February 28, 2007

Jerry Wickham, P.G.
Hazardous Materials Specialist
ALAMEDA COUNTY ENVIRONMENTAL HEALTH SERVICES
1131 Harbor Bay Parkway, Suite 250
Alameda, California 94502-6577

Project No. 33107-007526.00

Subject: Groundwater Sample Workplan
Clorox Services Company, 7280 Johnson Drive, Pleasanton, CA
Fuel Leak Case No. RO0002859

Dear Mr. Wickham:

Bureau Veritas North America, Inc. (Bureau Veritas) has completed the enclosed Workplan on behalf of Clorox Services Company (Clorox) for the subject site. Please review before we complete the sampling.

Thank you. If you have any questions or concerns, please contact me at (925) 426-2681.

Sincerely,

Michael J. Zimmerman, P.E., R.E.A.
Senior Project Manager
Environmental Services

MJZ/mjz

Enclosure

Bureau Veritas North America, Inc.
6920 Koll Center Parkway, Suite 216
Pleasanton, CA 94566

Main (925) 426-2600
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Groundwater Sample Workplan

Clorox Services Company
7280 Johnson Drive
Pleasanton, California

February 28, 2007
33107-007526.00

Prepared for
Clorox Services Company
7280 Johnson Drive
Pleasanton, California 94588

For the benefit of business and people

Bureau Veritas North America, Inc.
Clayton Group Services
6920 Koll Center Parkway
Pleasanton, California 94566
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1.0 INTRODUCTION

Bureau Veritas North America, Inc. (Bureau Veritas), on behalf of Clorox Services Company (Clorox), is pleased to present this "*Groundwater Sample Workplan*" (Workplan) for the existing Clorox facility located at 7280 Johnson Drive (the Site) in Pleasanton, California. The location of the Site is presented in Figure 1 and a Site Plan is presented in Figure 2. This Workplan has been prepared at the request of Alameda County Department of Environmental Health (County).

2.0 BACKGROUND

The County sent a letter on December 28, 2006 requesting that Clorox collect at least one groundwater sample at the Site in relation to an underground storage tank (UST) that was removed in April 2004. In May 2004, a report was sent to the County documenting the UST closure and associated activities. The report stated that the confirmation samples in the UST excavation were below the laboratory detection limits. The report also indicated there was a small detection of TPH-d in the soil stockpile at 24 milligrams per kilogram (mg/kg) that was removed and sent offsite for disposal. The County sent its December 2006 letter based on the detection of TPH-d in the soil stockpile.

On January 24, 2007, Bureau Veritas contacted Jerry Wickham to discuss the County's objective for this sample based on a stockpile sample and to confirm the minimum sampling and analysis requirements for this project. Mr. Wickham confirmed that the County does want Clorox to collect a minimum of one groundwater sample based on the fact that the Site is in a sensitive area where groundwater may be a potential source of drinking water. Mr. Wickham said that he would expect for the sample to be analyzed for total petroleum hydrocarbons (TPH) quantified as diesel (TPH-d), as well as benzene, toluene, ethylbenzene, and xylene (BTEX), and methyl tert-butyl ether (MTBE) compounds. The locations of pertinent Site features are presented on Figure 2.

Bureau Veritas developed this Workplan for approval to the County. The Workplan identifies the proposed sample location, the proposed sampling method, and the analytical test methods.

3.0 SCOPE OF WORK

Bureau Veritas proposes the following scope of work to complete this investigation:

- Conduct pre-field activities that include obtaining appropriate drilling permits and preparing a Site Health and Safety Plan (SHSP) to safely perform the proposed subsurface investigation.

- Contract with a subsurface utility locator service to clear proposed soil boring locations to safely perform the proposed work.

- Advance one direct-push soil boring in the vicinity of the former dispenser and UST and collect one grab-groundwater sample.

- Submit groundwater sample to a state certified laboratory for analysis.

- Prepare a report that documents the field activities, analytical results, and presents findings, conclusions, and recommendations, as appropriate.

- Submit analytical results and reports electronically to the Alameda County web-site and State Water Resources Control Board Geographic Environmental Information Management System database (Geotracker).

3.1 PRE-FIELD ACTIVITIES

Bureau Veritas will submit a soil boring permit for approval to Zone 7 Water Resources Management Agency (Zone 7), as required. The permit application included a figure showing the proposed groundwater boring location. As required by permit, Bureau Veritas will coordinate its field activities with Zone 7 field inspectors to complete the boring.

Bureau Veritas has prepared a SHSP for the work proposed at the Site (Appendix A). The SHSP details the work to be performed, safety precautions, emergency response procedures, nearest hospital information, and onsite personnel responsible for managing emergency situations.

Bureau Veritas will visit the Site to mark the proposed boring location in white paint and contact for Underground Service Alert at least 48 hours prior to drilling, as required by law. Prior to drilling, Bureau Veritas will hire a professional utility locator to clear utilities in the area of the proposed boring.

4.0 FIELD ACTIVITIES

Upon clearance of utilities, Bureau Veritas will contract with a licensed C-57 drilling contractor to complete the proposed investigation using direct-push (Geoprobe) equipment.

Upon approval of the soil boring permit by Zone 7, Bureau Veritas will schedule a C-57 licensed drilling subcontractor to advance one soil boring at the Site. The location of the proposed boring is presented on Figure 2. The proposed boring will be advanced with a truck-mounted drilling rig using direct-push technology (i.e., Geoprobe). Bureau Veritas will attempt to collect one grab-groundwater sample using a closed system Hydropunch® sampler because it allows collection of a groundwater sample that typically has less sediment and thus less potential impact from soil. The Hydropunch® sampling tool will be advanced beyond the drill bit into undisturbed soil; pulling up on the sampling tool allows water to flow into the sampling chamber. The Hydropunch® sampler closes automatically upon retrieval of the sample. Upon retrieval, the grab-groundwater sample will be transferred directly into appropriate sample containers provided by the analytical laboratory. The samples will be sealed, labeled and placed in a pre-chilled ice chest for delivery to the analytical laboratory. Chain-of-custody records will be completed and will accompany the sample shipments to a State-certified laboratory for chemical analysis.

