESSIVE XENGTH (KSF) | OTHER |
| DESCR | IPTION AND REMARKS | CONSIS | T SOIL | (FEET) | VS | PENETR RESIST (BLOW | CON | DRY | COMC | TESTS |
| | 2 inches AC over 10 inches | | po C | | | | | | | |
| AB FILL: CLAY orange, with sa some silt, damp | (CL), mottled black and ind (fine- to coarse-grained), | Very Sti | n | | X | 46 | | | | |
| | | Stiff | | | | 13 | | | | |
| FILL: CLAY orange, some s damp | (CL), dark brown, mottled and (fine- to coarse-grained), | Very Ști | n | - 5 - | | 26 | | | | |
| | | | | addaadaadaaa | | 7 | | | | |
| CLAY (CL), 1 orange, some s trace roots, mo | nottled light brown and and (fine- to coarse-grained), ist | Hard | | 10 - | | 57 | | | | |
| (rusted brown, sand below 13 | with fine- to coarse-grained ½ feet) | | | - 15 - | | 33 | | | | |
| (rusted brown, below 18½ fee | some fine-grained sand t) | Stiff | | - 20 - | | 41 | 28 | 93 | | PP = 2.0 tsf |
| | | Hard | | | | 33 | | | | |
| | | | | EXP | LC | RAT | DRY | BORI | NG LO |)G |
| н | ARZA | | A | NDANI | | EMERY Emeryv | | | | PMENT |
| | ineering Company | | | | | | | | | |
| 9 | | | | | | | | DATE BORING EB | | |

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| DRILL RIG | Mobile B-53, HSA | SURFACE | ELEVA | TION | | | LO | GGED I | 3Y | VWC |
|---------------------------|-----------------------|----------|--------------|------------------|-------|---------------------------|---------------------|------------------|------------------------------------|-------|
| DEPTH TO GROUND | WATER Not Encountered | BORING D | IAMETI | ER 8-inch | | | DA | TE DRI | 8/2/00 | |
| DESCRIP | TION AND CLASSIFICA | TION | | DEPTH | IPLER | RATION TANCE WS/FT) | WATER CONTENT(%) | DENSITY (PCF) | NFINED RESSIVE ENGTH CSF) | OTHER |
| DESCRIPTIC | ON AND REMARKS | CONSIST | SOIL TYPE | (FEET) | SAN | PENET RESIS (BLO | CONT CONT | DRY D (F | COMP STRI | TESTS |
| CLAY (CL), conti | nued | Hard | | | | | | | | |
| (trace fine-grained feet) | sand, wet below 28½ | Stiff | | | | _,25 | | - | | |

Bottom of Boring = 30 Feet

Notes:

The stratification lines represent the approximate boundaries between soil types and the transition may be gradual.
 For an explanation of penetration resistance values, see the first page of Appendix A.
 A Safety Hammer was used to drive samplers.
 Ground water was not encountered during drilling.
 The boring was grouted with neat cement immediately upon completion.
 PP = Pocket Penetrometer, tsf = tons per square feet

ie Name: GriENGINEERIGINTW/PROJECTS/17752-CA.GPJ Report Templale: H Output Date: 12/1/00



EXPLORATORY BORING LOG

ANDANTE EMERYVILLE DEVELOPMENT Emeryville, California

| PROJECT NO. | DATE | BORING | FR_1 |
|-------------|---------------|--------|------|
| 17752-CA | December 2000 | NO. | |

| DRILL RIG Mobile B-53, HSA | SURFACE ELEVATION L | | | LO | GGED E | βY | VWC | | |
|---|-----------------------------------|--------------|-----------------------------|---------|------------------------------|---------------------|----------------------|---------------------------------------|----------------|
| DEPTH TO GROUND WATER Not Encountered | BORING DL | METE | ER | 8- | inch | DA | DATE DRILLED | | 8/2/00 |
| DESCRIPTION AND CLASSIFICA | TION | | DEPTH | SAMPLER | TRATION STANCE JWS/FT) | WATER CONTENT(%) | DRY DENSITY (PCF) | ONFINED PRESSIVE EENGTH KSF) | OTHER |
| DESCRIPTION AND REMARKS | I CONSIST I | SOIL TYPE | (FEET) | SAI | PENETI RESIS' (BLOV | CON | DRY) | COMIC | TESTS |
| PAVEMENT: 1 inches of AC over 6 inches of AB FILL: CLAY (CL), dark gray & brown, sandy (fine- to coarse-grained), trace gravel (fine, subangular), moist gravelly below 2 feet FILL: CLAY (CL), dark gray, mottled brown, some silt, moist | Hard Very Stiff Stiff | | - 5 - | | 50/6" 19 12 | | | | |
| CLAY (CL), greenish gray, mottled orange, moist gasoline and other contaminants present below 8 ¹ / ₂ feet | Very Stiff | | - - - - - 10 | X | 30 | | | | |
| Notes: 1. The stratification lines represent the approx 2. For an explanation of penetration resistanc 3. A Safety Hammer was used to drive sampl 4. Ground water was not encountered during 5. The boring was grouted with neat cement is | e values, se ers. drilling. | e the I | irst page | : 01 | Арренк | and th lix A. | ie trans | sition ma | iy be gradual. |
| | | | | | | | | | |
| | | | EXF | PLC | ORAT | ORY | BORI | NG LO |)G |
| LIARZA Engineering Company | | A | NDANI | | EMER' Emery | | | | PMENT |
| Engineering Company | | | | | | | | | |
| Lingineering Company | | ROJEC | | | D/ Deceml | TE | | BORING NO. | EB-5 |

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| DRILL RIG | Mobile B-53, HSA | SURFACE I | ELEVA | TION | | | LO | gged e | ΒY | VWC |
|---|--|--|--------|-----------------|---------|---|---------------------|----------------------|--|-------------------|
| DEPTH TO GRO | OUND WATER Not Encountered | BORING DI | AMETI | ER | 8- | inch | DA | TE DRI | LLED | 8/2/00 |
| | CRIPTION AND CLASSIFICA | TION | SOIL | DEPTH (FEET) | SAMPLER | PENETRATION RESISTANCE (BLOWS/FT) | WATER CONTENT(%) | DRY DENSITY (PCF) | UNCONFINED COMPRESSIVE STRENGTH (KSF) | OTHER TESTS |
| | | | TYPE | | | | | <u> </u> | | |
| inches of AB FILL: SANI coarse-graine (fine, angular CLAY (CL) | D (SC), brown, fine- to ed, some clay, trace gravel | Loose Stiff Very Stiff | | | | 14 14 19 | 28 | 94 | 1.7 | PP = 1.0 tsf |
| brown, some | , greenish gray, mottled silt, trace sand (fine-grained), (finc, subangular), with ell, moist | Very Stiff | | - 10- | | 44 | | | | PP =3.75 tsf |
| 2. For an exp 3. A Safety I 4. Ground w 5. The borin 6. PP = Pocl | fication lines represent the appro- planation of penetration resistance Hammer was used to drive sample rater was not encountered during g was grouted with neat cement is ket Penetrometer, tsf = tons per s | e values, se lers. drilling. immediatel | ee the | nrst pag | 2 01 | Appen | dix A. | ne tran | sition m | ay be gradual. |
| J. Ei | | | | EX | PL0 | ORAT | ORY | BOR | ING L | OG |
| | ARZA | | | | | <u> </u> | YVIL | LE DI | EVELO | PMENT |
| Ei | ngineering Company | | PROJE | CT NO. | | C | ATE | | BORING | ⁶ EB-6 |
| | | * ***** | 1775 | 2-CA | | Decen | ber 2 | 000 | NO. | V-U-1 |

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| DRILL RIG Mobile B-53, HSA | SURFAC | | | | | GGED E | 3Y | VWC | |
|--|---|------------------------------------|------------------------------|-------------|---|--|-------------------------|------------------------------------|------------------------------|
| DEPTH TO GROUND WATER 35 feet | BORING | DIAMET | ER | 8- | inch | DA | TE DRI | LLED | 8/2/00 |
| DESCRIPTION AND CLASS | IFICATION | | DEPTH | SAMPLER | PENETRATION RESISTANCE (BLOWS/FT) | WATER CONTENT(%) | DRY DENSITY (PCF) | NFINED RESSIVE ENGTH (SF) | OTHER |
| DESCRIPTION AND REMARKS | CONSIS | T SOIL | (FEET) | SAN | PENET RESIS (BLO | W/ CONT | DRY I (F | UNCO COMP STRI (+ | TESTS |
| CLAY (CL), continued | Very Sti | ff | | Ī | | | | | PP = 2.75 tsf |
| (silty at 29 feet) | Hard | | - 30 - | | 33 | Ţ | | | Gradation Te |
| SAND (SW-SC), brown, fine- to coarse-grained, trace clay | Dense | - | 40 | | 41 | | | | Passing No.20 Sieve = 16% |
| Notes: 1. The stratification lines represent the | annroximate b | oundaria | - | | vil tyme | s and tl | he tran | sition m | av he oradual |
| For an explanation of penetration res A Safety Hammer was used to drive Ground water was encountered at 35 The boring was grouted with neat ce | sistance values, samplers. 5 feet during dr ment immedial | see the illing. ely upo | first pag | e of | Appen | dix A. | | | ay 66 51 addai. |
| For an explanation of penetration res A Safety Hammer was used to drive Ground water was encountered at 35 The boring was grouted with neat ce | sistance values, samplers. 5 feet during dr ment immedial | see the illing. ely upo | first pag | e of | Appen | dix A. | | ING L | |
| For an explanation of penetration res A Safety Hammer was used to drive Ground water was encountered at 35 The boring was grouted with neat ce | sistance values, samplers. 5 feet during dr ment immediat s per square fee | see the illing. ely upo t | first pag n comple EXI | PLC TE 1 | Appen n. DRAT | ORY YVIL | BOR LE DE | ING L | |
| 2. For an explanation of penetration res 3. A Safety Hammer was used to drive 4. Ground water was encountered at 35 5. The boring was grouted with neat ce 6. PP = Pocket Penetrometer, tsf = tons | sistance values, samplers. 5 feet during dr ement immedial s per square fee | see the illing. ely upo t | first pag n comple EXI | PLC TE 1 | Appen DRAT EMER Emery | dix A. ORY YVIL ville, C ATE | BOR LE DF Califor | ING L | OG PMENT |

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| DRILL RIG Mobile B-53, HSA | SURFACE | ELEVA | TION | | | LO | GGED I | 3Y | VWC |
|--|---------------|-----------------|--------|------|---------------------------|---------------------|------------------|-----------------------------------|--------|
| DEPTH TO GROUND WATER Not Encountered | ed BORING D | BORING DIAMETER | | | inch | DA | TE DRI | LLED | 8/2/00 |
| DESCRIPTION AND CLASSIFI | CATION | | DEPTH | PLER | RATION TANCE WS/FT) | WATER CONTENT(%) | DENSITY (PCF) | NFINED RESSIVE ENGTH SF) | OTHER |
| DESCRIPTION AND REMARKS | CONSIST | SOIL TYPE | (FEET) | SAM | PENET RESIS (BLO' | CONT | DRY D (Р | UNCO COMPI STRE (K | TESTS |
| PAVEMENT: 3 inches of AC over 9 inches of AB FILL: CLAY (CL), dark gray,trace sand (fine- to coarse-grained), wet | Soft | | | X | 3 | 36 | 85 | 0.2 | |
| FILL: BRICKS, with chemical contaminants present | Firm Dense | | | X | 12 50/5" | 6 | | | |
| clay at 5 feet | Stiff | | - 5 - | X | 25 | | | | |

Bottom of Boring = 6 Feet

Notes:

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The stratification lines represent the approximate boundaries between soil types and the transition may be gradual.
 For an explanation of penetration resistance values, see the first page of Appendix A.
 A Safety Hammer was used to drive samplers.
 Ground water was not encountered during drilling.
 The boring was grouted with neat cement immediately upon completion.

IAR72 **Engineering Company**

EXPLORATORY BORING LOG

ANDANTE EMERYVILLE DEVELOPMENT Emeryville, California

| PROJECT NO. | DATE | BORING | FR_8 |
|-------------|---------------|--------|------|
| 17752-CA | December 2000 | NO. | LD-0 |

File Name: G:\ENGINEER\GINTWPROJECTS\17752-CA.GPJ Report Template: H Output Date: 12/1/00

| DRILL RIG Mobile B-53, HSA | SURFACE ELEVATION | | | LO | GGED I | BY | VWC | |
|--|--------------------------|--------------------|---------|---------------------------------|---------------------|----------------------|------------------------------------|----------------|
| DEPTH TO GROUND WATER Not Encountered | BORING DIAM | ETER | 8- | inch | DA | TE DRI | LLED | 8/2/00 |
| DESCRIPTION AND CLASSIFICA | TION | DEPTH | SAMPLER | rration stance ws/ft) | WATER CONTENT(%) | DRY DENSITY (PCF) | NFINED RESSIVE ENGTH CSF) | OTHER |
| DESCRIPTION AND REMARKS | CONSIST SO TYI | | SAN | PENETR, RESIST, (BLOW) | CONT | | UNCC COMP STR (I | TESTS |
| PAVEMENT: 3 inches of AC over 9 inches of AB FILL: BRICKS, red concrete debris at 4½ feet CLAY (CL), dark gray, some silt, moist CLAY (CL), greenish gray, some silt, moist Bottom of Boring = 10 Feet Notes: The stratification lines represent the appropriate of the stratification of penetration resistance A Safety Hammer was used to drive sample Ground water was not encountered during | e values, see th ers. | - 5 - - 5 - | n so | 18 29 all types Append | and th lix A. | e tran | sition m2 | ay be gradual. |
| 5. The boring was grouted with neat cement | | | PLC |)RAT(EMERY | VILI | LE DE | | |
| LIARZA Engineering Company | | JECT NO. | | Emeryv DA Decemi | TE | | nia BORING NO. | EB-9 |

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| DRILL RIG Mobile B-53, HS | A SURF | ACE EL | EVATIO | N | | | LO | GGED E | BY | VWC |
|--|--------------|------------------|----------|------|---------|---|---------------------|----------------------|----------------------------------|--------|
| DEPTH TO GROUND WATER 15 1 | | NG DIAI | METER | | 8- | inch | DA | TE DRI | LLED | 8/2/00 |
| DESCRIPTION AND CLA | ASSIFICATION | | DE | PTH | SAMPLER | RATION TANCE VS/FT) | WATER CONTENT(%) | DRY DENSITY (PCF) | NFINED RESSIVE NGTH SF) | OTHER |
| DESCRIPTION AND REMARKS | CONS | SIGT 1 | SOIL (FI | EET) | SAM | PENETRATION RESISTANCE (BLOWS/FT) | WA | DRY D (P | COMPR COMPR STRE (K | TESTS |
| PAVEMENT: 3 inches of AC over | 10 | 0 | 10 | | | | | | | |
| inches of AB FILL: CLAY (CL), dark grey, mot brown, some silt, moist | tiled Very | Stiff | | 4 | X | 39 | | | | |
| CLAY (CL), grey-brown, some silt | t, moist Sti | iff [–] | | 5 — | X | 30 12 | | | | |
| (dark brown at 9 feet) SAND (SC), brown, fine- to coarse-grained, with clay, moist | Very De | | | | | 34 | | | | |
| CLAY (CL), brown, some silt, tra- (fine- to coarse-grained), trace grav subangular), wet | | hiff - | | 15 - | | 75 | 19 ⊻ | 112 | | |
| | | | | 20 - | | 14 | | | | |
| | Н | ard | | | | 55 | 21 | 109 | | |
| | | | | EXI | PLC | ORAT | ORY | BOR | ING LO | G |
| HARZ | 4 | | ANI | DAN | | EMER Emery | | | EVELOP rnia | MENT |
| Engineering Com | bany | Р | ROJECT | NO. | | <u> </u> | ATE | | BORING | EB-10 |
| | | 17752-CA | | | | Decen | ecember 2000 | | NO. | 10-10 |

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| DRILL RIG | Mobile H | -53, HSA | SURFACE | ELEVA | TION | | | Ľ | GGED | ВҮ | VWC |
|-------------------------------------|--|------------------------------------|------------|--------------|--------|----------|-------------------------------|---------------------|----------------------|---------------------------------------|--------------|
| DEPTH TO GRO | UND WATER | 13.5 feet | BORING | AMET | ER | 8 | inch | D/ | TE DR | ILLED | 8/2/00 |
| DES | CRIPTION A | ND CLASSIFIC. | ATION | | DEPTH | SAMPLER | TRATION ISTANCE OWS/FT) | WATER CONTENT(%) | DRY DENSITY (PCF) | ONFINED PRESSIVE RENGTH KSF) | OTHER |
| DESC | RIPTION AND R | EMARKS | CONSIST | SOIL TYPE | (FEET) | SA | PENE RES (BL | CON | DRY | ONO STR STR | TESTS |
| | 2 inches of A | | Medium | | | 1 | | | ſ | | |
| coarse, angula | VEL (GC), gr ar, some sand (d), some clay a | fine-to | Dense | | - · | X | 28 | | | | |
| | | | Loose | | | ∇ | | | ĺ | | |
| CLAY (CL) some silt, trac wet | dark brown, m e sand (fine-gr | ottled orange, ained), moist to | Firm - | | - 5 - | | 15 6 | | | | |
| | | | | | | | | | | | |
| sand (fine- to | dark brown ar coarse-grained to subangular) | | Very Stiff | | - 10 - | X | 42 | | | | PP = 3.0 tsf |
| CLAY (CL), some silt, trac | light brown, n e fine-grained | iottled orange, sand) | Very Stiff | | - 15 | X | 34 | ⊋ 20 | 110 | 7.7 | PP = 2.75 ts |
| | rusted brown, e-grained sand | | Very Stiff | | | Χ | 29 | | | | |
| (some sand be | low 23½ feet) | | | | | X | 58 | | | | |
| | | | | | EXPI | LOI | RATO | RYE | IORI | NG LO | G |
| Ц | AR | ZA | | AN | IDANTI | | MERY meryvi | | | | MENT |
| Eng | ineering C | ompany | Р | ROJECT | 'NO. | | DA' | re | в | ORING | T713 44 |
| | | | | 17752- | CA | n | ecemb | er 200 | | NO. | EB-11 |

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| DRILL RIG | Mobile B | -53, HSA | SURFACE | ELEVA | TION | | | LO | GGED I | BY | VWC |
|---|--|------------------|------------|---------------|--------|---------|---|---------------------|----------------------|--|-------------------------------|
| DEPTH TO GROU | JND WATER | 13.5 feet | BORING D | IAMETI | ER | 8- | inch | DA | TE DRI | LLED | 8/2/00 |
| DESC | CRIPTION A | ND CLASSIFIC | CATION | T | DEPTH | SAMPLER | PENETRATION RESISTANCE (BLOWS/FT) | WATER CONTENT(%) | DRY DENSITY (PCF) | ONFINED PRESSIVE RENGTH (KSF) | OTHER |
| DESCR | UPTION AND R | EMARKS | CONSIST | SOIL TYPE | (FEET) | SAI | PENE RESI (BLC | CON | DRY (| COMI STR | TESTS |
| CLAY (CL), | continued | | Very Stiff | | | | | | | | PP = 2.25 tsf |
| (trace fine-gra (silty at 39 fee (sandy, fine- t (sandy, fine- t) (mottled blac below 48½ fe | et) o coarse-grain k, trace fine-g | ned, at 40 feet) | Stiff | | - 30 | | 14 | _ 24 | 104 | | PP = 3.50 tsf PP = 2.0 tsf |
| | | | <u>_</u> | <u>//////</u> | EXI | PLC | ORAT | ORY | BOR | ING L | OG |
| | AR | ZA | | Å | NDAN' | | EMER Emery | | | | PMENT |
| Eng | gineering | Company | | PROJE | CT NO. | | D | ATE | | BORING | ; EB-11 |
| | | | | 1775 | 2-CA 🗍 | | Decem | ber 20 | 00 | NO. | 11 ⁻ 11 |

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| DRILL RIG | Mobile I | 3-53, HSA | SURFACE | ELEVA | TION | | | LO | GGED I | зү | VWC |
|----------------|--------------------------------|--------------|----------|--------------|--------|------------------|---|---------------------|----------------------|-------------------------------------|--------|
| DEPTH TO GRO | UND WATER | 13.5 feet | BORING D | IAMET | ER | 8- | inch | DA | TE DR | LLED | 8/2/00 |
| DES | CRIPTION A | ND CLASSIFIC | ATION | | DEPTH | SAMPLER | PENETRATION RESISTANCE (BLOWS/FT) | WATER CONTENT(%) | DRY DENSITY (PCF) | NNFINED RESSIVE ENGTH KSF) | OTHER |
| DESCI | RIPTION AND R | EMARKS | CONSIST | SOIL TYPE | (FEET) | SAI | PENE RESI (BLC | CON | DRY) | COMF | TESTS |
| CLAY (CL), | continued | | Stiff | | | Τ | | | | | |
| | | | | | | | | | | | |
| | | | | | | | | | | | |
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| | | | | | | <u> </u> | | | | | |
| | | | | | - 55 - | | | | | | |
| | | | | | | | | | | | |
| | | | | | | 1 | | | | | |
| | | | | | | | 7 | | | | |
| (sandy at 59 f | feet) | | | | - 60 - | X | 53 | | | | |
| | | | | | - 00 - | | | | ĺ | | |
| | | | | | |] | | | | | |
| | | | | | | | | | | | |
| | | | | | | | | | | | |
| SAND (SC), | rusted brown, | fine- to | Very | | - 65 - | | | | | | |
| coarse-graine | d, with clay | | Dense | | | | 53 | | | | |
| | | | | | | | | | | | |
| | | | | | | | | | | | |
| | | | | | | _ | | | | | |
| 0.112.015 | | | Hard | | 70 - | + | | | | | |
| some sand (fi | , mottled brow ine-grained) | m and Diack, | Паіц | | | $\left \right $ | 52 | | | | |
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| | I AR | ZA | | А | INDAN | | EMER Emery | | | EVELOI nia | |
| En | gineering | Company | | PROJE | | | - | ATE | | BORING | EB-11 |
| | | | | 17752 | 2-CA | | Decem | ber 20 | 00 | NO. | |

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| DRILL RIG Mobile | B-53, HSA | SURFACE | ELEVA | TION | | — | LO | GGED I | BY | VWC |
|-------------------------------|---------------|-----------------|--------------|--------|--------|---------------------------|---------------------|------------------|------------------------------------|-------|
| DEPTH TO GROUND WATER 13.5 fe | | BORING DIAMETER | | | 8-inch | | | TE DR | 8/2/00 | |
| DESCRIPTION . | AND CLASSIFIC | ATION | | DEPTH | IPLER | RATION TANCE WS/FT) | WATER CONTENT(%) | DENSITY (PCF) | NFINED RESSIVE ENGTH (SF) | OTHER |
| DESCRIPTION AND | REMARKS | CONSIST | SOIL TYPE | (FEET) | SAMPI | PENET RESIS (BLO | W/ CONT | DRY D (P | UNCO STRI (K | TESTS |
| CLAY (CL), continued | | Hard | | - 80 - | | 85/11' | | | | |

Bottom of Boring = 80 Feet

Notes:

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1. The stratification lines represent the approximate boundaries between soil types and the transition may be gradual.

For an explanation of penetration resistance values, see the first page of Appendix A.
 A Safety Hammer was used to drive samplers.

4. Ground water was encountered at 13 ½ feet during drilling.

5. The boring was grouted with neat cement immediately upon completion.
6. PP = Pocket Penetrometer, tsf = tons per square feet

Engineering Company

EXPLORATORY BORING LOG

ANDANTE EMERYVILLE DEVELOPMENT Emeryville, California

| PROJECT NO. | DATE | BORING | FR 11 |
|-------------|---------------|--------|-------|
| 17752-CA | December 2000 | NO. | |

| | | ELEVA | TION | | | | GGED | BY | VWC |
|---|------------|--------------|--------------|---------|------------------------------|---------------------|----------------------|--------------------------------------|-------------------------------|
| DEPTH TO GROUND WATER 30 feet | BORING D | IAMET | ER | 8 | -inch | DA | TE DR | ILLED | 8/2/00 |
| DESCRIPTION AND CLASSIFICA | ATION | 1 | DEPTH | SAMPLER | TRATION STANCE DWS/FT) | WATER CONTENT(%) | DRY DENSITY (PCF) | NNFINED PRESSIVE ENGTH KSF) | OTHER |
| DESCRIPTION AND REMARKS | CONSIST | SOIL TYPE | (FEET) | SAI | PENETR/ RESIST/ (BLOW: | CON | DRY (| COMP | TESTS |
| FILL: GRAVEL (GM), grey, fine to coarse, angular, some sand (fine- to coarse-grained), trace silt, damp | | | | | | | | | |
| FILL: CLAY (CL), black, mottled brown, some silt, moist to wet | Very Stiff | | | X | 31 | 26 | 97 | 3.4 | PP = 1.0 tsf LL=48, PI=31, |
| (dark gray, trace coarse-grained sand below 4 feet) | | | - 5 - | | 18 | | | | Passing No.20 Sieve = 96% |
| SILT (ML), gray-brown, some clay, some sand (fine- to coarse-grained), moist | Very Stiff | | | | | | | | |
| | | | - 10 - | X | 45 | 16 | 116 | | |
| CLAY (CL), brown, mottled black, some silt, trace sand (fine-grained), moist | Very Stift | | - 15 - | X | 33 | | | | PP = 4.0 tsf |
| (rusted brown below 18½ feet) | | | - 20 - | | 26 | | | | |
| (some fine-grained sand, trace fine and subangular gravel below 23½ feet) | Hard | | | | 60 | | | | |
| HARZA | | A | EXP NDANT | Ъ. | MERY | VILL | E DE | | |
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| | RILL RIG Mobile B-53, HSA | | SURFACE ELEVATION | | | | | LO | GGED E | BY | vwc |
|---|---|---|---|----------------------|-----------------|----------|---|-------------------------|----------------------|--|----------------|
| DEPTH TO GRO | OUND WATER | 30 feet | BORING D | IAMETI | ER | 8- | inch | DA | TE DRI | LLED | 8/2/00 |
| | SCRIPTION AN | D CLASSIFICA marks | TION CONSIST | SOIL TYPE | DEPTH (FEET) | SAMPLER | PENETRATION RESISTANCE (BLOWS/FT) | WATER CONTENT(%) | DRY DENSITY (PCF) | UNCONFINED COMPRESSIVE STRENGTH (KSF) | OTHER TESTS |
| CLAY (CL) | , continued | | Hard | V///// | | <u> </u> | <u> </u> _ | | | | |
| | , | | | | - 30 - | | | Ţ | | | |
| SAND (SW- coarse-graine subangular), | -SC), brown, fin ed, trace grvel (f | e- to ine, | Very Dense | - | | | 59 | | | | • <u></u> • |
| For an exp A Safety I Ground w The boring PP = Pock | blanation of pene Hammer was use ater was encoun g was grouted w | resent the appro- etration resistance ed to drive samp tered at 30 feet of ith neat cement , tsf = tons per s lasticity Index | e values, s ers. luring drill immediatel | ing. | nisi pag | e or | Appen | ix A. | ie trans | sition ma | y de graduai. |
| | | | | | | | | | | | |
| | | | | | | | | | | ING LO | |
| | IAR | | | A | | LE I | | YVIL | LE DE | VELO | DG PMENT |
| F | | | | A PROJEC 17752 | NDAN' | | EMER Emery | YVIL ville, (ate | LE DF Califor | VELO | PMENT |

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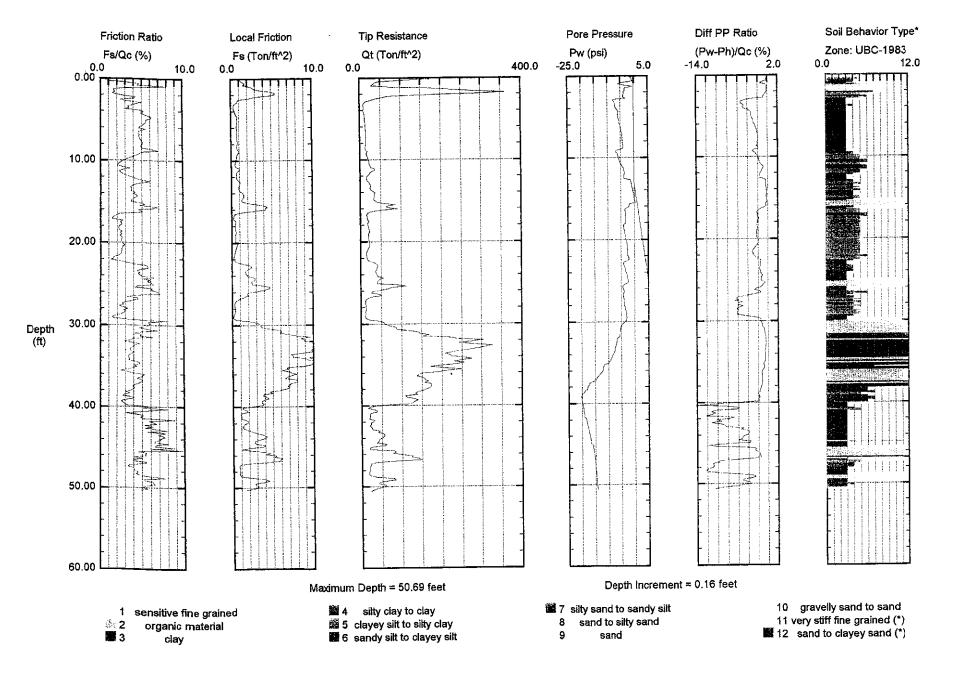
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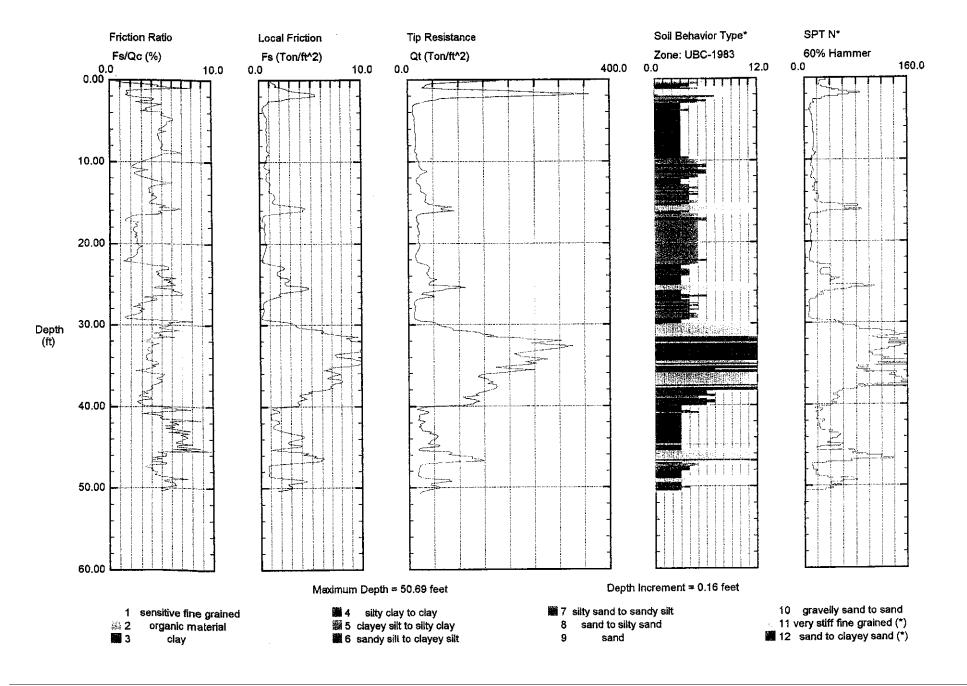
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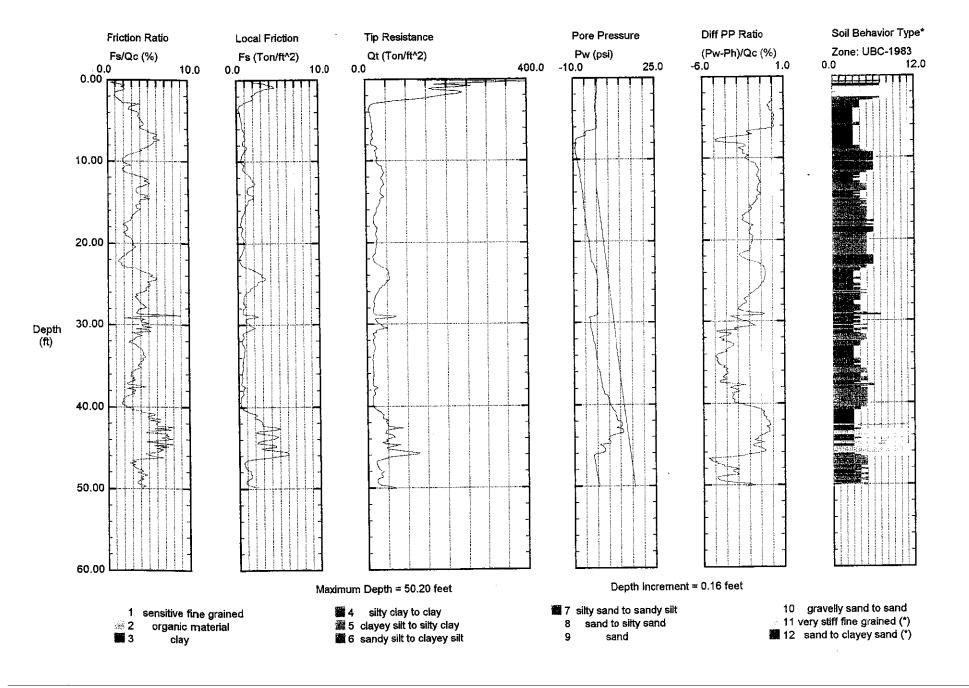
Operator: VIRGIL A. BAKER Sounding: 00Z266 Cone Used: HO 738 TC - U2 CPT Date/Time: 09-25-00 10:13 Location: CPT-1 Job Number:



Operator: VIRGIL A. BAKER Sounding: 00Z266 Cone Used: HO 738 TC - U2 CPT Date/Time: 09-25-00 10:13 Location: CPT-1 Job Number:



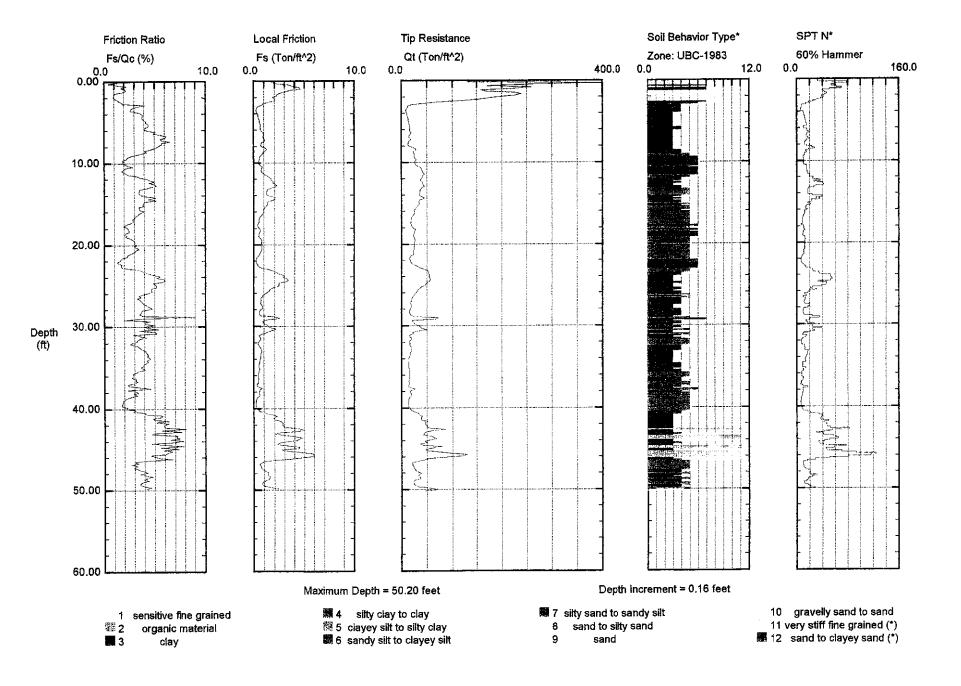
Operator: VIRGIL A. BAKER Sounding: 00Z267 Cone Used: HO 738 TC - U2 CPT Date/Time: 09-25-00 11:47 Location: CPT-2 Job Number:



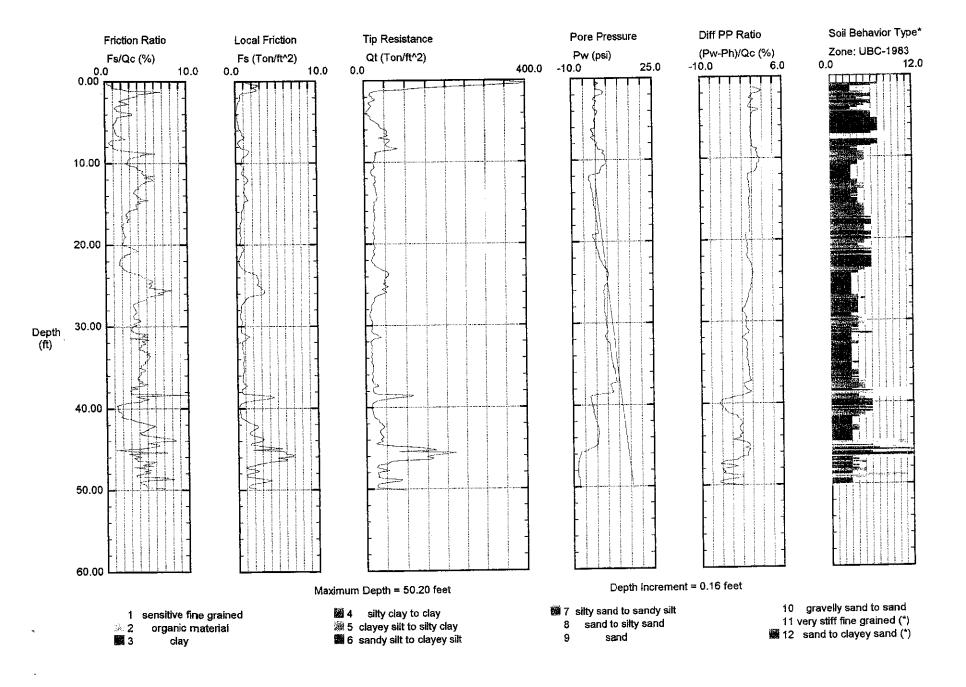
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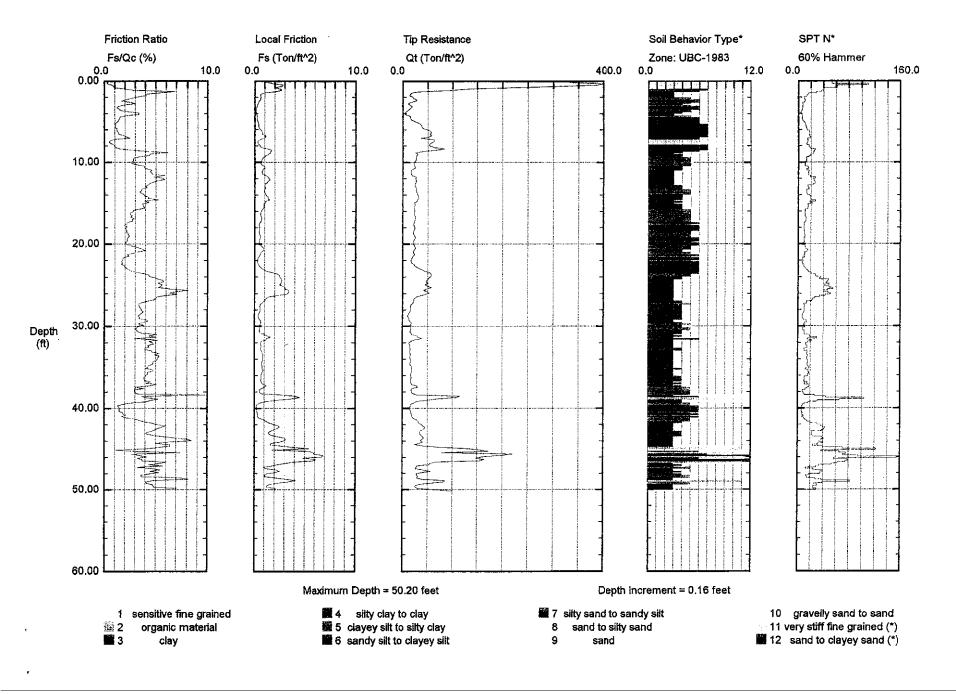
Operator: VIRGIL A. BAKER Sounding: 00Z267 Cone Used: HO 738 TC - U2 CPT Date/Time: 09-25-00 11:47 Location: CPT-2 Job Number:

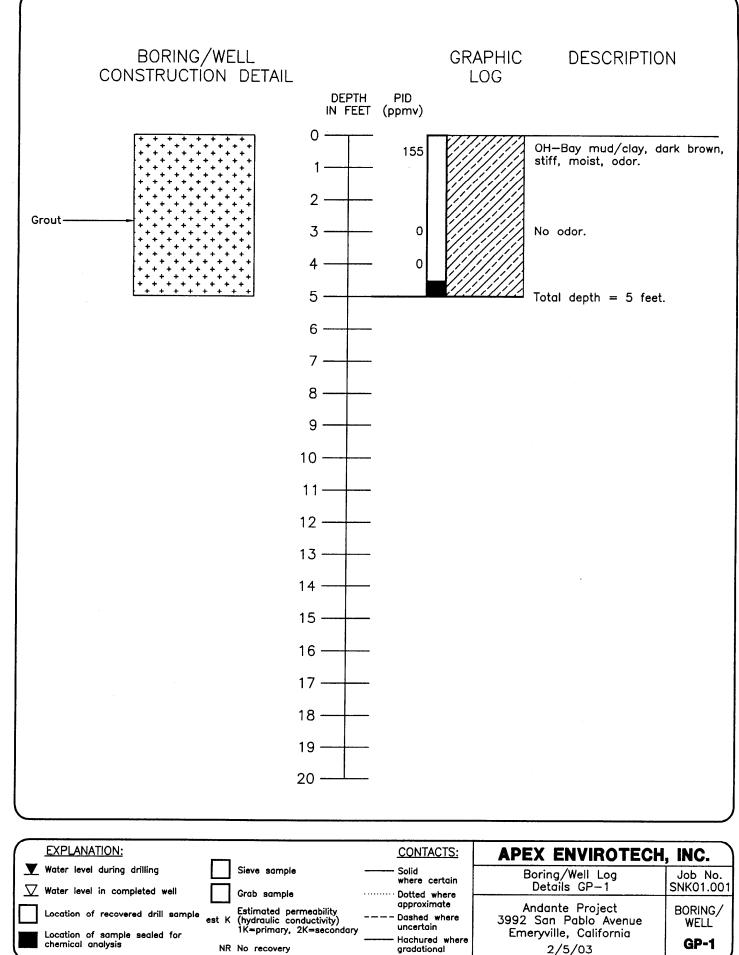


Operator: VIRGIL A. BAKER Sounding: 00Z268 Cone Used: HO 738 TC - U2 CPT Date/Time: 09-25-00 14:21 Location: CPT-3 Job Number:

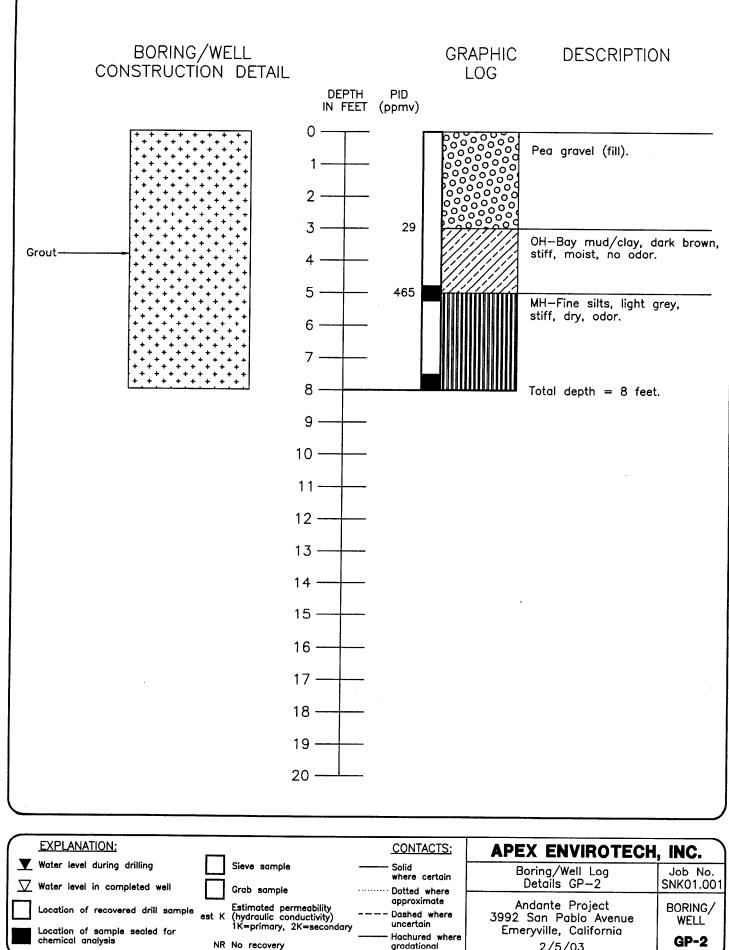


Operator: VIRGIL A. BAKER Sounding: 00Z268 Cone Used: HO 738 TC - U2 CPT Date/Time: 09-25-00 14:21 Location: CPT-3 Job Number:



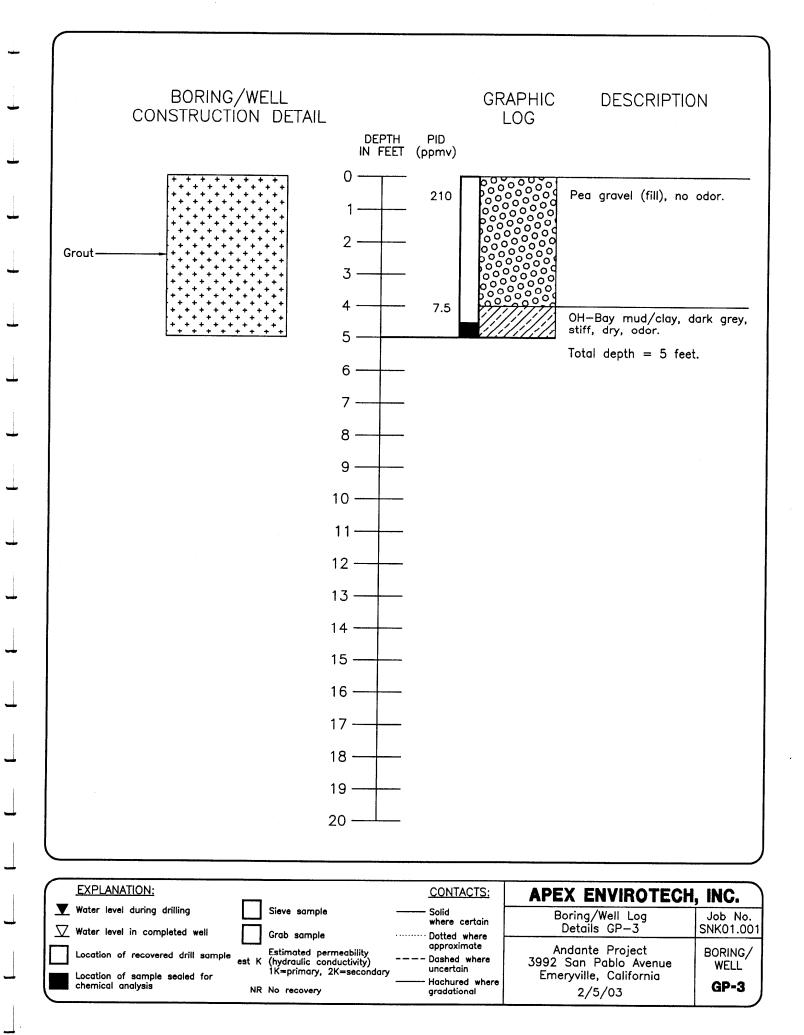


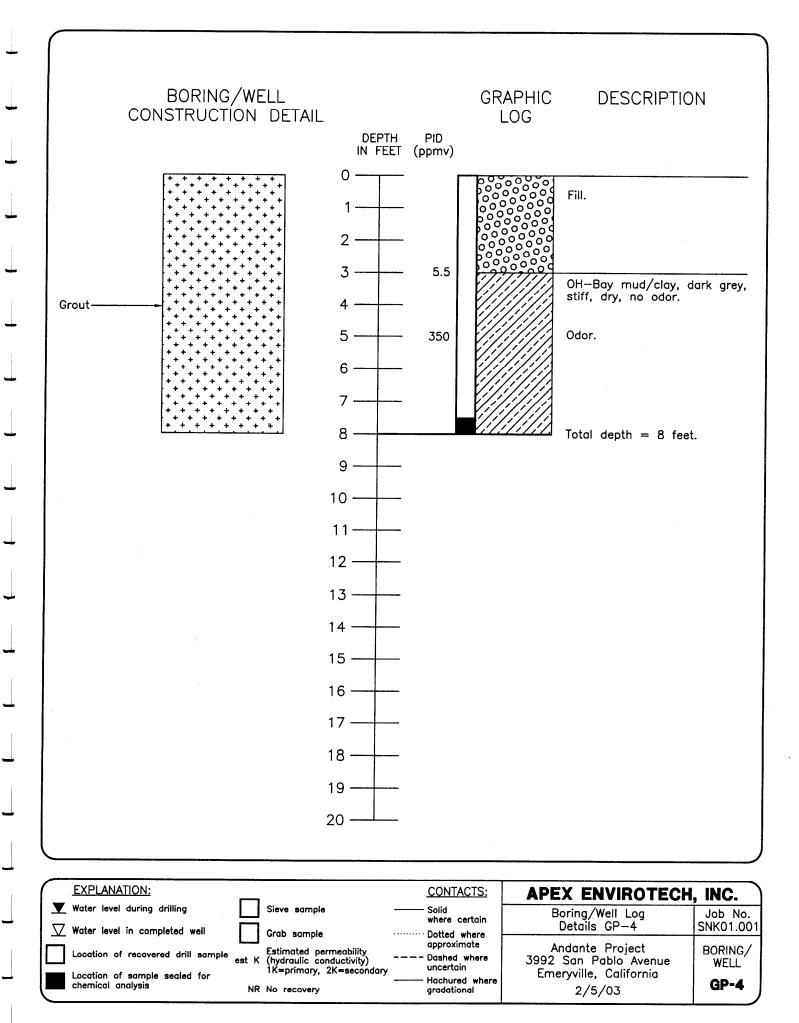
NR No recovery

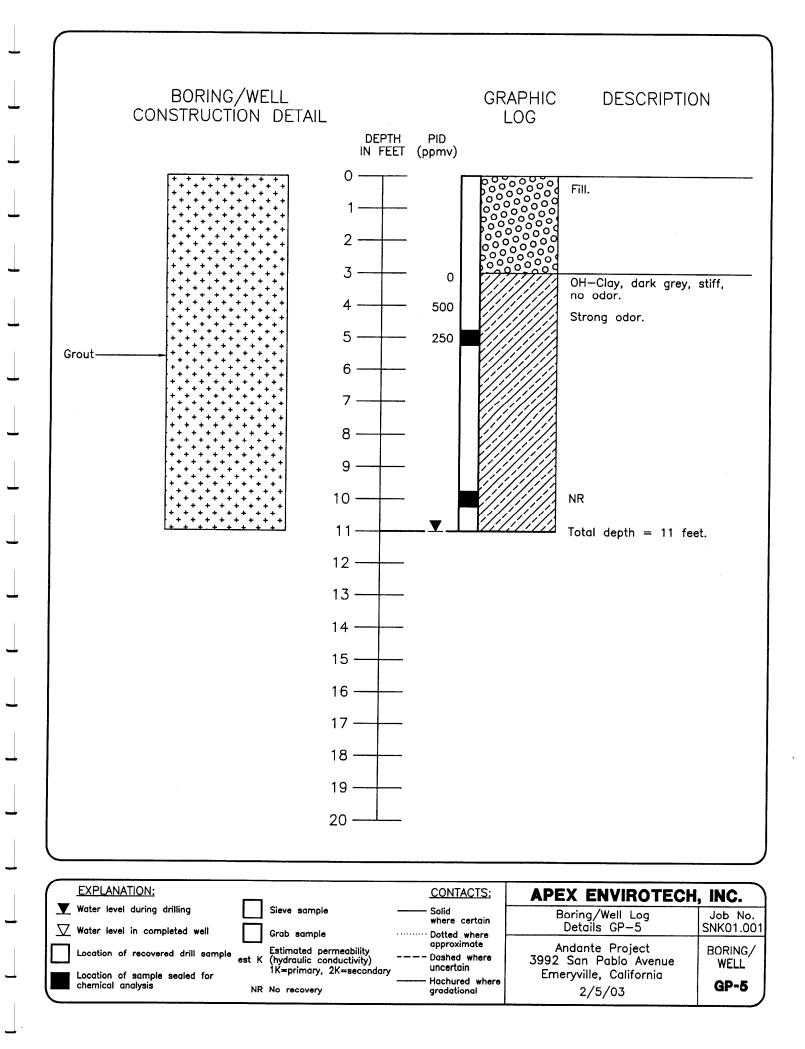


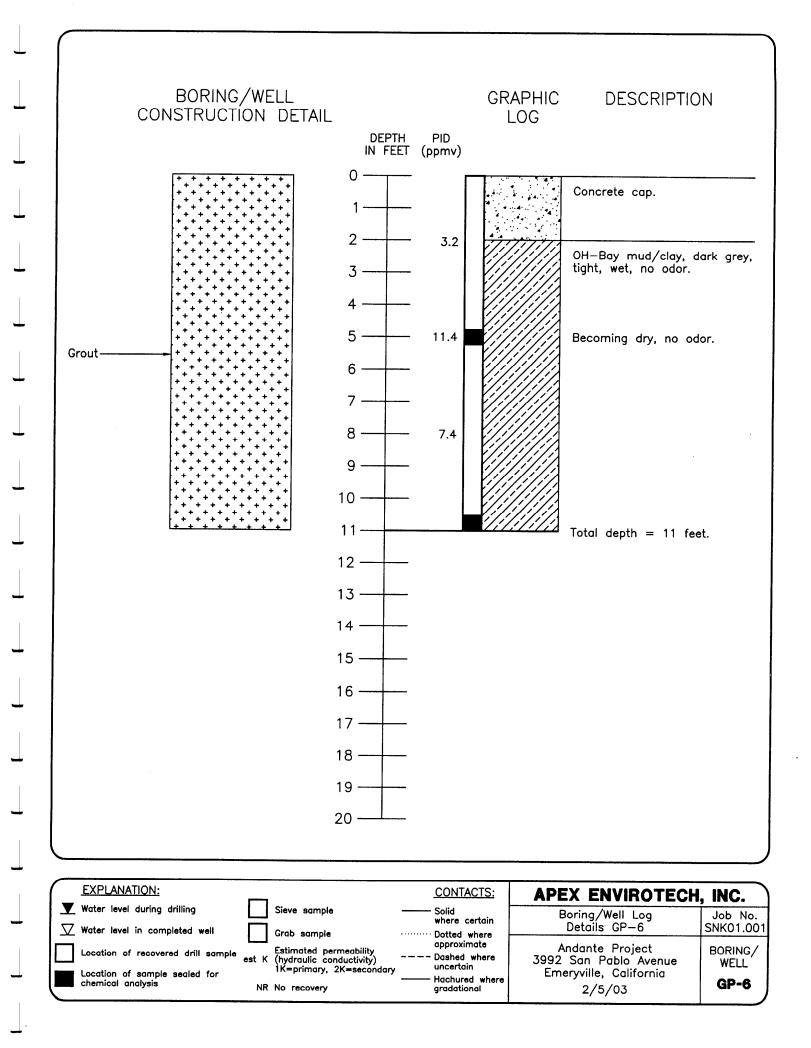
gradational

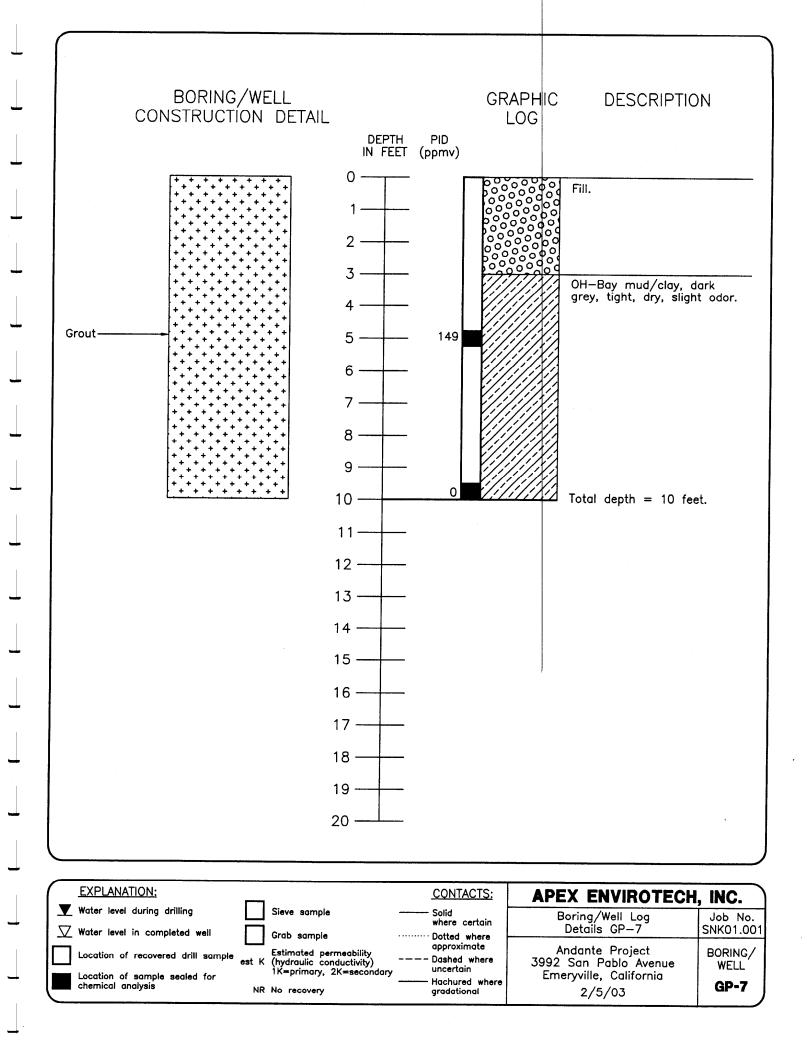
2/5/03

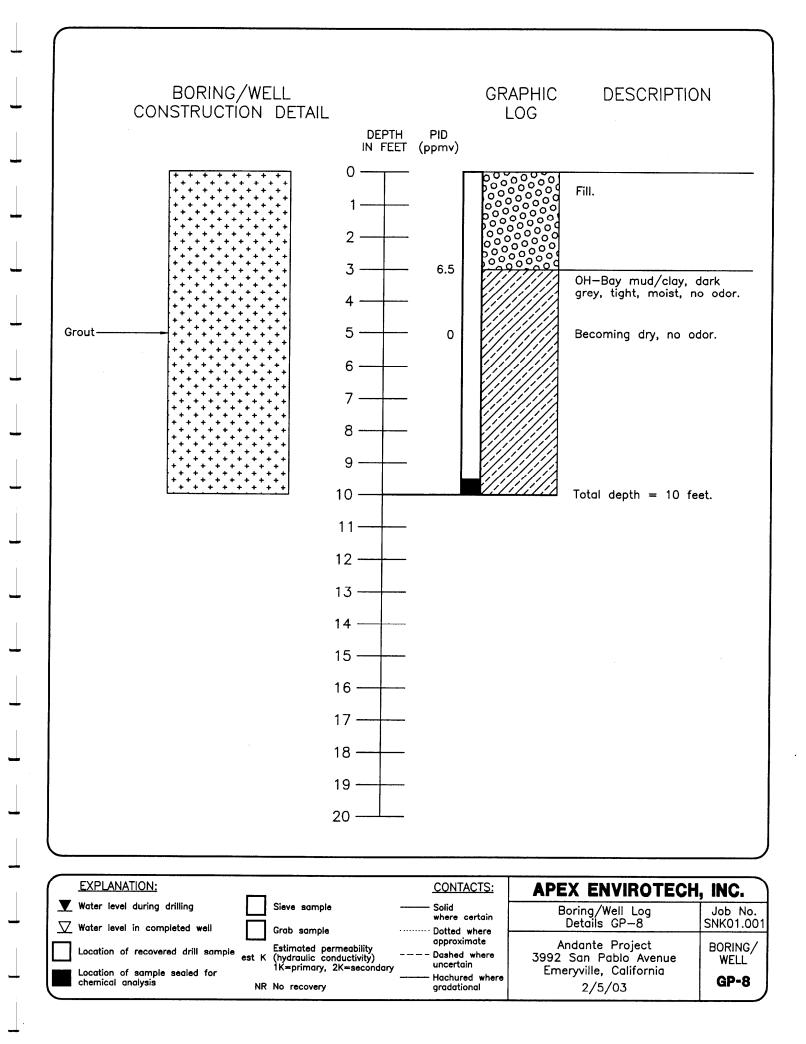


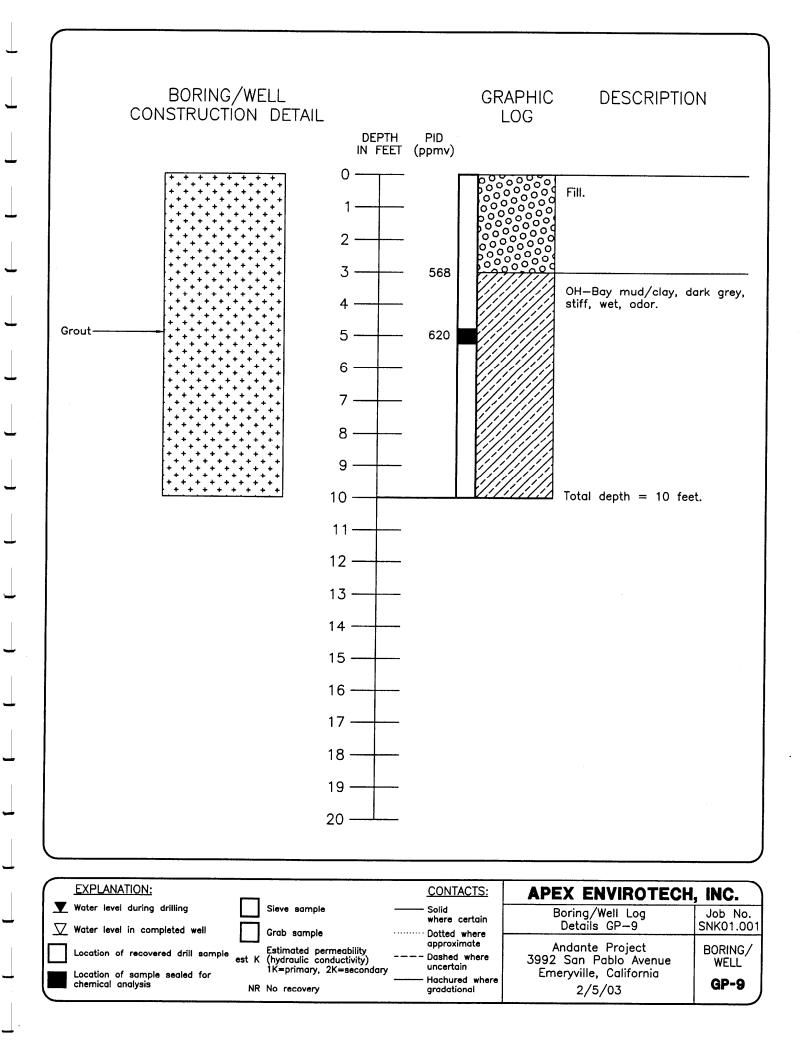


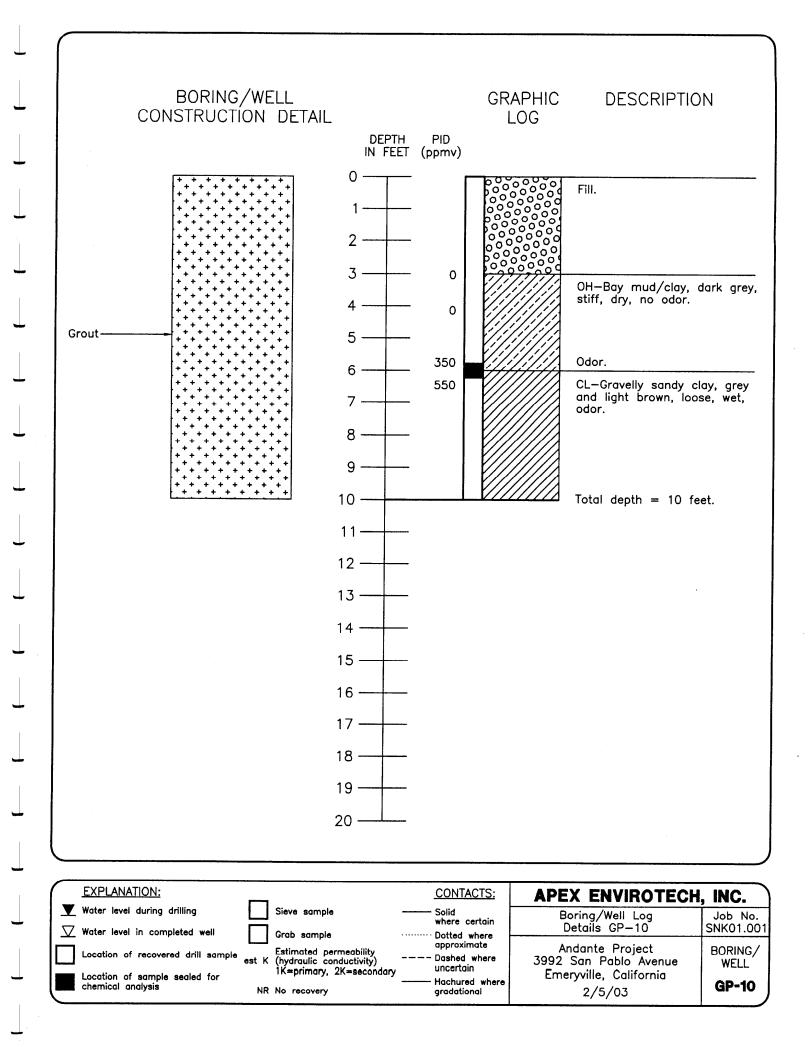


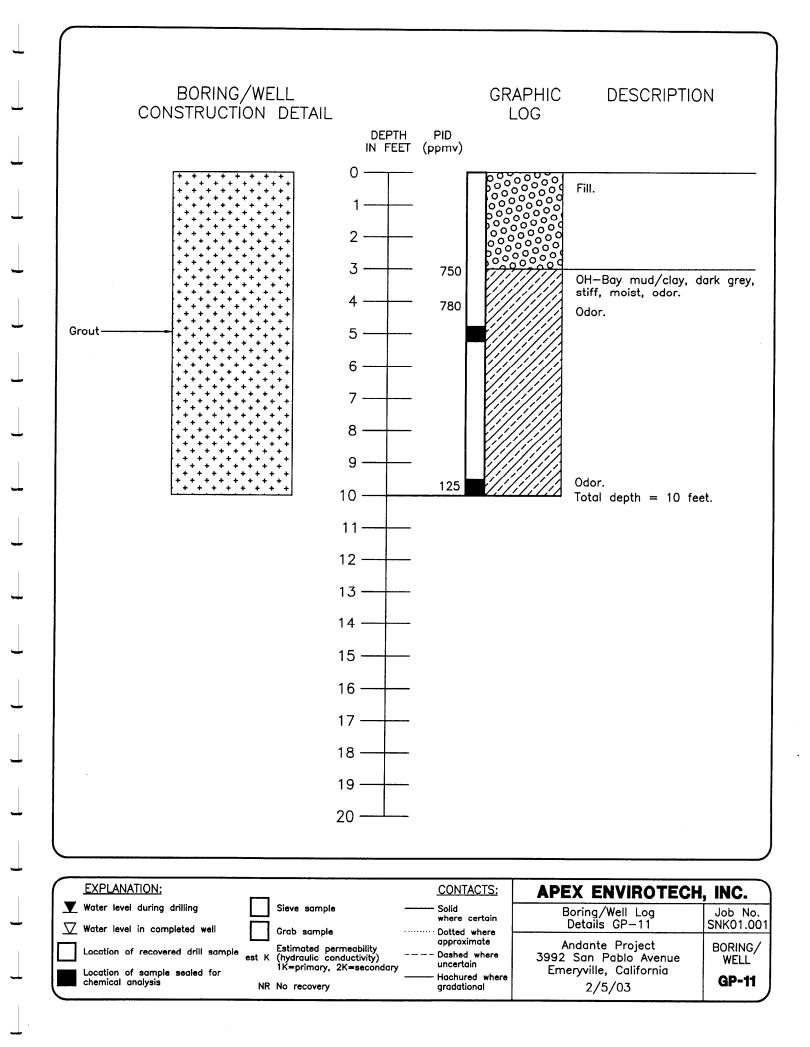


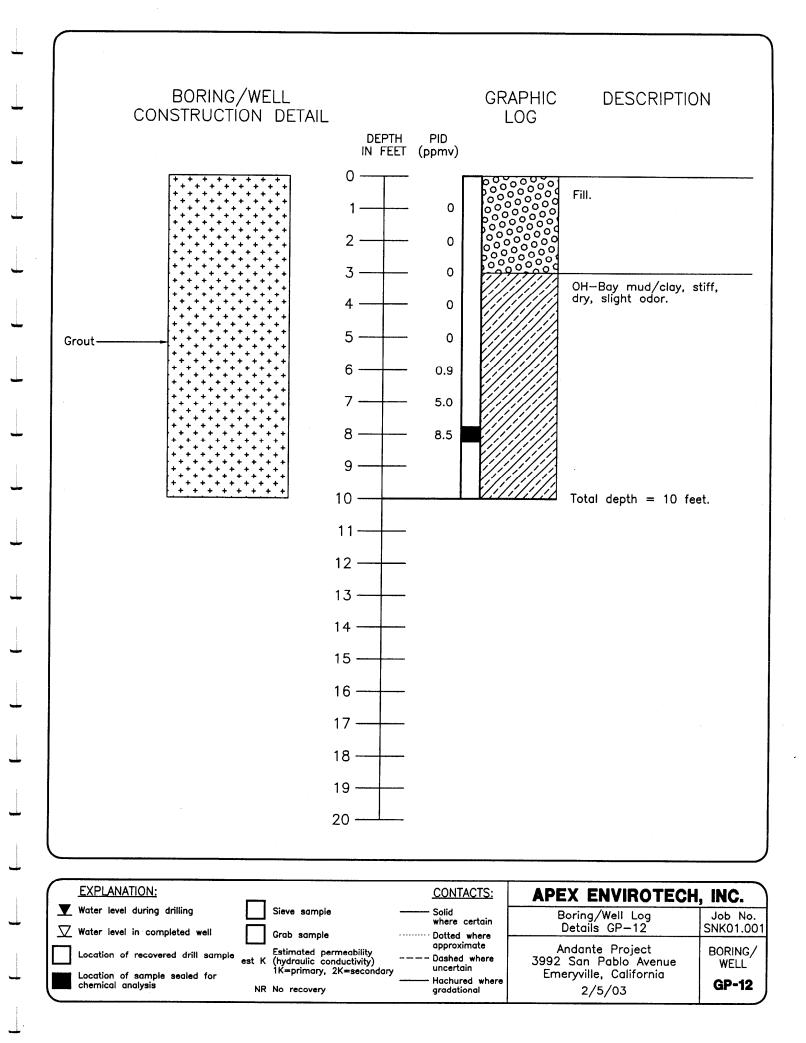


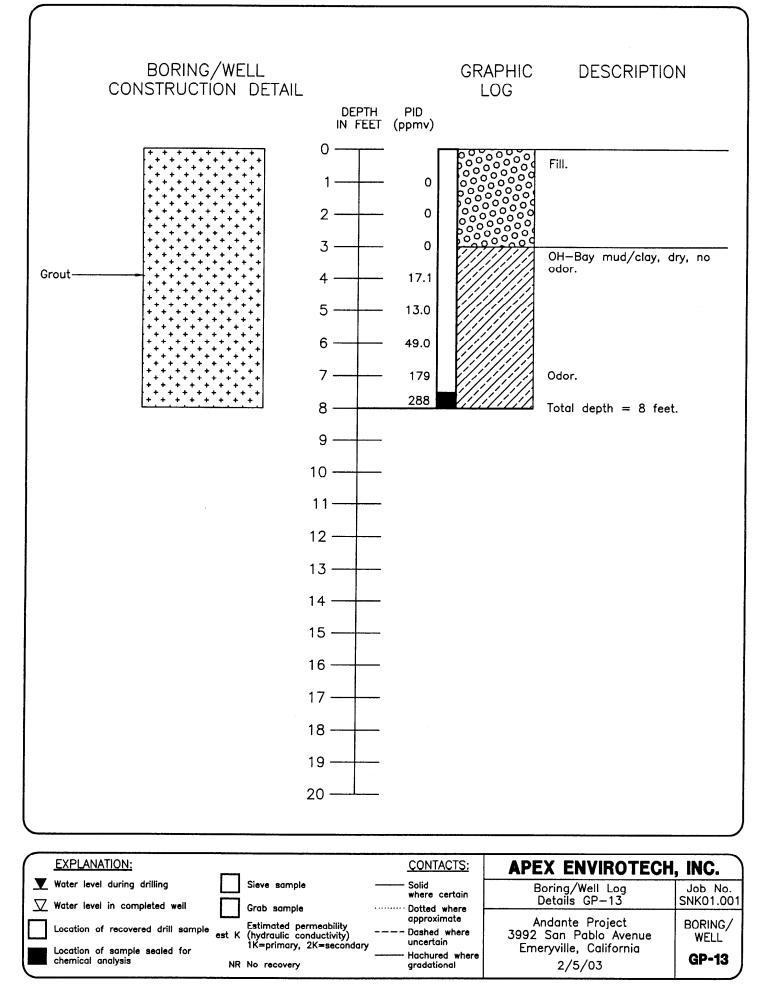


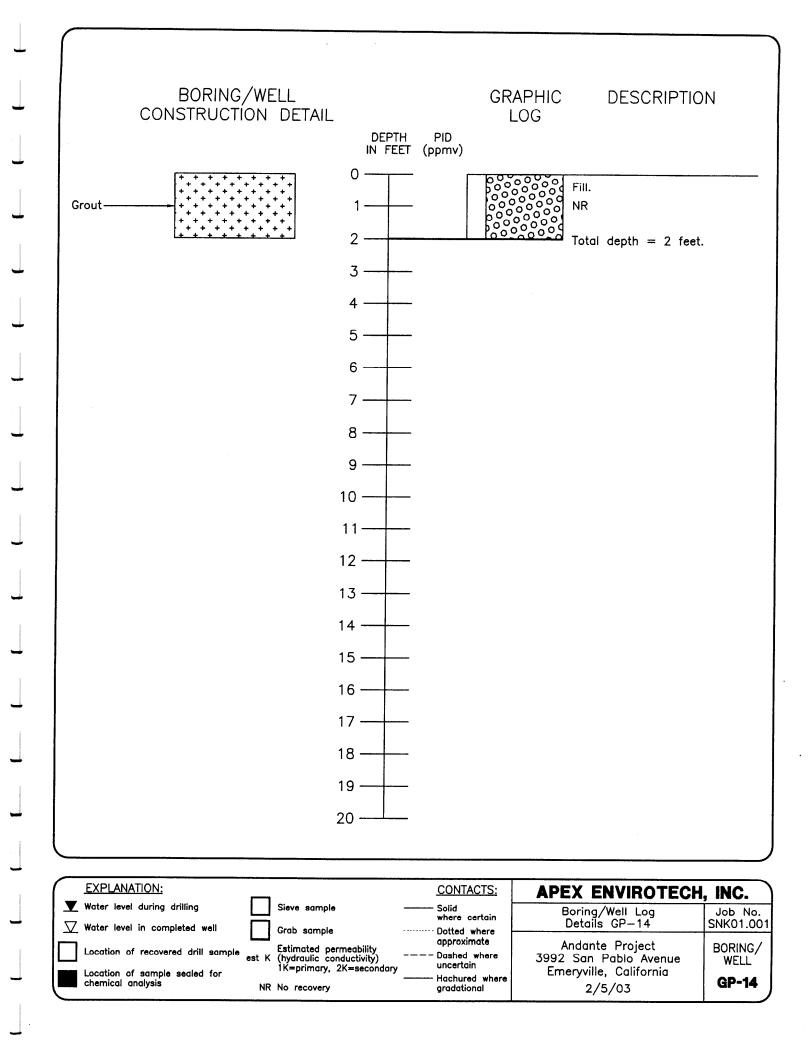


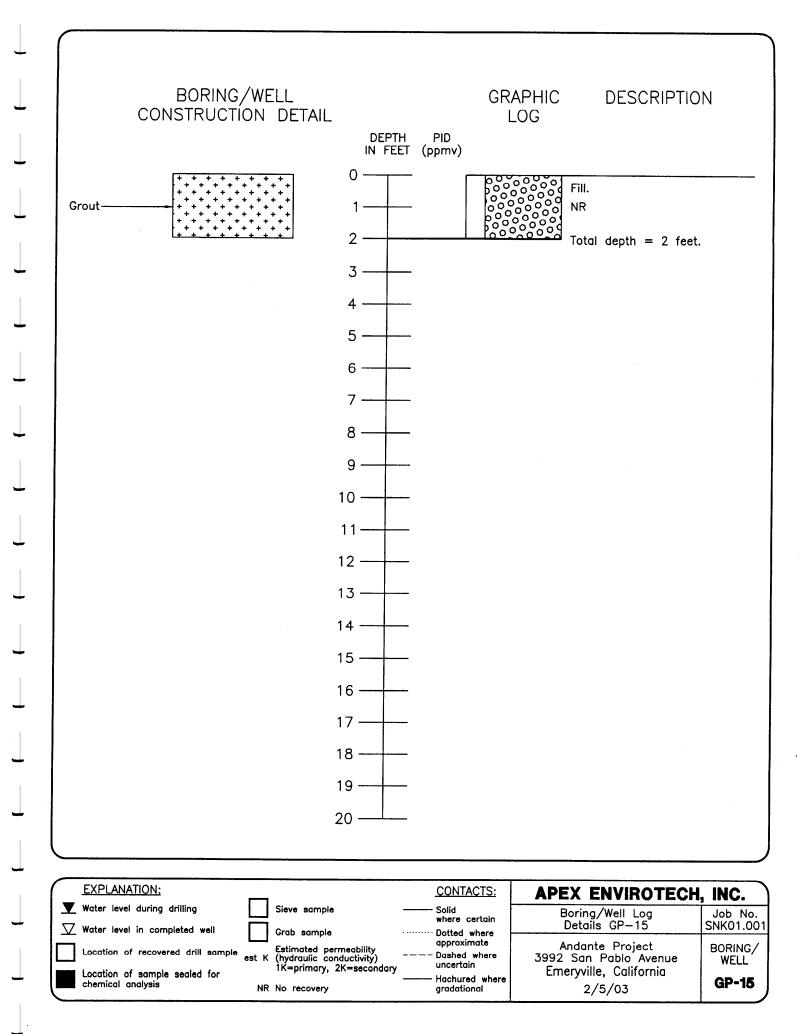


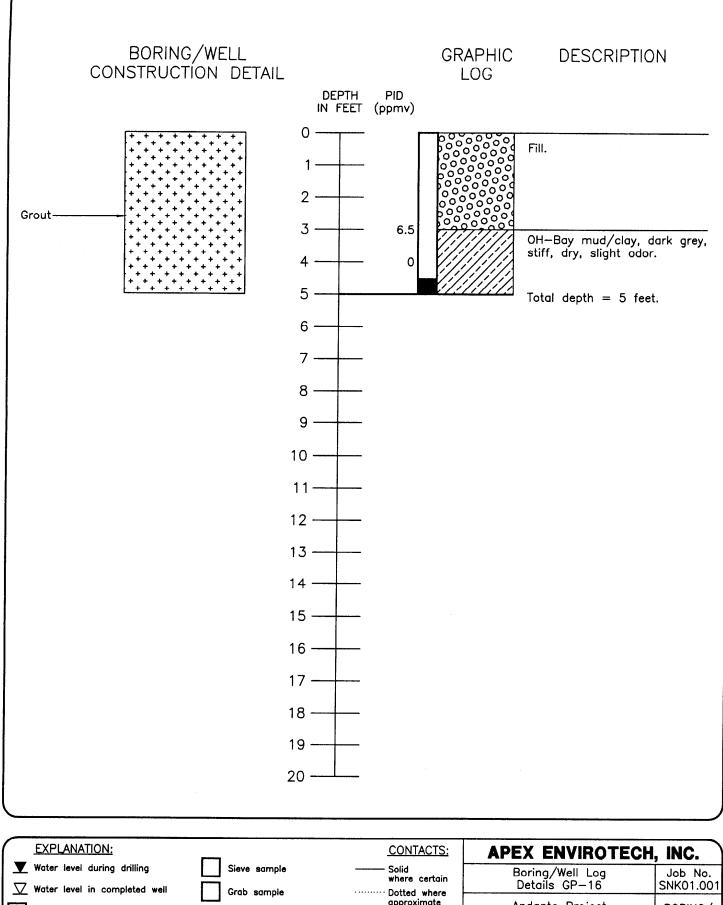










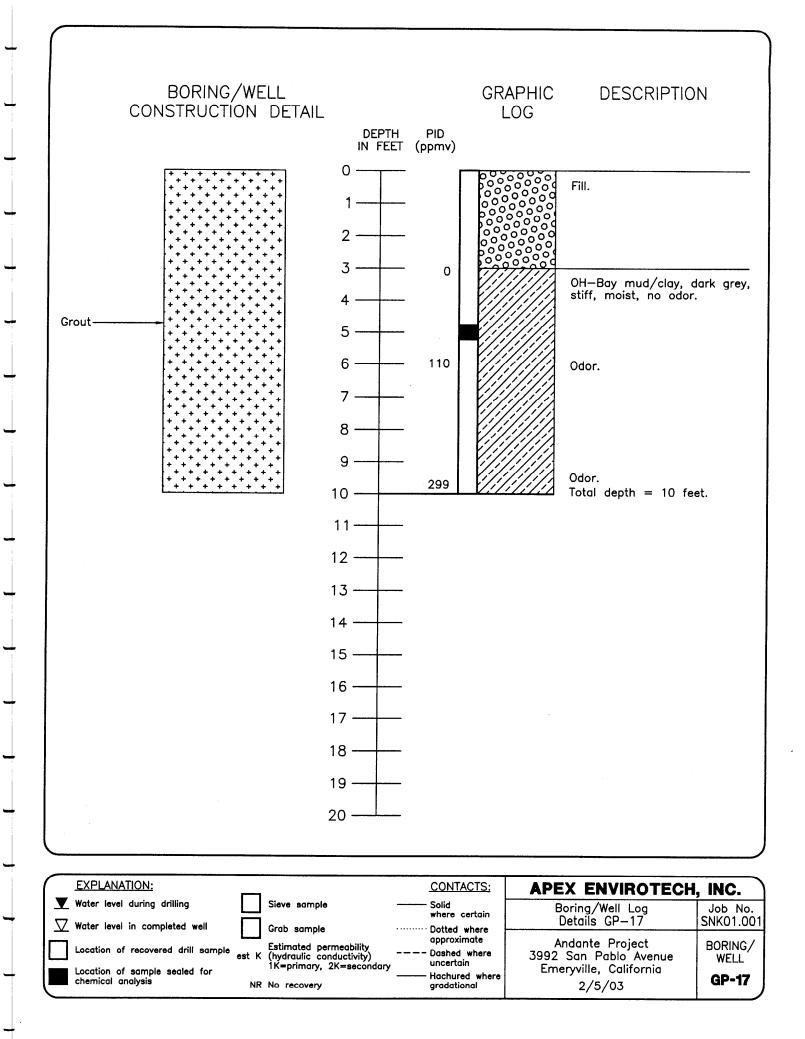


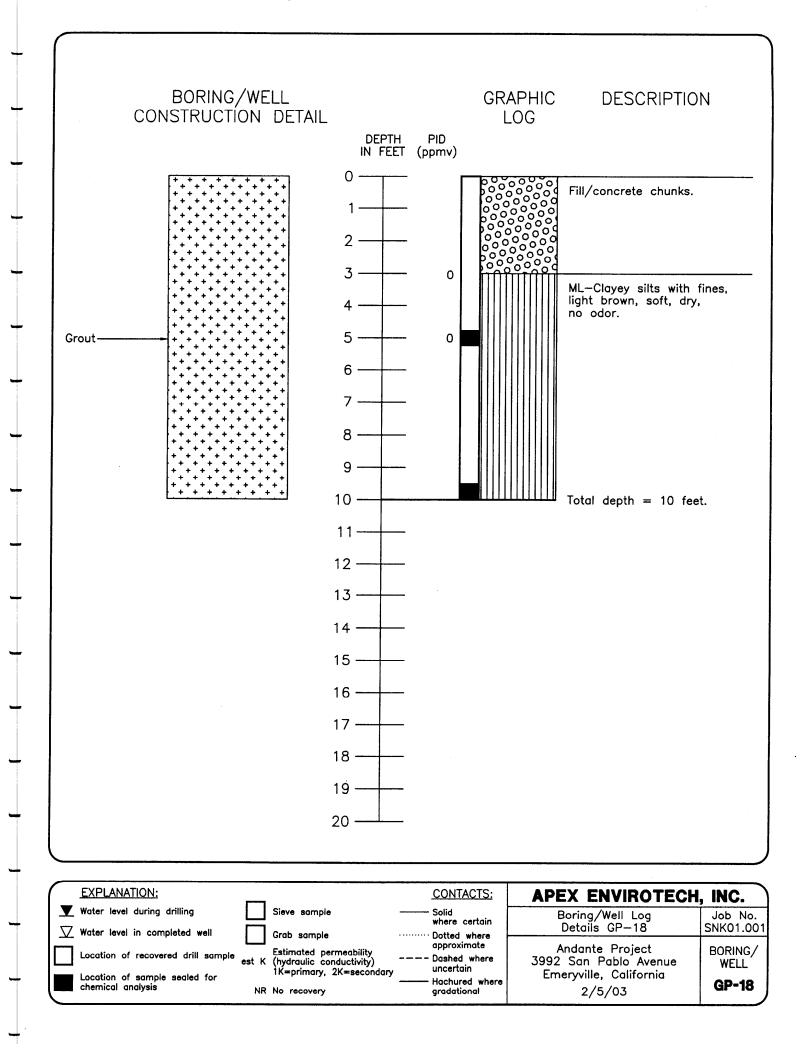
Location of recovered drill sample est K Location of sample sealed for chemical analysis