Upon collection of the groundwater sample, the borehole will be backfilled and sealed with neat cement grout. As the boring may be located in a paved traffic area, the surface completion will be capped with approximately one foot of concrete to support future vehicle traffic.

4.1 CHEMICAL ANALYSES

Bureau Veritas proposes to submit the samples to a state-certified analytical laboratory for analysis. The samples will be submitted on a normal 5-day turn-around-time.

The groundwater sample will be analyzed using the following United States Environmental Protection Agency (USEPA) methods:

- 8015M for TPH-d (after silica gel cleanup).
- 8260B for BTEX and MTBE.

Bureau Veritas proposes to use the groundwater analytical data listed above to determine the appropriate disposal method for the investigation-derived waste profile sample. Please note, that additional analytical may be required for acceptance and disposal at an offsite landfill or water recycler.

4.2 QUALITY ASURANCE/QUALITY CONTROL

Quality assurance/quality control (QA/QC) samples will be obtained during the soil and grab-groundwater subsurface investigation. The types of QA/QC samples are discussed below.

4.2.1 Trip Blanks.

One trip blank will be provided by the analytical laboratory prior to conducting fieldwork. The trip blank will be used to assess potential for cross-contamination of volatile organic compounds within the pre-chilled ice chest. The trip blank sample will be placed in the pre-chilled ice chest that will be submitted to the analytical laboratory. The submitted trip blank will be placed on hold by the laboratory and may be analyzed if issues are noted in the groundwater sample.

4.2.2 Laboratory Quality Control Samples

The laboratory will follow the established protocols throughout the analyses process. This will include using analytical blanks, spikes, internal standards, and duplicate samples. The laboratory will provide the quality control sample results with each analytical report. Laboratory QC sample results will be included in the investigation report and reviewed for appropriate spike recoveries.

4.3 DECONTAMINATION AND WASTE GENERATION

Drilling equipment and down-hole sampling equipment will be steam cleaned or washed in a solution of non-phosphate detergent, double rinsed with tap water after each use, and allowed to dry. Rinse water will be containerized in 5-gallon plastic buckets or Department of Transportation (DOT) approved 55-gallon drums (as necessary). The decontamination water will be will be sealed and labeled with the appropriate generator information and temporarily stored onsite pending analytical results for proper disposal. Bureau Veritas will review the waste sample results and make a recommendation to Clorox for appropriate waste disposal methods. The analytical results will be forwarded to Clorox for profiling the waste and selection of the appropriate disposal methods.

5.0 REPORT PREPARATION

Upon completion of the field work and review of the analytical results, Bureau Veritas will prepare a letter report to the County and Zone 7. The report will include a description of the Site, summary of investigative methodologies, figures depicting the sample locations, permits, data tables, soil boring logs, certified laboratory analytical reports, findings, and conclusions. In addition, Bureau Veritas will upload a copy of the report to the County's website and a copy to the State Water Resources Control Board GeoTracker web-site, if necessary.

6.0 SCHEDULE

We anticipate that it will take approximately three to four weeks to complete and submit the final report to the County and Zone 7. This schedule will be largely determined by approval of this Workplan and drilling permit by Zone 7, availability of drilling contractors and receipt of qualified laboratory data on standard turnaround time.

Bureau Veritas plans to begin the field tasks outlined in this Workplan in mid-March 2007 and would appreciate an expedited review. If you have any questions or concerns, please contact Mike Zimmerman at 925.426.2681.

This Workplan prepared by:

Allison Florence
Environmental Consultant
Environmental Services

This Workplan reviewed by:

Michael Zimmerman, P.E., R.E.A.
Senior Project Manager
Environmental Services

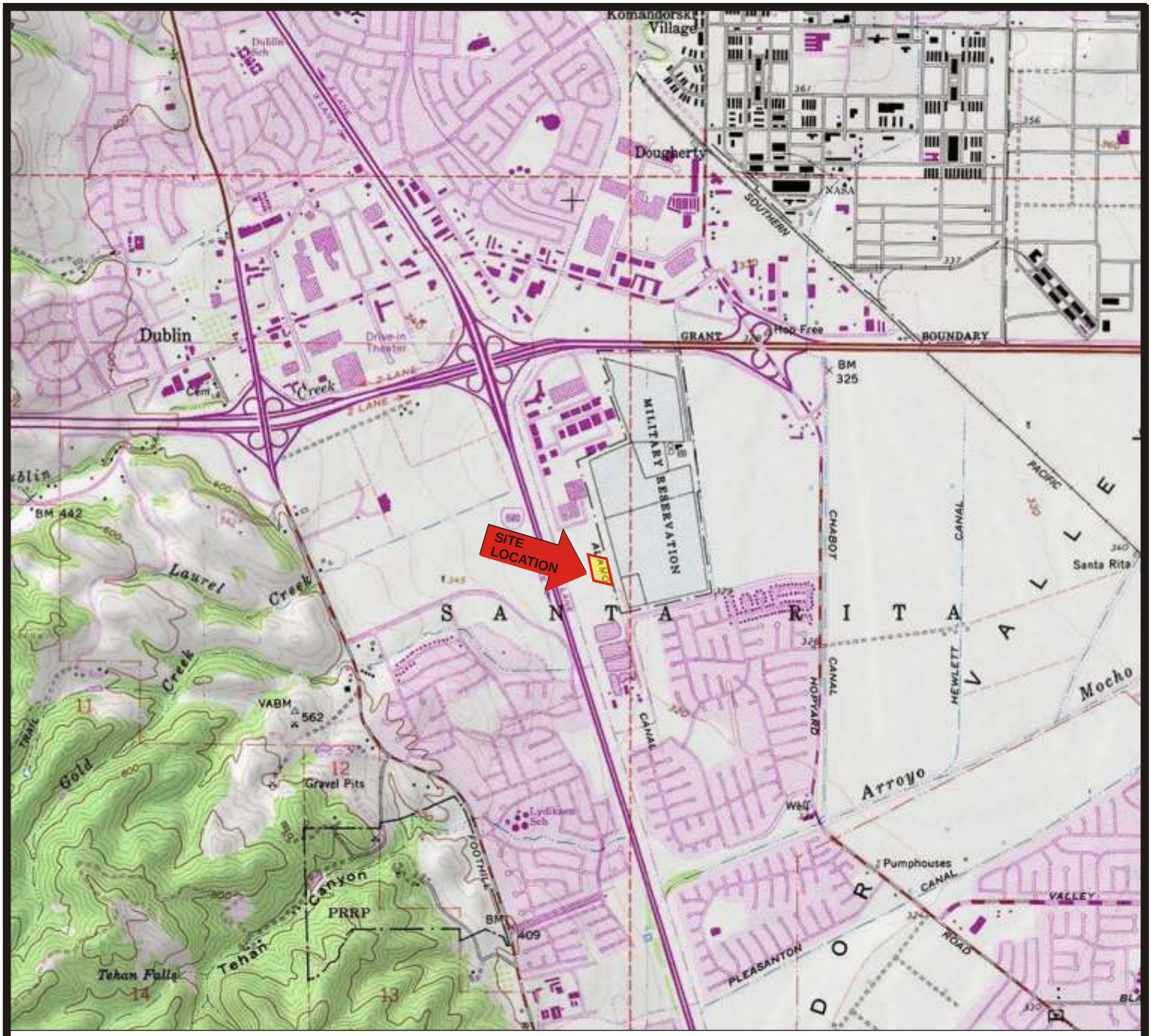
This Workplan reviewed by:

Craig Pelletier, P.G.
Project Geologist
Environmental Services

February 28, 2007

PROFESSIONAL GEOLOGIST
CRAIG T. PELLETIER
No. 8283
Exp. 05/08
STATE OF CALIFORNIA

FIGURES



Map Source: TOPO!© 2000 National Geographic Holdings

Note: Boundaries and Location Information is Approximate

1 0 1/2 0 1 MILE

1000 0 1000 2000 3000 4000 5000 6000 7000 FEET

Portion of the 7.5-Minute Series Dublin, California
Quadrangle Topographic Map (Datum: NAD 27)
United States Department of the Interior
Geological Survey
1980