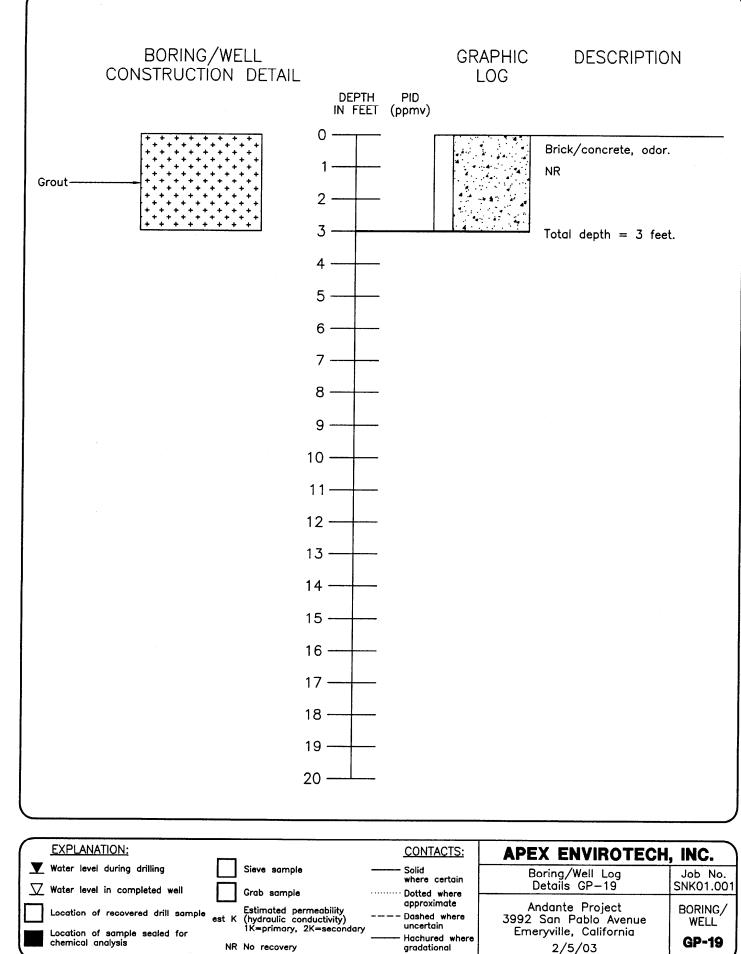
Estimated permeability (hydraulic conductivity) 1K=primary, 2K=secondary NR No recovery

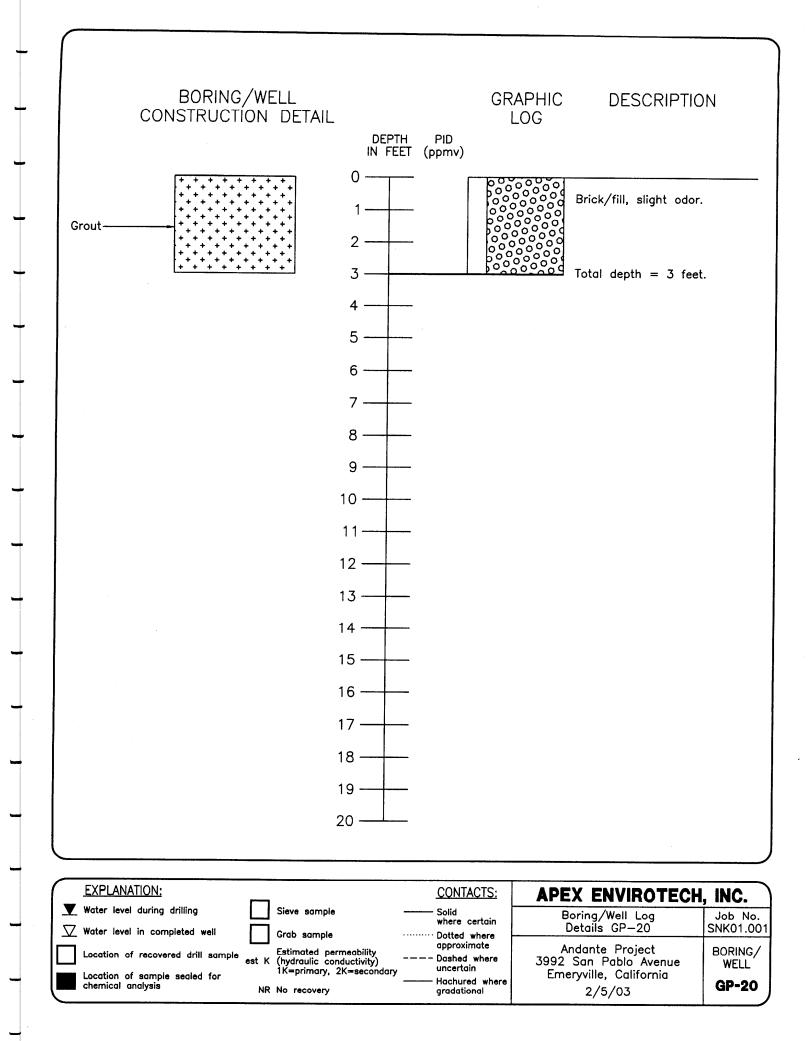
approximate Dashed where uncertain Hachured where gradational

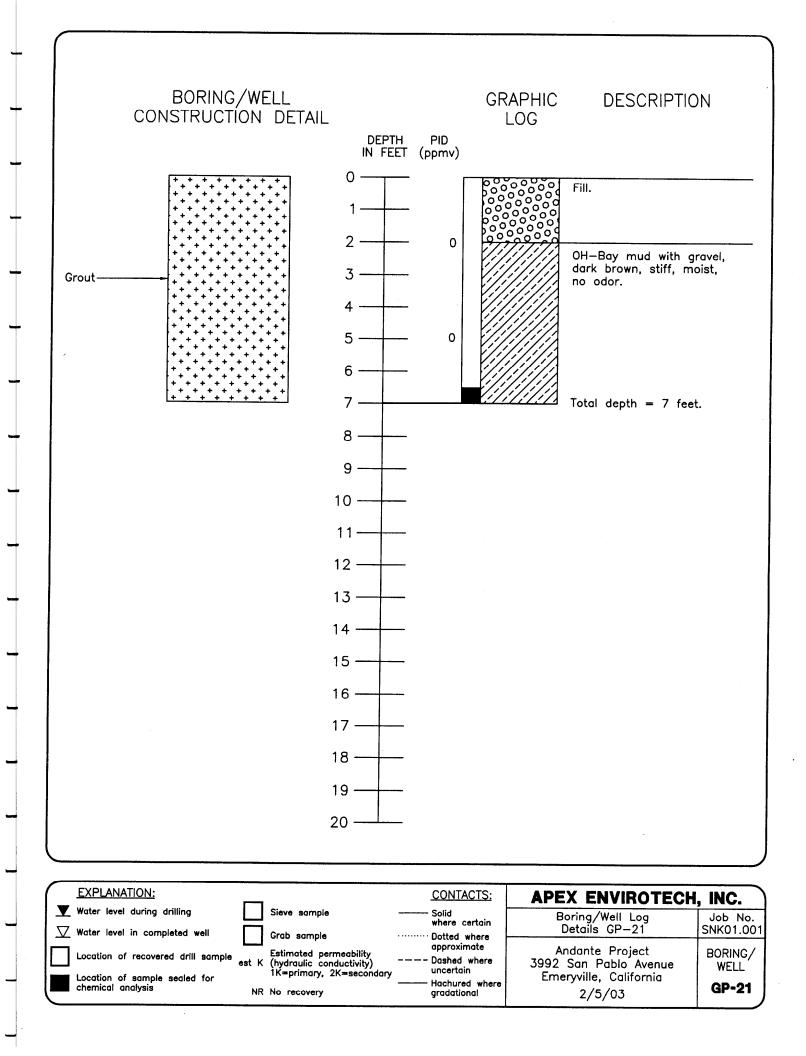
Andante Project BORING/ 3992 San Pablo Avenue WELL Emeryville, California **GP-16** 2/5/03

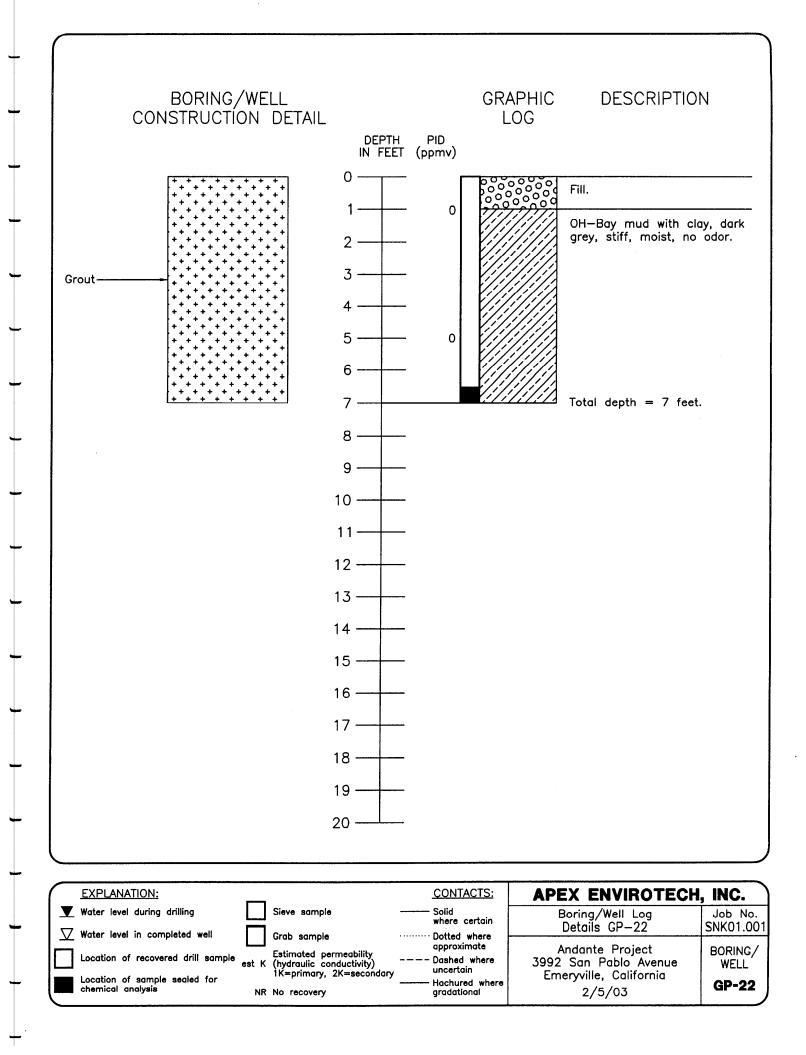


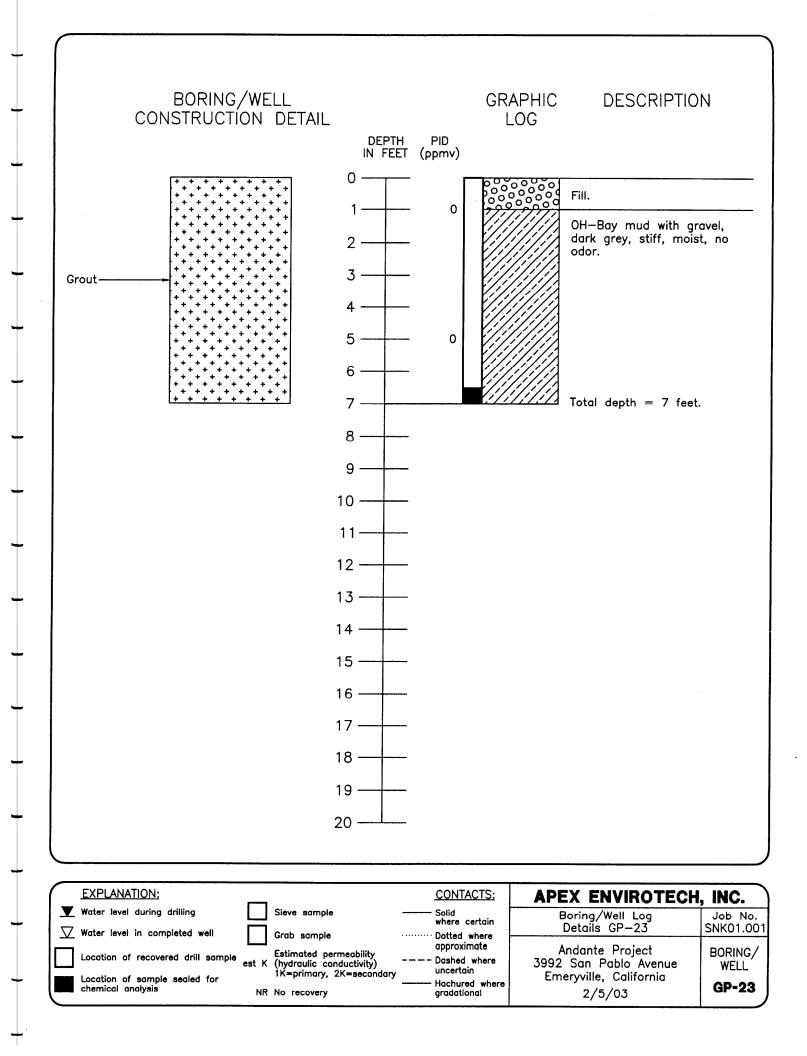


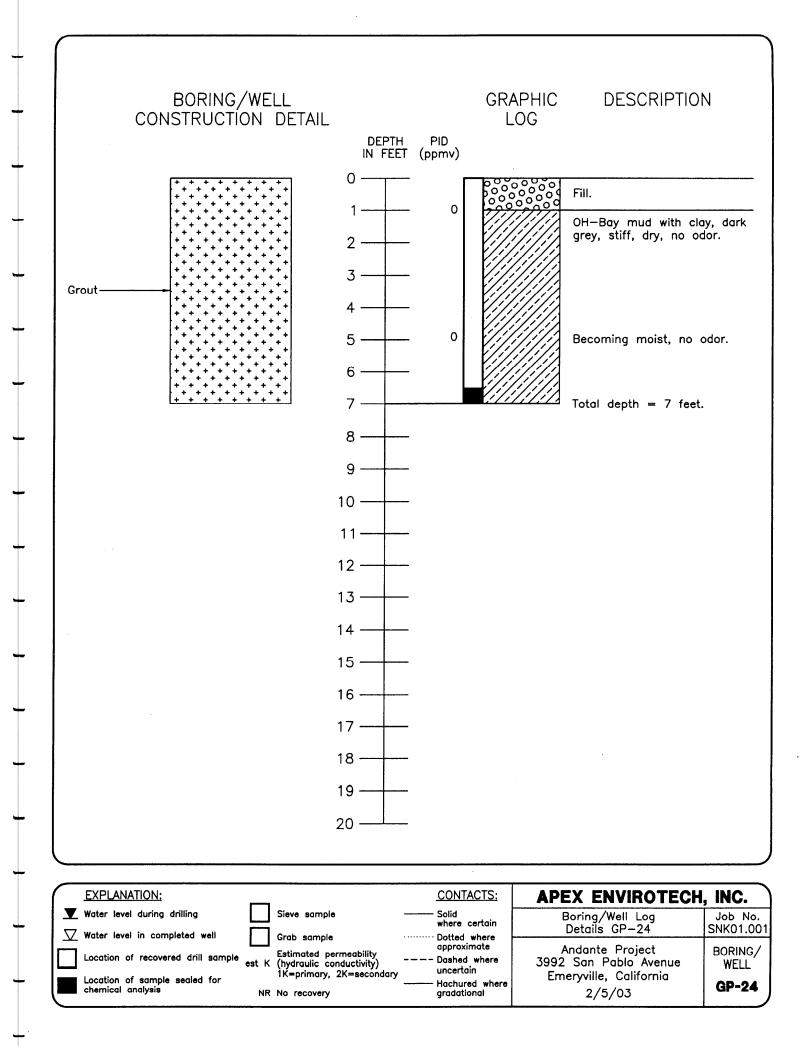


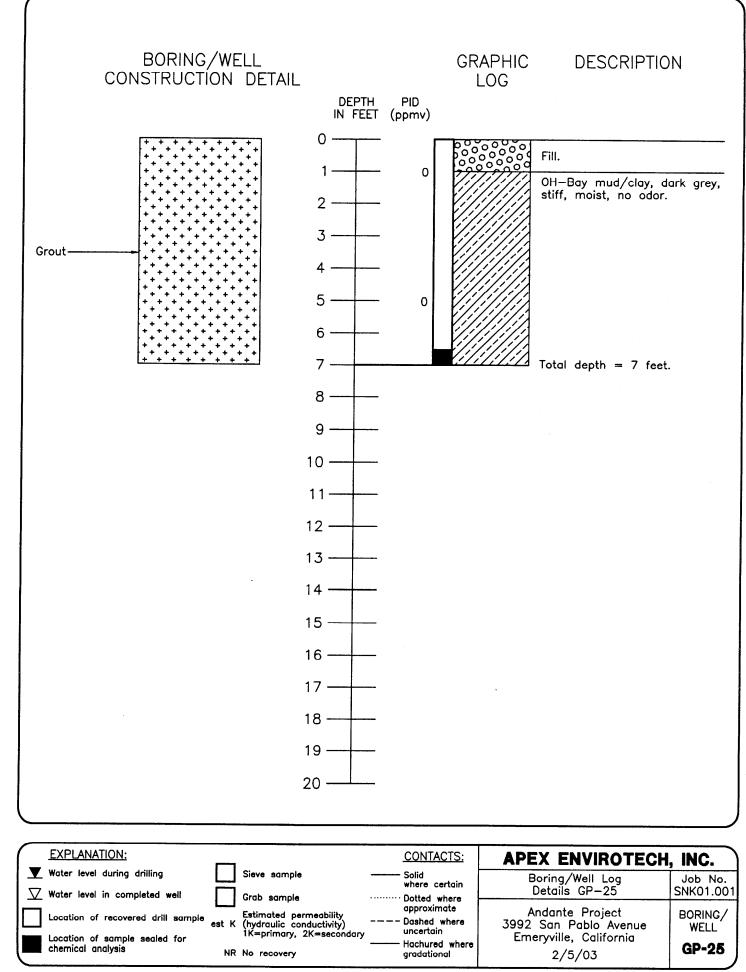




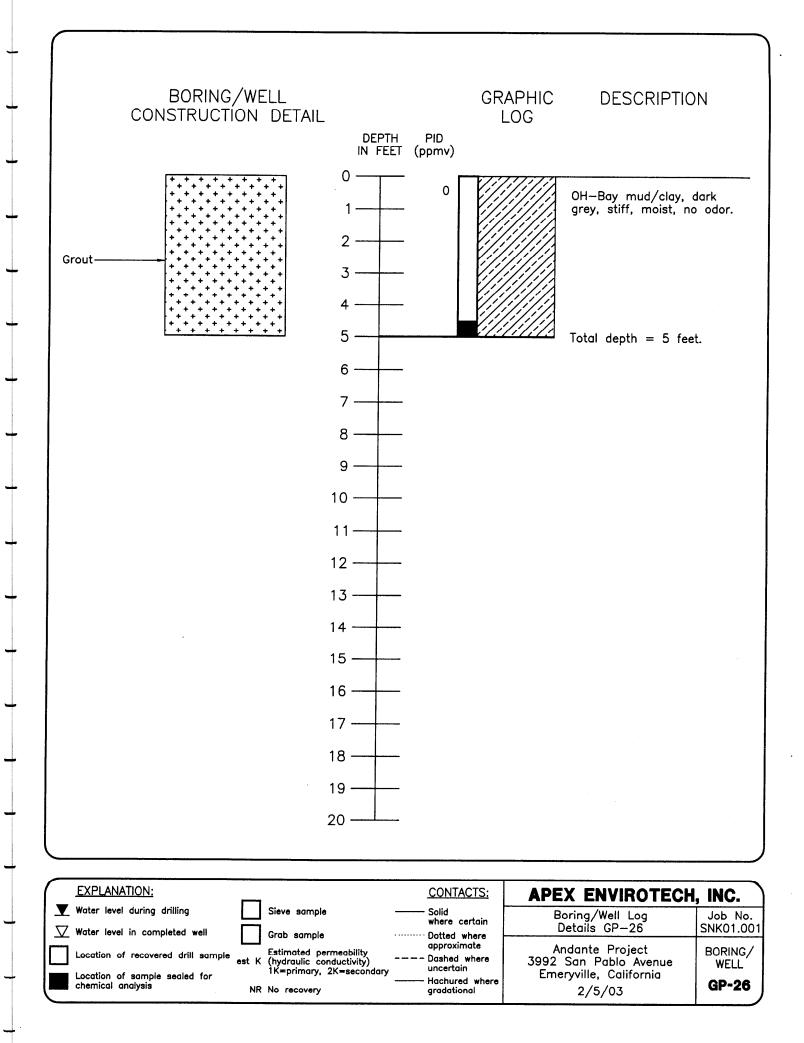


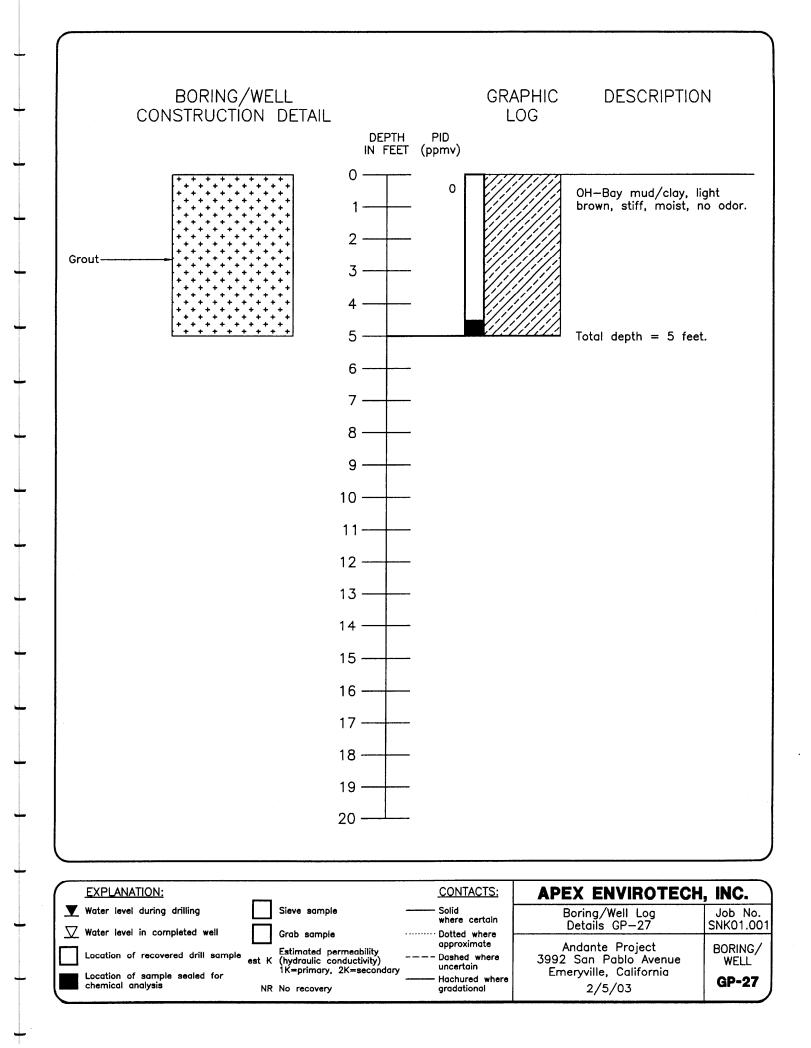


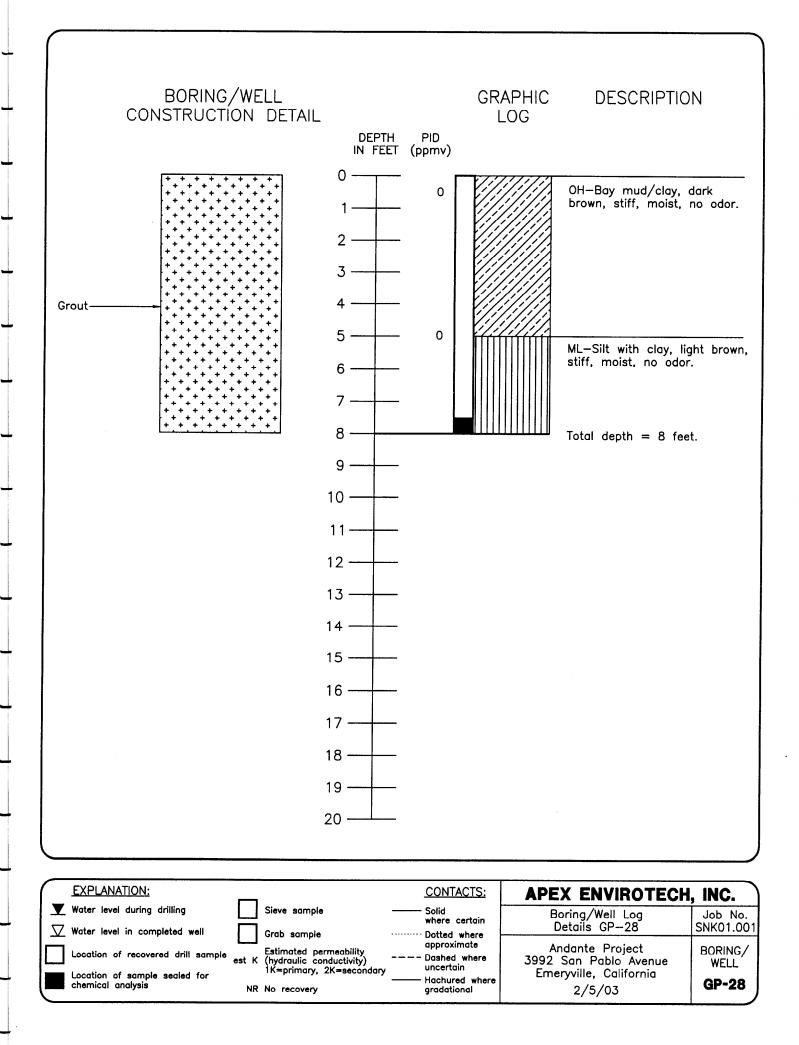


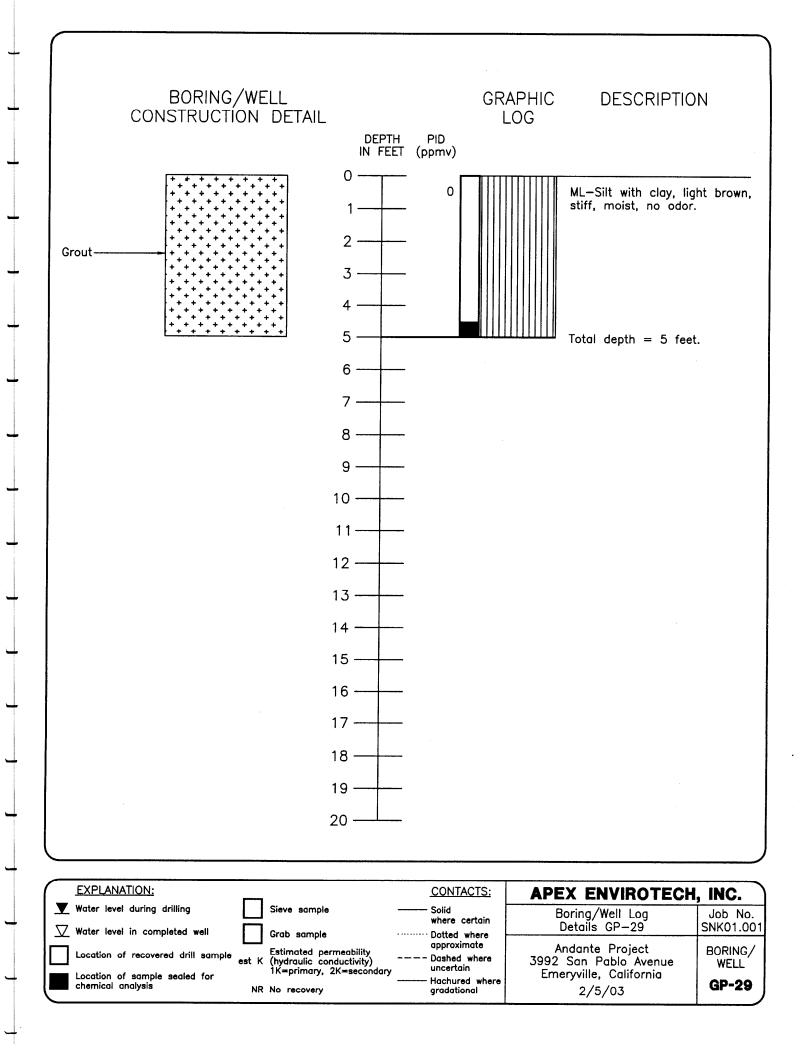


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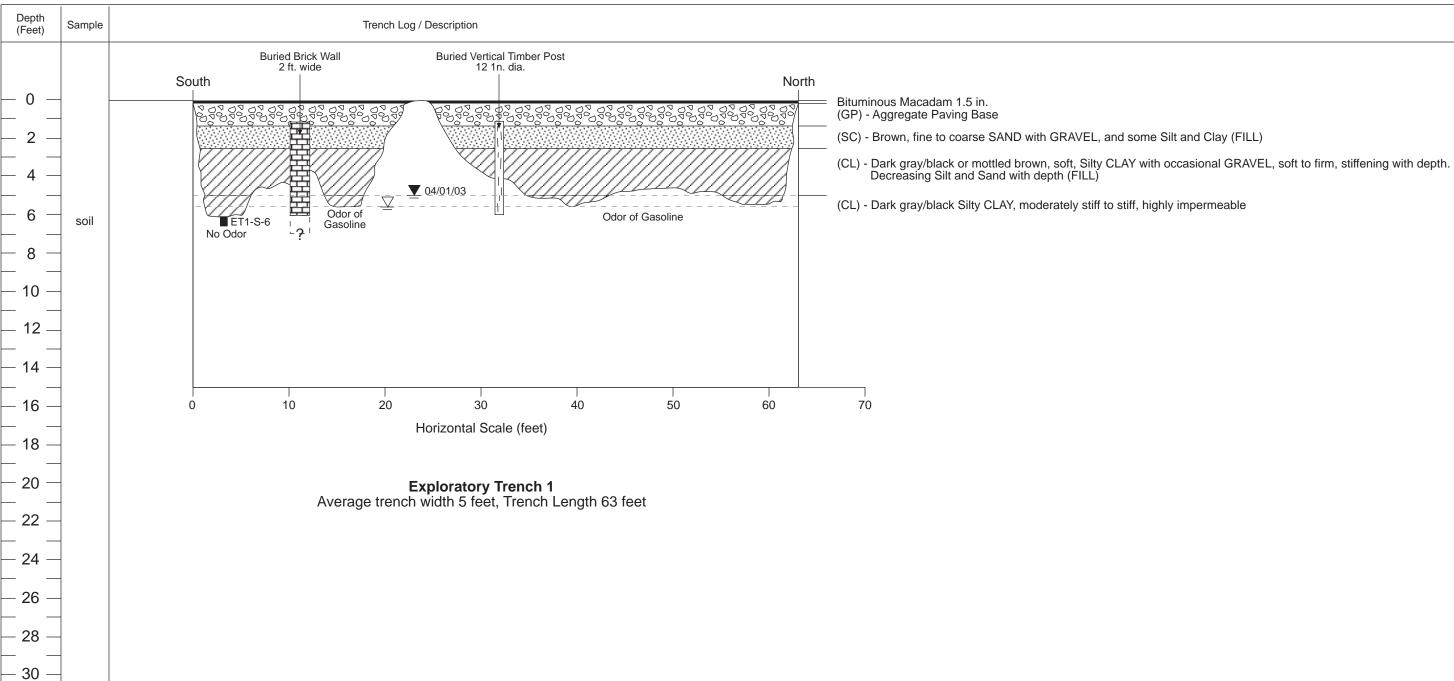








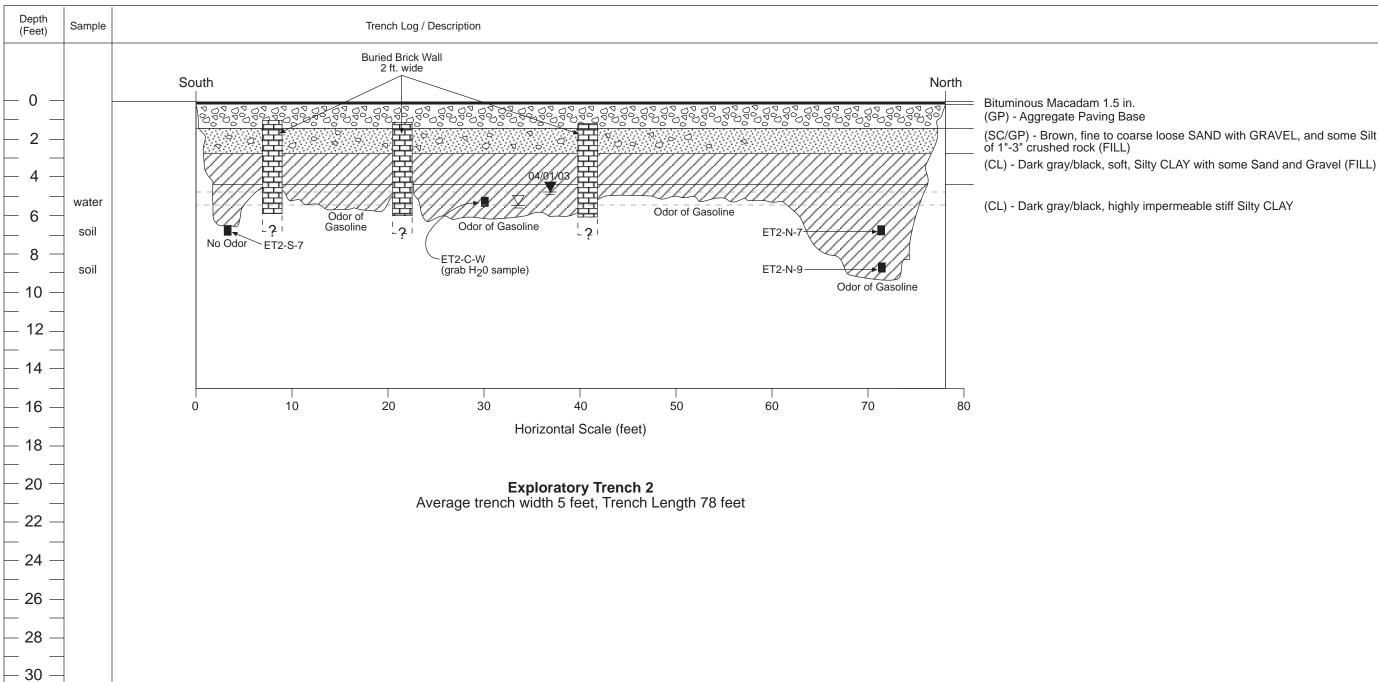
| Surface Elevation:ft. | Depth to First Water:6ft. | Trench ID: | Trench 1 | Project: | SNK And | ante |
|---|--|--------------|--------------------|----------|-----------|------|
| Trench Length at Surface: <u>63</u> ft. | Depth to Water on 04/01/03 @ 1500hrs : 5.1 ft. | Owner: | SNK Captec Andante | e LLC | Location: | 399 |
| Trench Width at Surface: <u>4.5</u> ft. | NOTE: | Date Excavat | ted: 03/25/03 | | Ex | xcav |
| Maximum Depth of Trench: 7.2 ft. | Uniform Soil Classifications are from field observations only. No geotechnical engineering laboratory tests were performed. | Logged By: _ | D J Watkins | 8 | Ec | quip |
| | | | | | Ec | quip |



Trench Log

| inte | Project No.: 9401.205 |
|--------------------|-----------------------------|
| 992 San Pablo Aven | ue, Emeryville, California |
| cavation By: | Dietz Irrigation |
| uipment Operator: | H B Dietz |
| uipment Used: | Komatsu PC200LC-5 Excavator |
| | |
| | |

| Surface Elevation:ft. | Depth to First Water: <u>6</u> ft. | Trench ID: | Trench 2 | Project: _ | SNK A | ndante |
|---|--|--------------|--------------------|------------|-------------|--------|
| Trench Length at Surface: <u>78</u> ft. | Depth to Water on <u>04/01/03 @ 1500hrs</u> : <u>4.8</u> ft. | Owner: | SNK Captec Andante | e LLC | Location: _ | 399 |
| Trench Width at Surface: <u>5.0</u> ft. | NOTE: | Date Excava | ted: 03/24/03 | | | Excav |
| Maximum Depth of Trench: 9.2 ft. | Uniform Soil Classifications are from field observations only. No geotechnical engineering laboratory tests were performed. | Logged By: _ | D J Watkins | 6 | | Equip |
| | | | | | | Equip |

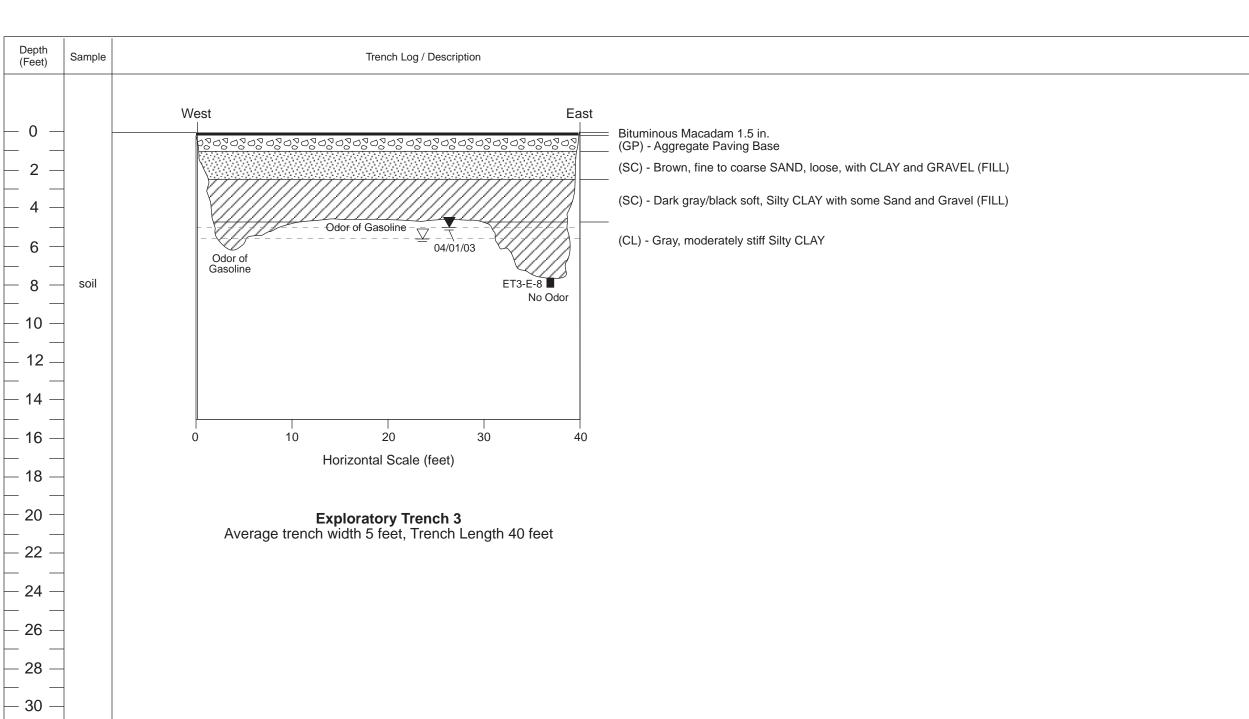


Trench Log

| inte | Project No.: 9401.205 |
|--------------------|-----------------------------|
| 992 San Pablo Aven | ue, Emeryville, California |
| cavation By: | Dietz Irrigation |
| uipment Operator: | H B Dietz |
| uipment Used: | Komatsu PC200LC-5 Excavator |
| | |

(SC/GP) - Brown, fine to coarse loose SAND with GRAVEL, and some Silt and Clay, with pieces of 1"-3" crushed rock (FILL)

| Surface Elevation:ft. | Depth to First Water:6ft. | Trench ID: Trench 3 | Project: SNK Andante |
|---|--|--------------------------|------------------------|
| Trench Length at Surface: 40 ft. | Depth to Water on 04/01/03 @ 1500hrs : 5.0 ft. | Owner: SNK Captec Anda | ante LLC Location: 399 |
| Trench Width at Surface: <u>4.5</u> ft. | NOTE: | Date Excavated: 03/25/03 | Excav |
| Maximum Depth of Trench: <u>8</u> ft. | Uniform Soil Classifications are from field observations only. No geotechnical engineering laboratory tests were performed. | Logged By: D J Watk | ins Equip |
| | | | Equip |