N

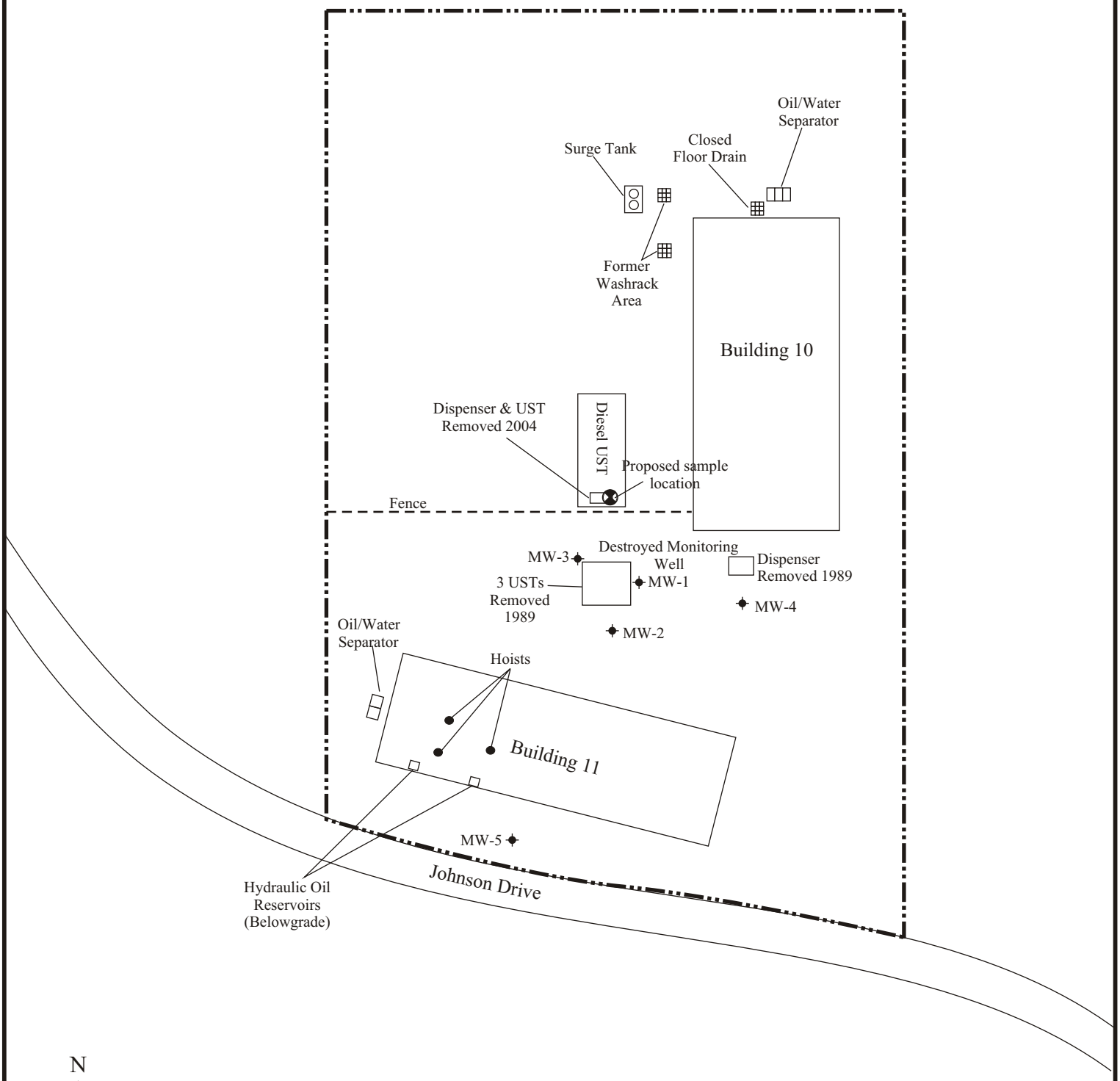
CALIF

QUADRANGLE LOCATION

SITE LOCATION MAP
Clorox
7280 Johnson Drive
Pleasanton, California
Clayton Project No. 33106-006723.00

Figure
1

BUREAU VERITAS



LEGEND	SUBJECT PROPERTY PLAN	FIGURE
Approximate Subject Property Location Groundwater Monitoring Well Soil Sample Locations Proposed Sample Location	Clorox Services Company 7280 Johnson Drive Pleasanton, California Clayton Project No. 33106-006822.00	2

APPPENDIX A
SITE HEALTH AND SAFETY PLAN

Site Health and Safety Plan

Clorox Services Company
7280 Johnson Drive
Pleasanton, California

February 26, 2007
33107-007526.00.00

Prepared for
Clorox Services Company
7200 Johnson Drive
Pleasanton, California

For the benefit of business and people

Bureau Veritas North America, Inc.
Clayton Group Services
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Appendices

1.0 INTRODUCTION

This Health and Safety Plan describes the procedures that shall be followed to protect the health and safety of employees engaged in fieldwork at the Clorox Services Company site located at 7280 Johnson Drive in Pleasanton, California (the "Site").

This Site Health and Safety Plan (SHSP) has been developed to comply with applicable federal, state, and local health and safety requirements including California Occupational Safety and Health Administration's (Cal-OSHA) requirements contained in Title 8 of the California Code of Regulations, Section 5192 (8 CCR 5192) and federal OSHA requirements contained in Title 29 of the Code of Federal Regulations, Section 1910.120 (29 CFR 1910.120).

The observance and practice of the health and safety procedures specified in this plan, and compliance with applicable federal, state, and local regulations, pertaining to health and safety, are mandatory for all personnel and visitors. In the event of conflicting requirements, the procedures that provide the highest degree of required personal protection shall be implemented.

A copy of the SHSP shall be kept onsite and made available for inspection and review by employees, clients, agency personnel, and other visitors.

2.0 WORK ACTIVITIES

The following is a brief description of the work activities to be performed at the Site:

- Site mobilization.
- Soil boring and collection of one groundwater sample with a Geo-Probe (direct push truck-mounted rig)
- Seal boring with neat cement grout.
- Demobilization

2.1 JOB HAZARD ASSESSMENT

The job hazard assessments in this section identify potential safety, health, and environmental hazards associated with each type of field activity. These assessments are based on information available during

the planning stages of the project. Because of the complex and changing nature of field projects, the Project Manager and Site Safety Officer (SSO) shall continually inspect the work Site to identify hazards to Site personnel, the public, or the environment. Task specific job safety analysis forms are presented in Appendix A.

3.0 ONSITE ORGANIZATION

Each person at the Site shall be responsible for following the guidelines outlined in this health and safety plan. The Site Safety Officer (SSO) is Allison Florence (or other person designated by Clayton). The SSO's duties are to:

- Evaluate the Site for actual and potential hazards prior to the commencement of work.
- Oversee implementation of the SHSP.
- Confirm that all personnel have proper training and protective equipment.
- Conduct a "tailgate" meeting on the first day before field activities commence.
- Stop work if the health or safety of workers is in question.
- Observe workers for signs and symptoms of exposure to contaminants.
- Evaluate the effectiveness of the personal protective equipment program on an ongoing basis and upgrade the program as needed.
- Inform workers of any changes in the health and safety practices.
- Perform daily reviews of the work practices and compliance with the health and safety plan.
- Note any signs of worker exposure or stress and take proper action immediately.
- Prevent unauthorized personnel or equipment from entering the exclusion zones.

All personnel who enter the work area must comply with the health and safety practices and procedures described in this SHSP.

All incidents at the Site, such as injuries or near misses, must be reported to the following people as soon as possible:

Project Manager: Mike Zimmerman

Telephone Number: (925) 426-2681/(925)-586-5516

Roles and responsibilities of the key personnel are found in Appendix B.

4.0 HEALTH AND SAFETY HAZARDS

Potential health and safety concerns at the Site can be categorized as chemical hazards and physical hazards. Each of these potential hazards is discussed below.

4.1 CHEMICAL HAZARDS

Potential hazards generally associated with chemical contamination present in the soils, if present, include exposure through the following routes: (1) skin or eye contact resulting in skin damage and in some cases, dermal absorption; (2) inhalation of chemical vapors, dust or gases; and, (3) ingestion of chemicals. A list of chemicals and the exposure pathways and health effects anticipated to be encountered on site is included in Appendix C.

To minimize the potential for exposure to chemical contaminants, personal protective equipment as specified in this plan must be worn. Site control measures will also be taken to minimize exposures and to provide for contingency measures.

4.2 PHYSICAL HAZARDS

The following sections describe potential physical health and safety hazards associated with work activities at the Site.

4.2.1 Traffic and Heavy Equipment

Stay at least 10 feet away from moving equipment. If closer than 10 feet:

- Keep equipment in sight at all times.

- Inform the operator of your location.
- Use hand signals to communicate.

4.2.2 Underground Utilities Hazards

The site will be cleared for underground utilities by a private utility locator, CU Surveys, prior to onsite work.

4.2.3 Lifting Heavy Objects

To prevent back injury resulting from lifting heavy objects:

- Bend your knees.
- Lift with your legs not your back.
- Keep your feet centered under you.
- Keep the load close to your body.

4.2.4 Unstable Footing, Physical Obstacles, and Falling Objects

The work area will be inspected by the SSO who will advise all personnel of actual and potential hazards due to unstable footing, physical obstacles, and potential falling objects prior to the commencement of work activities.

4.2.5 Confined Space Entry

Clayton personnel and its subcontractors will not enter confined spaces. Site personnel shall not enter an excavation that is greater than four feet in depth.

4.2.5 Pressure/Equipment Hazards

During the excavation activities, caution will be exerted around gauges and other equipment susceptible to air pressure build-up. All site personnel shall wear safety glasses or goggles to prevent potential eye injury.

4.2.6. Overhead Utility Lines

Operations adjacent to overhead lines are prohibited unless one of the following conditions is satisfied:

- Lockout/tagout procedure. The main electrical switches is in a locked "off" position for any electrically operated equipment or electrical lines. De-energized equipment or circuits are tagged at all points where such equipment or circuits can be energized.
- Equipment or any part does not have the capability of coming within the minimum clearances for energized overhead lines as specified in Table 1, or the equipment has been positioned and blocked to assure the part, including cables, cannot come within the minimum clearances specified in Table 1.

TABLE 1 - Minimum Required Clearances for Overhead Lines

POWER LINES NOMINAL SYSTEM (kilovolts)	MINIMUM REQUIRED CLEARANCE
50 or under	10 feet (3.05 meters)
69	12 feet (3.66 meters)
115-161	15 feet (4.57 meters)
230-285	20 feet (6.10 meters)
345	25 feet (7.62 meters)
500	35 feet (10.67 meters)

5.0 ONSITE SAFETY EQUIPMENT

The following subsections describe personal and general safety equipment that will be required onsite.

5.1 PERSONAL SAFETY EQUIPMENT

The following personal protective equipment (PPE) is required to be worn while onsite:

- Hard hat.

- Steel toed shoes.
- Gloves.
- Safety glasses or goggles.
- Hearing protection.
- Safety vest.

Additional PPE (half face respirator with dust cartridges and Tyvek™ suits) may be required based on air monitoring or other field observations.

5.2 GENERAL SAFETY EQUIPMENT

The following items must be available and easily accessible for use:

- Fire extinguisher (foam, dry chemical, or carbon dioxide).
- Flashlight.

6.0 TRAINING

All personnel who may be exposed to onsite contaminants must provide documentation of the following:

Current training that meets the requirements of 29 CFR 1910.120 and 8 CCR 5192, to include:

- 40 hours of classroom instruction/hands-on training.
- Three days of field experience under the supervision of an experienced supervisor.
- Eight hours of annual classroom refresher training, as appropriate.

Eight hours of supervisory training as specified in 29 CFR 1910.120 if a person is a designated supervisor

Project-specific training and information will be provided either before traveling to the Site or at the Site before entry into potentially contaminated areas onsite. The information and training will be documented, and will include the following:

- The contents of the SHSP.

- A discussion of the Site-specific health and safety hazards, protective measures, and work practices.

7.0 MEDICAL SURVEILLANCE

Prior to being assigned to a hazardous or a potentially hazardous activity involving exposure to toxic materials, employees must receive a baseline physical exam. The contents of the physical exam are to be determined by the employer's medical consultant. The baseline physical exam should categorize employees as fit-for-duty and able to wear respiratory protection.

In addition to the baseline physical, employees must have a periodic physical exam every 12 months. All personnel working in contaminated or potentially contaminated areas at the Site must have current medical monitoring (i.e., exam within 12 months).

8.0 SITE CONTROL MEASURES

The following safe work practices apply for the entire Site:

- Observe the "buddy system," never enter or exit contaminated areas alone.
- Maintain line-of-sight or radio communication between personnel in contaminated and non-contaminated areas.
- No smoking, eating or drinking except in a designated "clean zone".
- No horse play.
- No matches or lighters in contaminated areas.
- Construction vehicle speed at the Site must me limited to fifteen (15) miles per hour or less.
- Prior to any ground disturbance, sufficient water must be applied to the area to be disturbed to prevent visible emissions from crossing the property line.
- Areas to be graded or excavated must be kept adequately wetted to prevent visible emissions from crossing the property line.
- Storage piles must be adequately wetted, treated with a chemical dust suppressant, or covered when material is not being added or removed from the pile.
- Equipment must be washed down before moving from the property onto a paved public road.
- Visible track out on the paved road must be cleaned using a wet sweeping or a HEPAA filter equipped devise within 24 hours.

9.0 DECONTAMINATION PLAN

Decontamination involves the orderly, controlled removal of contaminants. The following indicates the specific procedures for removal and decontamination of PPE:

Level D: Remove outer garments (i.e., coveralls), remove gloves, and wash hands and face.

10.0 WASTE HANDLING AND DISPOSAL

Waste generated by implementation of this health and safety program may include spent protective clothing, such as Tyvek™ suits or gloves, and wash and rinse solutions. All such materials will be collected in appropriate containers and disposed properly.

11.0 EMERGENCY RESPONSE/CONTINGENCY PLAN

11.1 PERSONAL INJURY

In case of a minor personal injury, general first aid procedures will apply. All injuries or accidents will be reported to the SSO immediately.

More serious injuries may require assistance from paramedics. The project supervisor, SSO, or another designated person will contact the appropriate emergency personnel by dialing 911. The location of and direction to the nearest hospitals are provided in Appendix D.