Trench Log

| inte | Project No.: 9401.205 |
|--------------------|-----------------------------|
| 992 San Pablo Aver | ue, Emeryville, California |
| cavation By: | Dietz Irrigation |
| uipment Operator: | H B Dietz |
| uipment Used: | Komatsu PC200LC-5 Excavator |
| | |

| WELL No.: SJCMW-T1 | Project: SNK Andar | nte Project No.: 9401.205 | | | |
|--|---|---|--|--|--|
| Owner: SNK CapTec Andante LLC Location: 3992 San Pablo Avenue, Emeryville, California | | | | | |
| Top of Casing Elevation: | | evation: <u>43.51 ft.</u> Depth to Water: <u>4.66 ft.</u> | | | |
| Date Installed: 04/11/0 | 3 Total depth of | Boring: <u>12</u> ft. Boring Diameter: <u>2</u> in. | | | |
| Well Casing Diameter: | Well Casing Diameter: 0.75 in. Total depth of Well: 12 ft. Casing Material: PVC | | | | |
| Drilling Company:Greg | gg Drilling & Testing | Drilling Method:Direct Push | | | |
| Driller: Don Pears | | Logged By: Dai Watkins | | | |
| | assifications are from field observations only. N | No Geotechnical Engineering laboratory tests were performed. | | | |
| Depth (Feet) Sample Graphic 3.0 2.5 0.75 | Description | Well Construction | | | |
| 0 2 4 4 6 8 10 12 12 14 16 18 20 22 24 24 26 28 30 30 10 12 12 12 12 12 14 10 12 12 12 12 12 12 12 12 12 12 | (GP) Paving base material. GRAVEL with Sand (GP) Dark brown/black Silty CLAY with some Sand (fill), no odor (CL) Grey, stiff Silty CLAY with some Sand (fill?), no odor (CL) Light brown, medium soft Silty CLAY with some Sand, no odor | PVC casing cap (04/21/03) 0.75-inch diameter PVC well casing with 0.01-inch aperature machine-cut slots used as standpipe PVC casing cap T.D. Boring at 12 feet Note: Well dry when installed 04/11/03 | | | |

| WELL No.: SJCMW-T2 | Project: SNK Andan | Project No.: 9401.205 | | |
|--|---|---|--|--|
| Owner:SNK CapTec Andant | te LLC Location: | 3992 San Pablo Avenue, Emeryville, California | | |
| Top of Casing Elevation: 43.2 | 26_ft. Surface Ele | evation: <u>41.54</u> ft. Depth to Water: <u>2.50</u> ft. | | |
| Date Installed: 04/11/03 | Total depth of | Boring: <u>8</u> ft. Boring Diameter: <u>2</u> in. | | |
| Well Casing Diameter: 0.75 in. Total depth of Well: 8 ft. Casing Material: PVC | | | | |
| Drilling Company: Gregg D | Drilling & Testing | Drilling Method: Direct Push | | |
| Driller: Don Pearson | | Logged By: Dai Watkins | | |
| Death | | No Geotechnical Engineering laboratory tests were performed. Well Construction | | |
| (Feet) Sample Clapfic Log | Description | | | |
| Gr - 2 | 5 in. bituminous macadam paving AP) Paving base material. GRAVEL ith Sand CL) Black, medium soft Silty CLAY with and, odor of gasoline. Sand and ravel (fill) dor of gasoline | PVC casing cap (04/21/03) 0.75-inch diameter PVC well casing with 0.01-inch aperature machine-cut slots used as standpipe PVC casing cap T.D. Boring at 8 feet Note: Well dry when installed 04/11/03 | | |

| WELL N | o.:SJCMW-T2A | Project: SNK Andar | nte Project No.: 9401.205 | |
|---|--|--|---|--|
| Owner: SNK CapTec Andante LLC Location: 3992 San Pablo Avenue, Emeryville, California | | | | |
| Top of Ca | sing Elevation: <u>4</u> | 13.99 ft. Surface Ele | evation: <u>41.52</u> ft. Depth to Water: <u>4.53</u> ft. | |
| Date Insta | alled:04/11/03 | 3 Total depth of | Boring: <u>20</u> ft. Boring Diameter: <u>2</u> in. | |
| Well Casi | ng Diameter: | 0.75_in. Total depth | of Well: <u>20</u> ft. Casing Material: <u>PVC</u> | |
| Drilling Co | ompany: <u>Greg</u> | g Drilling & Testing | Drilling Method: Direct Push | |
| | Don Pears | | Logged By: Dai Watkins | |
| Depth | Note: Unified Soil Clas | Description | No Geotechnical Engineering laboratory tests were performed. Well Construction | |
| (Feet) | 3.0 2.5 0.75 Log | Description | | |
| 0 | SJCMW-T2A-19.5 SJCMW-T2A-9 SJCMW-T2A-5 Core Loss | 1.5 in. bituminous macadam (GP) Aggregate paving base (SP) Brown, loose, fine to coarse SAND, with Silt and Clay and occasional Gravel (fill) strong odor of gasoline (CL) Dark grey/black Silty CLAY, medium soft slight odor of gasoline (CL) Light brown with grey mottling, wet Silty CLAY with Sand and Gravel, soft to very soft, stiffening with depth no odor (CL) as above, 1 foot stratum of GRAVEL no odor | PVC casing cap ▼ (04/21/03) 0.75-inch diameter blank PVC well casing used as standpipe ▼ (04/11/03) Prefabricated bentonite seal 3-inch thick foam plastic centralizer 0.75-inch diameter PVC well casing with 0.01-inch aperature machine-cut slots PVC casing cap | |
| 20 22 22 24 26 26 28 30 | | | T.D. Boring at 20 feet | |

| WELL No.: SJCMW-T3 | Project: SNK Andar | nte Project No.: 9401.205 | |
|--|---|--|----------------|
| Owner: SNK CapTec Andante | → → LLC Location: | 3992 San Pablo Avenue, Emeryville, California | |
| Top of Casing Elevation: <u>46.01</u> | ft. Surface Ele | evation: <u>42.50</u> ft. Depth to Water: <u>4</u> . | <u>.61</u> ft. |
| Date Installed: 04/11/03 | Total depth of | Boring: <u>12</u> ft. Boring Diameter: <u>2</u> | in. |
| Well Casing Diameter:0.75 | in. Total depth | of Well: <u>12</u> ft. Casing Material: <u>1</u> | PVC |
| Drilling Company: Gregg Dr | illing & Testing | Drilling Method: Direct Push | _ |
| Driller: Don Pearson | | Logged By:Dai Watkins | - |
| | ations are from field observations only. N | No Geotechnical Engineering laboratory tests were performed. | |
| Depth (Feet) Sample Graphic 3.0 2.5 0.75 | Description | Well Construction | |
| GP Clav CL CL CL CL CL CL CL CL CL CL | P) Aggregate paving base material P) Silty Sandy GRAVEL with some y, loose (fill) odor c) Brown, medium stiff Silty CLAY n some Sand and Gravel odor c) Light brown, stiff, wet Silty CLAY h some Sand and Gravel odor | PVC casing cap (04/21/03) 0.75-inch diameter PVC well casing with 0.01-inch aperature machine-cut slots used as standpipe PVC casing cap T.D. Boring at 12 feet Note: Well dry when installed 04/11/03 | ١ |

| Owner: SNK CapTec Andante LLC Location: | LL No.: SJCMW-T4 | Project: SNK Andan | ite Proj | ect No.: 9401.205 | |
|---|--|---|---|--------------------------|----------|
| Date Installed: 04/11/03 Total depth of Boring: 6 ft. Boring Diameter: 2 Well Casing Diameter: 0.75 in. Total depth of Well: 8 ft. Casing Material. 1 Drilling Company: Gregg Drilling & Testing Drilling Company: Don Pearson Driller: Don Pearson Drilling Method: Direct Push Drilling Sample Or differed Sample Graphic Company: 15 in. bituminous macadam paving (CP) Aggregate paving base material no oddr 0 1.5 in. bituminous macadam paving (CP) Aggregate paving base material no oddr 16 0 17 0 PVC casing cap 10 0 12 14 16 18 20 10 To. Boring at 8 foet Note: Well dry when Installed 04/11/03 | Owner: SNK CapTec Andante LLC Location: 3992 San Pablo Avenue, Emeryville, California | | | | |
| Well Casing Diameter: 0.75 in. Total depth of Well: 8 ft. Casing Material: | f Casing Elevation: <u>41.01</u> | ft. Surface Ele | evation: <u>39.73</u> ft. | Depth to Water: 3 | 3.86_ft. |
| Drilling Company: Gregg Drilling & Testing Drilling Method: Direct Push Driller: Don Pearson Logged By: Dai Watkins Note: Unified Soil Classifications are from field observations only. No Geotechnical Engineering laboratory tests were performed. Depth Sample Graphic Description 0 1.5 in. bituminous macadam paving (GP) Aggregate paving base material no dor or of gasoline PVC casing cap 0 I.5 in. bituminous macadam paving (GP) Aggregate paving base material no dor or of gasoline O,75-inch diameter PVC well casing with 0.01-inch aperature machine-cut slots used as standpipe 4 Interview Graphic Graphic Graphic 5 (CL) Light brown, very stiff Silty CLAY Interview O/75-inch diameter PVC well casing with 0.01-inch aperature machine-cut slots used as standpipe 6 Interview (CL) Light brown, very stiff Silty CLAY Interview PVC casing cap 10 Interview Interview Interview Note: Well dry when installed 04/11/03 14 Interview Interview Interview Interview Note: Well dry when installed 04/11/03 18 Interview Interview Interview Interview Interview | Installed: 04/11/03 | Total depth of | Boring: <u>8</u> ft. | Boring Diameter: 2 | 2in. |
| Driller: Don Pearson Logged By: Dai Watkins Note: Unified Soil Classifications are from field observations only. No Geotechnical Engineering laboratory tests were performed. Depth Sample Graphic Description Well Construction 0 I.5 in. bituminous macadam paving (GP) Aggregate paving base material no odor 0.75-inch diameter PVC well casing with 0.01-inch aperature machine-cut slots used as standpipe 4 Image: CL) Dark grey/black Sitty CLAY with Sand and Gravel (fill) odor of gasoline Image: CL) Light brown, very stiff Sitty CLAY Image: CL) Dark grey/black Sitty CLAY 6 Image: CL) Light brown, very stiff Sitty CLAY Image: CL) Dark grey/black Sitty CLAY Image: CL) Dark grey/black Sitty CLAY 10 Image: CL) Light brown, very stiff Sitty CLAY Image: CL) Dark grey/black Sitty CLAY Image: CL) Dark grey/black Sitty CLAY 11 Image: CL) Light brown, very stiff Sitty CLAY Image: CL) Dark grey/black Sitty CLAY Image: CL) Dark grey/black Sitty CLAY 12 Image: CL) Light brown, very stiff Sitty CLAY Image: CL) Dark grey/black Sitty CLAY Image: CL) Dark grey/black Sitty CLAY 13 Image: CL) Light brown, very stiff Sitty CLAY Image: CL) Dark grey/black Sitty CLAY Image: CL) Dark grey/black Sitty CLAY 14 Image: CL) Light brown, very stiff Sitty CLAY Image: CL) Dark grey/black Sitty CLAY Image: CL) Dark grey/black Sitty CLAY | Casing Diameter: 0.75 | _in. Total depth | of Well: <u>8</u> ft. | Casing Material: | PVC |
| Note: Unified Soil Classifications are from field observations only. No Geotechnical Engineering laboratory tests were performed. Depth (Feet) Sample (Graphic Log) Description Well Construction 0 1.5 in, bituminous macadam paving (GP) Aggregate paving base material no oddr PVC casing cap 0.75-inch diameter PVC well casing with 0.01-inch aperature machine-cut slots used as standpipe 4 0 0 0 0 0.75-inch diameter PVC well casing with 0.01-inch aperature machine-cut slots used as standpipe 6 92 0 0 0 0 0 10 0 0 0 0 0 0 12 12 12 12 14 14 14 14 16 18 20 18 18 18 18 18 18 20 10 12 14 14 14 14 16 18 19 19 19 | ng Company: Gregg Drilli | ng & Testing | Drilling Method: <u>Direct Pus</u> | sh | |
| Depth (Feet) Sample 30 125 073 Graphic Log Description Well Construction 0 1.5 in. bituminous macadam paving (GP) Aggregate paving base material no odor 0.75-inch diameter PVC well casing with 0.01-inch aperature machine-cut slots used as standpipe 4 0.75-inch diameter PVC well casing with 0.01-inch send and Gravel (IIII) odor of gasoline 0.75-inch diameter PVC well casing with 0.01-inch aperature machine-cut slots used as standpipe 6 9 0.75-inch diameter PVC casing cap 0.75-inch diameter PVC well casing with 0.01-inch aperature machine-cut slots used as standpipe 16 10 10 12 10 12 18 18 18 18 18 18 20 18 18 18 18 18 | r: Don Pearson | | Logged By: Dai Watkins | ton tosts ware performed | _ |
| (Feet) Sampes Log Description 0< | | ins are from field observations only. N | | | |
| 0 1.5 in. bituminous macadam paving (GP) Aggregate paving base material no odor 4 6 8 6 10 12 14 16 18 20 | ot Sample Log | Description | | Construction | |
| $ \begin{array}{c c} -22 \\ -24 \\ -24 \\ -26 \\ -28 \\ -30 \\ -30 \\ -28 \\ -30 \\ -28 \\ -2$ | (GP) A no odd (CL) D Sand a odor o (CL) L Sand a odor o (CL) L (CL) L | Aggregate paving base material or Dark grey/black Silty CLAY with and Gravel (fill) of gasoline | 0.75-inch diametraperature machir (04/21/03) PVC casing cap T.D. Boring at 8 f | eet | 2h |

| WELL No.:SJCMW-T4A | Project:SNK An | dante Project No.: 9401.205 | | | |
|--|--|--|--|--|--|
| Owner:SNK CapTec And | ante LLC Location: _ | 3992 San Pablo Avenue, Emeryville, California | | | |
| Top of Casing Elevation: _4 | 2.70 ft. Surface | Elevation: <u>39.69</u> ft. Depth to Water: <u>4.99</u> ft. | | | |
| Date Installed:04/11/03 | Total depth | n of Boring: <u>20</u> ft. Boring Diameter: <u>2</u> in. | | | |
| Well Casing Diameter: | Well Casing Diameter: 0.75 in. Total depth of Well: 20 ft. Casing Material: PVC | | | | |
| Drilling Company: Grego | g Drilling & Testing | Drilling Method:Direct Push | | | |
| Driller: Don Pearso | DN | Logged By: <u>Dai Watkins</u> Ily. No Geotechnical Engineering laboratory tests were performed. | | | |
| Depth Sample Graphic | Description | Well Construction | | | |
| 3.0 2.5 0.75 | | PVC casing cap | | | |
| 0 - 2 - 2 - 4 - 4 - 6 - 10 - 12 - 12 - 10 - 12 - 10 - 12 - 10 - 12 - 14 - 16 - 0 - 0 - 0 - 0 - 0 - 0 - 0 - 0 | 1.5 in. bituminous macadam (GP) Aggregate paving base (CL) Dark grey/black Silty CLAY, medium soft, with some Sand and Gravel (fill) (CL) Light grey, soft Silty CLAY (CL) Dark grey/black with light grey mottling, stiff Silty CLAY (CL) Light brown with grey mottling, moderately stiff Silty Sandy CLAY, with Gravel slight odor of gasoline (CL) Brown, very stiff Silty Sandy CLAY (CL) Light brown, medium stiff Silty Sandy CLAY with some Gravel | Prefabricated bentonite seal | | | |
| | | T.D. Boring at 20 feet Note: Well was dry when completed 04/11/03 | | | |
| 24 | | | | | |
| | | | | | |
| <u> 26 </u> | | | | | |
| - 28 - | | | | | |
| - 30 - | | | | | |

| WELL No.: SJCMW-T5 | Project: SNK Andan | ite Projec | ct No.: 9401.205 | | | |
|--|--|--|--|--|--|--|
| Owner:SNK CapTec Andante | LLC Location: | 3992 San Pablo Avenue, Eme | eryville, California | | | |
| Top of Casing Elevation: 41.79 | _ft. Surface Ele | evation: <u>39.64</u> ft. | Depth to Water: <u>3.07</u> ft. | | | |
| Date Installed: 04/11/03 | Total depth of | Boring: <u>8</u> ft. | Boring Diameter: <u>2</u> in. | | | |
| Well Casing Diameter: 0.75 in. Total depth of Well: 8 ft. Casing Materia | | | | | | |
| Drilling Company: Gregg Dril | lling & Testing | Drilling Method: <u>Direct Pust</u> | 1 | | | |
| Driller: Don Pearson | tions are from field observations only. N | Logged By: <u>Dai Watkins</u> | ny tests were performed. | | | |
| Depth Sample Graphic | Description | | Well Construction | | | |
| (Feet) 3.0 2.5 0.75 Log 0 1.5 ir (GP) 0 2 50 0.75 Log 1.5 ir (GP) 1.5 ir (GP) 1.5 ir (CP) 1.5 ir (CP) 1.5 ir (CP) 1.5 ir (CP) 1.5 ir (CP) 1.5 ir (CP) 1.5 ir (CP) 1.5 ir (CP) 1.5 ir 1.5 ir | n. bituminous macadam paving Aggregate paving base material dor Loose SAND and Gravel with e Clay (fill) t odor of gasoline Dark brown/black, soft to medium CLAY (fill) Dark brown/black,stiff Sandy CLAY | PVC casing cap T.D. Boring at 8 fee | PVC well casing with 0.01-inch -out slots used as standpipe | | | |

| WELL No | .:SJCMV | V-T5A | Project:SNK Anda | Project No.: 9401.205 | | | | |
|---|---|--|--|--|--|--|--|--|
| Owner: | SNK CapT | Fec Andante I | LCLocation: | 3992 San Pablo Avenue, Emeryville, California | | | | |
| Top of Casing Elevation: <u>42.30</u> ft. Surface Elevation: <u>39.52</u> ft. Depth to Water: <u>4.78</u> | | | | | | | | |
| Date Installed: 04/11/03 Total depth of Boring: 20 ft. Boring Diameter: 2 | | | | | | | | |
| Well Casing Diameter: 0.75 in. Total depth of Well: 20 ft. Casing Material: PVC | | | | | | | | |
| Drilling Company: Gregg Drilling & Testing Drilling Method: Direct Push | | | | | | | | |
| Driller: | Don | Pearson | | Logged By:Dai Watkins | | | | |
| Depth | I | Soil Classification | Description | No Geotechnical Engineering laboratory tests were performed. Well Construction | | | | |
| (Feet) | 3.0 2.5 0.75 | Log | Description | | | | | |
| 0 | SJCMW-T5A-19.5 SJCMW-T5A-10 SJCMW-T5A-5 No Recovery SJCMW-T5A-15.5 No Core Recovery | (GP) (CL) I no od slight (CL) Slight (CL) Slight (CL) Slight (CL) Slight (CL) Slight | bituminous macadam Aggregate paving base Dark grey/black Silty CLAY (fill) or odor of gasoline dark brown, soft to medium stiff CLAY odor of gasoline Grey/green, soft Silty CLAY Brown with light grey mottling, ility CLAY, with Sand and Gravel Dark grey with light grey mottling Sandy CLAY | PVC casing cap (04/21/03) 0.75-inch diameter blank PVC well casing used as standpipe Prefabricated bentonite seal 3-inch thick foam plastic centralizer 0.75-inch diameter PVC well casing with 0.01-inch aperature machine-cut slots | | | | |
| - 20 - - 22 - - 24 - - 26 - - 28 - - 30 - | | | | T.D. Boring at 20 feet Note: Well was dry when completed 04/11/03 | | | | |

| WELL No.: SJCMW-T6 Project: _ | | | SNK Anda | ante | Pro | oject No.: 9401.205 | | | | |
|---|---------|--------------------|-------------------------|--|--|--|---|-----------------|--|-------|
| Owner: SNK Captec Andante LLC Location: 3992 San Pablo Avenue, Emeryville, California | | | | | | | | | | |
| Top of Casing Elevation: 44.02 ft.Surface Elevation: 40.73 ft.Depth to Water: | | | | | | | | <u>3.78</u> ft. | | |
| Date Installed: 04/11/03 Total depth of | | | | | | Total depth c | f Boring:1 | 2 <u>ft</u> . | Boring Diameter: | in. |
| Well Casing Diameter: 0.75 in. Total depth of Well: 12 ft. Casing Material: | | | | | | | | PVC | | |
| Drilling Company: Gregg Drilling & Testing Drilling Method:Direct Push | | | | | | | | | | |
| Driller: | | | | | | | Logged By: Dai Watkins | | | |
| Depth | | : Unit nple | fied Soil Cl Graphic | assification | | | y. No geotechnical engineering laboratory tests were performed. | | | |
| (Feet) | 3.0 2 | | 100 | | Descriptio | n | | 1 | Construction | |
| | | | | (GP) Ag (CL) Da mottling some fi No Oda (CL) Gr some G | ey, stiff Silty Sand iravel (FILL?) ey/green, modera CLAY | base h light grey ty CLAY with dy CLAY with | | PVC casing cap | eter PVC well casing with 0.01 ine-cut slots used as standpip | -inch |
| 28 30 | | | | | | | | | | |

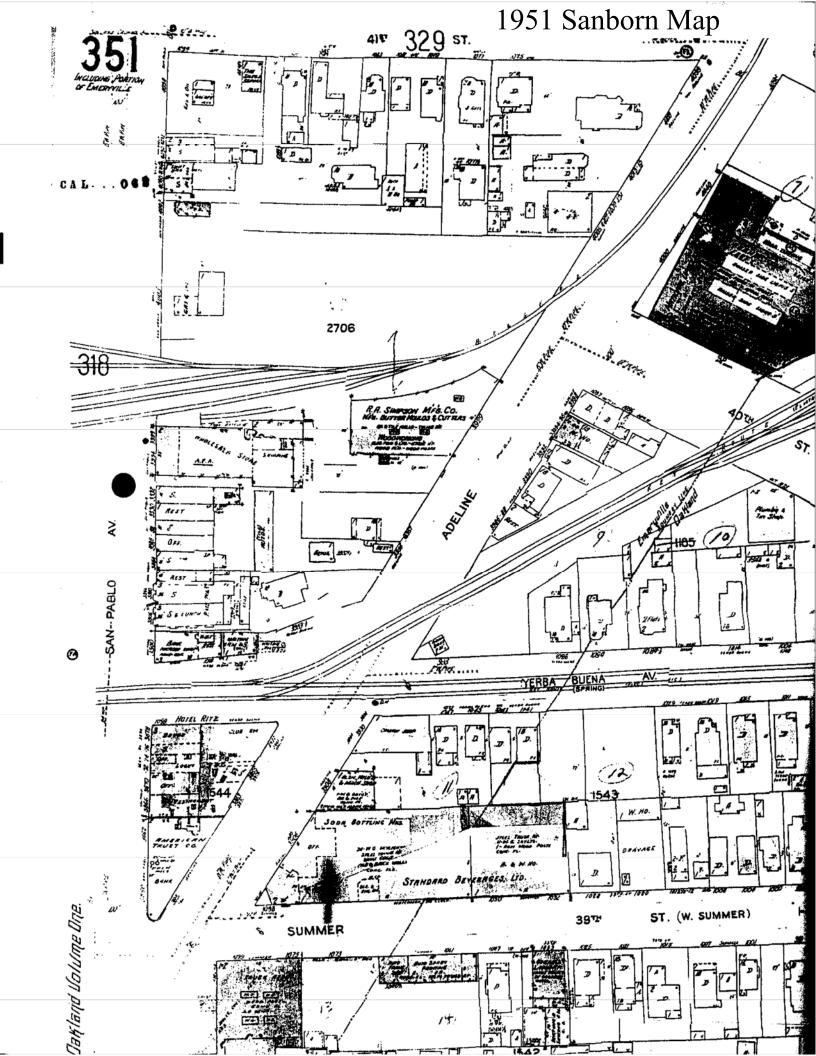
| WELL No.: SJCMW-T7 | Project: SNK Andar | nte Project No.: 9401.205 | | | | | |
|---|--|--|--|--|--|--|--|
| Owner: SNK Captec Andante LLC Location: 3992 San Pablo Avenue, Emeryville, California | | | | | | | |
| Top of Casing Elevation: <u>44.10</u> ft. Surface Elevation: <u>40.55</u> ft. Depth to Water: <u>3.31</u> ft. | | | | | | | |
| Date Installed: 04/11/03 Total depth of Boring: 12 ft. Boring Diamet | | | | | | | |
| Well Casing Diameter: 0.75 in. Total depth of Well: 12 ft. Casing Material: | | | | | | | |
| Drilling Company: Gregg Drilling & Testing Drilling Method: Direct Push | | | | | | | |
| Driller: Don Pears | son | Logged By: Dai Watkins | | | | | |
| Note: Unified Soil Cla | Issifications are from field observations only. | No geotechnical engineering laboratory tests were performed. | | | | | |
| Depth (Feet) Sample Graphic 3.0 2.5 0.75 Log | Description | Well Construction | | | | | |
| 0 2 4 6 8 10 10 12 12 14 14 16 18 20 22 24 24 26 30 30 | 1.5 in. bituminous macadam (GP) Aggregate paving base (CL) Dark Grey CLAY with GRAVEL, SILT and SAND (FILL) No Odor (CL) Light grey, moderately stiff Silty CLAY Odor of Gasoline (CL/GP) Grey, medium stiff CLAY with GRAVEL (CL) Light grey Silty CLAY Slight Odor of Gasoline | PVC casing cap (04/21/03) 0.75-inch diameter PVC well casing with 0.01-inch aperature machine-cut slots used as standpipe PVC casing cap T.D. Boring at 12 feet Note: Well dry when installed 04/11/03 | | | | | |

| | | | | | | | | | 0404 000 |
|--|------------------|----------------|-------------------------------------|--|----------------------------------|---------------------|----------------------------------|---------------------------------|--------------------------------|
| WELL N | LL No.: SJC-MW-8 | | | Project: SNK Andante | | | | Project No.: | 9401.206 |
| Owner: | SNK Ca | aptec An | dante LLC | ; | Location: | 3992 San Pa | ablo Avenu | e, Emeryville | e, California |
| Top of Ca | sing Elev | vation: | 42.58 ft. | | Surface E | levation: <u>43</u> | .07_ft. | D | epth to Water: <u>5.69</u> ft. |
| Date Installed: 08/20/04 Total depth of Boring: 25 ft. Boring Diameter: 8 | | | | | | | | | ing Diameter: <u>8</u> in. |
| Well Casing Diameter: 2 in. Total depth of Well: 25 ft. Casing Material: PVC | | | | | | | | | |
| Drilling Company: <u>Gregg Drilling & Testing</u> Drilling Method: <u>Hollow Stem Auger</u> | | | | | | | | | |
| Driller: | Trevor J | oyner | | | | Logged By: | Steve F | lexser | |
| NOTE: Unifo | rm Soil Cla | assificatior | is are from fi | eld observations | s only without dat | | | | |
| Depth (Feet) | Sample | Graphic Log | | Description | | | Well Construction | | |
| — 0 — | | सम्बद्ध | Sandy Cla | ayey GRAVEL (C | GM), loose, dry | | — Heavy-dı and O-rir — Cap | uty steel wellhea ng seal | ad box with bolted cover |
| _ 2 _ | | | Dark brow stiff, damp No odor | vn Sandy CLAY o, with some gra | (CL), medium vel (FILL) | 0 | Concrete | e ortland cement | grout |
| 4 | | | | | | *** | Bentonite | e seal | |
| 6 | SJC-MW-8-6.5 | | | | | | 09/ | 08/04 | |
| 8 | SJC-M | | Light blue medium s No odor | -gray Sandy CL tiff, damp (FILL) | AY (CL), | | No. 2 Mo | nterey sand filte | ar pock |
| 10 | 3-11 | | | | | | 110. 2 100 | niterey sand nite | n paur |
| 12 | SJC-MW-8-11 | | with grave | Silty CLAY (CH el clasts of white angular to round | angular chert. | | | | |
| 14 | | | gray mottl No odor | | | | | | |
| 16 | V-8-16 | | Gray and | orange Sandy C | CLAY (CL), | | | ameter PVC we inch aperature | ll casing machine-cut slots |
| | SJC-MW-8-16 | | medium s gravel No odor | tiff, moist, mottle | ed, with fine | | | | |
| — 18 — — — — | 2 | | | | | | ∇ | | |
| _ 20 _ | W-8-20. | | Light brow (CL), soft, | vn to orange Sar wet, some gray | ndy Silty CLAY mottling, with | | | | |
| — 22 — | SJC-M 8-24 | | angular gr No odor | | - | | | | |
| 24 | SJC-MW-8-20.5 | | (CL), very | vn to orange Sar stiff, moist, with oft black cinder o | fine gravel and | | | | |
| 26 | | | TD Boring | g @ 25 feet | | | | | |
| 28 | | | | | | | | | |
| 30 | | | | | | | | | |

Environmental Closure Report: Andante Project, Emeryville, California.

APPENDIX B

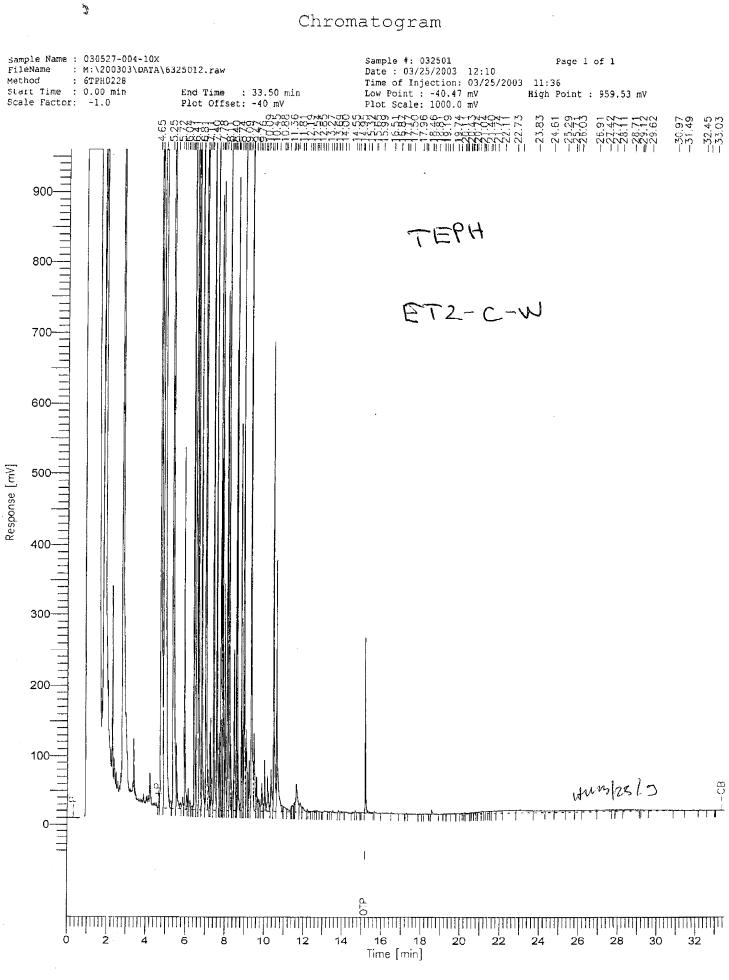
1951 Sanborn Map



Environmental Closure Report: Andante Project, Emeryville, California.

APPENDIX C

Chromatograms

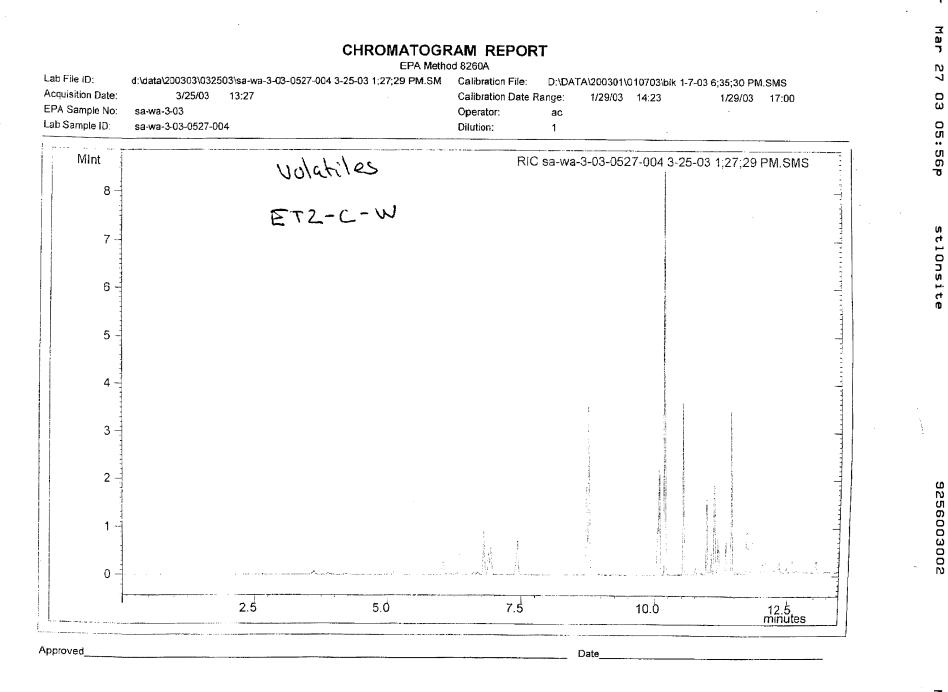


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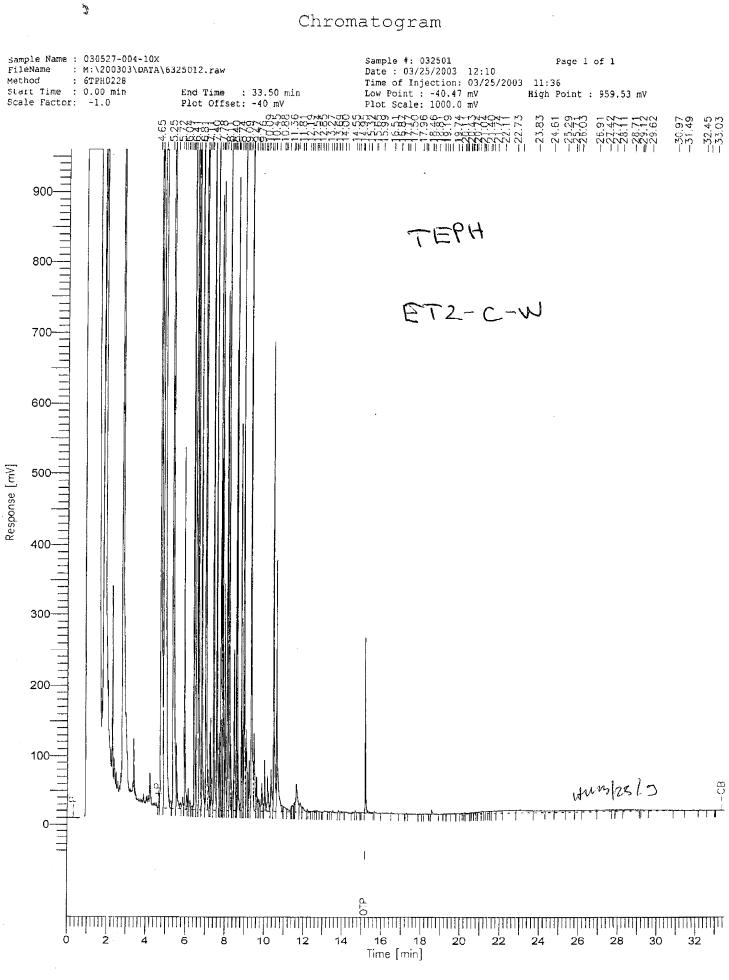
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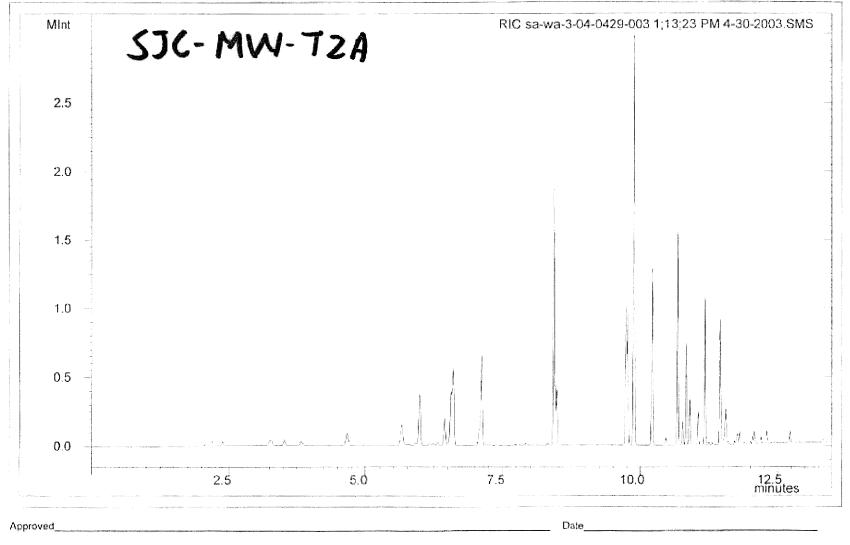
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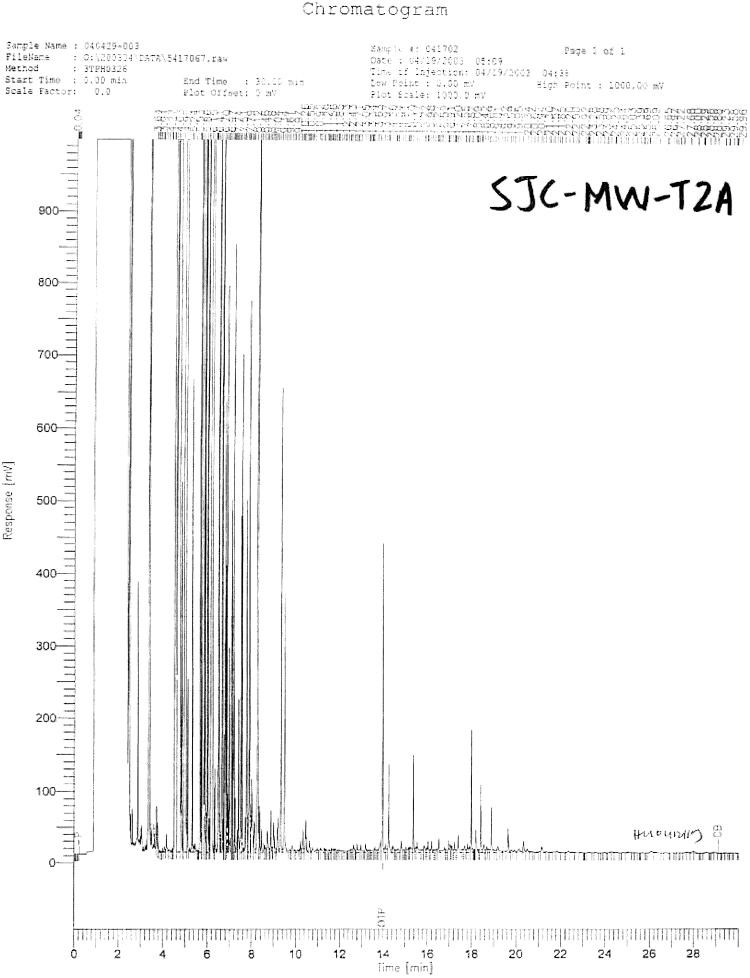
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CHROMATOGRAM REPORT

EPA Method 8260B FUOXY 041703

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| Acquisition Date: | 4/30/2003 13:13 | Calibration Date Range: 4/17/200: 12:43 4/17/2003 15:16 |
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| Lab Sample ID: | sa-wa-3-04-0429-003 | Dilution: 1 |
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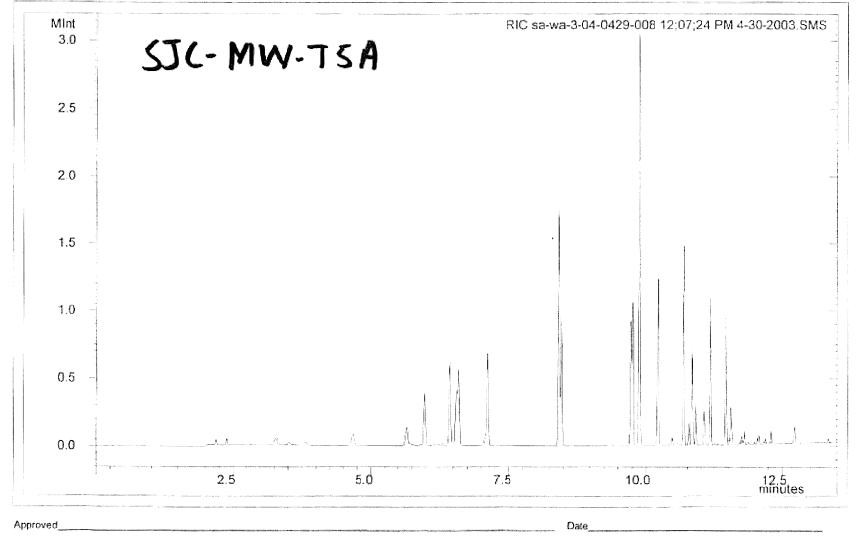




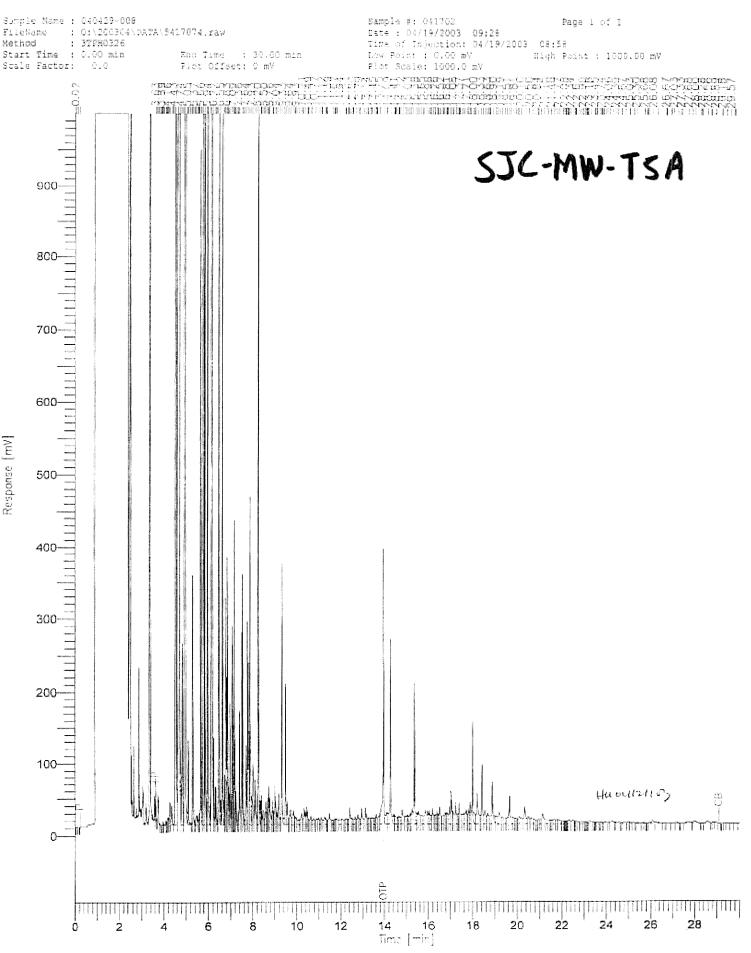
CHROMATOGRAM REPORT

EPA Method 8260B FUOXY 041703

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|-------------------|---|--|
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| EPA Sample No: | sa-wa-3-04 | Operator: |
| Lab Sample ID: | sa-wa-3-04-0429-008 | Dilution: 1 |
| | | |



Chromatogram

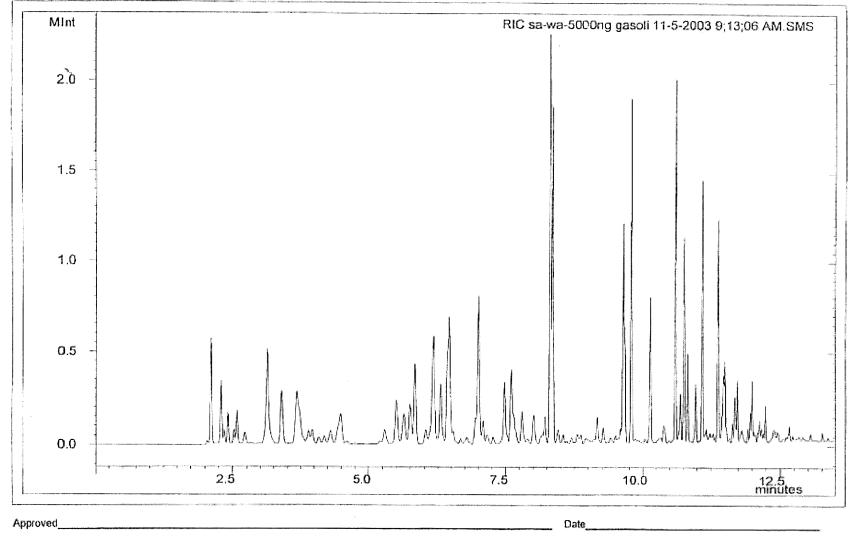


Response [mV]

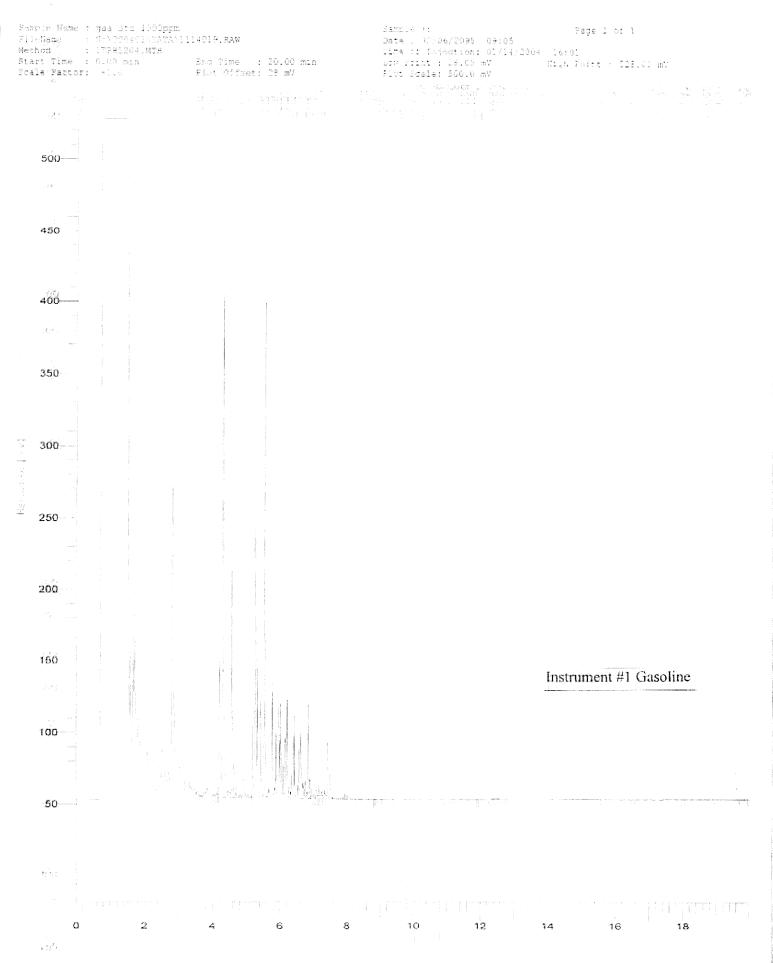
CHROMATOGRAM REPORT EPA Method 82608 EU/XX 041703

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| | | 1003104000 | 24 |
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| Acquisition Date: | 11/5/2003 9:13 | Calibration Date Range: 4/17/200: 14:13 4/17/2003 16:47 | |
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| Lab Sample ID: | sa-wa-5000ng gasoli | Dilution: 1 | |



GAS STP

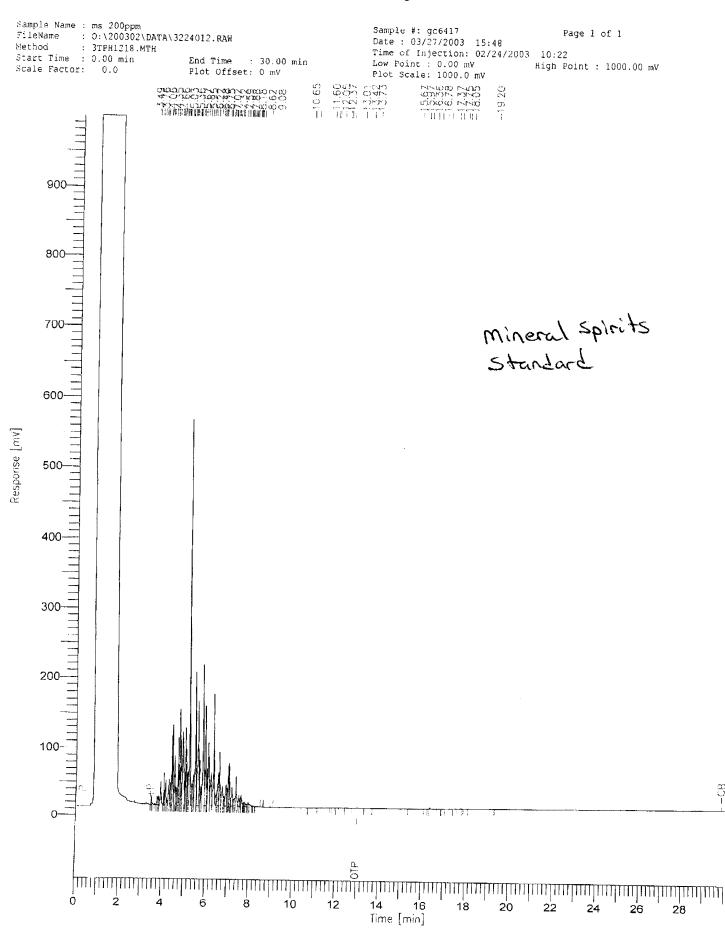


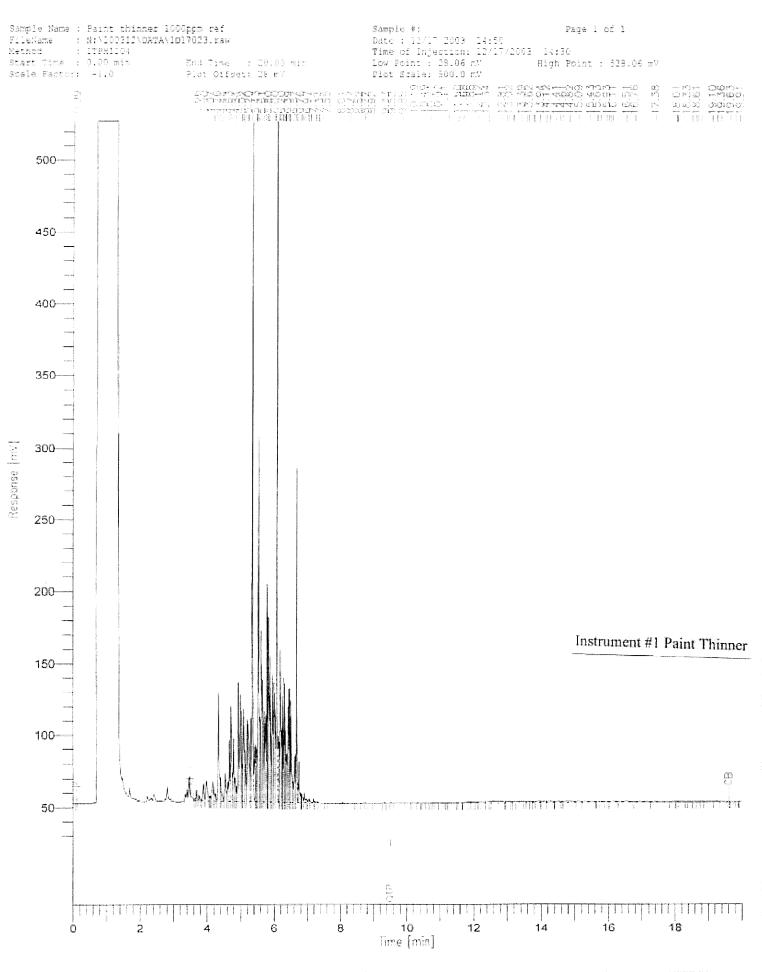
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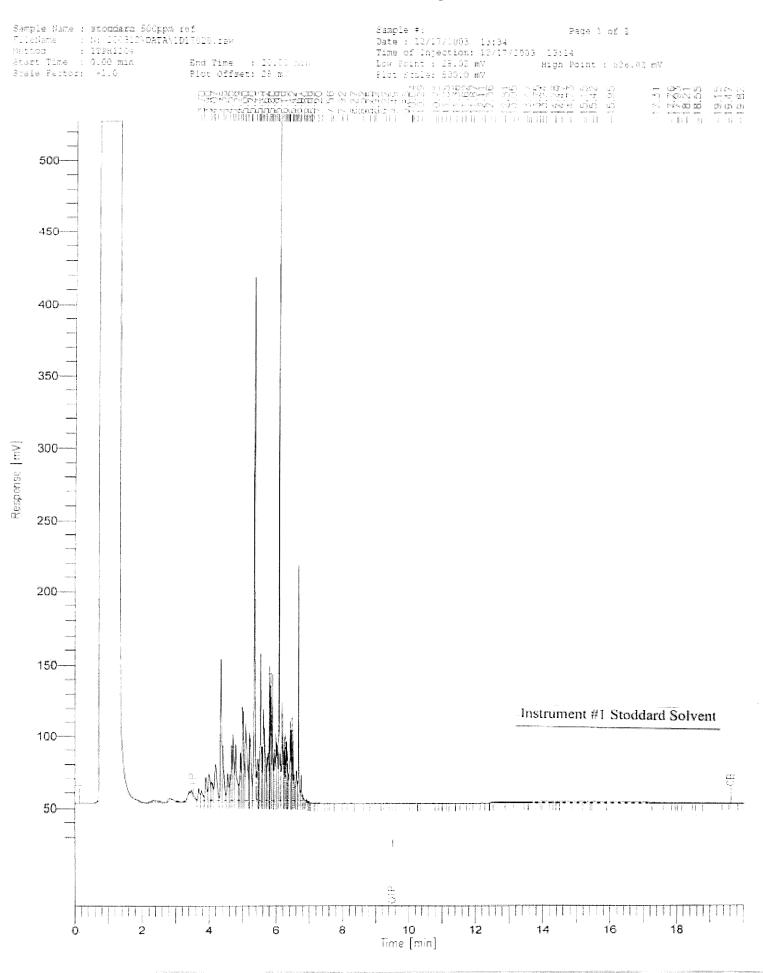
89 |-

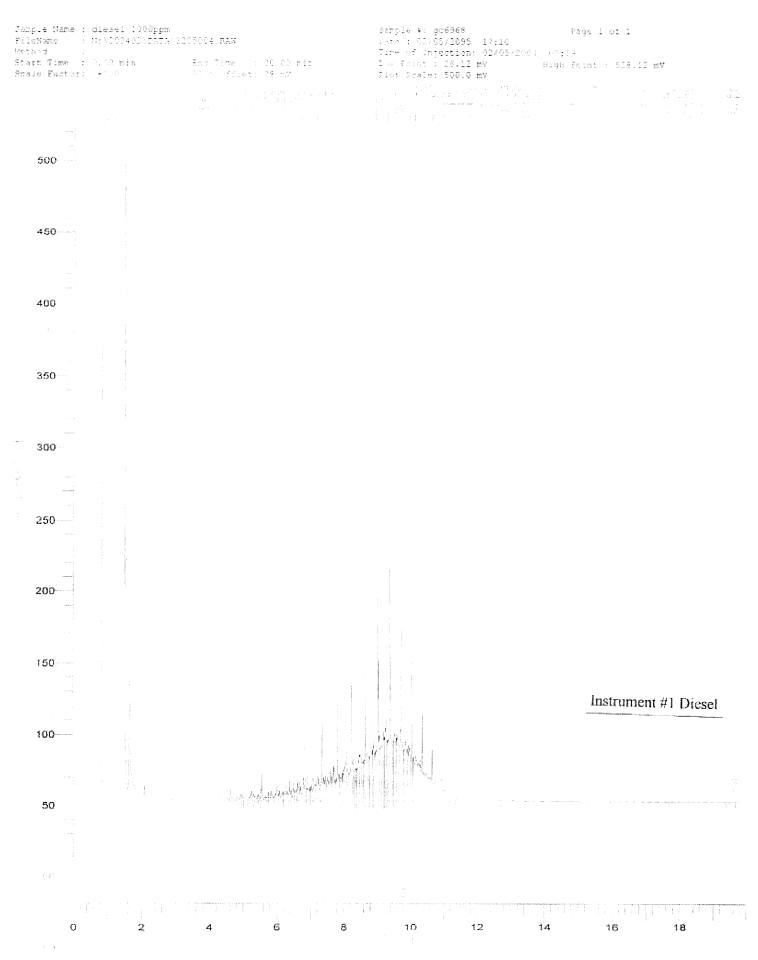
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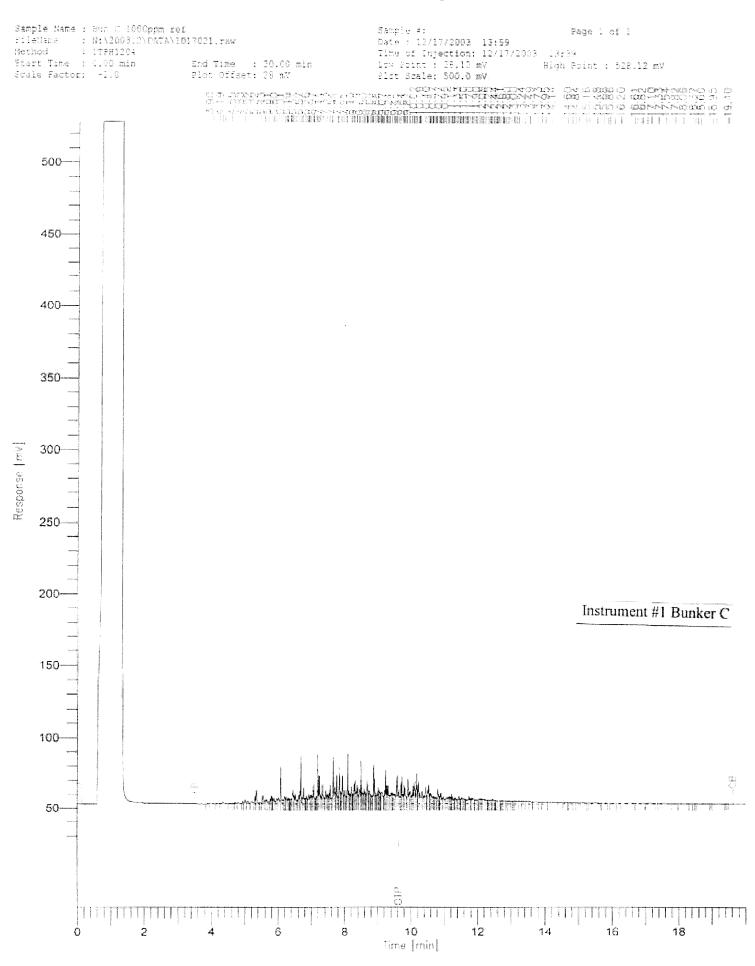


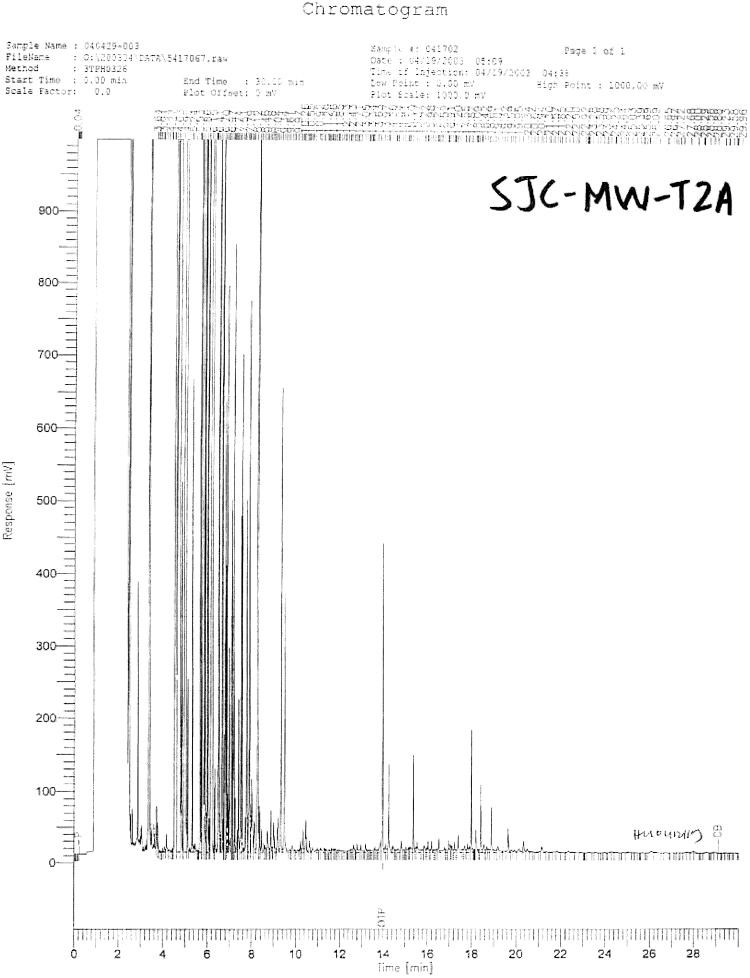


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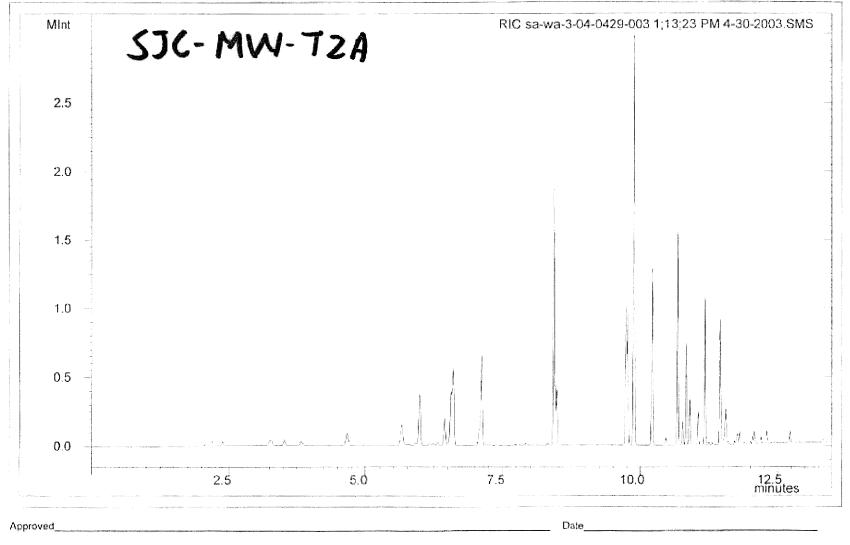




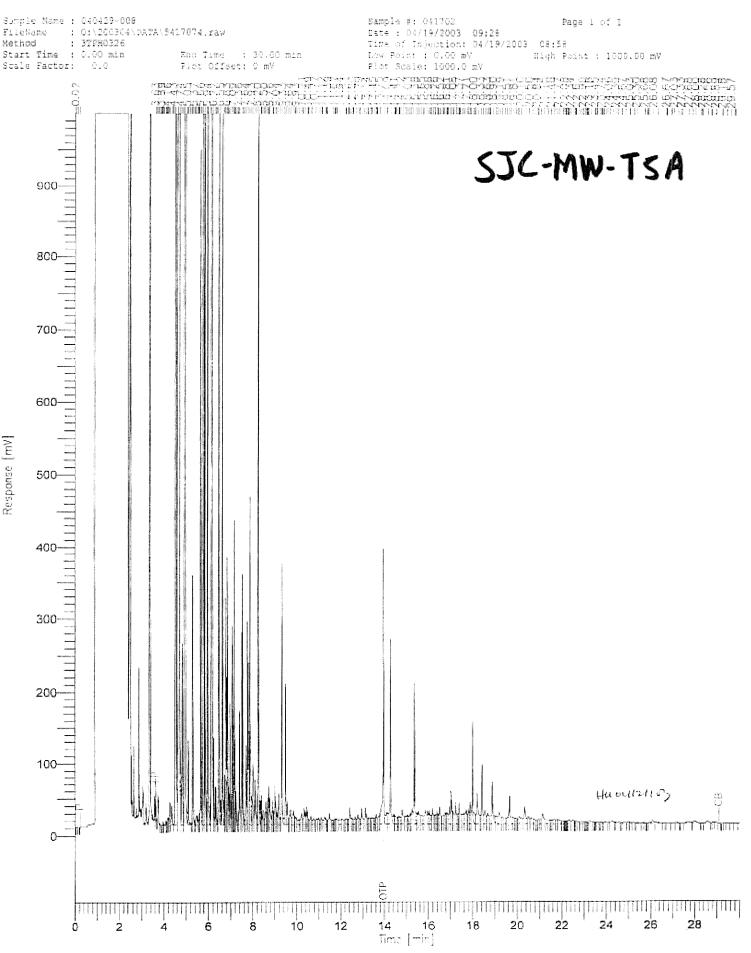
CHROMATOGRAM REPORT

EPA Method 8260B FUOXY 041703

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|-------------------|---|--|
| Acquisition Date: | 4/30/2003 13:13 | Calibration Date Range: 4/17/200: 12:43 4/17/2003 15:16 |
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Chromatogram

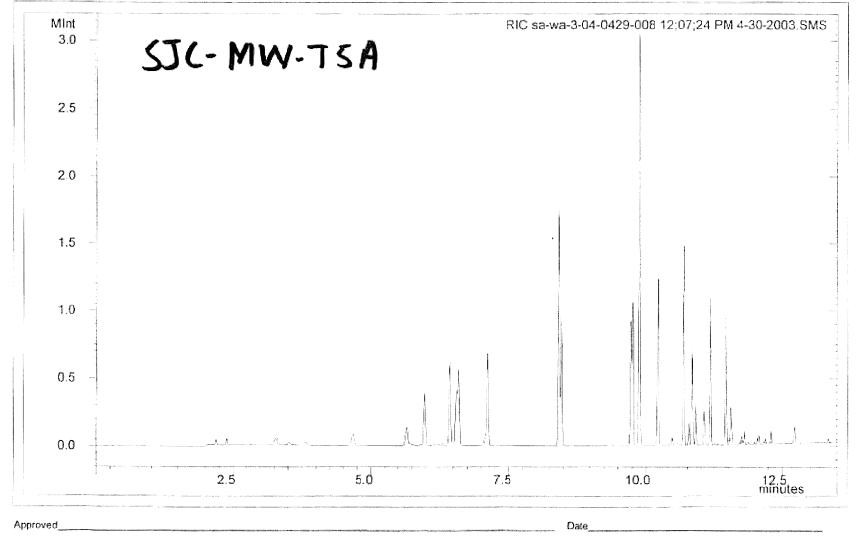


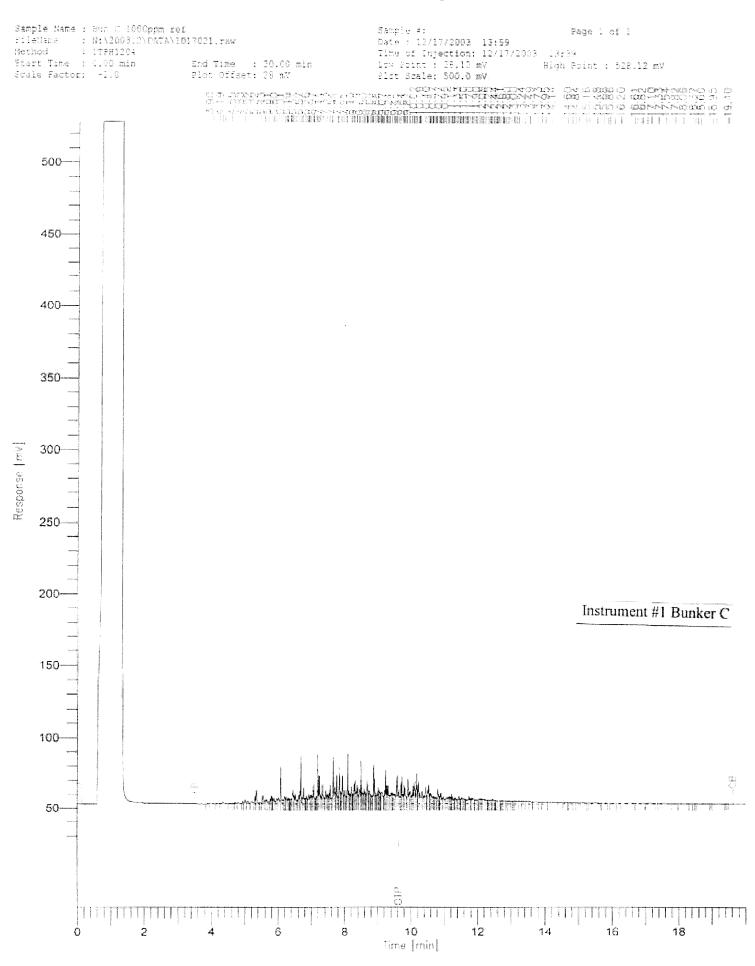
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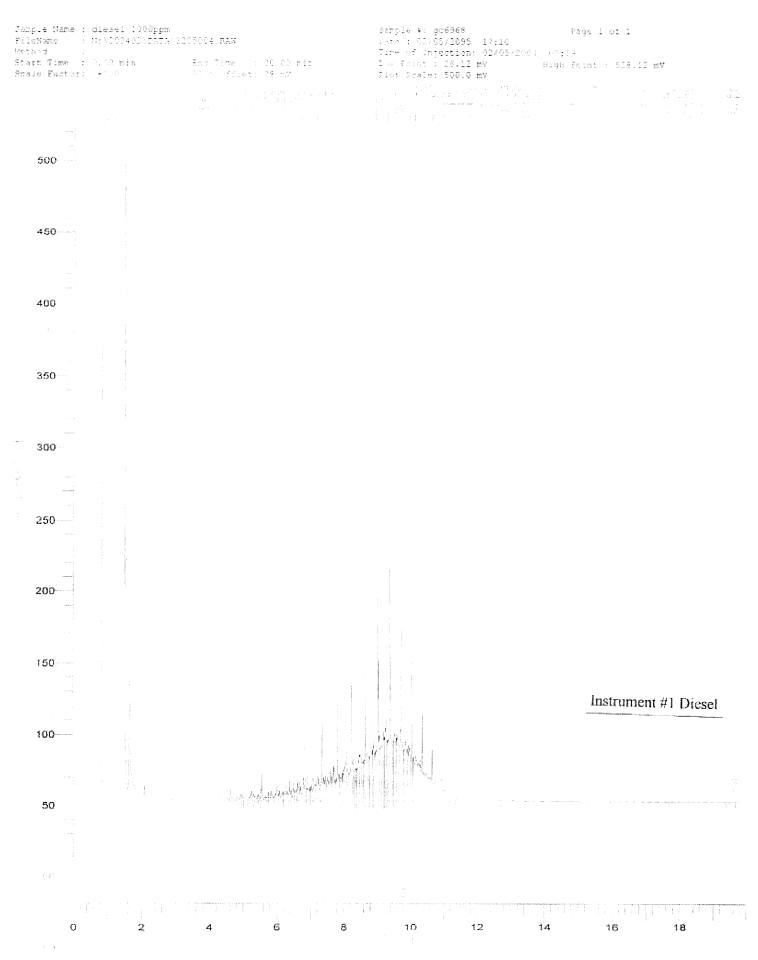
CHROMATOGRAM REPORT

EPA Method 8260B FUOXY 041703

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|-------------------|---|--|
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| Lab Sample ID: | sa-wa-3-04-0429-008 | Dilution: 1 |
| | | |





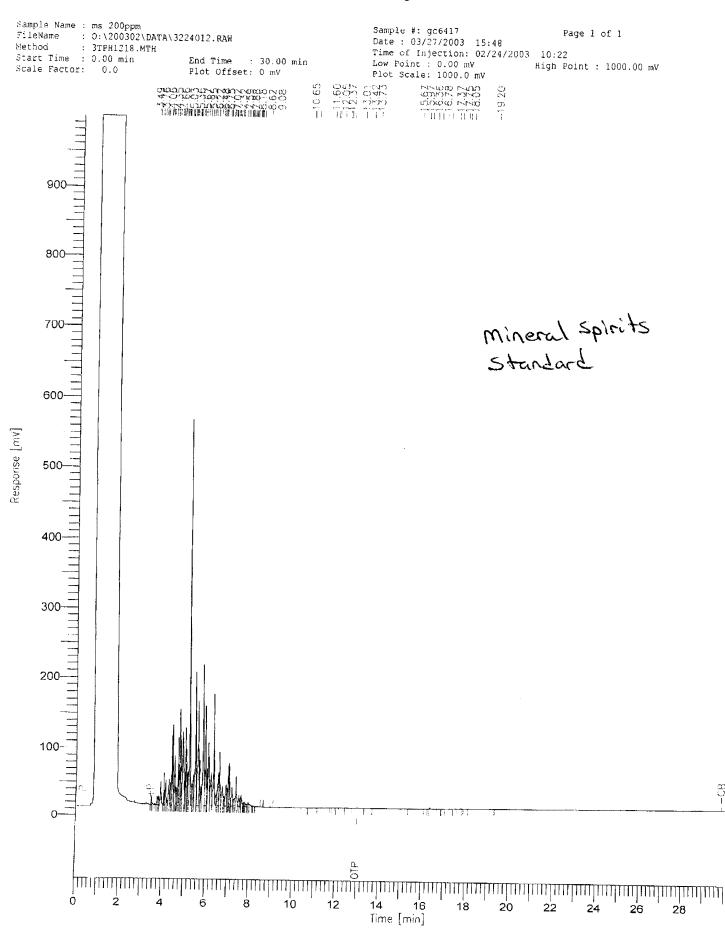


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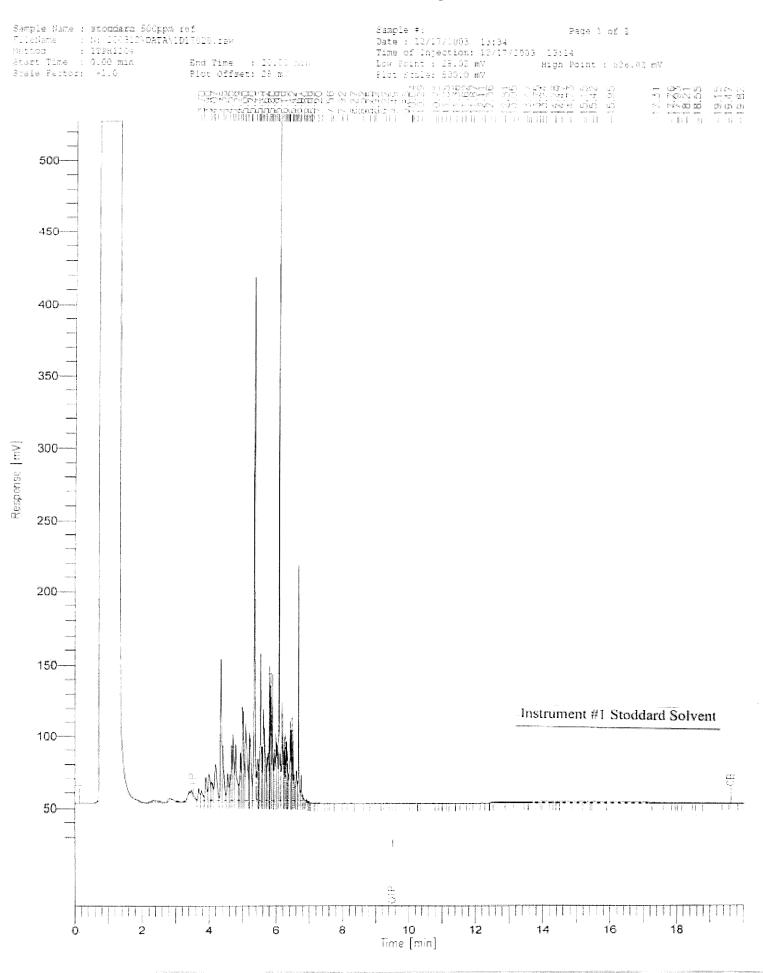
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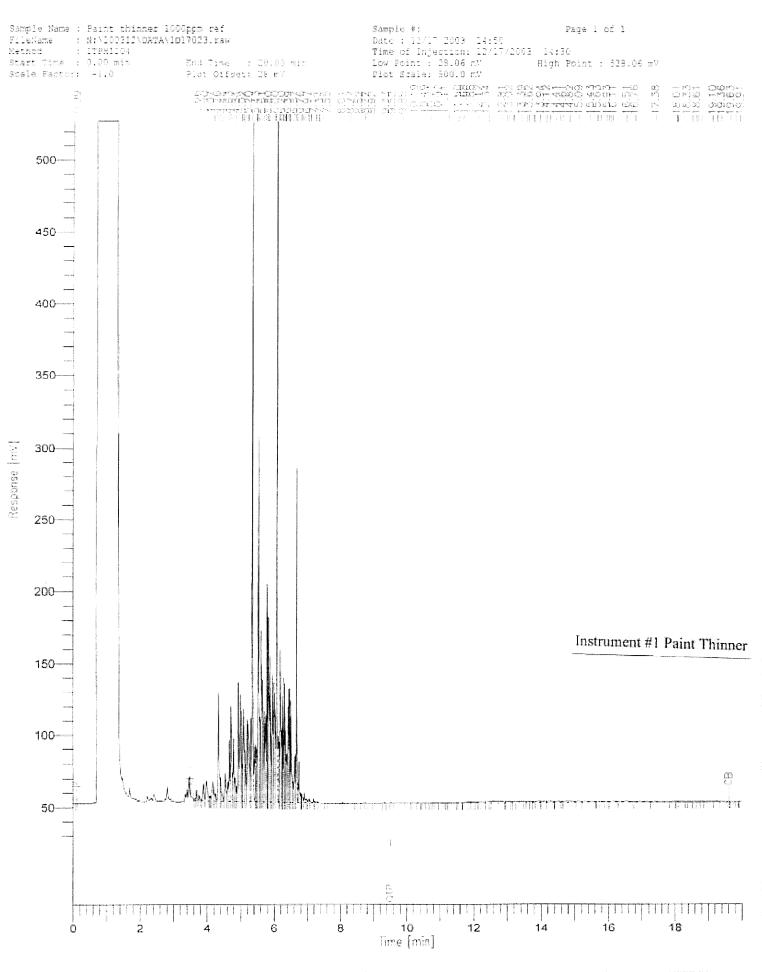
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Chromatogram



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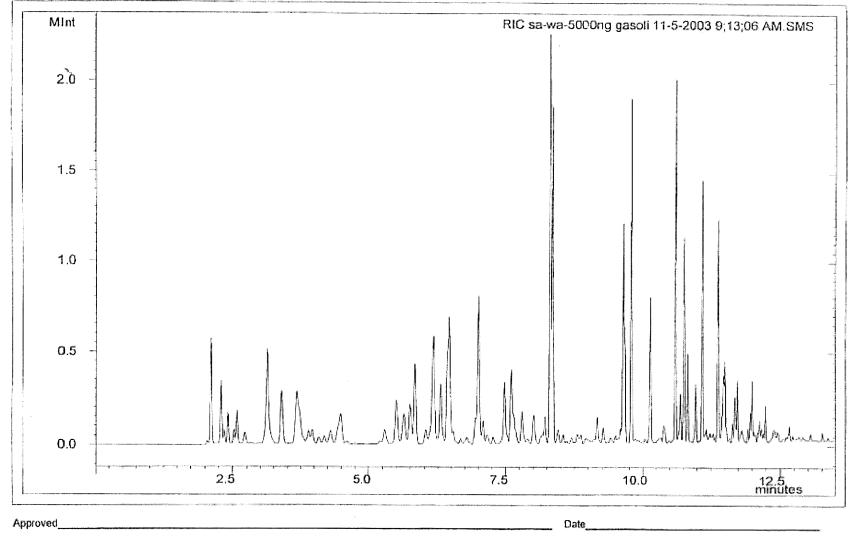




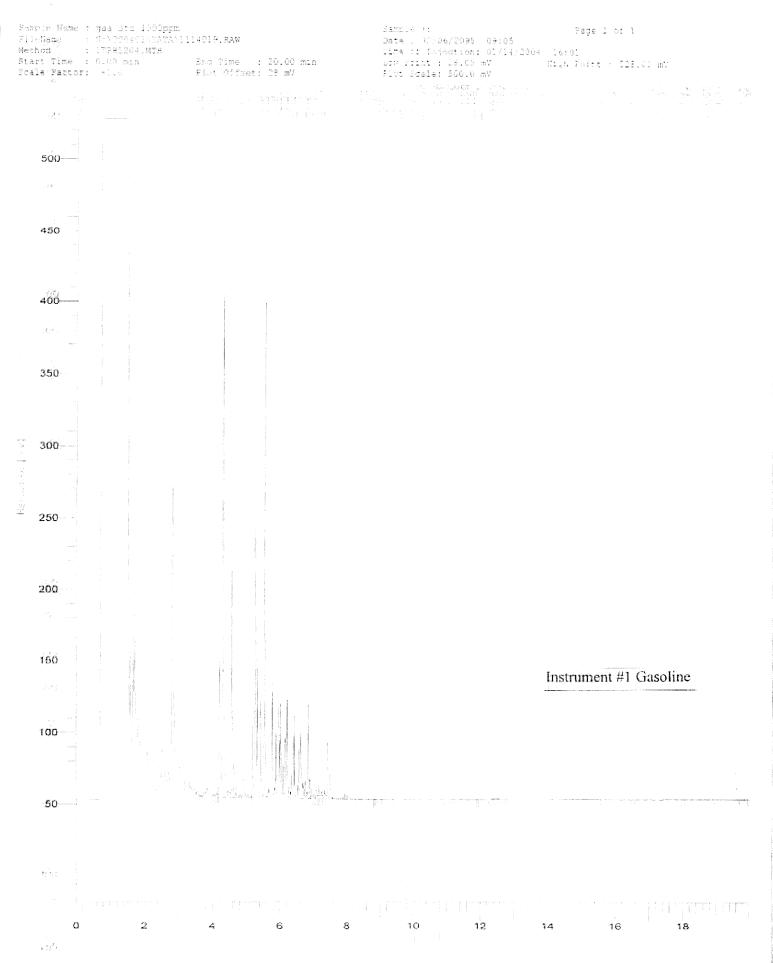
CHROMATOGRAM REPORT EPA Method 82608 EU/XX 041703

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| | | 1003104000 | 24 |
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| Acquisition Date: | 11/5/2003 9:13 | Calibration Date Range: 4/17/200: 14:13 4/17/2003 16:47 | |
| EPA Sample No: | sa-wa-5000 | Operator | |
| Lab Sample ID: | sa-wa-5000ng gasoli | Dilution: 1 | |



GAS STP



Environmental Closure Report: Andante Project, Emeryville, California.

APPENDIX D

Deed Restriction

DECLARATION ESTABLISHING, COVENANTS AND RESTRICTIONS RUNNING WITH THE LAND

THIS IS TO CERTIFY THAT THIS IS A TRUE AND CORRECT COPY OF THE DECLARATION RECORDED IN THE OFFICE OF THE RECORDER OF ALAMEDA COUNTY, CALIFORNIA, AS INSTRUMENT NO. 2004-569808, DECEMBER 29, 2004, OFFICIAL RECORDS.

Susan Davidson, DRE Consultant

Attached is the document you (or someone on your behalf) requested. As required by Section 12956.1(b) of the Government Code, please take note of the following: If this document contains any restriction based on race, color, religion, sex, familial status, marital status, disability, national original, or ancestry, that restriction violates state and federal fair housing laws and is void, and may be removed pursuant to Section 12956.1 of the Government Code. Lawful restrictions under state and federal law on the age of occupants in senior housing or housing or older persons shall not be construed as restrictions based on familial status.

Restrictions indicating a preference, limitation or discrimination based on race, color, religion, sex, handicap, familiar status, or national origin are hereby deleted to the extent such restrictions violate 42 USC § 3604(c).

WHEN RECORDED MAIL TO:

SNK Captec Andante LLC Attn: Operations Department 1313 East Osborn Road, Suite 213 Phoenix, Arizona 85014

DECLARATION ESTABLISHING COVENANTS AND RESTRICTIONS RUNNING WITH THE LAND

THIS DECLARATION ("**Declaration**") is made as of <u>December 21</u>, 2004, by SNK Captec Andante LLC, a Delaware limited liability company ("**Declarant**").

RECITALS:

A. Declarant is the fee owner of, and this Declaration applies to, that certain real property located in the City of Emeryville, County of Alameda, State of California, and described on Exhibit A attached hereto (the 'Property'').

B. Declarant has previously performed certain soil remediation activities (the "**Soil**

Remediation") on that portion of the Property shown on Exhibit B attached hereto (the

"**Remediated Area**"). The drawing attached hereto *as* <u>Exhibit C</u> delineates areas where soil did

and did not exceed applicable governmental screening levels for unrestricted land use (the

"Screening Levels") prior to completion of the Soil Remediation. The drawing attached hereto as

Exhibit D delineates areas where soil did and did not exceed the Screening Levels upon

completion of the Soil Remediation.

C. Following completion of the Soil Remediation, the Alameda County Environmental Health Services ("ACEH") reviewed certain soil and groundwater testing at the Property. Based upon the results of such testing, together with additional information regarding the Property made available to the ACEH, the ACEH determined not to object to the development of the Property for commercial and high density residential purposes, subject to the establishment of certain covenants and restrictions with respect to the development, construction and use of the Property.

D. - Therefore, Declarant intends to establish and create covenants and restrictions to provide for the development, construction and use of the Property, as more particularly set forth below. The covenants herein created shall be enforceable as covenants running with the land, and shall constitute equitable servitudes under this Declaration.

AGREEMENT:

NOW, THEREFORE, Declarant declares that the Property shall be held, transferred, encumbered, used, conveyed, and occupied subject to the covenants and restrictions hereinafter set forth for the use and benefit of the Property and every person or entity who now or in the future owns any portion or portions of the Property.

ARTICLE 1

COVENANTS AND RESTRICTIONS

Section 1.1 Barrier. A vapor tight barrier or membrane shall underlie all structures within the Remediated Area, with the exception of the parking structure that Declarant intends to construct on the Property. In no event shall any utilities be permitted to penetrate any such barrier or membrane unless sealed to prevent vapor from passing between the opening made by the penetration and the membrane.

-2-

Section 1.2 Use of Imported Soil. Clean imported soil <u>shall</u> comprise the upper three (3) feet of all landscaped areas, planting boxes and similar portions of the Property.

Section 1.3 Restriction on Water Supply Wells. No water supply wells shall be installed on the Property.

Section 1.4 Restrictions on Use. In no event shall any portion of the Property be used for single family residential or townhome use.

Section 1.5 Monitoring Wells. Not later than substantial completion of the residential and commercial project that Declarant intends to construct on the Property, Declarant shall install one (1) groundwater monitoring well on the Property in the location shown on <u>Exhibit E</u> attached hereto (the "Monitoring Wells"). Declarant shall cause the groundwater in the Monitoring Wells to be tested quarterly for a minimum of one year following substantial completion of the project.

ARTICLE 2

GENERAL PROVISIONS

Section 2.1 Severability. If any provision or portion hereof is declared invalid or in conflict with any law of the jurisdiction where the Property is situated, the validity of all other provisions and portions hereof shall remain unaffected and in full force and effect.

Section 2.2 Term. The covenants and restrictions of this Declaration shall run with and bind the Property, and shall inure to the benefit of Declarant and its legal representatives, successors and assigns.

Section 2.3 Amendments. This Declaration may be amended only by an instrument in writing, executed and acknowledged by a duly authorized representative of Declarant, and any

such amendment shall become effective upon being recorded in the Official Records of the County of Alameda, State of California.

Section 2.4 Use of Words. Unless the context otherwise requires, singular nouns and pronouns used in this Declaration should be construed as including the plural thereof. For convenience and brevity, masculine pronouns may have been used herein in their generic sense as a reference to all persons, without regard to sex.

Section 2.5 Governing Law. This Declaration shall be governed by and interpreted in accordance with the laws of the State of California.

Section 2.6 Nondiscrimination. There shall be no discrimination against or segregation of any person or group of persons on account of race, color, creed, religion, sex, marital status, national origin or ancestry in the sale, lease, sublease, transfer, use, occupancy, tenure, or enjoyment of the Property, nor shall the transferee himself or herself, or any person claiming under or through him or her, establish or permit any such practice or practices of discrimination or segregation with reference to the selection, location, number, use or occupancy of tenants, lessees, subtenants, sublessees or vendees of the Property.

IN WITNESS WHEREOF, the undersigned, being the Declarant herein, has issued this Declaration as of the day and year first above written.

SNK Captec Andante LLC, a Delaware limited liability company

By: SNK La Playa I LLC, A Delaware limited liability company Its: Managing Member

Vice President

By. 🔽 ctorson Gary R. Hudgens

Its:

EXHIBIT A

Legal Description of the Property

All that real property situate in the City of Emeryville, County of Alameda, State of California, being more particularly described as follows;

Lot 2 of Parcel Map No. 8005, recorded on March 26, 2003, in Book 270 of Parcel Maps at Pages 44 and 45, of the Official Records of the County of Alameda.

Containing an area of 1.68 acres +/-.

EXHIBIT B

Location of the Remediated Area

[See Attached]

617029.01/SF S7878-018/6-21-04/cmm/cmm

.

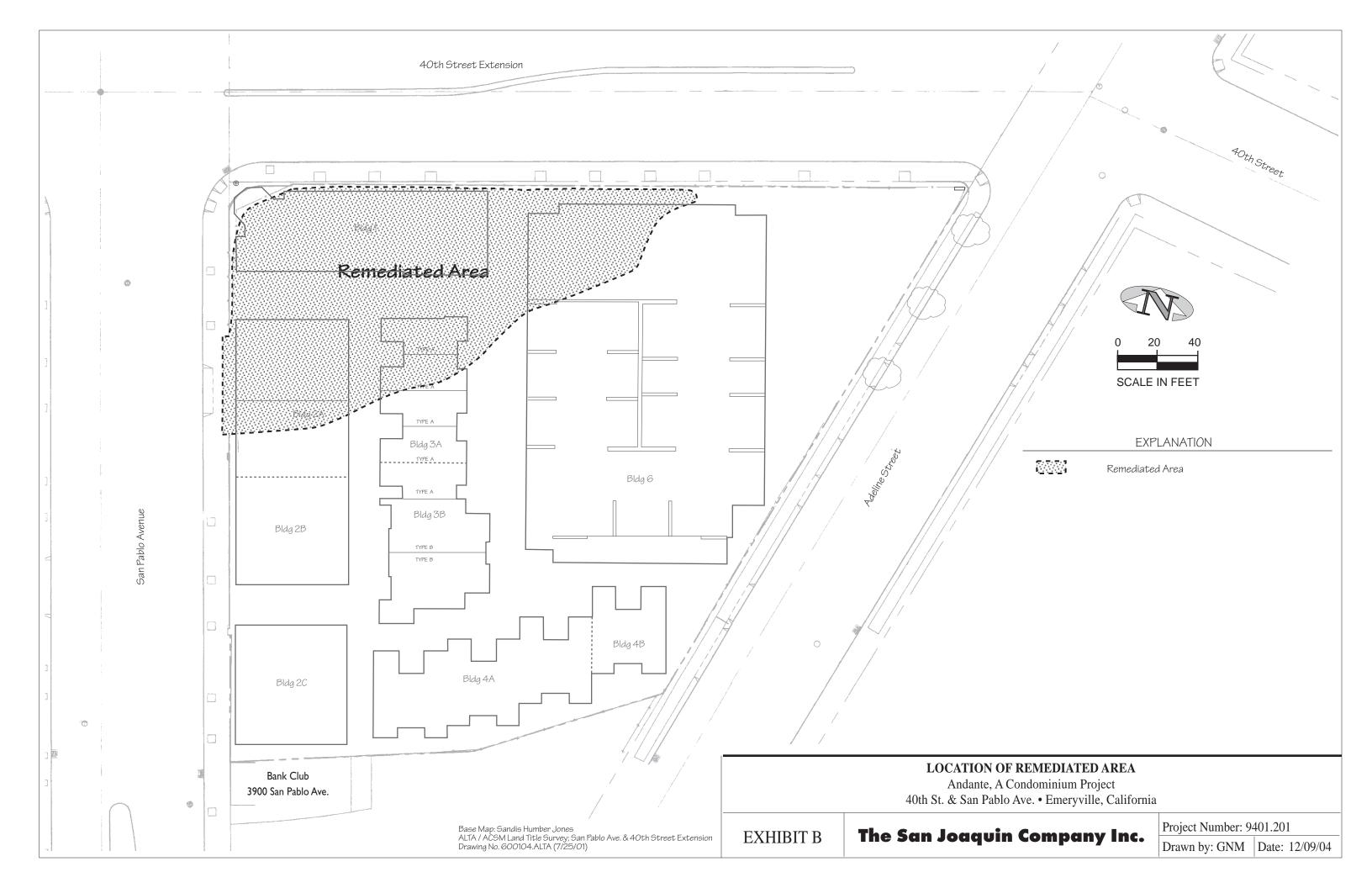


EXHIBIT C

Areas of Compliance With Screening Levels Prior to Soil Remediation

[See Attached]

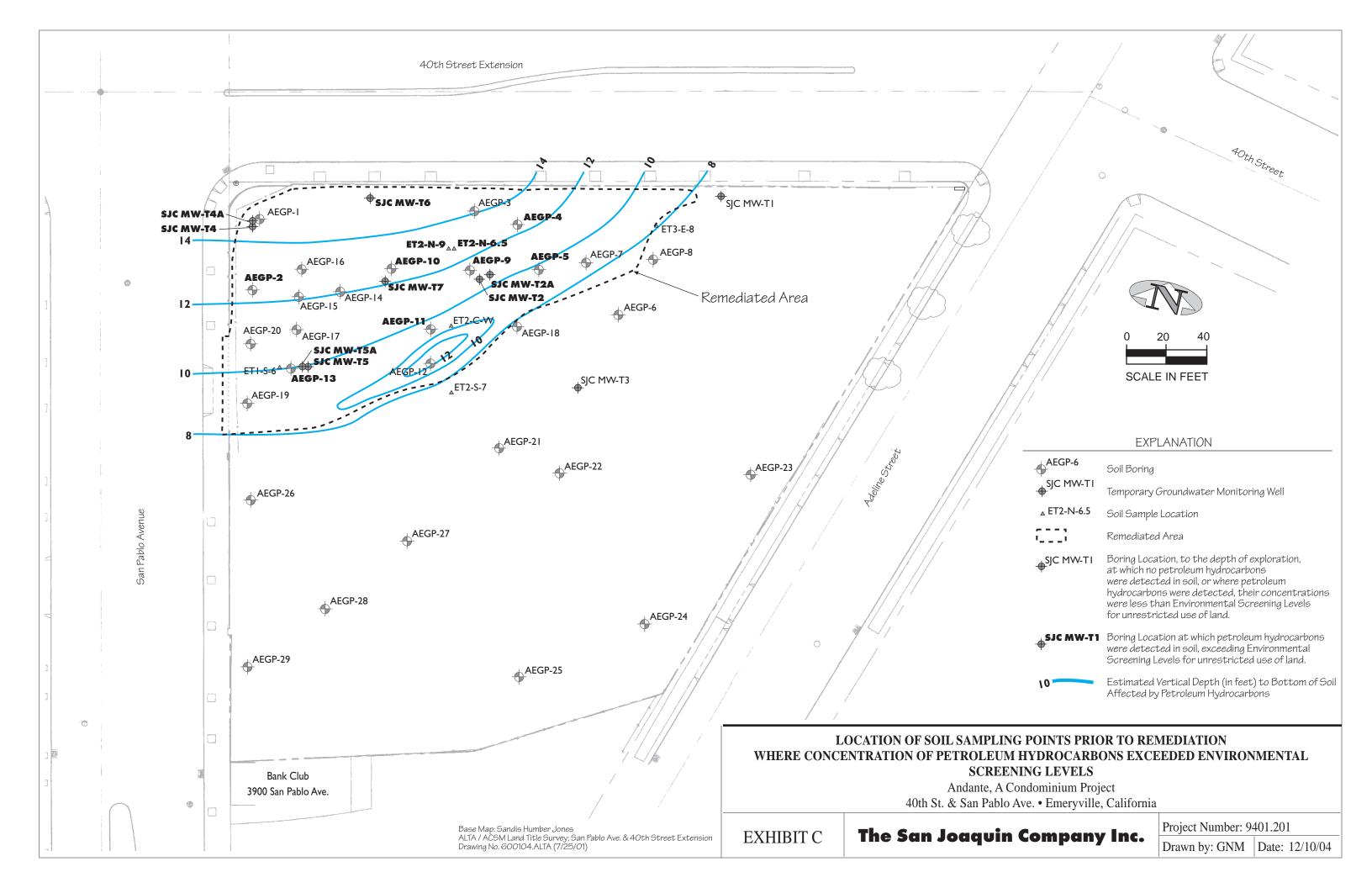


EXHIBIT D

Areas of Compliance With Screening Levels Following Soil Remediation

[See Attached]

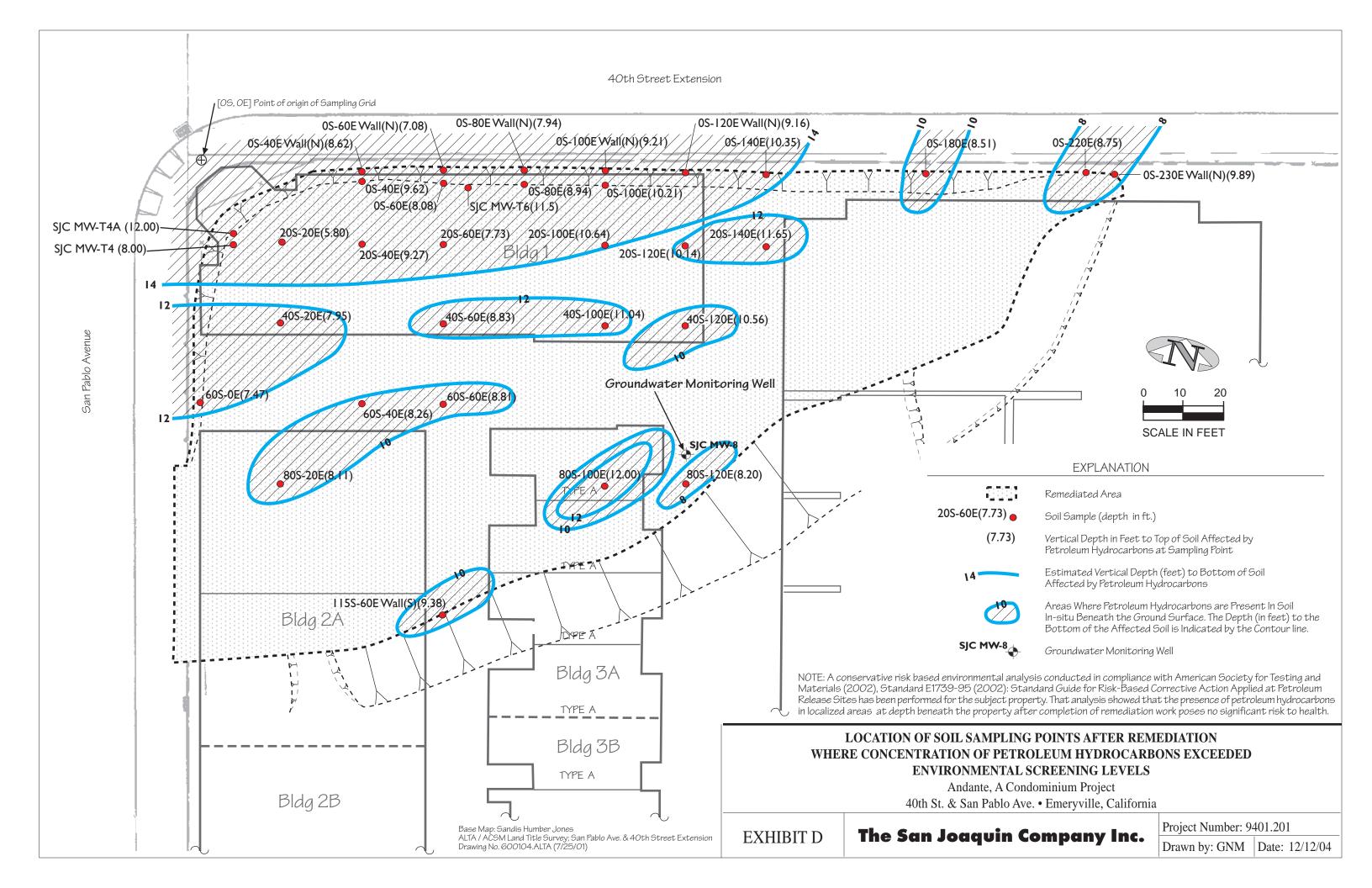
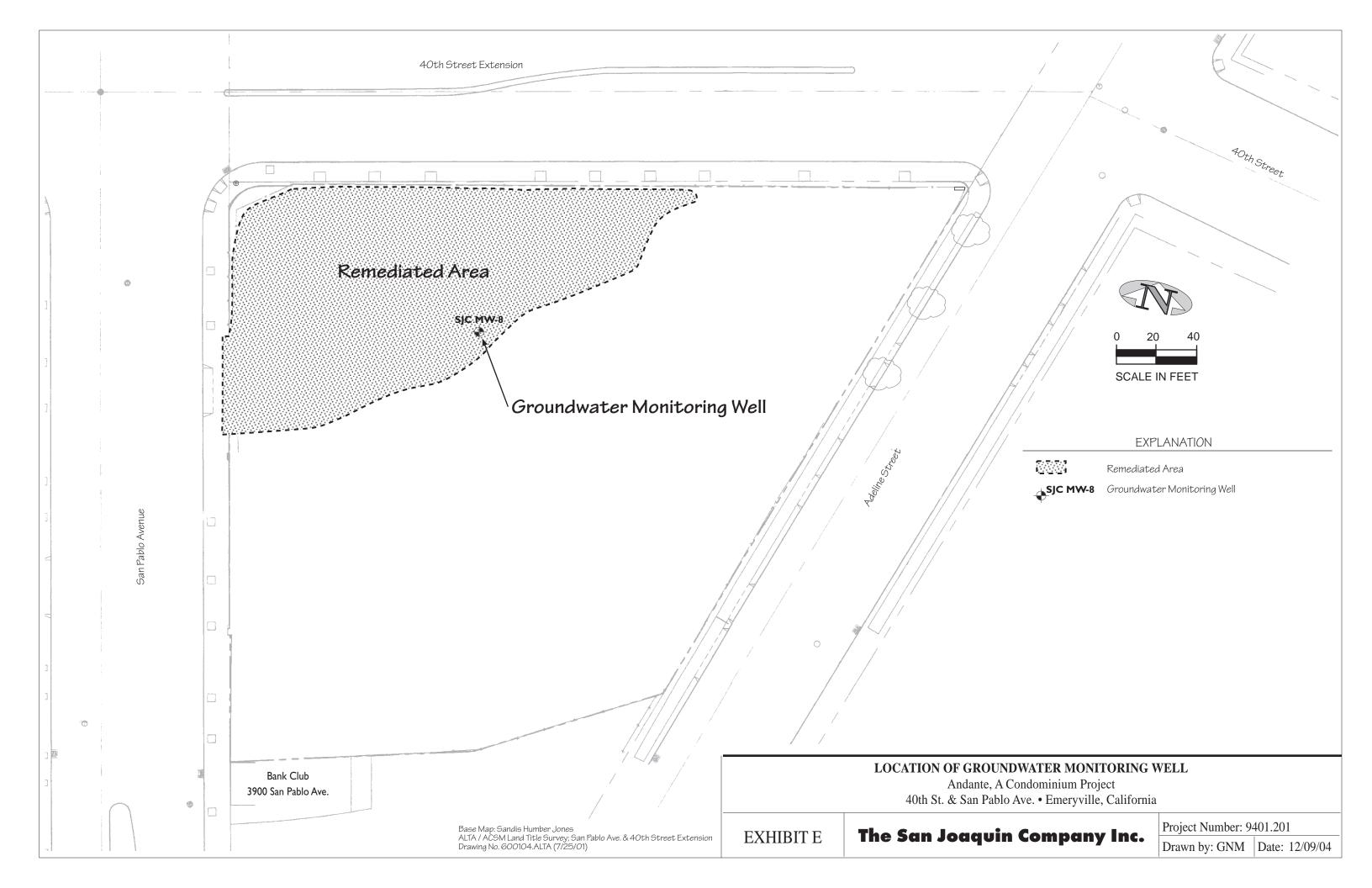


EXHIBIT E

Location of the Monitoring Wells

[See Attached]

.



ARIZONA STATE OF CALIFORNIA) COUNTY OF MARICOPA) SS.

On December 31,2004 before me, the undersigned, a Notary Public is and for said State, personally appeared <u>(roky & Hudgens</u>, <u>Vice Hesident of SNK la flaya I LLC, Managens</u>, <u>Member</u> of SNK Cupter Andonke LLC, personally known to me (or proved to me on the basis of satisfactory evidence) to be the person(s) whose name(s) is/are subscribed to the within instrument and acknowledged to me that he/she/they executed the same in his/her/their authorized capacity(ies), and that by his/her/their signature(s) on the instrument the person(s), or the entity upon behalf of which the person(s) acted, executed the instrument.

WITNESS my hand and official seal.

Signature T -Λ -

Name Deborah Evans (typed or printed)



(This area for official notarial seal)

Environmental Closure Report: Andante Project, Emeryville, California.

APPENDIX E

Certificates of Analysis



San Joaquin Company, Inc.

August 27, 2004

1120 Hollywood Ave, Suite 3Oakland, CA 94602-1459Attn.: Dai WatkinsProject#: 9401.206Project: SNK Andante, Emeryville

Dear Dai,

Attached is our report for your samples received on 08/20/2004 13:12 This report has been reviewed and approved for release. Reproduction of this report is permitted only in its entirety.

Please note that any unused portion of the samples will be discarded after 10/04/2004 unless you have requested otherwise.

We appreciate the opportunity to be of service to you. If you have any questions, please call me at (925) 484-1919.

You can also contact me via email. My email address is: ssidhu@stl-inc.com

Sincerely,

Junider Sidhy.

Surinder Sidhu Project Manager



San Joaquin Company, Inc.

Attn.: Dai Watkins

1120 Hollywood Ave, Suite 3 Oakland, CA 94602-1459 Phone: (510) 336-1772 Fax: (510) 336-9119

Project: 9401.206 SNK Andante, Emeryville Received: 08/20/2004 13:12

Samples Reported

| Sample Name | Date Sampled | Matrix | Lab # |
|-------------|------------------|--------|-------|
| SJCMW8-6.5 | 08/20/2004 09:15 | Soil | 1 |
| SJCMW8-11.0 | 08/20/2004 09:20 | Soil | 2 |
| SJCMW8-16.0 | 08/20/2004 09:40 | Soil | 3 |
| SJCMW8-20.5 | 08/20/2004 09:45 | Soil | 4 |
| SJCMW8-24.0 | 08/20/2004 09:55 | Soil | 5 |



San Joaquin Company, Inc.

Attn.: Dai Watkins

1120 Hollywood Ave, Suite 3 Oakland, CA 94602-1459 Phone: (510) 336-1772 Fax: (510) 336-9119

Project: 9401.206 SNK Andante, Emeryville

| Prep(s): | 5030B | Test(s): | 8260B |
|------------|------------------|------------|------------------|
| Sample ID: | SJCMW8-6.5 | Lab ID: | 2004-08-0532 - 1 |
| Sampled: | 08/20/2004 09:15 | Extracted: | 8/23/2004 21:22 |
| Matrix: | Soil | QC Batch#: | 2004/08/23-03.66 |
| | | | |

| Compound | Conc. | RL | Unit | Dilution | Analyzed | Flag |
|--------------------------------|-------|--------|-------|----------|------------------|------|
| Gasoline | ND | 1000 | ug/Kg | 1.00 | 08/23/2004 21:22 | |
| tert-Butyl alcohol (TBA) | ND | 10 | ug/Kg | 1.00 | 08/23/2004 21:22 | |
| Methyl tert-butyl ether (MTBE) | ND | 5.0 | ug/Kg | 1.00 | 08/23/2004 21:22 | |
| Di-isopropyl Ether (DIPE) | ND | 10 | ug/Kg | 1.00 | 08/23/2004 21:22 | |
| Ethyl tert-butyl ether (ETBE) | ND | 5.0 | ug/Kg | 1.00 | 08/23/2004 21:22 | |
| tert-Amyl methyl ether (TAME) | ND | 5.0 | ug/Kg | 1.00 | 08/23/2004 21:22 | |
| Benzene | ND | 5.0 | ug/Kg | 1.00 | 08/23/2004 21:22 | |
| Toluene | ND | 5.0 | ug/Kg | 1.00 | 08/23/2004 21:22 | |
| Ethyl benzene | ND | 5.0 | ug/Kg | 1.00 | 08/23/2004 21:22 | |
| Total xylenes | ND | 5.0 | ug/Kg | 1.00 | 08/23/2004 21:22 | |
| Surrogate(s) | | | | | | |
| 1,2-Dichloroethane-d4 | 107.8 | 72-124 | % | 1.00 | 08/23/2004 21:22 | |
| Toluene-d8 | 102.3 | 75-116 | % | 1.00 | 08/23/2004 21:22 | |



San Joaquin Company, Inc.

Attn.: Dai Watkins

1120 Hollywood Ave, Suite 3 Oakland, CA 94602-1459 Phone: (510) 336-1772 Fax: (510) 336-9119

Project: 9401.206 SNK Andante, Emeryville

| Prep(s): | 5030B | Test(s): | 8260B |
|------------|------------------|------------|------------------|
| Sample ID: | SJCMW8-11.0 | Lab ID: | 2004-08-0532 - 2 |
| Sampled: | 08/20/2004 09:20 | Extracted: | 8/23/2004 22:30 |
| Matrix: | Soil | QC Batch#: | 2004/08/23-03.66 |
| | | | |

| Compound | Conc. | RL | Unit | Dilution | Analyzed | Flag |
|--------------------------------|-------|--------|-------|----------|------------------|------|
| Gasoline | ND | 1000 | ug/Kg | 1.00 | 08/23/2004 22:30 | |
| tert-Butyl alcohol (TBA) | ND | 10 | ug/Kg | 1.00 | 08/23/2004 22:30 | |
| Methyl tert-butyl ether (MTBE) | ND | 5.0 | ug/Kg | 1.00 | 08/23/2004 22:30 | |
| Di-isopropyl Ether (DIPE) | ND | 10 | ug/Kg | 1.00 | 08/23/2004 22:30 | |
| Ethyl tert-butyl ether (ETBE) | ND | 5.0 | ug/Kg | 1.00 | 08/23/2004 22:30 | |
| tert-Amyl methyl ether (TAME) | ND | 5.0 | ug/Kg | 1.00 | 08/23/2004 22:30 | |
| Benzene | ND | 5.0 | ug/Kg | 1.00 | 08/23/2004 22:30 | |
| Toluene | ND | 5.0 | ug/Kg | 1.00 | 08/23/2004 22:30 | |
| Ethyl benzene | ND | 5.0 | ug/Kg | 1.00 | 08/23/2004 22:30 | |
| Total xylenes | ND | 5.0 | ug/Kg | 1.00 | 08/23/2004 22:30 | |
| Surrogate(s) | | | | | | |
| 1,2-Dichloroethane-d4 | 111.2 | 72-124 | % | 1.00 | 08/23/2004 22:30 | |
| Toluene-d8 | 107.9 | 75-116 | % | 1.00 | 08/23/2004 22:30 | |



San Joaquin Company, Inc.

Attn.: Dai Watkins

1120 Hollywood Ave, Suite 3 Oakland, CA 94602-1459 Phone: (510) 336-1772 Fax: (510) 336-9119

Project: 9401.206 SNK Andante, Emeryville

| Prep(s): | 5030B | Test(s): | 8260B |
|------------|------------------|------------|------------------|
| Sample ID: | SJCMW8-16.0 | Lab ID: | 2004-08-0532 - 3 |
| Sampled: | 08/20/2004 09:40 | Extracted: | 8/23/2004 22:52 |
| Matrix: | Soil | QC Batch#: | 2004/08/23-03.66 |
| | | | |

| Compound | Conc. | RL | Unit | Dilution | Analyzed | Flag |
|--------------------------------|-------|--------|-------|----------|------------------|------|
| Gasoline | ND | 1000 | ug/Kg | 1.00 | 08/23/2004 22:52 | |
| tert-Butyl alcohol (TBA) | ND | 10 | ug/Kg | 1.00 | 08/23/2004 22:52 | |
| Methyl tert-butyl ether (MTBE) | ND | 5.0 | ug/Kg | 1.00 | 08/23/2004 22:52 | |
| Di-isopropyl Ether (DIPE) | ND | 10 | ug/Kg | 1.00 | 08/23/2004 22:52 | |
| Ethyl tert-butyl ether (ETBE) | ND | 5.0 | ug/Kg | 1.00 | 08/23/2004 22:52 | |
| tert-Amyl methyl ether (TAME) | ND | 5.0 | ug/Kg | 1.00 | 08/23/2004 22:52 | |
| Benzene | ND | 5.0 | ug/Kg | 1.00 | 08/23/2004 22:52 | |
| Toluene | ND | 5.0 | ug/Kg | 1.00 | 08/23/2004 22:52 | |
| Ethyl benzene | ND | 5.0 | ug/Kg | 1.00 | 08/23/2004 22:52 | |
| Total xylenes | ND | 5.0 | ug/Kg | 1.00 | 08/23/2004 22:52 | |
| Surrogate(s) | | | | | | |
| 1,2-Dichloroethane-d4 | 108.7 | 72-124 | % | 1.00 | 08/23/2004 22:52 | |
| Toluene-d8 | 100.5 | 75-116 | % | 1.00 | 08/23/2004 22:52 | |



San Joaquin Company, Inc.

Attn.: Dai Watkins

1120 Hollywood Ave, Suite 3 Oakland, CA 94602-1459 Phone: (510) 336-1772 Fax: (510) 336-9119

Project: 9401.206 SNK Andante, Emeryville

| Prep(s): | 5030B | Test(s): | 8260B |
|-----------|------------------|------------|------------------|
| Sample ID | SJCMW8-20.5 | Lab ID: | 2004-08-0532 - 4 |
| Sampled: | 08/20/2004 09:45 | Extracted: | 8/23/2004 23:15 |
| Matrix: | Soil | QC Batch#: | 2004/08/23-03.66 |
| | | | |

| Compound | Conc. | RL | Unit | Dilution | Analyzed | Flag |
|--------------------------------|-------|--------|-------|----------|------------------|------|
| Gasoline | ND | 1000 | ug/Kg | 1.00 | 08/23/2004 23:15 | |
| tert-Butyl alcohol (TBA) | ND | 10 | ug/Kg | 1.00 | 08/23/2004 23:15 | |
| Methyl tert-butyl ether (MTBE) | ND | 5.0 | ug/Kg | 1.00 | 08/23/2004 23:15 | |
| Di-isopropyl Ether (DIPE) | ND | 10 | ug/Kg | 1.00 | 08/23/2004 23:15 | |
| Ethyl tert-butyl ether (ETBE) | ND | 5.0 | ug/Kg | 1.00 | 08/23/2004 23:15 | |
| tert-Amyl methyl ether (TAME) | ND | 5.0 | ug/Kg | 1.00 | 08/23/2004 23:15 | |
| Benzene | ND | 5.0 | ug/Kg | 1.00 | 08/23/2004 23:15 | |
| Toluene | ND | 5.0 | ug/Kg | 1.00 | 08/23/2004 23:15 | |
| Ethyl benzene | ND | 5.0 | ug/Kg | 1.00 | 08/23/2004 23:15 | |
| Total xylenes | ND | 5.0 | ug/Kg | 1.00 | 08/23/2004 23:15 | |
| Surrogate(s) | | | | | | |
| 1,2-Dichloroethane-d4 | 101.2 | 72-124 | % | 1.00 | 08/23/2004 23:15 | |
| Toluene-d8 | 103.6 | 75-116 | % | 1.00 | 08/23/2004 23:15 | |



San Joaquin Company, Inc.

Attn.: Dai Watkins

1120 Hollywood Ave, Suite 3 Oakland, CA 94602-1459 Phone: (510) 336-1772 Fax: (510) 336-9119

Project: 9401.206 SNK Andante, Emeryville

| Prep(s): | 5030B | Test(s): | 8260B |
|------------|------------------|------------|------------------|
| Sample ID: | SJCMW8-24.0 | Lab ID: | 2004-08-0532 - 5 |
| Sampled: | 08/20/2004 09:55 | Extracted: | 8/23/2004 23:37 |
| Matrix: | Soil | QC Batch#: | 2004/08/23-03.66 |
| | | | |

| Compound | Conc. | RL | Unit | Dilution | Analyzed | Flag |
|--------------------------------|-------|--------|-------|----------|------------------|------|
| Gasoline | ND | 1000 | ug/Kg | 1.00 | 08/23/2004 23:37 | |
| tert-Butyl alcohol (TBA) | ND | 10 | ug/Kg | 1.00 | 08/23/2004 23:37 | |
| Methyl tert-butyl ether (MTBE) | ND | 5.0 | ug/Kg | 1.00 | 08/23/2004 23:37 | |
| Di-isopropyl Ether (DIPE) | ND | 10 | ug/Kg | 1.00 | 08/23/2004 23:37 | |
| Ethyl tert-butyl ether (ETBE) | ND | 5.0 | ug/Kg | 1.00 | 08/23/2004 23:37 | |
| tert-Amyl methyl ether (TAME) | ND | 5.0 | ug/Kg | 1.00 | 08/23/2004 23:37 | |
| Benzene | ND | 5.0 | ug/Kg | 1.00 | 08/23/2004 23:37 | |
| Toluene | ND | 5.0 | ug/Kg | 1.00 | 08/23/2004 23:37 | |
| Ethyl benzene | ND | 5.0 | ug/Kg | 1.00 | 08/23/2004 23:37 | |
| Total xylenes | ND | 5.0 | ug/Kg | 1.00 | 08/23/2004 23:37 | |
| Surrogate(s) | | | | | | |
| 1,2-Dichloroethane-d4 | 114.5 | 72-124 | % | 1.00 | 08/23/2004 23:37 | |
| Toluene-d8 | 103.9 | 75-116 | % | 1.00 | 08/23/2004 23:37 | |



San Joaquin Company, Inc.

Attn.: Dai Watkins

1120 Hollywood Ave, Suite 3 Oakland, CA 94602-1459 Phone: (510) 336-1772 Fax: (510) 336-9119

Project: 9401.206 SNK Andante, Emeryville

| Batch QC Report | | | | | | | |
|---|---|--------|-------|------------------|------|--|--|
| Prep(s): 5030B Method Blank MB: 2004/08/23-03.66-016 | Test(s): 8 Soil QC Batch # 2004/08/23- Date Extracted: 08/23/2004 | | | 23-03.66 | | | |
| Compound | Conc. | RL | Unit | Analyzed | Flag | | |
| Gasoline | ND | 1000 | ug/Kg | 08/23/2004 18:16 | | | |
| tert-Butyl alcohol (TBA) | ND | 10.0 | ug/Kg | 08/23/2004 18:16 | | | |
| Methyl tert-butyl ether (MTBE) | ND | 5.0 | ug/Kg | 08/23/2004 18:16 | | | |
| Di-isopropyl Ether (DIPE) | ND | 10.0 | ug/Kg | 08/23/2004 18:16 | | | |
| Ethyl tert-butyl ether (ETBE) | ND | 5.0 | ug/Kg | 08/23/2004 18:16 | | | |
| tert-Amyl methyl ether (TAME) | ND | 5.0 | ug/Kg | 08/23/2004 18:16 | | | |
| Benzene | ND | 5.0 | ug/Kg | 08/23/2004 18:16 | | | |
| Toluene | ND | 5.0 | ug/Kg | 08/23/2004 18:16 | | | |
| Ethyl benzene | ND | 5.0 | ug/Kg | 08/23/2004 18:16 | | | |
| Total xylenes | ND | 5.0 | ug/Kg | 08/23/2004 18:16 | | | |
| Surrogates(s) | | | | | | | |
| 1,2-Dichloroethane-d4 | 97.8 | 72-124 | % | 08/23/2004 18:16 | | | |
| Toluene-d8 | 98.2 | 75-116 | % | 08/23/2004 18:16 | | | |



Fuel Oxygenates by 8260B

San Joaquin Company, Inc.

Attn.: Dai Watkins

Toluene-d8

1120 Hollywood Ave, Suite 3 Oakland, CA 94602-1459 Phone: (510) 336-1772 Fax: (510) 336-9119

480

493

Project: 9401.206 SNK Andante, Emeryville Received: 08/20/2004 13:12

| | | B | atch QC Re | eport | | | | | | |
|---|----------|-----------------|--------------|----------|--------|------|----------|---------|----------|--------|
| Prep(s): 5030B | | | | | | | | | Test(s): | 8260B |
| Laboratory Control Sp | ike | | Soil | | | Q | C Batch | # 200 | 04/08/23 | -03.66 |
| LCS 2004/08/23-0 | 3.66-031 | | Extracted: | 08/23/20 | 04 | | Analyze | ed: 08/ | 23/2004 | 17:31 |
| LCSD 2004/08/23-0 | 3.66-053 | | Extracted: (| 08/23/20 | 04 | | Analyze | ed: 08/ | /23/2004 | 17:53 |
| Compound | Conc. | ug/Kg Exp.Conc. | | Recov | very % | RPD | Ctrl.Lin | nits % | Fla | igs |
| | LCS | LCSD | | LCS | LCSD | % | Rec. | RPD | LCS | LCSD |
| Methyl tert-butyl ether (MTB | 52.2 | 59.5 | 50.0 | 104.4 | 119.0 | 13.1 | 65-165 | 20 | | |
| Benzene | 61.2 | 57.9 | 50.0 | 122.4 | 115.8 | 5.5 | 69-129 | 20 | | |
| Toluene | 54.7 | 55.2 | 50.0 | 109.4 | 110.4 | 0.9 | 70-130 | 20 | | |
| <i>Surrogates(s)</i> 1,2-Dichloroethane-d4 | 466 | 460 | 500 | 93.2 | 92.0 | | 72-124 | | | |

96.0

98.6

75-116

500



San Joaquin Company, Inc.

Attn.: Dai Watkins

1120 Hollywood Ave, Suite 3 Oakland, CA 94602-1459 Phone: (510) 336-1772 Fax: (510) 336-9119

Project: 9401.206 SNK Andante, Emeryville

| | | | Ba | tch QC I | Report | t | | | | | |
|--|----------------------|----------------------|--------------------------|----------------------|-------------------------|-------------------------|-------------------|----------------------------|----------------|-----------|------------------|
| Prep(s): 5030B | | | | | | | | | | Test(s |): 8260B |
| Matrix Spike (MS / M | SD) | | | Soil | | | | QC Bate | ch # 2 | 004/08/2 | 3-03.66 |
| SJCMW8-6.5 >> MS | | | | | | | La | b ID: | 200 | 4-08-053 | 82 - 001 |
| MS: 2004/08/23-03.6 | 6-045 | | Extracte | ed: 08/23/ | 2004 | | Ar | alyzed: | | 08/23/200 | 04 21:45 |
| MSD: 2004/08/23-03.6 | 6-007 | | Extracte | ed: 08/23/ | 2004 | | | lution: alyzed: | | 08/23/200 | 1.00 14 22:07 |
| WOD. 2004/00/20 00. | 0000 | | Extraote | . 00/20/ | 2004 | | | lution: | | 00/20/200 | 1.00 |
| Compound | Conc. | ug | ug/Kg Spk.Level Recovery | | | % | Limits | % | Fl | ags | |
| oompound | MS | MSD | Sample | ug/Kg | MS | MSD | RPD | Rec. | RPD | MS | MSD |
| Methyl tert-butyl ether Benzene Toluene | 52.8 51.9 48.9 | 53.6 54.6 50.1 | ND ND ND | 45.6 45.6 45.6 | 115.8 113.8 107.2 | 120.4 122.7 112.6 | 3.9 7.5 4.9 | 65-165 69-129 70-130 | 20 20 20 | | |
| <i>Surrogate(s)</i> 1,2-Dichloroethane-d4 Toluene-d8 | 473 494 | 473 490 | | 500 500 | 94.6 98.8 | 94.6 98.0 | | 72-124 75-116 | | | |



San Joaquin Company, Inc.

Attn.: Dai Watkins

1120 Hollywood Ave, Suite 3 Oakland, CA 94602-1459 Phone: (510) 336-1772 Fax: (510) 336-9119

Project: 9401.206 SNK Andante, Emeryville Received: 08/20/2004 13:12

Samples Reported

| Sample Name | Date Sampled | Matrix | Lab # |
|-------------|------------------|--------|-------|
| SJCMW8-6.5 | 08/20/2004 09:15 | Soil | 1 |
| SJCMW8-11.0 | 08/20/2004 09:20 | Soil | 2 |
| SJCMW8-16.0 | 08/20/2004 09:40 | Soil | 3 |
| SJCMW8-20.5 | 08/20/2004 09:45 | Soil | 4 |
| SJCMW8-24.0 | 08/20/2004 09:55 | Soil | 5 |



San Joaquin Company, Inc. Attn.: Dai Watkins 1120 Hollywood Ave, Suite 3 Oakland, CA 94602-1459 Phone: (510) 336-1772 Fax: (510) 336-9119

Project: 9401.206 SNK Andante, Emeryville

| Prep(s): | 3550/8015M | | | Test(s) | : 80151 | N | |
|-----------------|------------------|-------|--------|---------|-------------|------------------|------|
| Sample ID: | SJCMW8-6.5 | | | Lab ID | : 2004- | 08-0532 - 1 | |
| Sampled: | 08/20/2004 09:15 | | | Extract | ed: 8/23/2 | 2004 14:24 | |
| Matrix: | Soil | | | QC Ba | tch#: 2004/ | 08/23-06.10 | |
| Compound | | Conc. | RL | Unit | Dilution | Analyzed | Flag |
| Diesel | | ND | 1.0 | mg/Kg | 1.00 | 08/24/2004 22:34 | |
| Mineral spirits | | ND | 10 | mg/Kg | 1.00 | 08/24/2004 22:34 | |
| Surrogate(s) | | | | | | | |
| o-Terphenyl | | 77.4 | 60-130 | % | 1.00 | 08/24/2004 22:34 | |



San Joaquin Company, Inc. Attn.: Dai Watkins 1120 Hollywood Ave, Suite 3 Oakland, CA 94602-1459 Phone: (510) 336-1772 Fax: (510) 336-9119

Project: 9401.206 SNK Andante, Emeryville

| Prep(s): | 3550/8015M | | | Test(s) | : 8015 | N | |
|-----------------|------------------|-------|--------|---------|-------------|------------------|------|
| Sample ID: | SJCMW8-11.0 | | | Lab ID | : 2004- | 08-0532 - 2 | |
| Sampled: | 08/20/2004 09:20 | | | Extract | ed: 8/23/2 | 2004 14:24 | |
| Matrix: | Soil | | | QC Ba | tch#: 2004/ | 08/23-06.10 | |
| Compound | | Conc. | RL | Unit | Dilution | Analyzed | Flag |
| Diesel | | ND | 1.0 | mg/Kg | 1.00 | 08/24/2004 23:01 | |
| Mineral spirits | | ND | 10 | mg/Kg | 1.00 | 08/24/2004 23:01 | |
| Surrogate(s) | | | | | | | |
| o-Terphenyl | | 78.3 | 60-130 | % | 1.00 | 08/24/2004 23:01 | |



San Joaquin Company, Inc. Attn.: Dai Watkins 1120 Hollywood Ave, Suite 3 Oakland, CA 94602-1459 Phone: (510) 336-1772 Fax: (510) 336-9119

Project: 9401.206 SNK Andante, Emeryville

| Prep(s): | 3550/8015M | | | Test(s) |): 80151 | N | |
|-----------------|------------------|-------|--------|---------|-------------|------------------|------|
| Sample ID: | SJCMW8-16.0 | | | Lab ID | : 2004- | 08-0532 - 3 | |
| Sampled: | 08/20/2004 09:40 | | | Extract | ted: 8/23/2 | 2004 14:24 | |
| Matrix: | Soil | | | QC Ba | tch#: 2004/ | 08/23-06.10 | |
| Compound | | Conc. | RL | Unit | Dilution | Analyzed | Flag |
| Diesel | | ND | 1.0 | mg/Kg | 1.00 | 08/24/2004 23:29 | |
| Mineral spirits | | ND | 10 | mg/Kg | 1.00 | 08/24/2004 23:29 | |
| Surrogate(s) | | | | | | | |
| o-Terphenyl | | 76.6 | 60-130 | % | 1.00 | 08/24/2004 23:29 | |



San Joaquin Company, Inc. Attn.: Dai Watkins 1120 Hollywood Ave, Suite 3 Oakland, CA 94602-1459 Phone: (510) 336-1772 Fax: (510) 336-9119

Project: 9401.206 SNK Andante, Emeryville

| Prep(s): | 3550/8015M | | | Test(s) |): 80151 | M | |
|-----------------|------------------|-------|--------|---------|-------------|------------------|------|
| Sample ID: | SJCMW8-20.5 | | | Lab ID | : 2004- | -08-0532 - 4 | |
| Sampled: | 08/20/2004 09:45 | | | Extract | ted: 8/23/2 | 2004 14:24 | |
| Matrix: | Soil | | | QC Ba | tch#: 2004/ | 08/23-06.10 | |
| Compound | | Conc. | RL | Unit | Dilution | Analyzed | Flag |
| Diesel | | ND | 1.0 | mg/Kg | 1.00 | 08/24/2004 23:57 | |
| Mineral spirits | | ND | 10 | mg/Kg | 1.00 | 08/24/2004 23:57 | |
| Surrogate(s) | | | | | | | |
| o-Terphenyl | | 85.0 | 60-130 | % | 1.00 | 08/24/2004 23:57 | |



San Joaquin Company, Inc. Attn.: Dai Watkins 1120 Hollywood Ave, Suite 3 Oakland, CA 94602-1459 Phone: (510) 336-1772 Fax: (510) 336-9119

Project: 9401.206 SNK Andante, Emeryville

| Prep(s): | 3550/8015M | | | Test(s) |): 80151 | N | |
|-----------------|------------------|-------|--------|---------|-------------|------------------|------|
| Sample ID: | SJCMW8-24.0 | | | Lab ID | : 2004- | 08-0532 - 5 | |
| Sampled: | 08/20/2004 09:55 | | | Extract | ted: 8/23/2 | 2004 14:24 | |
| Matrix: | Soil | | | QC Ba | tch#: 2004/ | 08/23-06.10 | |
| Compound | | Conc. | RL | Unit | Dilution | Analyzed | Flag |
| Diesel | | ND | 1.0 | mg/Kg | 1.00 | 08/25/2004 00:24 | |
| Mineral spirits | | ND | 10 | mg/Kg | 1.00 | 08/25/2004 00:24 | |
| Surrogate(s) | | | | | | | |
| o-Terphenyl | | 75.3 | 60-130 | % | 1.00 | 08/25/2004 00:24 | |



San Joaquin Company, Inc. Attn.: Dai Watkins 1120 Hollywood Ave, Suite 3 Oakland, CA 94602-1459 Phone: (510) 336-1772 Fax: (510) 336-9119

Project: 9401.206 SNK Andante, Emeryville

| | Batch (| QC Report | | | |
|--|----------|-----------|----------------|--|------|
| Prep(s): 3550/8015M Method Blank MB: 2004/08/23-06.10-001 | S | Soil | | Test(s) QC Batch # 2004/08/2 te Extracted: 08/23/200 | |
| Compound | Conc. | RL | Unit | Analyzed | Flag |
| Diesel Mineral spirits | ND ND | 1 10 | mg/Kg mg/Kg | 08/24/2004 11:07 08/24/2004 11:07 | |
| <i>Surrogates(s)</i> o-Terphenyl | 82.2 | 60-130 | % | 08/24/2004 11:07 | |



San Joaquin Company, Inc. Attn.: Dai Watkins 1120 Hollywood Ave, Suite 3 Oakland, CA 94602-1459 Phone: (510) 336-1772 Fax: (510) 336-9119

Project: 9401.206 SNK Andante, Emeryville

| | | Ba | atch QC Re | eport | | | | | | |
|-------------------------------------|--------|-------|--|----------|--------|-------------------------|----------|--------|----------|--------|
| Prep(s): 3550/8015M | | | | | | | | - | Fest(s): | 8015M |
| Laboratory Control Spik | е | | Soil | | | Q | C Batch | # 200 | 04/08/23 | -06.10 |
| LCS 2004/08/23-06. | | | Extracted: 08/23/2004 Analyzed: 08/24/2004 | | | | | | | |
| LCSD 2004/08/23-06. | 10-003 | | Extracted: | 08/23/20 | 04 | Analyzed: 08/24/2004 12 | | | | 12:02 |
| Compound | Conc. | mg/Kg | Exp.Conc. | Recov | /ery % | RPD | Ctrl.Lin | nits % | Fla | igs |
| - | LCS | LCSD | | LCS | LCSD | % | Rec. | RPD | LCS | LCSD |
| Diesel | 34.7 | 34.5 | 41.5 | 83.6 | 83.1 | 0.6 | 60-130 | 25 | | |
| Surrogates(s) o-Terphenyl | 18.5 | 18.4 | 20.0 | 92.6 | 91.8 | 8 60-130 0 | | | | |

THE SAN JOAQUIN COMPANY INC.

Transmit results to office checked below:

33233 South Koster Road, Tracy, CA 95304

Project: SNK Andante, Emeryville Project No.: 9401.206 Project Mgr.: DJW

Sampling Team: SF Site Global I.D. No.: n/a

Voice: (209) 832-2910 Fax: (209) 833-1288

I120 Hollywood Ave. No. 3, Oakland, CA 94602 Voice (510) 336-9118 Fax: (510) 336-9119

CHAIN OF CUSTODY / REQUEST FOR ANALYSIS RECORD

9024

Laboratory: STL San Francisco Carrier: The San Joaquin Company Inc.

Waybill No.: n/a

| 6.5 S 11.0 16.0 205 | 17 N 0 | SJCMW-8 | NA | NA | 08/20/04 | 09:15 | | 1 |
|------------------------------|--------------|---------------|--|--|--|------------------------------|--|--------------------------------|
| 16.0 | н 6 | | | | 1 | | | |
| 20.5 | • | | | | | 09:20 | | |
| | 100 Aug 10 | | | | | 09:40 | Diesel and Mineral Spirits | |
| 14.0 | | | | | | 09:45 | steer and whiterar opints | |
| | " | J. | J | ł | 1 | 09:55 | TPH(g), BTEX and Fuel Oxygenates | |
| | | | | | | | | |
| - | | | | | | | | |
| | - | | | | | | | |
| - | | | | | | | | |
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| | | | | | | | | |
| lazards | s: Lov | v to moderate | concentration | ns of fuel hydro | carbons | | Priority Routine A Expedited Special | |
| | | | | | | | Expedited a special a | |
| | | | ~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~ | (Tam | | Dete Devi | Important and a state of the second | |
| i | cing p | cing per SNK | cing per SNK Andante Ag DY RECORD P | cing per SNK Andante Agreement DY RECORD Print Name | cing per SNK Andante Agreement DY RECORD Print Name Con | DY RECORD Print Name Company | cing per SNK Andante Agreement DY RECORD Print Name Company Date Receive | cing per SNK Andante Agreement |

| Originator: | C I | company | Date Received | Time Received | Date Relinquished | Time Relinquished | Signature |
|----------------------------|---------------|----------------|---------------|---------------|-------------------|-------------------|------------|
| onginator. | SAY WALKINS | San Joaquin Co | | | 08/20/04 | 13:12 | 21 mollo |
| Received/ Relinquished by | the phanes | | | | 1-1. | | |
| Received/ Relinquished by | 5 M . | | | | | | |
| Received/ Relinquished by | | | - | | | | And |
| Received at Laboratory by: | HA-VILLANUEVA | STL-SP | 8/20/04 | 1312 | | | And laty |
| | | | | | | 0 | Rev. 11/03 |



San Joaquin Company, Inc.

September 20, 2004

1120 Hollywood Ave, Suite 3 Oakland, CA 94602-1459 Attn.: Dai Watkins Project#: 9401.205 Project: SNK Andante

Dear Dai,

Attached is our report for your samples received on 09/08/2004 13:55 This report has been reviewed and approved for release. Reproduction of this report is permitted only in its entirety.

Please note that any unused portion of the samples will be discarded after 10/23/2004 unless you have requested otherwise.

We appreciate the opportunity to be of service to you. If you have any questions, please call me at (925) 484-1919.

You can also contact me via email. My email address is: ssidhu@stl-inc.com

Sincerely,

Junider Sidhy.

Surinder Sidhu Project Manager



San Joaquin Company, Inc. Attn.: Dai Watkins 1120 Hollywood Ave, Suite 3 Oakland, CA 94602-1459 Phone: (510) 336-1772 Fax: (510) 336-9119

Project: 9401.205 SNK Andante Received: 09/08/2004 13:55

Samples Reported

| Sample Name | Date Sampled | Matrix | Lab # |
|-------------|------------------|--------|-------|
| SJC-MW8 | 09/08/2004 11:15 | Water | 1 |



San Joaquin Company, Inc.

Attn.: Dai Watkins

1120 Hollywood Ave, Suite 3 Oakland, CA 94602-1459 Phone: (510) 336-1772 Fax: (510) 336-9119

Project: 9401.205 SNK Andante

| Prep(s): | 3510/8015M | | | Test(s) | : 80151 | M | |
|-----------------|------------------|-------|--------|---------|-------------|------------------|------|
| Sample ID: | SJC-MW8 | | | Lab ID | : 2004- | 09-0215 - 1 | |
| Sampled: | 09/08/2004 11:15 | | | Extract | ed: 9/9/20 | 004 06:30 | |
| Matrix: | Water | | | QC Ba | tch#: 2004/ | 09/09-02.10 | |
| Compound | | Conc. | RL | Unit | Dilution | Analyzed | Flag |
| Diesel | | ND | 50 | ug/L | 1.00 | 09/13/2004 16:35 | |
| Mineral spirits | | ND | 50 | ug/L | 1.00 | 09/13/2004 16:35 | |
| Surrogate(s) | | | | | | | |
| o-Terphenyl | | 81.7 | 60-130 | % | 1.00 | 09/13/2004 16:35 | |



San Joaquin Company, Inc.

Attn.: Dai Watkins

1120 Hollywood Ave, Suite 3 Oakland, CA 94602-1459 Phone: (510) 336-1772 Fax: (510) 336-9119

Project: 9401.205 SNK Andante

| | Batch (| QC Report | | | |
|--|----------|-----------|--------------|---|------|
| Prep(s): 3510/8015M Method Blank MB: 2004/09/09-02.10-001 | v | /ater | Da | Test(s) QC Batch # 2004/09/(te Extracted: 09/09/20(| |
| Compound | Conc. | RL | Unit | Analyzed | Flag |
| Diesel Mineral spirits | ND ND | 50 50 | ug/L ug/L | 09/09/2004 10:47 09/09/2004 10:47 | |
| <i>Surrogates(s)</i> o-Terphenyl | 87.7 | 60-130 | % | 09/09/2004 10:47 | |



San Joaquin Company, Inc.

Attn.: Dai Watkins

1120 Hollywood Ave, Suite 3 Oakland, CA 94602-1459 Phone: (510) 336-1772 Fax: (510) 336-9119

Project: 9401.205 SNK Andante

| | | Ва | atch QC Re | eport | | | | | | |
|--|-------|------|------------------------------|-------|--------|--------|----------|--------|----------------------|------|
| Prep(s): 3510/8015M Test(s): 8015M | | | | | | | | | | |
| Laboratory Control SpikeWaterQC Batch # 2004/09/09-02.10 | | | | | | | | | | |
| LCS 2004/09/09-02. LCSD 2004/09/09-02. | | | Extracted: (Extracted: (| | | | - | | /09/2004 /09/2004 | |
| Compound | Conc. | ug/L | Exp.Conc. | Recov | /ery % | RPD | Ctrl.Lin | nits % | Fla | igs |
| | LCS | LCSD | | LCS | LCSD | % | Rec. | RPD | LCS | LCSD |
| Diesel | 929 | 1000 | 86.0 | 92.9 | 7.7 | 60-130 | 25 | | | |
| <i>Surrogates(s)</i> o-Terphenyl | 18.4 | 20.0 | 86.9 | 91.8 | | 60-130 | 0 | | | |



San Joaquin Company, Inc.

Attn.: Dai Watkins

1120 Hollywood Ave, Suite 3 Oakland, CA 94602-1459 Phone: (510) 336-1772 Fax: (510) 336-9119

Project: 9401.205 SNK Andante Received: 09/08/2004 13:55

Samples Reported

| Sample Name | Date Sampled | Matrix | Lab # |
|-------------|------------------|--------|-------|
| SJC-MW8 | 09/08/2004 11:15 | Water | 1 |



San Joaquin Company, Inc.

Attn.: Dai Watkins

1120 Hollywood Ave, Suite 3 Oakland, CA 94602-1459 Phone: (510) 336-1772 Fax: (510) 336-9119

Project: 9401.205 SNK Andante

| Prep(s): | 5030B | Test(s): | 8260B |
|------------|------------------|------------|------------------|
| Sample ID: | SJC-MW8 | Lab ID: | 2004-09-0215 - 1 |
| Sampled: | 09/08/2004 11:15 | Extracted: | 9/16/2004 15:14 |
| Matrix: | Water | QC Batch#: | 2004/09/16-01.68 |
| | | | |

| Compound | Conc. | RL | Unit | Dilution | Analyzed | Flag |
|--------------------------------|-------|--------|------|----------|------------------|------|
| Gasoline | 60 | 50 | ug/L | 1.00 | 09/16/2004 15:14 | |
| tert-Butyl alcohol (TBA) | ND | 5.0 | ug/L | 1.00 | 09/16/2004 15:14 | |
| Methyl tert-butyl ether (MTBE) | 26 | 0.50 | ug/L | 1.00 | 09/16/2004 15:14 | |
| Di-isopropyl Ether (DIPE) | ND | 1.0 | ug/L | 1.00 | 09/16/2004 15:14 | |
| Ethyl tert-butyl ether (ETBE) | ND | 0.50 | ug/L | 1.00 | 09/16/2004 15:14 | |
| tert-Amyl methyl ether (TAME) | ND | 0.50 | ug/L | 1.00 | 09/16/2004 15:14 | |
| Benzene | 0.64 | 0.50 | ug/L | 1.00 | 09/16/2004 15:14 | |
| Toluene | ND | 0.50 | ug/L | 1.00 | 09/16/2004 15:14 | |
| Ethylbenzene | ND | 0.50 | ug/L | 1.00 | 09/16/2004 15:14 | |
| Total xylenes | ND | 1.0 | ug/L | 1.00 | 09/16/2004 15:14 | |
| Surrogate(s) | | | | | | |
| 1,2-Dichloroethane-d4 | 101.1 | 72-128 | % | 1.00 | 09/16/2004 15:14 | |
| Toluene-d8 | 99.5 | 80-113 | % | 1.00 | 09/16/2004 15:14 | |



San Joaquin Company, Inc.

Attn.: Dai Watkins

1120 Hollywood Ave, Suite 3 Oakland, CA 94602-1459 Phone: (510) 336-1772 Fax: (510) 336-9119

Project: 9401.205 SNK Andante

| | Batch QC Report | | | | | | |
|---|---|--------|------|------------------|------|--|--|
| Prep(s): 5030B Method Blank MB: 2004/09/16-01.68-042 | Test(s): 8260B Water QC Batch # 2004/09/16-01.68 Date Extracted: 09/16/2004 07:42 | | | | | | |
| Compound | Conc. | RL | Unit | Analyzed | Flag | | |
| Gasoline | ND | 50 | ug/L | 09/16/2004 07:42 | | | |
| tert-Butyl alcohol (TBA) | ND | 5.0 | ug/L | 09/16/2004 07:42 | | | |
| Methyl tert-butyl ether (MTBE) | ND | 0.5 | ug/L | 09/16/2004 07:42 | | | |
| Di-isopropyl Ether (DIPE) | ND | 1.0 | ug/L | 09/16/2004 07:42 | | | |
| Ethyl tert-butyl ether (ETBE) | ND | 0.5 | ug/L | 09/16/2004 07:42 | | | |
| tert-Amyl methyl ether (TAME) | ND | 0.5 | ug/L | 09/16/2004 07:42 | | | |
| Benzene | ND | 0.5 | ug/L | 09/16/2004 07:42 | | | |
| Toluene | ND | 0.5 | ug/L | 09/16/2004 07:42 | | | |
| Ethylbenzene | ND | 0.5 | ug/L | 09/16/2004 07:42 | | | |
| Total xylenes | ND | 1.0 | ug/L | 09/16/2004 07:42 | | | |
| Surrogates(s) | | | | | | | |
| 1,2-Dichloroethane-d4 | 102.6 | 72-128 | % | 09/16/2004 07:42 | | | |
| Toluene-d8 | 94.4 | 80-113 | % | 09/16/2004 07:42 | | | |



San Joaquin Company, Inc.

Attn.: Dai Watkins

1120 Hollywood Ave, Suite 3 Oakland, CA 94602-1459 Phone: (510) 336-1772 Fax: (510) 336-9119

Project: 9401.205 SNK Andante Received: 09/08/2004 13:55

Batch QC Report

Prep(s): 5030B

Test(s): 8260B

Analyzed: 09/16/2004 07:23

| Laborato | ory Control Spike | Water | QC Batch # 2004/09/16-01.68 |
|----------|----------------------|-----------------------|-----------------------------|
| LCS | 2004/09/16-01.68-059 | Extracted: 09/16/2004 | Analyzed: 09/16/2004 06:59 |

| L00 | 2004/09/10-01.00-039 |
|------|----------------------|
| LCSD | 2004/09/16-01.68-023 |
| | |

| Compound | Conc. | ug/L | Exp.Conc. | Recov | ery % | RPD | Ctrl.Lim | nits % | Fla | igs |
|--|--------------------|--------------------|--------------------|------------------------|-----------------------|------------|----------------------------|----------|-----|------|
| | LCS | LCSD | | LCS | LCSD | % | Rec. | RPD | LCS | LCSD |
| Methyl tert-butyl ether (MTBE) Benzene | 29.4 | 29.0 27.4 | 25.0 25.0 | 120.4 117.6 | 116.0 109.6 | 3.7 7.0 | 65-165 69-129 | 20 20 | | |
| Toluene <i>Surrogates(s)</i> 1,2-Dichloroethane-d4 Toluene-d8 | 29.3 467 513 | 26.0 465 474 | 25.0 500 500 | 117.2 93.4 102.6 | 104.0 93.0 94.8 | 11.9 | 70-130 72-128 80-113 | 20 | | |

Extracted: 09/16/2004

THE SAN JOAQUIN COMPANY INC.

Transmit results to office checked below:

- 33233 South Koster Road, Tracy, CA 95304 Voice: (209) 832-2910 Fax: (209) 833-1288
- 1120 Hollywood Ave. No. 3, Oakland, CA 94602 Voice (510) 336-9118 Fax: (510) 336-9119

Project: SNK Andante Project No.: 9401.205 Project Mgr.: Dai Watkins Sampling Team: DJW/SF

Site Global I.D. No.: Not Determined

88631

50

CHAIN OF CUSTODY / REQUEST FOR ANALYSIS RECORD

Laboratory: STL San Francisco Carrier: The San Joaquin Company Inc. Waybill No.: N/A

| Sample Number | Туре | Field Point | Wellhead/ Surf. Floy. | Depth to GW/Sample | Date Sampled | Time Sampled | Analyses Requested | Lab. No. |
|------------------|-------|----------------|--------------------------|-----------------------|-----------------|-----------------|---|----------|
| SJC-MW8 | Water | SJC-MW8 | 42.58 | 5.69. | 09/08/04 | 11.15 | | - |
| | | | | | | | Diesel and Mineral Spirits and Gasoline, BTEX and Fuel Oxygenates by 8260B | |
| | | | | | | | | |

Sample Hazards: Low to high concentrations of Diesel and Gasoline

Priority: Routine Expedited

xpedited 🔲 Special 🗖

Notes: Pricing per SNK Andante Project

| CUSTODY RECORD | Print Name | Company | Date Received | Time Received | Date Relinquished T | ime Relinquished | Signature |
|----------------------------|-------------|-----------------|---------------|---------------|---------------------|------------------|-------------|
| Originator: | Za WATKINS | The Saudaquin G | °. — | | 09/08/04 | 13:55 | Huch |
| Received/ Relinquished by: | | | | | | | |
| Received/ Relinquished by: | | | | | | | |
| Received/ Relinquished by: | | | | | | | |
| Received at Laboratory by: | Joan Mullon | STLSF | 9-08-04 | 1355 | | | Joan Mullen |
| | (wood | 1 | | 1. N.S. 1997 | | | Rev. 3/02 |



San Joaquin Company, Inc.

December 20, 2004

1120 Hollywood Ave, Suite 3 Oakland, CA 94602-1459 Attn.: Dai Watkins Project#: 9401.205 Project: SNK Andante

Dear Dai,

Attached is our report for your samples received on 12/10/2004 11:28 This report has been reviewed and approved for release. Reproduction of this report is permitted only in its entirety.

Please note that any unused portion of the samples will be discarded after 01/24/2005 unless you have requested otherwise.

We appreciate the opportunity to be of service to you. If you have any questions, please call me at (925) 484-1919.

You can also contact me via email. My email address is: ssidhu@stl-inc.com

Sincerely,

Junider Sichy.

Surinder Sidhu Project Manager



San Joaquin Company, Inc. Attn.: Dai Watkins 1120 Hollywood Ave, Suite 3 Oakland, CA 94602-1459 Phone: (510) 336-1772 Fax: (510) 336-9119

Project: 9401.205 SNK Andante Received: 12/10/2004 11:28

Samples Reported

| Sample Name | Date Sampled | Matrix | Lab # |
|-------------|------------------|--------|-------|
| SJC-MW8 | 12/09/2004 16:20 | Water | 1 |



San Joaquin Company, Inc.

Attn.: Dai Watkins

1120 Hollywood Ave, Suite 3 Oakland, CA 94602-1459 Phone: (510) 336-1772 Fax: (510) 336-9119

Project: 9401.205 SNK Andante Received: 12/10/2004 11:28

| Prep(s): | 3510/8015M | | | Test(s) | : 8015N | N | | |
|-----------------|------------------|-----------------------------|------|---------|-----------------------------|------------------|------|--|
| Sample ID: | SJC-MW8 | | | Lab ID | : 2004- | 2004-12-0378 - 1 | | |
| Sampled: | 12/09/2004 16:20 | 6:20 | | | Extracted: 12/11/2004 12:06 | | | |
| Matrix: | Water | QC Batch#: 2004/12/11-03.10 | | | | | | |
| Compound | | Conc. | RL | Unit | Dilution | Analyzed | Flag | |
| Diesel | 53 | 50 | ug/L | 1.00 | 12/13/2004 15:06 | Q2 | | |
| Mineral spirits | | ND | 50 | ug/L | 1.00 | 12/13/2004 15:06 | | |
| Surrogate(s) | | | | | | | | |
| o-Terphenyl | 93.2 | 60-130 | % | 1.00 | 12/13/2004 15:06 | | | |



San Joaquin Company, Inc.

Attn.: Dai Watkins

1120 Hollywood Ave, Suite 3 Oakland, CA 94602-1459 Phone: (510) 336-1772 Fax: (510) 336-9119

Project: 9401.205 SNK Andante Received: 12/10/2004 11:28

| Batch QC Report | | | | | | | | | |
|--|----------|----------|--|--------------------------------------|------|--|--|--|--|
| Prep(s): 3510/8015M Method Blank MB: 2004/12/11-03.10-001 | v | /ater | Test(s): 8015M QC Batch # 2004/12/11-03.10 Date Extracted: 12/11/2004 12:06 | | | | | | |
| Compound | Conc. | RL | Unit | Analyzed | Flag | | | | |
| Diesel Mineral spirits | ND ND | 50 50 | ug/L ug/L | 12/13/2004 14:39 12/13/2004 14:39 | | | | | |
| <i>Surrogates(s)</i> o-Terphenyl | 82.0 | 60-130 | % | 12/13/2004 14:39 | | | | | |



San Joaquin Company, Inc.

Attn.: Dai Watkins

1120 Hollywood Ave, Suite 3 Oakland, CA 94602-1459 Phone: (510) 336-1772 Fax: (510) 336-9119

16.2

17.0

Project: 9401.205 SNK Andante

o-Terphenyl

Received: 12/10/2004 11:28

| Batch QC Report | | | | | | | | | | | |
|------------------------------------|--|-------|---|----------------------------|-------|--------|----------------------------|----------|--------|-----|------|
| Prep(s): 3510/8015M Test(s): 8015M | | | | | | | | | 8015M | | |
| Laboratory Control Spike | | | | Water QC Batch # 2004/12/1 | | | | 04/12/11 | -03.10 | | |
| LCS 2004/12/11-03.10-002 | | | Extracted: 12/11/2004 | | | | Analyzed: 12/13/2004 11:22 | | | | |
| LCSD 2004/12/11-03.10-003 | | | Extracted: 12/11/2004 Analyzed: 12/13/200 | | | | | /13/2004 | 18:43 | | |
| Compound | | Conc. | ug/L | Exp.Conc. | Recov | /ery % | RPD | Ctrl.Lin | nits % | Fla | ags |
| · . | | LCS | LCSD | | LCS | LCSD | % | Rec. | RPD | LCS | LCSD |
| Diesel | | 601 | 624 | 1000 | 60.1 | 62.4 | 3.8 | 60-130 | 25 | | |
| Surrogates(s) | | | | | | | | | | | |

20.0

81.2

84.8

60-130 0



San Joaquin Company, Inc. Attn.: Dai Watkins 1120 Hollywood Ave, Suite 3 Oakland, CA 94602-1459 Phone: (510) 336-1772 Fax: (510) 336-9119

Project: 9401.205 SNK Andante Received: 12/10/2004 11:28

Legend and Notes

Result Flag

Q2

Quantit. of unknown hydrocarbon(s) in sample based on diesel.



San Joaquin Company, Inc.

Attn.: Dai Watkins

1120 Hollywood Ave, Suite 3 Oakland, CA 94602-1459 Phone: (510) 336-1772 Fax: (510) 336-9119

Project: 9401.205 SNK Andante Received: 12/10/2004 11:28

Samples Reported

| Sample Name | Date Sampled | Matrix | Lab # |
|-------------|------------------|--------|-------|
| SJC-MW8 | 12/09/2004 16:20 | Water | 1 |



San Joaquin Company, Inc.

Attn.: Dai Watkins

1120 Hollywood Ave, Suite 3 Oakland, CA 94602-1459 Phone: (510) 336-1772 Fax: (510) 336-9119

Project: 9401.205 SNK Andante Received: 12/10/2004 11:28

| Prep(s): | 5030B | Test(s): | 8260B |
|-----------|------------------|------------|------------------|
| Sample ID | SJC-MW8 | Lab ID: | 2004-12-0378 - 1 |
| Sampled: | 12/09/2004 16:20 | Extracted: | 12/17/2004 00:01 |
| Matrix: | Water | QC Batch#: | 2004/12/16-02.68 |
| | | | |

| Compound | Conc. | RL | Unit | Dilution | Analyzed | Flag |
|--------------------------------|-------|--------|------|----------|------------------|------|
| Gasoline | 100 | 50 | ug/L | 1.00 | 12/17/2004 00:01 | |
| tert-Butyl alcohol (TBA) | ND | 5.0 | ug/L | 1.00 | 12/17/2004 00:01 | |
| Methyl tert-butyl ether (MTBE) | 26 | 0.50 | ug/L | 1.00 | 12/17/2004 00:01 | |
| Di-isopropyl Ether (DIPE) | ND | 1.0 | ug/L | 1.00 | 12/17/2004 00:01 | |
| Ethyl tert-butyl ether (ETBE) | ND | 0.50 | ug/L | 1.00 | 12/17/2004 00:01 | |
| tert-Amyl methyl ether (TAME) | ND | 0.50 | ug/L | 1.00 | 12/17/2004 00:01 | |
| Benzene | 2.8 | 0.50 | ug/L | 1.00 | 12/17/2004 00:01 | |
| Toluene | ND | 0.50 | ug/L | 1.00 | 12/17/2004 00:01 | |
| Ethylbenzene | 0.91 | 0.50 | ug/L | 1.00 | 12/17/2004 00:01 | |
| Total xylenes | ND | 1.0 | ug/L | 1.00 | 12/17/2004 00:01 | |
| Surrogate(s) | | | | | | |
| 1,2-Dichloroethane-d4 | 98.5 | 73-130 | % | 1.00 | 12/17/2004 00:01 | |
| Toluene-d8 | 89.8 | 81-114 | % | 1.00 | 12/17/2004 00:01 | |



San Joaquin Company, Inc.

Attn.: Dai Watkins

1120 Hollywood Ave, Suite 3 Oakland, CA 94602-1459 Phone: (510) 336-1772 Fax: (510) 336-9119

Project: 9401.205 SNK Andante Received: 12/10/2004 11:28

| | Batch (| QC Report | | | | | | |
|---|---------|---------------------------|------|--|------|--|--|--|
| Prep(s): 5030B Method Blank MB: 2004/12/16-02.68-039 | w | later | Da | Test(s) QC Batch # 2004/12/ 1 te Extracted: 12/16/200 | | | | |
| Compound | Conc. | RL | Unit | Analyzed | Flag | | | |
| Gasoline | ND | 50 | ug/L | 12/16/2004 17:39 | | | | |
| tert-Butyl alcohol (TBA) | ND | 5.0 | ug/L | 12/16/2004 17:39 | | | | |
| Methyl tert-butyl ether (MTBE) | ND | 0.5 ug/L 12/16/2004 17:39 | | | | | | |
| Di-isopropyl Ether (DIPE) | ND | 1.0 | ug/L | 12/16/2004 17:39 | | | | |
| Ethyl tert-butyl ether (ETBE) | ND | 0.5 | ug/L | 12/16/2004 17:39 | | | | |
| tert-Amyl methyl ether (TAME) | ND | 0.5 | ug/L | 12/16/2004 17:39 | | | | |
| Benzene | ND | 0.5 | ug/L | 12/16/2004 17:39 | | | | |
| Toluene | ND | 0.5 | ug/L | 12/16/2004 17:39 | | | | |
| Ethylbenzene | ND | 0.5 | ug/L | 12/16/2004 17:39 | | | | |
| Total xylenes | ND | 1.0 | ug/L | 12/16/2004 17:39 | | | | |
| Surrogates(s) | | | | | | | | |
| 1,2-Dichloroethane-d4 | 91.1 | 73-130 | % | 12/16/2004 17:39 | | | | |
| Toluene-d8 | 89.4 | 81-114 | % | 12/16/2004 17:39 | | | | |



San Joaquin Company, Inc.

Attn.: Dai Watkins

1120 Hollywood Ave, Suite 3 Oakland, CA 94602-1459 Phone: (510) 336-1772 Fax: (510) 336-9119

Project: 9401.205 SNK Andante

442

Toluene-d8

Received: 12/10/2004 11:28

| | | Ba | atch QC Re | eport | | | | | | | | |
|--|--|-----------------------|----------------------|----------------------|--------|----------------------------|----------------------------|----------------|-----|------|--|--|
| Prep(s): 5030B | Prep(s): 5030B Test(s): 8260B | | | | | | | | | | | |
| Laboratory Control Spik | Laboratory Control SpikeWaterQC Batch # 2004/12/16-02.68 | | | | | | | | | | | |
| LCS 2004/12/16-02. LCSD | 68-021 | Extracted: 12/16/2004 | | | | Analyzed: 12/16/2004 17:21 | | | | | | |
| Compound | Conc. | ug/L | Exp.Conc. | Recov | /ery % | RPD | Ctrl.Lin | nits % | Fla | igs | | |
| | LCS | LCSD | | LCS | LCSD | % | Rec. | RPD | LCS | LCSD | | |
| Methyl tert-butyl ether (MTBE)21.2Benzene20.0Toluene20.9 | | | 25.0 25.0 25.0 | 84.8 80.0 83.6 | | | 65-165 69-129 70-130 | 20 20 20 | | | | |
| <i>Surrogates(s)</i> 1,2-Dichloroethane-d4 | 396 | | 500 | 79.2 | | | 73-130 | | | | | |

500

88.4

81-114



San Joaquin Company, Inc.

Attn.: Dai Watkins

1120 Hollywood Ave, Suite 3 Oakland, CA 94602-1459 Phone: (510) 336-1772 Fax: (510) 336-9119

Project: 9401.205 SNK Andante Received: 12/10/2004 11:28

| | | | Ba | tch QC I | Repor | t | | | | | | |
|--|----------------|----------------------|-------------------------|----------------------|-------------------|----------------------------|------------------------|-----------------------------|---------|--------------------------|------------------|--|
| Prep(s): 5030B | | | | | | | | | | Test(s |): 8260B | |
| Matrix Spike (MS / M | SD) | | Water | | | | | QC Batch # 2004/12/16-02.68 | | | | |
| MS/MSD | MS/MSD | | | | | | La | b ID: | 200 | 4-12-037 | 9 - 006 | |
| MS: 2004/12/16-02.6 | 8-029 | | Extracte | ed: 12/16/ | 2004 | | | Analyzed: Dilution: | | | 04 18:29 1.00 | |
| MSD: 2004/12/16-02.6 | 8-047 | | Extracted: 12/16/2004 | | | | Analyzed: Dilution: | | | 12/16/2004 18:47 1.00 | | |
| Compound | Conc. | ug | ug/L Spk.Level Recovery | | | % | Limits | % | % Flags | | | |
| Compound | MS | MSD | Sample | ug/L | MS | MSD | RPD | Rec. | RPD | MS | MSD | |
| Benzene Toluene Methyl tert-butyl ether | ND ND ND | 25.0 25.0 25.0 | 87.6 89.6 94.0 | 95.2 97.2 96.8 | 8.3 8.1 2.9 | 69-129 70-130 65-165 | 20 20 20 | | | | | |
| <i>Surrogate(s)</i> 1,2-Dichloroethane-d4 Toluene-d8 | 424 449 | 411 462 | | 500 500 | 84.8 89.8 | 82.3 92.5 | | 73-130 81-114 | | | | |

Page 5 of 5

THE SAN JOAQUIN COMPANY INC.

Transmit results to office checked below:

- 33233 South Koster Road, Tracy, CA 95304 Voice: (209) 832-2910 Fax: (209) 833-1288
- I120 Hollywood Ave. No. 3, Oakland, CA 94602 Voice (510) 336-9118 Fax: (510) 336-9119

Project: SNK Andante Project No.: 9401.205 Project Mgr.: Dai Watkins Sampling Team: SF

CHAIN OF CUSTODY / REQUEST FOR ANALYSIS RECORD

Laboratory: STL San Francisco Carrier: The San Joaquin Company Inc. Waybill No.: N/A

2004-12-13-18

96552

Site Global I.D. No.: Not Determined

| Sample Number | Туре | Field Point | Wellhead/ Surf. Elev. | Depth to GW/Sample | Date Sampled | Time Sampled | Analyses Requested | Lab. No. |
|------------------|-------|----------------|--------------------------|-----------------------|-----------------|-----------------|---|----------|
| SJC-MW8 7 | Water | SJC-MW8 | 42.58 | 3.90' | 12/09/04 | 16:20 | | |
| STC-Me 8 | 1 1 | 61 | 1 | y y | 1 | 1 | | |
| 15C-146-9 | | 44 | | | | | | |
| SJC-ML | | 41 | | | | | Diesel and Mineral Spirits and Gasoline, BTEX and Fuel Oxygenates by 8260B | |
| | | | | | TE | rap.9" | C | |

Sample Hazards: Very low concentrations of Diesel and Gasoline

Priority: Routine Expedited

xpedited 🛛 Special 🗖

Notes: Pricing per SNK Andante Project

| CUSTODY RECORD | Print Name | Company | Date Received | Time Received | Date Relinquished | Time Relinquished | Signature |
|----------------------------|---------------|-----------------|---------------|---------------|-------------------|-------------------|-------------|
| Originator: | Steve Flexser | San Joaquin Co. | | | | | |
| Received/ Relinquished by: | Stem-Flexe | 2 | 12/10/04 | | 12/10/04 | (1:23 | San Pizz |
| Received/ Relinquished by: | 4 20 6 | | /// | | 1000 | | |
| Received/ Relinquished by: | - | | | | | | 1 11 |
| Received at Laboratory by: | TRACY Bulloce | STL-SF | 12/10/04 | 11:28 | | | Faustorfull |
| | / | | 111 | 110 | | | Rev. 3/02 |



San Joaquin Company, Inc.

March 15, 2005

1120 Hollywood Ave, Suite 3 Oakland, CA 94602-1459 Attn.: Dai Watkins Project#: 9401.205 Project: SNK Andante

Dear Dai,

Attached is our report for your samples received on 03/04/2005 17:50 This report has been reviewed and approved for release. Reproduction of this report is permitted only in its entirety.

Please note that any unused portion of the samples will be discarded after 04/18/2005 unless you have requested otherwise.

We appreciate the opportunity to be of service to you. If you have any questions, please call me at (925) 484-1919.

You can also contact me via email. My email address is: ssidhu@stl-inc.com

Sincerely,

Junider Solly.

Surinder Sidhu Project Manager



San Joaquin Company, Inc. Attn.: Dai Watkins

1120 Hollywood Ave, Suite 3 Oakland, CA 94602-1459 Phone: (510) 336-1772 Fax: (510) 336-9119

Project: 9401.205 SNK Andante Received: 03/04/2005 17:50

Samples Reported

| Sample Name | Date Sampled | Matrix | Lab # |
|-------------|------------------|--------|-------|
| SJC-MW8 | 03/04/2005 16:05 | Water | 1 |



San Joaquin Company, Inc.

Attn.: Dai Watkins

1120 Hollywood Ave, Suite 3 Oakland, CA 94602-1459 Phone: (510) 336-1772 Fax: (510) 336-9119

Project: 9401.205 SNK Andante

o-Terphenyl

Received: 03/04/2005 17:50

| Prep(s): 3510/8015M | | | ⊤est(s) | : 8015 | M | |
|------------------------------------|-------|--------|---------|-------------|------------------|------|
| Sample ID: SJC-MW8 | | | Lab ID | : 2005- | -03-0173 - 1 | |
| Sampled: 03/04/2005 16:05 | | | Extract | ted: 3/7/20 | 005-12:22 | |
| Matrix: Water | | | QC Ba | tch#: 2005/ | /03/07-09.10 | |
| Compound | Conc. | RL | Unit | Dilution | Analyzed | Flag |
| Diesel | 130 | 50 | ug/L | 1.00 | 03/14/2005 12:48 | Q2 |
| Mineral spirits | ND | 50 | ug/L | 1.00 | 03/14/2005 12:48 | |
| Surrogate(s) o-Terphenyl | 90.8 | 60-130 | % | 1.00 | 03/14/2005 12:48 | |



San Joaquin Company, Inc.

Attn.: Dai Watkins

1120 Hollywood Ave, Suite 3 Oakland, CA 94602-1459 Phone: (510) 336-1772 Fax: (510) 336-9119

Project: 9401.205 SNK Andante

| Batch QC Report | | | | | | | | | | |
|--|----------|----------|---|--------------------------------------|------|--|--|--|--|--|
| Prep(s): 3510/8015M Method Blank MB: 2005/03/07-09.10-006 | | Water | Test(s): 8015M QC Batch # 2005/03/07-09.10 Date Extracted: 03/07/2005 12:22 | | | | | | | |
| Compound | Conc. | RL | Unit | Analyzed | Flag | | | | | |
| Diesel Mineral spirits | ND ND | 50 50 | ug/L ug/L | 03/14/2005 20:05 03/14/2005 20:05 | | | | | | |
| <i>Surrogates(s)</i> o-Terphenyl | 95.5 | 60-130 | % | 03/14/2005 20:05 | | | | | | |



San Joaquin Company, Inc. Attn.: Dai Watkins

1120 Hollywood Ave, Suite 3 Oakland, CA 94602-1459 Phone: (510) 336-1772 Fax: (510) 336-9119

19.5

19.1

Project: 9401.205 SNK Andante

Surrogates(s)

o-Terphenyl

Received: 03/04/2005 17:50

95.7

97.3

60-130 0

| | | | В | atch QC Re | port | | | | | | |
|----------|---------------------------------------|--------|---------------|--------------|----------|--------|------------------------|----------|--------|------------|------------------|
| Prep(s): | 3510/8015M | | | | | | | | ٦ | Fest(s): 8 | 8015M |
| Laborat | ory Control Spik | e | | Water | r | | Q | C Batch | # 200 |)5/03/07 | ' -0 9.10 |
| LCS | 2005/03/07-09. | 10-002 | | Extracted: (| 03/07/20 | 05 | Analyzed: 03/09/2005 0 | | | | 5 01:33 |
| LCSD | 2005/03/07-09.10-003 | | | Extracted: (| 03/07/20 | 05 | | Analyze | d: 03/ | 09/2005 | 5 02:01 |
| Compound | · · · · · · · · · · · · · · · · · · · | Conc. | ug/L | Exp.Conc. | Recov | /ery % | RPD | Ctrl.Lim | nits % | Fla | ags |
| Compound | | LCS | LCSD LCS LCSD | | | LCSD | % | Rec. | RPD | LCS | LCSE |
| Diesel | | 874 | 878 | 1000 | 87.4 | 87.8 | 0.5 | 60-130 | 25 | | |

20.0



San Joaquin Company, Inc. Attn.: Dai Watkins

1120 Hollywood Ave, Suite 3 Oakland, CA 94602-1459 Phone: (510) 336-1772 Fax: (510) 336-9119

Project: 9401.205 SNK Andante

| | | Batch QC Report | | |
|---------|----------------------|-----------------------|------------------------|--------------------------|
| Prep(s) |): 3510/8015M | | | Test(s): 8015M |
| Matrix | (Spike (MS / MSD) | Water | QC Bat | ch # 2005/03/07-09.10 |
| MS/M | SD | | Lab ID: | 2005-03-0171 - 004 |
| MS: | 2005/03/07-09.10-004 | Extracted: 03/07/2005 | Analyzed: Dilution: | 03/09/2005 01:06 1.00 |
| MSD: | 2005/03/07-09.10-005 | Extracted: 03/07/2005 | Analyzed: Dilution: | 03/09/2005 01:33 1.00 |

| | Compound | Conc. ug/L | | Spk.Level | Recovery % | | | Limits % | | Flags | | |
|---|------------------------------------|------------|------|-----------|------------|------|------|----------|--------|-------|----|-------|
| | oompound | MS | MSD | Sample | ug/L | MS | MSD | RPD | Rec. | RPD | MS | MSD |
| Ì | Diesel | 1440 | 1110 | 534 | 1000 | 90.6 | 57.6 | 44.5 | 60-130 | 25 | | M5,R1 |
| | <i>Surrogate(s)</i> o-Terphenyl | 16.9 | 14.5 | | 20.0 | 84.6 | 72.6 | | 60-130 | 0 | | |



San Joaquin Company, Inc. Attn.: Dai Watkins

1120 Hollywood Ave, Suite 3 Oakland, CA 94602-1459 Phone: (510) 336-1772 Fax: (510) 336-9119

Project: 9401.205 SNK Andante Received: 03/04/2005 17:50

Legend and Notes

Result Flag

M5

MS/MSD spike recoveries were below acceptance limits. See blank spike (LCS).

Q2

Quantit, of unknown hydrocarbon(s) in sample based on diesel.

R1

Analyte RPD was out of QC limits.



San Joaquin Company, Inc.

Attn.: Dai Watkins

1120 Hollywood Ave, Suite 3 Oakland, CA 94602-1459 Phone: (510) 336-1772 Fax: (510) 336-9119

Project: 9401.205 SNK Andante Received: 03/04/2005 17:50

Samples Reported

| Sample Name | Date Sampled | Matrix | Lab # |
|-------------|------------------|--------|-------|
| SJC-MW8 | 03/04/2005 16:05 | Water | 1 |



San Joaquin Company, Inc.

Attn.: Dai Watkins

1120 Hollywood Ave, Suite 3 Oakland, CA 94602-1459 Phone: (510) 336-1772 Fax: (510) 336-9119

Project: 9401.205 SNK Andante

| Prep(s): | 5030B | | Test(s): | 8260B | | |
|------------|------------------|------------------|------------|--------|------------|----|
| Sample ID: | SJC-MW8 | | Lab ID: | 2005-0 |)3-0173 - | 1 |
| Sampled: | 03/04/2005 16:05 | | Extracted: | 3/11/2 | 005 19:07 | 7 |
| Matrix: | Water | | QC Batch#: | 2005/0 |)3/11-02.(| 64 |
| | | - 1 - | | T | ····· | |

| Compound | Conc. | RL | Unit | Dilution | Analyzed | Flag |
|--------------------------------|-------|--------|------|----------|------------------|------|
| Gasoline | 180 | 50 | ug/L | 1.00 | 03/11/2005 19:07 | |
| tert-Butyl alcohol (TBA) | ND | 5.0 | ug/L | 1.00 | 03/11/2005 19:07 | |
| Methyl tert-butyl ether (MTBE) | 17 | 0.50 | ug/L | 1.00 | 03/11/2005 19:07 | |
| Di-isopropyl Ether (DIPE) | ND | 1.0 | ug/L | 1.00 | 03/11/2005 19:07 | |
| Ethyl tert-butyl ether (ETBE) | ND | 0.50 | ug/L | 1.00 | 03/11/2005 19:07 | |
| tert-Amyl methyl ether (TAME) | ND | 0.50 | ug/L | 1.00 | 03/11/2005 19:07 | |
| Benzene | 14 | 0.50 | ug/L | 1.00 | 03/11/2005 19:07 | |
| Toluene | 22 | 0.50 | ug/L | 1.00 | 03/11/2005 19:07 | |
| Ethylbenzene | 11 | 0.50 | ug/L | 1.00 | 03/11/2005 19:07 | |
| Total xylenes | 20 | 1.0 | ug/L | 1.00 | 03/11/2005 19:07 | |
| Surrogate(s) | | | | | | |
| 1,2-Dichloroethane-d4 | 103.3 | 73-130 | % | 1.00 | 03/11/2005 19:07 | |
| Toluene-d8 | 96.4 | 81-114 | % | 1.00 | 03/11/2005 19:07 | |



San Joaquin Company, Inc.

Attn.: Dai Watkins

1120 Hollywood Ave, Suite 3 Oakland, CA 94602-1459 Phone: (510) 336-1772 Fax: (510) 336-9119

Project: 9401.205 SNK Andante

| | Bato | h QC Report | | · · · · · · · · · · · · · · · · · · · | | |
|---|-------|-------------|------|--|------|--|
| Prep(s): 5030B Method Blank MB: 2005/03/11-02.64-034 | | Water | D | Test(s): 8260B QC Batch # 2005/03/11-02.64 ate Extracted: 03/11/2005 18:34 | | |
| Compound | Conc. | RL | Unit | Analyzed | Flag | |
| Gasoline | ND | 50 | ug/L | 03/11/2005 18:34 | | |
| tert-Butyl alcohol (TBA) | ND | 5.0 | ug/L | 03/11/2005 18:34 | | |
| Methyl tert-butyl ether (MTBE) | ND | 0.5 | ug/L | 03/11/2005 18:34 | | |
| Di-isopropyl Ether (DIPE) | ND | 1.0 | ug/L | 03/11/2005 18:34 | | |
| Ethyl tert-butyl ether (ETBE) | ND | 0.5 | ug/L | 03/11/2005 18:34 | | |
| tert-Amyl methyl ether (TAME) | ND | 0.5 | ug/L | 03/11/2005 18:34 | | |
| Benzene | ND | 0.5 | ug/L | 03/11/2005 18:34 | | |
| Toluene | ND | 0.5 | ug/L | 03/11/2005 18:34 | | |
| Ethylbenzene | ND | 0.5 | ug/L | 03/11/2005 18:34 | | |
| Total xylenes | ND | 1.0 | ug/L | 03/11/2005 18:34 | | |
| Surrogates(s) | | | | | | |
| 1,2-Dichloroethane-d4 | 99.4 | 73-130 | % | 03/11/2005 18:34 | | |
| Toluene-d8 | 92.4 | 81-114 | % | 03/11/2005 18:34 | | |



San Joaquin Company, Inc.

Attn.: Dai Watkins

1120 Hollywood Ave, Suite 3 Oakland, CA 94602-1459 Phone: (510) 336-1772 Fax: (510) 336-9119

Project: 9401.205 SNK Andante

| Batch QC Report | | | | | | | | | | | | |
|--------------------------------|------------|--------------|-----------|-----------------------------|------|----------------|-----------------|--------|---------|------|--|--|
| Prep(s): 5030B | | | | | | - | Test(s): | 8260B | | | | |
| Laboratory Control Spik | Water | | | QC Batch # 2005/03/11-02.64 | | | | | | | | |
| LCS 2005/03/11-02.0 LCSD | | Extracted: (| 005 | Analyzed: 03/11/2005 18:12 | | | | | | | | |
| Compound | Conc. ug/L | | Exp.Conc. | Recovery % | | RPD Ctrl.Limit | | nits % | % Flags | | | |
| Compound | LCS | LCSD | | LCS | LCSD | % | Rec. | RPD | LCS | LCSD | | |
| Methyl tert-butyl ether (MTBE) | 27.3 | | 25.0 | 109.2 | | | 65-165 | 20 | | | | |
| Benzene | 25.5 | | 25.0 | 102.0 | | | 69-129 | 20 | | | | |
| Toluene | 28.6 | | 25.0 | 114.4 | | | 70-130 | 20 | | | | |
| Surrogates(s) | | | | | | | | | | | | |
| 1,2-Dichloroethane-d4 | 497 | | 500 | 99.4 | | | 73-130 | | | | | |
| Toluene-d8 | 473 | | 500 | 94.6 | | | 81 -1 14 | | | | | |



San Joaquin Company, Inc.

Attn.: Dai Watkins

1120 Hollywood Ave, Suite 3 Oakland, CA 94602-1459 Phone: (510) 336-1772 Fax: (510) 336-9119

Project: 9401.205 SNK Andante

| | | Batch QC Report | | |
|--------|----------------------|-----------------------|-----------|-----------------------|
| Prep(s |): 5030B | | | Test(s): 8260B |
| Matrix | c Spike(MS/MSD) | Water | QC Bat | ch # 2005/03/11-02.64 |
| SJC-N | /W8 >> MS | | Lab ID: | 2005-03-0173 - 001 |
| MS: | 2005/03/11-02.64-029 | Extracted: 03/11/2005 | Analyzed: | 03/11/2005 19:29 |
| | | | Dilution: | 1.00 |
| MSD: | 2005/03/11-02.64-051 | Extracted: 03/11/2005 | Analyzed: | 03/11/2005 19:51 |
| | | | Dilution: | 1.00 |

| Compound | Conc. | Conc. ug/L | | Spk.Level | Recovery % | | | Limits % | | Flags | |
|---|----------------------|----------------------|----------------------|----------------------|------------------------|-------------------------|-------------------|----------------------------|----------------|-------|-----|
| Compound | MS | MSD | Sample | ug/L | MS | MSD | RPD | Rec. | RPD | MS | MSD |
| Methyl tert-butyl ether Benzene Toluene | 42.4 38.2 49.3 | 44.5 39.7 49.9 | 17.4 14.2 22.0 | 25.0 25.0 25.0 | 100.0 96.0 109.2 | 108.4 102.0 111.6 | 8.1 6.1 2.2 | 65-165 69-129 70-130 | 20 20 20 | | |
| Surrogate(s) 1,2-Dichloroethane-d4 Toluene-d8 | 487 476 | 498 481 | | 500 500 | 97.4 95.2 | 99.6 96.2 | | 73-130 81-114 | | | |

THE SAN JOAQUIN COMPANY INC.

Transmit results to office checked below: 2005-03-0173

- 33233 South Koster Road, Tracy, CA 95304
 Voice: (209) 832-2910 Fax: (209) 833-1288
- III 1120 Hollywood Ave. No. 3, Oakland, CA 94602 Voice (510) 336-9118 Fax: (510) 336-9119

Project: SNK Andante Project No.: 9401.205 Project Mgr.: Dai Watkins Sampling Team: SF/CC

Site Global I.D. No.: Not Determined

CHAIN OF CUSTODY / REQUEST FOR ANALYSIS RECORD

Laboratory: STL San Francisco Carrier: The San Joaquin Company Inc. Waybill No.: N/A

| Sample Number | Туре (| Kield Põint | Wellhead/ Surf. Elev. | Depth to GW/ Sample | Date Sampled | Time Sampled | Analyses Requested | Lab. No. |
|---------------------------------------|------------|---------------------------------------|---------------------------------------|---|-----------------|-----------------|--|---------------------------------------|
| SJC-MW8 | Water | SJC-MW8 | 42.58 | · · · · · · · · · · · · | 03/4/05 | 16:05 | | 1 4mul bottle |
| • • • • • | 4 R | •r | €* | | #1 | k∦ | | · · · · · · · · · · · · · · · · · · · |
| | * <u>.</u> | · · · · · · · · · · · · · · · · · · · | | • |) | 55 5 | Diesel and Mineral Spirits | I liter anner |
| | | | · · · · · · · · · · · · · · · · · · · | · · · | | | and Gasoline, BTEX and Fuel Oxygenates by 8260B | lunt |
| | | | | | | - • | | 1 |
| · · · · · · · · · · · · · · · · · · · | | | | | | | - · · · · | |
| | | | • | e de la composición d | | | | |
| - - | | • • • • • • • • • • | i 10 | | 、 | • | | this is |
| | | | • · | | <i>.</i> . | · · · · · | · · · · · · · · · · · · · · · · · · · | |
| | | • | | • | | | | |
| Sample Haz | ands: Ve | ry low conce | mtrations of T | Diesel and Gaso | lne | - > | Priority: Routine 🗋 Expedited 🖾 Special 🗖 | - Multiple |
| | | - NK Andante f | | | | | | |
| CUSTODY | RECOR | D I | Print Name | Co | mpany | Date Receiv | ed Time Received Date Relinquished Time Relinquished Signa | t⊇⊂ ⊆ aure |
| Originator. | | | 2 Flexser | | quin Co. | - mad to | <u>- 3/4/05 17:50 Se</u> | ~ Aca_ |
| Received/ R | elinquish | ied by: - he | ter Bull | acić ST | RL-SE | 3/4/5 | | 16 Balt |
| Received R | elinquish | | · • • | | | | | |
| Received R | elinquish | eed by: | | The T set Controlment of the State | | | | |
| Received at | Гаронаю | ry by | | | | | | |
| | | | | u | a adamana Adam | | | Rev. 3012 |



San Joaquin Company, Inc.

July 05, 2005

1120 Hollywood Ave, Suite 3 Oakland, CA 94602-1459 Attn.: Dai Watkins Project#: 9401.205 Project: SNK Andante

Dear Dai,

Attached is our report for your samples received on 06/22/2005 14:40 This report has been reviewed and approved for release. Reproduction of this report is permitted only in its entirety.

Please note that any unused portion of the samples will be discarded after 08/06/2005 unless you have requested otherwise.

We appreciate the opportunity to be of service to you. If you have any questions, please call me at (925) 484-1919.

You can also contact me via email. My email address is: ssidhu@stl-inc.com

Sincerely,

Junider Sidhy.

Surinder Sidhu Project Manager



San Joaquin Company, Inc. Attn.: Dai Watkins 1120 Hollywood Ave, Suite 3 Oakland, CA 94602-1459 Phone: (510) 336-1772 Fax: (510) 336-9119

Project: 9401.205 SNK Andante Received: 06/22/2005 14:40

Samples Reported

| Sample Name | Date Sampled | Matrix | Lab # |
|-------------|------------------|--------|-------|
| SJC-MW8 | 06/22/2005 12:30 | Water | 1 |



San Joaquin Company, Inc.

Attn.: Dai Watkins

1120 Hollywood Ave, Suite 3 Oakland, CA 94602-1459 Phone: (510) 336-1772 Fax: (510) 336-9119

Project: 9401.205 SNK Andante Received: 06/22/2005 14:40

| Prep(s): | 3510/8015M | | | Test(s) | : 80151 | 8015M | | | |
|-----------------|------------------|-------|-----------------------------|---------|----------|------------------|------|--|--|
| Sample ID: | SJC-MW8 | Lab I | | | : 2005- | 2005-06-0586 - 1 | | | |
| Sampled: | 06/22/2005 12:30 | | Extracted: 6/27/2005 17:30 | | | | | | |
| Matrix: | Water | | QC Batch#: 2005/06/27-07.10 | | | | | | |
| Compound | | Conc. | RL | Unit | Dilution | Analyzed | Flag | | |
| Mineral spirits | | 59 | 50 | ug/L | 1.00 | 06/28/2005 12:59 | Q8 | | |
| DRO (C10-C28 | 8) | 230 | 50 | ug/L | 1.00 | 06/28/2005 12:59 | | | |
| Surrogate(s) | | | | | | | | | |
| o-Terphenyl | | 100.0 | 60-130 | % | 1.00 | 06/28/2005 12:59 | | | |



San Joaquin Company, Inc.

Attn.: Dai Watkins

1120 Hollywood Ave, Suite 3 Oakland, CA 94602-1459 Phone: (510) 336-1772 Fax: (510) 336-9119

Project: 9401.205 SNK Andante Received: 06/22/2005 14:40

| Batch QC Report | | | | | | | | | |
|--|----------|----------|--|--------------------------------------|------|--|--|--|--|
| Prep(s): 3510/8015M Method Blank MB: 2005/06/27-07.10-001 | v | /ater | Test(s): 8015M QC Batch # 2005/06/27-07.10 Date Extracted: 06/27/2005 17:30 | | | | | | |
| Compound | Conc. | RL | Unit | Analyzed | Flag | | | | |
| Mineral spirits DRO (C10-C28) | ND ND | 50 50 | ug/L ug/L | 06/28/2005 12:32 06/28/2005 12:32 | | | | | |
| <i>Surrogates(s)</i> o-Terphenyl | 93.1 | 60-130 | % | 06/28/2005 12:32 | | | | | |



San Joaquin Company, Inc.

Attn.: Dai Watkins

1120 Hollywood Ave, Suite 3 Oakland, CA 94602-1459 Phone: (510) 336-1772 Fax: (510) 336-9119

Project: 9401.205 SNK Andante Received: 06/22/2005 14:40

| Batch QC Report | | | | | | | | | | |
|---------------------------------------|-------|----------------------|---|-------|----------|--------|----------|--------|-----|------|
| Prep(s): 3510/8015M Test(s): 8015M | | | | | | | | | | |
| Laboratory Control Sp | | Water QC Batch # 200 | | | 05/06/27 | -07.10 | | | | |
| LCS 2005/06/27-0 LCSD 2005/06/27-0 | | | Extracted: 06/27/2005 Analyzed: 06/28/2005 Extracted: 06/27/2005 Analyzed: 06/28/2005 | | | | | | | |
| Compound | Conc. | ug/L | Exp.Conc. | Recov | very % | RPD | Ctrl.Lin | nits % | Fla | ags |
| | LCS | LCSD | | LCS | LCSD | % | Rec. | RPD | LCS | LCSD |
| DRO (C10-C28) | 782 | 680 | 1000 | 78.2 | 68.0 | 14.0 | 60-130 | 25 | | |
| Surrogates(s) o-Terphenyl | 19.6 | 19.8 | 20.0 | 98.0 | 99.0 | | 60-130 | 0 | | |

A part of Severn Trent Plc



San Joaquin Company, Inc. Attn.: Dai Watkins 1120 Hollywood Ave, Suite 3 Oakland, CA 94602-1459 Phone: (510) 336-1772 Fax: (510) 336-9119

Project: 9401.205 SNK Andante Received: 06/22/2005 14:40

Legend and Notes

Result Flag

Q8

Quantit. of unknown hydrocarbon(s) in sample based on Mineral Spirits



San Joaquin Company, Inc.

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Project: 9401.205 SNK Andante Received: 06/22/2005 14:40

Samples Reported

| Sample Name | Date Sampled | Matrix | Lab # |
|-------------|------------------|--------|-------|
| SJC-MW8 | 06/22/2005 12:30 | Water | 1 |



San Joaquin Company, Inc.

Attn.: Dai Watkins

1120 Hollywood Ave, Suite 3 Oakland, CA 94602-1459 Phone: (510) 336-1772 Fax: (510) 336-9119

Project: 9401.205 SNK Andante Received: 06/22/2005 14:40

| Prep(s): | 5030B | Test(s): | 8260B |
|------------|------------------|------------|------------------|
| Sample ID: | SJC-MW8 | Lab ID: | 2005-06-0586 - 1 |
| Sampled: | 06/22/2005 12:30 | Extracted: | 7/2/2005 12:17 |
| Matrix: | Water | QC Batch#: | 2005/07/02-01.64 |
| pH: <2 | | | |

| Compound | Conc. | RL | Unit | Dilution | Analyzed | Flag |
|--------------------------------|-------|--------|------|----------|------------------|------|
| Gasoline | 60 | 50 | ug/L | 1.00 | 07/02/2005 12:17 | Q1 |
| tert-Butyl alcohol (TBA) | ND | 5.0 | ug/L | 1.00 | 07/02/2005 12:17 | |
| Methyl tert-butyl ether (MTBE) | 15 | 0.50 | ug/L | 1.00 | 07/02/2005 12:17 | |
| Di-isopropyl Ether (DIPE) | ND | 1.0 | ug/L | 1.00 | 07/02/2005 12:17 | |
| Ethyl tert-butyl ether (ETBE) | ND | 0.50 | ug/L | 1.00 | 07/02/2005 12:17 | |
| tert-Amyl methyl ether (TAME) | ND | 0.50 | ug/L | 1.00 | 07/02/2005 12:17 | |
| Benzene | ND | 0.50 | ug/L | 1.00 | 07/02/2005 12:17 | |
| Toluene | ND | 0.50 | ug/L | 1.00 | 07/02/2005 12:17 | |
| Ethylbenzene | ND | 0.50 | ug/L | 1.00 | 07/02/2005 12:17 | |
| Total xylenes | ND | 1.0 | ug/L | 1.00 | 07/02/2005 12:17 | |
| Surrogate(s) | | | | | | |
| 1,2-Dichloroethane-d4 | 87.4 | 73-130 | % | 1.00 | 07/02/2005 12:17 | |
| Toluene-d8 | 81.1 | 81-114 | % | 1.00 | 07/02/2005 12:17 | |



San Joaquin Company, Inc.

Attn.: Dai Watkins

1120 Hollywood Ave, Suite 3 Oakland, CA 94602-1459 Phone: (510) 336-1772 Fax: (510) 336-9119

Project: 9401.205 SNK Andante Received: 06/22/2005 14:40

| Batch QC Report | | | | | | | | | | |
|---|-------|--------|------|---|------|--|--|--|--|--|
| Prep(s): 5030B Method Blank MB: 2005/07/02-01.64-032 | w | later | | Test(s): 8260B QC Batch # 2005/07/02-01.64 Date Extracted: 07/02/2005 08:32 | | | | | | |
| Compound | Conc. | RL | Unit | Analyzed | Flag | | | | | |
| Gasoline | ND | 50 | ug/L | 07/02/2005 08:32 | | | | | | |
| tert-Butyl alcohol (TBA) | ND | 5.0 | ug/L | 07/02/2005 08:32 | | | | | | |
| Methyl tert-butyl ether (MTBE) | ND | 0.5 | ug/L | 07/02/2005 08:32 | | | | | | |
| Di-isopropyl Ether (DIPE) | ND | 1.0 | ug/L | 07/02/2005 08:32 | | | | | | |
| Ethyl tert-butyl ether (ETBE) | ND | 0.5 | ug/L | 07/02/2005 08:32 | | | | | | |
| tert-Amyl methyl ether (TAME) | ND | 0.5 | ug/L | 07/02/2005 08:32 | | | | | | |
| Benzene | ND | 0.5 | ug/L | 07/02/2005 08:32 | | | | | | |
| Toluene | ND | 0.5 | ug/L | 07/02/2005 08:32 | | | | | | |
| Ethylbenzene | ND | 0.5 | ug/L | 07/02/2005 08:32 | | | | | | |
| Total xylenes | ND | 1.0 | ug/L | 07/02/2005 08:32 | | | | | | |
| Surrogates(s) | | | | | | | | | | |
| 1,2-Dichloroethane-d4 | 86.0 | 73-130 | % | 07/02/2005 08:32 | | | | | | |
| Toluene-d8 | 95.6 | 81-114 | % | 07/02/2005 08:32 | | | | | | |



San Joaquin Company, Inc.

Attn.: Dai Watkins

1120 Hollywood Ave, Suite 3 Oakland, CA 94602-1459 Phone: (510) 336-1772 Fax: (510) 336-9119

437

Project: 9401.205 SNK Andante

Toluene-d8

Received: 06/22/2005 14:40

| Batch QC Report | | | | | | | | | | |
|--|----------------------|----------|----------------------|-------------------------|-----------------------------|---------|----------------------------|----------------|--------|------|
| Prep(s): 5030B Test(s): 8260B | | | | | | | | | | |
| Laboratory Control Spik | е | Water | | | QC Batch # 2005/07/02-01.64 | | | | -01.64 | |
| LCS 2005/07/02-01. LCSD | Extracted: (| 07/02/20 | 05 | | Analyze | ed: 07/ | 02/2005 | 6 08:08 | | |
| Compound | Conc. | ug/L | Exp.Conc. | Recov | /ery % | RPD | Ctrl.Lin | nits % | Fla | igs |
| | LCS | LCSD | | LCS | LCSD | % | Rec. | RPD | LCS | LCSD |
| Methyl tert-butyl ether (MTBE) Benzene Toluene | 25.9 27.0 30.5 | | 25.0 25.0 25.0 | 103.6 108.0 122.0 | | | 65-165 69-129 70-130 | 20 20 20 | | |
| <i>Surrogates(s)</i> 1,2-Dichloroethane-d4 | 406 | | 500 | 81.2 | | | 73-130 | | | |

500

87.4

81-114



San Joaquin Company, Inc.

Attn.: Dai Watkins

1120 Hollywood Ave, Suite 3 Oakland, CA 94602-1459 Phone: (510) 336-1772 Fax: (510) 336-9119

Project: 9401.205 SNK Andante Received: 06/22/2005 14:40

| Batch QC Report | | | | | | | | | | | |
|--|----------------------|-----------------------|------------------|----------------------|-------------------------|-------------------------|------------------------|-----------------------------|--------------------------|--------------------------|---------|
| Prep(s): 5030B Test(s): 8260B | | | | | | | | | | | |
| Matrix Spike(MS / M | ISD) | | | Wate | r | | | QC Batch # 2005/07/02-01.64 | | | |
| MS/MSD | | | | | | | La | b ID: | 200 | 5-07-004 | 1 - 001 |
| MS: 2005/07/02-01.0 | | Extracted: 07/02/2005 | | | | | Analyzed: Dilution: | | | 07/02/2005 10:16 1.00 | |
| MSD: 2005/07/02-01.6 | | Extracted: 07/02/2005 | | | | Analyzed: Dilution: | | | 07/02/2005 10:40 1.00 | | |
| Compound | Conc. | ug/L | | Spk.Level | R | Recovery % | | % Limits % | | Flags | |
| Compound | MS | MSD | Sample | ug/L | MS | MSD | RPD | Rec. | RPD | MS | MSD |
| Methyl tert-butyl ether Benzene Toluene | 25.8 27.4 31.4 | 26.1 25.7 31.5 | ND ND 4.29 | 25.0 25.0 25.0 | 103.2 109.6 108.4 | 104.4 102.8 108.8 | 1.2 6.4 0.4 | 65-165 69-129 70-130 | 20 20 20 | | |
| <i>Surrogate(s)</i> 1,2-Dichloroethane-d4 Toluene-d8 | 418 396 | 411 393 | | 500 500 | 83.6 79.2 | 82.2 78.6 | | 73-130 81-114 | | S6 | S6 |



San Joaquin Company, Inc.

Attn.: Dai Watkins

1120 Hollywood Ave, Suite 3 Oakland, CA 94602-1459 Phone: (510) 336-1772 Fax: (510) 336-9119

Project: 9401.205 SNK Andante Received: 06/22/2005 14:40

Legend and Notes

Result Flag

Q1

Quantit. of unknown hydrocarbon(s) in sample based on gasoline.

S6

Surrogate recoveries lower than acceptance limits. Matrix interference suspected

THE SAN JOAQUIN COMPANY INC.

116796

Transmit results to office checked below:

- 33233 South Koster Road, Tracy, CA 95304 Voice: (209) 832-2910 Fax: (209) 833-1288
- X 1120 Hollywood Ave. No. 3, Oakland, CA 94602 Voice (510) 336-9118 Fax: (510) 336-9119

Project: SNK Andante Project No.: 9401.205 Project Mgr.: Dai Watkins Sampling Team: DJW/MP

Site Global I.D. No.: Not Determined

CHAIN OF CUSTODY / REQUEST FOR ANALYSIS RECORD

Laboratory: STL San Francisco Carrier: The San Joaquin Company Inc. Waybill No.: N/A

| Sample Number | Туре | Field Point | Wellhead/ Surf. Elev. | Depth to GW/ Sample | Date Sampled | Time Sampled | Analyses Requested | Lab. No. |
|------------------|-------|----------------|--------------------------|-----------------------------------|-----------------|-----------------|---|----------|
| SJC-MW8 | Water | SJC-MW8 | 42.58 | 4.78 | 06/22/05 | 12:30 | | |
| | | | | | | | Diesel and Mineral Spirits and Gasoline, BTEX and Fuel Oxygenates by 8260B | |
| | | | | | | | | |
| | | | | | | | | |
| | | | | | | | | |
| | | | | | | | | |

Sample Hazards: Very low concentrations of Diesel and Gasoline

Priority: Routine Expedited 🛛

Special 🛛

Notes: Pricing per SNK Andante Project

| CUSTODY RECORD | Print Name | Company | Date Received | Time Received | Date Relinquished | Time Relinquished | Signature |
|----------------------------|------------------|------------------|---------------|---------------|-------------------|-------------------|---------------|
| Originator: | Dai Watkins | San Joaquin Co. | | | 06/22/05 | 12:42 | 2. sectors |
| Received/Relinquished by: | Melopie Paterson | Son Joaq vin LO. | 6/42/2005 | 12:48 | 06/22/05 | 14:40 | mul ad fatter |
| Received/ Rolinquished by: | R.VILLANUE | STISP | 6/22/05 | 1240× | 06/22/05 | 144D | Marty Cor |
| Received/ Relinquished by: | M | | | | | | |
| Received at Laboratory by: | | | | | | | |



San Joaquin Company, Inc.

October 07, 2005

1120 Hollywood Ave, Suite 3 Oakland, CA 94602-1459 Attn.: Dai Watkins Project#: 9401.205 Project: SNK Andante

Dear Dai,

Attached is our report for your samples received on 09/23/2005 16:44 This report has been reviewed and approved for release. Reproduction of this report is permitted only in its entirety.

Please note that any unused portion of the samples will be discarded after 11/07/2005 unless you have requested otherwise.

We appreciate the opportunity to be of service to you. If you have any questions, please call me at (925) 484-1919.

You can also contact me via email. My email address is: ssidhu@stl-inc.com

Sincerely,

Junider Sidhy.

Surinder Sidhu Project Manager



San Joaquin Company, Inc.

Attn.: Dai Watkins

1120 Hollywood Ave, Suite 3 Oakland, CA 94602-1459 Phone: (510) 336-1772 Fax: (510) 336-9119

Project: 9401.205 SNK Andante Received: 09/23/2005 16:44

Samples Reported

| Sample Name | Date Sampled | Matrix | Lab # |
|-------------|------------------|--------|-------|
| SJC-MW8 | 09/23/2005 12:00 | Water | 1 |



San Joaquin Company, Inc.

Attn.: Dai Watkins

1120 Hollywood Ave, Suite 3 Oakland, CA 94602-1459 Phone: (510) 336-1772 Fax: (510) 336-9119

Project: 9401.205 SNK Andante

| Prep(s): | 5030B | Test(s): | 8260B |
|------------|------------------|------------|------------------|
| Sample ID: | SJC-MW8 | Lab ID: | 2005-09-0652 - 1 |
| Sampled: | 09/23/2005 12:00 | Extracted: | 9/28/2005 03:13 |
| Matrix: | Water | QC Batch#: | 2005/09/27-02.64 |
| pH: <2 | | | |

| Compound | Conc. | RL | Unit | Dilution | Analyzed | Flag |
|--------------------------------|-------|--------|------|----------|------------------|------|
| Gasoline | ND | 50 | ug/L | 1.00 | 09/28/2005 03:13 | |
| tert-Butyl alcohol (TBA) | ND | 5.0 | ug/L | 1.00 | 09/28/2005 03:13 | |
| Methyl tert-butyl ether (MTBE) | 15 | 0.50 | ug/L | 1.00 | 09/28/2005 03:13 | |
| Di-isopropyl Ether (DIPE) | ND | 1.0 | ug/L | 1.00 | 09/28/2005 03:13 | |
| Ethyl tert-butyl ether (ETBE) | ND | 0.50 | ug/L | 1.00 | 09/28/2005 03:13 | |
| tert-Amyl methyl ether (TAME) | ND | 0.50 | ug/L | 1.00 | 09/28/2005 03:13 | |
| Benzene | 0.52 | 0.50 | ug/L | 1.00 | 09/28/2005 03:13 | |
| Toluene | ND | 0.50 | ug/L | 1.00 | 09/28/2005 03:13 | |
| Ethylbenzene | ND | 0.50 | ug/L | 1.00 | 09/28/2005 03:13 | |
| Total xylenes | ND | 1.0 | ug/L | 1.00 | 09/28/2005 03:13 | |
| Surrogate(s) | | | | | | |
| 1,2-Dichloroethane-d4 | 115.4 | 73-130 | % | 1.00 | 09/28/2005 03:13 | |
| Toluene-d8 | 105.9 | 81-114 | % | 1.00 | 09/28/2005 03:13 | |



San Joaquin Company, Inc.

Attn.: Dai Watkins

1120 Hollywood Ave, Suite 3 Oakland, CA 94602-1459 Phone: (510) 336-1772 Fax: (510) 336-9119

Project: 9401.205 SNK Andante

| Batch QC Report | | | | | | | | |
|---|-------|--------|---|------------------|------|--|--|--|
| Prep(s): 5030B Method Blank MB: 2005/09/27-02.64-059 | w | later | Test(s): 8260B QC Batch # 2005/09/27-02.64 Date Extracted: 09/27/2005 19:59 | | | | | |
| Compound | Conc. | RL | Unit | Analyzed | Flag | | | |
| Gasoline | ND | 50 | ug/L | 09/27/2005 19:59 | | | | |
| tert-Butyl alcohol (TBA) | ND | 5.0 | ug/L | 09/27/2005 19:59 | | | | |
| Methyl tert-butyl ether (MTBE) | ND | 0.5 | ug/L | 09/27/2005 19:59 | | | | |
| Di-isopropyl Ether (DIPE) | ND | 1.0 | ug/L | 09/27/2005 19:59 | | | | |
| Ethyl tert-butyl ether (ETBE) | ND | 0.5 | ug/L | 09/27/2005 19:59 | | | | |
| tert-Amyl methyl ether (TAME) | ND | 0.5 | ug/L | 09/27/2005 19:59 | | | | |
| Benzene | ND | 0.5 | ug/L | 09/27/2005 19:59 | | | | |
| Toluene | ND | 0.5 | ug/L | 09/27/2005 19:59 | | | | |
| Ethylbenzene | ND | 0.5 | ug/L | 09/27/2005 19:59 | | | | |
| Total xylenes | ND | 1.0 | ug/L | 09/27/2005 19:59 | | | | |
| Surrogates(s) | | | | | | | | |
| 1,2-Dichloroethane-d4 | 100.7 | 73-130 | % | 09/27/2005 19:59 | | | | |
| Toluene-d8 | 106.1 | 81-114 | % | 09/27/2005 19:59 | | | | |



San Joaquin Company, Inc.

Attn.: Dai Watkins

1120 Hollywood Ave, Suite 3 Oakland, CA 94602-1459 Phone: (510) 336-1772 Fax: (510) 336-9119

Project: 9401.205 SNK Andante

| Batch QC Report | | | | | | | | | | |
|---|----------------------|-----------------------|----------------------|-------------------------|-----------------------------|----------------------------|----------------------------|----------------|----------|-------|
| Prep(s): 5030B | | | | | | | | | Test(s): | 8260B |
| Laboratory Control Spik | | Water | | | QC Batch # 2005/09/27-02.64 | | | | | |
| LCS 2005/09/27-02. LCSD | | Extracted: 09/27/2005 | | | | Analyzed: 09/27/2005 19:38 | | | | |
| Compound | Conc. | ug/L | Exp.Conc. | c. Recovery % | | RPD | Ctrl.Lin | nits % | % Flags | |
| | LCS | LCSD | | LCS | LCSD | % | Rec. | RPD | LCS | LCSD |
| Methyl tert-butyl ether (MTBE) Benzene Toluene | 25.3 27.2 27.3 | | 25.0 25.0 25.0 | 101.2 108.8 109.2 | | | 65-165 69-129 70-130 | 20 20 20 | | |
| <i>Surrogates(s)</i> 1,2-Dichloroethane-d4 Toluene-d8 | 473 543 | | 500 500 | 94.6 108.6 | | | 73-130 81-114 | | | |



San Joaquin Company, Inc.

Attn.: Dai Watkins

1120 Hollywood Ave, Suite 3 Oakland, CA 94602-1459 Phone: (510) 336-1772 Fax: (510) 336-9119

Project: 9401.205 SNK Andante

| | Batch QC Report | | | | | | | | | | |
|--|----------------------|-----------------------|----------------|----------------------|-------------------------|-----------------------------|-------------------|----------------------------|----------------|------------------|----------|
| Prep(s): 5030B | | | | | | | | | | Test(s |): 8260B |
| Matrix Spike (MS / M | Water | | | | | QC Batch # 2005/09/27-02.64 | | | | | |
| MS/MSD | | | | | | | La | b ID: | 200 | 5-09-064 | 3 - 004 |
| MS: 2005/09/27-02.6 | Extracte | ed: 09/27/ | 2005 | | | Analyzed: Dilution: | | 09/27/2005 21:38 1.00 | | | |
| MSD: 2005/09/27-02.6 | | Extracted: 09/27/2005 | | | | Analyzed: Dilution: | | | 09/27/200 | 05 21:59 1.00 | |
| Compound | Conc. | ug/L | | Spk.Level | R | Recovery % | | Limits % | | Flags | |
| Compound | MS | MSD | Sample | ug/L | MS | MSD | RPD | Rec. | RPD | MS | MSD |
| Methyl tert-butyl ether Benzene Toluene | 26.2 27.4 26.3 | 26.4 26.6 26.3 | ND ND ND | 25.0 25.0 25.0 | 104.8 109.6 105.2 | 105.6 106.4 105.2 | 0.8 3.0 0.0 | 65-165 69-129 70-130 | 20 20 20 | | |
| <i>Surrogate(s)</i> 1,2-Dichloroethane-d4 Toluene-d8 | 506 540 | 514 531 | | 500 500 | 101.2 108.0 | 102.8 106.2 | | 73-130 81-114 | 0 0 | | |



San Joaquin Company, Inc. Attn.: Dai Watkins 1120 Hollywood Ave, Suite 3 Oakland, CA 94602-1459 Phone: (510) 336-1772 Fax: (510) 336-9119

Project: 9401.205 SNK Andante Received: 09/23/2005 16:44

Samples Reported

| Sample Name | Date Sampled | Matrix | Lab # |
|-------------|------------------|--------|-------|
| SJC-MW8 | 09/23/2005 12:00 | Water | 1 |



San Joaquin Company, Inc.

Attn.: Dai Watkins

1120 Hollywood Ave, Suite 3 Oakland, CA 94602-1459 Phone: (510) 336-1772 Fax: (510) 336-9119

Project: 9401.205 SNK Andante

| Prep(s): | 3510/8015M | | | Test(s) | : 8015N | M | | |
|-----------------|------------------|-------|--------|-----------------------------|----------|------------------|------|--|
| Sample ID: | SJC-MW8 | | | Lab ID | : 2005- | 2005-09-0652 - 1 | | |
| Sampled: | 09/23/2005 12:00 | | | Extracted: 9/30/2005 07:00 | | | | |
| Matrix: | Water | | | QC Batch#: 2005/09/30-01.10 | | | | |
| Compound | | Conc. | RL | Unit | Dilution | Analyzed | Flag | |
| Mineral spirits | | ND | 50 | ug/L | 1.00 | 10/03/2005 12:02 | | |
| DRO (C10-C2 | 8) | 74 | 50 | ug/L | 1.00 | 10/03/2005 12:02 | | |
| Surrogate(s) | | | | | | | | |
| o-Terphenyl | | 84.4 | 60-130 | % | 1.00 | 10/03/2005 12:02 | | |



San Joaquin Company, Inc.

Attn.: Dai Watkins

1120 Hollywood Ave, Suite 3 Oakland, CA 94602-1459 Phone: (510) 336-1772 Fax: (510) 336-9119

Project: 9401.205 SNK Andante

| Batch QC Report | | | | | | | | |
|--|----------|----------|--|--------------------------------------|------|--|--|--|
| Prep(s): 3510/8015M Method Blank MIN SPT MB: 2005/09/30-01.10-007 | v | Vater | Test(s): 8015M QC Batch # 2005/09/30-01.10 Date Extracted: 09/30/2005 07:00 | | | | | |
| Compound | Conc. | RL | Unit | Analyzed | Flag | | | |
| Mineral spirits DRO (C10-C28) | ND ND | 50 50 | ug/L ug/L | 10/03/2005 11:34 10/03/2005 11:34 | | | | |
| <i>Surrogates(s)</i> o-Terphenyl | 81.2 | 60-130 | % | 10/03/2005 11:34 | | | | |



San Joaquin Company, Inc.

Attn.: Dai Watkins

1120 Hollywood Ave, Suite 3 Oakland, CA 94602-1459 Phone: (510) 336-1772 Fax: (510) 336-9119

Project: 9401.205 SNK Andante Received: 09/23/2005 16:44

| Batch QC Report | | | | | | | | | | |
|-------------------------------------|----------------------|------------------------------|-----------|------|--------|--|----------|--------|-----|------|
| Prep(s): 3510/8015M Test(s): 8015M | | | | | | | | | | |
| Laboratory Control Spi | | Water QC Batch # 2005/09/30- | | | | -01.10 | | | | |
| | 2000/00/00 01110 000 | | | | | Extracted: 09/30/2005Analyzed: 09/30/2005 1Extracted: 09/30/2005Analyzed: 09/30/2005 1 | | | | |
| Compound | Conc. | ug/L | Exp.Conc. | Reco | very % | RPD | Ctrl.Lin | nits % | Fla | ags |
| | LCS | LCSD | | LCS | LCSD | % | Rec. | RPD | LCS | LCSD |
| DRO (C10-C28) | 794 | 816 | 1000 | 79.4 | 81.6 | 2.7 | 60-130 | 25 | | |
| <i>Surrogates(s)</i> o-Terphenyl | 15.6 | 15.8 | 20.0 | 78.0 | 79.0 | | 60-130 | 0 | | |

THE SAN JOAQUIN COMPANY INC.

Transmit results to office checked below:

33233 South Koster Road, Tracy, CA 95304
 Voice: (209) 832-2910 Fax: (209) 833-1288

☑ 1120 Hollywood Ave. No. 3, Oakland, CA 94602
 Voice (510) 336-9118 Fax: (510) 336-9119

Project: SNK Andante Project No.: 9401.205 Project Mgr.: Dai Watkins Sampling Team: DJW/AP

CHAIN OF CUSTODY / REQUEST FOR ANALYSIS RECORD

Laboratory: STL San Francisco Carrier: The San Joaquin Company Inc. Waybill No.: N/A

Site Global I.D. No.: Not Determined

| Sample Type Field Wellhead/ Depth to | | Analyses I | Requested | Lab. No. |
|---|-----------------|------------|-----------|----------|
| Number Point Surf . Elev. GW/ Sampk | Sampled Sampled | | | |

| SJC-MW8 | Water | SJC-MW8 | 42.58 | 5.53 | 09/23/05 | 12.00 | | |
|---------|-------|---------|-------|------|----------|-------|---|--|
| | | | | | | | Diesel and Mineral Spirits and Gasoline, BTEX and Fuel Oxygenates by 8260B | |
| | | | | | | | | |

Sample Hazards: Very low concentrations of Diesel and Gasoline

Priority: Routine 🗹 Expedited 🗆

dited 🛛 🛛 Special 🖵

Notes: Pricing per SNK Andante Project

| 01 | 5 | | |
|----------------------------|-----------------|-----------------|--|
| CUSTODY RECORD | Print Name | Company | Date Received Time Received Date Relinquished Time Relinquished Signature TOMP & C |
| Originator: | Ashley Paterson | San Joaquin Co. | - 9/23/05 16:44 Holing frim |
| Received/ Relinquished by: | | | 9/23105 16 44 Allerdon |
| Received/ Relinquished by: | | | |
| Received/ Relinquished by: | | | |
| Received at Laboratory by: | | | |

(14950