11.2 EYE AND SKIN EXPOSURE

Chemicals and hazardous substances may act as irritants to eyes and skin. In case of exposure:

- Remove contaminated clothing and shoes.
- Flush affected areas with plenty of water.
- IF IN EYE, hold eyelids open and flush with plenty of water.
- If irritation or discomfort continues, call for medical aid immediately.

11.3 INGESTION OF CHEMICALS

Chemicals can be harmful if swallowed. In case of exposure:

- Call for medical aid.
- Get immediate medical attention.

11.4 INHALATION EXPOSURE TO CHEMICALS

Inhalation of chemicals, dusts, mists or fumes can cause dizziness, headache, nausea, and eye, nose, and throat irritation. In case of exposure:

- Move victim to fresh air.
- If discomfort continues, call for medical aid immediately.
- If breathing has stopped, give artificial respiration.
- If breathing is difficult, call for medical aid immediately.

11.5 FIRE HAZARD

In case of fire, leave the area and call 911 to report fire immediately.

11.6 EMERGENCY CONTACTS

Emergency contacts will be made, as necessary, from the list in this section:

Hospital Name: Kaiser Permanente

Address: 601 Stoneridge Dr, Pleasanton, 94588

Phone: (925) 847-5000

Ambulance: Call 911

Fire Dept: Call 911

Police Dept: Call 911

SEE ATTACHED FIGURE (APPENDIX C) FOR LOCATION OF NEAREST HOSPITAL

Other Telephone Numbers:

US ALERT:	(800) 642-2444
National Response Center:	(800) 424-8802

12.0 SPILL CONTAINMENT PROGRAM

Based upon the type of activities to be performed at the Site, spills or uncontrolled releases are not expected. However, should activities or observations at the Site indicate that the potential for spills or releases, the Site Safety Officer will provide appropriate containment measures.

This plan reviewed by:

Michael J. Zimmerman, P.E., REA
Senior Project Manager
Environnemental Services

February 26, 2007

APPENDIX A
JOB SAFETY ANALYSIS FORMS

Clayton Group Services

Job Safety Analysis

Mobilization/Site Preparation

Site Information
Clorox Services Company
7280 Johnson Drive
Pleasanton, California

Project Description: This JSA has been prepared to outline the mobilization and site preparation activities associated with the above referenced site.

Prepared By	Position/Title	Reviewed By	Position/Title	Date
Allison Florence	Environmental Consultant	Mike Zimmerman	Project Engineer	2/26/07

Overview: Field staff must review job-specific workplan and coordinate with project manager to verify that all up-front logistics are completed prior to starting work including, but not limited to permitting, access agreements and notification to required contacts (i.e. site managers, inspectors, clients, subcontractors, etc.). Additionally, **a tailgate safety meeting must be performed and documented at the beginning of each work day**. Safe Performance Self Assessment (SPSA) procedures must be used during all phases of field activities, and consideration of weather conditions (i.e. heat, cold, rain and lightning) must be taken into account.

Personal Protective Equipment (PPE): Minimum PPE is Level D including: safety glasses or goggles, hard hat, traffic vest, steel-toed boots, hearing protection and gloves (type dependent on job-specific requirements). Additional PPE may be required in the Site Health and Safety Plan (SHSP). Please refer to the SHSP for required traffic control, air monitoring, and emergency procedures as warranted.

Project Manager: Mike Zimmerman **Health & Safety Director:** Craig Pelletier/Jeremy Wilson

❶ Job Steps	❷ Potential Hazard	❸ Critical Actions
• Prior to arriving at site, Project Manager verifies that permits, forms and training have been completed.	• Administrative function – no hazards anticipated. Action is to ensure health and safety/regulatory/security compliance.	• Personnel must have required training: • Supervisor Training (Supervisors). • OSHA 40 Hour HAZWOPER. • First Aid/CPR (minimum 2 employees per shift). • Drug and alcohol screening (as required). • Activity specific – vehicle operation, excavation. • Personnel must maintain ID badge and keep all required records at site.
• Personnel travel to the site from respective home/offices.	• Traffic and emergency hazards.	• Verify that all personnel have accurate and understandable directions to the site. • Obey applicable traffic laws, regulation. • Avoid driving when tired. • Use cell phone for emergency contact with ignition turned off.
• Upon arrival at site, all personnel must complete site orientation.	• Office environment, no hazards anticipated. • Heat related illness, sun exposure and biological hazards for all site preparation tasks. • Lightning and extreme weather may apply. • Hand/eye/foot injuries from the use of hand tools.	• Discussion of contractor requirements. • Review the scope of work, anticipated project hazards, and appropriate controls. • Review site requirements and site Emergency phone number: • Review general site H&S requirements. • Provide adequate potable water, encourage employees to drink fluids regularly. • Monitor personnel for signs of heat stress. • Provide shaded rest areas. • Apply sunscreen and mosquito repellent as needed. • Avoid biological hazards. • Monitor weather forecast; stop work and seek shelter when lightning is detected or imminent.
• Project Manager, Site Supervisor, and other pertinent personnel walk the job site to become familiar with the site.	• Heat-related illness, sun exposure, slips, trips, falls, biological hazards, lightning and weather.	• Obtain input from specific site representatives on staging and access road locations and locations for equipment and vehicles. • Observe posted signs and vehicle speed limits

• Identify/finalize appropriate locations for placement/staging of office and tool trailers, materials, vehicles, access roads, limits of clearing, project work zones, safety fencing, erosion and sedimentation controls.	• Hand/eye/foot injuries from the use of hand tools.	when driving. Verify back-up alarms and lights on mobile equipment are functional.
• Clean site/demobilize.	• See Mobilization above	• Leave site clear of refuse and debris • Notify personnel of departure • Ensure contractors mentor is available to guide inexperienced personnel throughout task.

Clayton Group Services

Job Safety Analysis

Soil Boring/Well Installation

Site Information
Clorox Services Company
7280 Johnson Drive
Pleasanton, California

Project Description: This JSA has been prepared to outline The soil boring and/or well installation activities associated with the above referenced site.

Prepared By	Position/Title	Reviewed By	Position/Title	Date
Allison Florence	Environmental Consultant	Mike Zimmerman	Project Engineer	2/26/07

Overview: Field staff must review job-specific workplan and coordinate with project manager to verify that all up-front logistics are completed prior to starting work including, but not limited to permitting, access agreements and notification to required contacts (i.e. site managers, inspectors, clients, subcontractors, etc.). Additionally, **a tailgate safety meeting must be performed and documented at the beginning of each work day**. Safe Performance Self Assessment (SPSA) procedures must be used during all phases of field activities, and consideration of weather conditions (i.e. heat, cold, rain and lightning) must be taken into account.

Personal Protective Equipment (PPE): Minimum PPE is Level D including: safety glasses or goggles, hard hat, traffic vest, steel-toed boots, hearing protection and gloves (type dependent on job-specific requirements). Additional PPE may be required in the Site Health and Safety Plan (SHSP). Please refer to the SHSP for required traffic control, air monitoring, and emergency procedures as warranted.

Project Manager: Mike Zimmerman **Health & Safety Director:** Craig Pelletier/Jeremy Wilson

❶ Job Steps	❷ Potential Hazard	❸ Critical Actions
• Clear drilling locations.	• Traffic hazards, over head and underground installations, product releases, site personnel inconvenience.	• Reference Underground Utility Checklist and coordinate with Site Manager (or designee) to minimize potential conflicts. • Review proposed locations against available construction drawings and known utilities, tanks, product lines, etc. • Mark out the proposed borehole collations. • Call underground utility locating service for public line location clearance, and get list of utilities being contacted. • If necessary, coordinate private line locator for private property.
• Mobilize with proper equipment/supplies for drilling.	• Vehicle accident. • Lifting Hazards. • Delay or improper performance of work due to improper equipment onsite.	• Follow safe driving procedures. • Use proper lifting techniques. Verify that subcontractors are aware of their responsibilities for labor, equipment and supplies. • Review HSP and permit conditions. • Gather necessary PPE.
Visually clear proposed drilling locations.	• Underground and overhead utilities/obstructions.	• Complete Underground Utility Checklist and adjust drilling locations as necessary.
• Set up necessary traffic control.	• Struck by vehicle during placement. • Vehicle accident as a result of improper traffic control equipment placement.	• Use buddy system for placing traffic control. • Reference traffic control plan section of HSP (may include specific requirements based on permits).
• Assist with set up of drill rig.	• Vehicle accident during rig movement. • Damage caused by drill rig while accessing set-up location. • Overhead utilities and structures. • Soft terrain. • Rig movement.	• Verify clear pathway to drilling location and clearance for raising mast. • Provide as-needed hand signals and guidance to driver to place rig. • Visually inspect rig (fire extinguisher on board, no oil or other fluid leaks, cabling and associated equipment in good condition, pressurized hoses secured with whip-checks or adequate substitute, jacks in good condition?).

		• If necessary, use wooden blocks under jacks to spread load. • Chock wheels.
• Set up exclusion zone(s) and work stations (drilling and logging/sample collection).	• Struck by vehicle. • Slip/fall hazards.	• Implement exclusion zone set-0up instructions of HSP. • Set up work stations with clear walking paths to and from rig.
• Clear upper five feet of borehole using post-hole digger or bucket auger.	• Back strain. • Exposure to chemical hazards. • Hitting and underground utility. • Repetitive motion.	• Don any additional PPE. • Initiate air quality monitoring in accordance with HSP. • Use proper lifting techniques and tools. • Complete Underground Utility Checklist.
• Commence drilling borehole.	• Cross-contamination from previous hole. • Back Strain. • Heat or cold. • Eye injury. • Exposure to chemical hazards. • Hitting and underground utility. • Trip and fall. • Equipment failure. • Lifting hazards. • Overhead hazards.	• Decontaminate sampling equipment after collecting a sample. • Decontaminate drilling auger/rods after drilling a borehole. • Use proper lifting techniques. • Use PPE and monitoring in accordance with HSP. • Monitor drilling progress. • Keep work area clear of tripping and/or slipping hazards. • Perform periodic visual inspections of drill rig.
• Collect samples in accordance with sampling plan.	• Cross-contamination. • Improper labeling or storage. • Exposure to site contaminants.	• Decontaminate sampling equipment between each sampling run. • Label samples in accordance with sampling plan. • Keep samples stored in proper container, at correct temperatures, away from work area. • Perform air monitoring and wear proper PPE.
• Store cuttings properly in accordance with site-specific requirements.	• Exposure to public. • Traffic hazard or obstruction/inconvenience to site operation. • Improper storage or disposal.	• Have proper storage containment and labeling available onsite. • Place materials in isolated location away from traffic and other site functions. Coordinate proper disposal offsite (where applicable).
• Dispose or store purge water (if any) onsite.	• Back strain. • Exposure to contaminants. • If disposing through onsite treatment system, damage or injury from improper use of equipment. • Improper storage or disposal.	• Use proper equipment to transport water (pumps, drum dollies, etc).
• Clean site/demobilize.	• Traffic. • Safety hazard left onsite. • Lifting hazard.	• Use buddy system as necessary to remove traffic control. • Leave site clean of refuse and debris. • Clearly mark/barricade any well heads that need later work or concrete curing. • Notify site personnel of departure. • Map well locations, site structures, and location of drilling wastes. • Use proper lifting techniques.
• Package and deliver samples to lab.	• Bottle Breakage. • Back strain. • Traffic.	• Handle and pack bottles carefully (wrap bottles with bubble wrap, if available). • Use proper lifting techniques. • Follow safe driving procedures.

APPENDIX B
RESPONSIBILITIES

KEY PERSONNEL ROLES AND RESPONSIBILITIES

Project Supervisor

The Project Supervisor, Mr. Mike Zimmerman, has the responsibility for all fieldwork and enforces safe work practices by all workers. He directs all project investigation, monitoring, and remedial activities at the Site.

Health and Safety Officer

The Project Health and Safety Officer, Ms. Allison Florence, has prepared the SHSP. She has the primary responsibility for the approval of the health and safety procedures to be utilized during all Site operations.

Site Safety Officer (SSO)

The Site Safety Officer (SSO), Ms. Allison Florence(or other person designated by Clayton), has the responsibility for implementing and enforcing the Site safety program and procedures. She maintains the appropriate protection equipment and enforces the use of protection equipment. She oversees the on-site air monitoring and decides when action levels have been reached and when more stringent personnel protection is required. Ms. Florence has the primary responsibility for the approval of all Site operations that will be conducted during the field investigation. Ms. Florence will take the following actions when appropriate:

- Order the immediate evacuation of personnel from the work area during serious or life-threatening situations.
- Take charge during emergency situations, notifying local public emergency officials when necessary.
- Require personnel engaged in field work at the Site to obtain immediate medical attention in the case of a work-related injury or illness.
- Properly store and maintain protective clothing and equipment (Clayton Site personnel only).
- Restrict visitors from areas of potential exposure to harmful substances.

APPENDIX C
SITE CONTAMINANTS

Potential Site Contaminants

Exposure Information

Chemical	Route	Symptoms
Benzene (C_6H_6)	Inhalation, Absorption, Ingestion, Contact	Irritant to eyes, skin, nose; respiratory system; giddiness, headache, nausea, staggering gate; fatigue, anorexia, lassitude; dermatitis; bone marrow; depressant; [carcinogen]
Ethyl benzene ($CH_3CH_2C_6H_5$)	Inhalation, Ingestion, Contact	Irritant to eyes, skin, mucus membranes; headache; dermatitis, narcosis, coma
Gasoline, oil	Inhalation, Absorption, Ingestion, Contact	Irritant to eyes, skin, mucus membranes; dermatitis; headache, fatigue, blurred vision, dizziness, slurred speech, confusion, convulsions; chemical pneumonia (aspiration); possible liver, kidney damage; [carcinogen]
Toluene ($C_6H_5CH_3$)	Inhalation, Absorption, Ingestion, Contact	Irritant to eyes, nose; fatigue, weakness, confusion, euphoria, dizziness, headache; dilated pupils, lacrimation; nervousness, muscular fatigue, insomnia; paresthesia; dermatitis; liver, kidney damage
Xylenes ($C_6H_4(CH_3)_2$)	Inhalation, Absorption, Ingestion, Contact	Irritant to eyes, skin, nose, throat; dizziness, excitement, drowsiness, incoordination, staggering gait, corneal vacuolization; anorexia, nausea, vomiting, abdominal pain; dermatitis

APPENDIX D
HOSPITAL LOCATION

Google Maps

Start **7280 Johnson Dr**
Pleasanton, CA 94588
End **Kaiser Permanente Medical Offices-Pleasanton**
7601 Stoneridge Dr, Pleasanton, CA 94588
Travel **0.8 mi (about 1 min)**

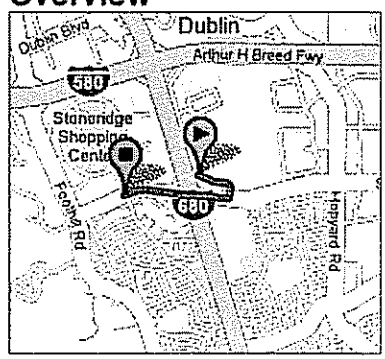
Directions

1.	Head **southeast** from **Johnson Dr**	**0.3 mi**
➔ 2.	Turn **right** at **Stoneridge Dr**	**0.6 mi** 1 min
3.	Arrive at **Kaiser Permanente Medical Offices-Pleasanton** 7601 Stoneridge Dr, Pleasanton, CA 94588	

These directions are for planning purposes only. You may find that construction projects, traffic, or other events may cause road conditions to differ from the map results.

Map data ©2006 NAVTEQ™

Overview



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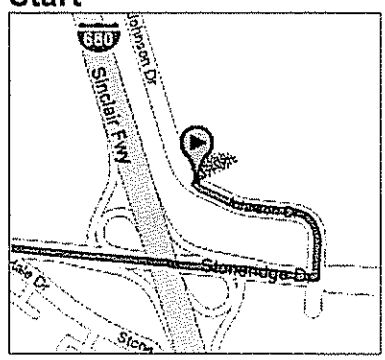

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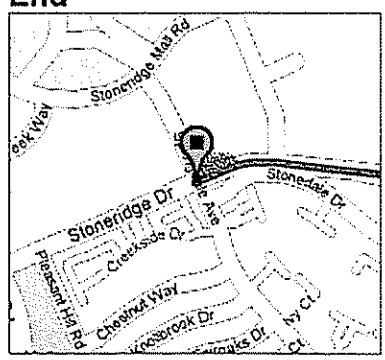

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APPENDIX E
TAILGATE MEETING FORMS

Tailgate Safety Meeting Minutes

Project Name: _____ Project No.:_____

Location: _____ Date: _____

Site Safety Officer:_____

Subcontractors Onsite: ☐ Y ☐ N

Firm Name(s):_____

Tasks Performed by Subs:_____

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Safety Topics Reviewed/Discussed:

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Tailgate Safety Meeting Minutes (continued)

Attendee Safety Suggestions: _____

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Attendee Names

Print Name:	Firm Name:	Signature: