# Phase I Environmental Site Assessment

Kimberly-Clark Fullerton Mill
2001 E. Orangethorpe Ave
Fullerton, California

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Project No.: 185804430

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**PHASE I ENVIRONMENTAL SITE ASSESSMENT**

This document entitled Phase I Environmental Site Assessment was prepared by Stantec Consulting Services Inc. (Stantec) for GNAP Development, LLC and GLC Fullerton LLC, a Delaware Limited Liability Company. The material in it reflects Stantec's best judgment in light of the information available to it at the time of preparation. Any use which a third party makes of this report, or any reliance on or decisions made based on it, are the responsibilities of such third parties. Stantec accepts no responsibility for damages, if any, suffered by any third party as a result of decisions made or actions based on this report.

All information, conclusions, and recommendations provided by Stantec in this document regarding the Phase I ESA have been prepared under the supervision of and reviewed by the professionals whose signatures appear below.

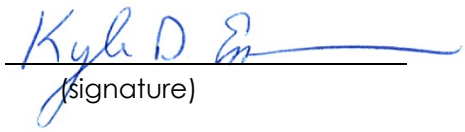
I declare that, to the best of my professional knowledge and belief, I meet the definition of Environmental Professional as defined in § 312.10 of 40 CFR 312. I have the specific qualifications based on education, training, and experience to assess a property of the nature, history, and setting of the Property. I have developed and performed all the appropriate inquiries in conformance with the standards and practices set forth in 40 CFR Part 312.

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# Abbreviations

| | |
|---|---|
| AAI | All Appropriate Inquiry |
| ACM | Asbestos containing material |
| AST | Aboveground Storage Tank |
| ASTM | American Society for Testing and Materials |
| BER | Business Environmental Risk |
| BTEX | Benzene, Toluene, Ethylbenzene and Xylenes |
| CAA | Clean Air Act |
| CA CHIMIRS | California Hazardous Materials Information Reporting System |
| CERCLA | Comprehensive Environmental Response, Compensation, and Liability Act |
| CERS | California Emergency Response System |
| CIWQSP | California Integrated Water Quality System |
| CFR | Code of Federal Regulation |
| CREC | Controlled Recognized Environmental Conditions |
| CWA | Clean Water Act |
| ECHO | Enforcement and Compliance Online |
| ELUC | Environmental Land Use Control |
| EMOU | El Monte Operable Unit |
| EP | Environmental Professional |
| EPA | Environmental Protection Agency |
| ERNS | Emergency Response Notification System |
| ESA | Environmental Site Assessment |
| FEMA | Federal Emergency Management Agency |
| FINDS | Facility Index System |
| ft msl | Feet above mean sea level |
| HREC | Historical Recognized Environmental Conditions |
| HWMU | Hazardous Waste Management Unit |
| ICIS | Integrated Compliance Information System |
| LACDPW | Los Angeles County Department of Public Works |
| LBP | Lead-based Paint |
| LUST | Leaking Underground Storage Tank |
| MSA | Master Services Agreement |
| NPDES | National Pollution Discharge Elimination System |
| ug/L | Micrograms per Liter |
| mg/Kg | Milligrams per Kilogram |
| NESHAP | National Emissions Standard for Hazardous Air Pollutants |
| PPM | Parts per Million |

| | |
|---|---|
| PAHs | Polynuclear Aromatic Hydrocarbons |
| PCBs | Polychlorinated Biphenyls |
| PRP | Potentially Responsible Party |
| pVEC | Potential Vapor Encroachment Condition |
| RCRA | Resource Conservation and Recovery Act |
| RCRA-LQG | Resource Conservation and Recovery Act – Large Quantity Generator |
| REC | Recognized Environmental Conditions |
| RWQCB | Regional Water Quality Control Board |
| SWMU | Solid Waste Management Unit |
| TPHd | Total Petroleum Hydrocarbons as Diesel |
| TRPH | Total Recoverable Petroleum Hydrocarbons |
| TSCA | Toxic Substance Control Act |
| US AIRS | Aerometric Information Retrieval System |
| USDA | United States Department of Agriculture |
| USGS | United States Geological Survey |
| UST | Underground Storage Tank |
| VE&T | Vapor Extraction and Treatment |
| VOCs | Volatile Organic Compounds |
| WDS | Waste Data System |

# 1.0 SUMMARY

Stantec has prepared this Phase I Environmental Site Assessment (ESA) report for the property located at 2001 East Orangethorpe Avenue (the "Property"), on behalf of GNAP Development LLC and GLC Fullerton LLC, a Delaware Limited Liability Company (the "Client"). The work was performed according to Stantec's proposal and terms and conditions dated July 17, 2019 and accepted by Client on the same date. GNAP Development LLC and GLC Fullerton LLC (the "Users") have been designated as the Users of this report.

The Phase I ESA was conducted in general conformance with the requirements of American Society for Testing and Materials (ASTM) Designation E 1527-13 and All Appropriate Inquiries (AAI) Final Rule 40 CFR Part 312, except as may have been modified by the scope of work, and terms and conditions, requested by the Client. Any exceptions to, or deletions from, the ASTM practice are described in the report.

The Property is comprised of two (2) parcels of land totaling approximately 65 acres in the City of Fullerton, Orange County, California. The Property is developed and currently operates as the KCC Fullerton Mill (paper mill) with over 1.2-million square feet of manufacturing, warehouse, office space, and other support buildings used for equipment and chemical storage, fire-suppression and other manufacturing related uses. The Property was developed for industrial purposes by KCC in 1955 and originally included buildings 1 through 6. In the years that followed several buildings were added to the mill to support product demand. At the height of production, historical manufacturing of other KCC product lines at the Fullerton mill included colored paper, diapers, and feminine hygiene products. Current manufacturing processes are reported to include only white paper manufacturing, facial and bath tissue production, on-site equipment/tool repair, and warehousing with support administrative activities. The Property was also formerly used for agricultural purposes and these former uses remain evident today as citrus and avocado groves currently occupy portions of the Property (Figure 2).

Former and current manufacturing operations have been supported with numerous structures, processes and chemicals that could potentially result in environmental impact to the Property (e.g., underground fuel storage tanks, above ground tanks, piping, clarifiers, drains, process areas, drum storage areas, etc.). Chemicals of potential concern include solvents, petroleum hydrocarbons, pH, metals, polychlorinated biphenyls [PCBs], phthalates, polycyclic hydrocarbons, etc.). Bleaching of wood-pulp has also been linked to the formation of dioxins under certain processing conditions; however, KCC does not believe that wood-pulp bleaching was ever conducted at this facility.

Groundwater beneath the Property is reported to be impacted with various VOCs, including chlorinated solvents, at concentrations in excess of allowable maximum contaminant levels (MCLs). The presence of VOC-contaminated groundwater beneath the Property poses a potential vapor intrusion concern to existing and future property users. Multiple potentially responsible parties (PRPs) have been named in a proposed Superfund action (i.e. the Orange

County North Basin) to address groundwater contamination. KCC has not been named as a PRP in the pending Superfund action; however, review of available EPA records indicate that KCC historically used chlorinated solvents including tetrachloroethylene (PCE) and 1,4-Dioxane, the primary regional groundwater contaminants in the proposed Orange County North Basin Superfund Site.

**Conclusions**

This assessment has revealed the existence of the following potential recognized environmental conditions (RECs) in connection with the Property:

- Off Site Sources (including Regional Groundwater Impacts):
    - The following nearby off-Site facilities have, or may have, contributed VOCs and other contaminants to soil, groundwater, and soil vapor that may potentially impact the Property:
        - Trent Tube Division, 2100 E. Orangethorpe Avenue
        - Orange County Metal Processing, 1711 E. Kimberly Avenue
        - PCE Metal Finishing, 1723 E. Kimberly Avenue
        - Khyber Food, Inc, 1818 E. Rosslynn Avenue
        - Alcoa Global Fasteners, Inc, 800 S. State College Boulevard
        - Winonics, Inc., 1257 S. State College Boulevard
        - Chapman Coast Roofing, Co., 2301 E. Orangethorpe Avenue
        - Vista Paint, 2020 E. Orangethorpe Ave
        - St Hart Container MPP Fullerton, 1901 E. Rosslynn Avenue
        - Golden West Towing Equipment, 1850 E. Orangethorpe Avenue
- General Exterior Areas:
    - Historical Agricultural Use (Orchards) – possible source of organochlorine pesticides and herbicides containing arsenic and lead
    - Railroad spurs – possible source of herbicides, metals, petroleum hydrocarbons, pesticides and polychlorinated biphenyls (PCBs)
    - Industrial wastewater discharge point – potential source of VOCs, metals, petroleum hydrocarbons and other contaminants
    - Forklift wash area and sump – potential releases related to past cleaning operations
    - Tank farm unloading area, diesel UST, and sump – potential source of VOCs, petroleum hydrocarbons and other contaminants
    - Stormwater discharge point – potential source of VOCs, petroleum hydrocarbons and other contaminants

  - Four former USTs adjacent to a non-specific "loading dock" as indicated in OCHCA records. The USTs are reported to have contained mineral spirits, dioctyl phthalate and vinyl acetate: potential source of VOCs, petroleum hydrocarbons, phthalates and other contaminants.

- General Interior
  - Sub-slab soil vapor and indoor air – potential vapor intrusion risk associated with potential on-site releases and contaminated groundwater related to regional groundwater impacts beneath most of the property.
  - Building 1
    - Basement – potential source of VOCs, petroleum hydrocarbons, PCBs, and other contaminants
    - Maintenance Shop PCE Parts Washer: potential source of VOCs
    - Maintenance Shop Floor Drain: potential source of VOCs, petroleum hydrocarbons, and other contaminants.
  - Building 3
    - Battery storage area – etching and staining to battery storage and charging processes may be a potential source of acids and metals
  - Building 3/8
    - Maintenance shop PCE part washer: potential source of VOCs
  - Building 4
    - Boiler Building Area, Two Former USTs: Potential source of VOCs and petroleum hydrocarbons
    - Wastewater treatment area: potential source of VOCs, petroleum hydrocarbons, metals and other contaminants
  - Building 8
    - UCON area Sump pit and trench drains: Potential source of VOCs, petroleum hydrocarbons and other contaminants
    - Former ink dye area wash-down/ cleaning area with trench drains: Potential source of VOCs, petroleum hydrocarbons, PCBs, and other contaminants
    - Bath area sump pit: potential source of VOCs, petroleum hydrocarbons and other contaminants
  - Building 10
    - Tractor Shop PCE part washer location: Potential source of VOCs
  - Building 25
    - Chemical Storage Area, three sumps: Potential source of VOCs, metals, petroleum hydrocarbons and other chemicals

The locations of the above RECS are shown on Figure 2.

**Recommendations**

Based on the conclusions of this Phase I ESA, Stantec recommends that a preliminary Phase 2 assessment be performed at the above referenced locations to evaluate whether releases have occurred that have affected subsurface media at the Property above regulatory cleanup thresholds or human health risk levels. To this end, Stantec has prepared a *Work Plan for Preliminary Phase 2 Investigations* concurrently with this report that details the scope of work for the recommended preliminary assessment.

With regard to the data gap associated with the four (4) USTs for which there is no location information or soil sample data provided in historical records, Stantec recommends that a Soil Management Plan (SMP) be prepared that would discuss actions that would need to be taken in the event that impacted or potentially impacted soil is encountered during Property redevelopment. Such actions taken would include, but are not limited to, field evaluation, soil sampling, and potential excavation/remediation.

In addition, Stantec has identified the following non-ASTM environmental issues associated with the Property:

- **Asbestos Containing Materials.** Given the age of the existing buildings on the Property (some constructed as early as the mid-1950s), the presence of ACM is considered likely. Stantec recommends conducting a comprehensive, pre-demolition survey in accordance with the sampling protocol of the Asbestos Hazard Emergency Response Act (AHERA) prior to any activities with the potential to disturb building materials to determine whether ACM are present. Further, in the event ACM is detected, Stantec recommends proper removal and disposal of the materials identified prior to any activities with the potential to disturb them.

  Portions of the property are paved with asphalt. A stress absorbing fabric marketed as Petromat is sometimes used in asphalt paving operations. The tack coating often associated with this material sometimes contains asbestos. Should development plans include demolition of the asphalt, Stantec recommends inspecting the asphalt for the presence of Petromat and, if observed, sampling the Petromat for the presence of asbestos.

  Additionally, Stantec makes no warranty as to the possible existence or absence of inaccessible materials (buried transite, wrapped, or coated piping) or to their evaluation with respect to asbestos content. Samples of suspect ACM should be collected for laboratory analysis of asbestos prior to any renovation or building demolition, in order to determine the need for compliance with EPA National Emission Standard for Hazardous Air Pollutants (NESHAP) regulations.

- **Lead Based Paint.** Given the age of the existing buildings on-Property (some constructed in the mid-1950's), the presence of lead-based paint (LBP) is considered likely. Stantec recommends conducting a LBP survey, prior to any activities with the potential to disturb building materials to determine whether LBP is present. Further, in the event LBP is

detected, Stantec recommends removing the materials prior to any activities with the potential to disturb them.

- **Universal Wastes -** Fluorescent light ballasts, mercury switches and other common building components were observed in buildings and may contain hazardous materials. These should be properly handled and disposed of in accordance with regulatory guidelines prior to demolition.

# 2.0 INTRODUCTION

The objective of this Phase I ESA was to perform all appropriate inquiry into the past ownership and uses of the Property consistent with good commercial or customary practice as outlined by the ASTM in "Standard Practice for Environmental Site Assessments: Phase I Environmental Site Assessment Process", Designation E1527-13. The purpose of this Phase I ESA was to identify adverse environmental conditions including recognized environmental conditions ("RECs") of the Property.

The ASTM E1527-13 standard indicates that the purpose of the Phase I ESA is to identify RECs, including historical recognized environmental conditions ("HRECs"), and controlled recognized environmental conditions ("CRECs") that may exist at a property. The term "recognized environmental conditions" means the presence or likely presence of any hazardous substances or petroleum products in, on, or at a property:

(1) Due to any release to the environment;

(2) Under conditions indicative of a release to the environment; or

(3) Under conditions that pose a material threat of a future release to the environment.

ASTM defines an "HREC" as a REC that has occurred in connection with the property, but has been addressed to the satisfaction of the applicable regulatory authority and meets unrestricted use criteria established by a regulatory authority, without subjecting the property to any required controls (for example, property use restrictions, activity and use limitations, institutional controls, or engineering controls). Before calling the past release a HREC, the environmental professional must determine whether the past release is a REC when the current Phase I ESA is conducted (for example, if there has been a change in the regulations). If the EP considers the past release to be a REC at the time the Phase I ESA is conducted, the condition shall be included in the conclusions section of the report as a REC.

ASTM defines a "CREC" as a REC resulting from a past release of hazardous substances or petroleum products that has been addressed to the satisfaction of the applicable regulatory authority (for example, as evidenced by the issuance of a no further action letter or equivalent, or meeting risk-based criteria established by regulatory authority), but with hazardous substances or petroleum products allowed to remain in place subject to the implementation of required controls (for example, property use restrictions, activity and use limitations, institutional controls, or engineering controls).

*De minimis* conditions are not RECs. The term includes hazardous substances or petroleum products even under conditions in compliance with laws. As indicated, the term REC does not include de minimis conditions, which generally do not present a material risk to human health and would not likely be subject to enforcement action if brought to the attention of governmental agencies.

This ESA was conducted in accordance with ASTM E 1527-13. The scope of work conducted during this Phase I ESA consisted of a visual reconnaissance of the Property, interviews with key individuals, and review of reasonably ascertainable documents. The scope of work did not include an assessment for environmental regulatory compliance of any facility ever operated at the Property (past or present), or sampling and analyzing of environmental media. Stantec was not contracted to perform any independent evaluation of the purchase or lease price of the Property and its relationship to current fair market value. The conclusions presented in this ESA Report are professional opinions based on data described herein. The opinions are subject to the limitations described in Section 2.3.

ASTM E1527-13 notes that the availability of record information varies from source to source. The User or Environmental Professional is not obligated to identify, obtain, or review every possible source that might exist with respect to a property. Instead, ASTM identifies record information that is reasonably ascertainable from standard sources. "Reasonably ascertainable" means:

(1) Information that is publicly available;

(2) Information that is obtainable from its source within reasonable time and cost constraints; and

(3) Information that is practicably reviewable.

## 2.1 PROPERTY DESCRIPTION

The Property consists of two (2) parcels totaling approximately 65 acres of land in the City of Fullerton, Orange County, California, as summarized in the table below.

| Operating Business | Assessors Identification Number (AIN) | Associated Addresses | Approximate Area (acres) |
|---|---|---|---|
| Kimberly-Clark Corporation (KCC) | 073-120-31 | 2001 East Orangethorpe Ave | 16.35 |
| KCC | 073-120-33 | 2001 East Orangethorpe Ave | 48.65 |

The KCC parcels are developed with over 1.2 million square feet of manufacturing, warehouse, and office space – including several outbuildings and infrastructure that support paper manufacturing and processing activities. Approximately 7.75 acres of the eastern portion of the Property and 2.5 acres of the southwest portion remain as citrus orchards.

A Property location map is illustrated on Figure 1. A Property map illustrating the main features of the Property is provided as Figure 2. Photographs taken during the Property reconnaissance visit are provided in Appendix A.

## 2.2 SPECIAL TERMS, CONDITIONS, AND SIGNIFICANT ASSUMPTIONS

There were no special terms, conditions, or significant assumptions associated with the Phase I ESA.

## 2.3 EXCEPTIONS AND LIMITING CONDITIONS

This report documents work that was performed in accordance with generally accepted professional standards at the time and location in which the services were provided. No other representations, warranties or guarantees are made concerning the accuracy or completeness of the data or conclusions contained within this report, including no assurance that this work has uncovered all potential and actual liabilities and conditions associated with the identified property.

This report provides an evaluation of selected environmental conditions associated with the identified portion of the property that was assessed at the time the work was conducted and is based on information obtained by and/or provided to Stantec at that time. (40 CFR 312.20(f)(2) requires that the Environmental Professional evaluate the thoroughness and reliability of provided information.) Stantec assumes no responsibility for any deficiency or inaccuracy in information received from others.

If a service is not expressly indicated, do not assume it has been provided. If a matter is not addressed, do not assume that any determination has been made by Stantec in regard to it.

Conclusions made within this report consist of Stantec's professional opinion as of the time of the writing of this report and are based solely on the scope of work described in the report, the limited data available and the results of the work. They are not a certification of the property's environmental condition.

This report relates solely to the specific project for which Stantec was retained and the stated purpose for which this report was prepared and shall not be used or relied upon by the client identified herein for any variation or extension of this project, any other project or any other purpose.

This report has been prepared for the exclusive use of the client identified herein and any use of or reliance on this report by any third party is prohibited, except as may be consented to in writing by Stantec or as required by law. The provision of any such consent is at Stantec's sole and unfettered discretion and will only be authorized pursuant to the conditions of Stantec's standard form reliance letter. Stantec assumes no responsibility for losses, damages, liabilities or claims, howsoever arising, from third party use of this report.

Project Specific limiting conditions are provided in Section 2.2.

The locations of any utilities, buildings and structures, and property boundaries illustrated in or described within this report, if any, including pole lines, conduits, water mains, sewers and other surface or sub-surface utilities and structures are not guaranteed. Before starting work, the exact

location of all such utilities and structures must be confirmed by the client and Stantec assumes no liability resulting from damage to such utilities and structures.

The conclusions are based on the Property conditions encountered by Stantec at the time the work. Accordingly, additional studies and actions may be required. As the purpose of this report is to identify selected Property conditions which may pose an environmental risk, the identification of non-environmental risks to structures or people on the Property is beyond the scope of this assessment. The findings, observations, and conclusions expressed by Stantec in this report are not an opinion concerning the compliance of any past or present owner or operator of the Property which is the subject of this report with any Federal, state, provincial or local law or regulation.

This report presents professional opinions and findings of a scientific and technical nature. It does not and shall not be construed to offer a legal opinion or representations as to the requirements of, nor compliance with, environmental laws, rules, regulations or policies of Federal, state, provincial or local governmental agencies. Issues raised by the report should be reviewed by client legal counsel.

Stantec specifically disclaims any responsibility to update the conclusions in this report if new or different information later becomes available or if the conditions or activities on the property subsequently change. In the event of any conflict between the terms and conditions of this report and the terms and conditions of the MSA, the MSA shall control.

## 2.4 PERSONNEL QUALIFICATIONS

This Phase I ESA was conducted by, or under the supervision of, an individual that meets the ASTM definition of an Environmental Professional (EP). The credentials of the EP and other key Stantec personnel involved in conducting this Phase I ESA are provided in Appendix B.

# 3.0 USER-PROVIDED INFORMATION

ASTM E1527-13 describes responsibilities of the User to complete certain tasks in connection with the performance of "All Appropriate Inquiries" into the Property. The ASTM standard requires that the Environmental Professional request information from the User on the results of those tasks because that information can assist in the identification of RECs, CRECs, HRECs, or *de minimis* conditions in connection with the Property. Towards that end, Stantec requested that the User provide the following documents and information:

| Description of Information | Provided (Yes / No) | Description |
|---|---|---|
| User Questionnaire | Yes | Mr. Alan Tuntland, Senior Vice President of Goodman provided a user questionnaire; the responses to the questionnaire are provided below. Based on review of the Questionnaire, Mr. Tuntland noted the following:<br><br>• Environmental Cleanup Lien: None<br>• Activity and Land Use Limitations: None<br>• Mr. Tuntland had no specialized knowledge or experience related to the property or nearby properties.<br>• The purchase price reasonably reflects the fair market value.<br>• Mr. Tuntland indicated the past known uses of the property: as paper/tissue manufacturing<br>• Mr. Tuntland was aware of hydraulic fluids, oils, bleach, and solvents are used at the Property.<br>• Mr. Tuntland indicated that any spills or releases are discussed in the Antea Phase I ESA provided for review.<br>• Mr. Tuntland was aware of an environmental cleanup related to leaking USTs and excavation, as discussed in the Antea Phase I ESA.<br>• Mr. Tuntland provided the following regarding the degree of obvious contamination: Made reference to the leaking UST contamination.<br>• Mr. Tuntland provided a previous Phase I ESA report Stantec for review (Antea, 2018).<br><br>A copy of the completed user questionnaire is provided in Appendix C. |
| Environmental Liens or Activity Use Limitations | No | No documents were provided by the seller regarding environmental liens or activity use limitations. |

| Description of Information | Provided (Yes / No) | Description |
|---|---|---|
| Previous Environmental Permits or Reports Provided by User | Yes | Stantec was provided the following environmental report by the User:<br>• *Antea Group, Phase I ESA Report, Kimberly-Clark Corporation, Fullerton Mill, 2001 E. Orangethorpe Ave, Fullerton, California 92831, November 5, 2018.*<br><br>Stantec's review of the report is discussed in Section 4.4.6. |
| Additional Documents Provided by User | Yes | Stantec was provided the following environmental report by the User:<br>• Inspection Report excerpt dated February 23, 1989.<br>• Sampling results for wastewater discharge (1993-2008)<br>• Sampling results for F-Kim-2 onsite water well (1985-2006)<br><br>The 1989 inspection report indicated that ten Safety Kleen degreasing units (parts washers) were located throughout the facility. The cleaning solvent used in the degreasers was reported to be 1,1,1-Trichloroethane (1,1,1-TCA).<br><br>The limited wastewater discharge sampling results for the sampling events between 1993 and 2008 reported no PCE or TCE.<br><br>Limited sampling results of water collected from F-KIM-2 between 1985 and 2006 show that PCE ranged from below the laboratory reporting limit to 4.7 ug/L. TCE reached a peak concentration of 1.2 ug/L but was below laboratory reporting limits between January of 1993 and the last listed sampling even in February of 2006. |
| Purpose of the Phase I ESA | Yes | Due diligence. |

# 4.0 RECORDS REVIEW

The objective of consulting historical sources of information is to develop the history of the Property and surrounding area, in order to evaluate if past uses may have resulted in RECs. Physical setting records are evaluated to determine if the physical setting may have contributed to adverse environmental conditions in connection with the Property. During the review of historical records, Stantec attempted to identify uses of the Property from the present to the Property's first developed use. Stantec's research included the reasonably ascertainable and useful records described in this section.

## 4.1 PHYSICAL SETTING

A summary of the physical setting of the Property is provided in the table below with additional details in the following subsections.

| | |
|---|---|
| Topography: | The Property topography slopes to the southwest at elevations ranging from approximately 200 feet above mean sea level (amsl) in the northeast, to approximately 182 feet amsl in the southwest (USGS, 1981). |
| Soil/Bedrock Data: | The stratigraphy underlying the Property consists primarily of Holocene to Late Pleistocene alluvial fan deposits consisting of unconsolidated to moderately consolidated silt, sand, gravel and cobble/boulder alluvial-fan deposits (USGS, 2006). |
| Estimated Depth to Groundwater/ Estimated Direction of Gradient: | Information reviewed on Geotracker related to the Orange County North Basin, including data from an adjacent monitoring well along Kimberly Ave, indicates that first groundwater is present at 80 to 120 feet below ground surface (bgs) and flows to the west or southwest. |
| *Note: Property-specific groundwater direction and depth can only be determined by conducting Property-specific testing, which Stantec has not conducted.* | |

### 4.1.1 Property Topography and Surface Water Flow

The Property follows the regional gradient to the southwest at elevations ranging from approximately 200 feet above mean sea level (amsl) in the northeast, to approximately 182 feet in the southwest. Surface runoff is expected to travel in that general direction or as redirected by internal Property drainage systems.

### 4.1.2 Regional and Property Geology

The Property is located in the northern portion of the Peninsular Ranges Geomorphic Province characterized by northwest-southeast trending mountains and faults. The regional surficial geology is described as Holocene to Late Pleistocene age young alluvial-fan deposits consisting of unconsolidated to moderately consolidates silt, sand, cobbles and boulders common to alluvial fan deposits (USGS, 2006). The nearest known active fault is the El Modeno fault which is located approximately 2.25 miles to the southeast (CGS, 2010a). The Property is not located within a designated Alquist-Priolo Special Studies Zone (CGS, 2010b).

### 4.1.3 Regional and Property Hydrogeology

The Property is located in the Coastal Plain of the Orange County (8-001) groundwater basin. The basin is bounded on the northwest and the north by the Los Angeles-Orange County line; the Whittier fault zone and consolidated rocks of the Puente Hills and Chino Hills to the northeast; consolidated rocks of the Santa Ana Mountains to the east; and consolidated rocks of the Laguna Hills and San Joaquin Hills to the south. The Pacific Ocean bounds the southwest extent of the basin. (Department of Water Resources [DWR], 2004).

The Orange County Water District manages the groundwater basin and has identified three aquifers designated as Shallow, Principal, and Deep. The Shallow aquifer is located at a depth of approximately 80 to 120 feet bgs, the Principal aquifer at approximately 200 to 250 feet, and the Deep aquifer is at depths of more than 850 feet bgs. Based on groundwater sample data, the Shallow and Principal aquifers are impacted with various volatile organic compounds (VOCs), consisting primarily of 1,4-Dioxane, tetrachloroethylene (PCE), and PCE breakdown products. The VOC groundwater plume in the Principal aquifer has been confirmed to be several miles long and over a mile wide and has caused the closure of at least five municipal water supply wells.

In 2014 and 2015, state and local agencies requested that EPA assist in cleanup of groundwater contamination that underlies portions of Fullerton, Anaheim, and Placentia which has now been designated as the "North Basin". The groundwater impacts in the North Basin are the result of spills and leaks from industrial activities over the preceding decades. The EPA is reviewing historical documents and other sources of information to identify Potentially Responsible Parties (PRPs) to assist in funding the cleanup. As part of the remedial investigation/feasibility study (RI/FS) required by the agreement between the EPA and the Orange County Water District (OCWD), OCWD has installed and sampled groundwater monitoring wells and collected other data to help determine the nature and extent of contamination and provide EPA with information needed to develop an initial cleanup plan. According to information available on Geotracker two of these wells are installed immediately north of the Property along Kimberly Avenue.

Information reviewed on Geotracker related to the Orange County North Basin Superfund Site, including data from the two adjacent monitoring wells (MW25 and MW26) along Kimberly Ave, indicates that shallow groundwater in the immediate vicinity of the Property in March of 2015 was located at depths of 68 and 63 feet bgs, respectively, and flows to the west or southwest.

## 4.2 FEDERAL, STATE AND TRIBAL ENVIRONMENTAL RECORDS

A regulatory agency database search report was obtained from Environmental Data Resources, Inc. (EDR), a third-party environmental database search firm. A complete copy of the database search report, including the date the report was prepared, the date the information was last updated, and the definition of databases searched, is provided in Appendix D.

Stantec evaluated the information listed within the database relative to potential impact to the Property, assessing the potential for impacts based in part on the physical setting. As part of this process, inferences have been made regarding the likely groundwater flow direction at or near the Property. Observations about the Property and surrounding properties made during the Property reconnaissance are provided in more detail in Section 5.

### 4.2.1 Listings for Property

#### 2001 E. Orangethorpe Ave (Kimberly-Clark Corporation)

The Property (2001 E. Orangethorpe Ave) is listed as under the following environmental databases: RCRA-LQG, ICIS, US AIRS, FINDS, CA EMI, ECHO, CA CHMIRS, CA LUST, CA CERS HAZ WASTE, CA HIST UST, CA CERS TANKS, CA Orange Co. Industrial Site, CA HIST CORTESE, CA NPDES, CA WDS, CA CIWQS, CA CERS, CA AST, CA RGA LUST, CA HAZNET, and ERNS.

The following summarizes pertinent listings:

- The RCRA-LQG database reports that the Property has been operated by KCC since March 1, 1956 and chemical inventories indicate generation of various hazardous wastes, including, but not limited to, unspecified aqueous solutions, off-specification, aged, or surplus inorganics, metals dust, other inorganic solid waste, waste oil and mixed oil, oil/water separation sludge, adhesives, spent non-halogenated solvents, PCE, chromium, lead, 1,4-Dioxane, formaldehyde, and corrosive waste. The facility has received multiple violations related to on-site compliance evaluations and generator usage between 1984 and 2006.

- The US AIRS database reports that the Property has operating and active air permits from 1980 through 2016. No violations are listed.

- The CHMIRS database reports that on February 14, 2002 a release of an estimate 55 gallons fuel oil was encountered during construction excavation work at the former fuel UST locations. A separate release occurred on August 5, 1997 that included a release of an estimated 100 pounds of sodium hypochlorite (bleach) from a 7,150-gallon AST. The spill was contained in the secondary containment berm and cleaned up. A release of sodium hypochlorite also occurred on August 5, 1997 that was contained in an earthen berm and subsequently cleaned up. A release of an unknown volume of diesel fuel occurred onto Kimberly Ave near the north entrance of the Property during a traffic collision on November

3, 2003. The portion of the diesel fuel that was released onto the pavement flowed into the storm drain.

- The LUST database reports that on May 27, 1986, the Property reported a release of diesel fuel from a UST that affected the underlying soil. Excavation and disposal of the diesel impacted soil was performed under the oversight of the Fullerton Fire Department and closure was provided, with concurrence from the Regional Water Quality Control Board (RWQCB), Santa Ana Region (case no. 083001032T) on January 22, 1992. Further discussion regarding the details of this release is provided in Section 4.4.6.

- The CERS HAZ WASTE and CERS AST databases report routine inspections and various violations issued by the Orange County Environmental Health. The violations include, but are not limited to, the lack of secondary containment of an AST, in adequate health and safety equipment, and inadequate emergency response equipment.

- The CA HIST UST database reports the presence of six (6) historical 10,000-gallon USTs – two that were installed in 1956 and three that were installed in 1971. The USTs are listed as containing "product".

- The CA EMI database reports that the Property operates under a South Coast Quality Management District (AQMD) permits for the emission of total organic hydrocarbon gases, reactive organic gases, carbon monoxide, nitrogen oxides, and sulphur oxides between 1987 and 2016 with no reported violations.

- The NPDES database reports that the Property was issued an industrial wastewater discharge permit (WDID no. 8 30I001214) in 1992.

- The HAZNET database reports that the Property has disposed of various hazardous wastes including asbestos containing waste, waste and mixed oil, aqueous solutions with total organic residues of 10 percent or more, other organic solids, PCBs and material containing PCBs, and adhesives.

- The ERNS database reports that separate releases of sodium hypochlorite occurred at the Property in 1990 and 1992. The sodium hypochlorite flowed into a sump and affected soil in the area. In both instances the liquid was pumped from the sump and impacted soil was excavated and disposed.

### 4.2.2 Adjacent Property Listings

Stantec assessed data presented in the environmental agency database search report to evaluate the potential for conditions to pose a REC, CREC, or HREC for the Property.

Due to the regional westerly groundwater flow direction and documented Orange County North Basin NPL contamination at and downgradient of the subject property, Stantec has evaluated only those sites listed in the EDR Report as located adjacent to or hydraulically upgradient (east)

of the subject property for their potential to impact the subject property. Also, based on the large number of adjacent to or upgradient listings, only those listings with the highest likelihood to be of environmental concern have been summarized below (e.g., PROPOSED NPL, ENVIROSTOR, SEMS, SEMS-ARCHIVE, LUST, SLIC, UST, AST, CA FID UST, SWEEPS UST, HAZNET, HIST CORTESE, and HIST UST).

Based on this evaluation, the following individual facilities were identified as the most likely potential sources of impact to the Property. The basis for why each of the following listed databases does or does not create a REC for the Property is also provided.

| Listed Facility Name/Address | Database Listing | Distance/Direction from Property | REC? (YES / NO) |
|---|---|---|---|
| Orange County North Basin<br>1012 East Elm Ave<br>Fullerton and Anaheim, CA | PROPOSED NPL, SEMS | Regional Groundwater Plume | Yes |
| The Property is located in an area listed in the Proposed NPL database due to regional groundwater impacts from VOCs. The groundwater impacts in the North Basin are the result of spills and leaks from industrial activities over the preceding decades. The EPA is reviewing historical documents and other sources of information to identify PRPs to assist in funding the cleanup. As discussed in other sections of this report, the documented VOC regional groundwater impacts from off-Property sources constitute a REC to the Property. | | | |
| Golden West Towing Equipment<br>1850 E. Orangethorpe Ave<br>Fullerton, CA | SEMS / RCRA NonGen / NLR / RESPONSE / ENVIROSTOR / CERS HAZ WASTE / Cortese / CERS | 100 feet south (cross-gradient) | Yes |
| This facility is listed in the SEMS and ENVIROSTOR with DTSC (Cal-EPA) listed as the lead agency overseeing environmental cleanup as of August 21, 2017. No specific information is provided. The property is considered a REC as it relates to the OCNB groundwater plume. | | | |
| Vista Paint<br>2020 E. Orangethorpe Ave<br>Fullerton, CA | SEMS / LUST / Hist Cortese / CERS / RCRA-LQG / CPS-SLIC / UST / CERS HAZ WASTE / SWEEPS UST / HIST UST / CA FID UST / US AIRS / EMI / NPDES / WDS / CIWQS / CERS | 100 feet south (cross-gradient) | Yes |
| The facility is listed as LUST site due to a release of substance "107211" (Ethylene Glycol). The release is listed as having affected only soil and was issued case closure from the City of Fullerton Fire Department on March 30, 2009. The facility is also listed in the CERS HAZ WASTE database with multiple violations related to compliance, inspections, and improper labeling or storage of waste. The facility is also listed in several of the databases as having former fuel and waste USTs, and for air emissions between 1987 and 2014. The SLIC database indicates that this facility is a PRP in the OCNB groundwater cleanup. This site is considered a REC as it relates to past chemical releases and potential contribution to the North Basin groundwater plume. | | | |

| Listed Facility Name/Address | Database Listing | Distance/Direction from Property | REC? (YES / NO) |
|---|---|---|---|
| Khyber Foods<br>Metalclad Insulation Corporation<br>JC Ford MFG Co<br>1818 Rosslynn Ave<br>Fullerton, CA | SEMS / LUST / UST/ WDS / CHMIRS / CERS / RCRA-SQG / HAZNET / HISTY UST / CPS-SLIC / REPONSE / ENVIROSTOR / CERS | 90 feet north (cross-gradient) | Yes |
| The facility is listed as LUST and SLIC site due to past releases of gasoline and chlorinated solvents. The release of gasoline is listed as having affected only soil and was issued case closure from the Orange County Local Oversight Program (LOP) on April 9, 1990. The release of chlorinated solvents is listed as having affected soil and groundwater and was issued case closure from the Regional Water Quality Control Board (RWQCB) with no specified date. This facility is considered a REC as it relates to past chemical releases and potential contribution to the OCNB groundwater plume. | | | |
| Winonics Inc DBA Bench 2 Bench<br>1257 S State College Blvd<br>Fullerton, CA | SEMS-ARCHIVE / RCRA-SQG / FINDS / ECHO / ENVIROSTOR / LUST / CPS-SLIC / CA FID UST / CA Orange Co. Industrial Site / TRIS / EMI / CERS / UST /CERS HAS WASTE / SWEEPS UST | Adjacent to the east-southeast | Yes |
| The various UST databases indicate there may have been one 500-gallon fuel UST and one 2,000-gallon waste UST at this facility in 1992. The LUST database (Case No. 9OUT003) is related to potential contamination of lead, copper, nickel, and chromium to soil. The LUST case was opened in December 1989 during tank closure activities; closure was obtained on February 5, 1990. The SEMS-ARCHIVE database indicates that the facility was investigated by Cal-EPA/DTSC and determined that no further steps will be taken for inclusion of the facility on the NPL. However, the ENVIROSTOR database indicates that an inactive case is open for the site that requires additional evaluation and that the facility is a circuit board manufacturer and reportedly operates a plating line. This facility is considered a REC due to a potential vapor encroachment condition (pVEC). | | | |
| PCA Metal Finishing<br>1723 E. Kimberly Ave<br>Fullerton, CA | SEMS-ARCHIVE / CPS-SLIC / CERS | 110 feet north-northwest | Yes |
| The facility has an open case with DTSC for releases of copper, nickel, and chromium compounds, PCE, and TCE that have affected groundwater, soil, and soil vapor. This site is considered a REC as it relates to past chemical releases and may present a pVEC to the Property. | | | |
| Alcoa Global Fasteners, Inc<br>Orange County North Basin – Arconic Global Fasteners<br>800 S State College Blvd<br>Fullerton, CA | ENVIROSTOR / HIST UST / Orange Co. Industrial Site / EMI / WDS / CPS-SLIC / CERS / CERS HAZ WASTE / CERS TANKS / NPDES / CIWQS | 330 feet northeast | Yes |
| The facility has an open case with the RWQCB and appears to be associated with the OCNB groundwater cleanup for releases of PCE and TCE that have affected groundwater. PCE and TCE have been detected | | | |

| Listed Facility Name/Address | Database Listing | Distance/Direction from Property | REC? (YES / NO) |
|---|---|---|---|
| in groundwater as high as 99 and 41 ug/L, respectively. This facility is considered a REC as it relates to past chemical releases and may present a pVEC to the Property. | | | |
| St Hart Container<br>MPP Fullerton<br>1901 E. Rosslynn Ave<br>Fullerton, CA | ENVIROSTOR / VCP / RCRA NonGen / CERS HAZ WASTE / CERS / RCRA-SQG / HAZNET | 180 feet north | Yes |
| The facility has an open case with the DTSC under the voluntary cleanup program (VCP) for releases of PCE that have affected soil and soil vapor. The facility is considered a REC as it relates to past chemical releases and may present a pVEC to the Property. | | | |
| Thrifty Oil #303/ARCO 9677<br>P&M Service Station<br>Target Station<br>2351 Orangethorpe Ave<br>Fullerton, CA | LUST | 300 feet east-southeast | No |
| This facility has reported two releases that have affect only soil. The first case was issued closure on July 28, 2011and the more recent case is listed with a status of "preliminary site assessment underway". Given that the releases are reported to have only affected soil and that this facility is 300 feet from the east Property boundary, no further investigation is recommended with regard to potential impacts to the Property. | | | |
| United Rentals Inc Branch 515<br>US Rentals<br>1301 S State College Blvd<br>Fullerton, CA | LUST | 300 feet east-southeast | No |
| This facility reported a release of gasoline that affected soil but was issued closure by the City of Fullerton on January 23, 2001. Given that the release is reported to have only affected soil and that this facility is 300 feet from the southeast Property boundary, no further investigation is recommended with regard to potential impacts to the Property. | | | |
| Chevron USA<br>1803 E. Orangethorpe Ave<br>Fullerton, CA | LUST / HIST UST / CERS | <1 foot | No |
| Upon further research this facility was located at 1803 W. Orangethorpe Ave, 3.5 miles to the west of the Property. | | | |
| Coast Roof Company<br>2301 E. Orangethorpe Ave<br>Fullerton, CA | UST / AST / CA FID UST / EMI / CERS / SWEEPS UST | <1 foot | No |
| According to the SWEEPS UST, this facility reportedly had a 10,000-gallon leaded gasoline UST. There are no releases reported in the EDR for this facility. However, given the size of the parcel and that it is adjacent to the Property, the presence or former presence of this UST is considered a REC. | | | |
| Myers & Sons, Hi-Way Safety<br>2304 E. Orangethorpe Ave<br>Fullerton, CA | HIST UST / CA FID UST / UST / SWEEPS UST | 100 feet southeast | No |
| This facility is listed as having had operated a 1,000-gallon gasoline UST. There are no releases associated with this facility. As a result, no further investigation is recommended. | | | |

| Listed Facility Name/Address | Database Listing | Distance/Direction from Property | REC? (YES / NO) |
|---|---|---|---|
| Future Foam<br>Covington Development<br>2451 Cypress Way<br>Fullerton, CA | CERS HAZ WASTE / CERS TANKS / EMI / NPDES / WDS / CIWQS / CERS | 130 feet east | No |
| This facility is listed as operating a fuel AST. There are no releases associated with this facility. As a result, no further investigation is recommended. | | | |

The remaining listings in the database search report provided in Appendix B do not constitute a REC for the Property.

## 4.3 LOCAL/REGIONAL ENVIRONMENTAL RECORDS

Stantec checked the following sources to obtain information pertaining to Property use and/or indications of RECs in connection with the Property:

### 4.3.1 Department of Toxic Substance Control (DTSC)

| Agency Name<br>Contact Information | Finding |
|---|---|
| Department of Toxic Substance Control (DTSC)<br>9211 Oakdale Avenue<br>Chatsworth, California 91311<br>http://www.envirostor.dtsc.ca.gov/ | The Property is not listed on Envirostor - the online public database managed by the DTSC. Several of the surrounding properties are listed in the database that are either associated with the regional Orange County North Basin groundwater plume, a Voluntary Cleanup Program (VCP), or a tiered permit facility. These facilities, and other nearby facilities, are discussed in Section 4.2.2 above. |

### 4.3.2 Regional Water Quality Control Board

| Agency Name<br>Contact Information | Finding |
|---|---|
| Regional Water Quality Control Board (RWQCB) – Santa Ana Region<br>3737 Main Street, Suite 500<br>Riverside, CA 92501<br><br>http://geotracker.waterboards.ca.gov/ | A review of the online Geotracker database, managed by the RWQCB, shows that a leaking underground storage tank (LUST) case is associated with the Property. The database indicates that the case was associated with a release of diesel fuel from USTs that impacted soil at the Property. The Property was issued closure by the City of Fullerton Fire Department on January 22, 1992. No other information is provided on Geotracker regarding case specifics. However, Stantec was provided with a former Phase I ESA report by Antea that discusses the former diesel UST release and includes copies of documents pertaining to the case. Further discussion and details regarding this release, and residual contamination that was left in place, are provided in Section 4.4.6. |

### 4.3.3 Orange County Health Care Agency

| Agency Name<br>Contact Information | Finding |
|---|---|
| Orange County Health Care Agency<br>1251 E. Dyer Road<br>Santa Ana, California | Stantec contacted the Orange County Health Care Agency on July 19, 2019 and requested photocopies of pertinent hazardous materials records, including files from their industrial cleanup and local oversight programs. Stantec received several hundred pages of files on July 23, 2019. Stantec conducted a cursory review of the files received, which included:<br>• Various regulatory records for review of compliance documents and on-site compliance inspections between 2005 and 2018. Lists of hazardous materials contained in ASTs, drums, or other containers included lube oil, machine oil, used oil, mineral oil, chromium or cadmium grinding sludge, adhesives, and non-halogenated solvents.<br>• Limited documents pertained to the removal of six USTs (2 fuel oil, 1 vinyl acetate, 2 mineral spirits, and 1 dioctyl phthalate) in 1986. The records also suggest that the two fuel oil USTs were removed from the area east of Building 4, while the other four USTs appear to have been removed elsewhere on the Property near an unspecified loading dock. Staining and odors were noted in the fuel oil UST excavation by the OCHCA inspector. No evidence of soil impacts were noted by the inspector in the excavation for the four other USTs.<br>• Several years' worth of forms and correspondence documenting business activities, above-ground petroleum storage tanks, and Spill, Prevention, Control, and Countermeasure Plans (SPCC).<br>• Reports and correspondence pertaining to investigation and regulatory closure of reported subsurface contamination related to storage and dispensing of bleach from an above-ground storage tank.<br>• CERS documentation related to the onsite Southern California Edison (SCE) Substation. Documents indicate the use and storage of 2,843 gallons of mineral oil.<br>• Phase II ESA report by Weeco Environmental and subsequent no further action (NFA) letter dated April 21, 1998 from OCHCA, and with concurrence from the RWQCB, regarding a release of sodium hypochlorite in the area of the tank farm. |

### 4.3.4 Local Building and/or Planning Department Records

| Agency Name, Contact Information | Findings |
|---|---|
| City of Fullerton<br>Building Division<br>303 W. Commonwealth Ave,<br>Fullerton, California<br>Phone: (714) 738-6300 | Archived building records for the City of Fullerton are available online at https://docs.cityoffullerton.com/weblink/Browse.aspx?dbid=1&startid=91553&cr=1. Stantec conducted a cursory search of the available records and found that most of the records consisted of permits for original construction or upgrades for lighting/electrical, building (including roof installation/upgrades), fire suppression system upgrades, grading, mechanical, plumbing, signage, and landscaping. Although a brief review of the files was performed, Stantec did not review every page of every permit due to the length and number of documents available. Based on the findings from the cursory review, we do not expect that this information would materially change the conclusions of this assessment. For example, certain building permits were issued for the installation of chemical storage tanks. However, these permits reported no additional details such as contents or location, that would provide useful information pertaining to the assessment. In the event that a complete review of building permits is deemed necessary by the User of this report, a separate file review can be completed at a later date under a separate task order. |

## 4.4 HISTORICAL RECORDS REVIEW

### 4.4.1 Land Title Records/Deeds

An environmental Lien Search conducted by EDR did not identify any Environmental Liens or Activity Use Limitations for the Property or the adjoining property at 2301 E. Orangethorpe Ave.

### 4.4.2 Aerial Photographs

Stantec reviewed historical aerial photographs provided by EDR. The general type of activity on a property and land use changes can often be discerned from the type and layout of structures visible in the photographs. However, specific elements of a facility's operation usually cannot be discerned from aerial photographs alone. The following table summarizes Stantec's observations of the reviewed historical aerial photographs.

Copies of the historical aerial photographs are located in Appendix F.

| Year | Scale | Observations, Property and Adjoining Properties |
|---|---|---|
| 1938, 1947 | 1:500 | The Property is primarily an orchard. A residence is located in the northwest portion and three additional buildings that vary in size are in the north and east portions of the Property.<br><br>The surrounding properties consist of agricultural and residential properties. |

| Year | Scale | Observations, Property and Adjoining Properties |
|---|---|---|
| 1953 | 1:500 | Property development is generally consistent with the previous photograph except that a small residence has been constructed and some of the orchard has been cleared out in the north and northeast areas. The three additional buildings in the north and east portions are no longer visible.<br><br>The 2301 E Orangethorpe Avenue facility appears to have been developed with the same buildings that presently occupy the Orange Coast Roofing property. |
| 1963 | 1:500 | The central portion of the KCC mill and warehouse areas have been developed. An access road/driveway connects the property to S. Acacia Street and Kimberly Avenue. The rail spurs extend from the east side of the mill and warehouse buildings to the adjacent rail line along Kimberly Avenue. A parking lot is present south of the building. ASTs, smaller outbuildings, and other operations appear to be located to the east of the mill at the current location of the co-gen plant. The water ASTs, used for fire suppression, are visible in the northern portion of the Property. A truck access or similar cleared area is present along the west side of the building. The areas to the west and east-southeast of the mill remain orchards.<br><br>The building complex located southeast and adjacent to the Property is depicted mostly in its present configuration, with the exception of some small buildings in its southwest section. Industrial/commercial type development is present in all directions around the Property. |
| 1972 | 1:500 | The mill and warehouse areas have been expanded to the west, and the existing pulp storage building (Building 11) was added to the east end of the mill. The water processing tanks, boiler house, and associated equipment are visible to the east of Building 11.<br><br>The surrounding area has become increasingly developed with commercial/industrial facilities. |
| 1977 | 1:500 | Additional buildings have been constructed in the central portion of the mill/warehouse and now appear as connected buildings. Additional water treatment features are present to the east Building 11, and an additional large tank has been installed to the east of the water treatment area. Expanded outdoor storage/truck parking is present east of the fire suppression tanks in the north-central portion of the Property. A baseball field is present at the far northeastern corner of the Property. |
| 1987 | 1:500 | The warehouse portion of the mill has expanded to the southwest and an additional loading dock are visible along the south exterior wall. Additional truck parking is now present to the east of the car parking lot. The baseball field has been replaced by truck parking.<br><br>Commercial/industrial development continues in the surrounding area. |
| 1990 | 1:500 | Additional paved area is now present near the southwest loading dock. |
| 1995 | 1:500 | The Property appears similar to the previous photograph. |

| Year | Scale | Observations, Property and Adjoining Properties |
|---|---|---|
| | | The building complex that contains the Winonics facility is now visible on the southeast adjacent property and is depicted in its present configuration. |
| 2002, 2005, 2009, 2012, 2016 | 1:500 | The Property and surrounding area appears relatively unchanged from previous photographs. |

### 4.4.3 City Directories

Stantec reviewed the historical city directories provided by EDR. The findings are summarized below:

**2001 E. Orangethorpe Avenue**

- Kimberly-Clark Corporation (1955 – 2014)
- Solar Turbines Incorporated (2005-2014)
- Skidmore Owings & Merrill Arcts (1955)
- Granades Cafeteria (1966)
- Consumer & Commercial Sales (1975)

**City Directories for Adjacent Properties:**

**1850 E. Orangethorpe Avenue**

- McWilliams Truck Simply the Best (1995)

**1900 E. Orangethorpe Avenue**

- Mid South Pallet Repair, Pyramid Transportation (1995)
- Manufacturing Waterbeds (1986)
- Home Hardware Division of Norris Industries (1975, 1980)
- Hyer Hardware Manufacturing Co (1975)

**1950 E. Orangethorpe Avenue**

- Monitor Electric Inc (1991)

**2000 E. Orangethorpe Avenue**

- Auto Truck Electronic Don Chrisman (1980)

**2020 E. Orangethorpe Avenue**

- Corporate Office (1995)
- Vista Paint and Wall Covering (1995)
- Fullerton, General Offices (1991)

**2030 E. Orangethorpe Avenue**

- Service Station Supply Co Daper (1980)

**2100 E. Orangethorpe Avenue**

- Auto Car Leasing (1995)

**2125 E. Orangethorpe Avenue**

- Gabbianos (1995)

**2125 E. Orangethorpe Avenue**

- C Technologies (2005-2014)

**2150 E. Orangethorpe Avenue**

- Guardian Self Storage (1995)

**2210 E. Orangethorpe Avenue**

- Residential (1966)

**2214 E. Orangethorpe Avenue**

- Residential (1966)

**2230 E. Orangethorpe Avenue**

- Computer Service Co, Payne Rudy Mobile Truck Repair, Steiny & Co Inc, Computer Service Consultant (1995)
- Service Manufacturing Company (1986)
- School Pictures Inc (1966-1980)

**2238 E. Orangethorpe Avenue**

- Warehouse (1966)

**2250 E. Orangethorpe Avenue**

- Avis Rent A Car (1995)
- Fullerton Medical Center, American Medical Network, various medical (1966-1995)

**2137 E. Orangethorpe Avenue**

- Karger BB & Associates (1955)

**2012 E. Orangethorpe Avenue**

- Residential (1960)

**2301 E. Orangethorpe Avenue**

- Auto Car Leasing (1995)

**1200 S. State College Blvd**

- Marco Machinery Maintenance & Repair (1995)
- Millard Pacific Metal Service Center (1980 – 1986)
- County Metal Supply Co (1965 – 1980)

### 4.4.4 Historical Fire Insurance Maps

Fire insurance maps were developed for use by insurance companies to depict facilities, properties, and their uses for many locations throughout the United States. These maps provide information on the history of prior land use and are useful in assessing whether there may be potential environmental contamination on or near the Property. These maps, which have been periodically updated since the late 19th century, often provide valuable insight into historical Property uses.

Stantec requested fire insurance maps from EDR; however, there is no coverage for the Property. The Sanborn® Map Search Report is presented in Appendix F.

### 4.4.5 Historical Topographic Maps

Stantec reviewed historical USGS 7.5-Minute Topographic Maps of the Property vicinity to help identify past Property usage and areas of potential environmental concern.

Stantec identified no additional RECs based on its review of the topographic maps. Copies of the historical maps are provided in Appendix F. The following table summarizes the maps reviewed and our observations.

| Year | Scale | Observations, Property and Adjoining Properties |
|---|---|---|
| 1896, 1898, 1901 & 1902 | 1:62,500 | The Property is depicted as primarily vacant land, with three small buildings. The surrounding area is lightly developed with small residential/agricultural buildings. A railroad easement identified as "Los Angeles" is present to the west, as well as the town of Fullerton. The town of Placentia is labeled on the 1901 and 1902 maps. |
| 1935 | 1:24,000 | An access road is illustrated on the northwest side of the Property.<br><br>A small building is present southeast adjacent to the subject property. Carbon Canyon Creek is depicted south of the subject property, followed by a low-relief feature. Fullerton and Placentia have expanded, and La Jolla is now depicted to the east. The Santa Fe railroad is present to the north. More buildings are present along Orangethorpe Avenue. |

| Year | Scale | Observations, Property and Adjoining Properties |
|---|---|---|
| 1942 | 1:24,000 | The Property is depicted as orchard, with the same three small buildings as were mapped prior.<br><br>The region surrounding the subject property is depicted as agricultural orchards and one small building has been constructed on the adjacent property at 2301 E. Orangethorpe Avenue to the south. |
| 1949, 1950 | 1:24,000 | No significant changes are apparent in the subject property as compared to the previous map.<br><br>A wastewater disposal plant is depicted to the south of the subject property, and a flood control basin is depicted to the southeast. Anaheim appears to the southwest. |
| 1964 & 1965 | 1:24,000 | The central portion of the Property has been developed with several of the interconnecting buildings that make up the existing KCC facility. Water tanks are depicted immediately to the east of these buildings. Access road/driveway connects the property to South Acacia Street and Kimberly Avenue. Three railroad spurs extend from the east sides of the buildings and connect to the adjacent rail line to the north, along Kimberly Avenue. The remainder of the property remains as an orchard.<br><br>A cluster of two large and three small buildings is now present southeast adjacent to the subject property. A railroad is depicted to the north of Kimberly Avenue. A fire station is present to the north, across the railroad. Much of the surrounding area is now occupied by large industrial-type buildings. One of these buildings is present to the west, across South Acacia Street. A retention basin is now present to the southeast, across the freeway. |
| 1972 | 1:24,000 | Warehouse additions have been constructed on the north and west sides of the facility, and the pulp storage building to the east, near the tanks.<br><br>General municipal and industrial/commercial expansion is evident in the surrounding area. New buildings are present to the west across South Acacia Street, and to the south across Orangethorpe Avenue. |
| 1981 | 1:24,000 | Additional buildings have been added to the main facility, filling out the northeast portion. One water tank is depicted as replaced, and a new tank is depicted to the east of the driveway.<br><br>Large commercial/industrial buildings are depicted in all directions. |
| 2012 | 1:24,000 | Other than roads, there are no individual structures or development features depicted on the map. |

USGS via EDR, 2019

### 4.4.6 Other Historical Sources

The following environmental report was provided to Stantec for review and a copy of the report is provided in Appendix F.

**Antea Group, 2018, Phase 1 Environmental Site Assessment, Kimberly-Clark Corporation, Fullerton Mill, 2001 E. Orangethorpe Ave, Fullerton, California 92831, November 5.**

The Phase I ESA provides an overview of information obtained regard past and present uses of the Property. Antea's review of historical records indicate the Property was first developed circa 1955/1956 and was constructed in phases with multiple building additions and outbuildings used for manufacturing, warehousing, and office space. Records indicate that the existing buildings were constructed and occupied solely by KCC since their development. Prior to commercial development, the Property and the surrounding area was used for agricultural purposes (fruit and/or nut orchards).

The report identified several former USTs, various ASTs (fuel, polymer, bleach, mineral oil), chemical/waste storage areas, clarifiers, floor drains, machine shops. Antea noted an adjacent property 2301 E. Orangethorpe Avenue) along the southern boundary is occupied by a roofing company that formerly operated several USTs and that the USTs were in close proximity to the Property boundary. However, the USTs on that parcel were reportedly removed. Although the report identified the aforementioned industrial support or processing infrastructure that pose a material threat of a future release, none of them were cited in the report as RECs and the report did not recommend further investigation in these areas. However, the Antea Phase I ESA identified the following as RECs, CRECs, or HRECs:

- **Orange County North Basin Superfund site.** Region-wide and private well sampling, mandated by regulatory agencies, has identified VOC commination in the principal and shallow groundwater aquifers at concentrations as high as 5 to 10 times their respective maximum contaminant levels (MCLs). The plume is mapped as extending beneath a large portion of the Property with the highest concentrations migrating onsite from the northwest but reducing in concentrations in a southward direction to roughly one to five times the MCLs. These regional impacts have impacted an on-site water well owned by the City of Fullerton. As a result, the Orange County North Basin Superfund site was identified by Antea as a REC.

- **Petroleum Contaminated Soil.** In May of 1986 a release of petroleum hydrocarbons was discovered following the removal of two diesel/fuel oil USTs. However, the City of Fullerton Fire Department issued a closure letter for the release on January 22, 1992 with the condition that additional assessment or cleanup may be required in the future based on new data or changes in land use. During two separate construction projects at the Property in 1992 and 2002 approximately 2,000 tons of petroleum-impacted soil were excavated from the vicinity of the former USTs. At the conclusion of the excavation activities in 2002, it was found that limited petroleum impacts extended beneath the boiler house and had impacted groundwater which is present at a depth of approximately 30 feet bgs. Antea concluded that due to the release receiving regulatory closure, and because the impacted soils are beneath paved surfaces or buildings, the petroleum impacted soils at this location were a CREC.

- **Sodium hypochlorite (Bleach) spills.** Several bleach spills were documented to have occurred in the KCC tank farm area between 1990 and 1997. Soil testing in the area of the spills reported low levels of sodium hypochlorite in soil to depth of up to 40 feet bgs. Although there is no published regulatory clean up goal established for sodium hypochlorite, the County of Orange Division of Environmental Health calculate that the potential exposure due to sodium hypochlorite in the soil was comparable to that of a swimming pool. The county issued a closure letter for the bleach spills on April 21, 1998.

Antea concluded that the bleach spill was considered an HREC since regulatory closure was issued.

- **Fuel Spill.** A commercial truck was involved in an accident along Kimberly Avenue, near the north entrance of the Property in November of 2003. Diesel fuel was released onto the pavement and into the storm drains. The fuel spill was cleaned up under the oversight of the local regulatory authority on the same day by vacuuming up the fuel/water mixture and using absorbents. No further actions were required by the responsible party. Given that the cleanup occurred with regulatory oversight, Antea considered the fuel spill a HREC.

In addition, the Antea Phase I ESA report did not consider the following issues to meet the definition of a REC, CREC, or HREC but instead identified them as noteworthy items:

- **Past Agricultural Use.** The Property was historically farmed as a fruit and/or nut orchard prior to development of the land by KCC in the mid-1950s. Antea indicated that pesticides can persist in the subsurface long after application.

- **2301 East Orangethorpe Avenue (Adjacent Property).** The adjacent property to the south, which is included as part of Stantec's Phase 1 ESA, was identified as being occupied by Coast Roof Co. (2301 E. Orangethorpe Avenue). Two generations of USTs were formerly located on this property, approximately 30 feet from the KCC property boundary. While removal documentation of the USTs was obtained, Antea found no documentation regarding soil confirmation sampling or that any regulatory driven environmental investigations were performed following UST removal.

# 5.0 PROPERTY RECONNAISSANCE

A visit to the Property and its vicinity was conducted by Brian Viggiano, Senior Geologist, and Dion Monge, Senior Scientist with Stantec, on July 18, 2019. Access to the Property was coordinated with Mr. Paul Curry, Mechanical Engineer with KCC. Mr. Curry coordinated access to the Property and escorted Stantec through the interior and exterior portions of the facility during the Property visit. Figure 2 provides information about the Property and adjoining properties. Photographs collected during the Property visit are included in Appendix A.

## 5.1 PROPERTY RECONNAISSANCE METHODOLOGY

The Property reconnaissance focused on observation of current conditions and observable indications of past uses and conditions that may indicate the presence of RECs. The Property reconnaissance was conducted on foot, and travel across portions of the Property were conducted in a vehicle.

Weather conditions during the visit to the Property were clear and sunny. There were no weather-related property access restrictions encountered during the reconnaissance visit.

## 5.2 GENERAL DESCRIPTION

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|---|---|
| **Property and Area Description:** | The Property consists of two (2) parcels totaling approximately 65 acres of land in the City of Fullerton, Orange County, California. The parcels are developed with over 1.2 million square feet of manufacturing, warehouse, and office space – including several outbuildings and infrastructure that support paper manufacturing and processing activities. Approximately 7.75 acres of the eastern portion of the Property and 2.5 acres of the southwest portion remain as citrus orchards.<br><br>The Property is bounded to the west by Acacia Avenue, then commercial/ industrial properties; to the south by the Orangethorpe Ave, then commercial/ industrial properties; to the east by State College Blvd, then commercial/ industrial properties; and to the north by Kimberly Ave followed by a railroad easement with multiple spurs, then commercial/ industrial properties. |
| **Property Operations.** | The KCC Fullerton Mill manufactures paper products, including mostly facial and bath tissue, and paper towels/wipes. Based on discussions with Mr. Paul Curry during the Property reconnaissance, past operations once included manufacturing diapers, tarry towels, tinted/printed bath tissues, and feminine hygiene products. According to Grace Madden, KCC, the paper pulp is not manufactured onsite but is purchased from various distributors based on the source of the pulp necessary for manufacturing certain products according to specification (i.e. strength, softness, smoothness etc). The pulp is stored onsite and initially processed in the eastern portion of the mill with the bulk of these activities occurring in Buildings 11 and 1, respectively. |

| | |
|---|---|
| | Operations at the Property include everything from processing the tissue from a pulp and water mixture, converting the pulp mixture into tissue sheets and rolls, packaging, warehousing, and shipping. The primary raw materials used in the tissue manufacturing process are water, surfactants, mineral oils, adhesives, starch, sodium hypochlorite (bleach), various polymers, and paper/plastic for packaging. Numerous other lubricants, oils, and other materials are used throughout the facility to support the manufacturing processes.<br><br>In brief, the manufacturing of tissue involves the large-scale and vigorous mixing of raw pulp, water, and other additives (e.g., starch, surfactants). Once adequately mixed, the liquid pulp mixture is sprayed onto large roller belts and dried to a state at which it can be rolled onto industrial "hard rolls" of bulk tissue paper. The hard rolls are then stored in warehouse space until processed by the various tissue machines into smaller rolls, and then eventually packaged and shipped offsite.<br><br>The above referenced manufacturing process involves the use of large quantities of water, which is derived from a municipal source. Overflow water is captured via a network of floor drains, trenches, and sumps, before being re-routed into the facility's water treatment system where it is re-used in combination with the fresh intake water. All waste raw pulp is typically reused gathered and brought to Building 11 for reuse.<br><br>As part of the July 2019 site reconnaissance, KCC personnel led Stantec through the facility's manufacturing, warehouse, support buildings, and exterior infrastructure that included various ASTs, water treatment areas, and wastewater and stormwater discharge points. Stantec has collected information from the Property reconnaissance and from KCC-provided documents to complete a basic outline of the building uses and observations. The outline is provided below. |
| **Structures, Roads, Other Improvements:** | The Property is developed with multiple connecting buildings and includes offices, manufacturing floor, and warehouse space. With the exception of Building #1 and the adjoining water treatment plant and boiler house, which are underlain by a connecting basement, all of the remaining buildings are slab-on-grade construction. Most warehouse and manufacturing buildings are single-story, high-bay structures, but several of the buildings include second stories or mezzanines. The original buildings were constructed in the mid-1950s, and for the 30 years that followed, additional buildings were constructed through the late-1980s with some later improvements occurring in the area of the water treatment and co-generation areas east of Building 11.<br><br>Collectively, the buildings occupy approximately 30 acres. Four main loading or rail docks are present – one near the southwestern corner of the site (Building 19), two near the northeastern corner (Buildings 6 and 13), and one in Building 11. The loading docks/areas for Buildings 6 and 11 are also accessible via existing rail spurs.<br><br>Asphalt paved parking lots are present to the east of the north gate entrance along Kimberly Avenue, and paved lots for employee and visitor parking are present in the south-central portion of the Property, along Orangethorpe Avenue. An approximate 2.5-acre paved parking |

| | |
|---|---|
| | lot in the northeast corner of the Property is leased and currently used for RV parking.<br><br>Significant observations for each building and exterior infrastructure are discussed in Sections 5.4 and 5.5, respectively. |
| **Property Size (acres):** | Approximately 65 acres. |
| **Estimated % of Property Covered by Buildings and/or Pavement:** | 70% |
| **Observed Current Property Use/Operations:** | The Property is operated as the KCC Fullerton Mill. Remnant orchards are present but appear to largely be unmaintained. |
| **Observed Evidence of Past Property Use(s):** | KCC Fullerton Mill and formerly an orchard. |
| **Sewage Disposal Method (and age):** | The Property is connected to the City sewer since it was constructed in 1955/1956. No evidence of septic systems was observed during the Property Walk. However, the existence or use of on-site historical septic systems cannot be ruled out.<br><br>Past wastewater discharge sampling results provided to Stantec by KCC for the sampling events between 1993 and 2008 reported no PCE or TCE. Additionally, Ms. Grace Madden of KCC indicate to Stantec that KCC has never had a violation for exceeding allowable VOC concentrations in wastewater. |
| **Potable Water Source:** | The Property is connected to the municipal water supply and derives the bulk of its water used for manufacturing from an onsite production well (F-KIM-2) and one offsite production well (F-KIM-1A) to the west of the Property.<br><br>Limited sampling results of water collected from F-KIM-2 were provided to Stantec by KCC between 1985 and 2006. The results show that PCE ranged from below the laboratory reporting limit to 4.7 ug/L and TCE reached a peak concentration of 1.2 ug/L but was below laboratory reporting limits between January of 1993 and the last listed sampling even in February of 2006. |
| **Electric Utility:** | The property is connected to the municipal electric company. |

## 5.3 HAZARDOUS SUBSTANCES AND PETROLEUM PRODUCTS

The following table summarizes Stantec's observations during the Property reconnaissance.

| Observations | Description/Location |
|---|---|
| **Hazardous Substances and Petroleum Products as Defined by CERCLA 42 U.S.C. § 9601(14):** | Chemical storage areas were observed throughout the Property but were primarily located in pulp processing areas of Building 1, maintenance and machine shops (Buildings 1, 3, 9, 10, and 21), water treatment area east of Building 11, and Building 25 – the chemical storage building. |

| Observations | Description/Location |
|---|---|
| | In general, these chemicals were stored in various sizes of drum, totes, or ASTs of mineral oil, gear/lube oils, compressor oils, diesel fuel, hydraulic oil, and used oils. Chemicals were observed within secondary containment or located within the building's interior walls. |
| **Drums (≥ 5 gallons):** | Drums were observed in various areas throughout the Property, but the surrounding surfaces appeared clean and well maintained. A high density of 55-gallon drum and totes were observed in Building 25, the chemical storage building. The drums in Building 25 were surrounded by trench drains that led to three separate sumps for containment purposes in the event of a release. |
| **Strong, Pungent, or Noxious Odors:** | Odors were observed in Building 1 where pulp processing activities were occurring, and ammonia odors were observed in the water treatment area east of Building 11. |
| **Pools of Liquid:** | None observed. |
| **Unidentified Substance Containers:** | None observed. |
| **PCB-Containing Equipment:** | So-Cal Edison operates a sub-station at the subject property and reported to Kimberly-Clark that the substation does not contain PCBs. Kimberly-Clark escorts did not have access to the interior of the sub-station, so Stantec was only able to observe equipment from outside of the fenced area; no staining was observed.<br><br>In addition, pole-mounted electrical transformers were observed in the north-central portion of the Property near the north entrance along Kimberly Ave. No surface staining or evidence of a release was observed on the ground below the transformer units. |
| **Other Observed Evidence of Hazardous Substances or Petroleum Products:** | A diesel-fueled emergency backup generator was observed in the southwest portion of the ground floor level in Building 1. No staining or evidence of a release was noted on the surrounding concrete slab. |

## 5.4 INTERIOR OBSERVATIONS

| Observations | Description |
|---|---|
| **Heating/Cooling Method:** | Electric and natural gas heating units; historically the Property used fuel oil for hoods. A Co Gen was installed at the Property in 2001 – 2002 for natural gas. |
| **Surface Stains or Corrosion:** | Surface corrosion/etching was evident on the concrete floor throughout the majority of the forklift battery charging area in Building #3. |
| **Floor Drains and Sumps:** | Floor drains, trench drains, and evidence of past or filled floor drains or trench drains were observed throughout interior and exterior portions of the Property. Sumps were observed in Buildings 1, 5, 8, and 25, and the bleach dispensing pad adjacent to the west of the tank farm. |

| Observations | Description |
|---|---|
| **Other Interior Observations:** | **Building #1 and Basement – Tissue Manufacturing and Machine Shop**<br>• Ground floor mechanic shop, machine shop and equipment, including milling machines, lathes, drill presses, grinders, metal presses, etc.<br>• Ground floor diesel-fueled emergency backup generator and parts washer in maintenance shop area.<br>• Two large Yankee Dryers (ground floor).<br>• Building underlain by basement – multi-story manufacturing process for two tissue machines.<br>• Pulp mixing tanks extending from ground floor into the basement<br>• Floor drains and sumps in basement, leading to water treatment/recycling system.<br>• Two approximately 1,000-gallon light oil ASTs in basement.<br><br>**Building #2 – Bundle Packaging and Warehouse**<br>• Chiller #2 (now unused)<br>• Former Online Printer Room (used for printing through 1999); includes floor drains and trench drain; currently receives roof drain discharge. Former use of water-based inks used in tissue coloration processes.<br>• Limited hazardous waste storage containing 55-gallon drums of oil debris, oil filters, and used oil.<br><br>**Building #3 – Warehouse, Unitizers, and Core Storage**<br>• Several unitizers (for package assembly) and case conveyors<br>• Forklift battery charging area (50+ large lead-acid batteries and associated charging equipment)<br>• Small maintenance area and machine shop with parts washer.<br><br>**Building #4 – Boiler House**<br>• 2 natural-gas fired boilers, overlying basement leading to Building 1.<br><br>**Building #5 – Water Plant Filtration and Adjacent Forklift Maintenance**<br>• Equipment and tanks for water filtration and treatment systems<br>• Several totes of water treatment chemicals<br>• Small forklift maintenance building and sump are adjacent to the west of Building 5<br><br>**Building #6 - Warehouse**<br>• Several former loading doors (now unused) along north side of the building – once located next to a rail spur<br>• Rail dock and spur (unused since circa 1970s) |

| Observations | Description |
|---|---|
| | • Truck loading dock along the east side of the building – 18 loading doors (#6 through #23)<br><br>**Building #7 – Warehouse**<br>• General warehousing with no specific items of interest<br><br>**Building #8 – Tissue Converting Lines (B-4 and T-4) and Ultra Converting Room**<br>• Former ink mixing and processing area, including trench drain that discharges to the sanitary sewer. Area unused since approximately 1998.<br>• Warehouse storage<br>• Sump<br>• Ultra Converting (UCON) Room – for application of lotions and waxes to paper rolls. Process includes use of trench drains and sumps for wastewater collection and discharge to sanitary sewer.<br>• Baghouse for dust collection/air filtration systems<br><br>**Building #9 – Former Bath Tissue Lines (B-1 and B-2)**<br>• Two bath tissue lines<br>• Former diaper manufacturing lines<br>• Small maintenance shop<br><br>**Building #10 – Tractor (Forklift) Shop and Hard Roll Storage**<br>• Fork lift repair shop and staging area<br>• In-ground pit (walk-in via stairs) for forklift repair<br>• Two parts washers along north wall – one west of the weld shop and one unused to the east of the weld shop)<br>• Weld shop<br>• Used and new oil storage closet, including several 30-gallon drums of oil on secondary containment<br><br>**Building #11 – Pulp Storage Warehouse and ICON Tank Room**<br>• Various raw pulp storage<br>• Truck loading dock at north side<br>• Rail dock along east side<br>• ICON Tank Room – including two 8,200-gallon polymer ASTs and one 8,000-gallon water AST<br>• Floor drains/grates that drain to basement and ultimately into on-site water treatment system<br><br>**Building #12 – Warehouse (Hard Roll Storage and Finished Products)**<br>• Warehousing for hard roll storage and finished products<br>• Unused equipment stored along portions of perimeter of this warehouse.<br><br>**Building #13 –Warehouse (Finished Products) and Pulp Storage**<br>• Distribution Office and restrooms<br>• East loading dock – five truck docks |

| Observations | Description |
|---|---|
| | **Building #14 – Outbuilding (Storage Only)**<br>• Unused Yankee Dryer is stored in this building<br><br>**Building #15 – West Pump House**<br>• Dedicated fire suppression pump and equipment, just outside northwestern corner of Building #12<br><br>**Building #18 – Propane Storage Shed**<br>• Propane storage<br><br>**Building #19 – Warehouse & Chiller Room**<br>• Chiller unit, including 134A refrigerant, and two stainless steel totes of chiller treatment chemicals<br>• Trench floor drain in chiller room<br>• West Yard loading docks – 11 truck loading doors<br><br>**Building #20 – Warehouse (Hard Roll Storage)**<br>• Sanitary sewer access manhole<br>• Storm sewer access – west facility outfall and sample point<br><br>**Building #21 – Multi-folder Lines (MF-1, MF-2)**<br>• Maintenance shop area for multi-folder lines and equipment<br>• Packaging lines<br>• Air Pollution Control Equipment (APCE) room (no access) – large drum-roller dust collection system<br>• 2nd and 3rd-floor offices<br><br>**Building #22 – Exterior Storage Building**<br>• Storage racks and unused equipment (no access provided as part of this assessment)<br><br>**Building #23 – West Gate Guard Shack**<br>• No contents – small guard shack near Acacia Street entrance<br><br>**Building #25 – Chemical and Waste Storage**<br>• Outbuilding designed for chemical and waste storage. Chemicals include various water treatment chemicals such as defoaming agents, flocculants, and felt cleaners.<br>• Includes trench drainage and three sumps for potential spill containment<br>• Staging area for 90-day hazardous waste pails and drums<br>• New oil storage in 55-gallon drums<br><br>**Building #26 – North Gate Guard Shack**<br>• No contents – small guard shack near Acacia Street entrance and truck scale<br><br>**Buildings #27 & 29 – City of Fullerton Water Station** |

| Observations | Description |
|---|---|
| | • Water well pumping station and equipment, owned/maintained by City of Fullerton<br>• Two large fire suppression water storage tanks<br><br>**Building #28 – Training Center**<br>• Training room located at south end of building<br><br>**Building #30 – Café and Patio**<br>Kitchen equipment |

## 5.5 EXTERIOR OBSERVATIONS

Stantec made the following observations during the Property reconnaissance of exterior areas of the Property and/or identified the following information during the interview or records review portions of the assessment:

| Observations | Description |
|---|---|
| **On-Property Pits, Ponds, or Lagoons:** | No pits, ponds, or lagoons were observed. However, according to Ms. Grace Madden, environmental coordinator for KCC, dry wells are reportedly located around the truck parking lot in the northeast corner of the Property (i.e. southwest of the intersection at Kimberly Ave and State College Blvd). |
| **Stained Soil or Pavement:** | Stantec observed minor surface staining at various locations throughout the property. These areas were considered de minimis as not requiring additional assessment. |
| **Stressed Vegetation:** | None observed. |
| **Waste Streams and Waste Collection Areas:** | Waste collection was observed to be present in Building 25, the chemical storage building. |
| **Solid Waste Disposal:** | No areas indicative of solid waste disposal were observed. |
| **Potential Areas of Fill Placement:** | No areas of fill placement were observed during the Property reconnaissance. |
| **Wastewater:** | Treated wastewater exiting the mill is diverted to the sanitary sewer from a discharge point in the north-central portion of the Property, to southwest of the north gate. |
| **Stormwater:** | Stormwater is directed towards drains and swales that divert rainwater to an outfall located in the north-central proportion of the Property, southeast of the north gate. Stormwater discharges from the Property are monitored under an active National Discharge Elimination Permit (NPDES) by the Santa Ana Regional Quality Control Board (SARWQCB) under General Permit No. CAS000001 and Waste Discharge identification (WDID) No. 830I001214 for industrial stormwater.<br><br>Stormwater at the facility is discharged through two separate networks – to the west and accessed via a manhole beneath Building #12, and the other at a point in the north-central portion |

| Observations | Description |
|---|---|
| | of the Property to the southeast of the north gate. Upon leaving the Property, storm water flows to the north and into a narrow concrete-lined channel north of Kimberly Avenue and the BNSF rail yard. An internal KCC specialist reportedly monitors storm water discharge on a quarterly basis, and the sampling results are submitted to the SARWQCB. |
| **Wells:** | One water production well (KIM-2) is located in the north-central portion of the Property near the north gate entrance along Kimberly Ave. The water obtained from the well is used by the KCC mill in pulp mixing/processing. |
| **Septic Systems:** | No evidence of septic systems was observed during the Property walk. However, given the age of development of the property, historical septic systems associated with early Property operations may be present at the Property. |
| **Other Exterior Observations:** | **Exterior – Water Treatment Plant**<br>• Three open-top clarifier tanks<br>• Totes of water treatment polymers and chemicals<br>• Sludge press and conveyors<br>• Effluent tanks<br>• Subsurface (basement level) piping and equipment<br>**Exterior – Co-Generation Plan**<br>• Natural-gas-fired power generation equipment<br>• 19% Ammonia AST and containment area<br>**Exterior – Tank Area**<br>• Two unused/empty ASTs, and two active ASTs:<br>  o Unused – Quaker polymer, empty since circa 1998; Fuel oil AST – emptied and cleaned circa 1990s<br>  o Active – Kymene 920A tank; Bleach tank (stainless steel)<br>• Tanks overtop concrete containment area and surrounded by earthen berm<br>• Includes collection sump from adjoining bleach dispensing pad, just west of tank area<br>**Exterior – Cooling Towers**<br>• Four (4) cooling towers east of Building 5 in secondary containment berm<br>**Exterior – North Gate and East Parking/Storage**<br>• Wastewater outfall and sampling point<br>• Storm water outfall and observation point<br>• Truck/trailer parking yard |

| Observations | Description |
|---|---|
| | • Large, unused dirt/gravel lots; some gravel piles observed<br>• Leased RV/trailer parking lot<br>• Unmaintained orange and fruit orchard and irrigation lines<br><br>**Exterior – West Yard**<br><br>• Empty tote staging area<br>• Recycling dumpsters – cardboard, poly materials, corrugates, wood, and tissue<br>• Orange tree orchard and irrigation lines |

## 5.6 UNDERGROUND STORAGE TANKS/STRUCTURES

| | |
|---|---|
| **Existing USTs:** | No visible evidence (fill pipes, vent pipes, dispensers, surface patches), which would indicate the presence of USTs, was discovered during the property reconnaissance. |
| **Former USTs:** | Historically, KCC documents indicate that seven USTs were historically at the Property (OCHCA records indicate 6 USTs). The former USTs included four SRM tanks, one sulfuric acid tank, and two former fuel oil USTs. According to facility records, all USTs were removed in 1985 (OCHCA records indicate 1986). All USTs were reportedly located near the Boiler House (Building 4). The SRM tanks contained an adhesive product that was used in multi-ply paper towel manufacturing, and the fuel oil USTs were used to supply fuel to the boilers for steam heating the manufacturing processes. Petroleum contamination was discovered at the time of the UST removals, and was excavated to the extent feasible in multiple excavations that occurred at the time of the UST removal in 1985 or 1986, again in 1992, and during construction of the CoGen Plant in 2002. Facility documents indicate that residual contamination of diesel range TPH remain present adjacent to, and likely below Building 4, at a maximum of 47,000 mg/kg in the 30-foot sample. These concentrations exceed regulatory cleanup thresholds for soil. With the exception of the 55-foot sample (42 mg/kg) the remaining samples from 35 to 70 feet were non-detect for TPH. The lateral extent of the residual TPH impact below Building 4 has not been determined. It is unclear whether additional assessment and remediation would be required by the agency once the overlying structures are removed. A groundwater sample collected in the vicinity of the residual impacts reported diesel range TPH at 0.86 mg/L and xylenes at 7.9 ug/L. These groundwater concentrations are well below the maximum contaminant levels (MCLs) for xylenes in drinking water. |
| **Other Underground Structures:** | Property operations include networks of floor drains and sumps as discussed in Section 5.4 and 5.5. Additionally, a basement is present below Building 1 and underground corridor connects the Building 1 basement with Building 4 (Boiler House). The basement contains the lower half of several pulp mixing tanks, two light oil ASTs (~1,000-gallons), and a network of trench drains and sumps used to capture and divert process water to the water treatment plant. |

## 5.7 ABOVEGROUND STORAGE TANKS

| | |
|---|---|
| **Existing ASTs:** | A tank farm is present to the east of the water treatment and CoGen plant. The tank farm includes one AST containing Kymene 920A polymer, one bleach AST, and one empty Quaker tank. One large empty AST remains in the tank farm that formerly stored fuel oil. However, the fuel oil AST was reportedly emptied in the 1990s. Piping from the fuel oil AST was reportedly disconnected to the boiler house and piping may remain below ground. The ASTs within the tank farm were located within a concrete secondary containment, followed by an earthen berm containment. Several other ASTs containing various oils, polymer, and fuel were located throughout the mill, as discussed under each building listing in Section 5.4. |
| **Former ASTs:** | No visible evidence (fill pipes, vent pipes, dispensers, surface stains), reports, or other evidence of the former presence of ASTs was discovered during this Phase I ESA. |

## 5.8 ADJOINING PROPERTIES

### 5.8.1 Current Uses of Adjoining Properties

As viewed from the Property and/or from public rights-of-way, Stantec made the following observations about use and activities on adjoining properties:

| | |
|---|---|
| **NORTH** | Kimberly Avenue followed by a railroad easement with multiple spurs, then commercial/ industrial properties (PCA Metals Finishing, Inc, Khyber Foods, Inc) |
| **SOUTH** | Orangethorpe Avenue followed by commercial/ industrial properties (Goldenwest Towing Equipment, Trent Tube Division, Vista Paint) |
| **EAST** | State College Boulevard followed by commercial/ industrial properties (United States Rentals, Winonics, Inc, Alcoa Fastening Systems) |
| **WEST** | Acacia Avenue followed by commercial/ industrial properties (Plasticolor, Inc, Jonathon Controls Battery Group) |

Refer to Figure 2.

### 5.8.2 Observed Evidence of Past Uses of Adjoining Properties

Observations of adjoining properties, made from outside the properties, providing indications of past use and activities, if any, are described below.

| | |
|---|---|
| **NORTH** | None observed. |
| **SOUTH** | None observed. |
| **EAST** | None observed. |
| **WEST** | None observed. |

### 5.8.3 Pits, Ponds or Lagoons on Adjoining Properties

As viewed from the Property and/or from public rights-of-way, Stantec made the following observations about the presence of pits, ponds and lagoons on adjoining properties:

| | |
|---|---|
| **NORTH** | None observed. |
| **SOUTH** | None observed. |
| **EAST** | None observed. |
| **WEST** | None observed. |

## 5.9 OBSERVED PHYSICAL SETTING

| | |
|---|---|
| **Topography of the Property and Surrounding Area:** | The Property regional topography is relatively flat, with a slight slope to the southwest. Various Property developments and grading affect the topography locally. |

# 6.0 INTERVIEWS

**Mr. Paul Curry, Mechanical Engineer**

On July 18, 2019, Stantec was escorted through the Property by Mr. Paul Curry, a retired mechanical engineer with KCC who is presently employed by KCC on an as-needed basis as a consultant. Mr. Curry has been familiar with the KCC Fullerton mill since 1997. During the Property walk, questions were asked about the environmental history of the Property. Mr. Curry was not aware of any ongoing environmental issues at the Property other than the regional groundwater issue being monitored by the USEPA. He was aware of the former petroleum release from the USTs near Building 4, and a release of sodium hypochlorite from the bleach AST in the tank area but indicated that those issues had been addressed to the satisfaction of regulatory agencies.

Mr. Curry directed Stantec to potential areas of concern including sumps, parts washers, wastewater collection areas (including drains), water treatment plant, wastewater and stormwater discharge points, chemical storage areas, cooling towers, compressor and boilers, former USTs and ASTs, existing ASTs, and the repair and maintenance shops located throughout the mill. Mr. Curry also walked Stantec through the manufacturing processes, including Building 1 where pulp mixing, drying, cutting, and rolling occur. Mr. Curry indicated that while that mill formerly manufactured additional paper-related products such as diapers and feminine hygiene products, only tissue and paper towels are currently being manufactured at the Property. He also indicated that all pulp is manufactured offsite and shipped to the mill, stored, and eventually used to make the finished paper products. However, little is known concerning the manufacturing processes conducted during early property development.

**Ms. Grace Madden, Environmental Coordinator**

Ms. Madden has worked for KCC since 1980 and has been involved with environmental and compliance projects and permitting for the past 20 years. Ms. Madden accompanied Stantec and Mr. Curry during the Property reconnaissance through the manufacturing areas and exterior portions of the mill in the afternoon. Ms. Madden also answered questions regarding current and past chemical uses at the mill. She indicated that, to her knowledge, the facility has been used exclusively as a paper mill since its inception, but that paper product production has been scaled down to facial and bathroom tissue and industrial paper towels/wipes in recent years. Ms. Madden indicated that although the facility has stored and used various types of hazardous chemical such as water-based inks and solvents, the bulk of the manufacturing process uses paper pulp, water, petroleum hydrocarbons, and sodium hypochlorite (bleach). Ms. Madden indicated that the use of chlorinated solvents was limited and primarily used in part cleaning machines. According to Ms. Madden, the cooling towers were cleaned only with water. When asked about dry wells on the Property, Ms. Madden showed Stantec their locations along the perimeter of the leased RV parking lot in the northeast corner of the Property. Ms. Madden mentioned that the City of Fullerton required the dry wells to capture stormwater runoff from the parking lot.

## 6.1 FINDINGS FROM INTERVIEWS WITH PROPERTY NEIGHBORS

Given the size of the property, Stantec did not conduct interviews with property neighbors. The lack of this information does not represent a significant data gap.

# 7.0 POTENTIAL FOR VAPOR ENCROACHMENT

Consideration of the migration of hazardous substances and petroleum products in all phases including solid, liquid, or vapor is required by the ASTM E1527-13 standard. As stated in Section 2.1 of ASTM E1527-13:

Vapor migration must be considered no differently than contaminated groundwater migration in the Phase I investigation. While E2600-10 provides an industry consensus methodology to assess vapor migration, use of E2600-10 methodology is not required to achieve compliance with AAI – an EP may use alternative methodology as deemed appropriate, but this must be documented in the Phase I report (i.e., it must be "capable of being reconstructed by an EP other than the EP responsible for the Phase I").

A qualitative vapor encroachment evaluation from both potential on-site or off-site sources was conducted based on evidence of use and documented presence of VOCs in environmental media.

1. Groundwater and Off-Site Sources: The Property is located within the Orange County North Basin groundwater plume which is being evaluated for inclusion on the National Priorities List (NPL). As previously mentioned in Section 4.1.3, groundwater sample data indicates that the Shallow and Principal aquifers are impacted with various VOCs including 1,4-Dioxane, PCE, and PCE breakdown products. The VOC groundwater plume is mapped as being below the Property in the Shallow and Principal aquifers. Soil gas sampling data provided to Stantec on a figure generated by Coffey Environments shows relatively low levels of PCE and TCE at10 and 20 feet below ground surface (bgs) over a majority of the Property with higher concentrations in the northwest portion of the Property along Kimberly Avenue on the opposite side of the street from the PCA Metals Finishing (Coffey, 2010). PCA is listed on DTSC's Envirostor database as being a State Response/NPL site. Other commercial/industrial facilities, located up, cross and down gradient of the Property are also listed as State Response/NPL sites or as tiered permit facilities that use chlorinated solvents. These facilities are shown on Figure 2.

2. As noted previously, operations on the Property used PCE and 1,4-dioxane (referenced EDR Report) which are chemicals of concern in the Orange County North Basin action. While there is currently little evidence that the Property is a significant source to the regional plume, potential releases may affect the potential for vapor encroachment to on-Property structures.

Based on these findings, there is a potential for a vapor encroachment condition (pVEC) to be present for the Property.

# 8.0 DATA GAPS

The federal AAI rule [40 CFR 312.10(a)] and ASTM E1527-13 identify a "data gap" as the lack or inability to obtain information required by the standards and practices of the rule despite good faith efforts by the Environmental Professional or the User.

Any data gaps resulting from the Phase I ESA described in this report are listed and discussed below.

| Gap | Discussion |
|---|---|
| **Deletions or Exceptions from Scope of Work Referenced in Section 1.4:** | None |
| **Weather-Related Restrictions to Property Reconnaissance:** | None |
| **Facility Access Restrictions to Property Reconnaissance:** | The Southern California Edison Substation was locked and KCC does not have access to this area. |
| **Other Property Reconnaissance Restrictions:** | None |
| **Data Gaps from Environmental Records Review:** | Due to time limitations in the preparation of this report, a full review of regulatory agency files was not reasonable ascertainable. However, a cursory review of files held by the Fullerton Building Division, Fire Department, and Orange County Health Care Agency was performed by Stantec. Based on information provided in the Antea Phase I ESA report, combined with Stantec's research, it is unlikely that this data gap would change the conclusions of this report.<br><br>With regard to former USTs at the Property, KCC records report that seven USTs were present onsite while OCHCA and RWQCB records only indicate that six USTs were registered for the Property. In addition, two former USTs are known to have been removed from the area to the east of Building 4, as shown in agency records. However, four additional USTs are shown in OCHCA records to have been in an area that appears to be adjacent to a loading dock but does not provide any other reference point to identify the locations of these USTs. The orientation of the loading dock depicted in the OCHCA records does not resemble any of the loading docks currently at the Property. As a result, the discrepancy in the number of former USTs at the Property and lack of clear location information for the four USTs shown in OCHCA records is considered a data gap. In the absence of locational information and soil sample data at the four former USTs, that a Soil Management Plan be prepared that would discuss actions that would need to be taken in the event that soil contamination remains and is encountered during Property redevelopment. |
| **Data Gaps from Historical Records Review:** | None |

## PHASE I ENVIRONMENTAL SITE ASSESSMENT

DATA GAPS
August 19, 2019

| Gap | Discussion |
|---|---|
| **Data Gaps from Interviews:** | None |
| **Other Data Gaps:** | None |

# 9.0 CONCLUSIONS

Stantec has performed a Phase I ESA in conformance with the scope and limitations of ASTM Practice E-1527-13 and the requirements of AAI for the "Property". Any exceptions to, or deletions from, this practice are described in the Data Gaps section of this report. This assessment has revealed no evidence of recognized environmental conditions (RECs) in connection with the Property except for the following:

- Off Site Sources (including Regional Groundwater Impacts):
    - The following nearby off-Site facilities have, or may have, contributed VOCs and other contaminants to soil, groundwater, and soil vapor that may potentially impact the Property:
        - Trent Tube Division, 2100 E. Orangethorpe Avenue
        - Orange County Metal Processing, 1711 E. Kimberly Avenue
        - PCE Metal Finishing, 1723 E. Kimberly Avenue
        - Khyber Food, Inc, 1818 E. Rosslynn Avenue
        - Alcoa Global Fasteners, Inc, 800 S. State College Boulevard
        - Winonics, Inc., 1257 S. State College Boulevard
        - Chapman Coast Roofing, Co., 2301 E. Orangethorpe Avenue
        - Vista Paint, 2020 E. Orangethorpe Ave
        - St Hart Container MPP Fullerton, 1901 E. Rosslynn Avenue
        - Golden West Towing Equipment, 1850 E. Orangethorpe Avenue
- General Exterior Areas:
    - Historical Agricultural Use (Orchards) – possible source of organochlorine pesticides and herbicides containing arsenic and lead
    - Railroad spurs – possible source of herbicides, metals, petroleum hydrocarbons, pesticides and polychlorinated biphenyls (PCBs)
    - Industrial wastewater discharge point – potential source of VOCs, metals, petroleum hydrocarbons and other contaminants
    - Forklift wash area and sump – potential releases related to past cleaning operations
    - Tank farm unloading area, diesel UST, and sump – potential source of VOCs, petroleum hydrocarbons and other contaminants
    - Stormwater discharge point – potential source of VOCs, petroleum hydrocarbons and other contaminants
    - Four former USTs adjacent to a non-specific "loading dock" as indicated in OCHCA records. The USTs are reported to have contained mineral spirits, dioctyl

phthalate and vinyl acetate: potential source of VOCs, petroleum hydrocarbons, phthalates and other contaminants.

- General Interior
    - Sub-slab soil vapor and indoor air – potential vapor intrusion risk associated with potential on-site releases and contaminated groundwater related to regional groundwater impacts beneath most of the property.
    - Building 1
        - Basement – potential source of VOCs, petroleum hydrocarbons, PCBs, and other contaminants
        - Maintenance Shop PCE Parts Washer: potential source of VOCs
        - Maintenance Shop Floor Drain: potential source of VOCs, petroleum hydrocarbons, and other contaminants.
    - Building 3
        - Battery storage area – etching and staining to battery storage and charging processes may be a potential source of acids and metals
    - Building 3/8
        - Maintenance shop PCE part washer: potential source of VOCs
    - Building 4
        - Boiler Building Area, Two Former USTs: Potential source of VOCs and petroleum hydrocarbons
        - Wastewater treatment area: potential source of VOCs, petroleum hydrocarbons, metals and other contaminants
    - Building 8
        - UCON area Sump pit and trench drains: Potential source of VOCs, petroleum hydrocarbons and other contaminants
        - Former ink dye area wash-down/ cleaning area with trench drains: Potential source of VOCs, petroleum hydrocarbons, PCBs, and other contaminants
        - Bath area sump pit: potential source of VOCs, petroleum hydrocarbons and other contaminants
    - Building 10
        - Tractor Shop PCE part washer location: Potential source of VOCs
    - Building 25
        - Chemical Storage Area, three sumps: Potential source of VOCs, metals, petroleum hydrocarbons and other chemicals

The locations of the above RECS are shown on Figure 2.

# 10.0 Recommendations

Based on the conclusions of this Phase I ESA, Stantec recommends that a preliminary Phase 2 assessment be performed at the above reference locations to evaluate whether releases have occurred that have affected subsurface media at the Property above regulatory cleanup thresholds or human health risk levels. To this end, Stantec has prepared a *Work Plan for Preliminary Phase 2 Investigations* concurrently with this report that details the scope of work for the recommended preliminary assessment.

With regard to the data gap associated with the four (4) USTs for which there is no location information or soil sample data provided in historical records, Stantec recommends that a Soil Management Plan (SMP) be prepared that would discuss actions that would need to be taken in the event that impacted or potentially impacted soil is encountered during Property redevelopment. Such actions taken would include, but are not limited to, field evaluation, soil sampling, and potential excavation/remediation.

In addition, Stantec has identified the following non-ASTM environmental issues associated with the Property:

- **Asbestos Containing Materials.** Given the age of the existing buildings on the Property (some constructed as early as the mid-1950s), the presence of ACM is considered likely. Stantec recommends conducting a comprehensive, pre-demolition ACM survey in accordance with the sampling protocol of the Asbestos Hazard Emergency Response Act (AHERA) prior to any activities with the potential to disturb building materials to determine whether ACM are present. Further, in the event ACM is detected, Stantec recommends proper removal and disposal of the materials identified prior to any activities with the potential to disturb them.

  Portions of the property are paved with asphalt. A stress absorbing fabric marketed as Petromat is sometimes used in asphalt paving operations. The tack coating often associated with this material sometimes contains asbestos. Should development plans include demolition of the asphalt, Stantec recommends inspecting the asphalt for the presence of Petromat and, if observed, sampling the Petromat for the presence of asbestos.

  Additionally, Stantec makes no warranty as to the possible existence or absence of inaccessible materials (buried transite, wrapped, or coated piping) or to their evaluation with respect to asbestos content. Samples of suspect ACM should be collected for laboratory analysis of asbestos prior to any renovation or building demolition, in order to determine the need for compliance with EPA National Emission Standard for Hazardous Air Pollutants (NESHAP) regulations.

- **Lead Based Paint.** Given the age of the existing buildings on-Property (some constructed in the mid-1950's), the presence of lead-based paint (LBP) is considered likely. Stantec recommends conducting a LBP survey, prior to any activities with the potential to disturb building materials to determine whether LBP is present. Further, in the event LBP is

detected, Stantec recommends removing the materials prior to any activities with the potential to disturb them.

- **Light Ballasts -** Structures appeared to contain fluorescent light ballasts, which may contain PCBs. Fluorescent light ballasts should be handled and disposed of in accordance with regulatory guidelines.

# 11.0 NON-SCOPE CONSIDERATIONS

No ASTM E1527-13 non-scope services were performed as part of this Phase I ESA with the following exceptions:

## 11.1 LEAD-BASED PAINT

Given the age of the existing buildings on-Property (some constructed in the mid-1950's), the presence of lead-based paint (LBP) is considered likely. Stantec recommends conducting a LBP survey, prior to any activities with the potential to disturb building materials to determine whether LBP is present. Further, in the event LBP is detected, Stantec recommends removing the materials prior to any activities with the potential to disturb them.

## 11.2 ASBESTOS

Asbestos can be found in many applications, including sprayed-on or blanket-type insulation, pipe wraps, mastics, floor and ceiling tiles, wallboard, mortar, roofing materials, and a variety of other materials commonly used in construction. The greatest asbestos-related human health risks are associated with friable asbestos, which is ACM that can be reduced to powder by hand pressure. Friable asbestos can become airborne and be inhaled and has been associated with specific types of respiratory disease. The manufacturing and use of asbestos in most building products was curtailed during the late 1970s.

Given the age of the existing buildings on the Property (some constructed as early as the mid-1950s), the presence of ACM is considered likely. Stantec recommends conducting a comprehensive, pre-demolition ACM survey in accordance with the sampling protocol of the Asbestos Hazard Emergency Response Act (AHERA) prior to any activities with the potential to disturb building materials to determine whether ACM are present. Further, in the event ACM is detected, Stantec recommends proper removal and disposal of the materials identified prior to any activities with the potential to disturb them.

Portions of the property are paved with asphalt. A stress absorbing fabric marketed as Petromat is sometimes used in asphalt paving operations. The tack coating often associated with this material sometimes contains asbestos. Should development plans include demolition of the asphalt, Stantec recommends inspecting the asphalt for the presence of Petromat and, if observed, sampling the Petromat for the presence of asbestos.

Additionally, Stantec makes no warranty as to the possible existence or absence of inaccessible materials (buried transite piping) or to their evaluation with respect to asbestos content. Samples of suspect ACM should be collected for laboratory analysis of asbestos prior to any renovation or building demolition, in order to determine the need for compliance with EPA National Emission Standard for Hazardous Air Pollutants (NESHAP) regulations.

## 11.3 RADON

Radon is a colorless, tasteless radioactive gas with an EPA-specified action level of 4.0 PicoCuries per liter of air (pCi/L) for residential properties. Radon gas has a very short half-life of 3.8 days. The health risk potential of radon is primarily associated with its rate of accumulation within confined areas near or in the ground, such as basements, where vapors can readily transfer to indoor air from the ground through foundation cracks or other pathways. Large, adequately ventilated rooms generally present limited risk for radon exposure. The radon concentrations in buildings and homes depend on many factors, including soil types, temperature, barometric pressure, and building construction (EPA, 1993).

Stantec reviewed regional data published by the EPA on average indoor radon concentrations in the vicinity of the Property (http://www.epa.gov/radon/zonemap.html).

| Zip Code 92831 | Orange County |
|---|---|
| **EPA Radon Zones (w/Average Measured Indoor Radon concentrations)** | |
| 92% < 4 pCi/L | Zone 3 – low<br>(<2 pCi/L);<br>average first floor concentration 0.763 pCi/L |
| **Normally-occupied sub grade areas (i.e. basement apartments, offices, stores, etc.)?** | |
| No subgrade areas are present at the Property. | |

The Property is located in Zone 3 and is considered to have low potential for radon. Stantec concludes that radon is unlikely to represent an environmental concern to the Property and recommends no further investigation regarding this issue.

## 11.4 FLOOD ZONES

According to the Physical Setting summary portion of the EDR report, the Property is located within a 500-year flood plain.

## 11.5 POLYCHLORINATED BIPHENYLS (PCBS)

Several large, pole-mounted electrical transformers are located in north-central portion of the Property to the southeast of the north gate entrance. The transformers are reported to be filled with mineral oil. No staining or other signs of release were noted.

Property structures appeared to contain fluorescent light ballasts, which may contain PCBs. Fluorescent light ballasts should be handled and disposed of in accordance with regulatory guidelines.

## 11.6 ON-PROPERTY PRODUCTION WELLS

Based on information collected during this Phase I ESA, one production well (F-KIM-2) is located in the north-central portion of the property near the north gate entrance. The production well provides water to support the high water demands of the paper manufacturing processes.

# 12.0 REFERENCES


Antea Group, 2018, Phase 1 Environmental Site Assessment, Kimberly-Clark Corporation, Fullerton Mill, 2001 E. Orangethorpe Ave, Fullerton, California 92831, November 5.

California Department of Conservation, Division of Oil, Gas, and Geothermal Resources (DOG), 2019, website https://maps.conservation.ca.gov/doggr/wellfinder/#openModal

California Geological Survey (CGS), 2002, California Geomorphic Provinces, Note 36.

_____, 2010a, Fault Activity Map of California, adjustable scale, http://www.quake.ca.gov/gmaps/FAM/faultactivitymap.html

_____, 2010b, Alquist-Priolo Earthquake Fault Zones of California, http://www.quake.ca.gov/gmaps/ap/ap_maps.htm

California Water Resources Control Board (SWRCB), 2019, GeoTracker Database, website download from http://geotracker.swrcb.ca.gov/

Department of Water Resources (DWR), 2004, Groundwater Bulletin 118, updated February 27.

Environmental Data Resources, Inc. (EDR), EDR Radius Map with Geocheck, Inquiry Number 5716229.2s, dated July 15, 2019.

_____, Aerial Photo Decade Package, Inquiry Number 5716229.11, dated July 16, 2019.

_____, Building Permit Search Report, Inquiry Number 5716229.8, dated July 15, 2019.

_____, Certified Sanborn Map Report, Inquiry Number 5716229.3, dated July 15, 2019

_____, City Directory Abstract, Inquiry Number 5716229.5, dated July 15, 2019.

_____, Environmental Lien and AUL Search, Inquiry Number 5716229.7, dated July 16, 2019.

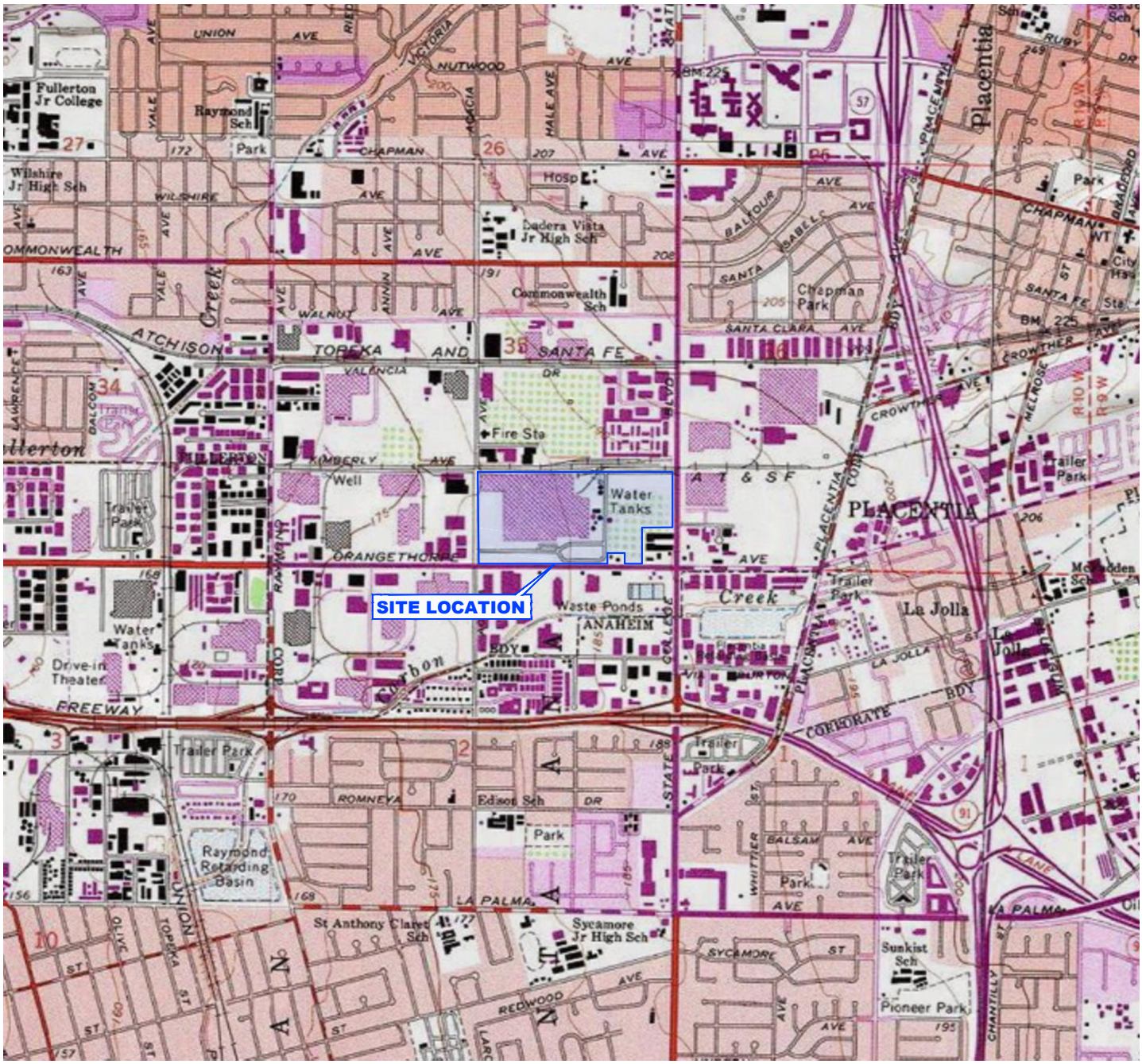
_____, Historical Topographic Map Report, Inquiry Number 5716229.4, dated July 15, 2019.

Antea, 2018, Phase I Environmental Site Assessment, Kimberly Clark Corporation, Fullerton Mill, 2001 East Orangethorpe Avenue, Fullerton, California 92831, November 5.

Coffey Environments, 2010, Figure 1 – Soil Gas Concentrations, 2001 East Orangethorpe Avenue, Fullerton, California, September.

United States Geological Survey (USGS), 2006, Geologic Map of the San Bernardino and Santa Ana 30' x 60' Quadrangles, California.

# FIGURES




N



CALIFORNIA

1 1/2 0 1

SCALE IN MILE

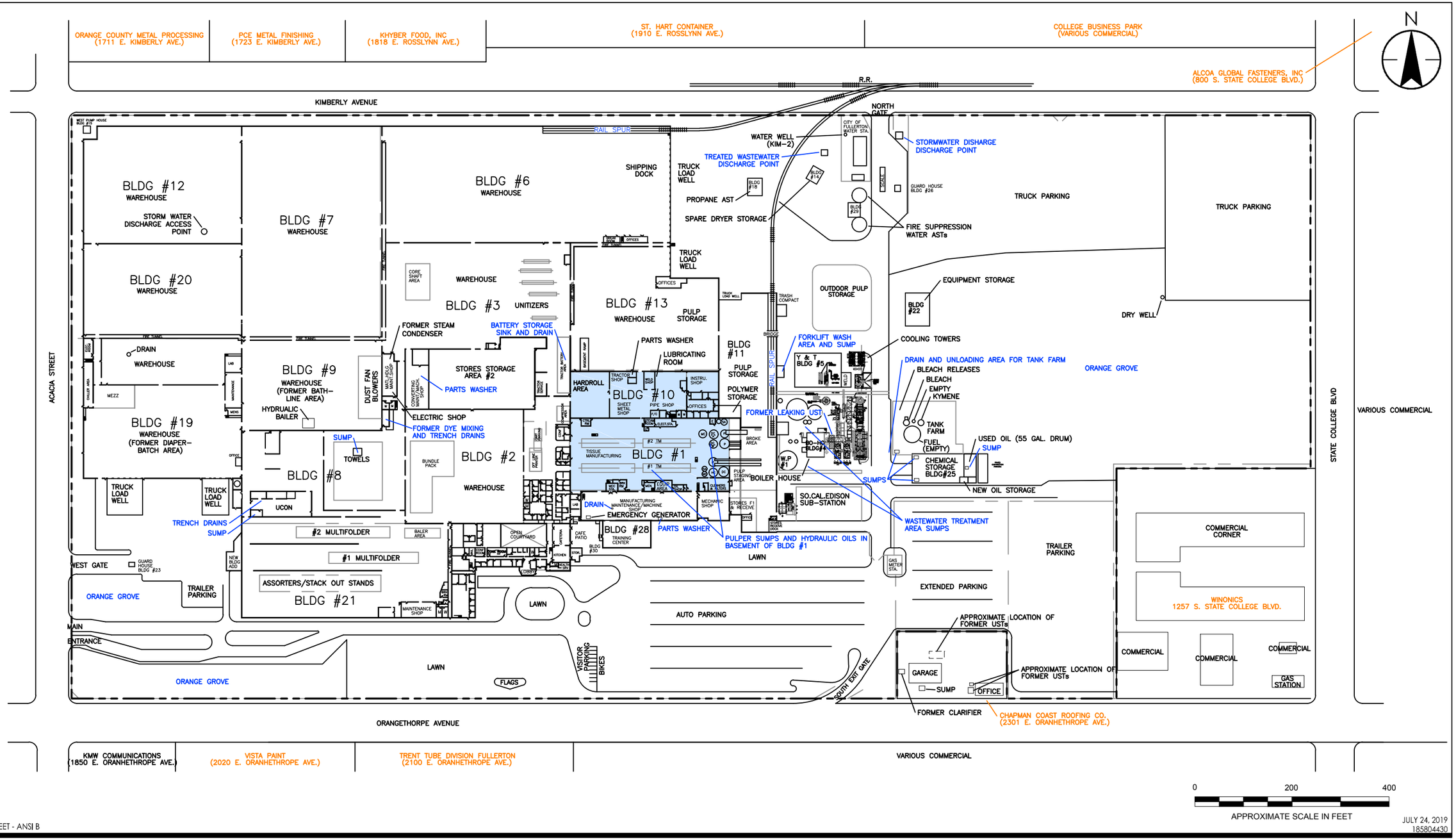
1000 0 1000 2000 3000 4000 5000 6000 7000

SCALE IN FEET

REFERENCE: 7.5 Minute Series, Albers NAD83, Untrimmed

| | | | | | |
|---|---|---|---|---|---|
| Stantec<br>735 East Carnegie Drive Suite 280<br>San Bernardino CA 92408-3588<br>www.stantec.com | FOR:<br>GNAP DEVELOPMENT, LLC<br>2001 EAST ORANGETHORPE AVENUE<br>FULLERTON, CA. 92831 | | SITE VICINITY MAP | | FIGURE:<br>1 |
| | JOB NUMBER:<br>185804430 | DRAWN BY:<br>JBL | CHECKED BY:<br>BV | APPROVED BY:<br>BV | DATE:<br>07/24/19 |

FILEPATH:M:\00_OTHER OFFICES\Former-Redlands_San Bernadino\Kimberly_Clark\Site-Map.dwg|jlieberman|Jul 25, 2019 at 13:17|Layout: Layout1




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2019/08/08 11:06 AM By: Lieberman, Justin

ORIGINAL SHEET - ANSI B

JULY 24, 2019
185804430

Stantec

735 East Carnegie Drive Suite 280
San Bernardino CA 92408-3588
www.stantec.com

## Legend

BASEMENT BELOW BUILDINGS 1 AND 10

## Notes

BLUE TEXT INDICATES LISTED ONSITE FEATURE IS A RECOGNIZED ENVIRONMENTAL CONDITION (REC). ORANGE TEXT INDICATES LISTED OFF-STE FACILTY IS A (REC)

Client/Project

GNAP DEVELOPMENT, LLC
2001 EAST ORANGETHORPE AVENUE
FULLERTON, CA. 92831

Figure No.

2

Title

SITE MAP

# Appendix A PHOTOGRAPHS OF THE PROPERTY AND VICINITY

| STANTEC CONSULTING SERVICES, INC<br>PHOTOGRAPHIC RECORD | |
|---|---|
| **Client:** GNAP Development LLC | **Job Number:** 185804430 |
| **Site Name:** Kimberly-Clark Corporation, Fullerton Mill | **Location:** Fullerton, California |
| **Photographer:** Dion Monge | **Date:** July 18, 2019 |

**Photograph No. 1**




Facing north at the southwest corner of the Property.

**Photograph No. 2**



Facing east along Orangethorpe Ave from the southwest corner of the Property. The existing orchard is visible on the left hand side of the photograph.

| STANTEC CONSULTING SERVICES, INC<br>PHOTOGRAPHIC RECORD | |
|---|---|
| **Client:** GNAP Development LLC | **Job Number:** 185804430 |
| **Site Name:** Kimberly-Clark Corporation, Fullerton Mill | **Location:** Fullerton, California |
| **Photographer:** Dion Monge | **Date:** July 18, 2019 |

**Photograph No. 3**



Facing north from the east-southeast portion of the Property.

**Photograph No. 4**



Facing south from the intersection of State College Blvd and Kimberly Ave.

| STANTEC CONSULTING SERVICES, INC<br>PHOTOGRAPHIC RECORD | |
|---|---|
| **Client:** GNAP Development LLC | **Job Number:** 185804430 |
| **Site Name:** Kimberly-Clark Corporation, Fullerton Mill | **Location:** Fullerton, California |
| **Photographer:** Dion Monge | **Date:** July 18, 2019 |

**Photograph No. 5**




Facing west from the intersection of State College Blvd and Kimberly Ave.

**Photograph No. 6**



Facing east from the intersection of Acacia Ave and Kimberly Ave.

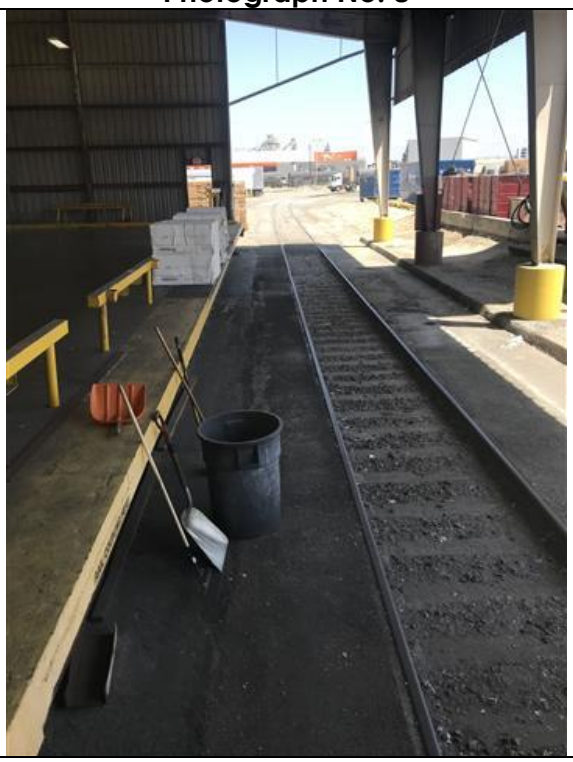
| STANTEC CONSULTING SERVICES, INC<br>PHOTOGRAPHIC RECORD | |
|---|---|
| **Client:** GNAP Development LLC | **Job Number:** 185804430 |
| **Site Name:** Kimberly-Clark Corporation, Fullerton Mill | **Location:** Fullerton, California |
| **Photographer:** Dion Monge | **Date:** July 18, 2019 |

**Photograph No. 7**



Facing south from the intersection of Acacia Ave and Kimberly Ave.

**Photograph No. 8**



View of railroad spur that enters Building 11 (REC).

| STANTEC CONSULTING SERVICES, INC<br>PHOTOGRAPHIC RECORD | |
|---|---|
| **Client:** GNAP Development LLC | **Job Number:** 185804430 |
| **Site Name:** Kimberly-Clark Corporation, Fullerton Mill | **Location:** Fullerton, California |
| **Photographer:** Dion Monge | **Date:** July 18, 2019 |

**Photograph No. 9**



Treated industrial wastewater discharge point in north-central portion of the Property (REC).

**Photograph No. 10**



View of the forklift washdown area. The red arrow notes the location of the sump (REC).

| STANTEC CONSULTING SERVICES, INC<br>PHOTOGRAPHIC RECORD | |
|---|---|
| **Client:** GNAP Development LLC | **Job Number:** 185804430 |
| **Site Name:** Kimberly-Clark Corporation, Fullerton Mill | **Location:** Fullerton, California |
| **Photographer:** Dion Monge | **Date:** July 18, 2019 |

**Photograph No. 11**



Tank farm unloading area and sump (REC)

**Photograph No. 12**



Stormwater discharge point in the north-central portion of the Property (REC).

| STANTEC CONSULTING SERVICES, INC<br>PHOTOGRAPHIC RECORD | |
|---|---|
| **Client:** GNAP Development LLC | **Job Number:** 185804430 |
| **Site Name:** Kimberly-Clark Corporation, Fullerton Mill | **Location:** Fullerton, California |
| **Photographer:** Dion Monge | **Date:** July 18, 2019 |

**Photograph No. 13**



Typical dry well in the northeast portion of the Property.

**Photograph No. 14**




Ammonia tank located to the east of Building 11.

| STANTEC CONSULTING SERVICES, INC<br>PHOTOGRAPHIC RECORD | |
|---|---|
| **Client:** GNAP Development LLC | **Job Number:** 185804430 |
| **Site Name:** Kimberly-Clark Corporation, Fullerton Mill | **Location:** Fullerton, California |
| **Photographer:** Dion Monge | **Date:** July 18, 2019 |

**Photograph No. 15**



Cooling towers near Building 4. Towers are reportedly cleaned with only water.

**Photograph No. 16**




View of tank farm.

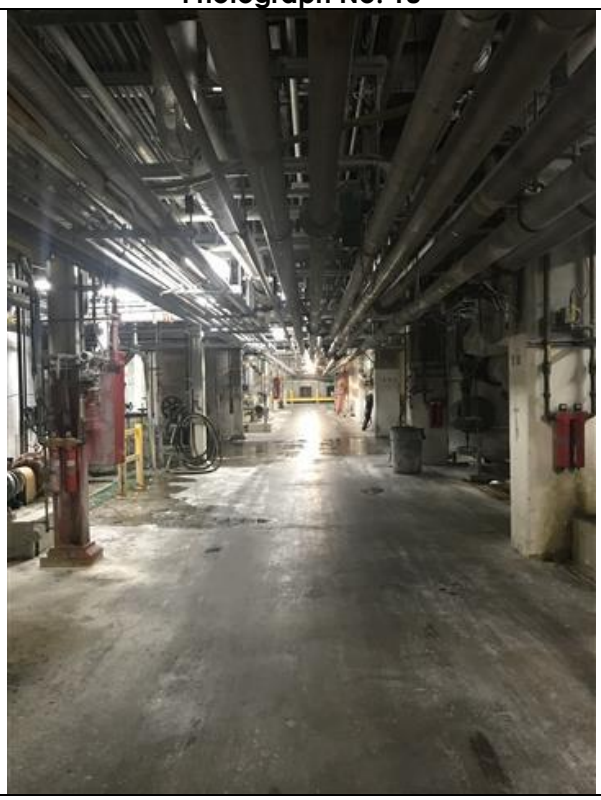
| STANTEC CONSULTING SERVICES, INC<br>PHOTOGRAPHIC RECORD | |
|---|---|
| **Client:** GNAP Development LLC | **Job Number:** 185804430 |
| **Site Name:** Kimberly-Clark Corporation, Fullerton Mill | **Location:** Fullerton, California |
| **Photographer:** Dion Monge | **Date:** July 18, 2019 |

**Photograph No. 17**




Parts washer located on the ground level of Building 1.

**Photograph No. 18**



General view of Building 1 basement.

| STANTEC CONSULTING SERVICES, INC<br>PHOTOGRAPHIC RECORD | |
|---|---|
| **Client:** GNAP Development LLC | **Job Number:** 185804430 |
| **Site Name:** Kimberly-Clark Corporation, Fullerton Mill | **Location:** Fullerton, California |
| **Photographer:** Dion Monge | **Date:** July 18, 2019 |

**Photograph No. 19**



View of hydraulic oil tanks in the basement of Building 1 (REC).

**Photograph No. 20**



View of TM1 light oil tanks in the basement of Building 1.

| STANTEC CONSULTING SERVICES, INC<br>PHOTOGRAPHIC RECORD | |
|---|---|
| **Client:** GNAP Development LLC | **Job Number:** 185804430 |
| **Site Name:** Kimberly-Clark Corporation, Fullerton Mill | **Location:** Fullerton, California |
| **Photographer:** Dion Monge | **Date:** July 18, 2019 |

**Photograph No. 21**



General view of pulper from ground floor of Building 1 (REC).

**Photograph No. 22**



View of interior of pulper in Building 1.

| STANTEC CONSULTING SERVICES, INC<br>PHOTOGRAPHIC RECORD | |
|---|---|
| **Client:** GNAP Development LLC | **Job Number:** 185804430 |
| **Site Name:** Kimberly-Clark Corporation, Fullerton Mill | **Location:** Fullerton, California |
| **Photographer:** Dion Monge | **Date:** July 18, 2019 |

**Photograph No. 23**



Floor drain in maintenance shop of Building 1.

**Photograph No. 24**



General view of water treatment plant east of Buildings 1 and 11.

| STANTEC CONSULTING SERVICES, INC<br>PHOTOGRAPHIC RECORD | |
|---|---|
| **Client:** GNAP Development LLC | **Job Number:** 185804430 |
| **Site Name:** Kimberly-Clark Corporation, Fullerton Mill | **Location:** Fullerton, California |
| **Photographer:** Dion Monge | **Date:** July 18, 2019 |

**Photograph No. 25**



View of battery storage area in the southeast portion of Building 3.

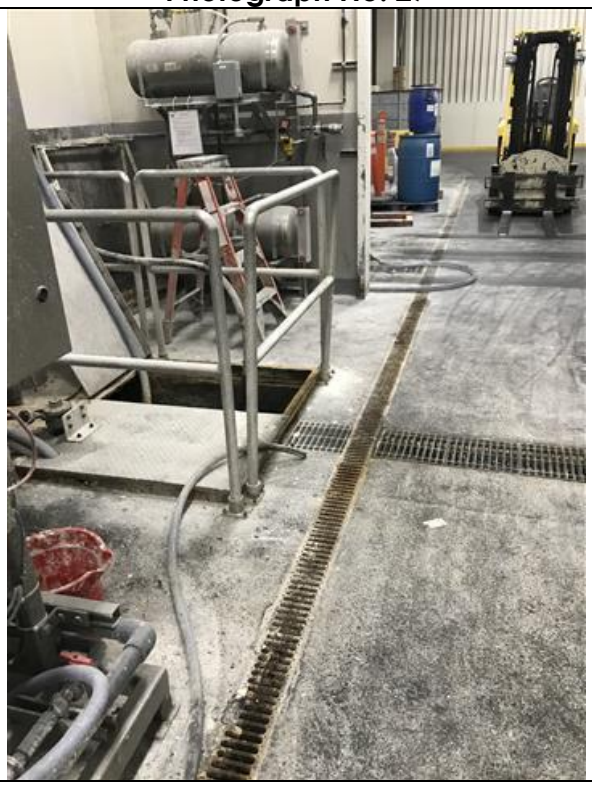
**Photograph No. 26**




Typical parts washing station (REC). This particular unit is located in the maintenance shop of Building 3.

| STANTEC CONSULTING SERVICES, INC<br>PHOTOGRAPHIC RECORD | |
|---|---|
| **Client:** GNAP Development LLC | **Job Number:** 185804430 |
| **Site Name:** Kimberly-Clark Corporation, Fullerton Mill | **Location:** Fullerton, California |
| **Photographer:** Dion Monge | **Date:** July 18, 2019 |

**Photograph No. 27**



UCON Area in Building 8. View of sump and trench drains (REC).

**Photograph No. 28**



Sump in the adhesives area of Building 8 (REC).

| STANTEC CONSULTING SERVICES, INC<br>PHOTOGRAPHIC RECORD | |
|---|---|
| **Client:** GNAP Development LLC | **Job Number:** 185804430 |
| **Site Name:** Kimberly-Clark Corporation, Fullerton Mill | **Location:** Fullerton, California |
| **Photographer:** Dion Monge | **Date:** July 18, 2019 |

**Photograph No. 29**



Trench drain in former ink/dye area of Building 8 (REC).

**Photograph No. 30**



Parts washer in the maintenance area of Building10 (REC).

| STANTEC CONSULTING SERVICES, INC<br>PHOTOGRAPHIC RECORD | |
|---|---|
| **Client:** GNAP Development LLC | **Job Number:** 185804430 |
| **Site Name:** Kimberly-Clark Corporation, Fullerton Mill | **Location:** Fullerton, California |
| **Photographer:** Dion Monge | **Date:** July 18, 2019 |

**Photograph No. 31**



General warehouse space. This particular photograph was taken in Building 12.

**Photograph No. 32**



Paper pulp storage in Building 13.

| STANTEC CONSULTING SERVICES, INC<br>PHOTOGRAPHIC RECORD | |
|---|---|
| **Client:** GNAP Development LLC | **Job Number:** 185804430 |
| **Site Name:** Kimberly-Clark Corporation, Fullerton Mill | **Location:** Fullerton, California |
| **Photographer:** Dion Monge | **Date:** July 18, 2019 |

**Photograph No. 33**



Another example of warehouse storage (Building 19).

**Photograph No. 34**



Storage and multi-folder areas in Building 21.

| STANTEC CONSULTING SERVICES, INC<br>PHOTOGRAPHIC RECORD | |
|---|---|
| **Client:** GNAP Development LLC | **Job Number:** 185804430 |
| **Site Name:** Kimberly-Clark Corporation, Fullerton Mill | **Location:** Fullerton, California |
| **Photographer:** Dion Monge | **Date:** July 18, 2019 |

**Photograph No. 35**



Asphalt lot and loading dock in southwest portion of the Property, south of Building 19.

**Photograph No. 36**



F-KIM-2 water well, located in the north-central portion of the Property.

# Appendix B STANTEC RESUMES

# Dion Monge

Project Scientist

Dion has extensive knowledge of underground storage tank investigations, Phase I and II environmental site assessment, groundwater monitoring and reporting, soil, soil vapor, and groundwater quality assessments, and testing for asbestos and lead based paint. His project experience is extensive and wide ranging and includes many types of soil, soil vapor, and groundwater assessment and monitoring for planned, existing, and former sites. Dion also has experience in testing fill soils placed on grading sites.

He has experience on redevelopment of former oil field sites that include submittal of construction site review plans, oil well mitigation (venting and casing alterations), abandonment of oil wells, and remedial investigations and remediation involving soil contamination.

Dion also has experience working with 1166 AQMD air monitoring on projects ranging from limited access dry cleaner excavations, solvent excavations, and petroleum excavations related to underground storage tank releases. Included in this type of monitoring is the assessment of a safe work environment for the contractors involved with this type of work.

He has considerable knowledge in asbestos and lead based paint sampling as a building inspector and lead sampling technician. Asbestos and lead based paint surveys have ranged from large office buildings to sampling highway bridges.

## EDUCATION

BS, Soil Science, California Polytechnic University, Pomona, Pomona, California, 2004

Health & Safety Certification (29 CFR 1910.120),, 40-Hour OSHA Health & Safety Certification, Redlands, California, 2005

Health & Safety Annual Update Certification, 8-Hour OSHA, Redlands, California, 2009

First Aid/CPR, American Red Cross, Redlands, California, 2009

Certified Building Inspector, AHERA 8-Hour Refresher, Redlands, California, 2009

## PROJECT EXPERIENCE

**Asbestos, Lead Based Paint, and Hazardous Material Management**

Haller Wash Bridge No. 54-0891R&L, San Bernardino County, California (Asbestos and Lead-Based Paint Sampling Assistant)

*Dion conducted asbestos and lead based paint survey on highway bridge. He assisted with planning field operations, measuring bridge dimensions, and collecting samples. Tasks included sample collection, bridge measurements, and documentation.*

**Project Management Oversight**

Magnolia Plaza, Fountain Valley, California

*Dion is providing project management of soil, soil vapor, and quarterly groundwater sampling related to a solvent release at a former dry cleaning facility. Tasks include preparation of work plans for approval by the Regional Water Quality Control Board and oversight of field sampling, including lithologic logging, for soil and soil vapor investigations performed within a multi-tenant strip center. Additional tasks include preparation of investigative reports and quarterly groundwater monitoring reports. The site remains an open case and preparation of a work plan to use electrical resistive heating ("ERH") will be prepared in the coming weeks.*

# Dion Monge

Project Scientist

Former Superb Dry Cleaners, Anaheim, California
*Dion performed field oversight, direction, and confirmation soil sampling of a limited access excavation within a former dry cleaner unit. Post excavation field activities included application of a barrier type floor sealant along with post excavation indoor air sampling. Remedial work led to regulatory closure being granted from the local agency.*

**Site Assessment**

I-15/I-215 Interchange Improvements, San Bernardino County, California (Sampling Technician)
*Dion helped conduct site investigations and surveys for potentially hazardous materials. His efforts supported Caltrans' plans to improve and widen the existing freeway lanes, entrance and exit ramps, and vehicle and railroad bridges along a 6-mile stretch of the I-15 and I-215 freeways in the Devore area of San Bernardino County. Dion's efforts included Environmental Evaluation of Recognized Environmental Concerns identified in ISAs*

Highway 138 Environmental Investigations, San Bernardino County, California (Field Assessment and Reporting)
*Dion helped complete hazardous material site investigations on five bridges along State Highway 138 along a 20-mile segment through portions of Los Angeles and San Bernardino Counties, California. The investigation was conducted in accordance with Caltrans protocols and was compliant with EPA's all appropriate inquiries guidance and ASTM Standard Practice E1527. He performed site reconnaissance, conducted regulatory and agency field reviews, and reviewed environmental databases and historical fire insurance, telephone directories, aerial photographs, topographic maps, and other environmental records for properties within one half mile of the proposed 20-mile segment of Highway 138. Dion compiled an report summarizing findings and identifying recognized environmental conditions.*

Proposed Friends Christian High School, Yorba Linda, California
*Dion prepared preliminary site assessment (PSA) report for future private school site to identify recognized environmental conditions ("RECs") related to past property usage as an oil field with 21 oil wells abandoned prior to 1990. Completion of the PSA led to his management of the project through site closure. Field investigations and reporting by Dion included Phase II investigations, methane survey, oil well leak testing and venting, backfill and compaction (including soils testing), DOGGR Construction Site Review, and excavation and onsite management of more than 5,000 cubic yards of petroleum impacted soils.*

SR-58 Widening, San Bernardino County, California
*Dion performed Initial Site Assessment (ISA) for Caltran at Kramer Junction for the proposed widening of State Route 58. The ISA was performed in accordance with guidelines promulgated by the American Society for Testing and Materials (ASTM) and included historical research and coordination of permit/file reviews with local building/planning departments and environmental agencies. Dion's role included the field visit, observation documentation, agency reviews, and reporting.*

**Soil Sampling**

Caltrans I-15, Task Order 28, Hesperia, California
*Dion conducted a soil investigation for metals analysis alongside I-15 for disposal recommendations during construction of mortar-lined channels at several locations. He assisted with planning field operations and collected soil samples. Tasks included sample collection, preservation, and documentation.*

** denotes projects completed with other firms*

# Brian Viggiano PG

Senior Geologist

Brian is a California Professional Geologist with approximately ten years of professional experience in environmental and geotechnical fields. He has performed and managed numerous Environmental Site Assessments (ESAs) for real estate transfers, bank loans, and redevelopment projects. Related sites have included former and active retail petroleum stations, former oil fields, dry cleaners, agricultural sites, plating facilities, landfills, chemical plants and other industrial facilities. He has also performed site assessment, investigation, characterization, and remedy of soil and groundwater contamination utilizing established and innovative technologies including single and multi-phase extraction, in-situ chemical oxidation, pump and treat, electrical resistance heating, and chemical fixation. Brian has also performed geotechnical investigations at proposed school developments and for academic purposes. Projects have included evaluation of active and potentially active faults, seismic evaluations, geophysical surveys, and evaluation of remotely sensed data. His versatility and range of environmental and geotechnical skills have been utilized in all stages of investigation including planning, implementation, site reconnaissance, mapping, surveys, and site inspections during construction, assessment or cleanup to final drafting, illustration, and report preparation.

## EDUCATION

BS, Geology, University of California, Los Angeles, Los Angeles, California, 2000

Geology, Graduate Studies, University of California, Los Angeles, Los Angeles, California, 2002

40-Hour HAZWOPER Training, OSHA, Los Angeles, California, 2001

8-Hour HAZWOPER Supervisor Training, OSHA, Los Angeles, California, 2006

8-Hour Annual Update Certification, OSHA, Los Angeles, California, 2011

## REGISTRATIONS

Professional Geologist #8386, State of California

## MEMBERSHIPS

Member, Geological Society of America

## PROJECT EXPERIENCE

**Environmental Site Remediation**

Chemical Plant Decommissioning and Remediation, Vernon, California (Field Geologist/ Site Superintendent)

*Brian worked as the Field Geologist/ Site Superintendent during assessment, below grade demolition and remediation of an historical Chemical plant located in the City of Vernon, California. Assessment activities consisted of evaluating historical process areas, below grade structures and settling ponds impacted by high levels of pesticides, heavy metals and radionuclides (Thorium-232 and Uranium-238). Remediation activities consisted of excavation and off-site disposal of radiological and chemically impacted waste, corrective grading and capping of residual wastes. The Project value was $8,000,000.00.*

Former Open Dump Site, Hopi and Navajo Tribal Lands, Arizona (Field Geologist)

*Brian worked as the field geologist at a former open dump site located on Hopi and Navajo Tribal lands. The open dump was reported to have been the source of elevated concentrations of uranium and other radionuclides in groundwater at the site and vicinity. Brian conducted a collaborative multi-week field study with the U.S. Geological Survey (USGS) to assess site geological relationships, potential groundwater flow paths and plume limits, and potential for spring and drinking water resources to be impacted by leachate from the site. Field work included rock coring, installation of groundwater monitor wells, field mapping, and stratigraphic analysis. Subsequent data analysis included review of comprehensive legacy data, evaluation of landfill leachate tracers (e.g., tritium) and whole rock and leachability data. The investigation is ongoing and is being conducted collaboratively with the USGS,*

** denotes projects completed with other firms*

*Department of Interior, and Environmental Protection Agency.*

Garden Grove Redevelopment Project, Garden Grove, California (Project Geologist)
*Brian implemented remedial investigation of petroleum-impacted soil and groundwater. His investigation consisted of soil sampling, installation, and subsequent development and sampling of groundwater monitoring wells. He worked with others to design and implement a complex dual-phase extraction system that included the installation of 45 extraction wells and two soil vapor extraction systems. He completed work under the oversight of the State of California.*

Chlorinated Solvent Remediation, El Centro, California (Project Geologist)
*Brian performed site remedial investigation and clean up of chlorinated solvent-impacted soil and groundwater. He designed and implemented feasibility tests which included in-situ chemical oxidation using potassium permanganate and hi-vacuum dual phase extraction. He also designed and implemented final remediation approach using six-phase electrical resistance heating. The project value was $1,000,000.*

**Mixed-Use**
Compton Redevelopment Project, Compton, California (Project Geologist)
*Brian performed site remedial investigation and cleanup of soil chemically impacted with petroleum, PCBs, chlorinated solvents, and heavy metals including hazardous waste concentrations of lead and groundwater impacted with chlorinated solvents. Mitigation of impacted soil included appropriate remedial excavations and corrective grading plans. Groundwater remedy included SVE with air sparging and in-situ chemical oxidation using potassium permanganate. All work was completed under State of California oversight. The project value was $2,800,000.*

**Multi-Unit / Family Residential**
Claremont Residential Development, Claremont, California (Project Geologist)
*Brian performed a remedial investigation that identified the presence of approximately 9,000 cubic yards of lead impacted fill materials. He designed and implemented corrective grading plan that included the generation a of numerous small stockpiles of soil that were statistically characterized and either reused on site or disposed of off site. Site mitigation was conducted under the oversight of the Los Angeles County Fire Department. The innovative grading approach resulted in client cost savings of $500,000.*

Residential Redevelopment Project, Torrance, California (Project Geologist)
*Brian oversaw remediation of petroleum and solvent contamination that resulted from historical oil field activities overprinted by contamination from a more recent release from a dry cleaning facility. The site was mitigated to residential standards under State of California oversight. Remedial actions included re-abandonment of an onsite oil well and removal of the historical pipeline infrastructure, excavation and onsite bioremediation of petroleum impacted soil, and soil vapor extraction to reduce solvent impact in the vicinity of the former dry cleaners. In addition, at all locations where solvent-impacted soil was recalcitrant to vapor extraction, due to the presence of heavy petroleum, a large diameter flight auger was used to drill out residual contamination. The project value was $750,000.*

# Kyle D. Emerson PG, CEG

Managing Principal Geologist

Kyle has more than 28 years of professional experience—17 of those years with Stantec—providing geotechnical and environmental consulting. During the course of his experience, he has been involved with a wide variety of geological and engineering projects. He has been in direct charge of quality control/quality assurance (QA/QC) work for Stantec and previous firms for geological, engineering geological, and environmental services primarily in California. Additionally, Kyle has been a primary contact for Stantec with many different clients (including multi-party actions) and regulatory bodies involving contracting, workplan approvals, site assessments and closures, permitting, remedial action, and litigation support. With regard to litigation services, Kyle has extensive experience providing expert witness testimony, second-party review, and litigation support and analysis.

Kyle's extensive experience includes assessment and remediation of property-specific and regional issues involving soil and groundwater contaminated with petroleum hydrocarbons, chlorinated solvents, heavy metals, pesticides, and PCBs.

He currently serves as the managing principal geologist in Stantec's Redlands, California office.

## EDUCATION

Engineering Geology/Hydrogeology, California State University, Los Angeles, California, 1984

AS, General Science, Crafton Hills College, Yucaipa, California, 1975

BS, Geological Sciences, California State University, Long Beach, California, 1982

## REGISTRATIONS

Certified Engineering Geologist #1271, State of California

Professional Geologist #4066, State of California

## PROJECT EXPERIENCE

**Bioremediation**

Excavation and Treatment of Petroleum-Contaminated Soil

*Kyle designed the excavation and treatment of 45,000 cubic yards of petroleum-contaminated soil. Soil treatment included utilizing vapor extraction, combined with bioremediation.*

**Chemicals & Polymers**

Two Former Chemical Plants, Environmental Site Assessments and Remediation, Vernon, California

*Mr. Emerson was part of the team for conducting Phase I and Phase II Environmental Site Assessments (ESA) and developing remedial action plans for two former chemical plant sites with 80-year industrial histories. Phase I ESAs used historical files, maps, aerial photographs, available documents, and data from public agencies and historical directories for identifying recognized environmental concerns. Extensive Phase II ESA survey activities aided in identifying below-grade structures such as vaults/USTs, as well as assessing the extent of influence and nature of the contamination. These investigations confirmed the presence of heavy metals, petroleum hydrocarbons, volatile organic compounds, polychlorinated biphenyls, radioactive materials, semi-volatile organic compounds, and polycyclic aromatic compounds in the soils for these sites. Specific areas of concern included former settling ponds, a bone yard, maintenance areas, transformer and substations, wastewater treatment facilities, and above-ground storage tank farms. A conceptual mode was developedl for use in a health risk assessment and developed risk-based corrective actions to address potential health and environmental concerns. He assisted with the development and implementation of a remedial action plan, combined administrative controls, engineering controls, and active remediation; this resulted in the cost-effective return of one site to active use, and is reducing health risks to occupants and the public at the second site.*

# Kyle D. Emerson PG, CEG

Managing Principal Geologist

CONFIDENTIAL: Aerospace Adhesives and Coatings Plant, Glendale, California

*Mr. Emerson was part of the team that conducted feasibility studies to evaluate remedial alternatives for remediation of chlorinated VOCs, 1,4 dioxane, and hexavalent chromium (CrVI) in soil, soil vapor, and groundwater. Feasibility studies included groundwater pump testing, benchscale column testing to evaluate in situ alternatives for reducing CrVI to the less mobile CrIII valence state, soil vapor extraction, capping, and excavation. Field pilot studies were performed to evaluate the efficiency of various CrVI reductants including the use of ferrous sulfate, calcium polysulfide, emulsified oil, and fructose. Extensive multi-depth soil vapor testing was conducted to evaluate the distribution of VOCs in the subsurface and to support vapor intrusion risk assessment. Feasibility studies were completed in 2008. Remedial actions are expected to be completed in 2011.*

**Condition Assessments**

Assessment and Mitigation of Manufacturing Facility

*Kyle managed the assessment and mitigation of an ammunition manufacturing facility covering 1,100 acres in a complex geologic environment. The contaminates involved red and white phosphorous, TNT, chlorinated solvents, solid wastes, and live ordinance.*

Soil Contamination Assessment Supervision and Management

*Kyle managed and supervised soil contamination assessment and in-situ remediation of heavy metals involving chromium, cadmium, nickel and zinc by chemical fixation to depths in excess of 40 feet below ground surface beneath existing structures within several manufacturing facilities.*

Litigation Support and Expert Testimony

*Kyle provided litigation support and expert testimony on more than 20 separate projects involving service stations, chlorinated solvent cases, heavy metal, and semi-volatile releases.*

**Corporate / Office**

CT Realty Environmental Remediation of Former Dry Cleaners, El Centro, California

*Mr. Emerson was responsible for assessments and remediation at this former dry cleaners which released the dry cleaning chemical tetrachloroethene (PCE) to the ground and underlying groundwater. The work included initial site assessment, agency interaction and negotiations with the California Regional Water Quality Control Board (CRWQCB), and Colorado Basin Region human health risk assessment (HHRA), design and implementation of remedial investigations, feasibility studies, remedial action plans, and implementation of remediation in mitigating chlorinated solvent contamination in vadose and saturated zones at concentrations indicative of DNAPL. The results of the completed remediation, as well as continued confirmation sampling and monitoring, allowed the CRWQCB to issue site closure in 2008. The site has since been redeveloped into a new commercial development.*

**Environmental Assessments**

Siting Studies

*Kyle performed initial siting studies for potential Class I, II, and III landfills. The project included detailed geologic mapping, hydrogeological studies, and permeability studies of caps and liners.*

**Environmental Site Remediation**

Assessment and Remedial Design, California (Project Supervisor)

*Kyle supervised the assessment and remedial design of a system to eliminate salt brine contamination in shallow perched water horizons in the Yucaipa, San Bernardino, and Riverside areas of southern California.*

Design and Installation of Recovery Systems*

*Kyle designed and installed numerous free-product recovery systems that successfully recovered product. One of the sites contained product up to 11-feet thick covering more than three city blocks. The dissolved phase had affected a multi-aquifer system and a public drinking water system.*

Geophysical Characterizations*

*Kyle performed and supervised numerous geophysical characterizations to determine the extent of old landfills. He provided classification studies, landfill gas monitoring, removal verification during grading, methane collection and mitigation plans, permitting, and closure plans.*

** denotes projects completed with other firms*

# Kyle D. Emerson PG, CEG

Managing Principal Geologist

Domestic Landfill Development*

*Kyle designed and supervised the dynamic consolidation of a domestic landfill for development. He used this process to minimize expected settlement to overlying structures. Kyle designed commercial developments on closed landfills that involved complex methane collection and monitoring systems and building settlement controls.*

Clay Borrow Site Studies

*Kyle performed more than 10 separate clay borrow site studies for determining sources of material to cap landfills; ranged from a 20-acre dry lakebed to a 450-acre parcel in complex folded marine sediments.*

Assessment, Clean Up, and Regulatory Support Management, Santa, Monica (Project Manager)

*Kyle managed the assessment, clean up, and complex regulatory support of a PRP site in an MTBE case (Charnock subbasin). His work involved more than 20 environmental professionals working full time for two years to complete the assessment and clean up mandated by the regulatory agencies.*

**Hazardous Waste**

San Gabriel Valley Superfund Site, Remediation & Closure of Multiple Source Areas, Industry, California

*Mr. Emerson performed feasibility studies to evaluate appropriate and relevant remedial alternatives to mitigate constituents of concern in five AOCs contaminated with chlorinated hydrocarbons, heavy metals, petroleum fuel, and cutting oils. Ultimately, a combination of remedial alternatives was implemented that included large-diameter auger excavation to 45 feet to minimize impacts on facility operations, vapor extraction, vapor intrusion risk assessment, deed restriction, and monitored natural attenuation. At the completion of remedial actions, confirmation soil, soil vapor, and groundwater sampling were conducted and followed with risk assessment to demonstrate that remedial objectives had been achieved. No further action was recently granted by the US EPA and Los Angeles Regional Water Quality Control Board.*

**Mixed-Use**

Port of San Diego Rohr Facility, Chula Vista, California

*Mr. Enerson assisted in a detailed subsurface assessment of the Rohr facility. The intent of the assessment was to evaluate the 40-acre former aircraft part manufacturing facility for acquisition by the Port of San Diego for redevelopment into a business park and entertainment complex. The assessment identified the presence of soil, soil vapor, and groundwater impacts by petroleum hydrocarbons, VOCs, heavy metals, PCBs, and semi-volatile organic compounds. He utilized many sampling techniques to assess the limits and concentrations of contaminants in the subsurface. Ultimately, the team was able to develop a cost estimate for potential remedial action cost associated to corrective action to allow redevelopment.*

Master Planned Commercial/Residential Redevelopment Project, Whittier, California (Project Manager)

*Kyle oversaw the assessment of 26 contiguous properties that are part of a 21-acre master planned commercial/residential redevelopment project. The properties included industrial facilities, platting lines, fuel USTs, and metal processing plants, among others. The estimated cleanup costs are approximately $2 million.*

**Multi-Unit / Family Residential**

Residential Development Assessment, Ventura, California (Project Director)

*Kyle directed an assessment of a 40-acre former agricultural property proposed for residential development. Pesticides were identified above hazardous waste levels and preliminary remediation goals established by the U.S. Environmental Protection Agency. Through corrective grading methods and onsite placement of the pesticide impacted soils, all material were re-used on site without offsite disposal. The over all cost savings for the client was more than $1 million. Total cost was less than $250,000 for all necessary activities.*

**Oil & Gas**

Oil Field Site Assessments*

*Kyle performed site assessments at oil field leases involving refineries, bulk storage areas, piping systems and wellhead, and drilling mud pit contamination.*

** denotes projects completed with other firms*

# Kyle D. Emerson PG, CEG

Managing Principal Geologist

Environmental Protection Agency Superfund Action, Culver City, California (Project Manager)
*Kyle served as the project manager representing a major oil company in the assessment, remedial action, and litigation support in a multi-party contamination case affecting a City water supply. The assessment involved more than 250 continuous core borings up to 100 feet, as well as extensive remedial actions. The total cost for all related activities was $22 million. The case is settled and the closure of the site is pending.*

**Project Management**
Liability and Property Management Consulting Services
*Kyle is providing liability and property management consulting services to more than 10 medium to large property development firms in the US. His work involves property transaction assessments, contract review, acquisition guideline development, liability management evaluation, insurance acquisition, and strategic planning.*

**Residential Development**
Environmental Development Management and Review (Project Manager)
*Kyle manages and reviews environmental development issues for a large residential developer specializing in development of contaminated industrial properties by providing innovative solutions in developing contaminated properties for residential use through risk assessment, engineering, and administrative and property development controls.*

**Site Management and Remediation**
Design and Implementation of Biodegradation Programs*, California
*Kyle designed and implemented one of the first in-situ biodegradation programs in California; it involved 50,000 cubic yards of diesel-contaminated soils, and groundwater to depths of 70 feet below ground surface.*

**Soil and Groundwater Remediation Systems**
Soil and Groundwater Contamination Assessments and Mitigation*, California (Project Manger)
*Kyle managed numerous chlorinated solvent soil and groundwater contamination assessments and mitigation programs in southern California. The projects involved releases that impacted soil and groundwater to depth of groundwater more than 700 feet in multi-aquifer systems. One case involved with plume dimensions more than 1 mile from the source affecting residential properties.*

Soil and Groundwater Assessment and Remediation Programs*
*Implemented hundreds of soil and groundwater assessment and remediation programs at various service station facilities in Southern and Northern California, and Nevada. Work involved assessment, remedial design, installation, maintenance and monitoring. Closure has been received on a majority of these sites.*

Assessment and Remediation Management*
*Kyle managed the assessment and remediation of soil and groundwater manufacturing at dry cleaning facilities contaminated with chlorinated solvents.*

**Warehouse / Light Industrial**
Glendale Redevelopment Project, Glendale, California (Project Manager)
*Kyle managed the assessment and remedial actions during the redevelopment of and industrial property. The project involved the demolition of a historic manufacturing facility and a commercial dry cleaner. Each of these facilities were associated with releases of solvents and petroleum hydrocarbons. Remedial actions involved excavation by pattern drilling and off site disposal along with removal of former USTs. The total cost of remediation and assessment was $450,000.00.*

** denotes projects completed with other firms*

# Kyle D. Emerson PG, CEG

Managing Principal Geologist

Compton Redevelopment Project, Compton, California (Project Manager)

*Kyle is serving as project manager for the assessment and remedial actions for a large redevelopment project. The project involves the redevelopment of a historic manufacturing facility and a former dry cleaner. Each of these facilities were associated with releases of solvents and petroleum hydrocarbons. The industrial facility was also associated with significant volumes of buried waste that required removal and disposal. These wastes also included the chemical referenced above, as well as PCBs and heavy metals. Remediation has included excavation, vapor extraction, and chemical fixation. The total cost of this project has been $2.8 million to date.*

** denotes projects completed with other firms*

# Kyle D. Emerson PG, CEG

Managing Principal Geologist

## PUBLICATIONS

In-Situ Bioremediation of an Underground Diesel Fuel Spill: A Case Study. *Environmental Management*, 1989.

# Appendix C USER PROVIDED RECORDS

Stantec

## PHASE I ESA USER'S QUESTIONNAIRE

In order to qualify for protection from land owner liability under CERCLA as an *innocent landowner, bona fide prospective purchaser,* or *contiguous property owner*, ASTM standard practice E1527-13 and the federal AAI rule (40 CFR 312) require that the User of the Phase I ESA report provide certain information (if available) to the Environmental Professional completing the assessment. Failure to provide this information could result in a determination that "all appropriate inquiry" is not complete. Information that is not or cannot be provided to the Environmental Professional may be identified as a "data gap" in the Phase I ESA report.

Please answer the following questions as completely as possible. Attach additional pages as needed. Return the completed questionnaire to Stantec along with the executed Authorization For services form.

1. Property Information

Property Name: GLC FULLERTON

Property Address(es): 2001 E ORANGETHORPE AVE

City: FULLERTON State CA Zip 92831

Property Owner Name: KIMBERLY-CLARK WORLDWIDE, INC

Property Owner Phone #: _____

2. Contact For Site Access

Name: PAUL KURY

Company/Organization/Title: CONTRACTOR GENERAL SAP / MECHANICAL ENGI

Phone # 714/767-5716 (CELL) E-Mail Address: PAUL.KURY@KCC.COM

3. Environmental Cleanup Liens. Are you aware of any environmental cleanup liens against the property that are filed or recorded under federal, tribal, state or local law?

_____ Yes ___X___ No

If yes, describe or attach details of the lien _____

4. Activity and Land Use Limitations. Are you aware of any activity and use limitations, such as engineering controls, land use restrictions, or institutional controls that are in place at the property and/or have been filed or recorded as applicable to the property as a result of environmental contamination, investigation, cleanup, or related matters?

_____ Yes ___X___ No

If yes, describe or attach details of the limitations _____

5. Specialized Knowledge or Experience. As the User of this ESA, do you have any specialized knowledge or experience related to the property or nearby properties? For example, are you involved in the same line of business as the current or former occupants of the property or an adjoining property, such that you would have specialized knowledge about chemicals and processes used by this type of business?

_____ Yes _____X_____ No

If yes, describe or attach details of your specialized knowledge or experience _____

_____

6. Relationship of Purchase Price to Fair Market Value of Property. Does the purchase price being paid for the property reasonably reflect the fair market value?

_____X_____ Yes _____ No

_____ Not applicable. User is not involved in a purchase of the property.

If you conclude that there is a difference, do you have any reason to believe that the reduced purchase price may be related to contamination known or believed to be present at the property?

_____ Yes, I have reason to believe that the purchase price for the property has been reduced in comparison with the fair market value due to contamination known or believed to be present at the property.

_____ No, I have no reason to believe that the purchase price for the property has been reduced in comparison with the fair market value due to contamination known or believed to be present at the property.

7. Commonly Known or Reasonably Ascertainable Information. Are you aware of commonly known or reasonably ascertainable information about the property that would help the Environmental Professional to identify conditions indicative of releases or threatened releases of hazardous substances or petroleum products? For example:

Do you know the past uses of the property?

_____X_____ Yes (describe) PAPER / TISSUE MANUFACTURING

_____

_____

_____ No

Do you know of chemicals, hazardous substances or petroleum products that are present or once were present at the property?

_____X_____ Yes (describe) HYDRAULIC FLUIDS, OILS, BLEACH AND SOLVENTS

_____

_____

_____ No

Do you know of spills or other releases of chemicals, hazardous substances or petroleum products that have taken place at the property?

X Yes (describe) AS DISCUSSED IN A SELLER PHASE I ESA PREPARED NOVEMBER 5, 2018 BY ANTEA GROUP.

_____ No

Do you know of any environmental cleanups that have taken place at the property?

X Yes (describe) THE SELLER PHASE I ESA DISCUSSES LUSTs AND SOIL REMOVAL

_____ No

8. The Degree of Obviousness of Contamination. E1527-13 and the federal AAI rule (40 CFR 312.31) require that the Phase I ESA consider the degree of obviousness of the presence or likely presence of contamination at the property, and the ability to detect the contamination by appropriate investigation. Based on your knowledge and experience related to the property, are there any *obvious* indictors that point to the presence or likely presence of contamination at the property?

X Yes (describe) AS DISCUSSED ABOVE

_____ No

9. Availability of Previous Environmental Reports. Are you aware of previous environmental site assessment reports, other environmental reports, documents, correspondence, etc. concerning the property and its environmental condition?

X Yes (describe) AS DISCUSSED ABOVE

_____ No

Signature: _____

Name (printed): ALAN TUNTLAND

Title: SR VP

Date: JULY 16, 2019

Table 1

Laboratory Analytical Results of VOCs in Soil Gas – Kimberly-Clark

Samples Collected by NGSC

(µg/L)

| EPA Method | | 8260B | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Sample ID** | **Sample Date** | **Chloroform** | **1,1-Dichloro-ethene** | ***cis*-1,2-Dichloro-ethene** | **Ethyl-benzene** | **Trichloro-ethene** | **p/m-Xylenes** | **o-Xylene** | **Tetrachloro-ethene** | **Toluene** | **1,1,1-Trichloro-ethane** | **All Other VOCs** |
| KC-1-10' | 12/10/08 | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| KC-2-10' | 12/10/08 | ND | ND | ND | ND | ND | ND | ND | 0.18 | ND | ND | ND |
| KC-2-10'-D | 12/10/08 | ND | ND | ND | ND | ND | ND | ND | 0.33 | ND | ND | ND |
| KC-2-20' | 12/11/08 | ND | ND | ND | ND | 0.07J | ND | ND | 0.19 | ND | 0.09J | ND |
| KC-3-10' | 12/10/08 | 0.55 | 0.07J | ND | ND | 0.08J | ND | ND | 0.14 | 0.08J | ND | ND |
| KC-3-20' | 12/11/08 | 0.92 | 0.2 | ND | ND | 0.21 | 0.14 | 0.06 | 0.16 | 0.14 | 0.80 | ND |
| KC-4-10' | 12/10/08 | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| KC-5-10' | 12/10/08 | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| KC-6-10'-1V | 12/10/08 | ND | ND | ND | ND | ND | ND | ND | ND | 0.08J | ND | ND |
| KC-6-10'-3V | 12/10/08 | ND | ND | ND | ND | ND | ND | ND | 0.1 | 0.08J | ND | ND |
| KC-6-10'-7V | 12/10/08 | ND | ND | ND | ND | ND | ND | ND | 0.08J | 0.08J | ND | ND |
| KC-7-10' | 12/10/08 | ND | ND | ND | ND | ND | ND | ND | ND | 0.09J | ND | ND |
| KC-8-10' | 12/11/08 | ND | ND | ND | ND | ND | ND | ND | 0.07J | ND | ND | ND |
| KC-8-10'-D | 12/11/08 | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| KC-9-10' | 12/11/08 | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| KC-10-10' | 12/11/08 | ND | ND | ND | 0.07J | 10 | 0.24 | | 1.4 | 0.14 | ND | ND |
| KC-10-20' | 12/11/08 | 0.13 | 0.11 | 0.07J | ND | 57 | 0.14J | 0.05J | 6.2 | ND | ND | ND |
| | | | | | | | | | | | | |
| RL (µg/L) (8260B) | | 0.10 | 0.10 | 0.10 | 0.10 | 0.10 | 0.20 | 0.10 | 0.10 | 0.10 | 0.20 | 0.10–0.30 |

***Legend:***

| | |
|---|---|
| µg/L | Micrograms per liter |
| VOCs | Volatile organic compounds |
| ND | Not detected |
| RL | Reporting limit |
| J | Analyte was detected at a concentration below the RL and above the method detection limit. Reported value is estimated. |

# Table 2
## Laboratory Analytical Results of VOCs in Soil – Kimberly-Clark
## Samples Collected by CTL Environmental Services
## (µg/kg)

| EPA Method | | 8260B | | | | | |
|---|---|---|---|---|---|---|---|
| **Sample ID** | **Sample Date** | **Benzene** | **Ethyl-benzene** | **Trichloro-ethene** | **p-Isopropyl-toluene** | **Toluene** | **All Other VOCs** |
| KC2-10' | 12/11/08 | ND | ND | ND | ND | ND | ND |
| KC3-10' | 12/11/08 | ND | ND | ND | ND | ND | ND |
| KC3-20' | 12/11/08 | ND | ND | ND | ND | ND | ND |
| KC6-5.5' | 12/10/08 | ND | ND | ND | ND | ND | ND |
| KC6-19' | 12/10/08 | ND | ND | ND | ND | ND | ND |
| KC10-2.5' | 12/11/08 | 1.1 | ND | ND | 2.8 | 1.1 | ND |
| KC10-5' | 12/11/08 | 1.1 | 1.3 | ND | 1.1 | 1.8 | ND |
| KC10-10' | 12/11/08 | 1.1 | ND | 2.6 | ND | ND | ND |
| KC10-20' | 12/11/08 | ND | ND | ND | ND | ND | ND |
| | | | | | | | |
| RL (µg/kg) (8260B) | | 0.94–1.1 | 1.1 | 0.10 | 1.0–1.1 | 0.94–1.1 | 0.94–60 |

***Legend:***

| | |
|---|---|
| µg/kg | Micrograms per kilogram |
| VOCs | Volatile organic compounds |
| ND | Not detected |
| RL | Reporting limit |
| J | Analyte was detected at a concentration below the RL and above the method detection limit. Reported value is estimated. |

Table 3

Laboratory Analytical Results of VOCs in Soil – Kimberly-Clark

Samples Collected by NGSC

(mg/kg)

| Method | | Gas Chromatography-Mass Spectrometry | | |
|---|---|---|---|---|
| **Sample ID** | **Sample Date** | **Trichloroethene** | **Tetrachloroethene** | **All Other VOCs** |
| KC-2-10.0' | 12/11/08 | ND | ND | ND |
| KC-2-20.0' | 12/11/08 | ND | ND | ND |
| KC-3-10.0' | 12/11/08 | ND | ND | ND |
| KC-3-20.0' | 12/11/08 | ND | ND | ND |
| KC-6-5.5' | 12/10/08 | ND | ND | ND |
| KC-6-19' | 12/10/08 | ND | ND | ND |
| KC-10-2.5' | 12/11/08 | 0.0017 | 0.0018 | ND |
| KC-10-5.0' | 12/11/08 | ND | ND | ND |
| KC-10-10.0' | 12/11/08 | 0.0025 | ND | ND |
| KC-10-20.0' | 12/11/08 | ND | ND | ND |
| | | | | |
| RL (mg/kg) (GC-MS) | | 0.0010 | 0.0010 | 0.001–0.10 |

***Legend:***

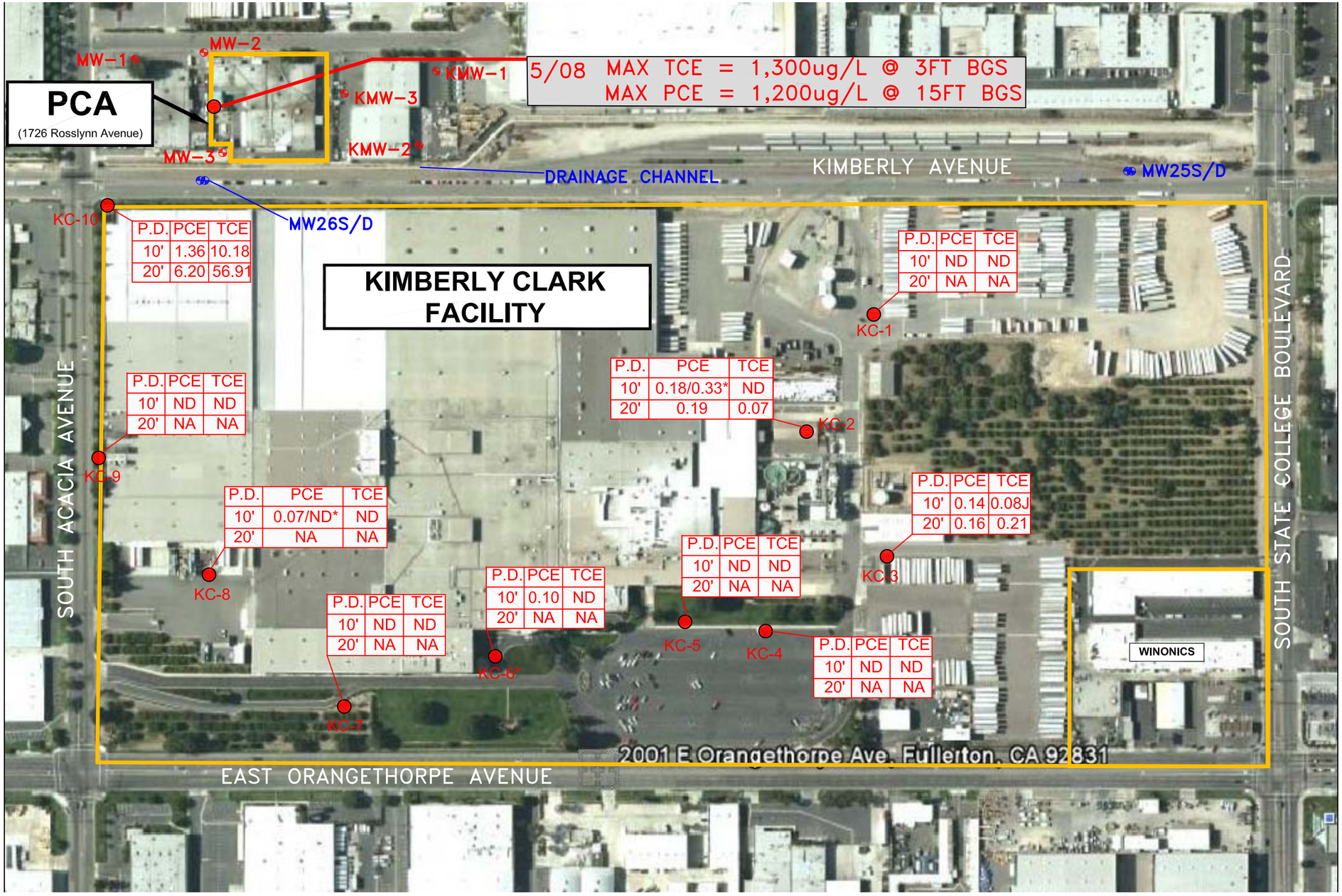
| | |
|---|---|
| mg/kg | Miilligrams per kilogram |
| VOCs | Volatile organic compounds |
| ND | Not detected |
| RL | Reporting limit |
| GC-MS | Gas chromatography-mass spectrometry |

# Table 4
## Laboratory Analytical Results of VOCs in Soil Gas – Kimberly-Clark
## Samples Collected by OCWD
## (µg/L)

| EPA Method | | 8260B | | | |
|---|---|---|---|---|---|
| Sample ID | Sample Date | Trichloro-ethene | Tetrachloro-ethene | Toluene | All Other VOCs |
| KC-1-10' | 12/10/08 | ND | ND | ND | ND |
| KC-2-10' | 12/10/08 | ND | ND | ND | ND |
| KC-2-20' | 12/11/08 | ND | ND | ND | ND |
| KC-3-10' | 12/10/08 | ND | ND | ND | ND |
| KC-3-20' | 12/11/08 | ND | ND | ND | ND |
| KC-4-10' | 12/11/08 | ND | ND | ND | ND |
| KC-4-10' DUP | 12/11/08 | ND | ND | 0.320 | ND |
| KC-5-10' | 12/11/08 | ND | ND | ND | ND |
| KC-6-10'-1PV | 12/10/08 | ND | ND | ND | ND |
| KC-6-10'-3PV | 12/10/08 | ND | ND | ND | ND |
| KC-6-10'-7PV | 12/10/08 | ND | ND | ND | ND |
| KC-7-10' | 12/10/08 | ND | ND | ND | ND |
| KC-7-10' DUP | 12/10/08 | ND | ND | 0.220 | ND |
| KC-8-10' | 12/11/08 | ND | ND | ND | ND |
| KC-9-10' | 12/11/08 | ND | ND | ND | ND |
| KC-10-10' | 12/11/08 | 10 | 1.3 | ND | ND |
| KC-10-20' | 12/11/08 | 85 | 9.4 | ND | ND |
| | | | | | |
| RL (µg/L) (8260B) | | 0.10 | 0.10 | 1.0 | 1.0–10 |

***Legend:***

| | |
|---|---|
| µg/L | Micrograms per liter |
| VOCs | Volatile organic compounds |
| ND | Not detected |
| RL | Reporting limit |




0 1" 2"

0 200' 400'

MAC-DATE

LEGEND:

| | |
|---|---|
| KC-10 | Soil Gas Sampling Location by NGSC (12/08) |
| KMW-1 | Monitoring Well by Khyber Foods (1990) |
| MW-1 | Monitoring Well by PCA (1993) |
| MW25S/D | Monitoring Well by AC Products (1998) |
| BGS | Below Ground Surface |
| PCE | Tetrachloroethene |
| TCE | Trichloroethene |
| * | Duplicate Sample |
| P.D. | Probe Depth (bgs) |
| J | Result less than Practical Quantitation Limit |
| ug/L | micrograms per liter |

FIGURE 1:
SOIL GAS CONCENTRATIONS (ug/L)

CLIENT:
Lewitt Hackman Shapiro Marshall & Harlan

SITE LOCATION:
Kimberly Clark Facility
2001 E. Orangethorpe Avenue
Fulleton, California

APPROVED: UL

DRAWN BY: KAD

DATE: 09/2010

SCALE: 1" = 200'

PROJECT #: 408-0037

MAP #:
Soil-gas conc.dwg

coffey environments
3777 Long Beach Blvd., Annex Bldg.
Long Beach, CA 90807
(310) 530-5006
www.coffey.com

**Well FKIM-2 – Organic Data (µg/L)**

| DATE | 1,1,1-Trichloro-ethane | 1,1-Dichloro-ethene | 1,2-Dichloro-ethane | Bromoform | Chloroform | Dibromochloro-methane | Methylene Chloride | Tetrachloro-ethene | Total THMs | Trichloro-ethene |
|---|---|---|---|---|---|---|---|---|---|---|
| 1/31/1985 | '- | '- | '- | '- | '- | '- | '- | '- | '- | '- |
| 12/4/1985 | '- | '- | '- | '- | '- | '- | '- | '- | '- | 0 |
| 1/20/1986 | 0 | 0 | 0 | 0 | 2 | 0 | 0 | 1.2 | '- | 0 |
| 3/12/1986 | 0 | 0 | 0 | 0 | 2.1 | 0 | 0 | 1.7 | '- | 0.5 |
| 3/19/1986 | 0 | 0 | 0 | 0 | 2.2 | 0 | 0 | 1.6 | '- | 0.5 |
| 4/30/1986 | 0 | 0 | 0 | 0 | 2.1 | 0 | 0 | 1.9 | '- | 0.7 |
| 5/28/1986 | 0 | 0 | 0.6 | 0 | 1.8 | 0 | 0 | 1.9 | '- | 0.7 |
| 6/25/1986 | 0 | 0 | 0.5 | 0 | 1.6 | 0 | 0 | 2.1 | '- | 0.7 |
| 7/28/1986 | 0 | 0 | 0 | 0 | 1.8 | 0 | 0 | 2.2 | '- | 0.8 |
| 8/25/1986 | 0 | 0 | 0 | 0 | 1.9 | 0 | 0 | 2.3 | '- | 0.8 |
| 9/29/1986 | 0 | 0 | 0 | 0 | 1.8 | 0 | 0 | 2.3 | '- | 0.8 |
| 10/27/1986 | 0 | 0 | 0 | 0 | 2.2 | 0 | 0 | 2.7 | '- | 0.8 |
| 11/24/1986 | 0 | 0 | 0 | 0 | 1.5 | 0 | 0 | 2 | '- | 0.7 |
| 12/29/1986 | 0 | 0 | 0 | 0 | 3.2 | 0 | 0 | 0 | '- | 0 |
| 2/2/1987 | 0 | 0 | 0 | 0 | 1.7 | 0 | 0 | 2.2 | '- | 0.8 |
| 2/23/1987 | 0 | 0 | 0 | 0 | 1.8 | 0 | 0 | 2.5 | '- | 0.8 |
| 3/30/1987 | 0 | 0 | 0 | 0 | 1.6 | 0 | 0 | 2.4 | '- | 0.8 |
| 4/27/1987 | 0 | 0 | 0 | 0 | 1.7 | 0 | 0 | 2.4 | '- | 0.8 |
| 5/26/1987 | 0 | 0 | 0.6 | 0 | 1.7 | 0 | 0 | 2.6 | '- | 1 |
| 8/31/1987 | 0 | 0 | 0 | 0 | 1.6 | 0 | 0 | 2.5 | '- | 0.8 |
| 11/30/1987 | 0 | 0 | 0 | 0 | 1.8 | 0 | 0 | 2.6 | '- | 0.6 |
| 12/28/1987 | 0.7 | 0 | 0 | 0 | 1.7 | 0 | 0 | 2.3 | '- | 0.7 |
| 1/25/1988 | 0 | 0 | 0 | 0 | 1.6 | 0 | 0 | 2.7 | '- | 0.8 |
| 2/23/1988 | 0 | 0 | 0 | 0 | 1.6 | 0 | 0 | 2.7 | '- | 0.7 |
| 2/29/1988 | 0 | 0 | 0 | 0 | 1.6 | 0 | 0 | 2.7 | '- | 0.7 |
| 3/28/1988 | 0 | 0 | 0 | 0 | 1.6 | 0 | 0 | 2.5 | '- | 0.7 |
| 4/25/1988 | 0 | 0 | 0 | 0 | 1.8 | 0 | 0 | 2.4 | '- | 0.7 |
| 5/31/1988 | 0 | 0 | 0 | 0 | 1.4 | 0 | 0 | 2.3 | '- | 0.7 |
| 7/5/1988 | 0 | 0 | 0 | 0 | 1.4 | 0 | 0 | 2.4 | '- | 0.8 |
| 7/25/1988 | 0 | 0 | 0 | 0 | 1.6 | 0 | 0 | 2.6 | '- | 0.8 |
| 8/29/1988 | 0 | 0 | 0 | 0 | 1.4 | 0 | 0 | 2.6 | '- | 0.8 |
| 9/26/1988 | 0 | 0 | 0 | 0 | 1.8 | 0 | 0 | 4.7 | '- | 1.2 |
| 10/31/1988 | 0 | 0 | 0 | 0 | 1.1 | 0 | 0 | 3 | '- | 0.7 |
| 11/9/1988 | 0 | 0 | 0 | 0 | 1.3 | 0 | 0 | 3 | '- | 0.7 |

**Well FKIM-2 – Organic Data (µg/L)**

| DATE | 1,1,1-Trichloro-ethane | 1,1-Dichloro-ethene | 1,2-Dichloro-ethane | Bromoform | Chloroform | Dibromochloro-methane | Methylene Chloride | Tetrachloro-ethene | Total THMs | Trichloro-ethene |
|---|---|---|---|---|---|---|---|---|---|---|
| 11/28/1988 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 2.8 | '- | 0 |
| 1/30/1989 | 0 | 0 | 0 | 0 | 2.1 | 0 | 0 | 3.8 | '- | 1.1 |
| 2/28/1989 | 0 | 0 | 0 | 0 | 1.4 | 0 | 0 | 3.3 | '- | 0.7 |
| 3/28/1989 | 0 | 0 | 0 | 0 | 1.3 | 0 | 0 | 2.5 | '- | 0 |
| 5/30/1989 | 0 | 0 | 0 | 0 | 1.1 | 0 | 0 | 2.6 | '- | 0.7 |
| 6/21/1989 | 0 | 0 | 0 | 0 | 1.2 | 0 | 0 | 2.8 | '- | 0.7 |
| 6/26/1989 | 0 | 0 | 0 | 0 | 1.3 | 0 | 0 | 2.9 | '- | 0.8 |
| 7/31/1989 | 0 | 0 | 0 | 0 | 1.2 | 0 | 0 | 3.2 | '- | 0.8 |
| 8/28/1989 | 0 | 0 | 0 | 0 | 1.2 | 0 | 0 | 2.1 | '- | 0.7 |
| 9/25/1989 | 0 | 0 | 0 | 0 | 1.2 | 0 | 0 | 2.9 | '- | 0.8 |
| 10/30/1989 | 0 | 0 | 0 | 0 | 1 | 0 | 1.1 | 2.3 | '- | 0.7 |
| 11/27/1989 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 2.6 | '- | 0.7 |
| 12/1/1989 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 2.7 | '- | 0.7 |
| 12/4/1989 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 2.8 | '- | 0.7 |
| 12/18/1989 | 0 | 0 | 0 | 0 | 1.1 | 0 | 0 | 2.6 | '- | 0.7 |
| 1/30/1990 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 3.3 | '- | 0.7 |
| 2/5/1990 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 2.9 | '- | 0.6 |
| 2/26/1990 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 2.6 | '- | 0.6 |
| 4/30/1990 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 2 | '- | 0.6 |
| 5/29/1990 | 0 | 0 | 0 | 0 | 0.9 | 0 | 0 | 2.1 | '- | 0.6 |
| 6/25/1990 | 0 | 0 | 0 | 0 | 0.8 | 0 | 0 | 2.6 | '- | 0.6 |
| 7/30/1990 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 2.6 | '- | 0.7 |
| 8/27/1990 | 0 | 0 | 0 | 0 | 0.9 | 0 | 0 | 3.1 | '- | 0.7 |
| 9/24/1990 | 0 | 0 | 0 | 0 | 0.9 | 0 | 0 | 3.4 | '- | 0.8 |
| 1/28/1991 | 0 | 0 | 0 | 0 | 0.9 | 0 | 0 | 3.4 | '- | 0.7 |
| 2/25/1991 | 0 | 0 | 0 | 0 | 0.7 | 0 | 0.6 | 3.2 | '- | 0.6 |
| 3/25/1991 | 0 | 0 | 0 | 0 | 0.7 | 0 | 0 | 3.3 | '- | 0.6 |
| 4/1/1991 | 0 | 0 | 0 | 0 | 0.8 | 0 | 0 | 3.6 | '- | 0.7 |
| 4/4/1991 | 0 | 0 | 0 | 0 | 0.9 | 0 | 0 | 3.6 | '- | 0.6 |
| 4/29/1991 | 0 | 0 | 0 | 0 | 0.7 | 0 | 0 | 1.3 | '- | 0.5 |
| 5/28/1991 | 0 | 0 | 0 | 0 | 0.9 | 0 | 0 | 2.6 | '- | 0.7 |
| 6/24/1991 | 0 | 0 | 0 | 0 | 0.9 | 0 | 0 | 2.9 | '- | 0.7 |
| 3/25/1992 | 0 | 0 | 0 | 0 | 0.7 | 0 | 0 | 1.6 | '- | 0 |
| 3/30/1992 | 0 | 0 | 0 | 0 | 0.6 | 0 | 0 | 1.7 | '- | 0 |

**Well FKIM-2 – Organic Data (µg/L)**

| DATE | 1,1,1-Trichloro-ethane | 1,1-Dichloro-ethene | 1,2-Dichloro-ethane | Bromoform | Chloroform | Dibromochloro-methane | Methylene Chloride | Tetrachloro-ethene | Total THMs | Trichloro-ethene |
|---|---|---|---|---|---|---|---|---|---|---|
| 4/28/1992 | 0 | 0 | 0 | 0 | 0.8 | 0 | 0 | 2.1 | '- | 0.6 |
| 5/26/1992 | 0 | 0 | 0 | 0 | 0.7 | 0 | 0 | 1.9 | '- | 0.5 |
| 6/29/1992 | 0 | 0 | 0 | 0 | 0.5 | 0 | 0 | 1.9 | '- | 0.6 |
| 7/27/1992 | 0 | 0 | 0 | 0 | 0.6 | 0 | 0 | 1.8 | '- | 0.6 |
| 8/31/1992 | 0 | 0 | 0 | 0 | 0.6 | 0 | 0 | 1.9 | '- | 0.5 |
| 9/28/1992 | 0 | 0 | 0 | 0 | 0.5 | 0 | 0 | 1.6 | '- | 0.5 |
| 10/26/1992 | 0 | 0 | 0 | 0 | 0.5 | 0 | 0 | 2.1 | '- | 0.5 |
| 11/30/1992 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1.8 | '- | 0 |
| 1/4/1993 | 0 | 0.6 | 0 | 0 | 0.9 | 0 | 0 | 0 | '- | 5.5 |
| 1/19/1993 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1.5 | '- | 0 |
| 1/21/1993 | 0 | 0 | 0 | 0 | 0.6 | 0 | 0 | 2.2 | '- | 0.5 |
| 1/25/1993 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1.8 | '- | 0 |
| 2/22/1993 | 0 | 0 | 0 | 0 | 0.6 | 0 | 0 | 1.5 | '- | 0 |
| 3/29/1993 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0.6 | 0 | 0 |
| 4/26/1993 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0.8 | 0 | 0 |
| 7/26/1993 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 8/30/1993 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0.8 | 0 | 0 |
| 9/27/1993 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0.5 | 0 | 0 |
| 10/25/1993 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0.6 | 0 | 0 |
| 11/29/1993 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0.6 | 0 | 0 |
| 12/29/1993 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1.1 | 0 | 0 |
| 1/19/1994 | '- | '- | '- | '- | '- | '- | '- | '- | '- | '- |
| 1/31/1994 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1.2 | 0 | 0 |
| 2/28/1994 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0.9 | 0 | 0 |
| 3/28/1994 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1.4 | 0 | 0 |
| 4/26/1994 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 |
| 7/25/1994 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 7/27/1994 | '- | '- | '- | '- | '- | '- | '- | '- | '- | '- |
| 8/29/1994 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0.7 | 0 | 0 |
| 9/26/1994 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0.7 | 0 | 0 |
| 10/18/1994 | '- | '- | '- | '- | '- | '- | '- | '- | '- | '- |
| 10/31/1994 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0.8 | 0 | 0 |
| 11/28/1994 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0.6 | 0 | 0 |
| 1/11/1995 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0.8 | 0 | 0 |

**Well FKIM-2 – Organic Data (µg/L)**

| DATE | 1,1,1-Trichloro-ethane | 1,1-Dichloro-ethene | 1,2-Dichloro-ethane | Bromoform | Chloroform | Dibromochloro-methane | Methylene Chloride | Tetrachloro-ethene | Total THMs | Trichloro-ethene |
|---|---|---|---|---|---|---|---|---|---|---|
| 2/28/1995 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0.8 | 0 | 0 |
| 3/27/1995 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0.6 | 0 | 0 |
| 3/28/1995 | '- | '- | '- | '- | '- | '- | '- | '- | '- | '- |
| 4/24/1995 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0.7 | 0 | 0 |
| 4/26/1995 | '- | '- | '- | '- | '- | '- | '- | '- | '- | '- |
| 5/30/1995 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0.6 | 0 | 0 |
| 6/26/1995 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0.7 | 0 | 0 |
| 7/31/1995 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0.6 | 0 | 0 |
| 8/28/1995 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0.7 | 0 | 0 |
| 9/25/1995 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0.5 | 0 | 0 |
| 10/30/1995 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0.8 | 0 | 0 |
| 11/27/1995 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0.7 | 0 | 0 |
| 1/2/1996 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0.7 | 0 | 0 |
| 1/29/1996 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0.8 | 0 | 0 |
| 2/27/1996 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0.9 | 0 | 0 |
| 3/25/1996 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0.8 | 0 | 0 |
| 4/24/1996 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0.6 | 0 | 0 |
| 5/28/1996 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0.8 | 0 | 0 |
| 6/25/1996 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0.6 | 0 | 0 |
| 7/17/1996 | '- | '- | '- | '- | '- | '- | '- | '- | '- | '- |
| 7/29/1996 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0.8 | 0 | 0 |
| 8/26/1996 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0.7 | 0 | 0 |
| 9/30/1996 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0.8 | 0 | 0 |
| 10/28/1996 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0.9 | 0 | 0 |
| 11/25/1996 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0.9 | 0 | 0 |
| 1/27/1997 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0.8 | 0 | 0 |
| 2/24/1997 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0.7 | 0 | 0 |
| 3/31/1997 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0.6 | 0 | 0 |
| 4/28/1997 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0.7 | 0 | 0 |
| 5/27/1997 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 6/30/1997 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0.7 | 0 | 0 |
| 7/28/1997 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0.8 | 0 | 0 |
| 8/25/1997 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 |
| 9/29/1997 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1.1 | 0 | 0 |

**Well FKIM-2 – Organic Data (µg/L)**

| DATE | 1,1,1-Trichloro-ethane | 1,1-Dichloro-ethene | 1,2-Dichloro-ethane | Bromoform | Chloroform | Dibromochloro-methane | Methylene Chloride | Tetrachloro-ethene | Total THMs | Trichloro-ethene |
|---|---|---|---|---|---|---|---|---|---|---|
| 10/27/1997 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 |
| 11/25/1997 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 |
| 1/26/1998 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1.2 | 0 | 0 |
| 2/23/1998 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1.1 | 0 | 0 |
| 3/30/1998 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1.1 | 0 | 0 |
| 4/27/1998 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0.9 | 0 | 0 |
| 5/28/1998 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 |
| 6/29/1998 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0.9 | 0 | 0 |
| 7/27/1998 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1.3 | 0 | 0 |
| 8/31/1998 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1.6 | 0 | 0 |
| 9/28/1998 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0.8 | 0 | 0 |
| 10/26/1998 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0.6 | 0 | 0 |
| 11/30/1998 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1.4 | 0 | 0 |
| 12/9/1998 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1.4 | 0 | 0 |
| 1/25/1999 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1.7 | 0 | 0 |
| 2/22/1999 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1.7 | 0 | 0 |
| 3/3/1999 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1.7 | 0 | 0 |
| 3/29/1999 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 3.2 | 0 | 0 |
| 4/16/1999 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 2.5 | 0 | 0 |
| 4/20/1999 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 2.3 | 0 | 0 |
| 4/26/1999 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 2.1 | 0 | 0 |
| 5/24/1999 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 2.1 | 0 | 0 |
| 6/10/1999 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1.9 | 0 | 0 |
| 6/28/1999 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1.5 | 0 | 0 |
| 7/26/1999 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1.6 | 0 | 0 |
| 8/24/1999 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1.9 | 0 | 0 |
| 9/27/1999 | 0 | 0 | 0 | 0 | 0.6 | 0 | 0 | 2.7 | 0.6 | 0 |
| 10/11/1999 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 0 | 0 |
| 10/18/1999 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 3 | 0 | 0 |
| 10/25/1999 | 0 | 0 | 0 | 6.2 | 0 | 2.6 | 0 | 1.5 | 8.8 | 0 |
| 11/1/1999 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 0 | 0 |
| 11/8/1999 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 2.5 | 0 | 0 |
| 11/15/1999 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 2.5 | 0 | 0 |
| 11/22/1999 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |

**Well FKIM-2 – Organic Data (µg/L)**

| DATE | 1,1,1-Trichloro-ethane | 1,1-Dichloro-ethene | 1,2-Dichloro-ethane | Bromoform | Chloroform | Dibromochloro-methane | Methylene Chloride | Tetrachloro-ethene | Total THMs | Trichloro-ethene |
|---|---|---|---|---|---|---|---|---|---|---|
| 11/29/1999 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 3 | 0 | 0 |
| 12/6/1999 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 3.2 | 0 | 0 |
| 12/7/1999 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 2.9 | 0 | 0 |
| 12/13/1999 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 3.3 | 0 | 0 |
| 1/3/2000 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 2.3 | 0 | 0 |
| 1/10/2000 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 2.6 | 0 | 0 |
| 1/17/2000 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 2.8 | 0 | 0 |
| 1/24/2000 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 3.1 | 0 | 0 |
| 1/31/2000 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 4.1 | 0 | 0 |
| 2/7/2000 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 2.8 | 0 | 0 |
| 2/9/2000 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 2.9 | 0 | 0 |
| 2/14/2000 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 2.9 | 0 | 0 |
| 2/22/2000 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 2.9 | 0 | 0 |
| 2/23/2000 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 2/28/2000 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 3.3 | 0 | 0 |
| 3/6/2000 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 2.4 | 0 | 0 |
| 3/13/2000 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1.9 | 0 | 0 |
| 3/20/2000 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 2.2 | 0 | 0 |
| 3/27/2000 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1.8 | 0 | 0 |
| 4/3/2000 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 2.1 | 0 | 0 |
| 4/10/2000 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 0 | 0 |
| 4/17/2000 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1.7 | 0 | 0 |
| 4/24/2000 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1.9 | 0 | 0 |
| 5/1/2000 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1.9 | 0 | 0 |
| 5/8/2000 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1.6 | 0 | 0 |
| 5/15/2000 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1.7 | 0 | 0 |
| 5/23/2000 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0.9 | 0 | 0 |
| 5/30/2000 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 0 | 0 |
| 6/12/2000 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1.7 | 0 | 0 |
| 6/19/2000 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1.9 | 0 | 0 |
| 6/26/2000 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1.9 | 0 | 0 |
| 7/10/2000 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1.6 | 0 | 0 |
| 7/17/2000 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 2.1 | 0 | 0 |
| 7/24/2000 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1.9 | 0 | 0 |

**Well FKIM-2 – Organic Data (µg/L)**

| DATE | 1,1,1-Trichloro-ethane | 1,1-Dichloro-ethene | 1,2-Dichloro-ethane | Bromoform | Chloroform | Dibromochloro-methane | Methylene Chloride | Tetrachloro-ethene | Total THMs | Trichloro-ethene |
|---|---|---|---|---|---|---|---|---|---|---|
| 7/31/2000 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1.3 | 0 | 0 |
| 8/7/2000 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1.5 | 0 | 0 |
| 8/14/2000 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1.7 | 0 | 0 |
| 8/21/2000 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1.4 | 0 | 0 |
| 8/30/2000 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1.8 | 0 | 0 |
| 9/5/2000 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1.6 | 0 | 0 |
| 9/11/2000 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1.6 | 0 | 0 |
| 9/18/2000 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1.7 | 0 | 0 |
| 9/25/2000 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1.2 | 0 | 0 |
| 10/2/2000 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1.8 | 0 | 0 |
| 10/9/2000 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1.7 | 0 | 0 |
| 10/16/2000 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1.3 | 0 | 0 |
| 10/23/2000 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1.4 | 0 | 0 |
| 10/30/2000 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1.6 | 0 | 0 |
| 11/6/2000 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1.5 | 0 | 0 |
| 11/13/2000 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1.4 | 0 | 0 |
| 11/20/2000 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1.8 | 0 | 0 |
| 11/27/2000 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1.3 | 0 | 0 |
| 12/4/2000 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1.4 | 0 | 0 |
| 12/11/2000 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1.7 | 0 | 0 |
| 12/18/2000 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1.5 | 0 | 0 |
| 1/8/2001 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1.7 | 0 | 0 |
| 1/15/2001 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1.4 | 0 | 0 |
| 1/22/2001 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1.7 | 0 | 0 |
| 1/29/2001 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1.3 | 0 | 0 |
| 1/31/2001 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1.5 | 0 | 0 |
| 2/5/2001 | 0 | 0 | 0 | 0 | 0 | '- | 0 | 0.9 | 0 | 0 |
| 2/12/2001 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 |
| 2/14/2001 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 |
| 2/20/2001 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1.3 | 0 | 0 |
| 2/26/2001 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 2.2 | 0 | 0 |
| 3/5/2001 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0.9 | 0 | 0 |
| 3/12/2001 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1.7 | 0 | 0 |
| 3/19/2001 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1.3 | 0 | 0 |

**Well FKIM-2 – Organic Data (µg/L)**

| DATE | 1,1,1-Trichloro-ethane | 1,1-Dichloro-ethene | 1,2-Dichloro-ethane | Bromoform | Chloroform | Dibromochloro-methane | Methylene Chloride | Tetrachloro-ethene | Total THMs | Trichloro-ethene |
|---|---|---|---|---|---|---|---|---|---|---|
| 3/26/2001 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0.9 | 0 | 0 |
| 4/2/2001 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1.2 | 0 | 0 |
| 4/9/2001 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1.5 | 0 | 0 |
| 4/16/2001 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1.5 | 0 | 0 |
| 4/23/2001 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1.7 | 0 | 0 |
| 4/26/2001 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 4/30/2001 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 5/7/2001 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 5/14/2001 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1.5 | 0 | 0 |
| 5/21/2001 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1.2 | 0 | 0 |
| 6/4/2001 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1.6 | 0 | 0 |
| 6/11/2001 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1.2 | 0 | 0 |
| 6/18/2001 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1.4 | 0 | 0 |
| 6/25/2001 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1.3 | 0 | 0 |
| 7/2/2001 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1.3 | 0 | 0 |
| 7/9/2001 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1.3 | 0 | 0 |
| 7/16/2001 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1.2 | 0 | 0 |
| 7/19/2001 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1.5 | 0 | 0 |
| 7/23/2001 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1.2 | 0 | 0 |
| 7/30/2001 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 |
| 8/13/2001 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1.5 | 0 | 0 |
| 8/20/2001 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0.9 | 0 | 0 |
| 8/27/2001 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1.8 | 0 | 0 |
| 9/4/2001 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1.7 | 0 | 0 |
| 9/10/2001 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1.4 | 0 | 0 |
| 9/17/2001 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 0 | 0 |
| 9/24/2001 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 2.1 | 0 | 0 |
| 10/1/2001 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1.9 | 0 | 0 |
| 10/8/2001 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 2.2 | 0 | 0 |
| 10/15/2001 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1.8 | 0 | 0 |
| 10/22/2001 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 0 | 0 |
| 10/24/2001 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1.8 | 0 | 0 |
| 10/29/2001 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1.8 | 0 | 0 |
| 11/5/2001 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 2.3 | 0 | 0 |

**Well FKIM-2 – Organic Data (µg/L)**

| DATE | 1,1,1-Trichloro-ethane | 1,1-Dichloro-ethene | 1,2-Dichloro-ethane | Bromoform | Chloroform | Dibromochloro-methane | Methylene Chloride | Tetrachloro-ethene | Total THMs | Trichloro-ethene |
|---|---|---|---|---|---|---|---|---|---|---|
| 11/13/2001 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1.8 | 0 | 0 |
| 11/19/2001 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1.9 | 0 | 0 |
| 11/26/2001 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1.1 | 0 | 0 |
| 12/3/2001 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1.8 | 0 | 0 |
| 12/10/2001 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1.7 | 0 | 0 |
| 12/17/2001 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 1/7/2002 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1.2 | 0 | 0 |
| 1/11/2002 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1.3 | 0 | 0 |
| 1/14/2002 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1.1 | 0 | 0 |
| 1/21/2002 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1.2 | 0 | 0 |
| 1/28/2002 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 2.3 | 0 | 0 |
| 2/4/2002 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1.2 | 0 | 0 |
| 2/6/2002 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1.8 | 0 | 0 |
| 2/11/2002 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 2.1 | 0 | 0 |
| 2/19/2002 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1.7 | 0 | 0 |
| 2/25/2002 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1.8 | 0 | 0 |
| 3/4/2002 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0.9 | 0 | 0 |
| 3/11/2002 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1.5 | 0 | 0 |
| 3/18/2002 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1.5 | 0 | 0 |
| 3/25/2002 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1.2 | 0 | 0 |
| 4/1/2002 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1.3 | 0 | 0 |
| 4/8/2002 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 2.4 | 0 | 0 |
| 4/15/2002 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1.3 | 0 | 0 |
| 4/22/2002 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1.6 | 0 | 0 |
| 4/29/2002 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1.5 | 0 | 0 |
| 5/6/2002 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1.3 | 0 | 0 |
| 5/14/2002 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1.6 | 0 | 0 |
| 5/20/2002 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1.4 | 0 | 0 |
| 5/28/2002 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 |
| 6/3/2002 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1.2 | 0 | 0 |
| 6/10/2002 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1.3 | 0 | 0 |
| 6/17/2002 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 |
| 6/24/2002 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0.9 | 0 | 0 |
| 7/1/2002 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1.2 | 0 | 0 |

**Well FKIM-2 – Organic Data (µg/L)**

| DATE | 1,1,1-Trichloro-ethane | 1,1-Dichloro-ethene | 1,2-Dichloro-ethane | Bromoform | Chloroform | Dibromochloro-methane | Methylene Chloride | Tetrachloro-ethene | Total THMs | Trichloro-ethene |
|---|---|---|---|---|---|---|---|---|---|---|
| 7/8/2002 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1.1 | 0 | 0 |
| 7/10/2002 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 |
| 7/15/2002 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1.3 | 0 | 0 |
| 7/22/2002 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 |
| 7/29/2002 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1.2 | 0 | 0 |
| 8/12/2002 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0.9 | 0 | 0 |
| 8/19/2002 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0.8 | 0 | 0 |
| 8/26/2002 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 |
| 9/3/2002 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0.8 | 0 | 0 |
| 9/9/2002 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0.8 | 0 | 0 |
| 9/16/2002 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0.9 | 0 | 0 |
| 9/23/2002 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0.9 | 0 | 0 |
| 9/30/2002 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1.2 | 0 | 0 |
| 10/7/2002 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 |
| 10/14/2002 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1.2 | 0 | 0 |
| 10/21/2002 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1.1 | 0 | 0 |
| 10/28/2002 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 |
| 11/4/2002 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 |
| 11/12/2002 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1.1 | 0 | 0 |
| 11/18/2002 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1.4 | 0 | 0 |
| 11/25/2002 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1.1 | 0 | 0 |
| 2/3/2003 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 |
| 2/10/2003 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 |
| 2/18/2003 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0.9 | 0 | 0 |
| 3/3/2003 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0.9 | 0 | 0 |
| 3/24/2003 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0.9 | 0 | 0 |
| 7/24/2003 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 |
| 8/4/2003 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1.1 | 0 | 0 |
| 8/6/2003 | '- | '- | '- | '- | '- | '- | '- | '- | '- | '- |
| 9/2/2003 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 |
| 10/6/2003 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1.1 | 0 | 0 |
| 11/3/2003 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 |
| 12/1/2003 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 |
| 1/5/2004 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1.2 | 0 | 0 |

**Well FKIM-2 – Organic Data (µg/L)**

| DATE | 1,1,1-Trichloro-ethane | 1,1-Dichloro-ethene | 1,2-Dichloro-ethane | Bromoform | Chloroform | Dibromochloro-methane | Methylene Chloride | Tetrachloro-ethene | Total THMs | Trichloro-ethene |
|---|---|---|---|---|---|---|---|---|---|---|
| 2/3/2004 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1.2 | 0 | 0 |
| 3/1/2004 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1.1 | 0 | 0 |
| 4/5/2004 | 0 | 0 | 0 | 0 | 0.7 | 0 | 0 | 0 | 0.7 | 0 |
| 5/3/2004 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0.8 | 0 | 0 |
| 6/1/2004 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1.2 | 0 | 0 |
| 6/14/2004 | '- | '- | '- | '- | '- | '- | '- | '- | '- | '- |
| 7/6/2004 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1.4 | 0 | 0 |
| 8/2/2004 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1.1 | 0 | 0 |
| 9/7/2004 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1.1 | 0 | 0 |
| 10/4/2004 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1.5 | 0 | 0 |
| 11/8/2004 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1.4 | 0 | 0 |
| 2/1/2005 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 |
| 3/7/2005 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0.7 | 0 | 0 |
| 4/4/2005 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 5/2/2005 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 6/6/2005 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0.7 | 0 | 0 |
| 7/5/2005 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0.8 | 0 | 0 |
| 8/1/2005 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0.8 | 0 | 0 |
| 11/2/2005 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 |
| 2/6/2006 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0.9 | 0 | 0 |

***Notes:***

Non-detect values shown as "0"

\- Not analyzed

# Table 1
## Laboratory Analytical Results of VOCs in wastewater – Kimberly Clarke
## (µg/L)

| EPA Method | | 624 (& 625) | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| **Sample Location** | **Sample Date** | **Acetone** | **Benzyl Alcohol** | **Bromodichlorom-ethane** | **Bromoform** | **Chloroform** | **Dibromochloro-methane** | **Methylene Chloride** | **P-bromofluor-obenzene** | **All Other VOCs** |
| Flume | 10/13/93 | <62.5 | not tested | <4.7 | <5.7 | <4.7 | <4.7 | **10.00** | not tested | ND |
| *North Gate Outfall (Sample 4) | 10/19/93 | not tested | not tested | **1.40** | <0.5 | **3.60** | <0.5 | <1.0 | not tested | ND |
| *North Gate Outfall (Sample 3) | 10/19/93 | not tested | not tested | **0.70** | <0.5 | **2.00** | <0.5 | <1.0 | not tested | ND |
| *North Gate Outfall (Sample 2) | 10/19/93 | not tested | not tested | **1.80** | <0.5 | **5.00** | <0.5 | <1.0 | not tested | ND |
| *North Gate Outfall (Sample 1) | 10/19/93 | not tested | not tested | **1.00** | <0.5 | **4.00** | <0.5 | <1.0 | not tested | ND |
| *North Gate Outfall (Sample 4) | 4/26/94 | not tested | not tested | **1.10** | <0.5 | **7.40** | <0.5 | <1.0 | not tested | ND |
| *North Gate Outfall (Sample 3) | 4/26/94 | not tested | not tested | **1.40** | <0.5 | **10.60** | <0.5 | <1.0 | not tested | ND |
| *North Gate Outfall (Sample 2) | 4/26/94 | not tested | not tested | **1.20** | <0.5 | **8.20** | <0.5 | <1.0 | not tested | ND |
| *North Gate Outfall (Sample 1) | 4/26/94 | not tested | not tested | **1.40** | <0.5 | **9.70** | <0.5 | <1.0 | not tested | ND |
| Flume | 5/18/94 | <25.0 | not tested | **2.40** | <2.3 | **13.00** | <1.9 | <2.7 | not tested | ND |
| *North Gate Outfall | 10/20/94 | not tested | not tested | <0.5 | <0.5 | <0.5 | <0.5 | <1.0 | not tested | ND |
| *Flume | 10/21/94 | <25.0 | not tested | <1.90 | <2.3 | <1.90 | <1.90 | <2.70 | not tested | ND |
| *North Gate Outfall | 4/19/95 | not tested | not tested | <10.0 | <10.0 | <10.0 | <10.0 | <20.0 | not tested | ND |
| *North Gate Outfall | 10/27/95 | not tested | not tested | <0.5 | <0.5 | <0.5 | <0.5 | <1.0 | not tested | ND |
| End of Pipe | 5/20/96 | **307.00** | not tested | <1.9 | <2.3 | <1.9 | <1.9 | **3.30** | not tested | ND |
| End of Pipe - Tank | 10/10/96 | <25.0 | not tested | <1.9 | <2.3 | <1.9 | <1.9 | <2.7 | not tested | ND |
| End of Pipe Outfall | 5/29/97 | <52.5 | not tested | <5.5 | <5.2 | <4.2 | <8.0 | <27.5 | not tested | ND |
| Flume | 9/12/97 | <105.0 | not tested | <11.0 | <10.5 | <8.5 | <16.0 | <55.0 | not tested | ND |
| Flume | 12/4/98 | <21.0 | not tested | <2.20 | <2.10 | <1.70 | <3.20 | **16.30** | not tested | ND |
| *Outfall (Sample 4) | 4/19/99 | not tested | not tested | <0.5 | <0.5 | **1.60** | <0.5 | <1.0 | not tested | ND |
| *Outfall (Sample 3) | 4/19/99 | not tested | not tested | <0.5 | <0.5 | **1.50** | <0.5 | <1.0 | not tested | ND |
| *Outfall (Sample 2) | 4/19/99 | not tested | not tested | <0.5 | <0.5 | **3.50** | <0.5 | <1.0 | not tested | ND |
| *Outfall (Sample 1) | 4/19/99 | not tested | not tested | <0.5 | <0.5 | <0.5 | <0.5 | <1.0 | not tested | ND |
| Outfall Channel | 11/2/2000 | <84.0 | not tested | <8.80 | <8.40 | <6.80 | <12.80 | <44.0 | not tested | ND |
| Outfall Station | 11/2/2000 | <21.0 | not tested | <2.20 | <2.10 | **13.60** | <3.20 | <11.0 | not tested | ND |
| Outfall Sampling ST | 5/24/2001 | <21.0 | not tested | <2.20 | <2.10 | **2.20** | <3.20 | <11.0 | not tested | ND |
| Outfall | 5/23/2001 (625) | not tested | not tested | not tested | not tested | not tested | not tested | <44.0 | **744.80** | ND |
| Outfall Sampling ST | 11/20/2001 (625) | not tested | <4.0 | not tested | not tested | not tested | not tested | not tested | not tested | ND |
| Outfall Sampling ST | 5/22/2002 | not tested | not tested | **2.70** | **9.90** | **3.20** | **6.50** | <1.10 | not tested | ND |

# Table 1
## Laboratory Analytical Results of VOCs in wastewater – Kimberly Clarke
## (µg/L)

| | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| Outfall | 5/14/2002 (625) | not tested | <4.0 | not tested | not tested | not tested | not tested | not tested | not tested | ND |
| Effluent Flume | 6/25/2003 | <21.00 | not tested | <2.20 | **21.00** | **3.61** | **6.11** | <11.0 | not tested | ND |
| Effluent Flume | 6/25/2003 (625) | not tested | $ND^X$ | not tested | not tested | not tested | not tested | not tested | not tested | ND |
| Sample Weir | 5/18/2004 (625) | not tested | <2.10 | not tested | not tested | not tested | not tested | not tested | not tested | ND |
| Sample Weir | 5/18/2004 | <39.00 | not tested | <1.60 | <1.70 | <2.10 | <1.50 | <1.80 | not tested | ND |
| Sample Point | 11/16/2004 | <39.00 | not tested | <1.60 | <1.70 | <2.10 | <1.50 | <1.80 | not tested | ND |
| Sample Point | 11/16/2004(625) | not tested | **1.65** | not tested | not tested | not tested | not tested | not tested | not tested | ND |
| Sample Point | 4/28/2005 (625) | not tested | <0.77 | not tested | not tested | not tested | not tested | not tested | not tested | ND |
| Sample Point | 4/28/2005 | <40.0 | not tested | <3.80 | <12.0 | <3.8 | <5.0 | <7.40 | not tested | ND |
| Sample Point Flume | 11/28/2005(625) | not tested | <17.0 | not tested | not tested | not tested | not tested | not tested | not tested | ND |
| Sample Point Flume | 11/28/2005 | <41.0 | not tested | **1.65** | <1.40 | **9.30** | <1.0 | <5.20 | not tested | ND |
| Effluent Outfall | 4/12/2007 | <41.0 | not tested | **0.90** | <1.40 | **1.86** | <1.0 | <5.20 | not tested | ND |
| Weir/Flume | 11/27/2007 | **68.50** | not tested | <0.60 | <1.40 | **3.07** | <1.0 | <5.20 | not tested | ND |
| Weir/Flume | 12/10/2008 | <216.00 | not tested | <2.40 | <25.60 | <4.80 | <4.0 | <12.40 | not tested | ND |
| RL Range (µg/L) | | <25.0 - <216.0 | <2.10 - <17.0 | <0.5 - <11.0 | <0.5 - 25.60 | <0.5 - <10.0 | <0.5 - <16.0 | <0.5 - <55.0 | | |

***Legend:***

| | |
|---|---|
| 625 | Testing Method 625 |
| µg/L | Micrograms per liter |
| VOCs | Volatile organic compounds |
| * | In house sampling |
| ND | Not detected |
| $ND^X$ | No Concentration Detected |
| RL | Reporting Limit |
| < | Less than |

DATE 11/14/88

CA D009547 37

INSPECTOR I. Muiños

This drum rinsate used to be sent to Omega, but will now be sent to Ensco for incineration (as of Jan. 1989).

5. Spent solvents. This facility has ten Safety-Kleen units that are used for degreasing purposes. The cleaning solvent used is 1,1,1-Trichlorethane. Spent solvents are picked up by Safety-Kleen approximately every 4 weeks and recycled.

The first three waste streams listed above are stored in 55 gallon drums and are disposed of within 90 days.

VII. Violations

No violations found at time of inspection.

VIII. Discussion with Management

After reviewing the facility's records, which were adequate, and walking through the manufacturing and storage areas, which were in good condition, I requested two items from Walter Cordell, III:

1. A copy of the results of the samples taken from the sump on Friday, November 11, 1988.

2. Specifications regarding the sump (i.e. its construction, how often sump is pumped out, etc.).

Since the facility appears to be in compliance with generator requirements, as written in Title 22, and does not treat, store, or dispose hazardous waste on-site, I recommend that this facility's Part A application be withdrawn.

IX. Attachments

1. Site location map - 1 page
2. Facility Map - 2 pages
3. Surveillance and Compliance Report - 1 page
4. Correspondence (Specifications of sump) - 5 pages
5. Letter from Facility - 1 page (exemption request)
6. Generator Checklist - 17 pages
7. Generator Hazardous Waste Report for 1987/Biennial Report - 16 pages
8. Hazardous Waste Spill Prevention Control and Countermeasure Plan/Contingency Plan - 31 pages
9. Part A application - 7 pages

# *Phase I Environmental Site Assessment*

*Kimberly-Clark Corporation*
*Fullerton Mill*
*2001 E. Orangethorpe Avenue*
*Fullerton, California 92831*

*Antea Group Project No. 180630592A*
*November 5, 2018*

Prepared for:
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# *Phase I Environmental Site Assessment*
# *Kimberly-Clark Corporation*
# *Fullerton Mill*
# *2001 E. Orangethorpe Avenue*
# *Fullerton, California 92831*

## EXECUTIVE SUMMARY

Antea®Group was retained and authorized by Kimberly-Clark Corporation (KCC) to conduct a Phase I Environmental Site Assessment (ESA) of their Fullerton Mill property located at 2001 E. Orangethorpe Avenue, Fullerton, Orange County, California (subject property, or site). The purpose for performing this Phase I ESA was to assist KCC with the divestiture of the subject property, and review of the subject property for the potential presence of any Recognized Environmental Conditions (RECs) in accordance with the requirements of the American Society for Testing and Materials (ASTM) International E1527-13 *Standard Practice for Environmental Site Assessments: Phase I Environmental Site Assessment Process*, a widely accepted standard for conducting Phase I ESAs.

Details of the scope of this assessment, site conditions observed, current uses of the site, site history, and other information gained about the site during the course of this assessment are presented in the body of this report. The following provides a summary of the findings. This Executive Summary should be reviewed within the context of the entire report.

**Subject Property and Current Use**

The subject property, identified as KCC's Fullerton Mill (paper mill), is an approximate 65-acre property located north of E. Orangethorpe Avenue in Fullerton, California. Information obtained from Orange County indicated that the property includes two tax assessment parcel numbers associated with the 2001 E. Orangethorpe Avenue address listing: 073-120-31 and 073-120-33. The subject property is 65.3 acres in size and is occupied by over 1.2-million square feet of manufacturing, warehouse, and office space, plus several outbuildings. KCC's Fullerton Mill manufacturing operation includes paper manufacturing, facial and bath tissue production, on-site equipment/tool repair, product warehousing, and offices.

**Historical Use**

Based on a review of the compilation of historical sources presented below dating back to 1896, the subject property was first developed, at least partially, for industrial purposes beginning in 1955 of 1956. The existing site building was constructed in phases beginning at that time, and has been occupied and used exclusively by KCC as a paper mill since its development. The overall operations have included different manufacturing lines

but currently is limited to facial/bath tissue and paper towel manufacturing. The surrounding area has been a mix of commercial/industrial properties in all directions since the mid-1900s. Prior to the industrial development, the entire subject property and surrounding area was used agricultural for fruit tree orchards.

**Summary of Findings**

Antea Group has performed a Phase I ESA in general conformance with the scope and limitations of ASTM Practice E1527-13 of the property located at 2001 E. Orangethorpe Avenue, Fullerton, Orange County, California (subject property). This is an executive summary of findings and should not be relied upon without consulting the entire following report for a more detailed description of the Phase I ESA performed by Antea Group for Kimberly Clark Corporation. This report is subject to the limitations stated in the body of the report and included in **Section 12.0**.

The ASTM E1527-13 standard defines the term data gap as "a lack of or inability to obtain information required by this practice despite good faith efforts by the environmental professional to gather such information." The same standard defines data failure as "a failure to achieve the historical research objectives even after reviewing the standard historical resources that are reasonably ascertainable and likely to be useful."

Antea Group identified the following data gaps or data failures during the completion of this Phase I ESA, none of which would be expected to affect the overall findings of this report, if additional information was to become available:

- The absence of requested city directory listings for off-site properties along S. Acacia Street, Kimberly Avenue, and S. State College Boulevard is a data failure. Further, listings for properties along Orangethorpe Avenue, including the subject site, were available only up to 1995. Although this limits the knowledge of historical use of adjoining properties, Antea Group has obtained information about potential environmental concerns on adjoining properties through other sources, such as the EDR Report and state regulatory databases.

Antea Group identified the following more significant data gaps or data failures during the completion of this Phase I ESA, which would be more likely to affect the overall findings of this report, if additional information was to become available:

- The California Department of Toxic Substances Control reported in their September 26, 2018 letter that files are available in their regional office, but has not responded to Antea Group's requests on the type of information available, and protocol to obtain copies of or review the files. Antea Group left voicemails with the DTSC regional office twice in October 2018.

- Antea Group observed numerous unused floor drains and floor trench drains throughout the facility. Site contacts were unaware of the former purpose of the drains, and could not definitively determine the connections or discharge from these drains.
- Site contacts referred to subsurface environmental testing conducted at the subject property in about the mid-2000s as part of region-wide site evaluations to identify suspected sources of the Orange County North Coast chlorinated solvent plume in groundwater. Copies of reports or testing locations and records from the subject property were not available for review as part of this assessment.
- Regulatory waste records include documentation of the disposal of various oils, metals, and solvents, including PCE wastes. Historical waste handling and generation records are limited, and Antea Group was unable to confirm historical hazardous waste accumulation or satellite locations within the facility.

The ASTM E1527-13 standard defines the term recognized environmental condition as "the presence or likely presence of any hazardous substances or petroleum products in, on, or at a property: (1) due to release to the environment; (2) under conditions indicative of a release to the environment; or (3) under conditions that pose a material threat of a future release to the environment." This assessment has revealed the following evidence of RECs in connection with the subject property:

- Via region-wide municipal and private well sampling, regulatory agencies have documented chlorinated solvent contamination in both the principal and shallow groundwater aquifers, including beneath a large portion of the subject site. According to recent data and figures from investigations completed as part of the proposed Orange County North Basin Superfund site, an on-site City of Fullerton water well is impacted. Beneath the site, contaminants are reported to be at concentrations between one and five times the US EPA Region IX Maximum Contaminant levels (MCLs) in both the shallow and principal aquifers, and as high as 5 to 10-times the MCLs in the portion of the principal aquifer beneath the northernmost extent of the site and beneath Kimberly Avenue.

The ASTM E1527-13 standard defines the term controlled recognized environmental condition as "a recognized environmental condition resulting from a past release of hazardous substances or petroleum products that has been addressed to the satisfaction of the applicable regulatory authority (for example, as evidenced by the issuance of a no further action letter or equivalent, or meeting a risk-based criteria established by regulatory authority), with hazardous substances or petroleum products allowed to remain in place subject to the implementation of required controls (for example, property use restrictions, activity and use limitations, institutional controls, or engineering controls)." This assessment has revealed the following evidence of CRECs in connection with the subject property:

- This subject property is associated with a Leaking Underground Storage Tank (LUST) incident (Case No. 083001032T) for a fuel oil release reported in May 1986 following the removal of two diesel/fuel oil USTs. The site received official regulatory closure of this incident in a letter from the City of Fullerton Fire Department in a letter dated January 22, 1992. The letter stated that it did not relieve the responsible party of responsibility to *"clean up additional, existing or previously unidentified conditions at the site which cause or threaten to cause pollution…"* and that present or proposed changes to use of the site may require additional site characterization, with it being "*the property owner's responsibility to notify this Department of any changes in report content, further contamination findings, or site usage*."

  The January 1992 closure letter was followed by KCC's reporting of limited remediation and subsurface testing results from February 1992 where low levels of petroleum contaminants were reported in soil, and approximately three cubic yards of impacted materials were left in place due to their inaccessibility beneath a high-pressure fire-suppression pipe.

  As part of a construction project in 2002, KCC's contractors encountered and excavated an additional 2,000+ tons of petroleum contaminated soils from the vicinity of the former USTs. At this time, it was discovered that limited petroleum impacts must remain in soils beneath the boiler house and in groundwater at depths of approximately 30 feet, due to inaccessibility. The reported concentrations in groundwater were less than the regional MCLs established at that time, but soil contaminant concentrations for total petroleum hydrocarbons exceed the current regulatory criteria for exposure to soils in an industrial setting. Due to the regulatory closure of this LUST release incident with the likelihood that some levels of petroleum contamination remain in soils at locations beneath paved surfaces and/or buildings, this represents an CREC in connection with the subject property.

The ASTM E 1527-13 standard defines the term historical recognized environmental condition as "a past release of any hazardous substances or petroleum products that has occurred in connection with the property and has been addressed to the satisfaction of the applicable regulatory authority or meeting unrestricted use criteria established by a regulatory authority, without subjecting the property to any required controls." This assessment has revealed the following HREC in connection with the subject property:

- Several sodium hypochlorite (bleach) spills were documented to have occurred in the facility's tank farm area between 1990 and 1997. Soil testing data from 1997 and 1998 confirmed low levels of sodium hypochlorite in soils to depths up to 40 feet below grade, the maximum depth explored. There are currently no regulatory comparison standards or cleanup levels for sodium hypochlorite, but the County of Orange Division of Environmental Health calculated potential chlorine exposure due to

sodium hypochlorite in soils to be comparable to that of a swimming pool. In a letter dated April 21, 1998, the agency confirmed completion of remedial investigation related to the bleach spills.

To mitigate the potential for future spills, the bleach tank and dispensing areas are now protected by concrete berms.

- An automobile-semi accident on Kimberly Avenue, near the site's north entrance occurred in November in 2003 and resulted in the semi releasing diesel fuel to the ground surface and storm drains. The release was mitigated by a contractor's same-day response and cleanup of diesel fuel using absorbents and pumping of fuel/water mixture. The cleanup effort was overseen by the local regulatory authority, which did not require any further action be taken by the party responsible for the spill. Based on the reported cleanup with regulatory oversight, Antea Group considers this a Historical Recognized Environmental Condition.

The ASTM E1527-13 standard defines the term de minimis condition as a condition that "generally does not present a threat to human health or the environment and that generally would not be the subject of an enforcement action if brought to the attention of appropriate governmental agencies." This assessment has revealed the following evidence of de minimis conditions in connection with the subject property:

- Antea Group observed paper dust throughout much of the manufacturing areas within the facility, and paper debris, pulp, and water on flooring in certain warehouse and manufacturing areas.
- Antea Group observed limited areas of oily staining on flooring throughout certain areas of the facility, including in the machine shop and forklift repair shop.

The following noteworthy item did not meet the definition of an REC, HREC, CREC, or de minimis condition in accordance with the ASTM E1527-13 standard; however, the item was deemed a noteworthy historical condition of the subject property and surrounding area:

- The subject property and surrounding area included historical agricultural usage as fruit and/or nut orchards, likely back to the late-1800s. Past standard farming practice included the application of pesticides (including organochlorine pesticides) until they were banned in the 1970s and 1980s. However, many pesticides can persist in the subsurface long after application. Antea Group is unaware of any documentation or knowledge of residual pesticide conditions at this site or in the surrounding area.
- Immediately south of the subject property is a site (Coast Roof Co., 2301 E. Orangethorpe Avenue) that has stored petroleum in two generations of underground storage tanks, the nearest of which were located within approximately 30 feet of the subject property line. Regulatory records indicate all USTs have been removed, and there is no indication that regulators required any formal environmental

investigations following the tank removals. However, regulatory files did not include any environmental testing results from the time of the tank removal project, so it is unknown if there were environmental impacts beneath those former underground storage tanks south of the subject property.

The User did not request, therefore Antea Group did not assess any of the traditional non-scope considerations outlined in Section 13.1.5 of ASTM E1527-13 to be completed as part of this Phase I ESA.

# 1.0 INTRODUCTION

## 1.1 Purpose

Antea®Group was retained and authorized by Kimberly-Clark Corporation (KCC) to conduct a Phase I Environmental Site Assessment (ESA) of the property located at 2001 E. Orangethorpe Avenue, Fullerton, Orange County, California (subject property). The subject property location is shown on **Figure 1**. The subject property consists of over one million square feet of interconnected manufacturing and warehouse buildings, several outbuildings, parking, and orchards located on 65 acres of industrial property along a half-mile long stretch of E. Orangethorpe Avenue in Fullerton, CA.

The purpose for performing this Phase I ESA was to assist KCC with the divestiture of the subject property, and review for the potential presence of any Recognized Environmental Conditions (RECs) in connection with the subject property, as defined by American Society for Testing and Materials (ASTM) International E1527-13 *Standard Practice for Environmental Site Assessments: Phase I Environmental Site Assessment Process*. The ASTM E1527-13 standard defines the term REC as "the presence or likely presence of any hazardous substances or petroleum products in, on, or at a property: (1) due to release to the environment; (2) under conditions indicative of a release to the environment; or (3) under conditions that pose a material threat of a future release to the environment." The term is not intended to include de minimis conditions that generally do not present a threat to human health or the environment and that generally would not be the subject of an enforcement action if brought to the attention of appropriate governmental agencies. Conditions determined to be de minimis are not RECs.

## 1.2 Detailed Scope of Service

The Phase I ESA process was conducted in accordance with the ASTM E1527-13 standard in four components: 1) records review; 2) site reconnaissance; 3) interviews; and 4) report. The first three components were conducted in concert to identify RECs associated with the subject property. This Phase I ESA report presents the research findings conducted during this assessment.

The ASTM 1527-13 process recognizes that uncertainty will not be eliminated, that the search will not be exhaustive, and that the level of inquiry will be variable subject to the assessment process and the information developed during the course of the inquiry. The scope of services provided by Antea Group during the completion of this Phase I ESA included the following tasks.

**Task 1 – Records Review**

The purpose of the records review was to obtain and review records that will help identify RECs in connection with the subject property.

The "User" as defined in this assessment is Kimberly Clark Corporation (KCC). Pursuant to the User's responsibilities specified in Section 6 of ASTM E1527-13, the User has performed or was requested to perform the following activities regarding provision of records:

- The User provided a *User Questionnaire* form on October 4, 2018, and provided several historical documents and other information pertinent to this assessment.
- The User did not provide any title documents or associated documents, as specified in Section 6.2 of ASTM E1527-13. However, Antea Group contracted a search for environmental liens and activity/use restrictions, and the User provided direct, verbal knowledge of the ownership history of the facility itself since its initial development.

Antea Group's records review included records from Standard Sources that are publicly available, obtainable from their source within reasonable time and cost constraints, and were practically reviewable. Records were reviewed for properties within the approximate minimum search distances unless adjusted at the discretion of the Environmental Professional. Record sources included the following:

- Standard Environmental Record Sources obtained from commercially available public federal, state, and tribal environmental record databases as specified in Section 8.2.1 of ASTM E1527-13.
- Pertinent regulatory files and/or records associated with the Standard Environmental Record Sources, if the subject property or any of the adjoining properties is identified on one or more of the databases as specified in Section 8.2.2 of ASTM E1527-13. These files and/or records were reviewed to obtain sufficient information to assist the Environmental Professional in determining if a REC, controlled REC (CREC), historical REC (HREC), or de minimis condition exists at the subject property in connection with the listing. If in the Environmental Professional's opinion, this review is not warranted, then justification is provided
- Select Additional Environmental Records Sources from local sources to enhance or supplement the Standard Sources, when in the Environmental Professional's judgment such records were reasonably ascertainable, sufficiently useful, and generally reviewed in initial ESAs of this type. Examples of local record sources include:
    - Tax assessor records
    - Department of Health/Environmental Division
    - Fire Department
    - Planning/Zoning Department
    - Building Permit Inspection Department
    - Local/Regional Pollution Control Agency
    - Local/Regional Water Quality Agency

- Local Electric Utility Companies (for records relating to PCBs)

- A current United States Geological Survey (USGS) 7.5-Minute Topographic Map as the Standard Physical Setting source.
- Reasonably ascertainable Standard Historical Sources as necessary to develop a history of the previous uses of the property and surrounding area back to the property's first developed use, or back to 1940, whichever is earlier. Past uses were considered in relation to the likelihood that they led to RECs in connection with the subject property. Examples of Standard Historical Sources included:
  - Fire Insurance Maps
  - Aerial Photographs
  - Local Street Directories
  - USGS Topographic Maps
  - Recorded Land Title Records
  - Property Tax Files
  - Building Permit Department Records

**Task 2 – Site Reconnaissance**

The objective of the site reconnaissance was to obtain information identifying and indicating the likelihood of RECs on the subject property. Prior to conducting a subject property visit, the User arranged permission and access for Antea Group personnel to enter and view the subject property. The site reconnaissance was planned by an Antea Group Environmental Professional and performed by personnel possessing sufficient training and experience necessary to conduct the site reconnaissance and having the ability to identify issues relevant to RECs in connection with the property.

The site reconnaissance included the following activities:

- Visual observation and description of the general site setting of the subject property. The site reconnaissance was performed on areas of the subject property that could be readily accessed safely.
- Identification and documentation of current property uses that use, treat, store, dispose of, or generate hazardous substances or petroleum, along with the quantities and description of storage or use conditions. Past property use, to the extent visually or physically observed, was also identified and documented.
- Visual and/or physical observation and documentation of conditions that suggest a past or potential release of hazardous substances or petroleum products (i.e., stressed vegetation or soil staining).
- Visual identification and documentation of equipment and structures that are commonly known to contain polychlorinated biphenyls (PCBs), including electrical and hydraulic equipment.
- Observation and documentation of building interiors, including identification of the means of heating and cooling of building, and waste disposal.

- Visual observation and documentation of exterior property conditions including exterior waste disposal structures, wells, staining, and stressed vegetation.
- Visual observation and description of current land uses on adjoining properties for evidence of current and/or past uses that may contribute to environmental risks to the adjoining properties or the subject property. Adjoining land use was viewed from the subject property or a publicly accessible vantage point.
- Photographic documentation of current subject property setting and activities (if allowed).
- Preparation of a site diagram or otherwise reference locations of pertinent site features.

**Task 3 – Interviews**

This component consisted of a series of interviews intended to gather information about current and past uses and conditions of the subject property that may be relevant in identifying potential environmental risks associated with the subject property. The User provided contact information for the present property owner, operator, and occupant of the subject property. Interviews were planned and/or conducted by an Antea Group Environmental Professional and performed by personnel possessing sufficient training and experience to identify issues relevant to RECs in connection with the subject property. Interview activities performed under this component may have included:

- Interviews were conducted with at one key site personnel and regional environment/health/safety personnel to obtain information about the uses and physical characteristics of the subject property and potential environmental risks associated with the subject property.
- Key site personnel and the User were asked to provide helpful documents, including facility operational records, to identify hazardous materials or petroleum products used, documentation of spills and cleanup activities, applicable permits, citations, or procedures, and other pertinent environmental related forms and reports. They were also asked about any pending, threatened, or past litigation, administrative proceedings or notices from any governmental entity regarding violation of environmental laws or possible liability. The User provided these documents or arranged for Antea Group personnel to have access to these documents during the site reconnaissance.
- A reasonable attempt was made to interview past owners, operators, and occupants who were likely to have material information regarding the potential for contamination at the subject property that was not duplicative of information already obtained, when they were identified and contact information was provided by the User.
- A reasonable attempt was made to conduct an interview in person or by telephone with at least one state and/or local government agency. If an initial contact was unsuccessful, a written attempt was used. Content of the questions was formulated at the discretion of the Environmental Professional to obtain information indicating potential environmental risks in connection with the subject property.

**Task 4 – Phase I ESA Report**

Following the completion of the records review, site reconnaissance, and interviews, Antea Group prepared this Phase I ESA report in general accordance with Section 12 of ASTM E1527-13. An Environmental Professional, as defined in Section 312.10 of 40 Code of Federal Regulations (CFR) 312, completed the review and interpretation of information upon which this report is based. This report contains the following items:

- Summary of services performed and information gathered during the records review process, including past and present subject property owners/operators and activities, interviews, and reasonably ascertainable federal, state, local, and tribal records involving the subject property in sufficient detail to permit another party to reconstruct the work performed.
- Discussion of the site reconnaissance.
- Discussion of significant data gaps that may affect the ability of the Environmental Professional to identify RECs.
- A Findings section that identifies and summarizes known or suspect RECs, CRECs, HRECs, and de minimis conditions identified during the Phase I ESA process. The Environmental Professional's opinions, including their rationale for concluding that a condition is or is not currently a REC, may be included in this section or contained elsewhere throughout the report.
- A Conclusions section that summarizes all RECs and CRECs connected with the subject property.

## 1.3 Assumptions, Limitations, and Exceptions

Antea Group conducted this Phase I ESA in accordance with ASTM E1527-13 using currently accepted professional standards, under the conditions outlined in Antea Group Proposal No. 2018-06-230592REV, dated June 11, 2018. **Sections 5.1** and **5.2** of this report outline the methodology and limiting conditions associated with the site reconnaissance, and significant scope-of-work additions, deletions, or deviations to ASTM E1527-13 are listed in **Section 7.0** or have been stated in the body of this report. Unless specified in **Section 1.2**, none of the traditional non-scope considerations, listed under Section 13.1.5 of ASTM E1527-13, were requested by the User to be completed as part of this Phase I ESA. **Sections 11.0** and **12.0** discuss the deviations and limitations associated with this Phase I ESA.

When the Environmental Professional made an estimate of the local groundwater flow direction, he or she determined the flow direction using a combination of reasonably ascertainable data. Data sources may include local experience, publicly available reports on groundwater quality and flow direction, topographic maps, well data and regional groundwater gradient maps. When using topographic maps only, shallow groundwater flow direction interpretations generally follow the surface topographic gradients.

Whenever possible, Antea Group has provided copies of supporting documentation in the appendices. **Section 14.0** includes references to the published, Internet, User-provided, and database or other sources relied upon during the preparation of this Phase I ESA report.

### 1.4 User Reliance

The "User" as defined in this assessment is Kimberly-Clark Corporation (KCC). This report is intended only for the use and benefit of, and may be relied upon by, KCC and any other party specifically identified in writing by Antea Group as a User of this report. Antea Group cannot and will not be liable for unauthorized reliance by any other third party.

KCC understands and agrees that the information contained in this report describes facts and Antea Group's opinions regarding conditions related to the property as of the date of this report and do not purport to describe facts or conditions subsequent to the date of the report. Please also note that the scope of work performed was negotiated by Antea Group and KCC as noted in the contract and this report.

## 2.0 SUBJECT PROPERTY DESCRIPTION

The subject property is occupied by KCC, and owned by Kimberly-Clark Worldwide, Inc. The subject property is located at 2001 E. Orangethorpe Avenue, Fullerton, Orange County, California. **Figure 1** depicts the subject property location on a recent topographic map, and **Figure 2** depicts the subject property layout and its immediate surroundings. Refer to **Figure 3** for a detailed site plan, and to **Appendix A** for representative photographs of the subject property.

| | |
|---|---|
| **CURRENT PROPERTY OWNERSHIP/OCCUPANCY** | |
| **Subject Property Name** | Kimberly-Clark Corporation – Fullerton Mill |
| **Subject Property Owner** | Kimberly-Clark Worldwide, Inc. |
| **Subject Property Occupant(s)** | Kimberly-Clark Corporation – Fullerton Mill (since 1955) |
| **ADDRESS AND LOCATION DESCRIPTION** | |
| **Subject Property Address** | 2001 E. Orangethorpe Avenue, Fullerton, CA 92831 |
| **Subject Property Parcel ID** | According to information from Orange County and The EDR Property Tax Map Report (**Appendix B**) the land associated with the subject property is an industrial development referenced by the following two parcel index numbers (PINs):<br>• 073-120-31 (17.15 acres)<br>• 073-120-33 (48.19 acres) |
| **Subject Property Location** | The subject property is located near the southeastern corner of the City of Fullerton, and is bounded by:<br>• South - Orangethorpe Avenue<br>• West – Acacia Street<br>• North – Kimberly Avenue<br>• East – South State College Boulevard<br><br>The latitude and longitude coordinates for the approximate center of the subject property are 33°51'42" north and 117°53'35" west, respectively. |
| **SITE AND VICINITY GENERAL CHARACTERISTICS** | |
| **Subject Property Size** | The subject property is 65.34 acres of land with manufacturing, warehouse, and office buildings totaling over 1,200,000 square feet. |
| **Topographic Relief** | The subject property is relatively flat, with no discernable slope. Overall, the regional ground topography slopes downward to the west. The subject property is at an elevation of between 180 and 190 feet above mean sea level. |
| **CURRENT PROPERTY USE AND DESCRIPTIONS** | |
| **Subject Property Operations** | KCC operates the subject property as a paper goods manufacturing mill. Currently, this includes use of water and pulp to create paper products (e.g., paper towels, facial tissue, and bathroom tissue) distributed for household, commercial, and industrial usage.<br><br>The 65.3-acre property is occupied primarily by:<br>• Manufacturing/warehouse/office space (~55%)<br>• Exterior paved loading and truck/trailer storage (~20%)<br>• Groves of fruit trees, primarily oranges (~10%)<br>• Paved employee and guest parking lots (~5%)<br>• A leased, paved lot for RV storage (~5%)<br>• Unused lots, driveways, and exterior landscaping (<5%) |

| | |
|---|---|
| **Land Area Description** | The subject property is located in a primarily industrial area along the north side of E. Orangethorpe Avenue in Fullerton, Orange County, California. The site is located near the center of a large industrial park, zoned "M-P – Manufacturing Park." Nearest residential developments begin approximately 0.25 miles south and 0.4 miles north of the subject property.<br><br>Located near the southeastern corner of Fullerton, the subject site is west of California State Route 57 and the City of Placentia, and north of State Route 91 and the City of Anaheim. Geographically, the site is about 5 to 10 miles west and southwest of the Santa Ana Mountains, and 14 miles northeast of the Pacific Ocean. |
| **Description of Structures, Roads, or Other Improvements** | The subject site is occupied by many interconnected buildings, including a mix of office, manufacturing and warehouse space (Figure 3). With the exception of Building #1 and the adjoining water treatment plant and boiler house (underlain by a basement), all structures are slab-on-grade construction. Most warehouse and manufacturing space are single-story, high-bay structures, but several portions of buildings include second stories or lofted features. The oldest of buildings was constructed in the mid-1950s, and overall the developed portion of the property was completed by the late-1980s, along with some later improvements or outbuildings.<br><br>Overall, the buildings cover approximately 30 acres. Three main loading docks are present – one near the southwestern corner of the site (Building #19) and accessible by truck from Acacia Street, and two near the northeastern corner (Buildings #6 and #13), each accessible by both truck and rail from Kimberly Avenue.<br><br>Paved truck parking lots are present south of Kimberly Avenue, and paved lots for employee and visitor parking are present southeast of the buildings, along Orangethorpe Avenue. An approximate 2.5-acre paved parking lot at the far northeastern corner of the subject property is leased and currently used for RV parking. |

## 2.1 Adjacent Property Description

Properties adjacent to the subject property are generally occupied as follows:

**Southeast (adjacent):** Various light industrial buildings, along with an Arco-branded gasoline station at the northwestern corner of Orangethorpe Avenue and State College Boulevard, and two automotive repair/tire shops along the north side of Orangethorpe Avenue. These adjoining properties are located topographically similar to the subject property.

**North:** Kimberly Avenue, followed by a BNSF rail yard and several industrial properties, located topographically similar to the subject property.

**South:** E. Orangethorpe Avenue, followed by several industrial properties, located topographically similar to the subject property.

**East:** S. State College Boulevard, followed by several industrial properties, located topographically similar to or slightly higher than the subject property

**West:** Acacia Street, followed by several industrial properties, located topographically similar to or lower than the subject property

### 2.2 Surrounding Area Description

The subject property is located near the southeastern limits of the City of Fullerton and within a manufacturing park consisting of mostly light industrial and railroad properties, with some scattered commercial properties to the east and west, along Orangethorpe Avenue.

## 3.0 USER-PROVIDED INFORMATION

Pursuant to the User's responsibilities as described in Section 6 of ASTM E1527-13, the User provided historical and recent facility documentation to support this assessment. The User also completed and returned an ASTM *User Questionnaire* form on October 4, 2018. The User's information is presented below in **Sections 3.1 through 3.5** and included in **Appendix C**.

### 3.1 Title Records

The User did not provide chain-of-title records for the subject property. During an interview with KCC's on-site Environmental Coordinator, Ms. Grace stated that KCC has occupied the subject property since approximately 1955 or 1956, and likely retained ownership prior to its occupancy and development of the site.

Chain of Title Records were not requested from Environmental Data Resources, Inc. (EDR), however in the *EDR Environmental Lien and AUL Search Report*, records identified Kimberly-Clark Worldwide, Inc. as the owner of the subject property going back to at least 1996, when it was transferred from Kimberly Clark Corporation (**Appendix B**).

### 3.2 Environmental Liens or Activity and Use Limitation

According to information provided by Ms. Madden during the interview (**Appendix C**), the User is not aware of environmental liens or AULs currently recorded against the subject property. EDR conducted a search of environmental liens and AULs recorded against the subject property. Based on the search, no environmental liens or AULs were identified. Please refer to *EDR Environmental Lien and AUL Search* provided in **Appendix B** for further details.

### 3.3 Specialized Knowledge

The User provided their specialized knowledge of the subject property via on-site interviews and by providing a number of documents, including the following reports and correspondence, copies of which are included in **Appendix C**:

- *Record of Inspection* and *Hazardous Waste Inspection* – County of Orange Environmental Health department follow-up to a March 28, 1985 inspection, and preliminary inspection of the SRM Tank Farm; inspection completed April 2, 1985.
- *Underground Storage Tank Removal – Project Summary (letter report),* prepared by Kimberly Clark Corporation, dated November 20, 1986.
- *Remediation Closure Report*, prepared by Ledsam Contracting Incorporated, for Kimberly Clark Corporation, dated March 1992.
- *Initial Phase II Site Environmental Assessment – Tank Farm Area*, prepared by Western Environmental Engineers Co., for Kimberly Clark, dated October 27, 1997.
- *Phase II Environmental Site Assessment Report – Tank Farm Area*, prepared by Western Environmental Engineers Co., for Kimberly Clark, dated January 19, 1998.
- *UST Unauthorized Release (Leak) / Contamination Site Report,* submitted by Kimberly Clark, to Fullerton Fire Department – Hazardous Materials Specialist, February 20, 2002.
- Report of Soil Excavation and Sampling for the Kimberly Clark Facility; prepared by Gaston & Associates, LLC, March 8, 2002.
- Letter summarizing fuel oil contamination in Boiler House/CoGen Site, including waste manifests and geologist's report on soil excavation and sampling, submitted by Kimberly Clark, to Fullerton Fire Department – Hazardous Materials Specialist, March 13, 2002.
- *Spill Prevention, Control, and Countermeasure Plan*, prepared for Kimberly-Clark, by ProActive Consulting Group, LLC, September 2015.
- *Aboveground Petroleum Storage Tank Facility Statement – Notification/Change in Status* form, prepared by Kimberly-Clark for Orange County Certified Unified Program Agency (CUPA), dated December 28, 2017.
- Annual submittal to California Environmental Reporting System (CERS), dated February 28, 2018.
- Annual Report for Stormwater Discharges Associated with Industrial Activities, prepared by Kimberly-Clark for State of California Water Resources Board, dated July 11, 2018.
- *Storm Water Pollution Prevention Plan (SWPPP) and Storm Water Monitoring Program (SWMP),* prepared for Kimberly-Clark, by ProActive Consulting Group, LLC, July 2018.

Pertinent information from the referenced reports and documents is summarized below in **Section 4.3.4** of this report.

In addition to the reports listed above, KCC also provided a number of documents pertaining to the current storage and usage of chemicals on the subject property, compliance programs, etc., including the latest CERS submittal, storm water testing data, sump samples, etc. (**Appendix C**). KCC also provided an equipment inventory list and a recent site plan. Information from those documents has been integrated throughout this report and on the figures. Lastly, KCC provided verbal knowledge of a regional groundwater contaminant plume that has been proposed for investigation and cleanup through the U.S. EPA Superfund program.

### 3.4 Reasonably Ascertainable Records or Other Environmental Conditions

With respect to any commonly known conditions and reasonably ascertainable environmental information, or obviousness of environmental contamination, the User indicated that they have no information outside that provided in interviews and environmental documents included as part of this Phase I ESA assessment. Antea Group has included such records above and in **Section 6.0**, as well as disseminating pertinent information throughout this report.

### 3.5 Owner, Property Manager, and Occupant Information

The User indicated that the subject property is currently owned and occupied by KCC, and has been since its initial industrial development in the mid-1950s.

### 3.6 Reasons for Performing Phase I ESA

The User indicated that the purpose for requesting the Phase I ESA was customary due diligence due prior to closure of the manufacturing facility and prior to understand environmental concerns prior to divestiture of the subject property.

## 4.0 RECORDS REVIEW

The purpose of the records review was to obtain and review records that may contain information indicating RECs associated with the subject property. The records contained in this Phase I ESA were publicly available, obtainable within reasonable time and cost constraints, and practically reviewable.

## 4.1 Historical Use Information

### 4.1.1 Historical Use Sources

According to the ASTM E1527-13 standard, all obvious uses of the subject property must be identified from the present back to either the subject property's first developed use or back to 1940, whichever is earlier. In order to fulfill this requirement, historical information provided by and obtained from the sources identified in **Sections 4.1.3** through **4.1.7** was reviewed to develop a history of the previous uses of the subject property and surrounding area in order to help identify the likelihood that past uses have led to RECs in connection with the subject property. The following sections provide a summary of findings from each of the historical sources reviewed.

### 4.1.2 Historical Use Summary

Based on a review of the compilation of historical sources presented below dating back to 1896, it appears that the subject property was first developed for industrial purposes circa 1955. Prior to industrial development, the subject property and surrounding area were primarily agricultural orchards, with residential/farm buildings scattered throughout. The existing site building was first constructed circa 1955, and has been occupied by KCC since its development. Between initial development and the present, the subject property building, outdoor water storage/treatment operations, and paved lots have expanded several times. The surrounding area has been a mix of commercial/industrial properties since the area's development in the mid-1950's.

A summary of the findings from each of the historical sources is presented in **Sections 4.1.3** through **4.1.7**. Based on a compilation of the historical sources, the following is a summary of historical land uses on adjoining properties (all dates are approximate):

| APPROXIMATE DATE RANGE | HISTORICAL USE OF SUBJECT PROPERTY |
|---|---|
| c. 1955 and prior | Undeveloped, vacant and agricultural orchard, with some small residences/farm buildings. |
| c. 1955 - Present | The subject property has been occupied industrially by KCC as a paper mill between circa 1955 and the present. |

The following table summarizes the historical land uses of adjoining properties:

| DIRECTION | HISTORICAL USE OF SURROUNDING PROPERTIES |
|---|---|
| North | Agricultural orchard prior to c. 1955. Industrial/commercial development began c. 1955, and large warehouses were constructed c. 1985. |
| South | Agricultural orchard with some residential buildings prior to commercial expansion c. 1955. A flood control detention pond was constructed in the mid-1930s. |
| East | Agricultural orchard with some residential buildings prior to commercial expansion c. 1955 The building complex located southeast adjacent to the subject property was developed mostly in its current configuration at this time. |
| West | Agricultural orchard prior to c. 1955. Industrial/commercial development began c. 1955, and has been in its current layout since c. 2000. |

### 4.1.3 Sanborn Fire Insurance Maps

Sanborn Fire Insurance (Sanborn) Maps were historically published to assist the fire insurance industry in assessing the potential for fire and explosion hazards associated with developed properties. As a result, these maps often provide information pertaining to potential environmental concerns including, but not limited to, the number, location, size, and contents of liquid storage tanks, locations of chemical storage areas, and location and number of hydraulic hoists. In addition, fire insurance maps provide cultural information such as building type and construction, addresses, and types and locations of utilities.

Environmental Data Resources, Inc. (EDR) indicated that the subject property is unmapped; therefore, no Sanborn Fire Insurance Maps were provided (**Appendix D**).

### 4.1.4 Aerial Photographs

EDR provided aerial photographs for several years between 1938 and 2012. The level of detail discernible from the aerial photographs is affected by the scale, resolution, and quality of the photographs. Where those qualities may have affected the review is noted below. Copies of the aerial photographs are included in **Appendix E**. A summary of the historical aerial photography review is provided below.

| AERIAL PHOTOGRAPH REVIEW SUMMARY | | |
|---|---|---|
| **YEAR** | **SUBJECT PROPERTY** | **SURROUNDING AREA** |
| 1938 & 1947 | The subject property is primarily orchard, with two small residential/agricultural buildings. | Primarily orchard. A small building is present southeast adjacent to the subject property. A detention pond is present to the south, across present-day Orangethorpe Ave. |

| AERIAL PHOTOGRAPH REVIEW SUMMARY | | |
|---|---|---|
| **YEAR** | **SUBJECT PROPERTY** | **SURROUNDING AREA** |
| 1953 | Similar to prior photos, except that some land along the north and east sides of the subject property has been cleared (no trees present). | Land to the northeast of the subject property has been cleared. |
| 1963 | A large warehouse is depicted in the center of the subject property. Access road/driveway connects the property to S. Acacia St and Kimberly Ave. A rail spur leads from the east side of the building to the north adjacent rail line. A car parking lot is present south of the building. Tanks, smaller outbuildings, and other operations appear to be located to the east of the warehouse. A truck access or similar cleared area is present along the west side of the building.<br>The remainder of the property remains orchard. | The building complex located southeast adjacent to the subject property is depicted mostly in its present configuration, with the exception of some small buildings in its southwest section.<br>Industrial/commercial type buildings are now present adjacent to the subject property in all directions. |
| 1972 | The warehouse has expanded to the west, and an addition was made to the east 'arm' of the building. Development/activity of some type is present to the east of the tanks. | Continued industrial/commercial expansion in the area. |
| 1977 | The warehouse has expanded to fill in its 'core.' Additional water treatment features are present along the east side of the warehouse, and an additional large tank has been installed to the east of the driveway. Expanded outdoor storage/truck parking is present east of the tanks. A baseball field is present at the far northeastern corner of the subject property.<br>A dark discoloration surrounds an outbuilding/square feature near the rail spur and loading docks. | Continued industrial/commercial expansion in the area. A second detention basin is now present to the southeast. |
| 1987 | The warehouse has expanded to the southwest with an additional loading dock. Additional truck parking is now present to the east of the car parking lot. The baseball field has been replaced by truck parking. | Continued industrial/commercial expansion in the area. |
| 1990 | Additional paved area is now present near the southwest loading dock. | Continued industrial/commercial expansion in the area. |
| 1995 | Similar to the 1990 photograph. | Continued industrial/commercial expansion in the area.<br>The building complex located southeast adjacent to the subject property is depicted in its present configuration. |

| AERIAL PHOTOGRAPH REVIEW SUMMARY | | |
|---|---|---|
| **YEAR** | **SUBJECT PROPERTY** | **SURROUNDING AREA** |
| 2005 | Similar to prior photographs, but dark-colored features depicted in previous entry no longer present. | Appears similar to previous photograph. |
| 2009 & 2012 | Similar to the prior photographs. | Appears similar to previous photograph. |
| 2016 | Northeast truck lot appears resurfaced. | Appears similar to previous photograph. |

### 4.1.5 Local Street Directories

Local street (city) directories include business and residential listings arranged by street and address. Listings typically are reviewed to identify names of facilities suggesting past use, generation, storage, treatment, or disposal of potentially hazardous materials or petroleum products. EDR provided city directory reports for addresses located on E Orangethorpe Avenue and searched from various sources between 1955 and 1995.

The subject property and surrounding property addresses were identified in the EDR-City Directory Abstract for the years 1955 through 1995. A summary of the pertinent findings is presented in the table below. Refer to the *EDR-City Directory Abstract* in **Appendix F** for a complete summary of listings surrounding the subject property.

| CITY DIRECTORY REVIEW SUMMARY | |
|---|---|
| **ADDRESS** | **OCCUPANT (YEARS OF OPERATION)** |
| 2001 E. Orangethorpe Ave. (Subject Property) | Kimberly Clark Corp (1955 – 1970, 1980-1995)<br>Skidmore Owings & Merrill archts (1955)<br>Granades Cafeteria (1966)<br>Consumer & Commercial Sales (1975) |
| 2020 E. Orangethorpe Ave. | Corporate Office (1995)<br>Vista Paint & Wallcovering (1995)<br>General Offices (1991) |
| 2030 E Orangethorpe Ave. | Service Station Supply Co D Daper (1980) |
| 2100 E Orangethorpe Ave. | Autocar Leasing Co (1995) |
| S Acacia Street (west of subject property) | No listings |
| Kimberly Avenue (north of subject property) | No listings |
| S State College Boulevard (east of subject property) | No listings |

The available city directories show the subject site was occupied by KCC as far back as 1955. The directories provided little information on the historical occupancy of the area surrounding the subject Antea Group

requested city directory searches for adjoining sites along S Acacia Street, Kimberly Avenue, and S State College Boulevard, but no records were available, which Antea Group considers a data failure.

#### 4.1.6 Historical Topographic Maps

Early topographic maps were constructed by physically observing and surveying the land. In the early 1950s, topographic and land use maps were constructed with the aid of aerial photographs. Topographic maps depicted geologic surface features, roads, buildings, and other aboveground structures. Historical topographic maps for the subject property area for several years between 1896 and 2012 were obtained from EDR. Copies of the topographic maps are included as **Appendix G**. A summary of the historical topographic maps review is provided below.

| **TOPOGRAPHIC MAP REVIEW SUMMARY** | | |
|---|---|---|
| **YEAR** | **SUBJECT PROPERTY** | **SURROUNDING AREA** |
| 1896 & 1898 | The subject property is depicted as primarily vacant land, with three small buildings. | The surrounding area is lightly developed with small residential/agricultural buildings. A Los Angeles RR line is present to the west, as well as the town of Fullerton. |
| 1901 & 1902 | No significant changes are apparent in the subject property as compared to the previous map. | Slight increase in small building development. The town of Placentia is now depicted to the northeast. |
| 1935 | An access road is now depicted on the northwest side of the subject property. | A small building is now present southeast adjacent to the subject property. Carbon Canyon Creek is now depicted south of the subject property, followed by a low-relief feature. Fullerton and Placentia have expanded, and La Jolla is now depicted to the east. The Santa Fe RR is now present to the north. More buildings are present along Orangethorpe Ave. |
| 1942 | The subject property is depicted as orchard, with the same three small buildings as were mapped prior. | The region surrounding the subject property is depicted as agricultural orchards. |
| 1949 | No significant changes are apparent in the subject property as compared to the previous map. | A wastewater disposal plant is depicted to the south of the subject property, and a flood control basin is depicted to the southeast. Continued development of all nearby towns; Anaheim now labeled to the southwest. |

| TOPOGRAPHIC MAP REVIEW SUMMARY | | |
|---|---|---|
| **YEAR** | **SUBJECT PROPERTY** | **SURROUNDING AREA** |
| 1964 & 1965 | A large warehouse is depicted in the center of the subject property, with water tanks depicted on the building's east side. Access road/driveway connects the property to S Acacia St and Kimberly Ave. A railroad spur leads from the east side of the building to the north adjacent rail line. The remainder of the property remains orchard. | A cluster of two large and three small buildings is now present southeast adjacent to the subject property. A railroad is depicted to the north of Kimberly Ave. A fire station is present to the north, across the railroad. Much of the surrounding area is now occupied by large industrial-type buildings. One of these buildings is present to the west, across S Acacia St. A retention basin is now present to the southeast, across the freeway. |
| 1972 | Warehouse additions have been constructed on the north/west side, and a miller unit to the east, near the tanks. | General municipal and industrial/commercial expansion. New buildings are present to the west across S Acacia St, and to the south across Orangethorpe Ave. |
| 1981 | The building has expanded to the east to fill its 'core.' One water tank is depicted as replaced, and a new tank is depicted to the east of the driveway. | New large buildings are depicted in all directions. |
| 2012 | Individual structures no longer depicted. | Individual structures no longer depicted. |

#### 4.1.7 Other Resources

***Orange County Treasurer-Tax Collector/Geographic Information Systems (GIS):*** Antea Group reviewed the Orange County Treasurer-Tax Collector's website and determined that the subject property encompasses two parcels (073-120-31 and 073-120-33) comprising a total of 65.34 acres. No detailed property records were reasonably ascertainable from the Orange County Treasurer or Tax Collector's offices.

***City of Fullerton Building Department:*** On August 27, 2018, Antea Group contacted the City of Fullerton Building Department to request records pertaining to the subject property. The Building Department responded stating that all available documents are available online. Antea Group conducted a cursory search of the available files which consisted primarily of permits for lighting/electrical, building (including roof installation/upgrades), fire suppression system upgrades, grading, mechanical, plumbing for landscaping. Antea Group completed a cursory review of these files, but did not review every page of every permit due to the length and number of documents available. Based on the findings from the cursory review, we do not expect that this information source would provide information supporting of the findings of this report. For example, there was a building permit (Bldg 06-01979) that Kimberly-Clark received on December 22, 2006 for chemical storage tanks. No additional details (e.g., contents, location) were provided on the available documentation.

***City of Fullerton Fire Department:*** Antea Group contacted the City of Fullerton Fire Department on August 28, 2018. On September 17, 2018, Antea Group received a response indicating they had several files (at least 1,000 pages for the subject property) on review. Antea Group requested copies for review and received well over 1,000 paper copies on October 12, 2018. Antea Group performed a cursory review of the files and deteminted that most of the files were related to recent (since 2002) hazardous material reporting and Business Emergency Plans. Most of these files pre-date very similar information provided to Antea Group by KCC for review.

In addition, the file included a letter dated March 30, 2004 that summarized cleanup of a diesel fuel spill that occurred on November 2, 2003. The letter included a memo summary from contractor Worldwide Waste Management, Inc, summarizing their response and cleanup of diesel fuel from the ground surface and storm drains. Refer below to **Section 4.3.4** for further details on the spill and cleanup.

Antea Group also requested files for the adjoining facility (Coast Roof Co.) located at 2301 E Orangethorpe Avenue (south of the subject site). Returned files included those for past underground storage tanks located at this Coast Roof Co. property. See **Section 4.3.5,** below, for further information.

***Orange County Environmental Health Division:*** Antea Group contacted the Orange County Environmental Health Division on September 17, 2018 and again on September 25, 2018. Antea Group requested photocopies of pertinent records, including from their "industrial cleanup" file. Antea Group received several hundred pages of files on November 1, 2018. Antea Group conducted a cursory review of the files received, which included:

- Various regulatory records for review of compliance documents and on-site compliance inspections between 2005 and 2018.
- Limited information pertaining to removal of six underground storage tanks from the facility in the mid-1980s.
- Several years' worth of forms and correspondence documenting business activities, above-ground petroleum storage tanks, and Spill, Prevention, Control, and Countermeasure Plans (SPCC).
- Reports and correspondence pertaining to investigation and regulatory closure of reported subsurface contamination related to storage and dispensing of bleach from an above-ground storage tank.

Pertinent documents from Orange County Environmental Health are included in **Appendix H** and summarized below in **Section 4.3.4**.

***California State Water Resources Control Board – Stormwater Multiple Application and Report Tracking System (SMARTS):*** On September 21, 2018, Antea Group searched this database for applicable files regarding the subject property. According to this database, the subject property has had an active Permit to Discharge Storm Water Associated with Industrial Activity (WDID 8 30I001214) since March 26, 1992. Documents available for review include annual storm water sampling reports, regulatory correspondence, and notice of violation records. Refer to **Section 4.3.4** for more details.

***California Division of Oil, Gas & Geothermal Resources – Well Finder:*** On September 21, 2018, Antea Group searched this database for historical oil and gas wells on the subject property and found that no oil/gas wells are currently or have been historically present at the subject property.

***California SWRCB GeoTracker Database:*** Antea Group searched this database on September 21, 2018 for listings related to the subject property and discovered a cleanup program was affiliated with the subject property for a diesel leak to soil reported in May 1986. The cleanup status is now listed as completed and the case has been closed as of January 22, 1992. Refer to the Case Summary in **Appendix H** for further detail. The GeoTracker database lists the lead cleanup oversight agency as the City of Fullerton – Antea Group has also requested files from that agency, as discussed prior.

Antea Group also contacted the California Regional Water Quality Control Board's (RWQCB) Santa Ana Region to request records pertaining to the subject property. The RWQCB responded that files related to the subject property have been archived and can be reviewed by contacting the State Archives Facility. These files were not reasonably ascertainable within the timeframe of this assessment. However, the User did provide some files, including a closure letter, related to the referenced incident that was closed in 1992.

***California Department of Toxic Substance Control (DTSC):*** Antea Group searched the DTSC's EnviroStor Database, and no listings were identified for the subject property. Antea Group also contacted DTSC on September 21, 2018 to request records pertaining to the subject property. In a letter dated September 26, 2018, DTSC responded that there are files available in their Cypress, California office. Antea Group followed up by phone twice in October to request information on the type and amount of information available, but has not received response as of the date of this report.

Antea Group also searched DTSC's Hazardous Waste Tracking System database to obtain hazardous waste generator information (**Appendix H**) for: (1) Kimberly Clark; (2) Kimberly Clark Worldwide Inc; and (3) Southern California Edison for their substation located at the subject property. No violations were noted on this

database for either generator. Refer to the hazardous waste generator summary in **Section 4.3.4** of this report for additional information.

**U.S. Environmental Protection Agency (EPA) ECHO Database:** On September 18, 2018, Antea Group conducted an online search of the subject property address in the US Environmental Protection Agency (US EPA) Enforcement and Compliance History Online (ECHO) database and Envirofacts Multisystem Search database. The subject property address was identified by three separate listings (details of which are provided in the table below):

- Kimberly-Clark Worldwide, Inc. – Fullerton Mill;
- Fullerton Mill CHP; and,
- Southern California Edison Paper Substation.

| US EPA Statute | US EPA System | ID | Permit Type/Status | 5-Year Compliance History |
|---|---|---|---|---|
| Clean Air Act | Air | CASCA0000605900404 | Major Emissions, Operating | No violations |
| Clean Air Act | Greenhouse Gas Emissions | 1002185 | Direct Emitter – General Stationary Fuel Combustion | No violations |
| Clean Air Act | Air Emissions Inventory | 4969911 | Operating | No violations |
| Clean Water Act | National Pollutant Discharge Elimination System (ICP, or NPDES) | CAZ208197 | Minor – General Permit coverage; Industrial Storm Water (expires 6/30/2020) | No violations |
| EP313 | Emergency Planning & Comm. Right-to-Know Act - Toxic Release Inventory (TRI) | 92634KMBRL2001E | | No violations |
| RCR | Resource Conservation Recovery Act (RCRA) | CAD009547373 | Large Quantity Generator, Active; Biennial Reporter | No violations |

Additional facility regulatory details are included in US EPA ECHO and Envirofacts summaries provided in **Appendix H**.

**U.S. Environmental Protection Agency (EPA) Superfund - National Priorities List (NPL) Sites:** As part of this assessment, Antea Group researched publicly available files pertaining to the *proposed* NPL/Superfund site known as the Orange County North Basin (OCNB) in the cities of Fullerton and Anaheim, CA

(https://cumulis.epa.gov/supercpad/cursites/csitinfo.cfm?id=0900251). The OCNB Superfund site consists of an area of commingled groundwater contaminant plumes that have impacted an area several miles long and over a mile wide in the northern portion of the Orange County Groundwater Basin. In 2016, US EPA entered into an administrative settlement with the Orange County Water District, agreeing to completion of a Remedial Investigation and Feasibility Study. Since, contracted consultant AECOM has completed a *Remedial Investigation and Feasibility Study* and addendum. Antea Group has reviewed this and related public records pertaining to the OCNB site. See **Section 4.3.5** of this report for additional information.

### 4.2 Physical Setting

The physical setting of the subject property can influence the susceptibility to, and relative magnitude of, environmental impacts and liabilities associated with on- and off-site sources of contamination. The following table provides physical setting information for the subject property and surrounding area:

| PHYSICAL SETTING INFORMATION | COMMENTS | SOURCE |
|---|---|---|
| Site Elevation | Approximately 180 to 190 feet above mean sea level. | Google Earth<br>EDR Historical Topo Map Report, Inquiry No. 5387351.4 |
| Surface Runoff/Topographic Gradient | Site and vicinity are generally flat, regionally gently dipping downward to the west | EDR Historical Topo Map Report, Inquiry No. 5387351.4 |
| Closest Surface Water | Carbon Creek is located approximately 700 feet south of the subject property. | Google Earth<br>EDR Historical Topo Map Report, Inquiry No. 5387351.4 |
| General Geology | Rock Stratigraphic Unit<br>Era: Cenozoic; System: Quaternary; Series: Quaternary<br><br>Geologic Age Identification<br>Category: Stratified Sequence | EDR Radius Map Report, Inquiry No. 5387351.2s |
| Primary Soil Type(s) | METZ loamy sand (somewhat excessively drained soil);<br>MOCHO loam (well-drained);<br>SAN EMIDGIO fine sandy loam (well-drained) | EDR Radius Map Report, Inquiry No. 5387351.2s |
| Flood Zone | Located within a 500-year flood plain. | EDR Radius Map Report, Inquiry No. 5387351.2s |
| Wetlands | No National Wetland Inventory areas are mapped on the subject property. | EDR Radius Map Report, Inquiry No. 5387351.2s |
| Inferred Ground Water Flow Direction | The inferred groundwater flow direction is to the west, based on local topography. | EDR Radius Map Report, Inquiry No. 5387351.2s |

## 4.3 Environmental Records Review

### 4.3.1 Standard Environmental Record Sources

EDR provided a search of federal, state, tribal, and select local governmental agency databases for reasonably ascertainable regulatory records for sites indicating a potential environmental concern in the vicinity of the subject property. At a minimum, the search included the Standard Environmental Record Sources and the specified approximate minimum search distances listed in Section 8.2.1 of the ASTM E1527-13 standard. Descriptions of the databases searched and the regulated and/or contaminated sites identified within the specified approximate minimum search distances are presented in *The EDR Radius™ Map Report with GeoCheck* (referred to herein as the "EDR Report"), which is presented in **Appendix I**.

A summary of the search showing the databases, the minimum search distance applied to each database, and the number of database listings identified is presented in the table below. Additional databases not specified in the table were searched but did not have listings for the subject property or sites located within the approximate minimum search distance of the subject property. A complete listing of the databases searched can be found in the executive summary of the EDR Report.

The evaluation of unmapped orphan sites, discussion of subject property listings, and discussion of sites within the approximate minimum search distances of the subject property identified to be of potential environmental concern in connection with the subject property are presented in **Sections 4.3.3** through **4.3.5**, along with an opinion about their significance to the analysis of RECs in connection with the subject property.

| **ENVIRONMENTAL RECORD REVIEW** | | | |
|---|---|---|---|
| **REGULATORY DATABASE** | **SUBJECT PROPERTY LISTED?** | **MINIMUM SEARCH DISTANCE** | **TOTAL LISTED FACILITIES** |
| Proposed National Priority List (NPL) | No | 1 mile | 1 |
| Superfund Enterprise Management System (SEMS) | No | ½ mile | 9 |
| Superfund Enterprise Management System Archive (SEMS-ARCHIVE) | No | ½ mile | 6 |
| Corrective Action Reports (CORRACTS) | No | 1 mile | 2 |
| RCRA Treatment, Storage, and Disposal Facility (RCRA-TSDF) | No | ½ mile | 2 |
| Resource Conservation and Recovery Act Large Quantity Generator of hazardous waste (RCRA-LQG) | YES | ¼ mile | 10 |
| Resource Conservation and Recovery Act Small Quantity Generator of hazardous waste (RCRA-SQG) | No | ¼ mile | 29 |
| Federal Emergency Response Notification System (ERNS) | YES | Target property | 7 |
| California RESPONSE | No | 1 mile | 9 |

| ENVIRONMENTAL RECORD REVIEW | | | |
|---|---|---|---|
| **REGULATORY DATABASE** | **SUBJECT PROPERTY LISTED?** | **MINIMUM SEARCH DISTANCE** | **TOTAL LISTED FACILITIES** |
| California ENVIROSTOR | No | 1 mile | 53 |
| California Landfill and Disposal Facilities (SWF/LF) | No | ½ mile | 2 |
| California Leaking Underground Storage Tank (LUST) | YES | ½ mile | 56 |
| California Spills, Leaks, Investigations, and Cleanups (CPS-SLIC) | No | ½ mile | 20 |
| California Underground Storage Tank (CA UST) | No | ¼ mile | 21 |
| California Above Ground Storage Tank (CA AST) | YES | ¼ mile | 13 |
| California Voluntary Cleanup Program (CA VCP) | No | ½ mile | 1 |
| California Waste Management Unit Database (CA WMUDS/SWAT) | No | ½ mile | 1 |
| Statewide Environmental Evaluation and Planning System (SWEEPS UST) | No | ¼ mile | 16 |
| Historical Hazardous Substance Storage Container Database (HIST UST) | YES | ¼ mile | 25 |
| Facility Inventory Database (CA FID UST) | No | ¼ mile | 16 |
| Deed Restriction Listing (CA DEED) | No | ½ mile | 4 |
| California Hazardous Material Incident Report System (CHMIRS) | Yes | Target property | 3 |
| Orange County Industrial Site | YES | Target property | 1 |
| RCRA Non-Generator / No Longer Registered (NonGen/NLR) | No | Target property | 10 |
| 2020 Corrective Action Program List | No | ¼ mile | 1 |
| Integrated Compliance Information System (ICIS) | YES | Target property | 1 |
| Aerometric Information Retrieval Facility Subsystem (US AIRS) | YES | Target property | 1 |
| Facility Index System (FINDS) | YES | Target property | 3 |
| Enforcement & Compliance History Information (ECHO) | YES | Target property | 1 |
| “Cortese” Hazardous Waste & Substances Site List (CA Cortese) | No | ½ mile | 7 |
| Emissions Inventory Data (EMI) | YES | Target property | 2 |
| Facility and Manifest Data (HAZNET) | YES | Target property | 2 |
| Hazardous Waste and Substance Site List (HIST CORTESE) | YES | ½ mile | 17 |
| ENVIROSTORE Permitted Facility Listing (CA HWP) | No | 1 mile | 3 |
| National Pollutant Discharge Elimination System (NPDES) | YES | Target property | 1 |
| CA Water Discharge System (WDS) | YES | Target property | 1 |
| Well Investigation Program Case List (CA WIP) | No | ¼ mile | 1 |

| ENVIRONMENTAL RECORD REVIEW | | | |
|---|---|---|---|
| **REGULATORY DATABASE** | **SUBJECT PROPERTY LISTED?** | **MINIMUM SEARCH DISTANCE** | **TOTAL LISTED FACILITIES** |
| California Integrated Water Quality Control System (CA CIWQS) | YES | Target property | 1 |

### 4.3.2 Regulatory Agency File and Records Review

The ASTM E1527-13 standard states that if the subject property or any of the adjoining properties is identified on one or more of the Standard Environmental Record Sources, pertinent regulatory files and/or records associated with the listing should be reviewed to obtain sufficient information to assist the Environmental Professional in determining if a REC, CREC, HREC, or de minimis condition exists at the property in connection with the listing. If in the Environmental Professional's opinion this review is not warranted, that justification must be explained.

Given the number types of regulatory listings for the subject property and nearby properties, file reviews of the subject property and nearby properties were conducted. The results of the file reviews are incorporated into the site discussions in **Sections 4.3.4** and **4.3.5**.

### 4.3.3 Orphan Sites

The EDR Radius Map Report includes a listing of 15 records that the location could not be verified due to inadequate address information but that may be located within the applicable approximate minimum search distances from the subject property.

Antea Group reviewed the information provided by EDR regarding the orphan sites and concluded that none appear to be located within the approximate minimum search distances from the subject property for the categories in which they are listed.

### 4.3.4 Subject Property

The EDR database search identified multiple environmental listings for the subject property address (2001 E. Orangethorpe Avenue). Please refer to the table below for a discussion of the relevant database findings and whether additional information was reasonably ascertainable for review in addition to the EDR report.

| **ADDRESS:** | **2001 E Orangethorpe Avenue** | |
|---|---|---|
| **FACILITY NAMES:** | **Kimberly Clark Worldwide Inc.; Kimberly-Clark; Kimberly-Clark Corp; Kimberly-Clark Fullerton Mill CHP; Southern California Edison; Southern California Edison Paper Substation** | |
| **Database Listing** | **Summary** | **Additional Files Reviewed?** |
| ERNS (7 listings) | • NRC Report #28819; June 28, 1990 release of 3,500 gallons sodium hypochlorite from AST pump housing failure<br>• NRC Report #127614; July 20, 1992 release of 1,500 gallons sodium hypochlorite from AST valve failure<br>• NRC Report #171566; May 5, 1993 release of 478 pounds of sodium hypochlorite from AST leaking valve<br>• NRC Report #398279; August 5, 1997 release of 165 gallons of sodium hypochlorite from unknown cause; spill affected 20' x 20' land area; planned excavation/disposal of soil<br>• NRC Report #404497; September 21, 1997 release of 31.5 pounds of sodium hypochlorite from leaking hose; spill contained within containment area<br>• NRC Report #594161; February 14, 2002 report of fuel oil staining during excavation at approximately 8 feet below ground surface; case referred to Orange County EHD<br>• NRC Report #704253; November 2, 2003 release of unknown quantity of oil and diesel fuel into storm drain following automobile/truck accident | Yes – see summary following this table |
| CA CHMIRS (4 listings) | • OES Incident #7-3074; August 6, 1997 report of sodium hypochlorite release (32 lbs) from above-ground tank; spill contained within berm and groundwater was not affected<br>• OES Incident #7-3709; September 21, 1997 release of sodium hypochlorite (32 lbs); initial spill was August 5, 1997 following leak in vacuum hose; spill was contained by earthen berm<br>• OES Incident #2-0887; February 15, 2002 report of fuel oil discovered in excavation area where fuel oil USTs were once present in 1980s. HazMat contractor retained to remove contaminated soil.<br>• OES Incident #3-5674; November 2, 2003 release of diesel fuel (unknown volume) into a storm drain; release resulted from accident between passenger vehicle and semi-truck | Yes – see summary following table |
| CA LUST (1 listing) | • LUST cleanup of diesel fuel in soil; Leak reported May 27, 1986; Status is "completed-case closed" as of Jan. 22, 1992; Global ID # T0605900814; includes link to GeoTracker database listing<br>• Orange County LUST ID #86UT083, for Diesel fuel oil and additives No. 1-D, 2-D, 204; Dated closed: 04/1/1991; Record ID #RO0002793 | Yes – see summary following table |
| CA RGA LUST (5 listings) | • Several listings between 1992 and 2012 for Kimberly-Clark, 2001 Orangethorpe Ave.; No details specified in EDR Report | No – refer to CA LUST listings above |
| CA HIST UST (2 listings) | • File #0002EA87; Link to GeoTracker database listing:<br>o Tank M16 – 10,000-gallon tar-coated, carbon steel UST containing diesel fuel and/or #2 fuel oil; Installed 1956; Last used 1986 | Yes – see summary following table |

| **ADDRESS:** | **2001 E Orangethorpe Avenue** | |
|---|---|---|
| **FACILITY NAMES:** | **Kimberly Clark Worldwide Inc.; Kimberly-Clark; Kimberly-Clark Corp; Kimberly-Clark Fullerton Mill CHP; Southern California Edison; Southern California Edison Paper Substation** | |
| **Database Listing** | **Summary** | **Additional Files Reviewed?** |
| | o Tank M17 – 10,000-gallon tar-coated, carbon steel UST containing #6 fuel oil; Installed 1956<br>o Tank M8062 – 10,000-gallon carbon steel UST containing motor vehicle fuel or waste oil; Installed 1971; last used 1979<br>o Tank M8063 – 10,000-gallon carbon steel UST containing motor vehicle fuel or waste oil; Installed 1971; last used 1979<br>o Tank M8064 – 10,000-gallon stainless steel UST containing motor vehicle fuel or waste oil; Installed 1971<br>o Tank M8065 – 10,000-gallon stainless steel UST containing motor vehicle fuel or waste oil; Installed 1971; last used 1979 | |
| CA AST (1 listing) | • Reported 104,125 total gallons storage, owned by Kimberly Clark Worldwide Inc. No further details listed. Overseen by Orange County as Certified Unified Program Agency. | Yes – see summary following table |
| CA HAZNET (2 listings) | • Over 400 records for regulated waste generation of a variety of wastes dating back to 1993, including, but not limited to:<br>o Other organic solids<br>o Corrosive liquids<br>o Alkaline solutions<br>o Off-spec, aged, or surplus organics<br>o Adhesives<br>o Waste oil and mixed oil; unspecified oil-containing waste<br>o Aqueous solutions with total organic residues 10% or more<br>o Metal sludge<br>o Asbestos containing waste<br>o Empty containers<br>o Contaminated soil from site cleanup<br>o Oil/water separation sludge<br>o Liquids with halogenated organic compounds >1,000 mg/L<br>o Hydrocarbon solvents<br>o PCBs, and material containing PCBs<br>o Paint sludge | No |
| RCRA LQG (1 listing) | • US EPA ID #CAD009547373; Large-Quantity Generator; Numerous listed waste codes; several violations, including:<br>o December 20, 1984 violation (written, informal) of FR-262.10-12A; compliance achieved November 14, 1988<br>o June 4, 1986 violation of FR-262.10-12.A; compliance achieved April 28, 1992<br>o May 28, 1992 violation of FR-262.5060 and FR-262.30-34.C; compliance achieved October 31, 1994 | No |

| **ADDRESS:** | **2001 E Orangethorpe Avenue** | |
|---|---|---|
| **FACILITY NAMES:** | **Kimberly Clark Worldwide Inc.; Kimberly-Clark; Kimberly-Clark Corp; Kimberly-Clark Fullerton Mill CHP; Southern California Edison; Southern California Edison Paper Substation** | |
| **Database Listing** | **Summary** | **Additional Files Reviewed?** |
| | EDR records list numerous waste types generated from the subject site, including wastes exhibiting the following characteristics or contents within US EPA waste codes:<br>• "D" wastes: ignitables, corrosives, methyl ethyl ketone, tetrachloroethylene, barium, cadmium, chromium, lead, mercury<br>• "F" wastes: spent non-halogenated solvents<br>• "U" wastes: acetaldehyde, 1,4-diethyleneoxide, formaldehyde | |
| ICIS: (1 listing) | • Includes limited details for 10 Air program violations | No |
| US AIRS/AFS (1 listing) | • Includes information in approximately 180 listings for the site's Operating, Major Emissions air permitting for dates between 1980 and 2016 | No |
| CA EMI (2 listings) | • Includes emissions data reported to the South Coast Air Quality Management District from the years 1987, 1990, 1993, 1995-2016 | No |
| Orange Co. Industrial Site (1 listing) | • Case ID #98IC009; Record ID # RO0000682; closed 4/22/1998 (closure certification issued); resolution for sodium hypochlorite release | Pending response from Orange County Env. Health Department |
| CA NPDES / CA WDS / CA CIWQS (1 listing each) | • Information pertaining to the site's industrial storm water discharge permitting and activity (NPDES #CAS000001) | Yes – see summary following table |

From a variety of sources, including the User (see **Section 3.3**), state regulatory databases, and files publicly available from Freedom of Information Act (FOIA) requests (agencies outlined above in **Section 4.1.7**), Antea Group reviewed and has summarized pertinent information below in addition to EDR Report findings outlined in the table above. Note that information from certain regulatory sources (e.g., Orange County Environmental Health and California DTSC) that may be pertinent to the discussions below remains outstanding at this time.

**Sodium hypochlorite spills (ERNS and CA CHMIRS listings in table above)**

KCC provided two reports dated November 1997 and January 1998 related to environmental testing conducted in the Tank Farm area of the site, specifically at and surrounding the location of a former sodium hypochlorite (bleach) AST. This tank was located immediately west of the now empty fuel oil AST (**Figure 3**). These reports summarized soil data from over 60 samples collected at 14 locations beneath and surrounding the former bleach AST. Soil samples were analyzed for sodium hypochlorite, and data were compared to US EPA

Preliminary Remediation Goals (PRGs), Region IX, for chlorine. The reports concluded that the detected concentrations were well below the maximum allowable concentrations per the referenced PRGs. Based on this finding, the consultant suggested that groundwater contamination was "extremely unlikely."
Records from the County of Orange Division of Environmental Health include a letter dated April 21, 1998 confirming completion of remedial investigation related to the sodium hypochlorite release. The agency's determination was supplemented by their April 14, 2018 "Closure Rationale" document, which concluded that any exposure to the low levels of sodium hypochlorite detected in soil beneath the tank farm would be comparable to the acceptable exposure of that in a swimming pool. Further, the agency calculated the potential chlorine concentration and demonstrated it being orders of magnitude less than US EPA PRGs. Lastly, the agency deemed no significant threat to groundwater, and obtained concurrence with the Santa Ana Regional Water Quality Control Board prior to issuing the April 21, 1998 closure letter.

**Diesel fuel spill (ERNS and CA CHMIRS listings in table above)**

Both the City of Fullerton Fire Department and KCC provided information pertaining to a diesel fuel spill that occurred on a portion of the subject site on the evening of November 2, 2003. According to the spill contractor Worldwide Waste Management, Inc.'s report submitted to the Fullerton Fire Department, the contractor responded to find diesel fuel pooled on the street surface, gutters, and KCC's parking lot. A spill resulted from a collision between a JB Hunt semi and another vehicle. The contractor's response covered a 12-hour period where they absorbed fuel from small puddles on paved surfaces and pumped fuel from storm drains. In total, they reported removing 165 gallons of diesel fuel/water mixture from storm drains and generated five drums of diesel fuel/water mixture, plus seven drums of diesel and absorbent materials. The contractor reported that the local Hazmat team deemed the cleanup complete.

KCC corroborated the story in the local environmental coordinator's account of the release incident. According to KCC, they reported the incident to the National Response Center, but JB Hunt claimed responsibility for the incident and ultimately manifested and disposed of the drums of waste. KCC does not have records of the waste generated from the spill incident.

**Petroleum USTs (CA HIST UST listings in table above)**

KCC provided reports and regulatory correspondence related to soil contamination present from former fuel oil USTs removed from the subject site in May 1986. The first such record is from an April 2, 1985 inspection of the USTs by County of Orange Environmental Health. This inspection resulted in a recommendation to fill or remove the USTs.

EDR records include a State Water Resources Control Board hazardous waste container information (print dated June 1, 1988), which lists up to six USTs on the subject site (outlined in the CA HIST UST section of the table above). To clarify historical UST identifications and locations, Antea Group requested and KCC provided additional information. KCC's information included an internal letter summary report (dated November 20, 1986) summarizing the removal of seven (7) underground storage tanks (USTs) from the subject site in 1986. The removed USTs included four SRM tanks (Scrim Reinforced Material – an adhesive used to bond multi-ply paper towel products), 1 sulfuric acid tank, and two fuel oil tanks. The report outlined that the tanks themselves showed no evidence of leakage, but petroleum impacts to the environment were present due to years of spills during filling of the fuel oil tanks, and from leaking piping at a nearby/former above-ground oil storage tank. Over 1,100 cubic yards of contaminated soils were removed, and Orange County Environmental Health Department agreed to a plan to later treat remaining impacted soils that could not be removed due to proximity to a nearby driveway.

Documents from the mid-1980s received from the agency then known as County of Orange Environmental Health included limited records documenting UST removal, but confirmed oversight of the fuel oil UST removal and observation of petroleum-impacted soils. In addition to the two fuel oil USTs, the agency oversaw the removal of the following four USTs:

- Vinyl acetate;
- Diactyl Pthalate; and,
- mineral spirits (2).

The agency's records do not indicate any evidence of release from USTs, except for the fuel oil and subsequent cleanup ongoing under [release number] "86UT83."

**Leaking USTs and contamination cleanup (CA LUST and CA CHMIR listings in table above)**

The March 1992 Remediation Closure Report summarized environmental testing and remediation of petroleum contaminated soil that remained following removal of the fuel USTs and contaminated soil several years prior (refer to the November 1986 letter summarized above). An initial excavation phase (February 5, 1992) was followed by a second phase (February 10, 1992), resulting in the excavation and disposal of a total of 97.77 tons of soil. Confirmatory soil sampling indicated only low levels of total petroleum hydrocarbons (TPH) remaining in soil – much less than the City of Fullerton Department of Underground Storage Tank guidelines at that time. The report recognized that a very small pocket (estimated 3 tons) was left in place to preserve the integrity of a high-pressure fire suppression pipe. A January 22, 1992 letter from the City of Fullerton, in concurrence with the California Regional Water Quality Control Board (RWQCB), confirms a "no further action" determination for the fuel oil release incident. Information from California's GeoTracker

database also show this LUST cleanup site (Activity #T0605900814) as "*Completed – Case Closed as of 1/22/1992*."

According to a February 2002 UST *Unauthorized Release (Leak) / Contamination Site Report* filed by KCC, and subsequent reporting to the City of Fullerton Fire Department, site construction activities discovered additional fuel oil contamination during excavation in the vicinity of the former USTs. The March 8, 2002 *Report of Soil Excavation and Sampling* and subsequent reporting outlined the KCC's prompt response and their contractor's excavation of 2,174 tons of petroleum contaminated soil. To better characterize petroleum contamination that could not be excavated from near or beneath the boiler room, contractor's drilled one deep soil boring to a depth of 70 feet below grade, including soil and groundwater sampling. Analytical data showed contaminants in soil at depths of 10, 15, and 30 feet below grade, but at a location that could not be remediated by excavation. Only low levels of TPH and total xylenes were reported in a groundwater sample. The reported volatile organic compound contaminant concentrations, including xylenes, were reportedly less than the MCLs for the drinking water standard at that time (there were no standards for TPH in groundwater). In soil, the 2002 data were not compared to soil MCLs, but the TPH concentrations (highest concentration was 47,000 parts per million for TPH) do exceed the existing regulatory criteria that would likely be used for comparison – the US EPA Region IX Regional Screening Levels.

**Petroleum ASTs (CA AST listings in table above)**

KCC provided recent documents summarizing materials stored in ASTs. This included their recent *Aboveground Petroleum Storage Tank Facility Statement*, which includes a summary of the location, type, and capacity of containers present on the subject site. Petroleum products reported for 2017 include: mineral oil, gear/compressor/lube oils, machine lube oils, diesel fuel, hydraulic oil, and used oils. In their annual California Environmental Reporting System (CERS) report, KCC reported a thorough inventory of hazardous materials and wastes, including those stored in ASTs. Refer to **Section 5.5.1** below for additional summary of the site's ASTs. KCC has a certified SPCC Plan (last updated September 2015), as required by federal regulations for facilities that store more than 1,320 gallons of petroleum in above-ground containers. A copy of the SPCC Plan is included in **Appendix H**. The SPCC Plan also outlines and shows the locations of petroleum storage containers at the subject site.

**Hazardous Waste Generation (CA HAZNET and RCRA LQG listings in table above)**

The subject site is listed is registered with US EPA as a large-quantity generator of hazardous waste. KCC provided representative information on hazardous materials and wastes in a historical (1985) hazardous waste inspection and a recent CERS report, and Antea Group obtained additional information for waste generation

via the California DTSC's Hazardous Waste Tracking System. DTSC lists the primary active waste generator at 2001 E. Orangethorpe Avenue as:

- Kimberly-Clark Worldwide, Inc., RCRA ID #CAD009547373, first entered into the system in July 1982 (active).
  The DTSC waste tracking database summarizes waste generation records back to 1993. Between 1993 and 2017, KCC has manifested between 15 and 55 shipments, generating between 12.1 and 112.4 tons of California-regulated waste per year. Antea Group performed a cursory review of the waste code summary matrix provided by DTSC. This summary included federally, or RCRA-regulated wastes, and is included in **Appendix H**.

- Southern California Edison, RCRA ID #CAC002596895, first entered into the system in October 2005, inactive since April 2006. The DTSC waste tracking database summarizes waste generation records for just two years for this entity – presumably as part of a one-time project. Two shipments were logged in both 2005 and 2006, totaling 3.5 tons. Wastes were California-regulated wastes, including asbestos-containing waste, waste oil/mixed oil, PCBs and PCB-containing materials, and other organic solids.

**Storm Water Discharge (CA NPDES, CA WDS, and CA CIWQS listings in table above)**

KCC provided a copy of their SWPPP and SWMP, both of which were last updated in July 2018. According to these documents and information provided by the EDR Report, the subject site operates under NPDES general permit #CAS000001, and Waste Discharger ID (WDID) #8 30I001214.

Storm water at the facility is discharged through two separate networks – one at the west of the subject site, and one near its center, or just east of the buildings. Discharges are monitored at the west via a manhole beneath Building #12, and near the center at a point near the subject site's north entrance, just south of Kimberly Avenue. Upon leaving the subject site, storm water flows to the north and into a small creek north of Kimberly Avenue and the BNSF rail yard. An internal KCC specialist monitors storm water discharge on a quarterly basis, and sample data are submitted to the state regulatory agency. Regulatory records indicated two violations:

- February 2, 2001 NOV from an inspection, including required improvements to best management practices at exterior storage areas, including pulp storage area and a scrap metal dumpster. KCC responded and outlined their improvements in a letter dated February 15, 2001.
- January 15, 2014 NOV due to missing reporting requirements (quarterly visual authorized discharge observation forms). No follow-up information was available in the regulatory file.

Refer to the SWPPP and SWMP documents in **Appendix H** for additional information.

### 4.3.5 Adjacent and Surrounding Area Sites

The EDR Report identified numerous environmental listings within the approximate minimum search distances from the subject property. Many sites of potential environmental interest were identified adjacent to and in the immediate area surrounding the subject site. Listings that indicate the mere presence of hazardous materials/wastes or petroleum products at a facility, absent visual evidence or regulatory enforcement actions, do not present a material threat or indicate that a release to the environment has or is likely to occur. Therefore, except as noted below, listed sites or database listings are not expected to be of significant environmental concern to the subject property. Others that may not be specifically called out below, may be of environmental concern, but have been addressed in discussion of the **Orange County North Basin** – a proposed NPL/Superfund site discussed in the paragraphs below.

Groundwater flow direction in the vicinity of the subject property is predominantly west and southwest, following surface topography and surface water flow toward the Pacific Ocean, with the shallow groundwater aquifer averaging a depth of approximately 100 feet below the ground surface. This information was reported as part of the Orange County North Basin assessments.

***Orange County North Basin (OCNB) Proposed NPL/Superfund Site***

As a result of documented chlorinated solvent contamination, including that by trichloroethylene (TCE) and tetrachloroethylene (PCE), and 1,1-dichloroethylene (1,1-DCE) US EPA, in concurrence with the California Environmental Protection Agency, have proposed placing the approximate 5-square-mile affected area and suspected contaminant source sites on the National Priority List (NPL). Proposed on January 18, 2018, addition to the NPL is nearly complete as of the date of this report, with a public comment period ending on September 12, 2018.

US EPA has summarized the proposed NPL site and made many recent and historical documents publicly available through an online information source:

- https://cumulis.epa.gov/supercpad/SiteProfiles/index.cfm?fuseaction=second.Cleanup&id=0900251#bkground

Antea Group has performed a cursory review of the available documents, the most recent of which is a draft *Remedial Investigation / Feasibility Study – Addendum 1*, dated May 2018. This report details contaminants detected to date in both the principal and shallow groundwater aquifers within the “study area” – an approximate 5.4 x 2.5-mile area stretching westward from the cities of Placentia nearly to Buena Park and covering portions of Anaheim and Fullerton, from north to south.

The subject property is in the northeastern quadrant of the study area and is proximal to the southern boundary of a groundwater contaminant plume identified to have contaminants at concentrations between 1 and 10-times the allowable maximum contaminant levels (MCLs) in the shallow aquifer, and greater than 10-times the MCLs in the principal aquifer. A City of Fullerton water well labeled "F-KIM-2" on the northern boundary of the subject property has been assessed as part of the NPL studies. That well marks the southern boundary of a plume identified as having contaminant concentrations of between 5 and 10-times the MCLs, and almost the entire subject property has been interpolated within a plume in the principal aquifer where contaminants are between 1 and 5-times the MCLs (**Figure 2**).

Multiple sources/sites of contamination have been identified as likely contributors to the OCNB contaminant plume. This includes several sites that have already been or will be under investigation and/or remediation directives by California state or local agencies. Antea Group was unable to find any direct link to the subject property as a contributing party to the OCNB site, or as a potentially responsible party (PRP) that may be required to help fund investigation and cleanup of the OCNB plumes. Antea Group's interviews with site contacts revealed that past environmental testing was believed to have occurred on the subject site by a third-party consultant, for the sole purpose of evaluating whether or not KCC should be considered a PRP.

Based on the subject property's location within the contaminant plume of the OCNB site, Antea Group has considered this a Recognized Environmental Condition as outlined below in **Section 9.1**.

***Nearby and Upgradient Sites with Potential Environmental Impacts***

Given the westerly groundwater flow direction and documentation of the OCNB NPL contamination at and downgradient of the subject property, Antea Group has evaluated only those sites listed in the EDR Report as located adjacent to or hydraulically upgradient of the subject property for their potential to impact the subject property. Also, based on the large number of adjacent to or upgradient listings, only those listings with the highest likelihood to be of environmental concern have been summarized below (e.g., USTs, LUST, AST, CA FID UST, SWEEPS UST, HAZNET, HIST CORTESE, HIST UST).

Refer to the EDR Report in **Appendix I** for a complete listing of sites and database listings within the ASTM search radii.

| Facility/Site Name | Address (proximity to subject site) | Pertinent Database Listing(s) | Comments | Additional File Review? |
|---|---|---|---|---|
| Coast Roof Co., Inc. | 2301 E. Orangethorpe Ave.<br>(Adjacent, to south) | AST, UST, CA FID UST | Limited info available, except listing for one 10,000-gal. leaded fuel UST and a 1,320-gallon AST. | Yes |
| Thrifty Oil #303 / Arco 9677;<br>Arco 42122;<br>P&M Service Station #947 | 2351 Orangethorpe Ave.<br>(Adjacent, to southeast) | LUST, HAZNET, SWEEPS UST, CA FID UST, UST | Case No. 083002663T; Gasoline release to soil only. Leak discovered in 1997 and No Further Action granted in April 2012.<br><br>The LUST Case indicates there are four tanks located at the site (one 10,000-gallon and three 12,000-gallon USTs) consisting of diesel and gasoline. | Yes |
| Winonics Inc. DBA Bench 2 Bench;<br>Winonics Electro Circuits Inc. | 1257 S State College Blvd.<br>(Adjacent, to east-southeast) | UST, SWEEPS UST, LUST, CA FID UST, EMI, ENVIROSTOR, TRIS, ORANGE CO. INDUSTRIAL SITE, CPS-SLIC | SWEEPS UST database indicates there may have been one 500-gallon fuel UST and one 2,000-gallon waste UST at this facility in 1992.<br>Case No. 9OUT003 for potential contamination of lead, copper, nickel, and chromium to soil. The case was opened in December 1989 during tank closure activities; closure was obtained on February 5, 1990. | Yes |
| Park Master Products Inc. | 2418 Cypress Way<br>(East of subject property and S. State College Blvd.) | SWEEPS UST, CA FID UST, HIST UST | Limited info available; this facility has historically had a 1,000-gallon unleaded UST | No – based on proximity and no documentation of environmental release(s) |
| Chevron USA | 1803 E. Orangethorpe Ave.<br><br>(After review of the No Further Action Letter on GeoTracker, this facility appears to have been located at 1803 W. Orangethorpe Ave, approximately 3.5 miles west of the subject property) | LUST, HIST CORTESE | Case No. 083000098T; Gasoline release, media affected unknown. Case has been closed since October 1, 1986. | No – based on review of address discrepancy discussed herein. |
| Alcoa Global Fasteners, Inc. | 800 S. State College Blvd.<br>(Northeast of subject property) | AST, HIST UST, EMI, ENVIROSTOR, WDS, ORANGE CO. INDUSTRIAL SITE, HAZNET | This facility is listed on the AST database as having 22,000 gallons of an unknown product contained in aboveground storage tanks (CERS ID 10153205). | No – based on sensitivity of files reported by agency, and availability of information for the Orange County North Basin proposed NPL site |

| Facility/Site Name | Address (proximity to subject site) | Pertinent Database Listing(s) | Comments | Additional File Review? |
|---|---|---|---|---|
| | | | This facility is listed on the HIST UST database for having two tanks – one containing diesel that was installed in 1978 and the second tank containing waste oil that was installed in 1962. No other information is available.<br><br>This facility was listed on the Orange Co. Industrial Site database for PCE (Case #97IC009), however the case is shown as closed as of 6/13/2005. | |
| Orange County North Basin | 1012 E. Elm Avenue | PROPOSED NPL, SEMS | Proposed NPL site including large areas of Fullerton and Anaheim, CA | Yes – see section preceding this table |

Antea Group performed a detailed review of information for the selected facilities listed above using the GeoTracker database, pertinent information from which is included in **Appendix H**.

*Coast Roof Co., Inc.:* This facility does not appear on the GeoTracker or ENVIROSTOR databases. Based on this site's proximity to the subject property, additional information was requested from local regulatory oversight agencies. Files received included UST records from the City of Fullerton File Department. According to those records, there have been two generations of USTs at this site. Those tanks were located immediately south of the subject property's south trailer parking lot (**Figure 3**). Available records confirm that all USTs have been removed from this site, and there is no indication that a petroleum release occurred from the USTs.

*Thrifty Oil / Arco 9677; Arco 42122; P&M Service Station #947*: According to GeoTracker, subsurface investigations at this facility in May and September 1997 indicated elevated concentrations of total petroleum hydrocarbons as gasoline in soil near the USTs and dispenser islands. Remedial investigative activities are reported to have included additional soil boring/drilling and soil vapor extraction testing. In April 2010, City of Fullerton Fire Department requested a confirmation soil boring be advanced at the site to evaluate the effectiveness of soil vapor extraction activities and determine applicability for case closure. A confirmation soil boring was advanced in September 2010 and samples were submitted for laboratory analysis up to 90 feet below ground surface (bgs). All contaminants of concern were reported at concentrations less than the laboratory's detection limit, with the exception of ethylbenzene at 85 feet bgs (8.9 micrograms per kilogram). No Further Action was granted for this case on April 24, 2012 (**Appendix H**). Based on the current regulatory status and the separation of this site from the subject site by another property, it is unlikely that any contaminant migration has impacted the subject site from this past documented petroleum release incident.

*Winonics Inc. DBA Bench 2 Bench; Winonics Electro Circuits Inc*.: According to GeoTracker, two case files were associated with this facility: SLT8R2714078 and T0605923655. This facility's environmental case has been closed since February 5, 1990; the No Further Action Letter is included in **Appendix H**. No additional details were available on GeoTracker.
According to the DTSC ENVIROSTOR database, a "Phase I Inspection" was conducted at this facility in February 2008, followed by the regulator's determination that no further action or assessment was warranted. This information falls under the site's listing as having a Tiered-permit on-site hazardous waste treatment system.

Numerous other environmentally regulated, non-adjacent but nearby sites (not described in tables above) were identified by EDR as being located within one mile from the subject property, including several sites documented as having likely had a release of petroleum or hazardous substances. Due to the distance, direction, and/or regulatory status of the other identified properties, the remaining identified sites do not appear to represent a significant threat for environmental soil or soil vapor contamination at or in the immediate vicinity of the subject property, but may be indicative of an overall degraded groundwater condition in this area (as is suggested by the proposed OCNB site discussed above).

## 5.0 SITE RECONNAISSANCE

### 5.1 Methodology

The site reconnaissance was planned by an Antea Group Environmental Professional and performed by personnel possessing sufficient training and experience necessary to conduct the site reconnaissance and having the ability to identify issues relevant to RECs in connection with the subject property.

The site reconnaissance consisted of visual and/or physical observations of the subject property and facilities and improvements on the subject property. Field personnel viewed adjoining properties from the subject property or publicly accessible vantage points. The surrounding area was visually observed during mobilization to and from the subject property for the site reconnaissance to the extent that current uses of the properties were visually observable.

Information contained in the following tables is based on a visual reconnaissance performed as set forth below, interviews, and other references presented in the following subsections. **Figure 1** depicts the subject property location on a recent topographic map, and **Figure 2** depicts the subject property layout and its immediate surroundings. **Figure 3** shows details within the subject property building.
Representative photographs of the subject property are provided in **Appendix A**.

### 5.2 Limiting Conditions

Limiting conditions are generally considered to be physical and/or User or site contact-imposed restraints encountered during the site reconnaissance. Physical limiting conditions may include obstructions such as buildings, pavement, bodies of water, parked vehicles or equipment, snow, overgrown vegetation, or other conditions that prevent field personnel from viewing the entire site. User or site contact-imposed limiting conditions may include incomplete access to all interior portions of a building or incomplete known records or helpful documents for review during completion of the Phase I ESA. Depending on their impact to the results of the reconnaissance or Phase I ESA, the Environmental Professional may or may not determine that limiting conditions are data gaps or data failures (see **Section 8.0**, below).

Antea Group encountered the following limiting conditions during the site reconnaissance:

- The subject property consists of 65+ acres and while Antea Group personnel attempted to walk the entire property and observe site conditions and operations, coverage of the entire property (such as the orchards) was not feasible within the scope of work.
- Much of the building's interior floor surfaces were covered by large equipment, pulp inventory, packaged product, and other stored items or materials on shelving racks, obscuring visibility of flooring and large portions of the buildings.
- Antea Group could not certainly determine the end point or discharge of most floor drains in the building, KCC personnel were generally unaware of their past use.
- Antea Group personnel did not have access to the leased truck parking area at the northeast corner of the subject property.
- Antea Group did not have access to the interior fenced in portion of the Sub-station to observe equipment.
- Antea Group did not have access to the fire pump room in the northwestern corner of the subject property.
- Antea Group did not have access to the many motor control panel and electrical closets throughout the facility.
- KCC escorts did not have access inside Building #22, therefore Antea Group was only able to observe the interior of the warehouse from outside of the fenced area.
- Antea Group was unable to access the Air Pollution Control Equipment room within Building #21, near the western end of the facility.

## 5.3 General Site Setting

| | |
|---|---|
| **SITE RECONNAISSANCE** | |
| **Field Personnel** | Antea Group – Dan Keltner, Sara Sichley, and Atir Chak |
| **Reconnaissance Date** | Monday, August 27, 2018 through Wednesday, August 29, 2018 |
| **Weather** | Approximately 80° F, sunny |
| **Escort** | Grace Madden, Environmental Coordinator; Flynn Tiffany, Engineering Team Leader |
| **SITE UTILITIES** | |
| **Potable Water Supply** | Municipal water supply connection via City of Fullerton |
| **Sewage Disposal System** | Municipal sewage disposal |
| **Waste Water Disposal System** | All wastewater generated from the subject property is discharged to the municipal disposal system |
| **Storm Water Disposal System** | Municipal storm drain system |
| **Building Heating/Cooling** | Electric and natural gas heating units; historically the subject property used fuel oil for hoods. A Co Gen was installed at the subject property in 2001 – 2002 for natural gas. |
| **Solid Waste** | Dumpsters for recyclables, metals, and electronic waste |

## 5.4 Subject Property Observations

Information contained in the following table is based on visual observations during the site reconnaissance, interviews, and other references presented in **Section 5.5**. Where available, representative photographs of the features are referenced in parentheses.

| | |
|---|---|
| **ABOVEGROUND CHEMICAL OR WASTE STORAGE OR DISTRIBUTION SYSTEMS** | |
| **Miscellaneous small volumes < 5 gallons** | Yes; numerous small containers of paints, sealants, lubricants, gasoline, oils, and other household and industrial materials stored in flammable cabinets throughout the warehouses at the subject property |
| **Evidence of aboveground storage tanks (ASTs)** | Yes; please refer to **Section 5.5.1** for more information |
| **Drums, barrels, and/or containers > 5 gallons** | Yes; drums and totes of bleach, polymers, lubricant and motor oils, mineral oils, and oily containing debris |
| **Solid waste or scrap dumpster** | Yes; dumpsters located in the West Yard and at North Gate |
| **Chemical/petroleum product or waste piping** | Yes; piping overhead for manufacturing process (to include polymers and bleach) as well as natural gas piping |
| **UNDERGROUND CHEMICAL OR WASTE STORAGE OR DISTRIBUTION SYSTEMS** | |
| **Evidence of USTs or ancillary UST equipment** | No |
| **Records of former USTs** | Yes; please refer to **Sections 4.3.4 and 5.5.2** for more information |

| ABOVEGROUND CHEMICAL OR WASTE STORAGE OR DISTRIBUTION SYSTEMS | |
|---|---|
| **Sumps, oil/water separators, cisterns, catch basins, and/or dry wells** | Yes; storm drains observed in the truck loading west dock and adjacent to Building 6. Storm drains reportedly flow to one of two discharge points at the subject property; refer to the SWPPP in **Appendix C** for more details.<br>There is one dry well located at the southwestern boundary of the leased parking and orchard.<br>Site contacts indicated there is a sump pump that drains water from the roof to a holding tank. Observed a sump drain in the UCon room. |
| **Septic tanks and/or leach fields** | No |
| **Pipeline markers** | No |
| **ELECTRICAL TRANSFORMERS/PCBS** | |
| **Pad- or pole-mounted transformers** | So-Cal Edison operates a sub-station east of Building 1 at the subject property |
| **Records of former hydraulic equipment** | Yes; loading docks |
| **Existing hydraulic equipment** | Yes; loading docks; hydraulic palletizers and unitizers, hoists to lift batteries |
| **EVIDENCE OF RELEASES OR POTENTIAL RELEASES** | |
| **Stressed vegetation** | No, except for stressed trees and ground vegetation in the orchard areas, which was reportedly the result of drought conditions. |
| **Stained soil** | No |
| **Stained or corroded pavement or similar surfaces** | Yes; de minimis staining observed in several areas throughout the subject property, including but not limited to the maintenance shop, battery storage area, West Yard, adjacent to the railroad spur, and surrounding the scale house. |
| **Leachate and/or waste seeps** | No |
| **Dumping or disposal areas** | No |
| **Construction/demolition debris and/or dumped fill dirt** | Yes; Antea Group observed a pile of gravel in the orchard adjacent to the truck parking and Building 22. The gravel was reportedly used for the Co Gen installation |
| **Surface water discoloration, odor, sheen, and/or free-floating product** | No |
| **Strong, pungent, or noxious odors** | No |
| **OTHER NOTABLE SUBJECT PROPERTY FEATURES** | |
| **Surface water control structures** | Yes; there is a storm drain culvert running south to north and located east of the Co-Gen Plant and the scale house |
| **Quarries or pits** | No |
| **Ponds or lagoons** | No |
| **Wells** | Yes; two water production wells operated by City of Fullerton are present on the subject property |
| **Floor drains** | Yes; several floor drains located within the interior buildings |
| **Roof drains** | Yes; roof drains are tied into the floor drains |

### 5.5 Subject Property Operations

The KCC Fullerton Mill is a manufacturer of paper products, including mostly facial and bath tissue, and paper towels/wipes. Past operations once included manufacturing diapers, tarry towels, tinted/printed bath tissues,

and feminine products. Primary operations include manufacturing of tissue (using primarily a pulp and water mixture), converting into tissue sheets and rolls, packaging, warehousing, and shipping. The primary raw materials used in the tissue manufacturing process are water, surfactants, mineral oils, adhesives, starch, sodium hypochlorite (bleach), various polymers, and paper/plastic for packaging. Numerous other lubricants, oils, and other materials are used throughout the facility to keep the entire manufacturing process running smoothly.

The facility currently operates the following manufacturing lines: two tissue manufacturing lines, three bath tissue lines, and two multi-folder lines for facial tissues. The most complex of the manufacturing processes is the tissue manufacturing, which involves the large-scale mixing of raw pulp, water, and other additives (e.g., starch, surfactants), spraying onto large roller belts, and drying until the liquid pulp mixture can be rolled onto industrial "hard rolls" of bulk tissue paper. The hard rolls are then stored in warehouse space until processed by the various tissue machines. The tissue manufacturing process involves the use of large quantities of water, which is derived from a municipal source, but captured via a series of floor drains, trenches, and sumps, before being re-routed into the facility's water treatment system where the pulp is separated for disposal or reuse, and all water is re-used in combination with the fresh intake water.

As part of the August 2018 site reconnaissance, KCC personnel led Antea Group through the entire facility's many manufacturing, warehouse, and other buildings. Antea Group has collected information from that visit and from KCC-provided documents to complete the following building-by-building summary, each of which includes a very basic outline of operations and notable features or environmental items of interest.

**Building #1 – Tissue Manufacturing and Machine Shop**

- Building underlain by basement – multi-story manufacturing process for two tissue machines.
- Floor drains and sumps in basement, leading to water treatment/recycling system.
- Two large Yankee Dryers.
- Machine shop and equipment, including milling machines, lathes, drill presses, grinders, metal presses, etc.
- Diesel-fueled emergency backup generator.

**Building #2 – Bundle Packaging and Warehouse**

- Chiller #2 (now unused)

- Former Online Printer Room (used for printing through 1999); includes floor drains and trench drain; currently receives roof drain discharge. Former use of water-based inks used in tissue coloration processes.

**Building #3 – Warehouse and Unitizers**

- Several unitizers and case conveyors
- Forklift battery charging area (50+ large lead-acid batteries and associated charging equipment)
- Small maintenance area and machine shop

**Building #4 – Boiler House**

- 2 natural-gas fired boilers, overlying basement

**Building #5 – Water Plant Filtration**

- Equipment and tanks for water filtration and treatment systems
- Several totes of water treatment chemicals

**Building #6 - Warehouse**

- Several former loading doors (now unused) along north side of the building – once located next to a rail spur
- Rail dock (unused since c. 1970s)
- Truck loading dock – 18 loading doors (#6 through #23)

**Building #7 – Warehouse**

- No items of interest

**Building #8 – Tissue Converting Lines (B-4 and T-4) and Ultra Converting Room**

- Former ink mixing and processing area, including trench drain that discharges to the sanitary sewer. Area unused since c. 1998.
- Warehouse storage
- Ultra Converting Room – for application of lotions and waxes to paper rolls. Process includes use of trench drains and sumps for waste water collection and discharge to sanitary sewer.
- Baghouse for dust collection/air filtration systems

**Building #9 – Bath Tissue Lines (B-1 and B-2)**

- Former use included diaper manufacturing lines

- Small maintenance shop

**Building #10 – Tractor (Forklift) Shop and Hard Roll Storage**

- Fork lift repair shop and staging area
- In-ground pit (walk-in via stairs) for forklift repair
- Welding room
- Used and new oil storage closet, including several 30-gallon drums of oil on secondary containment

**Building #11 – Pulp Storage Warehouse and ICON Tank Room**

- Truck loading dock at north side
- Rail dock along east side
- ICON Tank Room – including two 8,200-gallon polymer ASTs and one 8,000-gallon water AST
- Floor drains/grates that drain to basement and ultimately into on-site water treatment system

**Building #12 – Warehouse (Hard Roll Storage and Finished Products)**

- Unused/defunct equipment stored along portions of perimeter of this warehouse. Observed de minimis oily staining beneath one piece of equipment.

**Building #13 –Warehouse (Finished Products)**

- Distribution Office and restrooms
- East loading dock – five truck docks

**Building #14 – Outbuilding (Storage Only)**

- Unused Yankee Dryer is stored in this building

**Building #15 – West Pump House**

- Dedicated fire suppression pump and equipment, just outside northwestern corner of Building #12

**Building #18 – Propane Storage Shed**

- Propane storage

**Building #19 – Warehouse & Chiller Room**

- Chiller unit, including R410A refrigerant, and two stainless steel totes of chiller treatment chemicals
- Trench floor drain in chiller room
- West Yard loading docks – 11 truck loading doors

**Building #20 – Warehouse (Hard Roll Storage)**

- Sanitary sewer access manhole
- Storm sewer access – west facility outfall and sample point

**Building #21 – Multi-folder Lines (MF-1, MF-2)**

- Maintenance shop area for multi-folder lines and equipment
- Packaging lines
- Air Pollution Control Equipment (APCE) room (no access) – large drum-roller dust collection system
- 2nd and 3rd-floor offices

**Building #22 – Exterior Storage Building**

- Storage racks and unused equipment (no access provided as part of this assessment)

**Building #23 – West Gate Guard Shack**

- No contents – small guard shack near Acacia Street entrance

**Building #25 – Chemical and Waste Storage**

- Outbuilding designed for chemical and waste storage
- Includes trench drainage and sump collection as spill containment
- Staging area for 90-day hazardous waste pails and drums

**Building #26 – North Gate Guard Shack**

- No contents – small guard shack near Acacia Street entrance and truck scale

**Buildings #27 & 29 – City of Fullerton Water Station**

- Water well pumping station and equipment, owned/maintained by City of Fullerton
- Two large fire suppression water storage tanks

**Building #28 – Training Center**

- Training room located at south end of building

**Building #30 – Café and Patio**

- Kitchen equipment

**Building #31 – Lift Tank Room (inside Building #8)**

- 10,000-gallon AST containing "Formulation 42A" wax/mineral oil mixture
- ~300-gallon tank containing Drakeol® Mineral Oil

**Exterior – Water Treatment Plant**

- Three open-top clarifier tanks
- Totes of water treatment polymers and chemicals
- Sludge press and conveyors
- Effluent tanks
- Subsurface (basement level) piping and equipment

**Exterior – Go-Generation Plan**

- Natural-gas-fired power generation equipment
- Ammonia AST and containment area

**Exterior – Tank Farm**

- Two unused/empty ASTs, and two active ASTs:

  - Unused – Quaker polymer, empty since c. 1998; Fuel oil AST – emptied and cleaned c. 1990s
  - Active – Kymene 920A tank; Bleach tank (stainless steel)
- Tanks overtop concrete containment area and surrounded by earthen berm
- Includes collection sump from adjoining bleach dispensing pad, just west of tank farm

**Exterior – North Gate and East Parking/Storage**

- Waste water outfall and sampling point
- Storm water outfall and observation point
- Truck/trailer parking yard
- Large, unused dirt/gravel lots; some gravel piles observed
- Leased RV/trailer parking lot – leased to Marie Carriere, a transportation company
- Large orange and fruit orchard and irrigation lines

**Exterior – West Yard**

- Empty tote staging area
- Recycling dumpsters – cardboard, poly materials, corrugates, wood, and tissue
- Orange tree orchard and irrigation lines

### 5.5.1 Aboveground Chemical or Waste Storage, Distribution Systems

Refer to the chemical inventory and associated figure in **Appendix C** for a complete list and locations of chemicals stored on the site. This includes several drums and various sizes of totes and aboveground storage tanks of mineral oil, gear/lube oils, compressor oils, diesel fuel, hydraulic oil, and used oils stored throughout the subject property. Chemicals were observed within secondary containment or located within the building's interior walls.

A tank farm containing a tank each of kymene polymer, bleach, and an empty Quaker tank was located east of the CoGen plant (**Figure 3**). Antea Group also observed a large aboveground storage tank in the tank farm that formerly stored fuel oil, but has since been emptied, cleaned, and left in place. Piping from that tank was reportedly cut off between it and the boiler house, so some length of piping may still exist belowground. The tanks within the tank farm were located within a concrete secondary containment, followed by an earthen berm containment.

The Chemical Storage Building (Building #25) contained various totes, drums, and smaller 5 and 30-gallon containers of caustics, acids, oils, and other various products used for their manufacturing process, as well as their 90-day hazardous waste storage. Many of the products within this building were not observed on secondary containment, however the building is designed with a spill containment system that would contain a

release. Totes, drums, and smaller containers were observed in good condition and labels were clear and visible.

There were numerous small containers of paints, sealants, lubricants, oils, aerosol cans, and other household cleaning materials stored in flammable cabinets throughout the facility. Overall, products were labeled clearly and stored within the flammable cabinets appropriately.

Dumpsters are located in the West Yard as well as near the North Gate. No significant staining or evidence of a release or spill of chemicals or petroleum products were observed on or around the dumpsters.

#### 5.5.2 Underground Chemical or Waste Storage & Distribution Systems

KCC has reported seven former USTs at the subject property, including four SRM tanks, one sulfuric acid tank, and two former fuel oil USTs – each installed in 1956 and removed in 1985. All USTs were reportedly located near the Boiler House (Building #4). SRM tanks included an adhesive product that was used in multi-ply paper towel manufacturing, and the fuel oil USTs were used to supply fuel to the boilers for steam heating the manufacturing processes. Petroleum contamination was discovered at the time of the UST removals, and was cleaned up (excavated) to the extent practicable in multiple excavations that occurred at the time of the UST removal in 1985 or 1986, again in 1992, and during construction of the CoGen Plant in 2002.

#### 5.5.3 Electrical Transformers/PCBs

So-Cal Edison operates a sub-station at the subject property and reported to Kimberly-Clark that the sub-station does not contain PCBs. Kimberly-Clark escorts did not have access to the interior of the sub-station, so Antea Group was only able to observe equipment from outside of the fenced area; no staining was observed.

#### 5.5.4 Evidence of Releases or Potential Releases

Although limited, de minimis staining was observed in a several areas of the subject property (to include but not limited to the West Yard, the scale house, the railroad spur, and the battery storage area), no staining that might suggest evidence of a release or potential release to the environment was observed during the site reconnaissance, except at the forklift battery charging station in Building #3, where heavy staining by battery acid residue was observed on concrete flooring throughout much of this area. This condition is mitigated to some extent by the bermed concrete floor surrounding and underlying the charging stations.

### 5.5.5 Other Notable Features

Antea Group observed many floor drains, a few floor trench drains, and evidence of past or filled floor drains or trench drains throughout several areas of the facility. In most cases, site escorts were unaware of the former purpose or use of the older drains, unless obviously being used to collect discharge from an existing feature, such as a roof drain or shop sink. Otherwise, site contacts reported that most of these former drains were not used as part of current operations, although many appeared to still be usable. Site contacts reported several drains are certainly connected to sanitary sewers, and had no information to suggest that any drains, either used or unused, are or have ever NOT been connected to a sanitary sewer.

At two locations within Building #8, site contacts reported floor trench drains were once associated with former ink mixing or storage operations that ceased in the 1990s. These drains discharge to the sanitary sewer. Inks were once used to tint or print patterns on paper products.

At exterior locations, Antea Group observed a few circular patches in asphalt pavement, indicative of possible former drilling locations. At one of these locations, immediately east of Building #25, site contacts believed that soil test borings may have been conducted in that area as part of a prior environmental investigation conducted to evaluate potential sources of a region-wide groundwater contaminant plume (now known as the Orange County North Basin Superfund site). KCC reported that no substantial evidence was found to identify the subject site as a potential source of groundwater contamination. Antea Group has requested, but KCC does not have record of any prior subsurface investigations that may have been conducted on the subject property.

## 5.6 Current Uses of Adjoining Properties and Surrounding Area

The following table summarizes the adjoining property occupants/uses as observed from roads or other publicly accessible areas during Antea Group's recent reconnaissance of the subject property. Adjoining property occupants are shown on **Figure 2**.

| DIRECTION | USE OF SURROUNDING PROPERTIES |
|---|---|
| North | Kimberly Avenue, beyond which is a BNSF Railroad, tributary creek that flows into Carbon Creek, and various commercial and industrial businesses to include but not limited to Rayne Water Conditioning and Corru-Kraft Orora |
| South | To the southeast: Coast Roof Co Inc., Kim's Welding and Iron Works, Eberhardt's Tire Center, Discount Tire Centers, and Arco Service Station.<br>Directly to the South is E. Orangethorpe Avenue, followed by various commercial retailers and industrial facilities to include but not limited to Vista Paint |
| East | S. State College Boulevard, beyond which are a restaurant called The Grill, Benner Metals, Park Master Products Inc., and Future Foam |
| West | Acacia Street, beyond which are various commercial and industrial facilities |

There was no evidence of past or threatened releases of hazardous materials or petroleum products observed (i.e. monitoring wells, bulk tanks without secondary containment, significant staining, etc.) at any of the adjoining properties during the site reconnaissance. Historical uses and releases of hazardous materials and/or petroleum products at adjoining sites are discussed in **Section 4.3.5**.

## 6.0 INTERVIEWS

Interviews were planned by an Antea Group Environmental Professional and performed by personnel possessing sufficient training and experience and having the ability to identify issues relevant to RECs in connection with the property.

Antea Group has included a summary of User Provided information and the User's Questionnaire in **Section 3.3** and included affiliated information in **Appendix C**. Antea Group obtained information from site contacts via an interview process prior and throughout the duration of the two-day site reconnaissance. Questions included a detailed list pertaining to the current and historical property use, storage, or release of hazardous materials and petroleum on the subject property and adjacent properties. Responses to the questions and related information are incorporated throughout the report.

Antea Group interviewed the following individuals in connection with this Phase I ESA:

- *Ms. Grace Madden, KCC's Environmental Coordinator* - Ms. Madden accompanied Antea Group personnel during the site reconnaissance between August 27 and 28, 2018 and assisted in completion of the *Interview with Past and Present Owners and Occupants* form. Ms. Madden has worked for KCC at the subject site since 1980, and has been involved with environmental and compliance projects and permitting for at least the past 20 years.

  Ms. Madden reported that KCC first developed and occupied the subject property in the mid-1950s, and was unaware of any prior occupants or usage of the property, except as a fruit orchard (primarily oranges). Ms. Madden also indicated that the facility is has been used exclusively as a paper mill, including the current manufacturing of paper products such as facial and bathroom tissue, and industrial paper towels/wipes. Past but discontinued product lines have included diapers and feminine products.

  The extensive and long-time operation has included the use of many types of petroleum products and hazardous materials, water-based inks, solvents, and long-time generation of state and US EPA-regulated hazardous wastes. Ms. Madden provided several recent and historical documents pertaining to the use and storage of these materials and wastes at the subject site. Aside from water and paper pulp, the largest quantities of products used historically have included fuel oil (no longer used), and

sodium hypochlorite. The site provided copies of historical reports pertaining to past spills/releases of both fuel oil and sodium hypochlorite.

Ms. Madden was aware of, but had limited information pertaining to the following pending, threatened, or past administrative proceedings relevant to hazardous substances or petroleum products in or on the subject property or on the adjoining properties:

- The KCC facility has been issued "minor" violations by regulatory agencies over time, but KCC has been diligent in closing each out in a timely manner. Ms. Madden is not aware of any current or open regulatory violations related to environmental compliance.
- A proposed "Superfund" site in Fullerton, resulting from a region-wide groundwater contaminant plume, primarily by the solvent PCE. It is believed that testing was conducted on the subject property in the past, but data provided no evidence that the KCC facility was a contributor to the region-wide plume.
- KCC has been named as a potential party in litigation in relation to their past disposal waste at off-site facilities. This is related only to off-site disposal facilities in California and does not have bearing on the subject property itself.

Other pertinent information from Ms. Madden has been disseminated throughout this report.

*Mr. Flynn Tiffany, KCC's Engineering Team Leader* – Mr. Tiffany accompanied Antea Group throughout much of the two-day site reconnaissance, and provided knowledge and manufacturing process explanations to Antea Group throughout the course of this assessment. Mr. Tiffany has been employed at the KCC Fullerton for the past two years. Pertinent information from Mr. Tiffany has been disseminated throughout this report.

## 7.0 NON-ASTM STANDARD SCOPE CONSIDERATIONS

The User did not request any of the traditional non-scope considerations, listed under Section 13.1.5 of ASTM E1527-13, to be completed as part of this Phase I ESA. Non-scope considerations include, but are not limited to: asbestos-containing building materials, radon, lead-based paint, lead in drinking water, wetlands, cultural and historic resources, industrial hygiene, health and safety, ecological resources, endangered species, biological agents and mold, regulatory compliance, and indoor air quality unrelated to releases of hazardous substances or petroleum products into the environment.

## 8.0 DATA GAPS

The ASTM E1527-13 standard defines the term data gap as "a lack of or inability to obtain information required by this practice despite good faith efforts by the environmental professional to gather such information." The same standard defines data failure as "a failure to achieve the historical research objectives even after reviewing the standard historical resources that are reasonably ascertainable and likely to be useful."

Antea Group identified the following data gaps or data failures during the completion of this Phase I ESA, none of which would be expected to affect the overall findings of this report, if additional information was to become available:

- The absence of requested city directory listings for off-site properties along S. Acacia Street, Kimberly Avenue, and S. State College Boulevard is a data failure. Further, listings for properties along Orangethorpe Avenue, including the subject site, were available only up to 1995. Although this limits the knowledge of historical use of adjoining properties, Antea Group has obtained information about potential environmental concerns on adjoining properties through other sources, such as the EDR Report and state regulatory databases.

Antea Group identified the following more significant data gaps or data failures during the completion of this Phase I ESA, which would be more likely to affect the overall findings of this report, if additional information was to become available:

- The California Department of Toxic Substances Control reported in their September 26, 2018 letter that files are available in their regional office, but has not responded to Antea Group's requests on the type of information available, and protocol to obtain copies of or review the files. Antea Group left voicemails with the DTSC regional office twice in October 2018.
- Antea Group observed numerous unused floor drains and floor trench drains throughout the facility. Site contacts were unaware of the former purpose of the drains, and could not definitively determine the connections or discharge from these drains.
- Site contacts referred to subsurface environmental testing conducted at the subject property in about the mid-2000s as part of region-wide site evaluations to identify suspected sources of the Orange County North Coast chlorinated solvent plume in groundwater. Copies of a reports or testing locations and records from the subject property were not available for review as part of this assessment.
- Regulatory waste records include documentation of the disposal of various oils, metals, and solvents, including PCE wastes. Historical waste handling and generation records are limited, and Antea Group was unable to confirm historical hazardous waste accumulation or satellite locations within the facility.

## 9.0 FINDINGS

Antea Group has performed a Phase I ESA in conformance with the scope and limitations of ASTM Practice E1527-13 of the property located at 2001 E. Orangethorpe Avenue in Fullerton, California. Antea Group has considered releases of hazardous substances and petroleum to the soil, groundwater, surface water, and soil vapor in, on, or at the subject property and migration to the subject property in solid or liquid form at the surface or in the subsurface or as vapor in the subsurface. The review and interpretation of information upon which these findings are based was performed by an Environmental Professional. Any exceptions to or deletions from this practice are described in **Sections 8.0** and **11.0** of this report.

### 9.1 Recognized Environmental Conditions

The ASTM E 1527-13 standard defines the term recognized environmental condition as "the presence or likely presence of any hazardous substances or petroleum products in, on, or at a property: (1) due to release to the environment; (2) under conditions indicative of a release to the environment; or (3) under conditions that pose a material threat of a future release to the environment." This assessment has revealed the following evidence of RECs in connection with the subject property:

- Via region-wide municipal and private well sampling, regulatory agencies have documented chlorinated solvent contamination in both the principal and shallow groundwater aquifers, including beneath a large portion of the subject site. According to recent data/figures from investigations completed as part of the proposed Orange County North Basin Superfund site, an on-site City of Fullerton water well is impacted. Beneath the site, contaminants are reported to be at concentrations between one and five times the US EPA Region IX Maximum Contaminant levels (MCLs) in both the shallow and principal aquifers, and as high as 5 to 10-times the MCLs in the portion of the principal aquifer beneath the northernmost extent of the site and beneath Kimberly Avenue.

### 9.2 Controlled Recognized Environmental Conditions

The ASTM E1527-13 standard defines the term controlled recognized environmental condition as "a recognized environmental condition resulting from a past release of hazardous substances or petroleum products that has been addressed to the satisfaction of the applicable regulatory authority (for example, as evidenced by the issuance of a no further action letter or equivalent, or meeting a risk-based criteria established by regulatory authority), with hazardous substances or petroleum products allowed to remain in place subject to the implementation of required controls (for example, property use restrictions, activity and use limitations, institutional controls, or engineering controls)." This assessment has revealed the following evidence of CRECs in connection with the subject property:

- This subject property is associated with a Leaking Underground Storage Tank (LUST) incident (Case No. 083001032T) for a fuel oil release reported in May 1986 following the removal of two diesel/fuel oil USTs. The site received official regulatory closure of this incident in a letter from the City of Fullerton Fire Department in a letter dated January 22, 1992. The letter stated that it did not relieve the responsible party of responsibility to "*clean up additional, existing or previously unidentified conditions at the site which cause or threaten to cause pollution…"* and that present or proposed changes to use of the site may require additional site characterization, with it being "*the property owner's responsibility to notify this Department of any changes in report content, further contamination findings, or site usage*."

  The January 1992 closure letter was followed by KCC's reporting of limited remediation and subsurface testing results from February 1992 where low levels of petroleum contaminants were reported in soil, and approximately three cubic yards of impacted materials were left in place due to their inaccessibility beneath a high-pressure fire-suppression pipe.

  As part of a construction project in 2002, KCC's contractors encountered and excavated an additional 2,000+ tons of petroleum contaminated soils from the vicinity of the former USTs. At this time, it was discovered that limited petroleum impacts must remain in soils beneath the boiler house and in groundwater at depths of approximately 30 feet, due to inaccessibility. The reported concentrations in groundwater were less than the regional MCLs established at that time, but soil contaminant concentrations for total petroleum hydrocarbons exceed the current regulatory criteria for exposure to soils in an industrial setting.

  Due to the regulatory closure of this LUST release incident with the information that some levels of petroleum contamination remain in soils at locations beneath paved surfaces and/or buildings, this represents an CREC in connection with the subject property.

### 9.3 Historical Recognized Environmental Conditions

The ASTM E 1527-13 standard defines the term historical recognized environmental condition as "a past release of any hazardous substances or petroleum products that has occurred in connection with the property and has been addressed to the satisfaction of the applicable regulatory authority or meeting unrestricted use criteria established by a regulatory authority, without subjecting the property to any required controls." This assessment has revealed the following evidence of HRECs in connection with the subject property:

- Several sodium hypochlorite (bleach) spills were documented to have occurred in the facility's tank farm area between 1990 and 1997. Soil testing data from 1997 and 1998 confirmed low levels of sodium hypochlorite in soils to depths up to 40 feet below grade, the maximum depth explored. There

are currently no regulatory comparison standards or cleanup levels for sodium hypochlorite, but the County of Orange Division of Environmental Health calculated potential chlorine exposure due to sodium hypochlorite in soils to be comparable to that of a swimming pool. In a letter dated April 21, 1998, the agency confirmed completion of remedial investigation related to the bleach spills.

To mitigate the potential for future spills, the bleach tank and dispensing areas are now protected by concrete berms. An automobile-semi accident on Kimberly Avenue, near the site's north entrance occurred in November in 2003 and resulted in the semi releasing diesel fuel to the ground surface and storm drains. The release was mitigated by a contractor's same-day response and cleanup of diesel fuel using absorbents and pumping of fuel/water mixture. The cleanup effort was overseen by the local regulatory authority, which did not require any further action be taken by the party responsible for the spill. Based on the reported cleanup with regulatory oversight, Antea Group considers this a Historical Recognized Environmental Condition.

### 9.4 De Minimis Conditions

The ASTM E1527-13 standard defines the term de minimis condition as a condition that "generally does not present a threat to human health or the environment and that generally would not be the subject of an enforcement action if brought to the attention of appropriate governmental agencies." This assessment has revealed the following evidence of de minimis conditions in connection with the subject property:

- Antea Group observed paper dust throughout much of the manufacturing areas within the facility, and paper debris, pulp, and water on flooring in certain warehouse and manufacturing areas.
- Antea Group observed limited areas of oily staining on flooring throughout certain areas of the facility, including in the machine shop and forklift repair shop.

### 9.5 Noteworthy Items

The following item did not meet the definition of an REC, HREC, CREC, or de minimis condition in accordance with the ASTM E1527-13 standard; however, the item was deemed a noteworthy historical condition of the subject property and surrounding area:

- The subject property and surrounding area included historical agricultural usage as fruit and/or nut orchards, likely back to the late-1800s. Past standard farming practice included the application of pesticides (including organochlorine pesticides) until they were banned in the 1970s and 1980s. However, many pesticides can persist in the subsurface long after application. Antea Group is unaware of any documentation or knowledge of residual pesticide conditions at this site or in the surrounding area.

- Immediately south of the subject property is a site (Coast Roof Co., 2301 E. Orangethorpe Avenue) that has stored petroleum in two generations of underground storage tanks, the nearest of which were located within approximately 30 feet of the subject property line. Regulatory records indicate all USTs have been removed, and there is no indication that regulators required any formal environmental investigations following the tank removals. However, regulatory files did not include any environmental testing results from the time of the tank removal project, so it is unknown if there were environmental impacts beneath those former underground storage tanks south of the subject property.

## 10.0 CONCLUSIONS

Antea Group has performed a Phase I ESA in conformance with the scope and limitations of ASTM Practice E1527-13 of the subject property located at 2001 E. Orangethorpe Avenue, Fullerton, California (subject property). Any exceptions to, or deletions from, this practice are described in **Sections 8.0** and **11.0** of this report.

This assessment has revealed a REC, a CREC, and two HRECs in connection with the subject property, as well as several Data Gaps, where if additional information was to become available, such information could affect the findings of this report. Refer to **Section 8.0** for a list of Data Gaps and **Sections 9.1, 9.2, and 9.3** for RECs, CRECs, and HRECs, respectively.

## 11.0 DEVIATIONS

ASTM E1527-13 requires that all additions to or deletions and deviations from this practice (if any) be listed individually and in detail, including client-imposed constraints, and that all additions should be listed. Antea Group adhered to the Principles outlined in Section 4.5 of the ASTM E1527-13 standard practice, and collected and reviewed reasonably ascertainable information that was publicly available, practically reviewable and obtainable from its source within reasonable time and cost constraints. Antea Group's site reconnaissance included observation of areas that were accessible by foot, as well as a drive-by observance of adjacent and surrounding properties. Antea Group attempted to view as much of the subject property as possible in order to make appropriate conclusions regarding RECs.

There were no deviations outside of the variability allowed within the ASTM E1527-13 standard, and no significant conditions were encountered that limited the ability to complete the scope of services during the performance of this Phase I ESA.

## 12.0 LIMITATIONS OF ENVIRONMENTAL ASSESSMENTS

The findings and conclusions contained in this report represent Antea Group's professional opinions based upon the currently available information and are arrived at in accordance with currently accepted professional standards. This report is based upon a specific scope of work requested by the User. The contract between Antea Group and its client outlines the scope of work, and only those tasks specifically authorized by that contract or outlined in this report were performed. This report is intended only for the use of Antea Group's client and anyone else specifically identified in writing by Antea Group as a User of this report. Antea Group cannot and will not be liable for unauthorized reliance by any other third party. Other than as contained in this paragraph, Antea Group makes no express or implied warranty as to the contents of this report.

### 12.1 Subject Property Data Review

Antea Group obtained, reviewed, and evaluated information available from the User(s), property owner, designated representative(s), site contact, and local, state, or federal public entities to the extent practicable within the confines of the project scope and budget. Antea Group's conclusions, opinions, and recommendations are based, in part, on this information. Antea Group's services do not include the verification of the accuracy or authenticity of this information.

### 12.2 Site Reconnaissance

Antea Group performed a reconnaissance of the subject property to document current conditions. The reconnaissance was performed in accordance with the project scope and within the project time and budget allotted. Antea Group focused on property areas deemed more likely to exhibit RECs while other areas may have received limited attention.

### 12.3 Interpretation of Results – Final Report

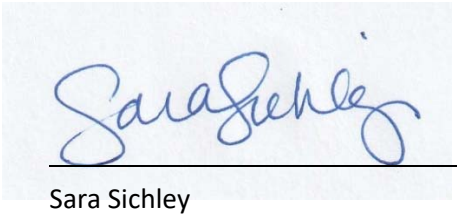
Antea Group's report is based upon the information provided to Antea Group and Antea Group's observations made during the reconnaissance of the subject property. Given the inherent limitations of environmental assessment work, Antea Group does not guarantee that the site is free of hazardous or potentially hazardous materials or conditions, or that latent or undiscovered conditions will not become evident in the future. Antea Group's report is prepared in accordance with the proposal and the standard terms and conditions presented in the Service Agreement between Antea Group and its client, and no other warranties, representations, or certifications are made.

## 13.0 QUALIFICATION(S) AND SIGNATURE(S) OF ENVIRONMENTAL PROFESSIONAL(S)

Professional profiles of project team members are presented in **Appendix J**.

I declare that, to the best of my professional knowledge and belief, I meet the definition of Environmental Professional as defined in section 312.10 of 40 Code of Federal Regulations (CFR) 312. I have the specific qualifications based on education, training and experience to assess a property of the nature, history, and setting of the subject property. I have developed and performed the all appropriate inquires in conformance with the standards and practices set forth in 40 CFR Part 312.

**Site Assessor / Report Writer**



Sara Sichley
Project Manager

**Site Assessor / Lead Report Writer**



Dan Keltner
Senior Project Manager

**Senior Report Reviewer**



Matthew Bell
Senior Consultant

## 14.0 REFERENCES

### 14.1 Published Sources

- American Society for Testing and Materials, 2013. E1527-13 *Standard Practice for Environmental Site Assessments: Phase I Environmental Site Assessment Process*. West Conshohocken, PA.

### 14.2 Internet Sources

- California Regional Water Quality Control Board GeoTracker. http://www.geotracker.waterboards.ca.gov. Accessed August – September 2018.
- Orange County GIS. https://www.ocgis.com/ocpw/LandRecords/. Accessed August-September 2018.
- California State Water Resources Control Board. Storm water Multiple Application and Reporting Tracking System. https://smarts.waterboards.ca.gov/smarts/faces/SwPublicUserMenu.xhtml. Accessed August – September 2018.
- California Department of Toxic Substances Control. https://www.dtsc.ca.gov/. Accessed September 2018.
- California Department of Conservation – Division of Oil, Gas & Geothermal Resources. https://secure.conservation.ca.gov/WellSearch/. Accessed September 2018.
- Google Earth. www.googleearth.com. Accessed August - September 2018.
- United States EPA – Envirofacts. http://www3.epa.gov/enviro/facts/rcrainfo/search.html. Accessed September 2018.
- United States EPA - Enforcement and Compliance History Online. https://echo.epa.gov/. Accessed September 2018.
- United States EPA – Superfund Site: Orange County North Basin. https://cumulis.epa.gov/supercpad/cursites/csitinfo.cfm?id=0900251. Accessed August-September 2018

### 14.3 Database Listings

- Environmental Data Resources, Inc. (EDR), Milford, CT.
    - *Certified Sanborn Map Report.* Inquiry # 5387351.3. August 9, 2018.

- *The EDR Aerial Photo Decade Package.* Inquiry #5387351.11. August 9, 2018.
- *The EDR-City Directory Abstract.* Inquiry #5387351.5. August 9, 2018.
- *EDR Historical Topographic Map Report.* Inquiry #5387351.4. August 9, 2018.
- *The EDR Radius Map Report with GeoCheck.* Inquiry # 5387351.2S. August 9, 2018.
- *The EDR Radius Map Report with GeoCheck.* Inquiry # 5387351.2S. August 9, 2018.
- *EDR Building Permit Report*. Inquiry #5387351.8. August 9, 2018.
- *EDR Environmental Lien and AUL Search Report.* Inquiry # 5387351.7S. August 15, 2018.
- *The EDR Property Tax Map Report.* Inquiry # 5387351.6. August 15, 2018.

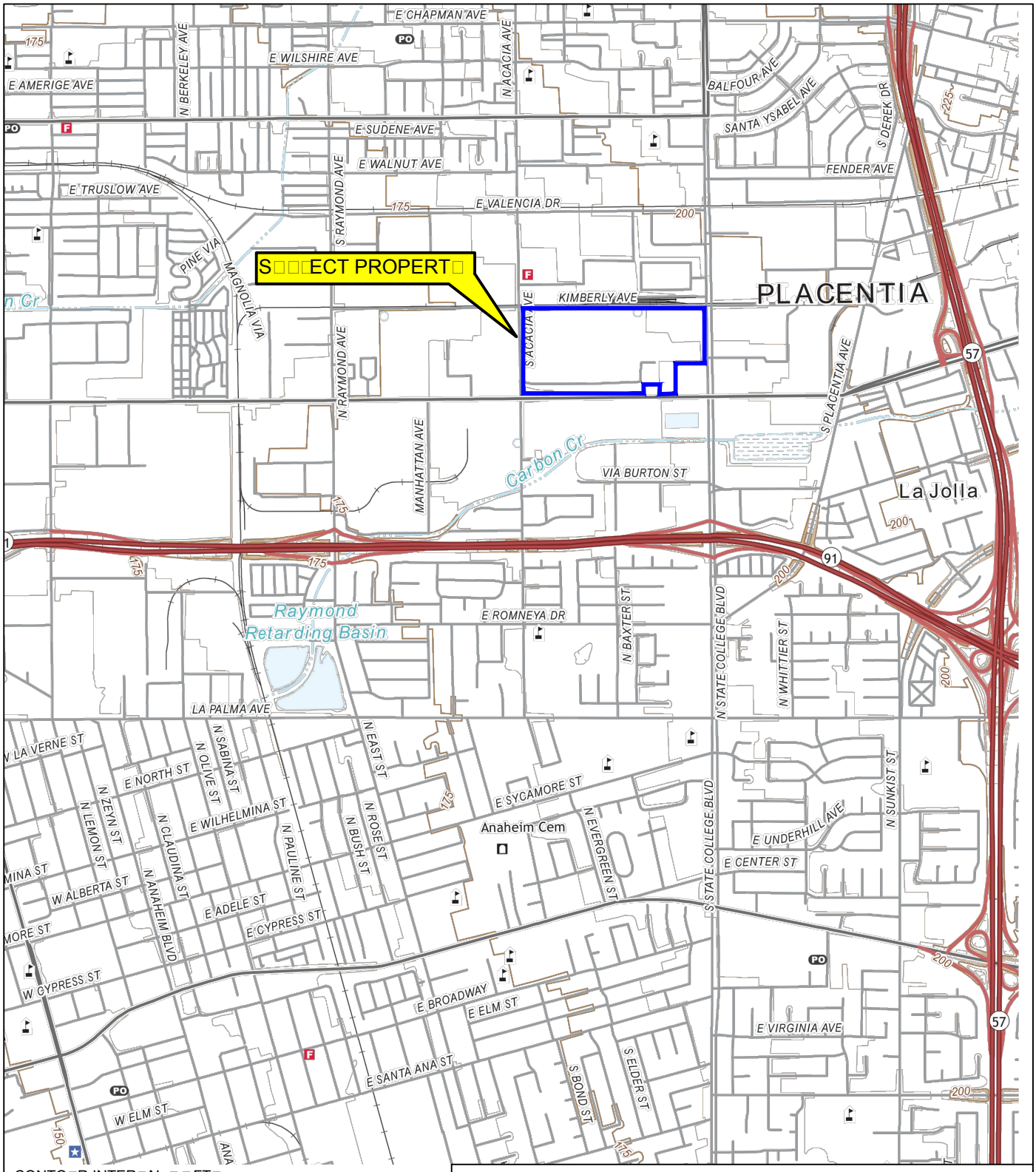
### 14.4 User-Provided Sources

- Antea Group's *Interview with Past and Present Owners and Occupants* form, completed by Grace Madden, Environmental Coordinator for Kimberly-Clark Corporation's Fullerton Mill, dated August 27, 2018.
- ASTM Phase I ESA User's Questionnaire, completed by KCC personnel, dated October 4, 2018.
- *Record of Inspection* and *Hazardous Waste Inspection* – County of Orange Environmental Health department follow-up to a March 28, 1985 inspection, and preliminary inspection of the SRM Tank Farm; inspection completed April 2, 1985.
- *Underground Storage Tank Removal – Project Summary (letter report),* prepared by Kimberly Clark Corporation, dated November 20, 1986.
- *Remediation Closure Report*, prepared by Ledsam Contracting Incorporated, for Kimberly Clark Corporation, dated March 1992.
- *Initial Phase II Site Environmental Assessment – Tank Farm Area*, prepared by Western Environmental Engineers Co., for Kimberly Clark, dated October 27, 1997.
- *Phase II Environmental Site Assessment Report – Tank Farm Area*, prepared by Western Environmental Engineers Co., for Kimberly Clark, dated January 19, 1998.
- *UST Unauthorized Release (Leak) / Contamination Site Report,* submitted by Kimberly Clark, to Fullerton Fire Department – Hazardous Materials Specialist, February 20, 2002.
- Report of Soil Excavation and Sampling for the Kimberly Clark Facility; prepared by Gaston & Associates, LLC, March 8, 2002.

- Letter summarizing fuel oil contamination in Boiler House/CoGen Site, including waste manifests and geologist's report on soil excavation and sampling, submitted by Kimberly Clark, to Fullerton Fire Department – Hazardous Materials Specialist, March 13, 2002.
- *Spill Prevention, Control, and Countermeasure Plan*, prepared for Kimberly-Clark, by ProActive Consulting Group, LLC, September 2015.
- *Aboveground Petroleum Storage Tank Facility Statement – Notification/Change in Status* form, prepared by Kimberly-Clark for Orange County Certified Unified Program Agency (CUPA), dated December 28, 2017.
- Annual submittal to California Environmental Reporting System (CERS), dated February 28, 2018.
- Annual Report for Stormwater Discharges Associated with Industrial Activities, prepared by Kimberly-Clark for State of California Water Resources Board, dated July 11, 2018.
- *Storm Water Pollution Prevention Plan (SWPPP) and Storm Water Monitoring Program (SWMP),* prepared for Kimberly-Clark, by ProActive Consulting Group, LLC, July 2018.

# *Figures*

Figure 1 Subject Property Location Map
Figure 2 Subject Property Layout Map
Figure 3 Subject Property Detail Map




CONTO□R INTER□AL □ □FT□

SO□RCE□□S□S □□□ MIN□ANA□EIM □20□□□□ □A□RAN□LE

CALIFORNIA

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0 2000 FT

SCALE

# FI□□RE □

## S□□□ECT PROPERT□ LOCATION MAP

□IM□ERL□□CLAR□ CORPORATION □F□LLERTON MILL
200□E ORAN□ET□ORPE A□EN□E
F□LLERTON□CALIFORNIA □2□□□

| PROJECT NO. | PREPARED BY | DRAWN BY |
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F-10
FM-16/ FM-16A
FMK-17
E ROSSLYN AVENUE
TRIBUTARY CREEK
TRIBUTARY CREEK
BNSF RAILROAD
KIMBERLY AVENUE
F-KIM-2
ACACIA STREET
STATE COLLEGE BOULEVARD
ORANGETHORPE AVENUE
APPROXIMATE LOCATION OF FORMER USTs
FM-3
AM-29A

## LEGEND

APPROXIMATE PROPERTY BOUNDARY

PROPERTY LEASED BY KIMBERLY-CLARK

1. COAST ROOF CO., INC. 2301 E. ORANGETHORPE AVENUE
2. VARIOUS COMMERCIAL / RETAIL FACILITIES 1201-1257 E. STATE COLLEGE BLVD.
3. KIM'S WELDING & IRON WORKS 2331 E. ORANGETHORPE AVENUE
4. EBERHARDT'S TIRE CENTER 2335 E. ORANGETHORPE AVENUE
5. DISCOUNT TIRE CENTERS 2341 E. ORANGETHORPE AVENUE
6. ARCO SERVICE STATION 2341 E. ORANGETHORPE AVENUE
7. THE GRILL RESTAURANT 2401 E. ORANGETHORPE AVENUE
8. BENNER METALS 1220 E. STATE COLLEGE BLVD.
9. PARK MASTER PRODUCTS, INC 2418 CYPRESS WAY
10. COMMERCIAL / RETAIL FACILITIES
11. UNITED RENTALS
12. DSA STATE COLLEGE BUSINESS PARK
13. SOUTH WESTERN PAVING CO. 2250 E. ORANGETHORPE AVENUE
14. U-HAUL 2260 E. ORANGETHORPE AVENUE
15. PETE'S ROAD SERVICE 2230 E. ORANGETHORPE AVENUE
16. GEARBOX MODELS 2166 E. ORANGETHORPE AVENUE
17. VARIOUS COMMERCIAL FACLITIES
18. EXECUTIVE RV CENTER 2100 E ORANGETHORPE AVENUE
19. VISTA PAINTS 2020 E. ORANGETHORPE AVENUE
20. VARIOUS COMMERCIAL / RETAIL FACILITIES
21. KMW COMMUNICATIONS 1818 E. ORANGETHORPE AVENUE
22. FACTORY MOTOR PARTS 1600 E. ORANGETHORPE AVENUE
23. ORVAC ELECTRONICS 1645 E. ORANGETHORPE AVENUE
24. COMMERCIAL FACILITY
25. ISSI LOGISTICS 1102 S. ACACIA STREET
26. COMMERCIAL FACILITY
27. PLASTICOLOR 801 S ACACIA STREET
28. SPL GLOBAL 601 S. ACACIA STREET
29. RAYNE WATER CONDITIONING 1702 E. ROSSLYN AVNUE
30. COMMERCIAL / INDUSTRIAL FACILITY
31. COMMERCIAL/ INDUSTRIAL FACILITY
32. CORRY-KRAFT ORORA 1901-1911 E. ROSSLYN AVENUE
33. VARIOUS COMMERCIAL RETAILERS
34. VARIOUS COMMERCIAL RETAILERS
35. FUTURE FOAM INC. 2451 CYPRESS WAY

APPROXIMATE EXTENT OF GROUNDWATER CONTAMINATION (2010-2014)

SHALLOW AQUIFER
- 1x-5x MCL

PRINCIPAL AQUIFER (>200 ft bgs)
- 1x-5x MCL
- 5x-10x MCL
- >10x MCL

- CITY OF FULLERTON WATER WELL
- ORANGE COUNTY NORTH BASIN MONITORING WELL

N

0 300 FT

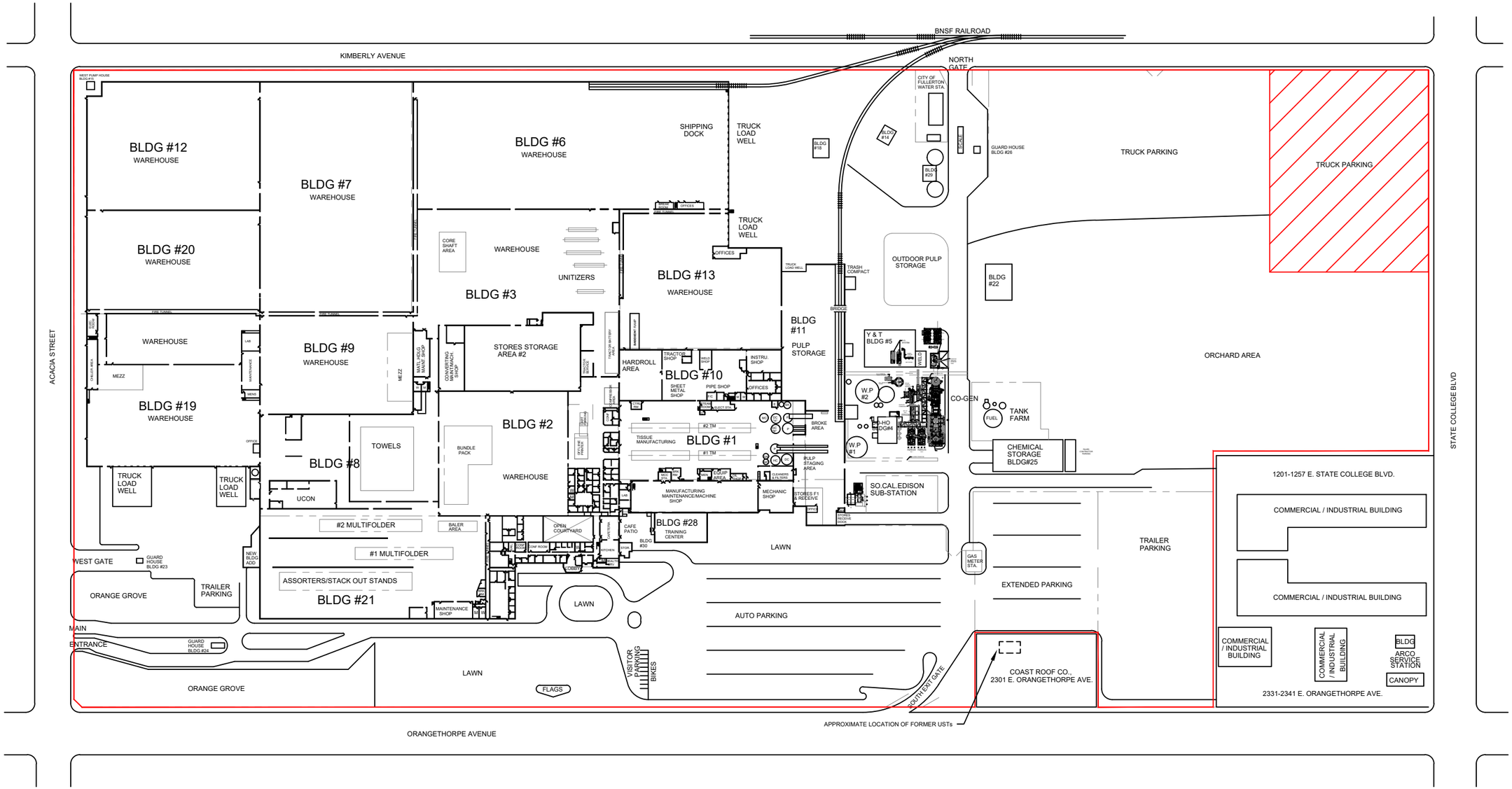
SCALE

ADAPTED FROM FIGURE 1: ORANGE COUNTY NORTH BASIN: PLANNED GROUNDWATER MONITORING WELL LOCATIONS; APPROXIMATE EXTENT OF CONTAMINATION BY UNITED STATES ENVIONMENTAL PROTECTION AGENCY, 6/22/16

# FIGURE 2
## SUBJECT PROPERTY LAYOUT MAP

KIMBERLY-CLARK CORPORATION - FULLERTON MILL
2001 E ORANGETHORPE AVENUE
FULLERTON, CALIFORNIA 92831

| PROJECT NO. | PREPARED BY | DRAWN BY | |
|---|---|---|---|
| 180630592A | SS | JH | |
| DATE | REVIEWED BY | FILE NAME | anteagroup |
| 10/29/18 | DK | KC_Fullerton | |




## LEGEND

APPROXIMATE PROPERTY BOUNDARY

PROPERTY LEASED BY KIMBERLY-CLARK TO TRANSPORTATION COMPANY FOR RV PARKING

N

0 200 FT

SCALE

ADAPTED FROM A SITE PLAN BY KIMBERLY CLARK CORPORATION DATED 4/09.

# FIGURE 3
## SUBJECT PROPERTY DETAIL MAP

KIMBERLY-CLARK CORPORATION - FULLERTON MILL
2001 E ORANGETHORPE AVENUE
FULLERTON, CALIFORNIA 92831

| PROJECT NO. | PREPARED BY | DRAWN BY |
|---|---|---|
| 180630592A | SS | JH |
| **DATE** | **REVIEWED BY** | **FILE NAME** |
| 10/30/18 | DK | KC_Fullerton |

anteagroup

# *Appendix A*

Subject and Adjacent Property Photographs

**DATE:**
**August 27-28, 2018**

**PHOTOGRAPHER:**
**Dan Keltner**
**Antea Group**

**LOCATION:**
**Kimberly-Clark Corporation – Fullerton Mill**

**DIRECTION:**
**West**



**View of the Loading Docks outside of Building 6 at the Subject Property.**

**DATE:**
**August 27-28, 2018**

**PHOTOGRAPHER:**
**Dan Keltner**
**Antea Group**

**LOCATION:**
**Kimberly-Clark Corporation – Fullerton Mill**

**DIRECTION:**
**North**



**City of Fullerton Water Station**

antea group

# SITE PHOTOGRAPHS

**Kimberly-Clark Corporation**
**Fullerton Mill**
**2001 E. Orangethorpe Avenue**
**Fullerton, CA**

**Antea Group Project #:**
**180630592A**

**PHOTO PLATE: 1**

**DATE:**
**August 27-28, 2018**

**PHOTOGRAPHER:**
**Dan Keltner**
**Antea Group**

**LOCATION:**
**Kimberly-Clark Corporation – Fullerton Mill**

**DIRECTION:**
**South**



**View of the Co Gen Plant and 3-4” diameter cut-out in asphalt in bottom left of the photo, looking South from the North Gate**

**DATE:**
**August 27-28, 2018**

**PHOTOGRAPHER:**
**Dan Keltner**
**Antea Group**

**LOCATION:**
**Kimberly-Clark Corporation – Fullerton Mill**

**DIRECTION:**
**West**



**View of Storm Drain east of the City of Fullerton Water Station and Transformer**

antea group

# SITE PHOTOGRAPHS

**Kimberly-Clark Corporation**
**Fullerton Mill**
**2001 E. Orangethorpe Avenue**
**Fullerton, CA**

**Antea Group Project #:**
**180630592A**

**PHOTO PLATE: 2**

**DATE:**
**August 27-28, 2018**

**PHOTOGRAPHER:**
**Dan Keltner**
**Antea Group**

**LOCATION:**
**Kimberly-Clark Corporation – Fullerton Mill**

**DIRECTION:**
**South**



**View of de minimis staining along scales in North Gate**

**DATE:**
**August 27-28, 2018**

**PHOTOGRAPHER:**
**Dan Keltner**
**Antea Group**

**LOCATION:**
**Kimberly-Clark Corporation – Fullerton Mill**

**DIRECTION:**
**East**



**View of Dry Well along leased property line and orchard in the Northeast portion of the subject property**

antea group

# SITE PHOTOGRAPHS

**Kimberly-Clark Corporation**
**Fullerton Mill**
**2001 E. Orangethorpe Avenue**
**Fullerton, CA**

**Antea Group Project #:**
**180630592A**

**PHOTO PLATE: 3**

**DATE:**
**August 27-28, 2018**

**PHOTOGRAPHER:**
**Dan Keltner**
**Antea Group**

**LOCATION:**
**Kimberly-Clark Corporation – Fullerton Mill**

**DIRECTION:**
**South**



**View of Orchards along Northeastern portion of the subject property**

**DATE:**
**August 27-28, 2018**

**PHOTOGRAPHER:**
**Dan Keltner**
**Antea Group**

**LOCATION:**
**Kimberly-Clark Corporation – Fullerton Mill**

**DIRECTION:**
**West**



**View of gravel pile east of Building 22**

antea group

# SITE PHOTOGRAPHS

**Kimberly-Clark Corporation**
**Fullerton Mill**
**2001 E. Orangethorpe Avenue**
**Fullerton, CA**

**Antea Group Project #:**
**180630592A**

**PHOTO PLATE: 4**

**DATE:**
**August 27-28, 2018**

**PHOTOGRAPHER:**
**Dan Keltner**
**Antea Group**

**LOCATION:**
**Kimberly-Clark Corporation – Fullerton Mill**

**DIRECTION:**
**West-Southwest**



**View of the So-Cal Edison Sub-Station**

**DATE:**
**August 27-28, 2018**

**PHOTOGRAPHER:**
**Dan Keltner**
**Antea Group**

**LOCATION:**
**Kimberly-Clark Corporation – Fullerton Mill**

**DIRECTION:**
**South**



**View of the Tank Farm**

antea group

# SITE PHOTOGRAPHS

**Kimberly-Clark Corporation**
**Fullerton Mill**
**2001 E. Orangethorpe Avenue**
**Fullerton, CA**

**Antea Group Project #:**
**180630592A**

**PHOTO PLATE: 5**

**DATE:**
**August 27-28, 2018**

**PHOTOGRAPHER:**
**Dan Keltner**
**Antea Group**

**LOCATION:**
**Kimberly-Clark Corporation – Fullerton Mill**

**DIRECTION:**
**West**



**View of aboveground piping in the Co Gen Plant**

**DATE:**
**August 27-28, 2018**

**PHOTOGRAPHER:**
**Dan Keltner**
**Antea Group**

**LOCATION:**
**Kimberly-Clark Corporation – Fullerton Mill**

**DIRECTION:**
**N/A**



**Trenches and potential floor drain observed in the Maintenance Shop**

antea group

# SITE PHOTOGRAPHS

**Kimberly-Clark Corporation**
**Fullerton Mill**
**2001 E. Orangethorpe Avenue**
**Fullerton, CA**

**Antea Group Project #:**
**180630592A**

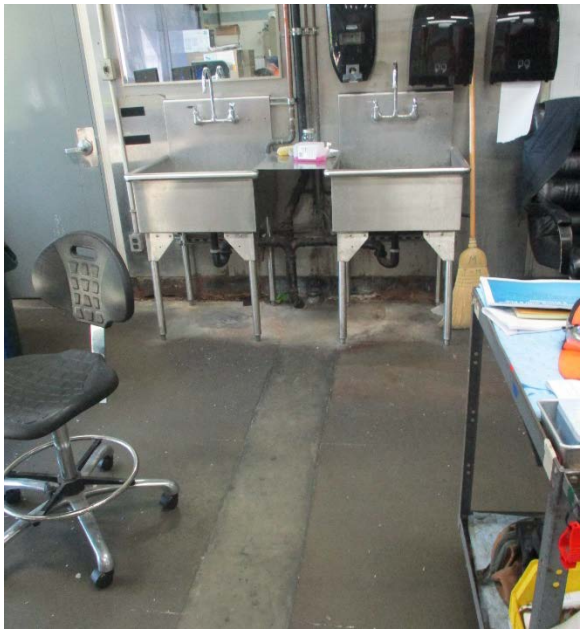
**PHOTO PLATE: 6**

**DATE:**
**August 27-28, 2018**

**PHOTOGRAPHER:**
**Dan Keltner**
**Antea Group**

**LOCATION:**
**Kimberly-Clark Corporation – Fullerton Mill**

**DIRECTION:**
**N/A**



**View of sinks and trenching in the Maintenance Shop**

**DATE:**
**August 27-28, 2018**

**PHOTOGRAPHER:**
**Dan Keltner**
**Antea Group**

**LOCATION:**
**Kimberly-Clark Corporation – Fullerton Mill**

**DIRECTION:**
**N/A**



**Trench drains in Building 2's Former OP Room**

antea group

# SITE PHOTOGRAPHS

**Kimberly-Clark Corporation**
**Fullerton Mill**
**2001 E. Orangethorpe Avenue**
**Fullerton, CA**

**Antea Group Project #:**
**180630592A**

**PHOTO PLATE: 7**

**DATE:**
**August 27-28, 2018**

**PHOTOGRAPHER:**
**Dan Keltner**
**Antea Group**

**LOCATION:**
**Kimberly-Clark Corporation – Fullerton Mill**

**DIRECTION:**
**N/A**



**View of the battery storage area in Building 3**

**DATE:**
**August 27-28, 2018**

**PHOTOGRAPHER:**
**Dan Keltner**
**Antea Group**

**LOCATION:**
**Kimberly-Clark Corporation – Fullerton Mill**

**DIRECTION:**
**N/A**



**Sink and floor drain observed in the battery storage area of Building 3**

antea group

# SITE PHOTOGRAPHS

**Kimberly-Clark Corporation**
**Fullerton Mill**
**2001 E. Orangethorpe Avenue**
**Fullerton, CA**

**Antea Group Project #:**
**180630592A**

**PHOTO PLATE: 8**

**DATE:**
**August 27-28, 2018**

**PHOTOGRAPHER:**
**Dan Keltner**
**Antea Group**

**LOCATION:**
**Kimberly-Clark Corporation – Fullerton Mill**

**DIRECTION:**
**East**



**View of the rail spur in Building 6**

**DATE:**
**August 27-28, 2018**

**PHOTOGRAPHER:**
**Dan Keltner**
**Antea Group**

**LOCATION:**
**Kimberly-Clark Corporation – Fullerton Mill**

**DIRECTION:**
**East**



**View of the Chemical Storage Building (Building 25)**

antea group

# SITE PHOTOGRAPHS

**Kimberly-Clark Corporation**
**Fullerton Mill**
**2001 E. Orangethorpe Avenue**
**Fullerton, CA**

**Antea Group Project #:**
**180630592A**

**PHOTO PLATE: 9**

**DATE:**
**August 27-28, 2018**

**PHOTOGRAPHER:**
**Dan Keltner**
**Antea Group**

**LOCATION:**
**Kimberly-Clark Corporation – Fullerton Mill**

**DIRECTION:**
**N/A**




**View of drum storage in Chemical Storage Building (Building 25)**

**DATE:**
**August 27-28, 2018**

**PHOTOGRAPHER:**
**Dan Keltner**
**Antea Group**

**LOCATION:**
**Kimberly-Clark Corporation – Fullerton Mill**

**DIRECTION:**
**East**



**View of boring along eastern side of Chemical Storage Building (Building 25)**

antea group

# SITE PHOTOGRAPHS

**Kimberly-Clark Corporation**
**Fullerton Mill**
**2001 E. Orangethorpe Avenue**
**Fullerton, CA**

**Antea Group Project #:**
**180630592A**

**PHOTO PLATE: 10**

# *Appendix B*

Property Records

**KCC - Fullerton**
2001 E Orangethorpe
Fullerton, CA 92831

Inquiry Number: 5387351.6
August 15, 2018

# The EDR Property Tax Map Report

Environmental Data Resources Inc

6 Armstrong Road
Shelton, CT 06484
800.352.0050
www.edrnet.com

# EDR Property Tax Map Report

Environmental Data Resources, Inc.'s EDR Property Tax Map Report is designed to assist environmental professionals in evaluating potential environmental conditions on a target property by understanding property boundaries and other characteristics. The report includes a search of available property tax maps, which include information on boundaries for the target property and neighboring properties, addresses, parcel identification numbers, as well as other data typically used in property location and identification.

***Thank you for your business.***
Please contact EDR at 1-800-352-0050
with any questions or comments.

**Disclaimer - Copyright and Trademark Notice**

This Report contains certain information obtained from a variety of public and other sources reasonably available to Environmental Data Resources, Inc. It cannot be concluded from this Report that coverage information for the target and surrounding properties does not exist from other sources. **NO WARRANTY EXPRESSED OR IMPLIED, IS MADE WHATSOEVER IN CONNECTION WITH THIS REPORT. ENVIRONMENTAL DATA RESOURCES, INC. SPECIFICALLY DISCLAIMS THE MAKING OF ANY SUCH WARRANTIES, INCLUDING WITHOUT LIMITATION, MERCHANTABILITY OR FITNESS FOR A PARTICULAR USE OR PURPOSE. ALL RISK IS ASSUMED BY THE USER. IN NO EVENT SHALL ENVIRONMENTAL DATA RESOURCES, INC. BE LIABLE TO ANYONE, WHETHER ARISING OUT OF ERRORS OR OMISSIONS, NEGLIGENCE, ACCIDENT OR ANY OTHER CAUSE, FOR ANY LOSS OR DAMAGE, INCLUDING, WITHOUT LIMITATION, SPECIAL, INCIDENTAL, CONSEQUENTIAL, OR EXEMPLARY DAMAGES. ANY LIABILITY ON THE PART OF ENVIRONMENTAL DATA RESOURCES, INC. IS STRICTLY LIMITED TO A REFUND OF THE AMOUNT PAID FOR THIS REPORT.** Purchaser accepts this Report "AS IS". Any analyses, estimates, ratings, environmental risk levels or risk codes provided in this Report are provided for illustrative purposes only, and are not intended to provide, nor should they be interpreted as providing any facts regarding, or prediction orforecast of, any environmental risk for any property. Only a Phase I Environmental Site Assessment performed by an environmental professional can provide information regarding the environmental risk for any property. Additionally, the information provided in this Report is not to be construed as legal advice.

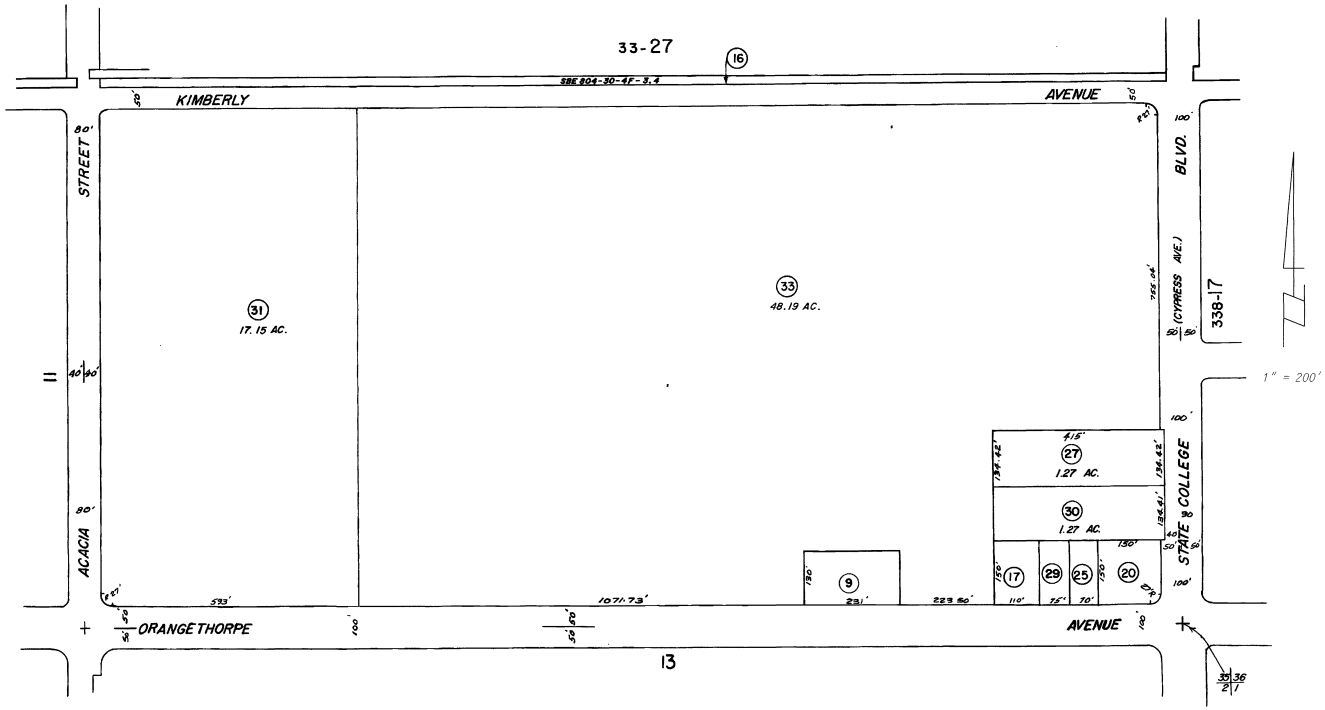
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POR. SE 1/4, SEC. 35, T 3 S, R 10 W

073-12




MARCH 1950

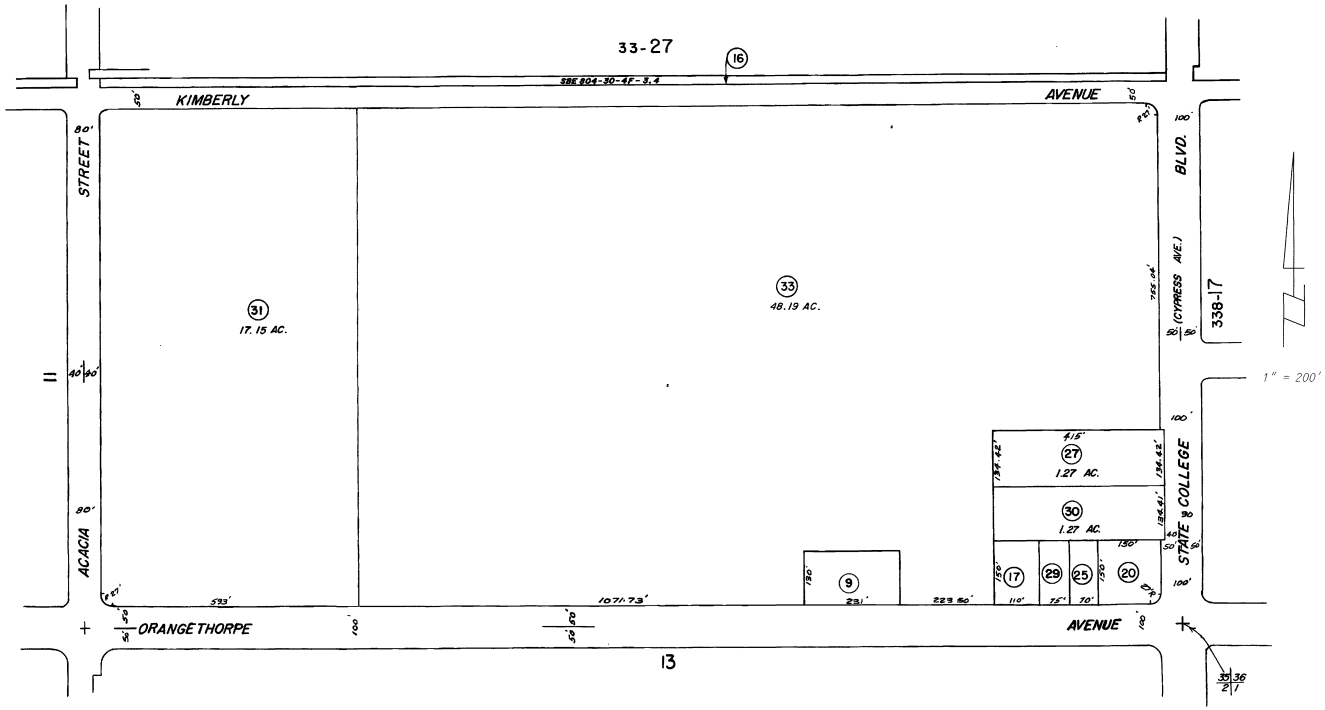
NOTE - ASSESSOR'S BLOCK & PARCEL NUMBERS SHOWN IN CIRCLES

ASSESSOR'S MAP BOOK 073 PAGE 12 COUNTY OF ORANGE

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POR. SE 1/4, SEC. 35, T 3 S, R 10 W

073-12



**KCC - Fullerton**
2001 E Orangethorpe
Fullerton, CA 92831

Inquiry Number: 5387351.7S
August 15, 2018

# EDR Environmental Lien and AUL Search

6 Armstrong Road, 4th floor
Shelton, CT 06484
Toll Free: 800.352.0050
www.edrnet.com

# EDR Environmental Lien and AUL Search

The EDR Environmental LienSearch Report provides results from a search of available current land title records for environmental cleanup liens and other activity and use limitations, such as engineering controls and institutional controls.

A network of professional, trained researchers, following established procedures, uses client supplied address information to:

- search for parcel information and/or legal description;
- search for ownership information;
- research official land title documents recorded at jurisdictional agencies such as recorders' offices, registries of deeds, county clerks' offices, etc.;
- access a copy of the deed;
- search for environmental encumbering instrument(s) associated with the deed;
- provide a copy of any environmental encumbrance(s) based upon a review of key words in the instrument(s) (title, parties involved, and description); and
- provide a copy of the deed or cite documents reviewed.

***Thank you for your business.***
Please contact EDR at 1-800-352-0050
with any questions or comments.

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# EDR Environmental Lien and AUL Search

**TARGET PROPERTY INFORMATION**

**ADDRESS**

KCC - FULLERTON
2001 E ORANGETHORPE
FULLERTON, CA 92831

**RESEARCH SOURCE**

Source 1: Recorder
Orange County, California

Source 2: Assessor
Orange County, California

**PROPERTY INFORMATION**

**Deed 1:**

According to the Orange County Assessor, the current owner of the subject property is Kimberly-Clark Corporation. Records were searched at the Orange County Recorder's Office back to 1980. No conveyance was found of record for the subject property. Based on our research, it appears that Kimberly-Clark Corporation acquired title to the property prior to 1980.

**Legal Description:** All that certain piece or parcel of land containing 17.15 acres, more or less, being a portion of the Southeast Quarter of Section 35, Township 3 South, Range 10 West, situate and lying in the County of Orange, State of California.

**Legal Current Owner:** Kimberly-Clark Corporation

**Property Identifiers:** 073-120-31

**Deed 2:**

Type of Deed: Corporation Grant Deed

Title is vested in: Kimberly-Clark Worldwide, Inc., a Delaware corporation

Title received from: Kimberly-Clark Corporation, a Delaware corporation

Deed Dated: 11/30/1996

Deed Recorded: 12/18/1996

Instrument: 19960638768

**Legal Description:** All that certain piece or parcel of land being a portion of the Southeast Quarter of Section 25, Township 3 South, Range 10 West, in the Rancho San Juan Cajon de Santa Ana, as per map recorded in book 51, Page 7 of Miscellaneous Maps, situate and lying in the County of Orange, State of California.

**Legal Current Owner:** Kimberly-Clark Worldwide, Inc., a Delaware corporation

**Property Identifiers:** 073-120-33

# EDR Environmental Lien and AUL Search

**ENVIRONMENTAL LIEN**

Environmental Lien: Found ☐ Not Found ☒

If found:

1st Party:

2nd Party:

Dated:

Recorded:

Book:

Page:

Docket:

Volume:

Instrument:

Comments:

Miscellaneous:

**OTHER ACTIVITY AND USE LIMITATIONS (AULs)**

Other AUL's: Found ☐ Not Found ☒

If found:

1st Party:

2nd Party:

Dated:

Recorded:

Book:

Page:

Docket:

Volume:

Instrument:

Comments:

Miscellaneous:

# DEED EXHIBIT

Recording requested by:

WHEN RECORDED MAIL TO:

Kimberly-Clark Corporation
351 Phelps Drive
Irving, Texas 75038
Attention: David M. Dolan, Esq.

Recorded in the County of Orange, California
Gary L. Granville, Clerk/Recorder
30.00
19960638768 04:30PM 12/18/96
004 28001293 28 19
G02 2 55 0.00 7.00 3.00 0.00 0.00 0.00 20.00
0.00 0.00

SPACE ABOVE THIS LINE FOR RECORDER'S USE

DOCUMENTARY TRANSFER TAX $-0- **THIS IS A TRANSFER BETWEEN PARENT CORPORATION AND WHOLLY-OWNED SUBSIDIARY.**

... Computed on the consideration or value of property conveyed; or
... Computed on the consideration or value less liens or encumbrances remaining at time of sale.

Signature of Declarant or Agent determining tax - Firm Name

IT 2P 2 4 1CF

# CORPORATION GRANT DEED

FOR A VALUABLE CONSIDERATION, receipt of which is hereby acknowledged,

**KIMBERLY-CLARK CORPORATION,** a Delaware corporation, does hereby GRANT to

**KIMBERLY-CLARK WORLDWIDE, INC.,** a Delaware corporation,

the real property in the City of Fullerton, County of Orange, State of California, described on Exhibit A attached hereto and incorporated herein by this reference.

APN: 073-120-33

**THIS IS A TRANSFER BETWEEN AFFILIATED CORPORATIONS (PARENT CORPORATION TO WHOLLY OWNED SUBSIDIARY OF PARENT'S WHOLLY OWNED SUBSIDIARY) AND IS NOT A CHANGE IN OWNERSHIP, PURSUANT TO REV. & TAX. CODE §64(B).**

Dated November 30, 1996

KIMBERLY-CLARK CORPORATION,
a Delaware corporation

By: _____
Its: John W. Donehower
Senior Vice President and
Chief Financial Officer

By: _____
Its: Donald M. Crook
Vice President and Secretary

STATE OF Texas )
)
COUNTY OF Dallas )

On November 30, 1996 before me, Mona J. Wright, personally appeared John W. Donehower and Donald M. Crook 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: Mona J. Wright

MONA J. WRIGHT
Notary Public, State of Texas
My Commission Expires 10-23-99

**MAIL TAX STATEMENTS TO ADDRESS INDICATED ABOVE** (Attention: Paul McGuire)

(This area for official notarial seal)

EXHIBIT A

Description of Real Property

That certain real property in the State of California, County of Orange described as follows:

That portion of the southeast quarter of section 35, Township 3 South, Range 10 West, in the Rancho San Juan Cajon de Santa Ana, county of Orange, state of California, as per map recorded in book 51 page 7 of Miscellaneous Maps, in the office of the county recorder of said county, described as follows:
Beginning at a point on the east line of said section 35, distant thereon 953.10 feet north of the southeast corner of said section 35; thence north 490.37 feet along said east line, to the southeast corner of the land described in deed to Lionel Browning recorded in book 130 page 382 of deeds in the office of the county recorder, of Los Angeles County, California; thence westerly 1799 feet more or less along the southerly line of said Browning land to a line which is parallel with and distant 18 feet east of the east line of the land described in deed to Joseph P. Caldwell recorded in book 93 page 87 of deeds in the office of the county recorder of said Los Angeles County; thence southerly 965 feet more or less, along said parallel line to the northwest corner of the land described in the deed to Peter Jacobson, recorded in book 305 page 188 of deeds in the office of the county recorder of said Orange County; thence easterly 900 feet more or less, parallel with the south line of said section 35, to a line which is parallel with and 899.50 feet west of said east line of said section 35; thence north 474.27 feet parallel with said east line; thence east 899.50 feet to the point of beginning.

# *Appendix C*

User-Provided Information

RO 1976 PAE/1979. Attach.

# RECORD OF INSPECTION

Date 4/2/85

Time 10:00 a.m.

Was visit scheduled? yes

Name and title of inspector Katherine Bish

Agency Address (local) County of Orange Environmental Health
1725 W. 17th Street

Inspector's office phone 834-8184

Name of inspector's immediate supervisor William Diekmann

Supervisor's office phone 834-8183

Names and titles of any accompanying individuals Mark Cousineau, Environmental Health Specialist

1. Purpose and Reasons for visit:
Followup on March 28, 1985 inspection and preliminary assessment of SRM tank.

2. Areas visited (specific list):
Engineering offices
SRM Tank Farm

3. Inspector's questions or comments:
SRM tanks should be either filled (requiring periodic testing) or removed, preferably by 7/1/85. Intent to comply - shown through progress towards removal - will satisfy the inspector

4. Samples taken (list):
None

5. Documents or other information requested:
A. Information on what old SRM tanks have contained and how they were taken out of service (closure), details on associated piping (underground or above).
~~B. MSDS for Elvace adhesives given to inspector~~

6. Employees interviewed (name and position):
Laura Dzamka, Mill Process Engineer

7. Comments: A. Need to get sample of water in "dry" sump analyzed.
B. The tanks should be removed from the SRM tank farm
C. Fire Department must be notified prior to removal

8. Length of visit:
1.5 hours

INSTRUCTIONS:

Use additional note paper if the space on this form is not sufficient. After inspection, type clean copy and mail as directed by the Manual

Issue Date: 1/31/77

SIGNATURE OF MILL MANAGER

**COUNTY OF ORANGE/HEALTH CARE AGENCY**

ENVIRONMENTAL HEALTH (714) 834-8175

**HAZARDOUS WASTE INSPECTION**

DBA: Kimberly Clark Corp

ADDRESS: 2001 E Orangethorpe Ave
Fullerton

PERMIT NUMBER: _____

HAZARDOUS WASTE

WASTE ID: [ ] WASTE NAME: Fuel Oil - overflow TS [ ]
MAX VOL STORED: ~~approx~~ UNIT: [ ] _____ FORM: [ ] Liquid
HOW STORED: [ ] pumped from overflow ANNUAL VOL DISPOS: 4000 gal
HOW DISPO: [ ] buried underground
LOCATION: _____
HAULER: [ ] _____

WASTE ID: [ ] WASTE NAME: Waste Oil TS [ ]
MAX VOL STORED: 400 gal UNIT: [ ] gallons FORM: [ ] Liquid
HOW STORED: [ ] Drums or Above Ground Tank ANNUAL VOL DISPOS: ~~3000~~ 1600 gallon
HOW DISPO: [ ] Offsite
LOCATION: Leach Oil Compton
HAULER: [ ] O To Sprenger

WASTE ID: [ ] WASTE NAME: Ink TS [ ]
MAX VOL STORED: 450 UNIT: [ ] pounds FORM: [ ] _____
HOW STORED: [ ] Drums ANNUAL VOL DISPOS: 1900 pounds
HOW DISPO: [ ] Offsite
LOCATION: Casmalia
HAULER: [ ] Industrial Waste Utilization

WASTE ID: [ ] WASTE NAME: Adhesive (KClark Company classifies this as Nonhazardous) TS [ ]
MAX VOL STORED: 500 UNIT: [ ] gallons FORM: [ ] Liquid
HOW STORED: [ ] Drums ANNUAL VOL DISPOS: 2000 gallons
HOW DISPO: [ ] Offsit
LOCATION: Puente Hills
HAULER: [ ] Industrial Waste Utilization

INSPECTOR # 64 SIGNATURE: Katherine K. Bish

RECEIVED BY: Laura Dzamka DATE RECEIVED 4/2/85

PART II

**COUNTY OF ORANGE/HEALTH CARE AGENCY**

ENVIRONMENTAL HEALTH (714) 834-8175

**HAZARDOUS WASTE INSPECTION**

DBA: Kimberly Clark

ADDRESS: 2001 E Orangethorpe Ave
Fullerton

PERMIT NUMBER: _____

HAZARDOUS WASTE

WASTE ID: [ ] WASTE NAME: Degreaser Sludge - Chlorinated TS [ ]
MAX VOL STORED: 55 UNIT: [ ] gallons FORM: [ ] sludge
HOW STORED: [ ] Drum ANNUAL VOL DISPOS: 110 gals
HOW DISPO: [ ] Offsite
LOCATION: Casmalia Resources
HAULER: [ ] Industrial Waste Utilization

WASTE ID: [ ] WASTE NAME: Waste Perfume - sent Oil Isopropyl Alcohol TS [ ]
MAX VOL STORED: 55 UNIT: [ ] gallons FORM: [ ] Liquid
HOW STORED: [ ] Drums ANNUAL VOL DISPOS: 110 gallons
HOW DISPO: [ ] Has not disposed of any at this time
LOCATION: _____
HAULER: [ ] _____

WASTE ID: [ ] WASTE NAME: _____ TS [ ]
MAX VOL STORED: _____ UNIT: [ ] _____ FORM: [ ] _____
HOW STORED: [ ] _____ ANNUAL VOL DISPOS: _____
HOW DISPO: [ ] _____
LOCATION: _____
HAULER: [ ] _____

WASTE ID: [ ] WASTE NAME: _____ TS [ ]
MAX VOL STORED: _____ UNIT: [ ] _____ FORM: [ ] _____
HOW STORED: [ ] _____ ANNUAL VOL DISPOS: _____
HOW DISPO: [ ] _____
LOCATION: _____
HAULER: [ ] _____

INSPECTOR # 64 SIGNATURE: Katherine K. Kirk

RECEIVED BY: Laura Ozamka DATE RECEIVED 4/2/85

PART II

F272-0-1515

**COUNTY OF ORANGE/HEALTH CARE AGENCY**

ENVIRONMENTAL HEALTH (714) 834-8175

**HAZARDOUS WASTE INSPECTION**

DBA: Kimberly Clark Corp.

ADDRESS: 2001 E. Orangethorpe Ave
Fullerton

PERMIT NUMBER: _____ Date 4/2/85

NEW___ CHG.___ DEL. BUS.___ DEL. BLDG. ___ THIS INSPECT DATE 3/28/85

CITY CODE:___ EX CD:___ STATUS:___ INSPECT TYPE: R PROGRAM:_____

BILLING: _____

ADDRESS: _____ NO. EMPL: 900

_____ UST (YES OR NO)

CO. OWNER: _____ TITLE: _____ BUS. PHONE: _____

CONTACT: Laura Dzamka TITLE: _____ BUS. PHONE: _____

EMERGENCY CONTACT 1: Shift Superintendent PHONE: _____

EMERGENCY CONTACT 2: _____ PHONE: _____

PROPERTY OWNER: _____

_____

_____

PROCESS: Mfg paper products

_____

_____

SIC 1: [ ] 2647

2: [ ] _____

3: [ ] _____

4: [ ] _____

MANIFESTS AVAILABLE: YES NO

INSPECTOR # 64 SIGNATURE: Katherine K. Bish

RECEIVED BY: Laura Dzamka DATE RECEIVED 4/2/85

PART I

F272-9.1515

**COUNTY OF ORANGE/HEALTH CARE AGENCY**

ENVIRONMENTAL HEALTH (714) 834-8175

**HAZARDOUS WASTE INSPECTION**

DBA: Kimberly Clark Corp

ADDRESS: 2001 E Orangethorpe Ave
Fullerton

PERMIT NUMBER: _____

COMPLIANCE REQUIREMENTS

| | | |
|---|---|---|
| ____ | 001 | Hazardous waste determination made for all waste |
| ____ | 051 | Generator has EPA I.D. number |
| ____ | 052 | Manifests accurately completed |
| ____ | 053 | Manifests used for transporting hazardous waste |
| ____ | 054 | Copies of manifest available for review |
| ____ | 055 | Properly completed copies of manifest or exception report submitted to DOHS |
| ____ | 101 | Manifest, Biennial Report, Exception Reports, and test results retained at least 3 years |
| ____ | 102 | Biennial Report to State is submitted |
| ____ | 151 | Written notification made to EPA Administrator for waste exportation |
| ____ | 152 | Signature of foreign consignee obtained re: delivery |
| ____ | 153 | Manifest requirements met for hazardous waste exportation/importation |
| ____ | 201 | Hazardous waste transported off site by registered hauler |
| ____ | 202 | Hazardous waste taken only to a State permitted facility |
| ____ | 251 | Extremely hazardous waste not handled/disposed of without a permit |
| ____ | 252 | No deviation from DOHS approved handling/disposal methods is made |
| ____ | 301 | Personnel trained OTJ or in classroom within 6 months of employment |
| ____ | 302 | Training conducted by person trained in hazardous waste management |
| ____ | 303 | Training includes emergency response procedures and emergency equipment use |
| ____ | 304 | Personnel training records maintained which include titles, job description, dates, type of training |
| ____ | 351 | Generator has prepared contingency plan and maintains at site |
| ____ | 352 | Contingency plan includes all required information |
| ____ | 353 | Emergency coordinator familiar with all aspects of site operation/emergency procedures |
| X | 354 | Released waste/contaminated equipment properly treated, stored, disposed of |
| ____ | 355 | Report submitted to State within 15 days of emergency incident |
| ____ | 356 | State and local agencies notified before resuming operation after an emergency |
| ____ | 401 | Appropriate firefighting, spill control, and decontamination equipment available |
| ____ | 402 | Adequate testing/maintenance for emergency equipment conducted |
| ____ | 403 | Appropriate communications/alarm systems available |
| ____ | 404 | Adequate aisle space available for unobstructed movement |
| ____ | 405 | Arrangement with appropriate local authorities for emergency response have been made |
| ____ | 451 | Hazardous waste stored less than 90 days |
| ____ | 452 | Containers visibly marked with the beginning date of accumulation |
| ____ | 453 | Each container and tank is clearly labeled hazardous waste |
| ____ | 501 | Containers in good condition and are managed to prevent leaks |
| ____ | 502 | Containers are compatible with waste in them |
| ____ | 503 | Containers are stored closed |
| ____ | 504 | Containers are inspected weekly for leaks/defects |
| ____ | 505 | Ignitable/reactive wastes stored 50 ft. from facility property line |
| ____ | 506 | Contact/mixing of incompatibles does not occur |
| ____ | 507 | NFPA buffer zone for tanks observed |

INSPECTOR # 64 SIGNATURE: Katherine A. Bish

RECEIVED BY: Laura Ozamka DATE RECEIVED 4/2/85

**COUNTY OF ORANGE/HEALTH CARE AGENCY**

ENVIRONMENTAL HEALTH (714) 834-8175

**HAZARDOUS WASTE INSPECTION**

DBA: Kimberly Clark Corp

ADDRESS: 2001 E Orangethorpe Ave
Fullerton

PERMIT NUMBER: _____

COMPLIANCE REQUIREMENTS

____ 508 Incompatibles are stored/protected in separate containers
____ 551 Stored waste in tanks does not cause corrosion, leakage, or premature failure
____ 552 Uncovered tanks have 2 ft. freeboard, dikes, or other containment structures
____ 553 Continuous feed systems in tanks have waste-feed cutoff
____ 554 Discharge control equipment, monitoring equipment, and waste level checked daily for tanks
____ 555 Construction materials of tank/containment area checked weekly
____ 556 At site closure, hazardous waste, residues, and contaminated equipment will be properly disposed
____ 557 Ignitable/reactive waste in tanks protected from any material that would cause it to ignite/react
____ 558 Incompatibles are stored/protected in separate tanks
____ 601 Waste is packaged, labeled, and placarded according to 49 CFR (DOT)
____ 602 Each container of 110 gallons or less is properly labeled

The above noted items represent violations of the California Health and Safety Code, Chapter 6.5, and shall be corrected as indicated:

354- The contaminated soil observed by old abandoned above ground fuel oil tank, old waste oil storage area and fuel oil overflow area must be removed and handled in accordance with hazardous waste laws.

* Underground Tank observed on site. Sump area adjacent to Tank holding water & contamination. All contamination must be removed as hazardous waste. Underground tanks must be upgraded/monitored or removed. MSC

ELAPSED TIME IN MINUTES: _____

INSPECTOR # 64 SIGNATURE: Katherine K. Birch

RECEIVED BY: Laura Ozanka DATE RECEIVED 4 12 85

cc: B. Samuels
C. Lyrel
S. Cockerill

FIRE DEPARTMENT
312 EAST COMMONWEALTH AVENUE • FULLERTON, CALIFORNIA 92632
RON COLEMAN FIRE CHIEF
Phones – Administration . . . . . (714) 738-6502
Prevention . . . . . (714) 738-6500
EMERGENCY only . . . . . 911
FAX . . . . . (714) 738-5355

Closure Letter
Jan 22, 1992

January 22,1992

Ms. Isabella Alasti
Kimberly Clark Corporation
2001 E. Orangethorpe Avenue
Fullerton, CA 92634

Subject: Clean-up Case Closure for Site at 2001 East Orangethorpe Ave., Fullerton, CA

Dear Ms. Alasti:

This letter confirms the completion of site investigation and remedial action at the above address. With the provision that the information provided to this department was accurate and representative of existing conditions, it is the position of this office that no further action is required at this time.

The contents of these reports have also been discussed with staff of the Regional Water Quality Control Board (RWQCB). Based on the information submitted and current requirements, the RWQCB concurs with the determination of this Department that no further action is required at this time.

Please be advised that this letter does not relieve you of any liability under the California Health and Safety Code or Water Code for past, present or future operations at the site. Nor does it relieve you of the responsibility to clean up existing, additional or previously unidentified conditions at the site which cause or threaten to cause pollution or nuisance or otherwise pose a threat to water quality or public health.

Additionally, be advised that changes in the present or proposed use of the site may require further site characterization and mitigation activity. It is the property owner's responsibility to notify this Department of any changes in report content, further contamination findings or site usage.

If you have any questions regarding this matter, please contact me at (714) 738-6508.

Sincerely,

John White
Underground Tank Specialist

cc: SARWQCB- Patricia Hannon

JW:pm

cc: BSalcedo
John White - Ful F.D
3-17-92

# Remediation Closure Report

Submitted To:

City Of Fullerton
Underground Tank Division
Inspector John White
312 East Commonwealth Avenue
Fullerton, CA 92632

For

Kimberly Clark Corporation
2001 East Orangethorpe Avenue
Fullerton, CA 92634

Submitted By:

LEDSAM CONTRACTING INCORPORATED

2702 California Avenue
Signal Hill, CA 90806

General Engineering Contractor
Hazardous Remediation Substance Certification
License # 622327

Prepared By LLoyd Stauffer R.E.A. #535

March 1992

Job No. 92108

Table Of Contents

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Field Work

Observations

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Figure 3 - Site Vicinity Map

Attachment A - Analytical Laboratory Report and Chain of Custody

Attachment B - Closure Documentation and Manifest

Attachment C - Compaction Report

## INTRODUCTION

This Closure Report is for the remediation of petreoluem contaminated soil remaining on site from a previous underground storage tank removal project at the Kimberly Clark Corporation facility, 2001 East Orangethorpe Avenue in Fullerton, California. The tanks were removed in May 1986 by Crosby & Overton, under Fullerton Fire Department, Underground Tanks Division, permit #P070-86151. Remediation of the remaining soil was conducted in February 1992, under Fullerton Fire Department permit # 92-T-001.

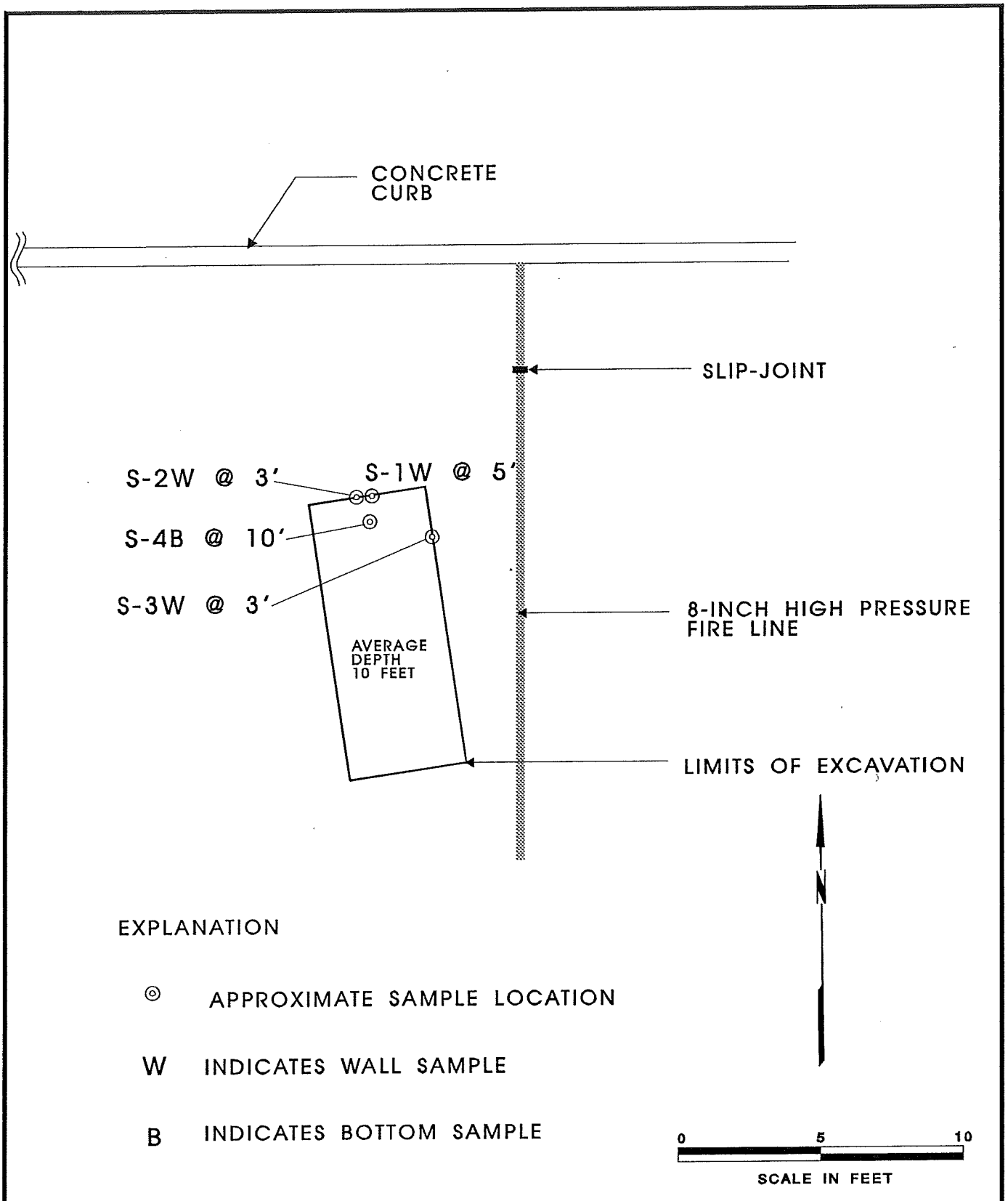
Sample Location Plot Plan (Figure 1) shows initial excavation limits and location of samples for work done on February 5, 1992. Sample Location Plot Plan (Figure 2) shows final excavation limits and location of samples for work done on February 10, 1992 and the arrangement of fire line in relation to excavation. A site vicinity map is provided as Figure 3.

## FIELD WORK

### INITIAL EXCAVATION

LCI started initial excavation on 2/5/92, see Figure #1. Soils exposed in the excavation consisted of 1.5 feet of moist, dark brown clayey silt, with silty medium to coarse sand, underlain by 8.5 feet of brown/gray coarse sand (sugar sand) followed by a clayey silt/medium sand at the bottom of the excavation. All soils in the northern portion of the excavation had noticeable odor and discoloration. Excavated soils were stockpiled on the northwest side of the excavation.

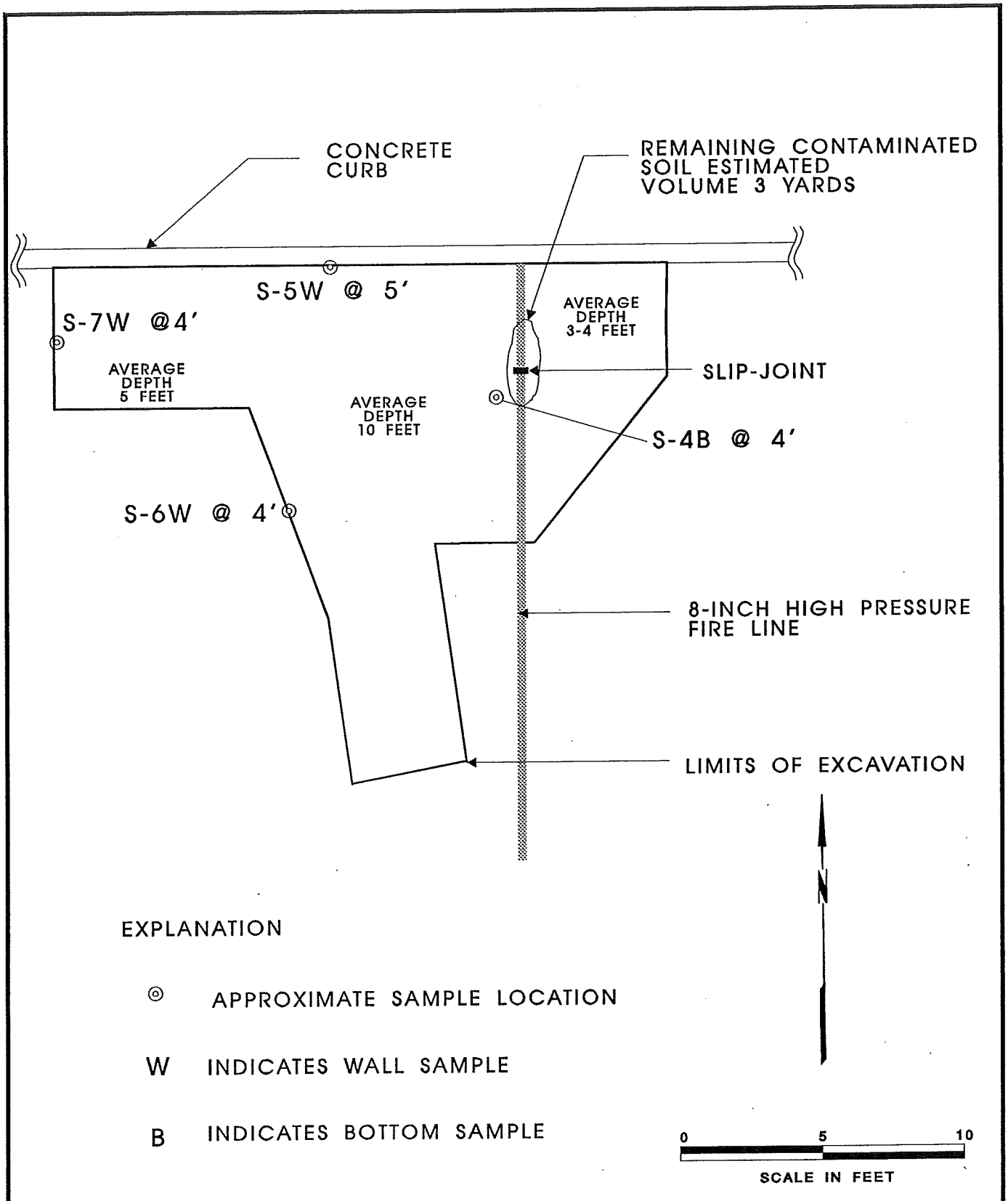
When sugar sand was encountered, excavation ceased and LCI notified Kimberly-Clark Corporation representative Isabella Alasti that the presence of sugar sand made continued excavation vertually impossible without undermining the sourrounding areas. The areas of concern were the 8" high pressure fire line, east of the excavation, the roadway, north of the excavation and the Kimberly Clark equipment stagging area, west of the excavation. It was agreed by Kimberly Clark and LCI that the excavation would be stopped until Mr. John White of the Fullerton Fire Department could evaulate the situation and suggest the proper procedure for continued excavation. Upon Mr. White's suggestion, four samples were obtained, under his direction (see Figure 1) and analyzed, see Attachment A, Analytical Results. For safety concerns, the excavation was lined with plastic sheeting and temporarly backfilled while evaulating the analytical results.




LEDSAM CONTRACTING INCORPORATED

SAMPLE LOCATION PLOT PLAN
ORIGINAL EXCAVATION
FOR: KIMBERLY-CLARK CORPORATION
2001 Orangethorpe Ave, Fullerton, CA

| Project No. | Date | Figure No. |
|---|---|---|
| 92108 | 2/92 | 1 |




LEDSAM CONTRACTING INCORPORATED

SAMPLE LOCATION PLOT PLAN
SECOND EXCAVATION
FOR: KIMBERLY-CLARK CORPORATION
2001 Orangethorpe Ave, Fullerton, CA

| Project No. | Date | Figure No. |
|---|---|---|
| 92108 | 2/92 | 2 |




Reference: U.S.G.S. Topographic Map, 7.5 Minute Series, Anaheim, California Quadrangle, Dated 1965 (Photorevised 1981).

LEDSAM CONTRACTING INCORPORATED

SITE LOCATION MAP

FOR: KIMBERLY-CLARK CORPORATION
2001 Orangethorpe Ave, Fullerton, CA

| Project No. | Date | Figure No. |
|---|---|---|
| 92108 | 2\92 | 3 |

## SOIL SAMPLING

A backhoe was used to remove soil from sampling points in the excavation. Sample #1 was obtained approximately 5 feet below grade from the north wall of the excavation. Sample #2 was obtained approximately 3 feet below grade from the north wall of the excavation. Sample #3 is an east wall sample, obtained approximately 3 feet below grade and 2 foot south of the north wall. Sample #4 was obtained from the bottom of the excavation at approximately 10 feet below grade. Because of obvious gross contamination on the northern half of the west wall, it was agreed by Kimberly Clark, Fullerton Fire Department and LCI representatives that no sampling was necessary at this location. Removal of this material will take place when excavation resumes.

Samples were obtained from the bucket of the excavator and placed into eight (8) ounce glass jars without headspace. The jars were sealed with Teflon-lined lids, marked with sample point identification, date and time sampled and delivered to the Smith-Emery Company (SECO) on-site laboratory. Chain of Custody documentation is included in Attachment A.

## DEPTH TO GROUNDWATER

The Orange County Water District, Water Quality Department was contacted for information regarding depth to groundwater in the vicinity of the site. According to Esmeralda Steffen, the nearest well is Kimberly No. 2, state well #3S/10W-35R1. Depth to groundwater in the well was 140 feet on January 9, 1992. Groundwater was not encountered during any of the excavation activities.

## ANALYTICAL TESTING

Soil samples obtained were analyzed at SECO's on-site mobile laboratory utilizing EPA method 8015m for diesel constituents and EPA method 8020 for benzene, toluene, ethylbenzene and xylenes (BTEX). The test results of all samples analyzed on 2/5/92 are recorded in Table A. A copy of the analytical laboratory report is included in Attachment A.

TABLE A

| Sample # | Method | | Results |
|---|---|---|---|
| 1 | 8015M | TPH | 290 MG/KG |
| 1 | 8020 | Benzene | ND |
| | | Toluene | ND |
| | | Ethylbenzene | ND |
| | | Xylenes | ND |
| 2 | 8015M | TPH | 6700 MG/KG |
| 2 | 8020 | Benzene | ND |
| | | Toluene | ND |
| | | Ethylbenzene | ND |
| | | Xylenes | ND |
| 3 | 8015M | TPH | 7900 MG/KG |
| 3 | 8020 | Benzene | ND |
| | | Toluene | ND |
| | | Ethylbenzene | ND |
| | | Xylenes | ND |
| 4 | 8015M | TPH | 150 MG/KG |
| 4 | 8020 | Benzene | ND |
| | | Toluene | ND |
| | | Ethylbenzene | ND |
| | | Xylenes | ND |

## FIELD WORK FOR SECOND PHASE OF EXCAVATION

LCI began the second phase of excavation on February 10, 1992, by re-excavating the temporary backfill material from the original excavation, then concentrated its efforts in the northern portion of this area with a widening of the excavation limits to the east and west, see Figure #2. Soils exposed in this excavation consisted of like materials as those identified in the initial excavation. LCI stopped excavating once no more visual contamination was present in all but one area; this exception was in the area of the 8" high pressure fire line.

LCI notified Ms. Alasti that the excavation was ready for sampling. Mr. White returned to the site and deturmined that four more samples should be taken. Under his direction, samples were obtained and analyized, see Figure #2 and Attachment A, Analytical Results, dated 2/10/92. It was deturmined that, for safety concerns, the minor amount (estimated to be 3 to 5 cubic yards) of contaminated soil around the high pressure fire line slip joint connector would not be required to be removed because removal of this material could result in the loss of the entire fire protection system, see Figure #2.

## SOIL SAMPLING

Samples were obtained utilizing a California hand auger with 2" brass tubes. The ends were plastic capped, taped without headspace, marked with sample point identification, date and time sampled and delivered to SECO's on-site laboratory. Chain of Custody documentation is included in Attachment A, Analytical Report, dated February 20, 1992.

A backhoe was used to remove soil from sampling points in the excavation. Sample #4 was obtained approximately 4 foot below grade, 10 foot south of the north wall and 1 foot west of the high pressure fire line. Sample #5 was obtained approximately 5 foot below grade from the north wall of the excavation. Sample #6 is a west wall sample, obtained approximately 4 foot below grade and 8 foot south of the north wall. Sample #7 was obtained from the west wall cut back, at a depth of 4 foot, approximately 2 foot south of the north wall.

## ANALYTICAL TESTING

Soil samples obtained were analyzed at SECO's on-site mobile laboratory utilizing EPA method 8015m for diesel constituents and EPA method 8020 for benzene, toluene, ethylbenzene and xylenes (BTEX). The test results of all samples analyzed on 2/10/92 are recorded in Table B. A copy of the analytical laboratory report is included in Attachment A.

TABLE B

| Sample # | Method | | Results |
|---|---|---|---|
| 4 | 8015M | TPH | 180 MG/KG |
| 4 | 8020 | Benzene | ND |
| | | Toluene | ND |
| | | Ethylbenzene | ND |
| | | Xylenes | ND |
| 5 | 8015M | TPH | 71 MG/KG |
| 5 | 8020 | Benzene | ND |
| | | Toluene | ND |
| | | Ethylbenzene | ND |
| | | Xylenes | ND |
| 6 | 8015M | TPH | 71 MG/KG |
| 6 | 8020 | Benzene | ND |
| | | Toluene | ND |
| | | Ethylbenzene | ND |
| | | Xylenes | ND |
| 7 | 8015M | TPH | 100 MG/KG |
| 7 | 8020 | Benzene | ND |
| | | Toluene | ND |
| | | Ethylbenzene | ND |
| | | Xylenes | ND |

## BACKFILLING OF EXCAVATION

The excavation was backfilled on Feburary 10 and 18, 1992 by LCI per ASTM D1557-78 standards, see Attachment C, Geobase Report, Dated 2/20/92. When backfill was complete, the excavation was covered with 4" thick asphalt; edges were sealed and surface was fog sealed.

## CONCLUSION AND RECOMMENDATIONS

Based on LCI's field observations and the results of analytical testing, there is no evidence of contamination in excess of the 1000 ppm guide lines established by the city of Fullerton, Fire Department, Division of Underground Storage Tanks. Considering the low levels of contamination and the asphalt cover, which extends well beyond the limits of the excavation and acts as a barrier to prohibit the possibility of surface water acting as a hydraulic force in relation to the remaining contamination and ground water, it is LCI's opinion that further environmental assessment of soil or groundwater is not warranted. Closure of the excavation is recommended according to the guidelines established by the city of Fullerton Fire Department, Division of Underground Tanks.

## LIMITATIONS

The analyses, conclusions, and recommendations contained in this report are based on site conditions as they existed at the time of LCI's investigation. The factual data and interpretations pertain to the specific project described in this report and are not applicable to any other project or site. LCI's investigation was performed using the standard of care and level of skill ordinarily exercised under similar circumstances by reputable environmental assessors and geologists currently practicing in these or similar locations. No other warranty, expressed or implied, is made as to the conclusions and professional advice included in this report.

Please call if you have any questions reguarding this report.

Sincerely,

LEDSAM CONTRACTING INCORPORATED

LLoyd Stauffer
Vice President
Registered Environmental Assessor #535

REGISTERED ENVIRONMENTAL ASSESSOR
LLOYD STAUFFER
No. 00535
Expires 6-92
STATE OF CALIFORNIA

3-16-92

ATTACHMENT A

Analytical Laboratory Report and Chain of Custody

SMITH-EMERY COMPANY
*The Full Service Independent Testing Laboratory, Established 1904*

781 East Washington Boulevard
P.O. Box 880550, Hunter's Point Shipyard Bldg. 114
5427 East La Palma Avenue

• Los Angeles, California 90021 • (213) 749-3411 • Fax: (213) 746-7228
• San Francisco, California 94188 • (415) 330-3000 • Fax: (415) 822-5864
• Anaheim, California 92807 • (714) 693-1026 • Fax: (714) 693-1034

LEDSAM CONTRACTING CO. 02/07/92
FILE# 71555
2702 CALIFORNIA AVE.
SIGNAL HILL, CA. 90806

Attn: LLOYD STAUFFER
213/490/2056

KIMBERLY CLARK
MOBILE LAB #2, C.O.C.

---

Sample #: 2037081001 Collector: Client
Received: 02/06/92 Sampling Date & Time: 02/05/92, ****
Type: SOIL Method: SUBMITTED BY CLIENT

I.D.: #1) NORTH WALL 5'

| =========CONSTITUENT========== | ====METHOD===== | ==RESULT== | ===UNIT=== |
|---|---|---|---|
| EPA 8015M | | * | |
| TPH-DIESEL | EPA 8015M | 290 | MG/KG |
| EPA 8020 | | * | |
| BENZENE | EPA 8020 | ND <5.0 | UG/KG |
| TOLUENE | EPA 8020 | ND <10 | UG/KG |
| ETHYLBENZENE | EPA 8020 | ND <10 | UG/KG |
| XYLENES | EPA 8020 | ND <15 | UG/KG |

---

Sample #: 2037081002 Collector: Client
Received: 02/06/92 Sampling Date & Time: 02/05/92, ****
Type: SOIL Method: SUBMITTED BY CLIENT

I.D.: #2) NORTH WALL 3'

| | | | |
|---|---|---|---|
| EPA 8015M | | * | |
| TPH-DIESEL | EPA 8015M | 6700 | MG/KG |
| EPA 8020 | | * | |
| BENZENE | EPA 8020 | ND <5.0 | UG/KG |
| TOLUENE | EPA 8020 | ND <10 | UG/KG |
| ETHYLBENZENE | EPA 8020 | ND <10 | UG/KG |
| XYLENES | EPA 8020 | ND <15 | UG/KG |



[ND = None Detected; (G) = Grab; MDL = Minimum Detection Limit]

20370810

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SMITH-EMERY COMPANY
*The Full Service Independent Testing Laboratory, Established 1904*

781 East Washington Boulevard
P.O. Box 880550, Hunter's Point Shipyard Bldg. 114
5427 East La Palma Avenue

- Los Angeles, California 90021
- San Francisco, California 94188
- Anaheim, California 92807

- (213) 749-3411
- (415) 330-3000
- (714) 693-1026

- Fax: (213) 746-7228
- Fax: (415) 822-5864
- Fax: (714) 693-1034

---

Sample #: 2037081003
Received: 02/06/92
Type: SOIL

Collector: Client
Sampling Date & Time: 02/05/92, ****
Method: SUBMITTED BY CLIENT

I.D.: #3) EAST WALL 2'-3'+2'(S. OF N. WALL)

| =========CONSTITUENT========== | ====METHOD===== | ==RESULT== | ===UNIT=== |
|---|---|---|---|
| EPA 8015M | | * | |
| TPH-DIESEL | EPA 8015M | 7900 | MG/KG |
| EPA 8020 | | * | |
| BENZENE | EPA 8020 | ND <5.0 | UG/KG |
| TOLUENE | EPA 8020 | ND <10 | UG/KG |
| ETHYLBENZENE | EPA 8020 | ND <10 | UG/KG |
| XYLENES | EPA 8020 | ND <15 | UG/KG |

---

Sample #: 2037081004
Received: 02/06/92
Type: SOIL

Collector: Client
Sampling Date & Time: 02/05/92, ****
Method: SUBMITTED BY CLIENT

I.D.: #4) NORTH END BOTTOM DEPTH 10'-11'

| | | | |
|---|---|---|---|
| EPA 8015M | | * | |
| TPH-DIESEL | EPA 8015M | 150 | MG/KG |
| EPA 8020 | | * | |
| BENZENE | EPA 8020 | ND <5.0 | UG/KG |
| TOLUENE | EPA 8020 | ND <10 | UG/KG |
| ETHYLBENZENE | EPA 8020 | ND <10 | UG/KG |
| XYLENES | EPA 8020 | ND <15 | UG/KG |

Respectfully Submitted,

for Shahid Noori, Manager Chemical Lab



[ND = None Detected; (G) = Grab; MDL = Minimum Detection Limit]

20370810

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781 East Washington Boulevard
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• San Francisco, California 94188 • (415) 330-3000 • Fax: (415) 822-5864
• Anaheim, California 92807 • (714) 693-1026 • Fax: (714) 693-1034

# CHAIN OF CUSTODY AND ANALYSIS REQUEST

DATE: 2/5/92 PAGE 1 OF 1

FILE NO. _____ LAB NO. Modified Soil

CLIENT NAME: Leatsam Contracting

PROJECT NAME: Kimberly Clark PROJECT NO. P.O. NO.

ADDRESS: 2001 E. Orangethorpe Fullerton

PROJECT MANAGER: Lloyd Stauffer PHONE #: FAX #:

SAMPLER NAME: Lloyd Stauffer (Printed) (Signature)

TAT (Analytical Turn Around Time) 0 = Same Day 1 = 24 Hour 2 = 48 Hour 3 = Normal

CONTAINER TYPES: B = Brass, G = Glass, P = Plastic, V = Voa Vial, O = Other:

| SAMPLE NO. | DATE SAMPLED | TIME SAMPLED | SAMPLE DESCRIPTION | MATRIX | | | | TAT | CONTAINER | | ANALYSES REQUESTED: 8015M GAS ☐ DIESEL ☐ | 602/8020 BTEX | 418.1 | | | | | | REMARKS: SAMPLE CONDITION/ COMMENTS: |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | WATER | SOIL | SLUDGE | OTHER | | # | TYPE | | | | | | | | | |
| 1 | 2/5/92 | | Nth Wall 5' | | X | | | 0 | 1 | G | X | X | | | | | | | |
| 2 | | | Nth Wall 3' | | X | | | 0 | 1 | G | X | X | | | | | | | |
| 3 | | | E Wall 2'-3'+2' | | X | | | 0 | 1 | G | X | X | | | | | | | |
| | | | Sth of Nth Wall | | | | | | | | | | | | | | | | |
| 4 | ↓ | | Nth end bottom | | X | | | 0 | 1 | G | X | X | | | | | | | |
| | | | ≃ Depth 10'-11' | | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | | | | |

Relinquished By: (Signature and Printed Name) Received By: (Signature and Printed Name) Date: Time:
John Martin JOHN MARTIN Rick Conn Rick Conn 2/5/92

Relinquished By: (Signature and Printed Name) Received By: (Signature and Printed Name) Date: Time:

Relinquished By: (Signature and Printed Name) Received By: (Signature and Printed Name) Date: Time:

**SPECIAL INSTRUCTIONS:**

**SAMPLE DISPOSITION:**
1. Samples returned to client? YES NO
2. Samples will not be stored over 30 days, unless additional storage time is requested.
3. Storage time requested: _____ days

By _____ Date _____

DISTRIBUTION: WHITE, YELLOW: GOLD TO SECO — PINK TO CLIENT

SMITH-EMERY COMPANY
*The Full Service Independent Testing Laboratory, Established 1904*

781 East Washington Boulevard
P.O. Box 880550, Hunter's Point Shipyard Bldg. 114
5427 East La Palma Avenue

- Los Angeles, California 90021
- San Francisco, California 94188
- Anaheim, California 92807
- (213) 749-3411
- (415) 330-3000
- (714) 693-1026
- Fax: (213) 746-7228
- Fax: (415) 822-5864
- Fax: (714) 693-1034

02/11/92

LEDSAM CONTRACTING CO.
FILE# 71555
2702 CALIFORNIA AVE.
SIGNAL HILL, CA. 90806

Attn: LLOYD STAUFFER
213/490/2056

KIMBERLY CLARK, MOBILE LAB #2
CHAIN OF CUSTODY

---

Sample #: 2042112801
Received: 02/11/92
Type: SOIL

Collector: Client
Sampling Date & Time: 02/10/92, ****
Method: SUBMITTED BY CLIENT

I.D.: #4) 10' FROM N.WALL 1'W. OF WTRLN BTM

| =========CONSTITUENT========== | ====METHOD===== | ==RESULT== | ===UNIT=== |
|---|---|---|---|
| EPA 8015M | | * | |
| TPH-DIESEL | EPA 8015M | 180 | MG/KG |
| EPA 8020 | | * | |
| BENZENE | EPA 8020 | ND <5.0 | UG/KG |
| TOLUENE | EPA 8020 | ND <10 | UG/KG |
| ETHYLBENZENE | EPA 8020 | ND <10 | UG/KG |
| XYLENES | EPA 8020 | ND <15 | UG/KG |

---

Sample #: 2042112802
Received: 02/11/92
Type: SOIL

Collector: Client
Sampling Date & Time: 02/10/92, ****
Method: SUBMITTED BY CLIENT

I.D.: #5) NORTH WALL 5' CENTER

| | | | |
|---|---|---|---|
| EPA 8015M | | * | |
| TPH-DIESEL | EPA 8015M | 71 | MG/KG |
| EPA 8020 | | * | |
| BENZENE | EPA 8020 | ND <5.0 | UG/KG |
| TOLUENE | EPA 8020 | ND <10 | UG/KG |
| ETHYLBENZENE | EPA 8020 | ND <10 | UG/KG |
| XYLENES | EPA 8020 | ND <15 | UG/KG |



[ND = None Detected; (G) = Grab; MDL = Minimum Detection Limit]

20421128

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SMITH-EMERY COMPANY
*The Full Service Independent Testing Laboratory, Established 1904*

781 East Washington Boulevard • Los Angeles, California 90021 • (213) 749-3411 • Fax: (213) 746-7228
P.O. Box 880550, Hunter's Point Shipyard Bldg. 114 • San Francisco, California 94188 • (415) 330-3000 • Fax: (415) 822-5864
5427 East La Palma Avenue • Anaheim, California 92807 • (714) 693-1026 • Fax: (714) 693-1034

---

Sample #: 2042112803 Collector: Client
Received: 02/11/92 Sampling Date & Time: 02/10/92, ****
Type: SOIL Method: SUBMITTED BY CLIENT

I.D.: #6) WEST WALL 4' AT 45 DEGREE ANGLE

| CONSTITUENT | METHOD | RESULT | UNIT |
|---|---|---|---|
| EPA 8015M | | * | |
| TPH-DIESEL | EPA 8015M | 71 | MG/KG |
| EPA 8020 | | * | |
| BENZENE | EPA 8020 | ND <5.0 | UG/KG |
| TOLUENE | EPA 8020 | ND <10 | UG/KG |
| ETHYLBENZENE | EPA 8020 | ND <10 | UG/KG |
| XYLENES | EPA 8020 | ND <15 | UG/KG |

---

Sample #: 2042112804 Collector: Client
Received: 02/11/92 Sampling Date & Time: 02/10/92, ****
Type: SOIL Method: SUBMITTED BY CLIENT

I.D.: #7) W.WALL 4'AT CUTOUT 2' OF N. WALL

| | | | |
|---|---|---|---|
| EPA 8015M | | * | |
| TPH-DIESEL | EPA 8015M | 100 | MG/KG |
| EPA 8020 | | * | |
| BENZENE | EPA 8020 | ND <5.0 | UG/KG |
| TOLUENE | EPA 8020 | ND <10 | UG/KG |
| ETHYLBENZENE | EPA 8020 | ND <10 | UG/KG |
| XYLENES | EPA 8020 | ND <15 | UG/KG |

Respectfully Submitted,

Shahid Noori

Shahid Noori, Manager Chemical Lab



[ND = None Detected; (G) = Grab; MDL = Minimum Detection Limit]

20421128

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**SMITH-EMERY COMPANY**
*The Full Service Independent Testing Laboratory, Established 1904*

781 East Washington Boulevard • Los Angeles, California 90021 • (213) 749-3411 • Fax: (213) 745-6372
P.O. Box 880550, Hunter's Point Shipyard Bldg. 114 • San Francisco, California 94188 • (415) 330-3000 • Fax: (415) 822-5864
5427 East La Palma Avenue • Anaheim, California 92807 • (714) 693-1026 • Fax: (714) 693-1034

# CHAIN OF CUSTODY AND ANALYSIS REQUEST

DATE: 2/10/92 PAGE 1 OF 1
FILE NO. 72555 LAB NO. Refer to Lab

CLIENT NAME: Jackson Contracting

PROJECT NAME: Kimberly Clark PROJECT NO. P.O. NO.

ADDRESS: 2801 Signal Hope.

PROJECT MANAGER: Lloyd Stanfer PHONE #: FAX #:

SAMPLER NAME: LLOYD STANFER (Printed) (Signature)

TAT (Analytical Turn Around Time) 0 = Same Day 1 = 24 Hour 2 = 48 Hour 3 = Normal

CONTAINER TYPES: B = Brass, G = Glass, P = Plastic, V = Voa Vial, O = Other:

| SAMPLE NO. | DATE SAMPLED | TIME SAMPLED | SAMPLE DESCRIPTION | MATRIX: WATER | MATRIX: SOIL | MATRIX: SLUDGE | MATRIX: OTHER | TAT | CONTAINER: # | CONTAINER: TYPE | ANALYSES REQUESTED: 8015M GAS ☐ DIESEL ☐ | 602/8020 BTEX | 418.1 | REMARKS: / SAMPLE CONDITION/ COMMENTS: |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 4 | 2/10/92 | | 10' from N^th^ wall | | X | | | 0 | 1 | G | X | X | | |
| | | | 1' West of Water | | | | | | | | | | | |
| | | | line Bottom | | | | | | | | | | | |
| 5 | | | N^th^ Wall 5' center | | X | | | 0 | 1 | G | X | X | | |
| 6 | | | W wall 4' at 45° angle | | X | | | 0 | 1 | G | X | X | | |
| 7 | ↓ | | W wall 4' at Cutout | | X | | | 0 | 1 | G | X | X | | |
| | | | 2' S^th^ of N^th^ Wall | | | | | | | | | | | |
| | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | |

Relinquished By: (Signature and Printed Name) Received By: (Signature and Printed Name) Date: Time:
UPS UNITED John L. Stanfer Rick Camp Rick Camp 2/10/92

Relinquished By: (Signature and Printed Name) Received By: (Signature and Printed Name) Date: Time:

Relinquished By: (Signature and Printed Name) Received By: (Signature and Printed Name) Date: Time:

**SPECIAL INSTRUCTIONS:**

**SAMPLE DISPOSITION:**
1. Samples returned to client? YES NO
2. Samples will not be stored over 30 days, unless additional storage time is requested.
3. Storage time requested: _____ days

By _____ Date _____

DISTRIBUTION: WHITE, YELLOW, GOLD TO SECO — PINK TO CLIENT

# ATTACHMENT B

Documentation and Manifests

I HAVE READ AND UNDERST[illegible]D FULLERTON FIRE DEPT. STA[illegible]DARD # _____

FULLERTON FIRE DEPARTMENT
312 East Commonwealth Avenue
Fullerton, CA 92632
(714) 738-6500

DATE February 3, 1992 PERMIT # 92-T-011

In accordance with Uniform Fire Code, Fire Prevention Regulations, permission is hereby granted:

COMPANY Ledsam Contracting BY Lloyd Stauffer

ADDRESS 2702 California St. CITY Signal Hill, CA 90806 PHONE # (310) 490-2056

to remediate the following: contaminated soil

fo

FIRM NAME Kimberly Clark Corp. LOCATION 2001 E. Orangethorpe Ave., Fullerton

remediation shall be in compliance with UFC Art. 79, Health & Safety Code 6.7 & CCR Title 23

Final approval and continuing effort of this permit subject to compliance with Fullerton Fire Dept. Inspection

; applicable City and State regulations, and nationally recognized safe practices. SUBJECT TO REVOCATION FOR PROPER CAUSE.

PERMIT RECEIVED [signature] DATE 2-3-92 FULLERTON FIRE PREVENTION BUREAU

Permit Fee $ 180.00 Permit Expires 2-28-92 BY [signature]
Specialist John White
for Chief Ron Coleman

Treasurer's Receipt # _____
Paid -- Receipt #137618
*yable to City Treasurer per*
*MC 13.10.040, amended 12/79*

FMC, Section 13.10
(UFC Amendment Ord.)

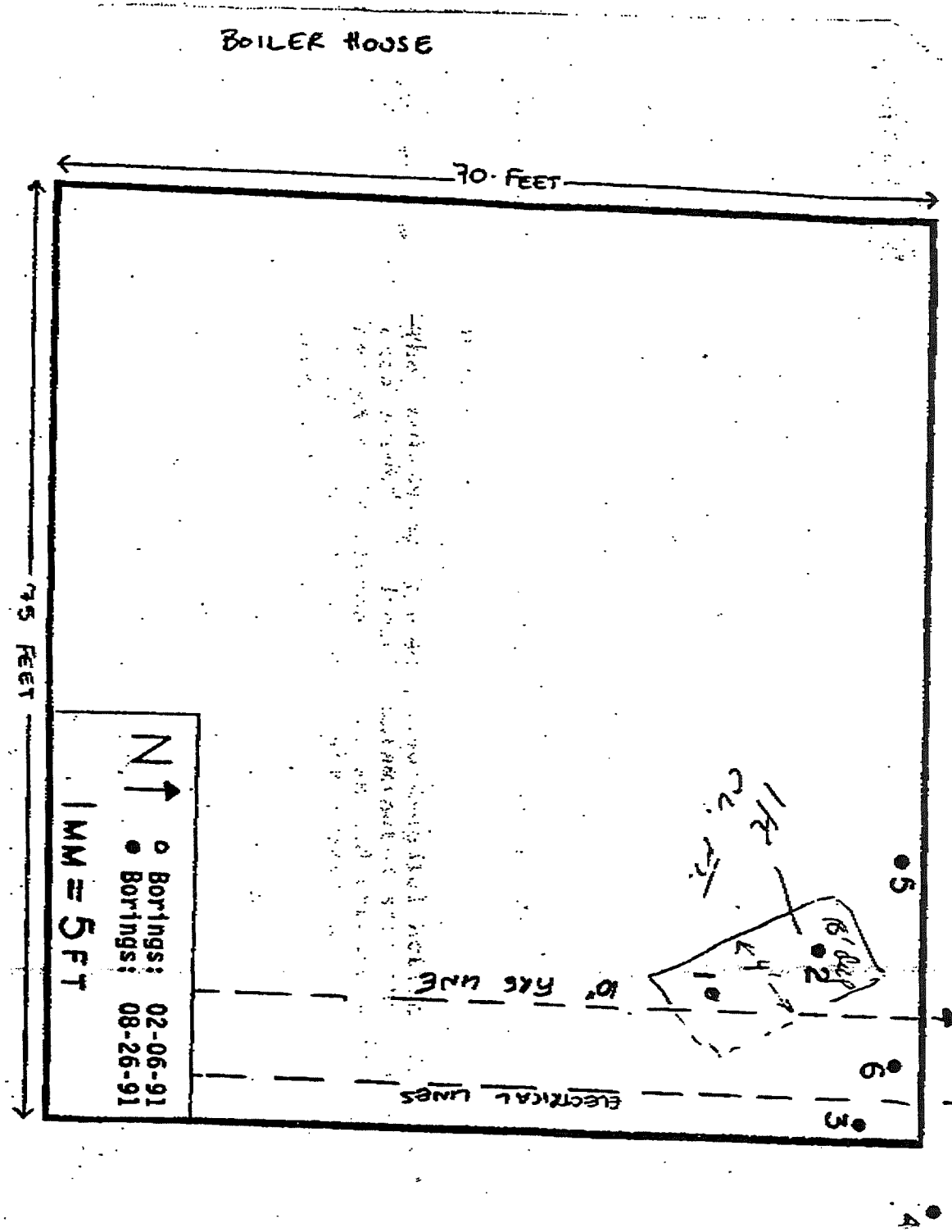
FP 33 - 6/90

*ORIGINAL-WHITE CUSTOMER RECEIPT-GREEN YELLOW-TREASURY COPY PINK-FILE GOLDENROD-FILE*

FULLERTON FIRE DEPARTMENT
312 East Commonwealth Ave.
Fullerton, California 92632
Telephone (714) 738-6500

APPROVED
2/3/92
BUREAU OF FIRE PREVENTION
By

ANALYSIS:




APPROVED

FULLERTON FIRE DEPARTMENT
312 E. COMMONWEALTH AVE.
FULLERTON, CA 92632

Reviewed By _____ Date 2/3/92 Permit # 91-T-911

is approval [illegible] the violation any law, nor does [illegible] of errors and on the plans or at the job site. Plans must be submitted for approval if any changes are made by applicant.

additions [illegible] permits required the building [illegible] management district must [illegible]

underground tank [illegible] location and repair inspection [illegible] be scheduled 48 hours in advance [illegible] 738-6598.

A copy of these approved plans must be available at the job site at all times.

Noramco
Edmondson Pump Plant Road

# CONTAMINATED SOILS PROFILE SHEET

*Effective January 1, 1991*

*Please fill-in completely* all areas that apply to your material. This is an application, not an approval!

GENERATOR KIMBERLY - CLARK CORPORATION

FACILITY ADDRESS 2001 E. ORANGETHORPE AVE

FULLERTON, CA 92634

MAILING ADDRESS SAME AS ABOVE

TELEPHONE 213-490-2056

TECHNICAL CONTACT LLOYD STAUFFER (ICE) TITLE VP

BOE# N/A EPA I.D.# N/A.

TRANSPORTER CUMMINGS TRANSPORT STATE # N/A

CONTACT BOB CALVIN TITLE MANAGER

TELEPHONE 805-765-5556 EPA I.D.# N/A.

NAME OF WASTE NON RCRA, DIESEL CONTAMINATED SOIL

ACTIVITY PRODUCING WASTE UNDERGROUND TANK REMOVAL

IS THIS WASTE A RCRA TCLP WASTE? ☐ YES OR ☑ NO

IF YES, WASTE MUST ARRIVE AT FACILITY WITH A HAZARDOUS WASTE MANIFEST INCLUDING A COMPLETED BOX I WITH EPA CODES.

IS THIS WASTE HAZARDOUS BY TITLE 22, C.C.R., ARTICLE II ? ☐ YES OR ☑ NO

IF NO, THE DETERMINATION THAT THE WASTE IS NON-HAZARDOUS IS BASED UPON CERTIFIED LABORATORY ANALYSES AND/OR GENERATOR KNOWLEDGE OF GENERATION PROCESS AND WASTE CONTAMINANTS.

I CERTIFY THAT THE ABOVE INFORMATION TO THE BEST OF MY KNOWLEDGE IS TRUE AND CORRECT.

Brian E. [illegible] — Management — 2/19/92

SIGNATURE — TITLE — DATE

## FACILITY DECISION

ACCEPT _____ REJECT _____

BY _____ DATE _____

Recycled Paper

№ 92108-1

# NON-HAZARDOUS WASTE DATA FORM

## TO BE COMPLETED BY GENERATOR

NAME Kimberly Clark Corporation

EPA I.D. NO.

ADDRESS 2001 E. Orangethorpe Avenue

CITY, STATE, ZIP Fullerton, CA 92634

PHONE NO. (714) 773-9291

CONTAINERS: No. _____ VOLUME _____ WEIGHT 22 ton (est)

TYPE: ☐ TANK TRUCK ☒ DUMP TRUCK ☐ DRUMS ☐ CARTONS ☐ OTHER _____

WASTE DESCRIPTION Non-RCRA Contaminated Soil

GENERATING PROCESS Tank Removal

| COMPONENTS OF WASTE | PPM | % | COMPONENTS OF WASTE | PPM | % |
|---|---|---|---|---|---|
| 1. Soil | >99 | | 5. | | |
| 2. Diesel | <.01 | | 6. | | |
| 3. | | | 7. | | |
| 4. | | | 8. | | |

PROPERTIES: pH _____ ☒ SOLID ☐ LIQUID ☐ SLUDGE ☐ SLURRY ☐ OTHER _____

HANDLING INSTUCTIONS: Wear Gloves

THE GENERATOR CERTIFIES THAT THE WASTE AS DESCRIBED IS 100% NON-HAZARDOUS.

Brian E. Kostka 2/19/92

TYPED OR PRINTED FULL NAME & SIGNATURE DATE

## TRANSPORTER

NAME Cummings Transport

EPA I.D. NO. CAD983567272

ADDRESS P. O. Box 607

SERVICE ORDER NO. _____

CITY, STATE, ZIP Maricopa, CA 93252

PICK UP DATE 2-19-92

PHONE NO. (800) 828-4281

TRUCK, UNIT, I.D. NO. 921

Gary Lemaster 2-19-92

TYPED OR PRINTED FULL NAME & SIGNATURE DATE

## TSD FACILITY

NAME Noramco, Inc.

EPA I.D. NO.

ADDRESS 6501 Schirra Court, Ste 400

DISPOSAL METHOD ☐ LANDFILL ☒ OTHER Recycle

CITY, STATE, ZIP Bakersfield, CA 93313

PHONE NO. (805) 832-4842

TYPED OR PRINTED FULL NAME & SIGNATURE DATE

| | | | | |
|---|---|---|---|---|
| GEN | OLD/NEW | L A | TONS | |
| TRANS | | S B | | |
| C/Q | | RT/CD | HWDF NONE | DISCREPANCY |

BKK Form 6042 9/87 TSD COPY Pink GENERATOR COPY Goldenrod - TRANSPORTER COPY

№ 92108

# NON-HAZARDOUS WASTE DATA FORM

## TO BE COMPLETED BY GENERATOR

NAME Kimberly Clark Corporation

EPA I.D. NO.

ADDRESS 2001 E. Orangethorpe Avenue

CITY, STATE, ZIP Fullerton, CA 92634

PHONE NO. (714) 773-9291

CONTAINERS: No. _____ VOLUME _____ WEIGHT 22 ton (est)

TYPE: ☐ TANK TRUCK ☒ DUMP TRUCK ☐ DRUMS ☐ CARTONS ☐ OTHER _____

WASTE DESCRIPTION Non-RCRA Contaminated Soil

GENERATING PROCESS Tank Removal

| COMPONENTS OF WASTE | PPM | % | COMPONENTS OF WASTE | PPM | % |
|---|---|---|---|---|---|
| 1. Soil | >99 | | 5. | | |
| 2. Diesel | <.01 | | 6. | | |
| 3. | | | 7. | | |
| 4. | | | 8. | | |

PROPERTIES: pH ____ ☒ SOLID ☐ LIQUID ☐ SLUDGE ☐ SLURRY ☐ OTHER _____

HANDLING INSTUCTIONS: Wear Gloves

THE GENERATOR CERTIFIES THAT THE WASTE AS DESCRIBED IS 100% NON-HAZARDOUS.

Brian E. Keating — 2/19/92

TYPED OR PRINTED FULL NAME & SIGNATURE — DATE

## TRANSPORTER

NAME Cummings Transport

EPA I.D. NO. CAD983567272

ADDRESS P. O. Box 607

SERVICE ORDER NO. _____

CITY, STATE, ZIP Maricopa, CA 93252

PICK UP DATE 2-19-92

PHONE NO. (800) 828-4281

TRUCK, UNIT, I.D. NO. 921

Gary LeMaster — 2-19-92

TYPED OR PRINTED FULL NAME & SIGNATURE — DATE

## TSD FACILITY

NAME ~~Newmet~~, Inc. R.R.T.

EPA I.D. NO.

ADDRESS 6501 Schirra Court, Ste 400

DISPOSAL METHOD ☐ LANDFILL ☒ OTHER Recycle

CITY, STATE, ZIP Bakersfield, CA 93313

PHONE NO. (805) 832-4842

James Lucas — James Lucas — 2/19/92

TYPED OR PRINTED FULL NAME & SIGNATURE — DATE

| GEN | OLD/NEW | L A | TONS |
|---|---|---|---|
| TRANS | | S B | |
| C/Q | | RT/CD | HWDF NONE |

DISCREPANCY

BKK Form 6062 8/87 White & Yellow - TSD COPY Pink - GENERATOR COPY Goldenrod - TRANSPORTER COPY

№ 92108-2

# NON-HAZARDOUS WASTE DATA FORM

## TO BE COMPLETED BY GENERATOR

NAME Kimberly Clark Corporation

EPA I.D. NO.

ADDRESS 2001 E. Orangethorpe Avenue

CITY, STATE, ZIP Fullerton, CA 92634

PHONE NO (714) 773-9291

CONTAINERS: No. _____ VOLUME _____ WEIGHT 22 ton (est)

TYPE: ☐ TANK TRUCK ☒ DUMP TRUCK ☐ DRUMS ☐ CARTONS ☐ OTHER _____

WASTE DESCRIPTION Non-RCRA Contaminated Soil

GENERATING PROCESS Tank Removal

| COMPONENTS OF WASTE | PPM | % | COMPONENTS OF WASTE | PPM | % |
|---|---|---|---|---|---|
| 1. Soil | >99 | | 5. | | |
| 2. Diesel | <.01 | | 6. | | |
| 3. | | | 7. | | |
| 4. | | | 8. | | |

PROPERTIES: pH _____ ☒ SOLID ☐ LIQUID ☐ SLUDGE ☐ SLURRY ☐ OTHER _____

HANDLING INSTUCTIONS: Wear Gloves

THE GENERATOR CERTIFIES THAT THE WASTE AS DESCRIBED IS 100% NON-HAZARDOUS.

Isabella Alasti — 2-19-92

TYPED OR PRINTED FULL NAME & SIGNATURE — DATE

## TRANSPORTER

NAME Cummings Transport

EPA I.D. NO. CAD983567272

ADDRESS P. O. Box 607

SERVICE ORDER NO. _____

CITY, STATE, ZIP Maricopa, CA 93252

PICK UP DATE 2-19-92

PHONE NO. (800) 828-4281

Philip Stanley Philip Stanley 2-19-92

TRUCK, UNIT, I.D. NO. 44/B-5

TYPED OR PRINTED FULL NAME & SIGNATURE — DATE

## TSD FACILITY

NAME Noramco, Inc.

EPA I.D. NO.

ADDRESS 6501 Schirra Court, Ste 400

DISPOSAL METHOD ☐ LANDFILL ☒ OTHER Recycle

CITY, STATE, ZIP Bakersfield, CA 93313

PHONE NO. (805) 832-4842

TYPED OR PRINTED FULL NAME & SIGNATURE — DATE

| | | | | |
|---|---|---|---|---|
| GEN | OLD/NEW | L A | TONS | |
| TRANS | | S B | | |
| C/Q | | RT/CD | HWDF NONE | DISCREPANCY |

BKK Form 6062 8/87 White & Yellow - TSD COPY Pink - GENERATOR COPY Goldenrod - TRANSPORTER COPY

78,180 Gross wt.
32,000 Empty wt.

№ 92108-2

# NON-HAZARDOUS WASTE DATA FORM

## TO BE COMPLETED BY GENERATOR

NAME Kimberly Clark Corporation

ADDRESS 2001 E. Orangethorpe Avenue — EPA I.D. NO.

CITY, STATE, ZIP Fullerton, CA 92634 — PHONE NO (714) 773-9291

CONTAINERS: No. _____ VOLUME _____ WEIGHT 22 ton (est.)

TYPE: ☐ TANK TRUCK ☒ DUMP TRUCK ☐ DRUMS ☐ CARTONS ☐ OTHER _____

WASTE DESCRIPTION Non-RCRA Contaminated Soil — GENERATING PROCESS Tank Removal

| COMPONENTS OF WASTE | PPM | % | COMPONENTS OF WASTE | PPM | % |
|---|---|---|---|---|---|
| 1. Soil | >99 | | 5. | | |
| 2. Diesel | <.01 | | 6. | | |
| 3. | | | 7. | | |
| 4. | | | 8. | | |

PROPERTIES: pH ____ ☒ SOLID ☐ LIQUID ☐ SLUDGE ☐ SLURRY ☐ OTHER _____

HANDLING INSTRUCTIONS Wear Gloves

THE GENERATOR CERTIFIES THAT THE WASTE AS DESCRIBED IS 100% NON-HAZARDOUS.

Isabella Alash — 2-19-92
TYPED OR PRINTED FULL NAME & SIGNATURE — DATE

## TRANSPORTER

NAME Cummings Transport — EPA I.D. NO. CAD983567272

ADDRESS P. O. Box 607 — SERVICE ORDER NO. _____

CITY, STATE, ZIP Maricopa, CA 93252 — PICK UP DATE 2-19-92

PHONE NO. (800) 828-4281

TRUCK, UNIT, I.D. NO. 44/B-5

Philip Stanley — 2-19-92
TYPED OR PRINTED FULL NAME & SIGNATURE — DATE

## TSD FACILITY

NAME ~~Newmeo~~, Inc. PPT — EPA I.D. NO. _____

ADDRESS 6501 Schirra Court, Ste 400 — DISPOSAL METHOD ☐ LANDFILL ☒ OTHER Recycle

CITY, STATE, ZIP Bakersfield, CA 93313

PHONE NO. (805) 832-4842

James Hines — 2/19/92
TYPED OR PRINTED FULL NAME & SIGNATURE — DATE

| | | | | |
|---|---|---|---|---|
| GEN | OLD/NEW | L A | TONS | |
| TRANS | | S B | | |
| C/O | | RT/CO | HWDF NONE | DISCREPANCY |

BKK Form 9082 6/87 White & Yellow - TSD COPY Pink - GENERATOR COPY Goldenrod - TRANSPORTER COPY

№ 92108-3

# NON-HAZARDOUS WASTE DATA FORM

## TO BE COMPLETED BY GENERATOR

NAME: Kimberly Clark Corporation

ADDRESS: 2001 E. Orangethorpe Avenue

EPA I.D. NO.:

CITY, STATE, ZIP: Fullerton, CA 92634

PHONE NO.: (714) 773-9291

CONTAINERS: No. _____ VOLUME _____ WEIGHT: 22 ton (est)

TYPE: ☐ TANK TRUCK ☒ DUMP TRUCK ☐ DRUMS ☐ CARTONS ☐ OTHER _____

WASTE DESCRIPTION: Non-RCRA Contaminated Soil

GENERATING PROCESS: Tank Removal

| COMPONENTS OF WASTE | PPM | % | COMPONENTS OF WASTE | PPM | % |
|---|---|---|---|---|---|
| 1. Soil | >99 | | 5. | | |
| 2. Diesel | <.01 | | 6. | | |
| 3. | | | 7. | | |
| 4. | | | 8. | | |

PROPERTIES: pH _____ ☒ SOLID ☐ LIQUID ☐ SLUDGE ☐ SLURRY ☐ OTHER _____

HANDLING INSTRUCTIONS: Wear Gloves

THE GENERATOR CERTIFIES THAT THE WASTE AS DESCRIBED IS 100% NON-HAZARDOUS.

Brian E. Kerbs — 2/19/92

TYPED OR PRINTED FULL NAME & SIGNATURE — DATE

## TRANSPORTER

NAME: Cummings Transport / R E Atkins.

ADDRESS: P. O. Box 607

CITY, STATE, ZIP: Maricopa, CA 93252

EPA I.D. NO.: CAD983567272

SERVICE ORDER NO.:

PICK UP DATE: 2-19-92

PHONE NO.: (800) 828-4281 / (714) 592-2859

TRUCK, UNIT, I.D. NO.: 44

Tom Autenson — 2-19-92

TYPED OR PRINTED FULL NAME & SIGNATURE — DATE

## TSD FACILITY

NAME: Noramco, Inc.

ADDRESS: 6501 Schirra Court, Ste 400

CITY, STATE, ZIP: Bakersfield, CA 93313

PHONE NO.: (805) 832-4842

EPA I.D. NO.:

DISPOSAL METHOD: ☐ LANDFILL ☒ OTHER Recycle

TYPED OR PRINTED FULL NAME & SIGNATURE — DATE

| | | | | |
|---|---|---|---|---|
| GEN | OLD/NEW | L A | TONS | |
| TRANS | | S B | | |
| C/Q | | RT/CD | HWDF NONE | DISCREPANCY |

BKK Form 6062 8/87 White & Yellow - TSD COPY Pink - GENERATOR COPY Goldenrod - TRANSPORTER COPY

15,000 Gross wt.
No Ticket

No 921

# NON-HAZARDOUS WASTE DATA FORM

## TO BE COMPLETED BY GENERATOR

NAME Kimberly Clark Corporation

ADDRESS 2001 E. Orangethorpe Avenue EPA I.D. NO.

CITY, STATE, ZIP Fullerton, CA 92634 PHONE NO. (714) 773-9291

CONTAINERS: No. VOLUME WEIGHT 22 ton (est)

TYPE: ☐ TANK TRUCK ☒ DUMP TRUCK ☐ DRUMS ☐ CARTONS ☐ OTHER

WASTE DESCRIPTION Non-RCRA Contaminated Soil GENERATING PROCESS Tank Removal

| COMPONENTS OF WASTE | PPM | % | COMPONENTS OF WASTE | PPM | % |
|---|---|---|---|---|---|
| 1. Soil | >99 | | 5. | | |
| 2. Diesel | <.01 | | 6. | | |
| 3. | | | 7. | | |
| 4. | | | 8. | | |

PROPERTIES: pH ☒ SOLID ☐ LIQUID ☐ SLUDGE ☐ SLURRY ☐ OTHER

HANDLING INSTRUCTIONS: Wear Gloves

THE GENERATOR CERTIFIES THAT THE WASTE AS DESCRIBED IS 100% NON-HAZARDOUS.

Brian E. Kerbs Br. Kerbs 2/19/92
TYPED OR PRINTED FULL NAME & SIGNATURE DATE

## TRANSPORTER

NAME Cummings Transport / R E Atkins.

ADDRESS P. O. Box 607 / 4000 Gladstone

CITY, STATE, ZIP Maricopa, CA 93252 / San Dimas, 91773

PHONE NO. (800) 828-4281 / 714 592 2859

TRUCK, UNIT, I.D. NO. 44

EPA I.D. NO. CAD983567272

SERVICE ORDER NO. 0907050

PICK UP DATE 2-19-92

Tom Autterson Tom Autterson 2-19-92
TYPED OR PRINTED FULL NAME & SIGNATURE DATE

## TSD FACILITY

NAME Noramco, Inc.

ADDRESS 6501 Schirra Court, Ste 400

CITY, STATE, ZIP Bakersfield, CA 93313

PHONE NO. (805) 832-4842

EPA I.D. NO.

DISPOSAL METHOD ☐ LANDFILL ☒ OTHER Recycle

James Lucas James Lucas 3/4/92
TYPED OR PRINTED FULL NAME & SIGNATURE DATE

Delivered - 2/19/92

| GEN | OLD/NEW | L A | TONS |
|---|---|---|---|
| TRANS | | S B | |
| D/O | | | |

№ 92108-4

# NON-HAZARDOUS WASTE DATA FORM

## TO BE COMPLETED BY GENERATOR

NAME: Kimberly Clark Corporation

ADDRESS: 2001 E. Orangethorpe Avenue

EPA I.D. NO.:

CITY, STATE, ZIP: Fullerton, CA 92634

PHONE NO.: (714) 773-9291

CONTAINERS: No. ____ VOLUME ____ WEIGHT: 22 ton (est)

TYPE: ☐ TANK TRUCK ☒ DUMP TRUCK ☐ DRUMS ☐ CARTONS ☐ OTHER ____

WASTE DESCRIPTION: Non-RCRA Contaminated Soil

GENERATING PROCESS: Tank Removal

| COMPONENTS OF WASTE | PPM | % |
|---|---|---|
| 1. Soil | >99 | |
| 2. Diesel | <.01 | |
| 3. | | |
| 4. | | |
| 5. | | |
| 6. | | |
| 7. | | |
| 8. | | |

PROPERTIES: pH ____ ☒ SOLID ☐ LIQUID ☐ SLUDGE ☐ SLURRY ☐ OTHER ____

HANDLING INSTRUCTIONS: Wear Gloves

THE GENERATOR CERTIFIES THAT THE WASTE AS DESCRIBED IS 100% NON-HAZARDOUS.

Isabella Marsh Isabella Marsh 2-19-92

TYPED OR PRINTED FULL NAME & SIGNATURE — DATE

## TRANSPORTER

NAME: Cummings Transport

EPA I.D. NO.: CAD983567272

ADDRESS: P. O. Box 607

SERVICE ORDER NO.:

CITY, STATE, ZIP: Maricopa, CA 93252

PICK UP DATE: 2-19-92

PHONE NO.: (800) 828-4281

TRUCK, UNIT, I.D. NO.: 81

MELVIN BETHEL Melvin Bethel 2/19/92

TYPED OR PRINTED FULL NAME & SIGNATURE — DATE

## TSD FACILITY

NAME: Noramco, Inc.

EPA I.D. NO.:

ADDRESS: 6501 Schirra Court, Ste 400

DISPOSAL METHOD: ☐ LANDFILL ☒ OTHER Recycle

CITY, STATE, ZIP: Bakersfield, CA 93313

PHONE NO.: (805) 832-4842

TYPED OR PRINTED FULL NAME & SIGNATURE — DATE

| | | | | |
|---|---|---|---|---|
| GEN | OLD/NEW | L A | TONS | |
| TRANS | | S B | | |
| C/Q | | RT/CD | HWDF NONE | DISCREPANCY |

BKK Form 8092 8/87 ... TSD COPY ... Pink - GENERATOR COPY ... Goldenrod - TRANSPORTER COPY

30,012 Empl wf.

№ 921

# NON-HAZARDOUS WASTE DATA FORM

## TO BE COMPLETED BY GENERATOR

NAME: Kimberly Clark Corporation

ADDRESS: 2001 E. Orangethorpe Avenue

EPA I.D. NO.:

CITY, STATE, ZIP: Fullerton, CA 92634

PHONE NO.: (714) 773-9291

CONTAINERS: No. _____ VOLUME _____ WEIGHT: 22 ton (est)

TYPE: ☐ TANK TRUCK ☒ DUMP TRUCK ☐ DRUMS ☐ CARTONS ☐ OTHER _____

WASTE DESCRIPTION: Non-RCRA Contaminated Soil

GENERATING PROCESS: Tank Removal

| | COMPONENTS OF WASTE | PPM | % | | COMPONENTS OF WASTE | PPM | % |
|---|---|---|---|---|---|---|---|
| 1. | Soil | >99 | | 5. | | | |
| 2. | Diesel | <.01 | | 6. | | | |
| 3. | | | | 7. | | | |
| 4. | | | | 8. | | | |

PROPERTIES: pH _____ ☒ SOLID ☐ LIQUID ☐ SLUDGE ☐ SLURRY ☐ OTHER _____

HANDLING INSTRUCTIONS: Wear Gloves

THE GENERATOR CERTIFIES THAT THE WASTE AS DESCRIBED IS 100% NON-HAZARDOUS.

Isabelle Mark Schiller-Ac 2-19-92

TYPED OR PRINTED FULL NAME & SIGNATURE — DATE

## TRANSPORTER

NAME: Cummings Transport

EPA I.D. NO.: CAD981356727

ADDRESS: P. O. Box 607

SERVICE ORDER NO.:

CITY, STATE, ZIP: Maricopa, CA 93252

PICK UP DATE: 2-19-92

PHONE NO.: (800) 828-4281

TRUCK, UNIT, I.D. NO.: 81

MELVIN BETHEL Melvin Bethel 2/19/92

TYPED OR PRINTED FULL NAME & SIGNATURE — DATE

## TSD FACILITY

NAME: Noramco, Inc.

EPA I.D. NO.:

ADDRESS: 6501 Schirra Court, Ste 400

DISPOSAL METHOD: ☐ LANDFILL ☒ OTHER Recycle

CITY, STATE, ZIP: Bakersfield, CA 93313

PHONE NO.: (805) 832-4842

JAMES HUDS James Hudson 2/19/92

TYPED OR PRINTED FULL NAME & SIGNATURE — DATE

| | | | | |
|---|---|---|---|---|
| GEN | OLD/NEW | L A | TONS | |
| TRANS | | S B | | |
| C/G | | RT/CD | HWDF NONE | DISCREPANCY |

SKK Form 6082 8/87 White & Yellow - TSD COPY Pink - GENERATOR COPY Goldenrod - TRANSPORTER COPY

RRT INC.
RESOURCE RENEWAL TECHNOLOGIES

P.O. Box 40441
Bakersfield, CA 93384-0441

(805) 832-484
Haz. Sub. Lic. 38244
Haz. Haul CAD 98243703

February 24, 1992

Ledsam Contracting Company
2702 California Avenue
Signal Hill, California 90806

Job: Kimberly Clark

| DATA FORM | TONS |
|---|---|
| 92108-1 | 24.69 |
| 92108-2 | 25.09 |
| 92108-3 | 22.00 |
| 92108-4 | 25.99 |
| TOTAL TONS | 97.77 |

STATE OF CALIFORNIA
DEPARTMENT OF INDUSTRIAL RELATIONS
DIVISION OF OCCUPATIONAL SAFETY AND HEALTH

No.- 551310

# PERMIT

**Permit Issued To**
*(Insert Employer's Name, Address and Telephone No.)*

LEDSAM CONTRACTING INC.
2702 California Ave.
Signal Hill, CA 90806
(310) 490-2056

No. _____
Date Jan. 3rd, 1992
Region 3
District 5
Tel. (310) 516-3734

Type of Permit ANNUAL PERMIT - trench/EXCAVATION

Pursuant to Labor Code Sections 6500 and 6502, this Permit is issued to the above-named employer for the projects described below.

| State Contractor's License Number A-527194-HAZ | | | Permit Valid through 12/31/92 | |
|---|---|---|---|---|
| Description of Project | Location Address | City and County | Anticipated Dates | |
| | | | Starting | Completion |
| TRENCH/EXCAVATION | Various | Statewide | 1/1/92 | 12/31/92 |
| THIS PERMIT IS ISSUED SUBJECT TO THE CONDITION THAT THE WORK IS PERFORMED BY THE SAME EMPLOYER. THE APPROPRIATE DISTRICT OFFICE SHALL BE NOTIFIED IN WRITING OF LOCATION OF JOB SITE PRIOR TO COMMENCEMENT.<br>SEE ATTACHED NOTICE PERTAINING TO THE EXCAVATION STANDARD WITH ITS COMPETENT PERSON REQUIREMENTS. | | | | |

***This Permit is issued upon the following conditions:***

1. That the work is performed by the same employer. If this is an annual permit the appropriate District Office shall be notified, in writing, of dates and location of job site prior to commencement.
2. That employer will comply with all occupational safety and health standards or orders applicable to the above projects, and any other lawful orders of the Division.
3. That if any unforeseen condition causes deviation from the plans or statements contained in the Permit Application Form the employer will notify the Division immediately.
4. Any variation from the specification and assertions of the Permit Application Form or violation of safety orders may be cause to revoke the permit.
5. This permit shall be posted at or near each place of employment as provided in 8 CAC 341.4.

Harbor Bank #1691

| Received From | Received By | |
|---|---|---|
| L.Stauffer | George Godzak | |
| ☐ Cash ☒ Check | Amount $100.- | Date 1/3/92 |

Investigated by George Godzak Safety Engr. 1/3/92 Date

Approved by SB by ADM DK Dist. Manager 1-3-92 Date

EMPLOYER ORIGINAL—GREEN DISTRICT COPY—PINK
ACCOUNTING COPY—CANARY REGION COPY—WHITE
S-690 (Rev. 2-81)

89 86579

# NOTICE

(Attachment)

LATER THIS YEAR (1992), CAL/OSHA EXPECTS TO BEGIN ENFORCING THE NEW FEDERAL TRENCHING AND EXCAVATION STANDARDS THAT WERE RECENTLY ADOPTED BY THE CAL/OSHA STANDARDS BOARD.

THESE STANDARDS, IN PART, CALL FOR DAILY INSPECTION OF ALL EXCAVATIONS AND TRENCHES BY A "COMPETENT PERSON".

TO BE A "COMPETENT PERSON", ONE MUST HAVE:

1. KNOWLEDGE OF SOIL ANALYSIS AS DETAILED IN THE STANDARD
2. AUTHORITY TO TAKE PROMPT CORRECTIVE ACTION ON THE JOB AS CONDITIONS WARRANT
3. KNOWLEDGE OF THIS NEW STANDARD
4. KNOWLEDGE OF THE USE OF PROTECTIVE SYSTEMS

THIS PERMIT IS BEING ISSUED UNDER THE EXISTING AND UNREVISED STANDARDS FOR EXCAVATION WORK. WHEN THE NEW STANDARD TAKES EFFECT, YOUR COMPANY WILL BE EXPECTED TO PROVIDE A "COMPETENT PERSON" ON EACH PERMITTED JOB. ALSO, PERMITS ISSUED AFTER THE EFFECTIVE DATE OF THE NEW STANDARD WILL REQUIRE ON THE PERMIT APPLICATION THE NAME(S) OF THE "COMPETENT PERSON(S)" FOR YOUR COMPANY.

ATTACHMENT C

Compaction Report

# GEOBASE

SOIL/ROCK MECHANICS AND FOUNDATION ENGINEERING

LEDSAM CONTRACTING INCORPORATED
2702 California Avenue
Signal Hill, California 90806

February 20, 1992

Project No: C.191.16.00

Attention: Mr. S. Ledsam

Dear Mr. Ledsam

SUBJECT: **COMPACTION REPORT ON BACKFILL OF AN EXCAVATION**
2001 East Orangethorpe Avenue
Fullerton, California

This report summarizes observations and compaction testing performed during the backfilling of an excavation at the subject site. The Partial Site Plan is given as Figure 1, attached.

## FIELD TESTING

Field density tests were compared to laboratory tests of the same soil type. Maximum dry density/optimum moisture content relationships for the backfill soils used are presented on Table I, attached, Laboratory Test Results. The laboratory standard of compaction used was ASTM D1557-78, Five-Layer Method.

Approximate locations of in-place density tests are shown on the Partial Site Plan, Figure 1, attached. These in-place density tests were performed in accordance with ASTM D2922-81 and D3017-88 (Nuclear Method) and ASTM D1556-82 (Sand Cone Method). The fill soils placed were a minimum of 90 percent of the laboratory standard at the locations tested. The test results are presented on Table II, Results of Compaction Tests, attached. Fill soils were also probed between test locations.

## EXCAVATION

The excavation at this site consisted of a irregular shaped pit approximately twenty-two (22) feet long, eleven (11) feet wide, and seven (7) feet deep. A plan view of the excavation is shown on Figure 1, attached.

## SOIL TYPES

The backfill soils consisted of light brown to brown, silty, gravelly sands and crushed aggregate base material.

## FILL PLACEMENT

Backfill operations were carried out on February 10 and February 18, 1992. Fill material was placed on February 10, 1992 to an approximate depth of three (3) feet below grade. On February 18, 1992, two (2) feet of wet material were removed prior to placement of fill. Approximately six (6) inches of base material was also placed at the surface.

Subsequent to removal, suitable fill soils were placed in approximately 8-inch lifts, brought to near optimum moisture content and compacted to a minimum of 90 percent of the maximum density, where tested, as determined by ASTM D1557-78. Compaction of the backfill soils was achieved by rolling with an excavator equipped with a sheepsfoot wheel.

## SUMMARY

The backfill operations, as well as observations and testing services described herein, have been limited to those operations, as noted above, performed on February 10 and February 18, 1992. These testing services allow the testing of only a small percentage of the fill placed at the site. Therefore, testing during grading does not relieve the contractor of his primary responsibility to perform all work in accordance with the specifications.

The conclusions and recommendations contained herein have been based upon our observations and testing as noted. Based on our observations and testing, it is our opinion that

GEOBASE

the grading operations were performed in accordance with the requirements of the regulating agencies.

Services performed by GEOBASE, INC. were prepared in accordance with generally accepted geotechnical engineering principles and practices. No other warranty, expressed or implied, is made as to the conclusions and professional advice included in this report.

This letter report is subject to review by the appropriate regulating agencies.

Respectfully submitted
GEOBASE, INC.

REGISTERED PROFESSIONAL ENGINEER
J.M. CHEVALLIER
NO. G.E. 2056
EXP 12-31-93
GEOTECHNICAL
STATE OF CALIFORNIA

S.H. Bou, B.Sc.
Project Engineer

J-M (John) Chevallier, P.E., G.E.
R.C.E. 39198; G.E. 2056
Principal

Attachments: Figure 1 -- Partial Site Plan
Table I -- Maximum Dry Density/Optimum Moisture Content
Table II -- Results of Compaction Test

C.191.16.00

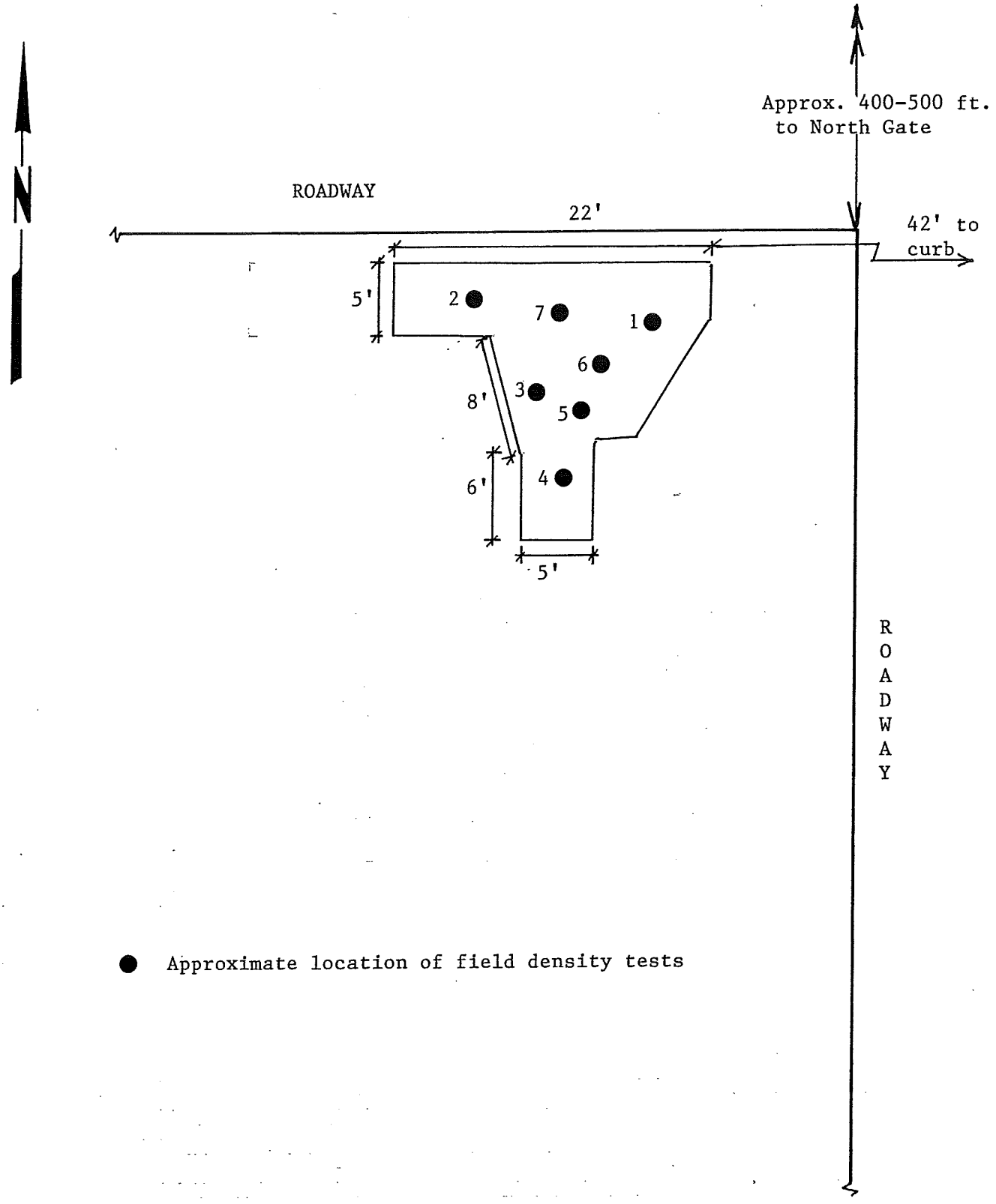
TABLE I
MAXIMUM DRY DENSITY/OPTIMUM MOISTURE CONTENT
ASTM D1557-78

| SOIL TYPE NUMBER | SOIL TYPE | SOIL DESCRIPTION | MAXIMUM DRY DENSITY (PCF) | OPTIMUM MOISTURE CONTENT (%) |
|---|---|---|---|---|
| 1 | SN | SAND, light brown to brown, silty, gravelly | 134.1 | 9.0 |

TABLE II
RESULTS OF COMPACTION TEST
ASTM D1556-82

| TEST NO. | DATE | APPROX. DEPTH (FT.) | MOISTURE CONTENT (%) | DRY DENSITY (PCF) | RELATIVE COMPACTION (%) | SOIL TYPE | SOIL TYPE NUMBER |
|---|---|---|---|---|---|---|---|
| 1N | 02/10/92 | - 5.0 | 10 | 122.1 | 91 | SM | 1 |
| 2N | 02/10/92 | - 5.0 | 10 | 122.9 | 92 | SM | 1 |
| 3N | 02/10/92 | - 3.0 | 11 | 121.1 | 90 | SM | 1 |
| 4N | 02/10/92 | - 3.0 | 9 | 120.7 | 90 | SM | 1 |
| 5N | 02/10/92 | - 2.0 | 11 | 122.3 | 91 | SM | 1 |
| 6 | 02/18/92 | - 3.0 | 9 | 120.7 | 90 | SM | 1 |
| 7 | 02/18/92 | - 1.0 | 11 | 122.8 | 92 | SM | 1 |

N = Nuclear Gauge Used (ASTM 2922-81 & D3017-88)




**GEOBASE**

PARTIAL SITE PLAN
2001 East Orangethorpe Ave.
Fullerton, California

P.191.16 FIGURE 1

WEECO WESTERN ENVIRONMENTAL ENGINEERS CO.

1780 E. McFadden Ave. (Suite 117)
Santa Ana, CA 92705

(714) 542-2644
FAX (714) 542-2520

Ms. Grace Madden
Laboratory Leader
Kimberly-Clark
2001 E. Orangethorpe Avenue
Fullerton, CA. 92631

Nov. 13, 1997

RE: Soil Contamination Analysis for Tank Farm

Dear Ms. Madden:

Attached please find the copy of the report for the soil contamination analysis performed by WEECO regarding the spill of Sodium Hypochlorite(NaOCl) in the tank farm area.

This report concludes that the soil samples taken in the soils underneath the tank farm area revealed sizable contamination.

Further boring/sampling/analysis will be required in order to completely define the horizontal and the vertical extents of the soil contamination with NaOCl.

After the further soil contamination analysis is performed, it will be known how much of the soil should be removed or remediated in order to resolve the problem.

The method of soil remediation shall be discussed in the report that will be made after the further boring/sampling/analysis is finished.

If you have any questions, please feel free to call us.

Attachment: Soil Testing Report

Sincerely, Charles Choi

Charles Choi
WEECO

**WEECO Project No. 97-611**

# INITIAL PHASE-2 SITE ENVIRONMENAL ASSESSMENT

# FOR

# THE TANK FARM AREA FOR KIMBERLY CLARK PLANT

# AT

**2001 East Orangethorpe Ave., Fullerton, California**

**October 20, 1997**




**Report written by** _____

**Charles Choi**
**Registered Environmental Assessor**
**California Registration No. 3066**




**by** _____

**Abnish Amar, PhD**
**Registered Civil Engineer**
**California Registration No. C28906**

Table of Content


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| | -Groundwater Level | 3 |
| 4 0 | Drilling and Soil Sampling | 4 |
| 5 0 | Chemical Analysis for Soil Samples | 5 |
| 6 0 | Sodium Hypochlorite as Hazardous Material | 6 |
| 7 0 | Conclusions | 7 |
| 8 0 | Recommendations | 8 |

Figure ( 1 ) Site Location Map
Figure ( 2) Factory Site Plot Plan
Figure ( 3) Tank Farm and Soil Boring Areas
Figure ( 4) Inferred Horizontal and Vertical Extent of Soil Contamination

Table ( 1) Soil Drilling and Boring Log Sheets
Table ( 2) Chain of Custody of the Soil Samples
Table ( 3) Results of the Soil Sample Analysis

Attachment (A) Chain-of-Custody of Soil Samples
Attachment (B) Soil Boring Log Sheets
Attachment (C) Soil test Result
Attachment (D) Depth to The Groundwater
Attachment (E) MSDS Sheets for NaOCl
Attachment (F) Sodium Hypochlorite as Hazardous Material

## 1.0 INTRODUCTION

This report presents the findings of an initial site assessment investigation conducted at the tank farm of Kimberly Clark factory located at 2001 E Orangethorpe Avenue, Fullerton, California There are five tanks at this tank farm which are used to store fuel oil and chemicals such as Sodium Hypochlorite(NaOCl) Western Environmental Engineers Company(WEECO) was retained by Kimberly-Clark Company to conduct an initial site-environmental assessment in order to find the horizontal and vertical extent of soil contamination due to the potential leak of sodium hypochlorite material around the tank farm area

This report summarizes the drilling, soil sampling, analysis, and evaluation of the analytical results to determine whether it will be necessary to conduct any further site characterization study and site cleanup and remediation for this area

## 2.0 SITE DESCRIPTION

Kimberly-Clark Company has a factory at 2001 E Orangethorpe Avenue in Fullerton Figure (2) shows the layout of the factory located in Fullerton There is a tank farm on the east site of the factory as indicated in Figure (2) The tank farm has five tanks as described below

(Tank No 1)
(Tank No 2)
(Tank No 3)
(Tank No 4)
(Tank No 5)

These tanks contain chemicals such as sodium hypochlorite(NaOCl), which is used as a breaching solution for pulp processing This sodium hypochlorite is purchased from the manufacturer(Jones Chemical Co ) as the brand name of "Sunny Sol-150". Figure (3) shows the layout of the tank farm including the above five tanks As shown in the Figure (3), the five tanks are located in a berm area, whose size is 120-feet by 110-feet It was understood that there was a leak in the Tank No 3 which used to contain Sunny Sol-150 which is a solution of sodium hypochlorite(15 6% solution)

## 3. Site Background Conditions

### (Site Geology)

The project site is located in the Fullerton area of the central basin comprised of alluvium and associated deposit of recent Pleistocene age Jefferson Aquifer, which is the second aquifer in downward succession within the San Pedro Formation, extends over most of the Central Basin, although it is not known to reach the surface Within the boundaries of the aquifer, some irregular areas exist where the aquifer has not been identified The Jefferson Aquifer occurs in sinuous courses extending from both the Los Angeles and Whittier Narrows into Orange County. Lithologically, the sediments comprising this aquifer (based on drilling logs of water wells in the area) are for the most part, fine-grained Gravels are most extensive in the Whittier Narrows area but also occur in scattered patches throughout the rest of the Central Basin The remainder of the aquifer consists primarily of sand with some gravely and clavey lenses

The thickness of the aquifer varies from a few feet to a maximum of 140-feet along the Los Alamitos fault This aquifer is considerably folded and its base varies in elevation from 700-feet below sea level to 50-feet above sea level

Artificial recharge within the Whittier Narrows has some effect on this aquifer Since less 10% of the wells in the Central Basin are perforated in this horizon and then only in the areas where coarse sandy and gravel zones are encountered, it is generally not considered an important water producing aquifer

The movement of groundwater across the Los Angeles and Orange County line is entirely dependent on the hydraulic gradient in the area since no physical barrier to groundwater movement exists Due to the continuity of the hydraulic gradient which slopes in the southerly direction, the general direction of the groundwater in the confined Central Basin is from the north to the south Groundwater conditions in the overlying shallow semi-perched aquifer do not necessarily follow this trend

**(Groundwater Level)**

The depth-to-groundwater at the subject site area is obtained by contacting the Orange County Water District Water Quality Department As shown in Attachment ( D), the OCWD sent us the information regarding the depth-to-groundwater and the ground-surface elevation

As shown in Attachment ( D), the depth-to-groundwater in the subject area is around 110-130 feet below the surface as depicted by the neighborhood well technical data It is believed that the direction of the groundwater in the vicinity is from the north to the south

## 4. Drilling and Soil Sampling

WEECO used manual drilling devices in order to drill and take soil samples from the subject site because there was not enough room for bringing in a large drilling machine mounted on a truck The manual drilling was performed using a 2.5-inch hand-auger and a 1 5-inch sampling device After a hole was drilled with the 2 5-inch drilling auger, a 1.5-inch sampling device was introduced into the hole and the soil samples were taken by pounding in the 1 5-inch sampling rings into the soil at the bottom of the holes The sample rings were retrieved from the bottom of the holes and the ring samples were kept in an ice box until they were delivered to the lab certified by the State of California

From each hole, five soil samples were taken one each from 2, 4, 6, 8, and 10-feet below the surface The chain-of-custody for the soil samples are shown in Attachment (A)

The log sheets for soil boring are shown in Attachment ( B) As shown in these log sheets, the nature of the soil in the bored areas can be described as "sandy-silt" and or silty sand

## 5.Chemical Analysis for The Soil Samples

Since the main concern of soil contamination for this tank farm was the leak of sodium hypochlorite from the Tank No -1, only chemical component that was analyzed for the soil samples taken was "Sodium Hypochlorite, NaOCl" The laboratory where these soil samples were analyzed was Chemtek Environmental Laboratory located in Santa Fe Springs, California This laboratory is approved by the State of California to test these types of chemical contaminants in soil samples

The results of the chemical analysis are shown in Attachment (C ) As shown in this Attachment, the sodium hypochlorite concentrations in the soil samples turned out to be less than 13 WPPM(mg/kg NaOCl in soil) The highest concentration of NaOCl was found at B-5-2 sample which was taken from 2-feet below surface at B-1 drilling location

All of the ten soil borings(B-1 through B-10) were made to a maximum depth of 10-ft below surface Most of the ten soil samples taken at the bottom of the hole(10-feet depth) showed some NaOCl contamination This reveals that the soils located further below than 10-feet may be also contaminated Therefore, it will be necessary to drill further down below 10-feet level in order to find out the maximum depth of the soil contamination in the subject area

## 6. Sodium Hypochlorite as Hazardous Chemical

According to Appendix X (List of Chemical Names and Common Names for Hazardous Wastes and hazardous Materials) of Division 4.5 (Environmental Health Standards for the management of Hazardous Waste) of Title 22 of the California Code of Regulations indicates that sodium hypochlorite is considered a hazardous material The Appendix X is listed in Chapter 11 of Article 5 of the Division 4 5

A portion of the Article 5 of the Division 4 5 of the California Code of Regulations including Chapter 11 and Appendix X is shown in Attachment ( F ) On Page 687 of the California Code of Regulations(CCR), Sodium Hypochlorite is listed as the hazardous material number (#678) This chemical compound exhibits characteristics of toxicity, ignitability, and reactivity

## 7. Conclusions

The results of the soil samples analyzed showed that the soil in the tank farm area down to a depth of 10-feet below surface is contaminated with Sodium Hypochlorite material The range of the contamination is from less than 1 0 wppm to 13.0 wppm

A high concentration of sodium hypochlorite in soil was found in the soil sampling area around B-5 The concentrations of sodium hypochlorite were found to be somewhat higher at the shallow ground areas such as 2-4 feet below the surface As the depth of the soil goes deeper, the concentration of sodium hypochlorite becomes lower. This indicates that this hazardous chemical spill is concentrated in the shallow ground areas

However, since the bottom of the bored holes (10-feet below surface) showed still significant contamination, for example, B-3-10 sample showed 4 0 wppm, B-6-10 showed 3 57 wppm, and B-7-10 showed 4 62 wppm

The depth-to-groundwater in the subject area is in excess of 100- feet below surface Since the NaOCl contamination appears to be confined in the shallow area such as within 10-20 feet below surface, the possibility of NaOCl contamination extending into the groundwater at the subject site is considered unlikely at this time

Since the contaminant(NaOCl, Sodium Hypochlorite) is known as a hazardous chemical(toxic, ignitable, and reactive), it should be warned to the plant operation and maintenance people that no direct exposure to human beings to the NaOCl chemical or NaOCl-contaminated soil be allowed at the subject site area until after a thorough contamination assessment is made and the site is remediated, if necessary

## 8. Recommendations

Since the chemical spilled onto the ground is a hazardous material(Sodium Hypochlorite) and the bottoms of the bored holes are still shown contaminated, a further boring/sampling/testing is recommended in order to delineate the vertical and the horizontal extent of the plume of the contamination

Further boring below 10-feet depth is recommended especially in the area of B-3, B-6, and B-7 area where the soil samples at the bottom of the 10-feet borings showed more than 1 0 wppm of sodium hypochlorite contamination The future borings at these locations should be drilled and sampled until the soil sample analysis shows less than 1 0 wppm of sodium hypochlorite The maximum level of contaminants to be left at the site was chosen at 1 0 wppm, because the current detection limit of the NaOCl is 1 0 wppm

The technical and economic feasibility for soil remediation will be studied after the second phase of the soil sampling and analysis work is finished By that time, we shall know how deep and how wide the size of the soil contamination is at the site Some of the possible methods of remediation that will be studied are as follows

### ( l). Excavation and Treatment At An Off-site Location

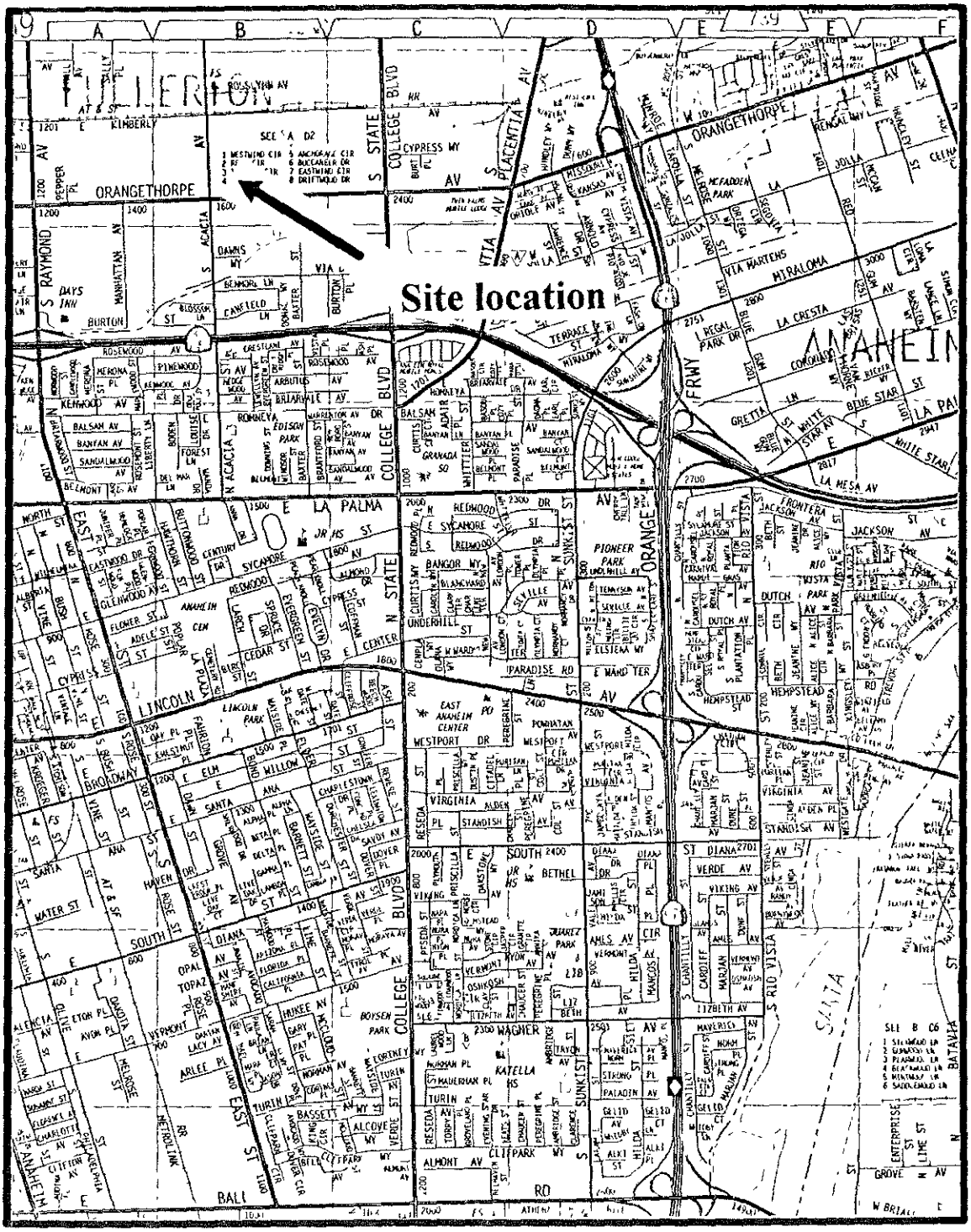
-Treatment may include passive aeration for NaOCl decomposition

-Or, Treatment may include active aeration with air injection method

-Or, Treatment may include spraying a neutralization chemical in order to convert NaOCl into NaCl salt NaCl salt is a non-hazardous chemical, and thus will be satisfactory to leave in the soil Some of the chemicals that can be used as neutralization-chemical is sodium bisulfite and ferrous salt solutions

### (2). On-site Air Injection Method

-If excavation and disposal is not feasible, air injection wells will be drilled and installed so that air may be injected into the underground site for neutralization of NaOCl into NaCl




# Vicinity Map
# Figure 1

| | |
|---|---|
| WEECO — Western Environmental Engineers Company | |
| Drawn By Jack Liu | Date October 14, 1997 |
| Project Nbr 97-106 | Kimberly Clark |
| Site Addres 2001 East Orangethorpe Ave<br>Fullerton, CA 92631 | |

FIGURE (2) Factory Site Plot Plan

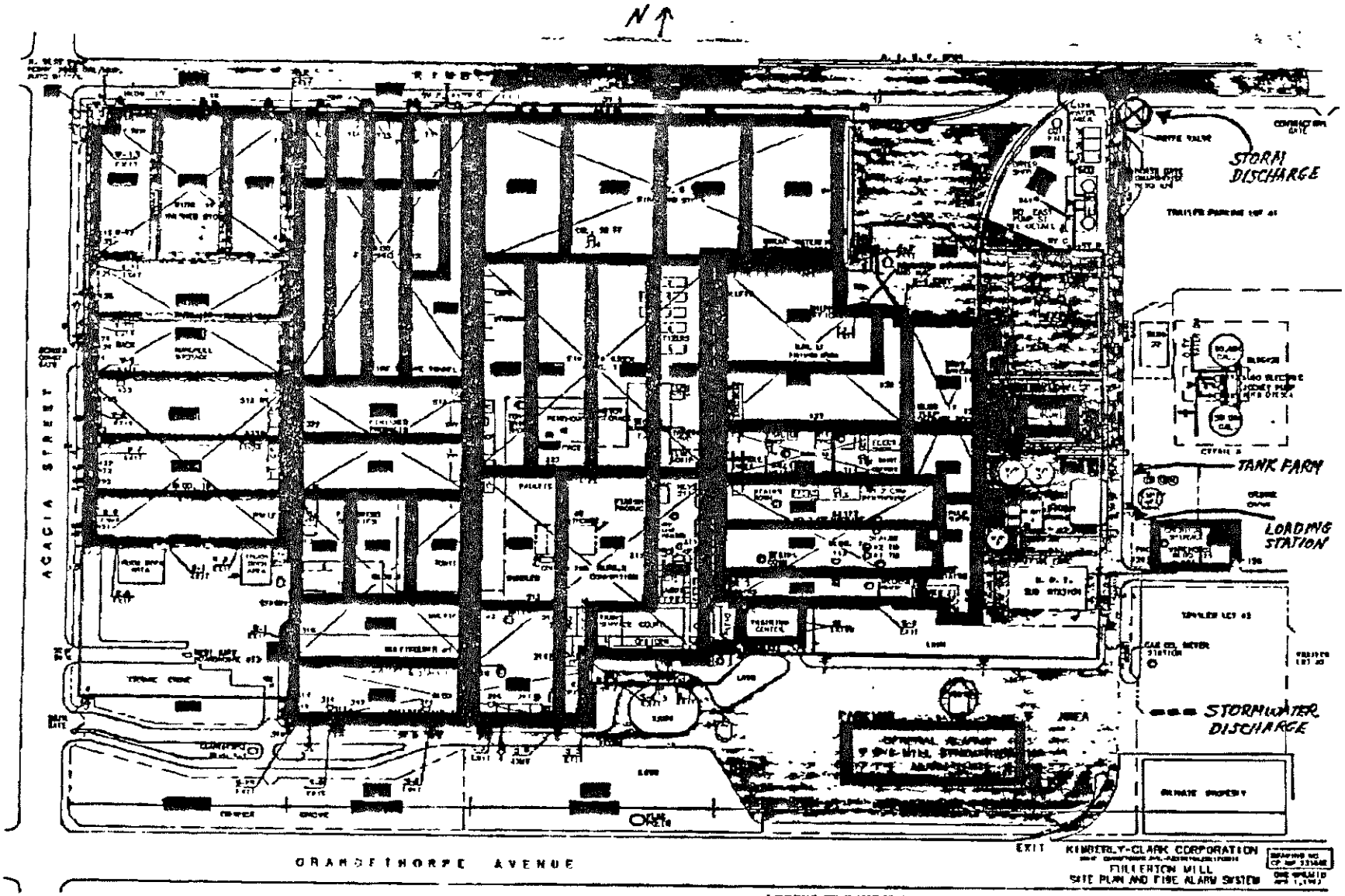
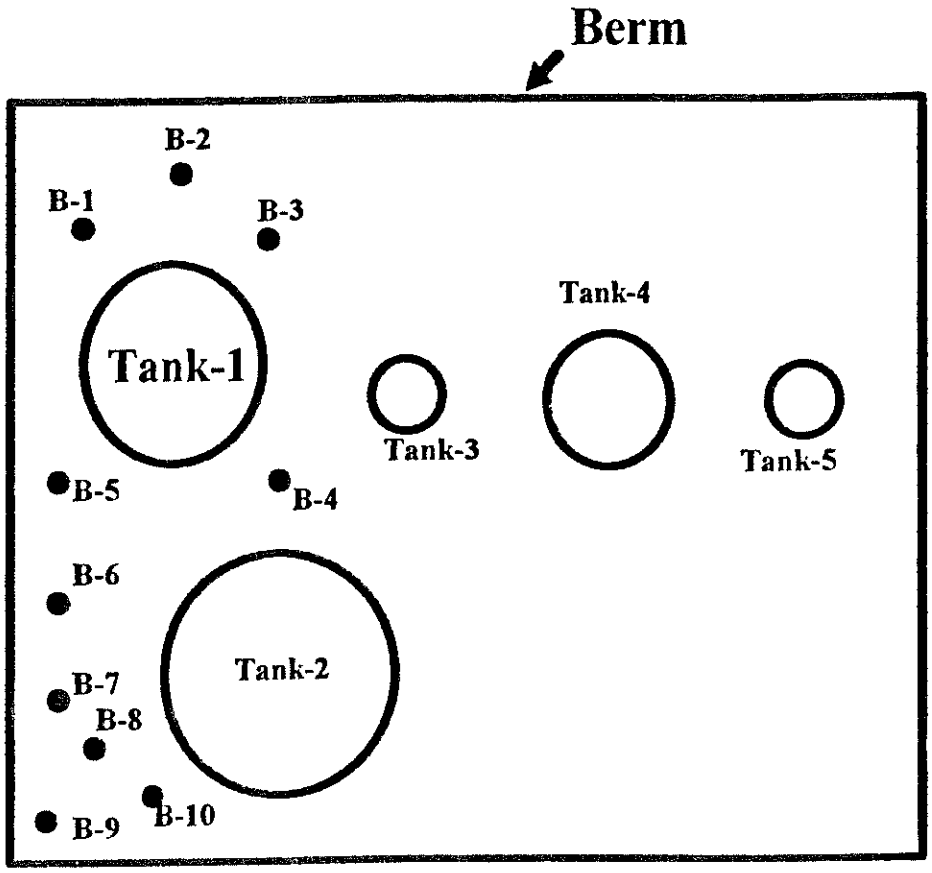


FIGURE (3)




Scale: 1" = 25'

N

# Site Plan

| WEECO | Western Environmental Engineers Company |
|---|---|
| Drawn By Jack Liu | Date October 14, 1997 |
| Project Nbr. 97-106 | Kimberly Clark |
| Site Addres 2001 East Orangethorpe Ave Fullerton, CA 92631 | |

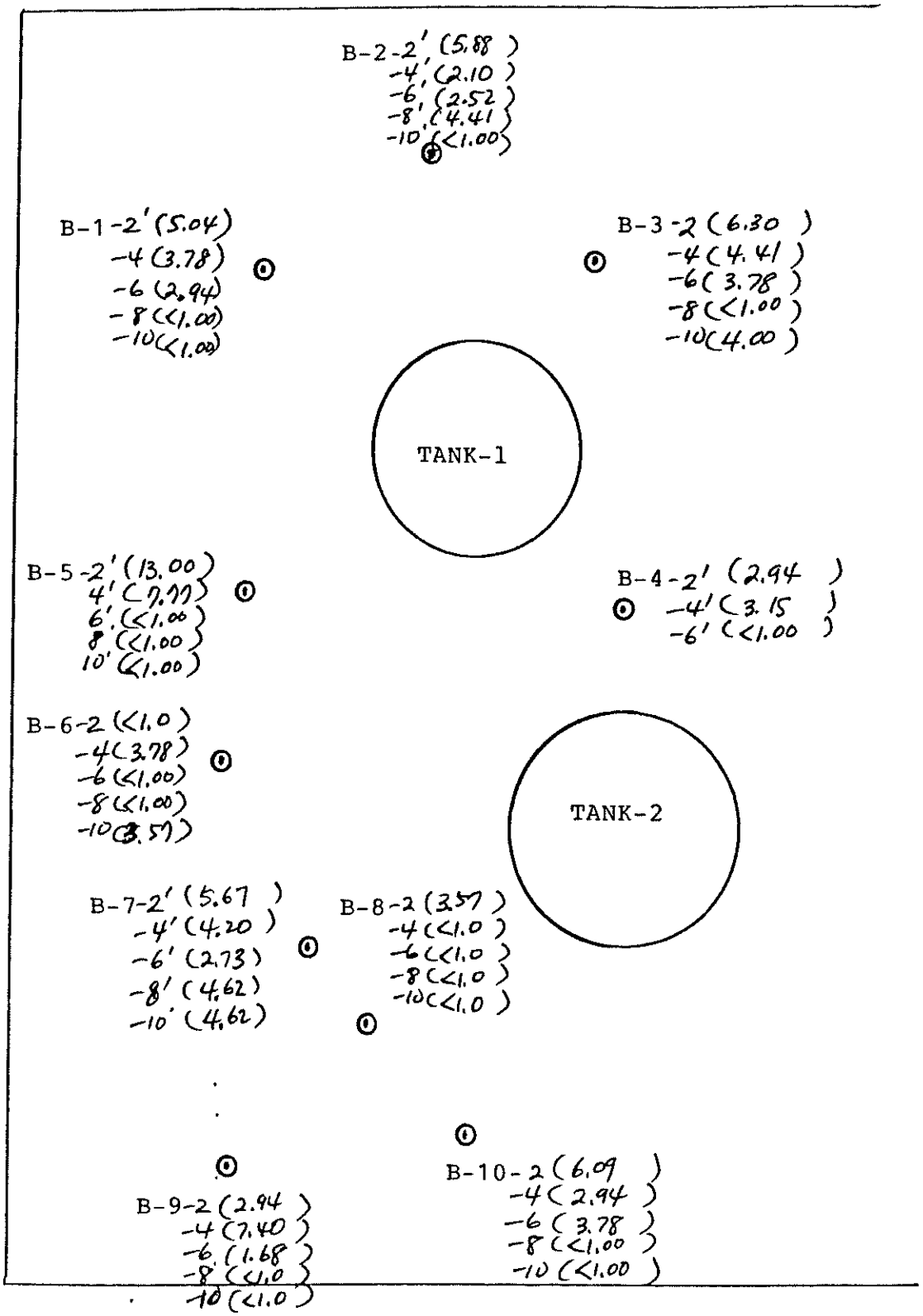



FIGURE (4)

INFERRED HORIZONTAL AND VERTICAL EXTENT
OF CONTAMINATION

Attachment (A)

Chain-of-Custody for Soil Samples

## CHAIN OF CUSTODY RECORD

(1) Log Number 709065

| | | | |
|---|---|---|---|
| Client name: WFEC | | Project # | |
| Address: 1750 E McFadden Ave #117 | | Phone # 714-542-2600 / Fax # | |
| City, State Zip: Santa Ana, CA 92705 | | Report attention: Jack Liu | |
| Sampled by: Jack Liu | | | |

| Sample number | Date Sampled | Time Sampled | Type* See key below | Sample description | Number of containers | Analyses required: Carbon Hydrocarbons | Hazardous sample Special handling required | Remarks |
|---|---|---|---|---|---|---|---|---|
| 1 | 9/2/97 | 0830 | SO | B-1-2' | 1 | X | | |
| 2 | | 0845 | | B-1-4' | | | | |
| 3 | | 0850 | | B-1-6' | | | | |
| 4 | | 0905 | | B-1-8' | | | | |
| 5 | | 0923 | | B-1-10' | | | | |
| 6 | | 0930 | | B-2-2' | | | | |
| 7 | | 0944 | | B-2-4' | | | | |
| 8 | | 0956 | | B-2-6' | | | | |
| 9 | | 1005 | | B-2-8' | | | | |
| 10 | | 1015 | | B-2-10' | | | | |
| 11 | | 1040 | | B-3-2' | | | | |
| 12 | | 1041 | | B-3-4' | | | | |

| | Signature | Print Name | Company | Date | Time |
|---|---|---|---|---|---|
| Relinquished by | | Jack Liu | WFEC | 9/2/97 | 1100 |
| Received by | | Michael Lu | Chemtek Laboratory | 9/2/97 | 1100 |
| Relinquished by | | | | | |
| Received by | | | | | |
| Relinquished by | | | | | |
| Received by Laboratory | | | | | |

**CHEMTEK ENVIRONMENTAL LABORATORIES INC.**
14140 Alondra Boulevard, Suite A
Santa Fe Springs, Ca. 90670
Tel: (310) 926-9848 Fax: (310) 926-8324

Note:
Samples are discarded 30 days after results are reported unless other arrangements are made.
Hazardous samples will be returned to client or disposed of at client expense.

* Key. AQ-Aqueous NA-Nonaqueous SL-Sludge GW-Groundwater SO-Soil OT-Other PE-Petroleum

DISTRIBUTION: WHITE with report / YELLOW To CHEMTEK / PINK To courier

## CHAIN OF CUSTODY RECORD

(2) Log Number 709065

| Client name | Project # |
|---|---|
| WEECO | |
| **Address** 1750 E McFadden Ave #117 | **Phone #** 714-547-7166 **Fax #** |
| **City, State, Zip** Santa Ana CA 92705 | **Report attention** Jack Liu |

Sampled by: Jack Liu

| Sample number | Date Sampled | Time Sampled | Type* See key below | Sample description | Number of containers | Analyses required: Soluble Hydrocarbons | Hazardous sample Special handling required | Remarks |
|---|---|---|---|---|---|---|---|---|
| 13 | 9/29/97 | 1040 | SO | B-3-6' | 1 | X | | |
| 14 | | 1055 | | B-3-8' | | | | |
| 15 | | 1105 | | B-3-10' | | | | |
| 16 | | 1135 | | B-4-2' | | | | |
| 17 | | 1140 | | B-4-4' | | | | |
| 18 | | 1200 | | B 4-6' | | | | |
| 19 | | 1210 | | B-5-2' | | | | |
| 20 | | 1220 | | B-5-4' | | | | |
| 21 | | 1225 | | B-5-6' | | | | |
| 22 | | 1230 | | B-5-8' | | | | |
| 23 | | 1240 | | B-5-10' | | | | |
| 24 | ↓ | 1300 | ↓ | B-6-2' | ↓ | ↓ | | |

| | Signature | Print Name | Company | Date | Time |
|---|---|---|---|---|---|
| Relinquished by | | Jack Liu | WEECO | 9/29/97 | 1305 |
| Received by | | Michael Lu | ChemTek Laboratory | 9/29/97 | 1305 |
| Relinquished by | | | | | |
| Received by | | | | | |
| Relinquished by | | | | | |
| Received by Laboratory | | | | | |

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Hazardous samples will be returned to client or disposed of at client expense.

* Key: AQ-Aqueous NA-Nonaqueous SL-Sludge GW-Groundwater SO-Soil OT-Other PE-Petroleum

DISTRIBUTION: WHITE with report / YELLOW To CHEMTEK / PINK To courier

## CHAIN OF CUSTODY RECORD

(3)

Log Number 709065

| Client name | Project # | Analyses required |
|---|---|---|
| WEECO | | |
| Address 1750 E. McFadden Ave #117 | Phone # 714-835-267-2644 Fax # | |
| City, State, Zip Santa Ana CA 92705 | Report attention Jack Liu | |

| Sample number | Date Sampled | Time Sampled | Type* See key below | Sampled by Jack Liu / Sample description | Number of containers | Soil Hydrazine | Hazardous sample Special handling required | Remarks |
|---|---|---|---|---|---|---|---|---|
| 25 | 9/5/97 | 1310 | SO | B-6-4' | 1 | X | | |
| 26 | | 1320 | | B-6-6' | | | | |
| 27 | | 1330 | | B-6-8' | | | | |
| 28 | | 1345 | | B-6-10' | | | | |
| 29 | | 1345 | | B-7-2' | | | | |
| 30 | | 1355 | | B-7-4' | | | | |
| 31 | | 1400 | | B-7-6' | | | | |
| 32 | | 1410 | | B-7-8' | | | | |
| 33 | | 1470 | | B-7-10' | | | | |

| | Signature | Print Name | Company | Date | Time |
|---|---|---|---|---|---|
| Relinquished by | | Jack Liu | WEECO | 9/5/97 | 1430 |
| Received by | | Michael Li | Citrin Fole - Laboratory | 9/5/97 | 1430 |
| Relinquished by | | | | | |
| Received by | | | | | |
| Relinquished by | | | | | |
| Received by Laboratory | | | | | |

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Note:
Samples are discarded 30 days after results are reported unless other arrangements are made.
Hazardous samples will be returned to client or disposed of at client expense

* Key AQ-Aqueous NA-Nonaqueous SL-Sludge GW-Groundwater SO-Soil OT-Other PE-Petroleum

DISTRIBUTION: WHITE with report / YELLOW To CHEMTEK / PINK To courier

## CHAIN OF CUSTODY RECORD

Log Number 710012

| | | | |
|---|---|---|---|
| Client name: WEECO | | Project # | |
| Address: 1780 E. McFadden Ave # 117 | | Phone # 714-547-7601<br>Fax # 714-547 2520 | |
| City, State, Zip: Santa Ana CA 92705 | | Report attention: Jack Liu | |
| Sampled by: Jack Liu | | | |

| Sample number | Date Sampled | Time Sampled | Type* See key below | Sample description | Number of containers | Sodium Nitrate | Analyses required | | | | | | Hazardous sample Special handling required | Remarks |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 10/6/97 | 0730 | SO | B-8-2' | 1 | X | | | | | | | | |
| 2 | | 0740 | | B-8-4' | | | | | | | | | | |
| 3 | | 0745 | | B-8-6' | | | | | | | | | | |
| 4 | | 0755 | | B-8-8' | | | | | | | | | | |
| 5 | | 0805 | | B-8-10' | | | | | | | | | | |
| 6 | | 0815 | | B-9-2' | | | | | | | | | | |
| 7 | | 0825 | | B-9-4' | | | | | | | | | | |
| 8 | | 0830 | | B-9-6' | | | | | | | | | | |
| 9 | | 0835 | | B-9-8' | | | | | | | | | | |
| 10 | | 0845 | | B-9-10' | | | | | | | | | | |
| 11 | | 0850 | | B-10-2' | | | | | | | | | | |
| 12 | | 0855 | | B-10-4' | | | | | | | | | | |

| | Signature | Print Name | Company | Date | Time |
|---|---|---|---|---|---|
| Relinquished by | | Jack Liu | WEECO | 10/6/97 | 730Am |
| Received by | John W. Zhang | John W. Zhang | CHEMTEK | 10/6/97 | 9:30AM |
| Relinquished by | | | | | |
| Received by | | | | | |
| Relinquished by | | | | | |
| Received by Laboratory | | | | | |

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Note:
Samples are discarded 30 days after results are reported unless other arrangements are made.
Hazardous samples will be returned to client or disposed of at client expense

* Key: AQ-Aqueous NA-Nonaqueous SL-Sludge GW-Groundwater SO-Soil OT-Other PE-Petroleum

DISTRIBUTION WHITE with report / YELLOW To CHEMTEK / PINK To courier

## CHAIN OF CUSTODY RECORD

Log Number 710 012

| Client name | Project # |
|---|---|
| WEECO | |
| **Address** 1750 E McFadden Ave #117 | **Phone #** 714-542-2644 **Fax #** 714-542-2520 |
| **City, State, Zip** Santa Ana CA 92705 | **Report attention** Jack Liu |
| | **Sampled by** Jack Liu |

| Sample number | Date Sampled | Time Sampled | Type* See key below | Sample description | Number of containers | Analyses required: Gasoline, Hydraulic oil | Hazardous sample Special handling required | Remarks |
|---|---|---|---|---|---|---|---|---|
| 13 | 10/6/97 | 0900 | SO | B-10-6' | 1 | X | | |
| 14 | ↓ | 0905 | ↓ | B-10-8' | ↓ | ↓ | | |
| 15 | ↓ | 0910 | ↓ | B-10-10' | ↓ | ↓ | | |
| | | | | | | | | |
| | | | | | | | | |
| | | | | | | | | |
| | | | | | | | | |
| | | | | | | | | |
| | | | | | | | | |
| | | | | | | | | |
| | | | | | | | | |
| | | | | | | | | |

| | Signature | Print Name | Company | Date | Time |
|---|---|---|---|---|---|
| Relinquished by | | Jack Liu | WEECO | 10/1/97 | 0930 AM |
| Received by | | John W. Zhang | CHEMTEK | 10/1/97 | 9:30 AM |
| Relinquished by | | | | | |
| Received by | | | | | |
| Relinquished by | | | | | |
| Received by Laboratory | | | | | |

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Note:
Samples are discarded 30 days after results are reported unless other arrangements are made
Hazardous samples will be returned to client or disposed of at client expense.

* Key: AQ-Aqueous NA-Nonaqueous SL-Sludge GW-Groundwater SO-Soil OT-Other PE-Petroleum

DISTRIBUTION. WHITE with report / YELLOW To CHEMTEK / PINK To couner

Attachment (B)

Soil Boring Log Sheets

# LOG OF BORING

| Drill Rig HAND AUGER | Boring Diameter 2 inches | | Boring Number B-1 |
|---|---|---|---|
| Drilling Date 9-29-97 / Logger JL / Registered Civil Engineer AA | This log is a representation of subsurface conditions at the time and place of drilling The passage of time or other locations may cause consequential changes in conditions | | |

| BULK | TUBE | VAPOR READINGS | TIME | BLOW COUNTS | DEPTH, FEET | WELL CONSTRUCTION DETAIL | DESCRIPTION AND REMARKS |
|---|---|---|---|---|---|---|---|
| | X | 60 ppm | 0830 | | | | Surface silt with peegravels<br>2' Sand, light brown, soft, moist, well graded, little silt, fine-medium grain size |
| | | | | | 5 | | |
| | X | 100 ppm | 0845 | | | | 4' same as above |
| | X | 80 ppm | 0850 | | | | 6' same as above |
| | X | 70 ppm | 0905 | | 10 | | 8' sand, bright brown, soft, moist, coarse-grained size, little gravels, |
| | X | 80 ppm | 0923 | | | | 10' sand, light brown, coarse-grained size, well graded<br>T D 10 feet. |
| | | | | | 15 | | |
| | | | | | 20 | | |
| | | | | | 25 | | |
| | | | | | 30 | | |
| | | | | | 35 | | |
| | | | | | 40 | | |
| | | | | | 45 | | |

WEECO Western Environmental Engineers Co
1780 E McFadden Ave (Suite #117)
Santa Ana, California 92705

PROJECT NAME. Kimberly-Clark

ADDRESS 2001 E Orangethorpe Avenue
Fullerton, CA 92631

Project Number 97-929A | Figure Number 1

# LOG OF BORING

| Drill Rig HAND AUGER | Boring Diameter 2 inches | | Boring Number B-2 |
|---|---|---|---|
| Drilling Date 9-29-97 / Logger JL / Registered Civil Engineer AA | This log is a representation of subsurface conditions at the time and place of drilling The passage of time or other locations may cause consequential changes in conditions | | |

| BULK | TUBE | VAPOR READINGS | TIME | BLOW COUNTS | DEPTH, FEET | WELL CONSTRUCTION DETAIL | DESCRIPTION AND REMARKS |
|---|---|---|---|---|---|---|---|
| | X | 60 ppm | 0950 | | | | Surface silt with peegravels<br>2' Sand, light brown, soft, moist, well graded, little gravel, medium grain size |
| | | | | | 5 | | |
| | X | 70 ppm | 0955 | | | | 4' same as above |
| | X | 80 ppm | 0959 | | | | 6' same as above |
| | X | 70 ppm | 1005 | | 10 | | 8' sand, bright brown, soft, moist, coarse-grained size, little gravels, |
| | X | 100 ppm | 1025 | | | | 10' sand, light brown, coarse-grained size, well graded<br>T D 10 feet |
| | | | | | 15 | | |
| | | | | | 20 | | |
| | | | | | 25 | | |
| | | | | | 30 | | |
| | | | | | 35 | | |
| | | | | | 40 | | |
| | | | | | 45 | | |

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Project Number 97-929A | Figure Number 2

# LOG OF BORING

| Drill Rig HAND AUGER | Boring Diameter 2 inches | | Boring Number B-3 |
|---|---|---|---|
| Drilling Date 9-29-97 / Logger JL / Registered Civil Engineer AA | This log is a representation of subsurface conditions at the time and place of drilling The passage of time or other locations may cause consequential changes in conditions | | |

| BULK | TUBE | VAPOR READINGS | TIME | BLOW COUNTS | DEPTH, FEET | WELL CONSTRUCTION DETAIL | DESCRIPTION AND REMARKS |
|---|---|---|---|---|---|---|---|
| | X | 50 ppm | 1040 | | | | Surface silt with peegravels<br>2' Sand, light brown, soft, moist, well graded, little gravel, medium grain size |
| | | | | | 5 | | |
| | X | 70 ppm | 1045 | | | | 4' same as above |
| | X | 60 ppm | 1050 | | | | 6' same as above |
| | X | 80 ppm | 1055 | | 10 | | 8' sand, bright brown, soft, wet, coarse-grained size, poor graded, little gravels, |
| | X | 70 ppm | 1105 | | | | 10' sand, light brown, coarse-grained size, poor graded<br>T D 10 feet |
| | | | | | 15 | | |
| | | | | | 20 | | |
| | | | | | 25 | | |
| | | | | | 30 | | |
| | | | | | 35 | | |
| | | | | | 40 | | |
| | | | | | 45 | | |

| | |
|---|---|
| WEECO Western Environmental Engineers Co<br>1780 E McFadden Ave (Suite #117)<br>Santa Ana, California 92705 | PROJECT NAME Kimberly-Clark<br><br>ADDRESS 2001 E Orangethorpe Avenue<br>Fullerton, CA 92631 |
| | Project Number 97-929A / Figure Number 3 |

# LOG OF BORING

| Drill Rig HAND AUGER | Boring Diameter 2 inches | | Boring Number B-4 |
|---|---|---|---|
| Drilling Date 9-29-97 / Logger JL / Registered Civil Engineer AA | This log is a representation of subsurface conditions at the time and place of drilling The passage of time or other locations may cause consequential changes in conditions | | |

| BULK | TUBE | VAPOR READINGS | TIME | BLOW COUNTS | DEPTH, FEET | WELL CONSTRUCTION DETAIL | DESCRIPTION AND REMARKS |
|---|---|---|---|---|---|---|---|
| | X | 70 ppm | 1135 | | | | Surface dirt with peegravels<br>2' Sand, light brown, soft, moist, well graded, little gravel, medium grain size |
| | | | | | 5 | | |
| | X | 60 ppm | 1150 | | | | 4' same as above |
| | X | 60 ppm | 1200 | | | | 6' Sand, light brown, soft, moist, well graded, medium-coarse grained size little gravel<br>T D 6 feet<br>Due to the big rock, the hole can't be drill through |
| | | | | | 10 | | |
| | | | | | 15 | | |
| | | | | | 20 | | |
| | | | | | 25 | | |
| | | | | | 30 | | |
| | | | | | 35 | | |
| | | | | | 40 | | |
| | | | | | 45 | | |

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Project Number 97-929A | Figure Number 4

# LOG OF BORING

| Drill Rig HAND AUGER | Boring Diameter 2 inches | | Boring Number B-5 |
|---|---|---|---|
| Drilling Date 9-29-97 / Logger JL / Registered Civil Engineer AA | This log is a representation of subsurface conditions at the time and place of drilling The passage of time or other locations may cause consequential changes in conditions | | |

| BULK | TUBE | VAPOR READINGS | TIME | BLOW COUNTS | DEPTH, FEET | WELL CONSTRUCTION DETAIL | DESCRIPTION AND REMARKS |
|---|---|---|---|---|---|---|---|
| | X | 70 ppm | 1210 | | | | Surface silty dirt<br>2' Sand, yellowish brown, soft, moist, well graded, fine-medium grained size, little silt |
| | | | | | 5 | | |
| | X | 75 ppm | 1220 | | | | 4' same as above |
| | X | 80 ppm | 1225 | | | | 6' same as above |
| | X | 60 ppm | 1230 | | 10 | | 8' same as above |
| | X | 60 ppm | 1240 | | | | 10' sand, light brown, coarse-grained size, poor graded<br>T.D 10 feet |
| | | | | | 15 | | |
| | | | | | 20 | | |
| | | | | | 25 | | |
| | | | | | 30 | | |
| | | | | | 35 | | |
| | | | | | 40 | | |
| | | | | | 45 | | |

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Santa Ana, California 92705

PROJECT NAME Kimberly-Clark

ADDRESS 2001 E Orangethorpe Avenue
Fullerton, CA 92631

Project Number 97-929A | Figure Number 5

# LOG OF BORING

| Drill Rig HAND AUGER | | | Boring Diameter 2 inches | | Boring Number B-6 |
|---|---|---|---|---|---|
| Drilling Date 9-29-97 | Logger JL | Registered Civil Engineer AA | This log is a representation of subsurface conditions at the time and place of drilling The passage of time or other locations may cause consequential changes in conditions | | |

| BULK | TUBE | VAPOR READINGS | TIME | BLOW COUNTS | DEPTH, FEET | WELL CONSTRUCTION DETAIL | DESCRIPTION AND REMARKS |
|---|---|---|---|---|---|---|---|
| | X | 60 ppm | 1300 | | | | Surface silty dirt<br>2' Sand, yellowish brown, soft, moist, well graded, fine-medium grained size, little silt |
| | | | | | 5 | | |
| | X | 50 ppm | 1310 | | | | 4' same as above |
| | X | 0 ppm | 1320 | | | | 6' same as above |
| | X | 20 ppm | 1330 | | 10 | | 8' same as above |
| | X | 0 ppm | 1345 | | | | 10' sandy gravel, light brown, coarse-grained size, poor graded<br>T D 10 feet |
| | | | | | 15 | | |
| | | | | | 20 | | |
| | | | | | 25 | | |
| | | | | | 30 | | |
| | | | | | 35 | | |
| | | | | | 40 | | |
| | | | | | 45 | | |

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PROJECT NAME Kimberly-Clark

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Fullerton, CA 92631

Project Number 97-929A | Figure Number 6

# LOG OF BORING

| Drill Rig HAND AUGER | Boring Diameter 2 inches | | Boring Number B-7 |
|---|---|---|---|
| Drilling Date 9-29-97 / Logger JL / Registered Civil Engineer AA | This log is a representation of subsurface conditions at the time and place of drilling The passage of time or other locations may cause consequential changes in conditions | | |

| BULK | TUBE | VAPOR READINGS | TIME | BLOW COUNTS | DEPTH, FEET | WELL CONSTRUCTION DETAIL | DESCRIPTION AND REMARKS |
|---|---|---|---|---|---|---|---|
| | X | 50 ppm | 1405 | | | | Surface silty dirt<br>2' Sand, dark brown, soft, wet, well graded, fine grained size, little silt |
| | X | 60 ppm | 1408 | | 5 | | 4' same as above |
| | X | 0 ppm | 1415 | | | | 6' same as above |
| | X | 20 ppm | 1423 | | 10 | | 8' same as above |
| | X | 10 ppm | 1430 | | | | 10' sandy gravel, light brown, soft, wet, coarse-grained size, grain size 1-3 mm, less silt<br>T D 10 feet. |
| | | | | | 15 | | |
| | | | | | 20 | | |
| | | | | | 25 | | |
| | | | | | 30 | | |
| | | | | | 35 | | |
| | | | | | 40 | | |
| | | | | | 45 | | |

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PROJECT NAME Kimberly-Clark

ADDRESS 2001 E Orangethorpe Avenue
Fullerton, CA 92631

Project Number 97-929A | Figure Number 7

# LOG OF BORING

| Drill Rig HAND AUGER | Boring Diameter 2 inches | | Boring Number B-8 |
|---|---|---|---|
| Drilling Date 10-6-97 / Logger JL / Registered Civil Engineer AA | This log is a representation of subsurface conditions at the time and place of drilling The passage of time or other locations may cause consequential changes in conditions | | |

| BULK | TUBE | VAPOR READINGS | TIME | BLOW COUNTS | DEPTH, FEET | WELL CONSTRUCTION DETAIL | DESCRIPTION AND REMARKS |
|---|---|---|---|---|---|---|---|
| | X | 50 ppm | 0735 | | | | Surface silty dirt. 2' Sand, yellowish brown, soft, moist, well graded, medium-fine grained size |
| | | | | | 5 | | |
| | X | 40 ppm | 0740 | | | | 4' same as above |
| | X | 0 ppm | 0745 | | | | 6' same as above |
| | X | 20 ppm | 0755 | | 10 | | 8' same as above |
| | X | 0 ppm | 0805 | | | | 10' sand, light brown, soft, wet, coarse-medium grained size, less silt T D 10 feet |
| | | | | | 15 | | |
| | | | | | 20 | | |
| | | | | | 25 | | |
| | | | | | 30 | | |
| | | | | | 35 | | |
| | | | | | 40 | | |
| | | | | | 45 | | |

WEECO Western Environmental Engineers Co
1780 E McFadden Ave (Suite #117)
Santa Ana, California 92705

PROJECT NAME Kimberly-Clark

ADDRESS 2001 E Orangethorpe Avenue
Fullerton, CA 92631

Project Number 97-929A | Figure Number 8

# LOG OF BORING

| Drill Rig HAND AUGER | Boring Diameter 2 inches | | Boring Number B-9 |
|---|---|---|---|
| Drilling Date 10-6-97 / Logger JL / Registered Civil Engineer AA | This log is a representation of subsurface conditions at the time and place of drilling The passage of time or other locations may cause consequential changes in conditions | | |

| BULK | TUBE | VAPOR READINGS | TIME | BLOW COUNTS | DEPTH, FEET | WELL CONSTRUCTION DETAIL | DESCRIPTION AND REMARKS |
|---|---|---|---|---|---|---|---|
| | X | 40 ppm | 0815 | | | | Surface silty dirt<br>2' Sand, yellowish brown, soft, moist, well graded, medium-fine grained size |
| | | | | | 5 | | |
| | X | 50 ppm | 0820 | | | | 4' same as above |
| | X | 30 ppm | 0830 | | | | 6' same as above |
| | X | 0 ppm | 0835 | | 10 | | 8' same as above |
| | X | 10 ppm | 0845 | | | | 10' sand, light brown, soft, wet, coarse-medium grained size, less silt<br>T D 10 feet |
| | | | | | 15 | | |
| | | | | | 20 | | |
| | | | | | 25 | | |
| | | | | | 30 | | |
| | | | | | 35 | | |
| | | | | | 40 | | |
| | | | | | 45 | | |

WEECO Western Environmental Engineers Co
1780 E McFadden Ave (Suite #117)
Santa Ana, California 92705

PROJECT NAME Kimberly-Clark

ADDRESS 2001 E Orangethorpe Avenue
Fullerton, CA 92631

Project Number 97-929A | Figure Number 9

# LOG OF BORING

| Drill Rig HAND AUGER | Boring Diameter 2 inches | | Boring Number B-10 |
|---|---|---|---|
| Drilling Date 10-6-97 / Logger JL / Registered Civil Engineer AA | This log is a representation of subsurface conditions at the time and place of drilling The passage of time or other locations may cause consequential changes in conditions | | |

| BULK | TUBE | VAPOR READINGS | TIME | BLOW COUNTS | DEPTH, FEET | WELL CONSTRUCTION DETAIL | DESCRIPTION AND REMARKS |
|---|---|---|---|---|---|---|---|
| | X | 40 ppm | 0850 | | | | Surface silty dirt<br>2' Sand, yellowish brown, soft, moist, well graded, medium-fine grained size |
| | | | | | 5 | | |
| | X | 50 ppm | 0855 | | | | 4' same as above |
| | X | 30 ppm | 0900 | | | | 6' same as above |
| | X | 0 ppm | 0905 | | 10 | | 8' same as above |
| | X | 30 ppm | 0910 | | | | 10' sand, light brown, soft, wet, coarse-medium grained size, less silt<br>T D 10 feet. |
| | | | | | 15 | | |
| | | | | | 20 | | |
| | | | | | 25 | | |
| | | | | | 30 | | |
| | | | | | 35 | | |
| | | | | | 40 | | |
| | | | | | 45 | | |

WEECO Western Environmental Engineers Co
1780 E McFadden Ave (Suite #117)
Santa Ana, California 92705

PROJECT NAME Kimberly-Clark

ADDRESS 2001 E Orangethorpe Avenue
Fullerton, CA 92631

Project Number 97-929A | Figure Number 10

# Attachment (C)

# Soil Test Results

# CHEMTEK ENVIRONMENTAL LABORATORIES INC.

"An environment-friendly company"

14140 E. Alondra Blvd. Suite A, Santa Fe Springs, CA 90670
Tel. (562) 926-9848 FAX (562) 926-8324
CA Dept of Health Accredited. (ELAP No. 1435)


## CERTIFICATE OF ANALYSIS

Job No. 709065 Date: 10-07-97

This is the Certificate of Analysis for the following samples:

| | |
|---|---|
| Client | : Western Environmental Eng. Co |
| Contact person | : Jack Liu |
| Project No. | : |
| Project | : |
| Project site | : |
| Date of sample | : 09-29-97 |
| Date Received | : 09-29-97 |
| Number of Samples | : 33 |
| Sample Type: | : Soil |

Samples were labeled as follows:

| SAMPLE IDENTIFICATION | LABORATORY NUMBER |
|---|---|
| B-1-2' | 709065-01A |
| B-1-4' | 709065-02A |
| B-1-6' | 709065-03A |
| B-1-8' | 709065-04A |
| B-1-10' | 709065-05A |
| B-2-2' | 709065-06A |
| B-2-4' | 709065-07A |
| B-2-6' | 709065-08A |
| B-2-8' | 709065-09A |
| B-2-10' | 709065-10A |
| B-3-2' | 709065-11A |
| B-3-4' | 709065-12A |
| B-3-6' | 709065-13A |
| B-3-8' | 709065-14A |
| B-3-10' | 709065-15A |
| B-4-2' | 709065-16A |
| B-4-4' | 709065-17A |
| B-4-6' | 709065-18A |

# CERTIFICATE OF ANALYSIS

| SAMPLE IDENTIFICATION | LABORATORY NUMBER |
|---|---|
| B-5-2' | 709065-19A |
| B-5-4' | 709065-20A |
| B-5-6' | 709065-21A |
| B-5-8' | 709065-22A |
| B-5-10' | 709065-23A |
| B-6-2' | 709065-24A |
| B-6-4' | 709065-25A |
| B-6-6' | 709065-26A |
| B-6-8' | 709065-27A |
| B-6-10' | 709065-28A |
| B-7-2' | 709065-29A |
| B-7-4' | 709065-30A |
| B-7-6' | 709065-31A |
| B-7-8' | 709065-32A |
| B-7-10' | 709065-33A |

Reviewed and Approved:

Michael C.C. Lu
Laboratory Director

# CHEMTEK ENVIRONMENTAL LABORATORIES INC.

"An environment-friendly company"

14140 E. Alondra Blvd. Suite A, Santa Fe Springs, CA 90670
Tel. (562) 926-9848 FAX (562) 926-8324
CA Dept of Health Accredited. (ELAP No. 1435)


## CERTIFICATE OF ANALYSIS

Job No. 710012 Date: 10-08-97

This is the Certificate of Analysis for the following samples:

| | |
|---|---|
| Client | : Western Environmental Eng. Co |
| Contact person | : Jack Liu |
| Project | : |
| Date of sample | : 10-06-97 |
| Date Received | : 10-06-97 |
| Number of Samples | : 15 |
| Sample Type: | : Soil |

Samples were labeled as follows:

| SAMPLE IDENTIFICATION | LABORATORY NUMBER |
|---|---|
| B-8-2' | 710012-01A |
| B-8-4' | 710012-02A |
| B-8-6' | 710012-03A |
| B-8-8' | 710012-04A |
| B-8-10' | 710012-05A |
| B-9-2' | 710012-06A |
| B-9-4' | 710012-07A |
| B-9-6' | 710012-08A |
| B-9-8' | 710012-09A |
| B-9-10' | 710012-10A |
| B-10-2' | 710012-11A |
| B-10-4' | 710012-12A |
| B-10-6' | 710012-13A |
| B-10-8' | 710012-14A |
| B-10-10' | 710012-15A |

Reviewed and Approved:

Michael C.C. Lu
Laboratory Director

# CHEMTEK ENVIRONMENTAL LAB.
# LABORATORY ANALYSIS REPORT

Client: Western Environmental Eng. Co.
Project:
Job No: 709065 Date: 10-07-97

Analysis: Sodium Hypochlorite-NaOCl

Sample ID: See below
Sample type: Soil
Sample Date: 09-29-97
Analysis Date: 09-30-97

| Sample ID | Sample date | Results (mg/kg NaOCl) | Detection Limit (mg/kg NaOCl) |
|---|---|---|---|
| B-1-2' | 09-29-97 | 5.04 | 1.0 |
| B-1-4' | " | 3.78 | " |
| B-1-6' | " | 2.94 | " |
| B-1-8' | " | <1.0 | " |
| B-1-10' | " | <1.0 | " |
| B-2-2' | " | 5.88 | " |
| B-2-4' | " | 2.10 | " |
| B-2-6' | " | 2.52 | " |
| B-2-8' | " | 4.41 | " |
| B-2-10' | " | <1.0 | " |
| B-3-2' | " | 6.30 | " |
| B-3-4' | " | 4.41 | " |
| B-3-6' | " | 3.78 | " |
| B-3-8' | " | <1.0 | " |
| B-3-10' | " | 4.00 | " |
| B-4-2' | " | 2.94 | " |
| B-4-4' | " | 3.15 | " |
| B-4-6' | " | <1.0 | " |
| B-5-2' | " | 13.0 | " |
| B-5-4' | " | 7.77 | " |
| B-5-6' | " | <1.0 | " |
| B-5-8' | " | <1.0 | " |
| B-5-10' | " | <1.0 | " |
| B-6-2' | " | <1.0 | " |
| B-6-4' | " | 3.78 | " |
| B-6-6' | " | <1.0 | " |
| B-6-8' | " | <1.0 | " |
| B-6-10' | " | 3.57 | " |
| B-7-2' | " | 5.67 | " |
| B-7-4' | " | 4.20 | " |
| B-7-6' | " | 2.73 | " |
| B-7-8' | " | 4.62 | " |
| B-7-10' | " | 4.62 | " |

**CHEMTEK ENVIRONMENTAL LAB.**
**LABORATORY ANALYSIS REPORT**

Client: Western Environmental Eng. Co.
Project:
Job No: 710012 Date: 10-08-97

Analysis: Sodium Hypochlorite-NaOCl

Sample ID: See below
Sample type: Soil
Analysis Date: 10-06-97

| Sample ID | Sample date | Results (mg/kg NaOCl) | Detection Limit (mg/kg NaOCl) |
|---|---|---|---|
| B-8-2' | 10-06-97 | 3.57 | 1.0 |
| B-8-4' | " | <1.0 | " |
| B-8-6' | " | <1.0 | " |
| B-8-8' | " | <1.0 | " |
| B-8-10' | " | <1.0 | " |
| B-9-2' | " | 2.94 | " |
| B-9-4' | " | 7.40 | " |
| B-9-6' | " | 1.68 | " |
| B-9-8' | " | <1.0 | " |
| B-9-10' | " | 1.26 | " |
| B-10-2' | " | 6.09 | " |
| B-10-4' | " | 2.94 | " |
| B-10-6' | " | 3.78 | " |
| B-10-8' | " | <1.0 | " |
| B-10-10' | " | <1.0 | " |

Attachment (D)

Depth-to-Groundwater in the Neighborhood

# ORANGE COUNTY WATER DISTRICT
## WATER QUALITY DEPARTMENT
**10500 Ellis Avenue**
**Fountain Valley, CA 92708**

**P.O. Box 8300**
**Fountain Valley, CA 92728-8300**

**Telephone (714) 378-3200 FAX (714) 378-3373**
**Information Request Line (714) 378-3209**


## INFORMATION REQUEST TRANSMITTAL

**TO:** JACK LIU
WESTERN ENVIRONMENTAL ENGINEER
1780 E MC FADDEN AVE , SUITE 117
SANTA ANA, CA 92705

**TRANSMITTAL DATE:** 10/27/1997
**REQUEST NUMBER:** 2969
**REQUEST DATE:** 10/15/1997
**PROCESSED BY:** PT

### SITE INFORMATION

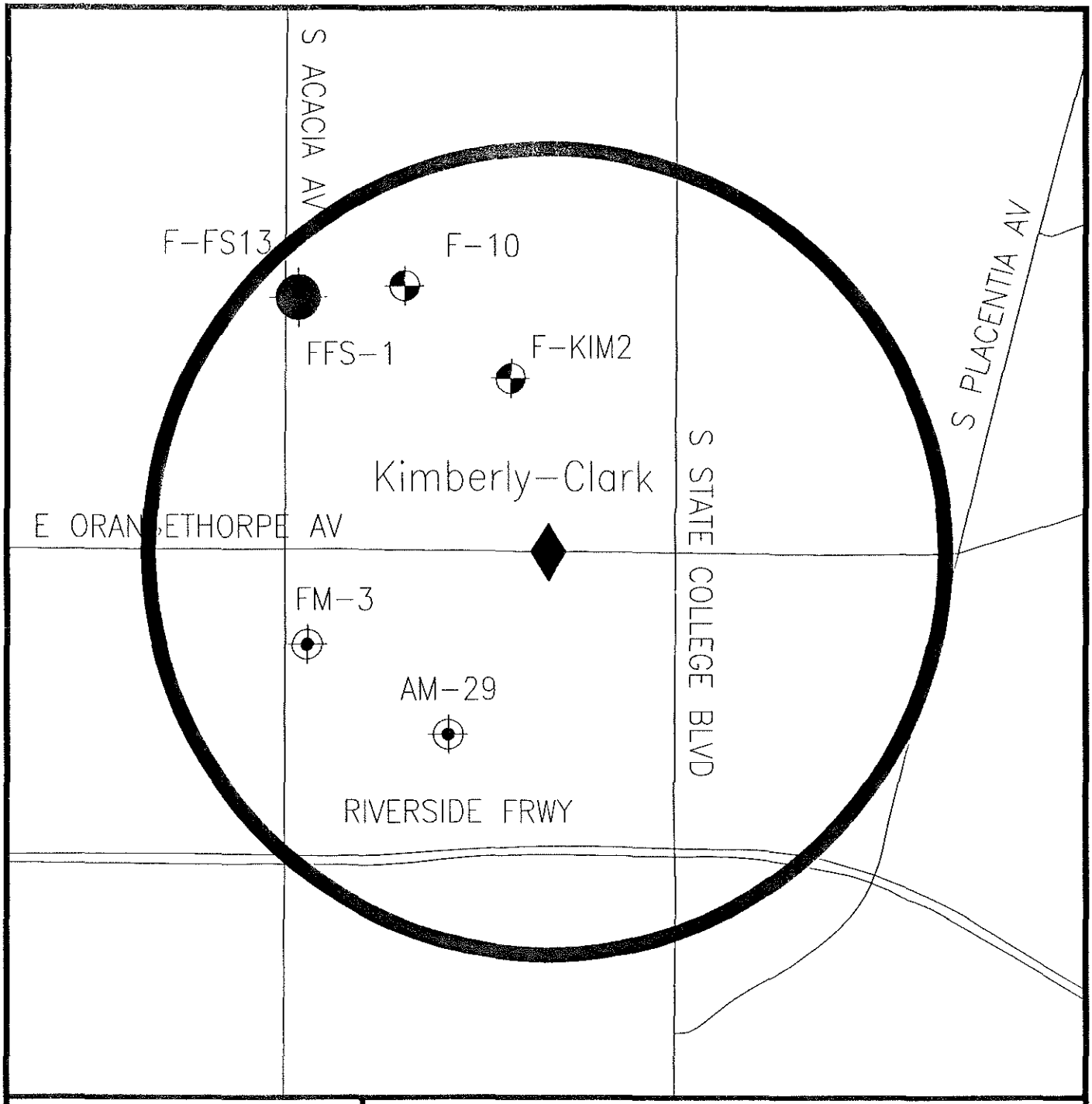
**SITE NAME:** KIMBERLY-CLARK (FULLERTON MILL)

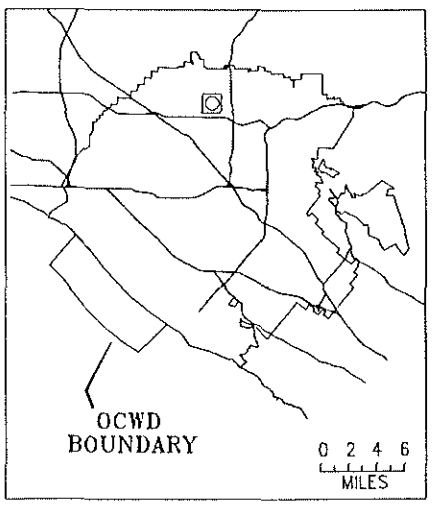
**ADDRESS:** 2001 E. ORANGETHORPE AVE
**CITY:** FULLERTON
**DESCRIPTION:**
**INTERSECTION:** S. RAYMOND AVE.
**THOMAS BROS. REF.:** 1992/769-A1
**SEARCH RADIUS (MILES):** 0.5
**SEARCH YEARS:** 1996 - PRESENT

### INFORMATION PROCESSED

| *# of Pages* | *Description* |
|---|---|
| 1 | WELL LOCATION MAP |
| 1 | GENERAL WELL INFO. REPORT |
| 5 | WATER LEVEL REPORT (WINDOWS) |

***Comments:*** *Here is the data you requested The map includes all active production and monitoring wells in the area Since these wells may not represent perched water, I have enclosed a map from the CA Division of Mines and Geology (still 95% accurate).*




EXPLANATION

- PRODUCTION WELL
- SINGLE-POINT MONITORING WELL
- MULTI-POINT MONITORING WELL

0 2,000

SCALE IN FEET

INFORMATION REQUEST

| | |
|---|---|
| Request ID: | 2969 |
| Request Date: | 10/15/1997 |
| Request Purpose: | |
| Client. | WESTERN ENVIRONMENTAL ENGINEER |
| Site Name. | |
| Site Address: | 2001 E ORANGETHORPE AVE |
| Site City | FULLERTON |

SINCE 1933 ORANGE COUNTY WATER DISTRICT A TRADITION OF INNOVATION

FIGURE 1

Portions of this map are copyrighted, and reproduced with permission granted, by THOMAS BROS. MAPS ®

## ORANGE COUNTY WATER DISTRICT
## GENERAL WELL INFORMATION

| Well Site Name | State Well No. | Well Type | Well Subtype | Well Use | Well Status | Bore Depth | Date Drilled | Thomas Bros. Ref. | Elev GS | Casing Seq # | Elev RP | Cased Depth | Perforations Top | Perforations Bottom |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| AM-29 | 04S/10W-02H01 | MONITOR | SINGLE | TESTING | ACTIVE | 365 | 06/18/1991 | 769-2B | 185 46 | 1 | 184 63 | 367 | 340 | 358 |
| F-10 | 03S/10W-35K03 | PRODUCT | SINGLE | LGSYS | ACTIVE | 1350 | 03/09/1990 | 769-1B | 186.92 | 1 | 186 92 | 1310 | 460 | 1290 |
| F-FS13 | 03S/10W-35K01 | PRODUCT | SINGLE | LGSYS | ACTIVE | 454 | 04/21/1964 | 769-1B | 186 12 | 1 | 186 12 | 454 | 351 | 419 |
| F-KIM2 | 03S/10W-35R01 | PRODUCT | SINGLE | LGSYS | ACTIVE | 652 | 11/18/1955 | 769-1B | 189 02 | 1 | 189 02 | 652 | 320 | 626 |
| FFS-1 | 03S/10W-35K02 | MONITOR | WESTBAY | TESTING | ACTIVE | 1490 | 07/12/1988 | 769-1B | 179.72 | 1 | 177 59 | 1465 | 180 | 1429 |
| FM-3 | 04S/10W-02G02 | MONITOR | SINGLE | TESTING | ACTIVE | 298 | 03/07/1991 | 769-2B | 180.56 | 1 | 179 77 | 298 | 257 | 263 |

# ORANGE COUNTY WATER DISTRICT
# WATER LEVEL REPORT

| Date | Time | Time Period | Elev RP | Depth to Water | Elev WS | WL Status | Method Abbr. | Comments |
|---|---|---|---|---|---|---|---|---|
| ***Station Name: AM-29/1 SWN: 04S/10W-02H01 Perfs: 340-358 Elev. GS: 185.46 Aquifer: UNDEFINED*** | | | | | | | | |
| 02/06/1996 | 09:28 00 | MONTH | 184 63 | 120 58 | 64 05 | STATIC | ELEC | |
| 03/30/1996 | 07 30 00 | MONTH | 184 63 | 110 50 | 74 13 | STATIC | ELEC | |
| 05/06/1996 | 11 05 00 | MONTH | 184 63 | 105 91 | 78 72 | STATIC | ELEC | |
| 08/21/1996 | 10 03 00 | MONTH | 184 63 | 116 42 | 68 21 | STATIC | ELEC | |
| 10/30/1996 | 11 21 00 | MONTH | 184 63 | 120 93 | 63 70 | STATIC | ELEC | |
| 01/09/1997 | 10 50 00 | MONTH | 184 63 | 112 66 | 71 97 | STATIC | ELEC | |
| 02/11/1997 | 10 10 00 | MONTH | 184 63 | 107 97 | 76 66 | STATIC | ELEC | |
| 05/29/1997 | 16 27 00 | MONTH | 184 63 | 111.95 | 72 68 | STATIC | ELEC | |
| 08/12/1997 | 08 16 00 | MONTH | 184 63 | 118 47 | 66 16 | STATIC | ELEC | |
| ***Station Name: F-10/1 SWN: 03S/10W-35K03 Perfs: 460-1290 Elev. GS: 186.92 Aquifer: UNDEFINED*** | | | | | | | | |
| 01/25/1996 | 10 45 00 | MONTH | 186 92 | 145 00 | 41 92 | PUMPING | CALAIR | 24 hours since pump on |
| 01/25/1996 | 11 45 00 | MONTH | 186 92 | 129 00 | 57 92 | STATIC | CALAIR | 1 hour since pump off |
| 02/22/1996 | 10 50 00 | MONTH | 186 92 | 141 00 | 45 92 | PUMPING | CALAIR | 24 hours since pump on |
| 02/22/1996 | 11 20 00 | MONTH | 186 92 | 124 00 | 62 92 | STATIC | CALAIR | 1/2 hour since pump off |
| 03/21/1996 | 09 05 00 | MONTH | 186 92 | 133 50 | 53 42 | PUMPING | CALAIR | 24 hours since pump on |
| 03/21/1996 | 10 05 00 | MONTH | 186 92 | 116 00 | 70 92 | STATIC | CALAIR | 1 hour since pump off |
| 04/22/1996 | 13 40 00 | MONTH | 186 92 | 128 00 | 58 92 | PUMPING | CALAIR | 24 hours since pump on |
| 04/22/1996 | 14 10 00 | MONTH | 186 92 | 110 00 | 76 92 | STATIC | CALAIR | 30 minutes since pump off |
| 05/20/1996 | 07:25.00 | MONTH | 186 92 | 132 00 | 54 92 | PUMPING | CALAIR | 24 hours since pump on |
| 05/20/1996 | 07 55 00 | MONTH | 186 92 | 113 00 | 73 92 | STATIC | CALAIR | 0 5 hours since pump off |
| 06/21/1996 | 10 35.00 | MONTH | 186 92 | 133 00 | 53 92 | PUMPING | CALAIR | 24 hours since pump on |
| 06/21/1996 | 11 05.00 | MONTH | 186 92 | 115 00 | 71 92 | STATIC | CALAIR | 0 5 hours since pump off |
| 07/22/1996 | 09 20 00 | MONTH | 186 92 | 139 50 | 47 42 | PUMPING | CALAIR | 24 hours since pump on |
| 07/22/1996 | 09 50 00 | MONTH | 186 92 | 120 00 | 66 92 | STATIC | CALAIR | 0 5 hours since pump off |
| 08/22/1996 | 09 10 00 | MONTH | 186 92 | 143 00 | 43 92 | PUMPING | CALAIR | 24 hours since pump on |
| 08/22/1996 | 09 40 00 | MONTH | 186 92 | 125 00 | 61 92 | STATIC | CALAIR | 0 5 hours since pump off |
| 09/16/1996 | 10 25 00 | MONTH | 186 92 | 143 00 | 43 92 | PUMPING | CALAIR | 24 hours since pump on |
| 09/16/1996 | 10 55.00 | MONTH | 186 92 | 129 00 | 57.92 | STATIC | CALAIR | 5 hours since pump off |
| 10/25/1996 | 08 30 00 | MONTH | 186 92 | 144 00 | 42 92 | PUMPING | CALAIR | 24 hours since pump on |
| 10/25/1996 | 14 30 00 | MONTH | 186 92 | 129 00 | 57 92 | STATIC | CALAIR | 6 hours since pump off |
| 11/26/1996 | 14 25 00 | MONTH | 186 92 | 123 50 | 63 42 | STATIC | CALAIR | 24 hours since pump off |
| 12/18/1996 | 14 15 00 | MONTH | 186 92 | 139 00 | 47.92 | PUMPING | CALAIR | 24 hours since pump on |
| 12/18/1996 | 14 45 00 | MONTH | 186 92 | 118 00 | 68 92 | STATIC | CALAIR | 5 hour since pump off |
| 01/16/1997 | 07 45 00 | MONTH | 186 92 | 141 00 | 45 92 | PUMPING | CALAIR | 24 hours since pump on |
| 01/16/1997 | 08 15 00 | MONTH | 186 92 | 124 00 | 62 92 | STATIC | CALAIR | 30 minutes since pump off |
| 02/26/1997 | 08 55 00 | MONTH | 186 92 | 111 00 | 75.92 | STATIC | ELEC | 5 hour since pump off |
| 02/26/1997 | 09 25 00 | MONTH | 186 92 | 129 00 | 57.92 | PUMPING | ELEC | 24 hours since pump on |
| 03/31/1997 | 14 50 00 | MONTH | 186 92 | 129 50 | 57 42 | PUMPING | CALAIR | *24 hours since pump on* |
| 03/31/1997 | 15 20.00 | MONTH | 186 92 | 112 50 | 74 42 | STATIC | CALAIR | 5 hours since pump off |
| 04/21/1997 | 10 50 00 | MONTH | 186 92 | 134 00 | 52 92 | PUMPING | CALAIR | 24 hours since pump on |
| 04/21/1997 | 11 20 00 | MONTH | 186 92 | 125 50 | 61.42 | STATIC | CALAIR | 5 hours since pump off |
| 05/22/1997 | 07 00 00 | MONTH | 186.92 | 135 50 | 51 42 | PUMPING | CALAIR | 24 hours since pump on |
| 05/22/1997 | 07 30 00 | MONTH | 186 92 | 125 00 | 61 92 | STATIC | CALAIR | 0 5 hour since pump off |
| 06/12/1997 | 10 20 00 | MONTH | 186 92 | 137 50 | 49 42 | PUMPING | CALAIR | 24 hours since pump on |
| *06/12/1997* | *10 50 00* | *MONTH* | *186 92* | *118 00* | *68 92* | *STATIC* | *CALAIR* | *5 hours since pump off* |
| 07/14/1997 | 11 40 00 | MONTH | 186 92 | 143 50 | 43 42 | PUMPING | CALAIR | 24 hours since pump on |
| 07/14/1997 | 12 12 00 | MONTH | 186 92 | 122 50 | 64 42 | STATIC | CALAIR | 0 5 hour since pump off |
| 08/11/1997 | 10 10 00 | MONTH | 186 92 | 124 50 | 62 42 | STATIC | CALAIR | 5 hour since pump off |
| 08/11/1997 | 11 40 00 | MONTH | 186 92 | 144 00 | 42 92 | PUMPING | CALAIR | 24+ hour since pump on |
| 09/12/1997 | 11 00 00 | MONTH | 186 92 | 148 00 | 38 92 | PUMPING | CALAIR | 24+ hours since pump on |
| 09/12/1997 | 11 30 00 | MONTH | 186 92 | 128 50 | 58 42 | STATIC | CALAIR | 5 hours since pump off |
| ***Station Name: F-FS13/1 SWN: 03S/10W-35K01 Perfs: 351-419 Elev. GS: 186.12 Aquifer: UNDEFINED*** | | | | | | | | |
| 01/25/1996 | 11 05 00 | MONTH | 186 12 | 163 50 | 22 62 | PUMPING | ELEC | 1 hour since pump on |
| 01/25/1996 | 12 05 00 | MONTH | 186 12 | 145 50 | 40 62 | STATIC | ELEC | 24 hours since pump off |
| 02/22/1996 | 12 00 00 | MONTH | 186 12 | 146.00 | 40 12 | STATIC | ELEC | 24 hours since pump off |



*Abbreviations:*

*Elev GS -- Elevation of Ground Surface*
*Elev RP -- Elevation of Reference Point*
*Elev WS -- Elevation of Water Surface*
*WL Status -- Water Level Status*
*Perfs -- Perforated Interval*

# ORANGE COUNTY WATER DISTRICT
# WATER LEVEL REPORT

| Date | Time | Time Period | Elev RP | Depth to Water | Elev WS | WL Status | Method Abbr. | Comments |
|---|---|---|---|---|---|---|---|---|
| ***Station Name: F-FS13/1*** | ***SWN: 03S/10W-35K01*** | ***Perfs: 351-419*** | ***Elev. GS: 186.12*** | | | ***Aquifer: UNDEFINED*** | | |
| 02/22/1996 | 13.00 00 | MONTH | 186 12 | 157.00 | 29 12 | PUMPING | ELEC | 1 hour since pump on |
| 03/21/1996 | 10 05:00 | MONTH | 186 12 | 145 00 | 41.12 | STATIC | ELEC | 24 hours since pump off |
| 05/20/1996 | 08 30 00 | MONTH | 186 12 | 125 00 | 61 12 | PUMPING | CALAIR | 24 hours since pump on |
| 05/20/1996 | 09 00 00 | MONTH | 186.12 | 86 00 | 100 12 | STATIC | CALAIR | 0 5 hours since pump off |
| 06/21/1996 | 10 40 00 | MONTH | 186 12 | 134 00 | 52 12 | PUMPING | CALAIR | 24 hours since pump on |
| 06/21/1996 | 11 15 00 | MONTH | 186 12 | 119 00 | 67 12 | STATIC | CALAIR | 0 5 hours since pump off |
| 07/22/1996 | 09 35 00 | MONTH | 186 12 | 131.50 | 54 62 | PUMPING | ELEC | 24 hours since pump on |
| 07/22/1996 | 10 05 00 | MONTH | 186 12 | 114 50 | 71 62 | STATIC | ELEC | 0 5 hours since pump off |
| 08/22/1996 | 09 05.00 | MONTH | 186 12 | 132 00 | 54 12 | PUMPING | CALAIR | 24 hours since pump on |
| 08/22/1996 | 09 35 00 | MONTH | 186 12 | 120 00 | 66 12 | STATIC | CALAIR | 0 5 hours since pump off |
| 09/16/1996 | 10.10:00 | MONTH | 186 12 | 143 50 | 42 62 | PUMPING | CALAIR | 24 hours since pump on |
| 09/16/1996 | 10 40 00 | MONTH | 186.12 | 133 00 | 53 12 | STATIC | CALAIR | 5 hours since pump off |
| 10/24/1996 | 14 00 00 | MONTH | 186 12 | 143 00 | 43 12 | PUMPING | CALAIR | 24 hours since pump on |
| 10/25/1996 | 08 00 00 | MONTH | 186 12 | 134 00 | 52 12 | STATIC | CALAIR | 18 hours since pump off |
| 11/26/1996 | 14 35 00 | MONTH | 186.12 | 144 50 | 41 62 | PUMPING | CALAIR | 24 hours since pump on |
| 11/26/1996 | 15.05.00 | MONTH | 186 12 | 139 00 | 47 12 | STATIC | CALAIR | 0 5 hours since pump off |
| 12/18/1996 | 15:00 00 | MONTH | 186 12 | 151.50 | 34 62 | PUMPING | CALAIR | 5 hour since pump on |
| 12/18/1996 | 15 30 00 | MONTH | 186 12 | 139 00 | 47 12 | STATIC | CALAIR | 24 hours since pump off |
| 01/16/1997 | 13 30 00 | MONTH | 186 12 | 136 00 | 50 12 | STATIC | CALAIR | 30 minutes since pump off |
| 01/16/1997 | 15 00 00 | MONTH | 186 12 | 150 00 | 36 12 | PUMPING | CALAIR | 24 hours since pump on |
| 02/26/1997 | 09 15:00 | MONTH | 186 12 | 109 00 | 77.12 | STATIC | ELEC | 24 hours since pump off |
| 03/31/1997 | 15 25 00 | MONTH | 186 12 | 104 50 | 81.62 | STATIC | ELEC | 24 hours since pump off |
| 04/21/1997 | 10 55:00 | MONTH | 186 12 | 126 00 | 60 12 | PUMPING | CALAIR | 24 hours since pump on |
| 04/21/1997 | 11 25 00 | MONTH | 186 12 | 104 00 | 82 12 | STATIC | CALAIR | 5 hours since pump off |
| 05/22/1997 | 14 50 00 | MONTH | 186 12 | 127 00 | 59 12 | PUMPING | CALAIR | |
| 05/22/1997 | 15 20 00 | MONTH | 186 12 | 105 00 | 81 12 | STATIC | CALAIR | 0 5 hour since pump off |
| 06/12/1997 | 10 10 00 | MONTH | 186 12 | 126 00 | 60 12 | PUMPING | CALAIR | 24 hours since pump on |
| 06/12/1997 | 10 40 00 | MONTH | 186 12 | 115 50 | 70 62 | STATIC | CALAIR | 5 hours since pump off |
| 07/14/1997 | 12 20 00 | MONTH | 186 12 | 129 50 | 56 62 | PUMPING | CALAIR | 24 hours since pump on |
| 07/14/1997 | 12 50 00 | MONTH | 186 12 | 105 00 | 81 12 | STATIC | CALAIR | 0 5 hour since pump off |
| 08/11/1997 | 10 15 00 | MONTH | 186 12 | 131 50 | 54 62 | PUMPING | CALAIR | 24+ hour since pump on |
| 08/11/1997 | 10 45 00 | MONTH | 186 12 | 120 00 | 66 12 | STATIC | CALAIR | 5 hour since pump off |
| 09/12/1997 | 11 10 00 | MONTH | 186 12 | 137 50 | 48 62 | PUMPING | CALAIR | 24+ hours since pump on |
| 09/12/1997 | 11 40 00 | MONTH | 186 12 | 125.00 | 61 12 | STATIC | CALAIR | 5 hours since pump off |
| ***Station Name: F-KIM2/1*** | ***SWN: 03S/10W-35R01*** | ***Perfs: 320-626*** | ***Elev. GS: 189.02*** | | | ***Aquifer: UNDEFINED*** | | |
| 01/25/1996 | 10 50:00 | MONTH | 189 02 | 134 00 | 55 02 | PUMPING | CALAIR | 24 hours since pump on |
| 01/25/1996 | 11:50 00 | MONTH | 189 02 | 124 00 | 65 02 | STATIC | CALAIR | 1 hour since pump off |
| 02/22/1996 | 10 10 00 | MONTH | 189 02 | 132 00 | 57.02 | PUMPING | CALAIR | 24 hours since pump on |
| 02/22/1996 | 10 40 00 | MONTH | 189 02 | 121 00 | 68 02 | STATIC | CALAIR | 1/2 hour since pump off |
| 03/21/1996 | 09 15 00 | MONTH | 189 02 | 125 00 | 64 02 | PUMPING | CALAIR | 24 hours since pump on |
| 03/21/1996 | 10 15 00 | MONTH | 189 02 | 115 00 | 74 02 | STATIC | CALAIR | 1 hour since pump off |
| 04/22/1996 | 13 30 00 | MONTH | 189 02 | 119 00 | 70 02 | PUMPING | CALAIR | 24 hours since pump on |
| 04/22/1996 | 14 00 00 | MONTH | 189 02 | 109 00 | 80 02 | STATIC | CALAIR | 30 minutes since pump off |
| 05/20/1996 | 08 25 00 | MONTH | 189 02 | 121 00 | 68 02 | PUMPING | CALAIR | 24 hours since pump on |
| 05/20/1996 | 08 55 00 | MONTH | 189 02 | 110 00 | 79 02 | STATIC | CALAIR | 0 5 hours since pump off |
| 06/21/1996 | 09 40 00 | MONTH | 189 02 | 112 00 | 77.02 | STATIC | CALAIR | 0 5 hours since pump off |
| 06/21/1996 | 10 15 00 | MONTH | 189 02 | 122 00 | 67 02 | PUMPING | CALAIR | 24 hours since pump on |
| 07/22/1996 | 09 10 00 | MONTH | 189 02 | 122 00 | 67 02 | PUMPING | CALAIR | 24 hours since pump on |
| 07/22/1996 | 09 40 00 | MONTH | 189 02 | 115 00 | 74 02 | STATIC | CALAIR | 0 5 hours since pump off |
| 08/22/1996 | 09 00 00 | MONTH | 189 02 | 130 00 | 59 02 | PUMPING | CALAIR | 24 hours since pump on |
| 08/22/1996 | 09 30 00 | MONTH | 189 02 | 120 00 | 69 02 | STATIC | CALAIR | 0 5 hours since pump off |
| 09/16/1996 | 10 50 00 | MONTH | 189 02 | 135 00 | 54 02 | PUMPING | CALAIR | 24 hours since pump on |
| 09/16/1996 | 11 20 00 | MONTH | 189 02 | 124 50 | 64 52 | STATIC | CALAIR | 5 hours since pump off |
| 10/24/1996 | 10 00 00 | MONTH | 189 02 | 135 00 | 54 02 | PUMPING | CALAIR | 24 hours since pump on |
| 10/24/1996 | 14 45 00 | MONTH | 189 02 | 124 00 | 65 02 | STATIC | CALAIR | 4 75 hours since pump off |
| 11/26/1996 | 14 15 00 | MONTH | 189 02 | 133 00 | 56 02 | PUMPING | CALAIR | 24 hours since pump on |
| 11/26/1996 | 14 45 00 | MONTH | 189 02 | 122 00 | 67.02 | STATIC | CALAIR | 0 5 hours since pump off |



*Abbreviations:*

*Elev GS -- Elevation of Ground Surface*
*Elev RP -- Elevation of Reference Point*
*Elev WS -- Elevation of Water Surface*
*WL Status -- Water Level Status*
*Perfs -- Perforated Interval*

# ORANGE COUNTY WATER DISTRICT
# WATER LEVEL REPORT

| Date | Time | Time Period | Elev RP | Depth to Water | Elev WS | WL Status | Method Abbr. | Comments |
|---|---|---|---|---|---|---|---|---|
| ***Station Name: F-KIM2/1 SWN: 03S/10W-35R01 Perfs: 320-626 Elev. GS: 189.02 Aquifer: UNDEFINED*** | | | | | | | | |
| 12/18/1996 | 14 35 00 | MONTH | 189 02 | 118 00 | 71 02 | STATIC | CALAIR | 5 hour since pump off |
| 12/19/1996 | 14 05 00 | MONTH | 189 02 | 129 00 | 60 02 | PUMPING | CALAIR | 24 hours since pump on |
| 01/16/1997 | 07 00 00 | MONTH | 189 02 | 133.00 | 56 02 | PUMPING | CALAIR | 24 hours since pump on |
| 01/16/1997 | 07:30 00 | MONTH | 189 02 | 122 00 | 67 02 | STATIC | CALAIR | 30 minutes since pump off |
| 02/26/1997 | 08 30.00 | MONTH | 189 02 | 110 00 | 79 02 | STATIC | ELEC | .5 hour since pump off |
| 02/26/1997 | 09 00 00 | MONTH | 189 02 | 121 00 | 68 02 | PUMPING | ELEC | 24 hours since pump on |
| 03/31/1997 | 14 45 00 | MONTH | 189 02 | 121.00 | 68 02 | PUMPING | CALAIR | 24 hours since pump on |
| 03/31/1997 | 15 15 00 | MONTH | 189 02 | 110 00 | 79 02 | STATIC | CALAIR | 5 hours since pump off |
| 04/21/1997 | 11 00 00 | MONTH | 189 02 | 110 50 | 78 52 | STATIC | CALAIR | .5 hours since pump off |
| 04/21/1997 | 11 30 00 | MONTH | 189 02 | 124 00 | 65 02 | PUMPING | CALAIR | 24 hours since pump on |
| 05/22/1997 | 14 00 00 | MONTH | 189 02 | 127 00 | 62 02 | PUMPING | CALAIR | 24 hours since pump on |
| 05/22/1997 | 14 30 00 | MONTH | 189 02 | 115 00 | 74 02 | STATIC | CALAIR | 0 5 hour since pump off |
| 06/12/1997 | 10 00 00 | MONTH | 189 02 | 127 00 | 62 02 | PUMPING | CALAIR | 24 hours since pump on |
| 06/12/1997 | 10 30 00 | MONTH | 189 02 | 115 00 | 74 02 | STATIC | CALAIR | .5 hours since pump off |
| 07/14/1997 | 12 00 00 | MONTH | 189 02 | 132 00 | 57 02 | PUMPING | CALAIR | 24 hours since pump on |
| 07/14/1997 | 12 30 00 | MONTH | 189 02 | 118 00 | 71 02 | STATIC | CALAIR | 0.5 hour since pump off |
| 08/11/1997 | 08 55 00 | MONTH | 189 02 | 130 00 | 59 02 | PUMPING | CALAIR | 24+ hour since pump on |
| 08/11/1997 | 09 30 00 | MONTH | 189 02 | 119 00 | 70 02 | STATIC | CALAIR | .5 hour since pump off |
| 09/12/1997 | 10 25 00 | MONTH | 189 02 | 132 00 | 57 02 | PUMPING | CALAIR | 24+ hours since pump on |
| 09/12/1997 | 10 55 00 | MONTH | 189 02 | 122.00 | 67.02 | STATIC | CALAIR | 5 hours since pump off |
| ***Station Name: FFS-1/1/WB2/MP1 SWN: 03S/10W-35K02 Elev. GS: 179.72 Zone Interval: 180-190*** | | | | | | | | |
| 02/08/1996 | 12 40 00 | MONTH | 179 48 | 111.94 | 67 54 | STATIC | WBMAN | |
| 03/01/1996 | 11:33 00 | DAY | 179 48 | 112 46 | 67 02 | STATIC | WBMAN | |
| 04/03/1996 | 08 51 00 | MONTH | 179 48 | 110 97 | 68 51 | STATIC | WBMAN | |
| 06/21/1996 | 12 50 00 | MONTH | 179 48 | 106 50 | 72 98 | STATIC | WBMAN | |
| 09/04/1996 | 12 09 00 | MONTH | 179 48 | 110 02 | 69 46 | STATIC | WBMAN | |
| 10/29/1996 | 11 36 00 | MONTH | 179 48 | 113.47 | 66 01 | STATIC | WBMAN | |
| 12/04/1996 | 09 04 00 | MONTH | 179 48 | 114 22 | 65 26 | STATIC | WBMAN | |
| 02/12/1997 | 12 45 00 | MONTH | 179 48 | 109 44 | 70 04 | STATIC | WBMAN | |
| 03/17/1997 | 09 41 00 | MONTH | 179 48 | 108 81 | 70 67 | STATIC | WBMAN | |
| 05/13/1997 | 13 34 00 | MONTH | 179.48 | 108 07 | 71 41 | STATIC | WBMAN | |
| 06/13/1997 | 14 44 00 | MONTH | 179 48 | 108.46 | 71.02 | STATIC | WBMAN | |
| 07/22/1997 | 12 44 00 | MONTH | 179 48 | 109 63 | 69 85 | STATIC | WBMAN | |
| 09/03/1997 | 12:11 00 | MONTH | 179 48 | 111 70 | 67 78 | STATIC | WBMAN | |
| ***Station Name: FFS-1/1/WB2/MP2 SWN: 03S/10W-35K02 Elev. GS: 179.72 Zone Interval: 360-370*** | | | | | | | | |
| 02/08/1996 | 12 21 00 | MONTH | 179.48 | 118 40 | 61 08 | STATIC | WBMAN | |
| 03/01/1996 | 11 30 00 | DAY | 179 48 | 115 09 | 64 39 | STATIC | WBMAN | |
| 04/03/1996 | 08 47 00 | MONTH | 179 48 | 109 07 | 70 41 | STATIC | WBMAN | |
| 06/21/1996 | 12 27 00 | MONTH | 179 48 | 111.00 | 68 48 | STATIC | WBMAN | |
| 09/04/1996 | 12 00 00 | MONTH | 179 48 | 121 09 | 58 39 | STATIC | WBMAN | |
| 10/29/1996 | 11 31 00 | MONTH | 179 48 | 123 08 | 56 40 | STATIC | WBMAN | |
| 12/04/1996 | 09 01 00 | MONTH | 179 48 | 118 78 | 60 70 | STATIC | WBMAN | |
| 02/12/1997 | 12 42 00 | MONTH | 179 48 | 109 69 | 69 79 | STATIC | WBMAN | |
| 03/17/1997 | 09 38 00 | MONTH | 179 48 | 106 49 | 72 99 | STATIC | WBMAN | |
| 05/13/1997 | 13 29 00 | MONTH | 179 48 | 114 24 | 65 24 | STATIC | WBMAN | |
| 06/13/1997 | 14 41 00 | MONTH | 179 48 | 114 11 | 65 37 | STATIC | WBMAN | |
| 07/22/1997 | 12 40 00 | MONTH | 179 48 | 118 31 | 61 17 | STATIC | WBMAN | |
| 09/03/1997 | 12 07 00 | MONTH | 179 48 | 121 27 | 58 21 | STATIC | WBMAN | |
| ***Station Name: FFS-1/1/WB2/MP3 SWN: 03S/10W-35K02 Elev. GS: 179.72 Zone Interval: 529-539*** | | | | | | | | |
| 02/08/1996 | 11 55 00 | MONTH | 179 48 | 119 23 | 60 25 | STATIC | WBMAN | |
| 03/01/1996 | 11 26 00 | DAY | 179 48 | 114.00 | 65 48 | STATIC | WBMAN | |
| 04/03/1996 | 08 43 00 | MONTH | 179.48 | 106 77 | 72 71 | STATIC | WBMAN | |
| 06/21/1996 | 11 56 00 | MONTH | 179.48 | 108 07 | 71.41 | STATIC | WBMAN | |



*Abbreviations:*

*Elev GS -- Elevation of Ground Surface*
*Elev RP -- Elevation of Reference Point*
*Elev WS -- Elevation of Water Surface*
*WL Status -- Water Level Status*
*Perfs -- Perforated Interval*

# ORANGE COUNTY WATER DISTRICT
# WATER LEVEL REPORT

| Date | Time | Time Period | Elev RP | Depth to Water | Elev WS | WL Status | Method Abbr. | Comments |
|---|---|---|---|---|---|---|---|---|
| ***Station Name: FFS-1/1/WB2/MP3 SWN: 03S/10W-35K02 Elev. GS: 179.72 Zone Interval: 529-539*** | | | | | | | | |
| 09/04/1996 | 11 50 00 | MONTH | 179 48 | 119 47 | 60 01 | STATIC | WBMAN | |
| 10/29/1996 | 11:28 00 | MONTH | 179 48 | 121 38 | 58 10 | STATIC | WBMAN | |
| 12/04/1996 | 08 55.00 | MONTH | 179 48 | 116.41 | 63 07 | STATIC | WBMAN | |
| 02/12/1997 | 12 37 00 | MONTH | 179 48 | 105 47 | 74 01 | STATIC | WBMAN | |
| 03/17/1997 | 09 34 00 | MONTH | 179 48 | 104 79 | 74 69 | STATIC | WBMAN | |
| 05/13/1997 | 13 25:00 | MONTH | 179.48 | 111 41 | 68 07 | STATIC | WBMAN | |
| 06/13/1997 | 14 37 00 | MONTH | 179 48 | 111 34 | 68 14 | STATIC | WBMAN | |
| 07/22/1997 | 12 36 00 | MONTH | 179 48 | 116 46 | 63 02 | STATIC | WBMAN | |
| 09/03/1997 | 11:58.00 | MONTH | 179 48 | 119 72 | 59.76 | STATIC | WBMAN | |
| ***Station Name: FFS-1/1/WB2/MP4 SWN: 03S/10W-35K02 Elev. GS: 179.72 Zone Interval: 819-829*** | | | | | | | | |
| 02/08/1996 | 11 48 00 | MONTH | 179 48 | 121 77 | 57.71 | STATIC | WBMAN | |
| 03/01/1996 | 11 17 00 | DAY | 179 48 | 114 41 | 65 07 | STATIC | WBMAN | |
| 04/03/1996 | 08 38 00 | MONTH | 179 48 | 105 53 | 73 95 | STATIC | WBMAN | |
| 06/21/1996 | 11 29 00 | MONTH | 179.48 | 108 75 | 70 73 | STATIC | WBMAN | |
| 09/04/1996 | 11:42 00 | MONTH | 179 48 | 122 08 | 57 40 | STATIC | WBMAN | |
| 10/29/1996 | 11:22.00 | MONTH | 179 48 | 122.83 | 56 65 | STATIC | WBMAN | |
| 12/04/1996 | 08:50 00 | MONTH | 179 48 | 116 97 | 62 51 | STATIC | WBMAN | |
| 02/12/1997 | 12 32 00 | MONTH | 179 48 | 103 64 | 75 84 | STATIC | WBMAN | |
| 03/17/1997 | 09 28 00 | MONTH | 179 48 | 104 30 | 75 18 | STATIC | WBMAN | |
| 05/13/1997 | 13 20.00 | MONTH | 179 48 | 111.54 | 67.94 | STATIC | WBMAN | |
| 06/13/1997 | 14:32 00 | MONTH | 179 48 | 111.71 | 67.77 | STATIC | WBMAN | |
| 07/22/1997 | 12 31 00 | MONTH | 179 48 | 118 73 | 60 75 | STATIC | WBMAN | |
| 09/03/1997 | 11.47:00 | MONTH | 179 48 | 122 08 | 57.40 | STATIC | WBMAN | |
| ***Station Name: FFS-1/1/WB2/MP5 SWN: 03S/10W-35K02 Elev. GS: 179.72 Zone Interval: 1059-1069*** | | | | | | | | |
| 02/08/1996 | 11 36 00 | MONTH | 179 48 | 121 32 | 58.16 | STATIC | WBMAN | |
| 03/01/1996 | 11 12 00 | DAY | 179.48 | 113 39 | 66 09 | STATIC | WBMAN | |
| 04/03/1996 | 08 34 00 | MONTH | 179 48 | 104 15 | 75 33 | STATIC | WBMAN | |
| 06/21/1996 | 10 43 00 | MONTH | 179 48 | 106 82 | 72 66 | STATIC | WBMAN | |
| 09/04/1996 | 11.33 00 | MONTH | 179 48 | 123 28 | 56 20 | STATIC | WBMAN | |
| 10/29/1996 | 11:17 00 | MONTH | 179 48 | 124 41 | 55 07 | STATIC | WBMAN | |
| 12/04/1996 | 08 45.00 | MONTH | 179 48 | 116.77 | 62 71 | STATIC | WBMAN | |
| 02/12/1997 | 12 27 00 | MONTH | 179 48 | 103 06 | 76 42 | STATIC | WBMAN | |
| 03/17/1997 | 09:23 00 | MONTH | 179 48 | 103 58 | 75 90 | STATIC | WBMAN | |
| 05/13/1997 | 13 15 00 | MONTH | 179 48 | 111 08 | 68 40 | STATIC | WBMAN | |
| 06/13/1997 | 14 27 00 | MONTH | 179 48 | 111.68 | 67 80 | STATIC | WBMAN | |
| 07/22/1997 | 12 26 00 | MONTH | 179 48 | 119 30 | 60 18 | STATIC | WBMAN | |
| 09/03/1997 | 11 39 00 | MONTH | 179 48 | 124 05 | 55 43 | STATIC | WBMAN | |
| ***Station Name: FFS-1/1/WB2/MP6 SWN: 03S/10W-35K02 Elev. GS: 179.72 Zone Interval: 1159-1169*** | | | | | | | | |
| 02/08/1996 | 11:18 00 | MONTH | 179 48 | 120 48 | 59 00 | STATIC | WBMAN | |
| 03/01/1996 | 11 09 00 | DAY | 179 48 | 113 29 | 66 19 | STATIC | WBMAN | |
| 04/03/1996 | 08 30 00 | MONTH | 179 48 | 103 57 | 75 91 | STATIC | WBMAN | |
| 06/21/1996 | 10 03 00 | MONTH | 179 48 | 107 26 | 72 22 | STATIC | WBMAN | |
| 09/04/1996 | 11 27 00 | MONTH | 179 48 | 121 70 | 57 78 | STATIC | WBMAN | |
| 10/29/1996 | 11 14 00 | MONTH | 179 48 | 122 64 | 56 84 | STATIC | WBMAN | |
| 12/04/1996 | 08 41 00 | MONTH | 179 48 | 116 33 | 63 15 | STATIC | WBMAN | |
| 02/12/1997 | 12 24 00 | MONTH | 179 48 | 102 49 | 76 99 | STATIC | WBMAN | |
| 03/17/1997 | 09 20 00 | MONTH | 179 48 | 103 17 | 76 31 | STATIC | WBMAN | |
| 05/13/1997 | 13 11.00 | MONTH | 179 48 | 110 53 | 68 95 | STATIC | WBMAN | |
| 06/13/1997 | 14 24 00 | MONTH | 179 48 | 111 27 | 68 21 | STATIC | WBMAN | |
| 07/22/1997 | 12 22 00 | MONTH | 179 48 | 118 61 | 60 87 | STATIC | WBMAN | |
| 09/03/1997 | 11 34 00 | MONTH | 179 48 | 122 47 | 57 01 | STATIC | WBMAN | |



*Abbreviations:*

*Elev GS -- Elevation of Ground Surface*
*Elev RP -- Elevation of Reference Point*
*Elev WS -- Elevation of Water Surface*
*WL Status -- Water Level Status*
*Perfs -- Perforated Interval*

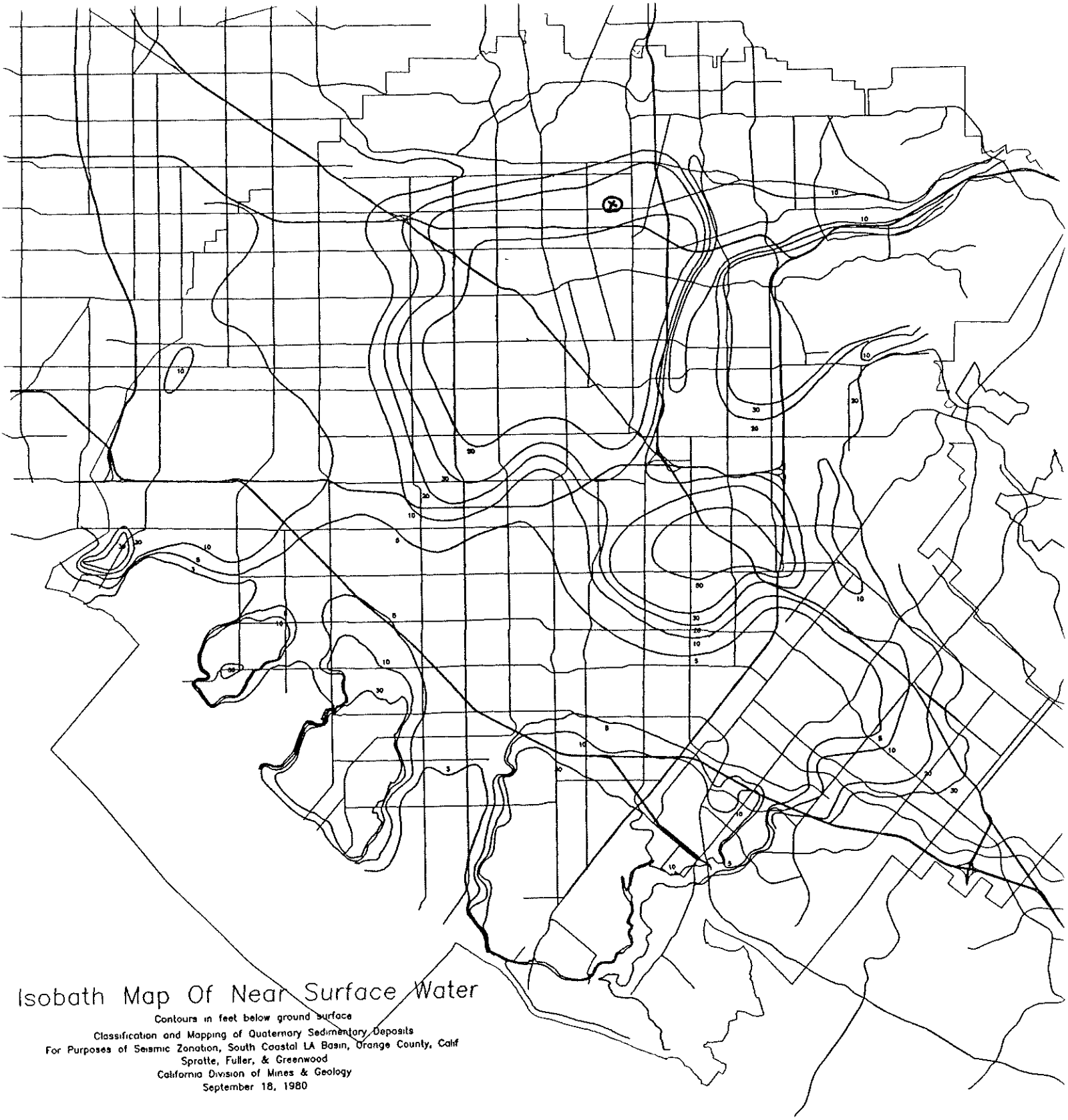
# ORANGE COUNTY WATER DISTRICT
# WATER LEVEL REPORT

| Date | Time | Time Period | Elev RP | Depth to Water | Elev WS | WL Status | Method Abbr. | Comments |
|---|---|---|---|---|---|---|---|---|
| ***Station Name: FFS-1/1/WB2/MP7 SWN: 03S/10W-35K02 Elev. GS: 179.72 Zone Interval: 1299-1309*** | | | | | | | | |
| 02/08/1996 | 10 30.00 | MONTH | 179.48 | 119 70 | 59 78 | STATIC | WBMAN | |
| 03/01/1996 | 11 05 00 | DAY | 179 48 | 112 66 | 66.82 | STATIC | WBMAN | |
| 04/03/1996 | 08 26 00 | MONTH | 179 48 | 102 71 | 76 77 | STATIC | WBMAN | |
| 06/07/1996 | 13 33 00 | MONTH | 179 48 | 103 46 | 76.02 | STATIC | WBMAN | |
| 09/04/1996 | 11 21 00 | MONTH | 179 48 | 120 52 | 58.96 | STATIC | WBMAN | |
| 10/29/1996 | 11 10 00 | MONTH | 179 48 | 121 54 | 57 94 | STATIC | WBMAN | |
| 12/04/1996 | 08 37 00 | MONTH | 179 48 | 115 25 | 64 23 | STATIC | WBMAN | |
| 02/12/1997 | 12 20 00 | MONTH | 179 48 | 101 58 | 77 90 | STATIC | WBMAN | |
| 03/17/1997 | 09 17 00 | MONTH | 179 48 | 102 09 | 77.39 | STATIC | WBMAN | |
| 05/13/1997 | 13 07 00 | MONTH | 179 48 | 109.35 | 70 13 | STATIC | WBMAN | |
| 06/13/1997 | 14 21 00 | MONTH | 179 48 | 110.01 | 69 47 | STATIC | WBMAN | |
| 07/22/1997 | 12 18 00 | MONTH | 179 48 | 117.23 | 62.25 | STATIC | WBMAN | |
| 09/03/1997 | 11 27 00 | MONTH | 179 48 | 121.27 | 58 21 | STATIC | WBMAN | |
| ***Station Name: FFS-1/1/WB2/MP8 SWN: 03S/10W-35K02 Elev. GS: 179.72 Zone Interval: 1419-1429*** | | | | | | | | |
| 02/08/1996 | 10 15 00 | MONTH | 179 48 | 108 22 | 71 26 | STATIC | WBMAN | |
| 03/01/1996 | 11 02.00 | DAY | 179.48 | 102 77 | 76 71 | STATIC | WBMAN | |
| 04/03/1996 | 08 23 00 | MONTH | 179 48 | 92 18 | 87 30 | STATIC | WBMAN | |
| 06/07/1996 | 12 54 00 | MONTH | 179 48 | 89 70 | 89 78 | STATIC | WBMAN | |
| 09/04/1996 | 11 12 00 | MONTH | 179 48 | 104 53 | 74 95 | STATIC | WBMAN | |
| 10/29/1996 | 11 06 00 | MONTH | 179 48 | 107.85 | 71.63 | STATIC | WBMAN | |
| 12/04/1996 | 08 34 00 | MONTH | 179 48 | 104 03 | 75.45 | STATIC | WBMAN | |
| 02/12/1997 | 12 17 00 | MONTH | 179 48 | 91 28 | 88 20 | STATIC | WBMAN | |
| 03/17/1997 | 09 13 00 | MONTH | 179 48 | 90 17 | 89 31 | STATIC | WBMAN | |
| 05/13/1997 | 13 03 00 | MONTH | 179 48 | 94 72 | 84 76 | STATIC | WBMAN | |
| 06/13/1997 | 14 20 00 | MONTH | 179 48 | 94 68 | 84 80 | STATIC | WBMAN | |
| 07/22/1997 | 12 15 00 | MONTH | 179 48 | 100 53 | 78 95 | STATIC | WBMAN | |
| 09/03/1997 | 10 58 00 | MONTH | 179 48 | 104 87 | 74.61 | STATIC | WBMAN | |
| ***Station Name: FM-3/1 SWN: 04S/10W-02G02 Perfs: 257-263 Elev. GS: 180.56 Aquifer: UNDEFINED*** | | | | | | | | |
| 01/02/1996 | 11 25 00 | MONTH | 179 77 | 117 72 | 62.05 | STATIC | ELEC | |
| 02/05/1996 | 14 54 00 | MONTH | 179 77 | 119 55 | 60 22 | STATIC | ELEC | |
| 04/18/1996 | 10 40 00 | MONTH | 179 77 | 107 45 | 72 32 | STATIC | ELEC | |
| 05/06/1996 | 10 55 00 | DAY | 179 77 | 106 27 | 73 50 | STATIC | ELEC | |
| 08/21/1996 | 10 12.00 | MONTH | 179 77 | 116 35 | 63 42 | STATIC | ELEC | |
| 10/12/1996 | 09 10 00 | MONTH | 179.77 | 119.12 | 60 65 | STATIC | ELEC | |
| 10/29/1996 | 12 57 00 | DAY | 179 77 | 120 56 | 59 21 | STATIC | ELEC | |
| 01/19/1997 | 12 00 00 | MONTH | 179 77 | 110 50 | 69 27 | STATIC | ELEC | |
| 02/11/1997 | 10 16 00 | MONTH | 179 77 | 107 92 | 71 85 | STATIC | ELEC | |
| 04/18/1997 | 10 10 00 | MONTH | 179 77 | 109.77 | 70 00 | STATIC | ELEC | |
| 05/29/1997 | 15 40 00 | MONTH | 179 77 | 112 34 | 67.43 | STATIC | ELEC | |
| 07/25/1997 | 12 45 00 | MONTH | 179 77 | 116 23 | 63 54 | STATIC | ELEC | |
| 08/11/1997 | 14 58 00 | MONTH | 179.77 | 118 30 | 61 47 | STATIC | ELEC | |



*Abbreviations:*

*Elev GS -- Elevation of Ground Surface*
*Elev RP -- Elevation of Reference Point*
*Elev WS -- Elevation of Water Surface*
*WL Status -- Water Level Status*
*Perfs -- Perforated Interval*



# Isobath Map Of Near Surface Water

Contours in feet below ground surface

Classification and Mapping of Quaternary Sedimentary Deposits
For Purposes of Seismic Zonation, South Coastal LA Basin, Orange County, Calif
Sprotte, Fuller, & Greenwood
California Division of Mines & Geology
September 18, 1980

ORANGE COUNTY WATER DISTRICT
WATER QUALITY DEPARTMENT
10500 Ellis Avenue
Post Office Box 8300
Fountain Valley, CA 92728-8300
Telephone (714) 378-3200 Fax: (714) 378-3373
Information Request Line (714) 378-3209

# FAX TRANSMITTAL

DATE: October 9, 1997

TO: Jack L.
*Western Environmental Engineers*

FAX NO.: (714) 542-2520
PHONE: (714) 542-2644

FROM: *Rita Hintlian*

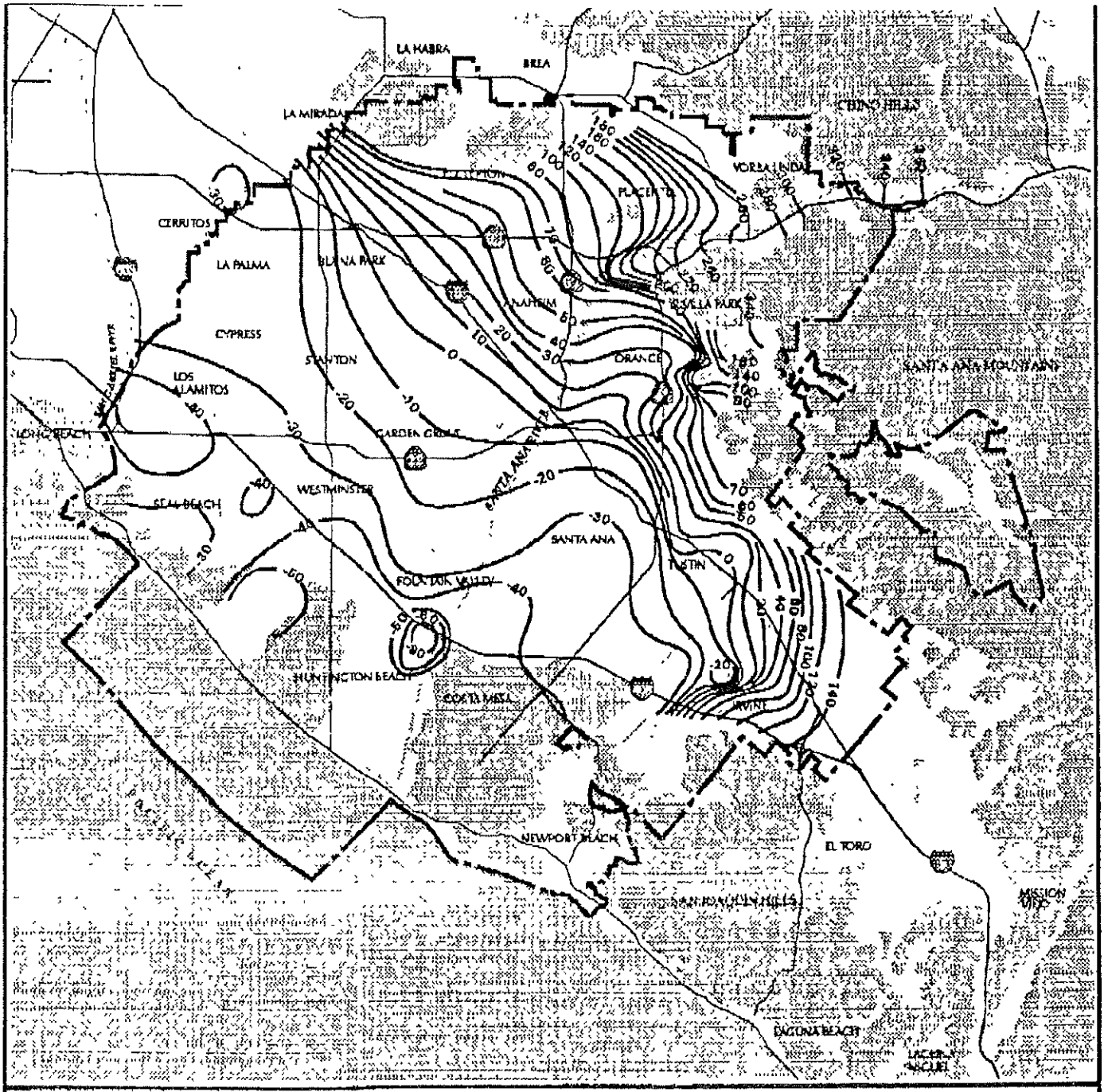
PHONE: (714) 378-3252

No. of pages being transmitted: 4 (including this cover sheet)

**COMMENTS:** Per your request, we are transmitting a November 1996 groundwater contour map, and instructions on how to obtain water quality information. To determine if a city or address is within our District boundaries, you may check the attached guide or map.

When you submit the enclosed *Information Request Form,* please complete all the sections and mail it with your payment.

Thank you.




- WATER
- MESAS
- IMPERMEABLE FORMATION
- OCWD BOUNDARY
- FREEWAYS/HIGHWAYS
- GROUNDWATER ELEVATION (FEET MSL)

# GROUNDWATER CONTOUR MAP
## NOVEMBER 1996

Portions of this map are copyrighted, and reproduced with permission granted by THOMAS BROS. MAPS ©

Directors
PHILIP L. ANTHONY
WES BANNISTER
KATHRYN L. BARR
JOHN V. FONLEY
DANIEL E. GRISET
LAWRENCE P. KRAEVER JR.
GEORGE OSBORNE
LANGDON W. OWEN
IRV PICKLER
ARNT G. "BUD" QUIST

# ORANGE COUNTY WATER DISTRICT

Officers
WES BANNISTER
President
DANIEL E. GRISET
First Vice President
ARNT G. "BUD" QUIST
Second Vice President
WILLIAM R. MILLS JR.
General Manager
CLARK IDE
General Counsel

## GUIDE TO INFORMATION REQUESTS

The Orange County Water District provides ground water information for the following cities:

| | | |
|---|---|---|
| Anaheim | Irvine | Santa Ana |
| Buena Park | La Palma | Seal Beach |
| Costa Mesa | Los Alamitos | Stanton |
| Cypress | Midway City | Tustin |
| Fountain Valley | Newport Beach | Villa Park |
| Fullerton | Orange | Westminster |
| Garden Grove | Placentia | Yorba Linda |
| Huntington Beach | | |

We suggest that you copy your letterhead onto the Information Request Form to provide us with your address and phone number. Add your name, site address, major cross streets, Thomas guide coordinates, and the reason that you are conducting the site investigation. Please note that Information Requests are processed through a database that requires exact information

All requests require a two to three weeks turnaround time. The processing fee is a minimum of $10.00. Make checks payable to the Orange County Water District.

Please ensure that your request is complete before mailing it Incomplete requests may further delay the inquiry.

NOTE *Driller's logs or well logs are confidential according to the State Water Code, hence the public may not access such information.*

PO BOX 8300, FOUNTAIN VALLEY, CA 92728-8300 • 10500 ELLIS AVENUE, FOUNTAIN VALLEY, CA 92708
TELEPHONE (714) 378-3200 FAX (714) 378-3373

# Attachment (E)

## MSDS Sheets for NaOCl

TM CSB gm PL Mat TC H3 FO R1 ®
CORROSIVE

Sunny Sol 150 - Jones Chemicals, Inc.
MSDS# 1201.9048 Revision# 1994.01015

PPE: rubber gloves, goggles, faceshield (if needed)
Use respirator if needed.

# MATERIAL SAFETY DATA SHEET

Jones Chemicals, Inc.
80 Munson Street
LeRoy, New York 14482
(and Principal Cities)

For information, please contact the Jones Chemicals facility in your area at ( ) - or the Jones Chemicals Corporate Laboratory in Caledonia, New York at (716) 538-2311.

In the event of a transportation emergency,
Call CHEMTREC: (800) 424-9300

## SECTION I - IDENTIFICATION

**TRADE NAME:** Sunny Sol 150®
**CHEMICAL NAME:** Sodium Hypochlorite
**FORMULA:** NaOCl
**DOT SHIPPING NAME:** Hypochlorite Solution
**DOT HAZARD CLASS:** Corrosive Material
**UN/NA NUMBER:** UN 1791
**DOT LABEL:** Corrosive
**DOT PLACARD:** Corrosive
**PACKING GROUP:** III
**REPORTABLE QUANTITY:** Sodium Hypochlorite: 100 Pounds/45.4 Kilograms
**CAS NUMBER:** 7681-52-9

**NFPA DESIGNATION:** The NFPA has not rated sodium hypochlorite.

## SECTION II - HAZARDOUS INGREDIENTS

| MATERIAL | % BY WEIGHT | CAS NO. | OSHA PEL | ACGIH TLV |
|---|---|---|---|---|
| Sodium Hypochlorite | 12.5-15.5 | 7681-52-9 | Not Applicable | Not Applicable |
| Sodium Hydroxide | 0.1-2.0 | 1310-73-2 | 2mg/m³ ceiling | STEL/CEIL(c) 2mg/m³ ceiling |
| Inert Ingredients | Balance | Not Applicable | Not Applicable | Not Applicable |

**CARCINOGENICITY STATUS:** NTP - No, IARC - No, OSHA - No.

## SECTION III - PHYSICAL DATA

APPEARANCE: Yellow-green liquid
BOILING POINT: 219°F (104°C) for 12.5% NaOCl by wt.
FREEZING POINT: - 11°F (- 24°C) for 12.5% NaOCl by wt.
ODOR: Chlorine
pH: 12.5 - 13.5 s.u. @ 25°C
VISCOSITY (Cs): 2.15 @ 23°C for 12.5% NaOCl by wt.
PERCENT VOLATILE BY VOLUME: Variable water plus products of decomposition
SOLUBILITY IN WATER: Complete
SPECIFIC GRAVITY (Water=1): 1.218 @ 20°C for 13.79 % NaOCl by wt.
VAPOR DENSITY (AIR=1): Not available
VAPOR PRESSURE (mm Hg): Variable water plus products of decomposition.

## SECTION IV - FIRE AND EXPLOSION DATA

FLASH POINT (Test method): Not applicable
AUTO IGNITION TEMPERATURE: Not applicable
FLAMMABLE LIMITS IN AIR (Volume %): Not applicable
EXTINGUISHING MEDIA: Flood with water or carbon dioxide (CO2)
SPECIAL FIRE FIGHTING PROCEDURES: Use National Institute of Occupational Safety & Health (NIOSH) approved respirator with acid type canister or use self-contained breathing apparatus. Unusual fire and explosion hazards: material is a strong oxidizer. Contact with combustibles may initiate or promote combustion. Acid and heat accelerate decomposition. Decomposition products may include chlorine.

## SECTION V - HEALTH HAZARD INFORMATION

### MEDICAL CONDITIONS AGGRAVATED BY EXPOSURE

No medical conditions are known to be aggravated by exposure.

### ROUTES OF EXPOSURE

INHALATION: Fumes from spills can cause severe irritation and chemical burns to the nose, throat, and lungs. Very little hazard from properly stored solution.
SKIN CONTACT: Severe irritant, reddening of skin, can cause chemical burns to skin.
SKIN ABSORPTION: Same as skin contact.
EYE CONTACT: Severe irritant, corrosive, can severely burn eyes.
INGESTION: Causes irritation of membranes of the mouth, throat, and stomach pain and possible ulceration. LD50 (oral, rat) for 12.5% NaOCl is approximately 5 g/kg body weight.

EFFECTS OF OVEREXPOSURE

ACUTE OVEREXPOSURE (see Routes of Exposure above)

SWALLOWING: See "ingestion" under routes of exposure.
SKIN CONTACT: severe Irritant, reddening of skin, skin damage, chemical burns.
INHALATION: Fumes from spills are very irritating to mucous membranes.
EYE CONTACT: Extreme irritant, corrosive.

CHRONIC OVEREXPOSURE (see Routes of Exposure above)

EYE: Can cause damage.
SKIN: Can cause damage, chemical burns.

EMERGENCY AND FIRST AID PROCEDURES

IF CONTACT WITH EYES OCCURS: flush with water for at least fifteen (15) minutes. Get medical attention.
IF CONTACT WITH SKIN OCCURS: wash with plenty of soap and water.
INHALATION: Remove to fresh air. Call a physician if exposure is severe.
IF SWALLOWED: drink large amounts of water. Do NOT induce vomiting. Call a physician or poison control center immediately.

## SECTION VI - REACTIVITY DATA

CONDITIONS CONTRIBUTING TO INSTABILITY

Solutions are fairly stable in concentrations below 10%. Stability decreases with concentration, heat, light, exposure, decrease in pH, and contamination with heavy metals, such as nickel, cobalt, copper, and iron.

INCOMPATIBILITY

Acids, alcohols, amines, ammonia, chlorinated isocyanurates, combustibles, cyanides, detergents, ethers, hydrocarbons, oxidizable materials, reducing agents. Corrosive to most metals.

DECOMPOSITION PRODUCTS

Hypochlorous Acid (HOCl), chlorine, hydrochloric acid. Composition depends upon temperature and decrease in pH. Additional decomposition products, which depend upon pH, temperature and time, are sodium chloride, sodium chlorate and oxygen.

**PROPER STORAGE AND DISPOSAL REQUIREMENTS**

Store this product in a cool, dry area away from direct sunlight and heat to avoid deterioration. In case of spill, flood areas with large quantities of water.

Disposal for domestic use: Do not reuse container. Rinse thoroughly before discarding in trash.

Disposal for all other uses: Triple rinse (or equivalent). Then offer for recycling or reconditioning, or puncture and dispose of in a sanitary landfill, or incineration, or, if allowed by state and local authorities, by burning. If burned, stay out of smoke.

Do not contaminate water, food, or feed by storage, disposal or cleaning of equipment.

**STORE IN AN UPRIGHT POSITION**

**OTHER PRECAUTIONS**

**STRONG OXIDIZING AGENT:** Mix only with water according to label directions. Mixing this product with gross filth such as feces, urine, etc.; or with ammonia, acids, detergents or other chemicals may release hazardous gases irritating to eyes, lungs and mucous membranes.

**ADDITIONAL REGULATORY CONCERNS**

**EPA:** May not be used for disinfection or sanitization without prior approval by EPA. Repackagers must obtain EPA registration and establishment numbers.
**FIFRA:** This product is regulated under the Federal Insecticide, Fungicide, and Rodenticide Act (FIFRA) if used as a disinfectant or sanitizer.
**TSCA:** Included in the Toxic Substances Control Act (TSCA) Inventory Of Chemical Substances.

MSDS PREPARED BY: Jones Chemicals, Inc.
80 Munson Street
LeRoy, New York 14423
Corporate Environmental Department 716-768-6281
Corporate Laboratory 716-538-2311

ISSUE DATE: 12/05/94
SUPERSEDES ISSUE DATED: 03/20/90

The information herein is given in good faith but no warranty, expressed or implied is made.

Attachment (F)

# Sodium Hypochlorite as Hazardous Material

WEECO WESTERN ENVIRONMENTAL ENGINEERS CO.

1780 E. McFadden Ave. (Suite 117)
Santa Ana, CA 92705

(714) 542-2644
FAX (714) 542-2520

# Phase II Environmental Site Assessment Report

PROJECT SITE:
The Tank Farm Area for Kimberly Clark Plant
2001 E. Orangethrope Avenue
Fullerton, CA

PREPARED FOR:
Ms. Grace Madden
Laboratory Leader
Kimberly Clark
2001 E. Orangethrope Avenue
Fullerton, CA

WEECO PROJECT NUMBER:
97-611B

REPORT DATE:
January 19, 1998

REGISTERED PROFESSIONAL ENGINEER
ABNISH CHANDRA AMAR
No. c 28906
exp. 3.31.99
CIVIL
STATE OF CALIFORNIA

Prepared by: Abnish Amar

Abnish Amar, Ph.D., P.E.
Registered Civil Engineer
California Registration No. C28906

REGISTERED ENVIRONMENTAL ASSESSOR
CHARLES K.H. CHOI
No. 03066
Exp. 6/30/98
STATE OF CALIFORNIA

Charles K. Choi
Registered Environmental Assessor
California Registration No. 3066

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| Attachment C | Laboratory Certificates of Analysis |
| Attachment D | U S E P A Region 9 Preliminary Remediation Goals (PRGs) 1996 |
| Attachment E | Preliminary Phase II Site Assessment Report |

## *1.0 INTRODUCTION*

This report presents the results of a subsurface investigation for the tank farm of Kimberly Clark Plant located at 2001 E. Orangethrope Ave., Fullerton, CA (see Figure 1), conducted by Western Environmental Engineers Company (WEECO) on December 15 & 16, 1997. This site investigation was completed at the request of Ms. Grace Madden.

The purpose of this site investigation was to gather detailed information about the contaminants in the existing tank farm area which are used to store Sodium Hypochlorite (NaOCl), and to determine the contaminants existing on site and to approximate the volume of the contaminants plumes. From this information, a preliminary cost estimate to remediate this site, if necessary, could be provided to the owner. This Environmental Site Investigation report contains a brief history of the existing site characteristics, sample collection procedures, analytical results, conclusions and recommendations.

## *2.0 BACKGROUND*

Kimberly-Clark Company has a factory at 2001 E. Orangethrope Avenue in City of Fullerton, California. Figure (2) show the layout of the factory located in City of Fullerton. There is a tank farm on the east site of the factory as indicated in Figure (2). Tank farm has five tanks as described below:

- Tank No.1 - destroyed
- Tank No.2 - exsiting
- Tank No.3 - existing
- Tank No. 4 - existing
- Tank No.5 - existing

On September 29 and October 6, 1997, ten (10) borings were drilled by *Western Environmental Engineers Company* in order to detect any contamination associated with the Sodium Hypochlorite (NaOCl). At that time, *Western Environmental Engineers Company* found that **Sodium Hypochlorite (NaOCl)** contamination has been detected in the subsurface soils in the vicinity of the tank farm area. They submitted the "Preliminary Phase II Site Assessment Report" to Ms. Grace Madden.

In response to *WEECO's* "Preliminary Site Assessment Report" dated October 20, 1997, Ms. Grace Madden was requested to perform additional work.

1/3

WEECO WESTERN ENVIRONMENTAL ENGINEERS CO.

1780 E. McFadden Ave. (Suite 117)
Santa Ana, CA 92705

(714) 542-2644
FAX (714) 542-2520

# FAX COVER SHEET

**Date:** 4/24/98

**A. FAX RECIPIENT:**

**FAX Number:** Grace Madden
**Company:** Kimberly-Clark
**Person:** ~~Fax 568-5716~~ 773-929(3 pages total)
Tel - 773-7500. Ex 7677.

**B. FAX MESSAGE:**

As shown in the attached letter from the Orange County Health-Care-Agency, your problem at the tank farm is determined "no further action" required.

If you have any more work to do, let us know.

**C. TOTAL PAGES TO FOLLOW:** 2

**D. SENDER'S NAME:** Charles Choi
WEECO

A summary of laboratory analysis collected to date (September 29 and October 6, 1997) is depicted in Table 1

**TABLE 1: Summary of Previous Laboratory Analysis**

Sodium Hypochlorite (NaOCl)
[reporting units parts per million (ppm)]

| Sample ID | Sodium Hypochlorite (NaOCl) | Date |
|---|---|---|
| B-1-2 | 5 04 | 9/29/97 |
| B-1-4 | 3 78 | 9/29/97 |
| B-1-6 | 2 94 | 9/29/97 |
| B-1-8 | <1 0 | 9/29/97 |
| B-1-10 | <1 0 | 9/29/97 |
| B-2-2 | 5 88 | 9/29/97 |
| B-2-4 | 2 10 | 9/29/97 |
| B-2-6 | 2 52 | 9/29/97 |
| B-2-8 | 4 41 | 9/29/97 |
| B-2-10 | <1 0 | 9/29/97 |
| B-3-2 | 6 30 | 9/29/97 |
| B-3-4 | 4 41 | 9/29/97 |
| B-3-6 | 3 78 | 9/29/97 |
| B-3-8 | <1 0 | 9/29/97 |
| B-3-10 ✓ | 4 00 | 9/29/97 |
| B-4-2 | 2 94 | 9/29/97 |
| B-4-4 | 3 15 | 9/29/97 |
| B-4-6 | <1 0 | 9/29/97 |
| B-5-2 | 13 0 | 9/29/97 |
| B-5-4 | 7 77 | 9/29/97 |
| B-5-6 | <1 0 | 9/29/97 |
| B-5-8 | <1 0 | 9/29/97 |
| B-5-10 | <1 0 | 9/29/97 |
| B-6-2 | <1 0 | 9/29/97 |
| B-6-4 | 3 78 | 9/29/97 |
| B-6-6 | <1 0 | 9/29/97 |
| B-6-8 | <1 0 | 9/29/97 |
| B-6-10 ✓ | 3 57 | 9/29/97 |

Sodium Hypochlorite (NaOCl)
[reporting units parts per million (ppm)]

| Sample ID | Sodium Hypochlorite (NaOCl) | Date |
|---|---|---|
| B-7-2 | 5 67 | 9/29/97 |
| B-7-4 | 4 20 | 9/29/97 |
| B-7-6 | 2 73 | 9/29/97 |
| B-7-8 | 4 62 | 9/29/97 |
| B-7-10 ✓ | 4 62 | 9/29/97 |
| B-8-2 | 3 57 | 10/6/97 |
| B-8-4 | <1 0 | 10/6/97 |
| B-8-6 | <1 0 | 10/6/97 |
| B-8-8 | <1 0 | 10/6/97 |
| B-8-10 | <1 0 | 10/6/97 |
| B-9-2 | 2 94 | 10/6/97 |
| B-9-4 | 7 40 | 10/6/97 |
| B-9-6 | 1 68 | 10/6/97 |
| B-9-8 | <1 0 | 10/6/97 |
| B-9-10 | 1 26 | 10/6/97 |
| B-10-2 | 6 09 | 10/6/97 |
| B-10-4 | 2 94 | 10/6/97 |
| B-10-6 | 3 78 | 10/6/97 |
| B-10-8 | <1 0 | 10/6/97 |
| B-10-10 | <1 0 | 10/6/97 |

## *3.0 GEOLOGY AND DEPTH TO GROUNDWATER*

### A. *GEOLOGY*

The project site is located in the Fullerton area of the central basin comprised of alluvium and associated deposit of recent Pleistocene age Jefferson Aquifer, which is the second aquifer in downward succession within the San Pedro Formation, extends over most of the Central Basin, although it is not known to reach the surface Within the boundaries of the aquifer, some irregular areas exist where the aquifer has not been identified The Jefferson Aquifer occurs in sinuous courses extending from both Los Angels and Whittier Narrows into Orange County Lithologically, the sediments comprising this aquifer (based on drilling logs of water wells in the area) are for the most part, fine-grained Gravels are most extensive in the Whittier Narrows area but also occur in scattered patches throughout the rest of the Central Basin The reminder of the aquifer consists primarily of sand with some gravely and clayey lenses

The thickness of the aquifer varies from a few feet to maximum of 140-feet along the Los Alamitos Fault This aquifer is considerably folded and its base varies in elevation from 700-feet below sea level to 50-feet above sea level

Artificial recharge within the Whittier Narrows has some effect on this aquifer Since less than 10% of the wells in the Central Basin are perforated in this horizon and then only in the areas where coarse sandy and gravel zones are encountered, it is generally not considered an important water producing aquifer

The movement of groundwater across the Los Angeles and Orange County line is entirely dependent on the hydraulic gradient in the area since no physical barrier to groundwater movement exists Due to the continuity of the hydraulic gradient which slopes in the southerly direction, the general direction of the groundwater in the confined Central Basin is from the north to the south Groundwater conditions in the overlying shallow semi-perched aquifer do not necessarily follow this trend

### *B. GROUNDWATER LEVEL*

The depth to groundwater at the subject site area was obtained by contacting the Orange County Water District Water Quality Department The depth to groundwater in the subject site is approximately within 110 - 130 feet below the surface as depicted by the neighborhood well technical data It is believed that the direction of the groundwater in the vicinity is from the north to the south

## 4.0 SUBSURFACE EXPLORATION

### 4.1 RATIONALE FOR THE SAMPLING LOCATIONS

On December 15 & 16, 1997, four (4) borings were drilled from the surface to forty (40) feet, as indicated on the Facility Map (Figure 2) Bulk samples were obtained at ten (10) feet intervals, and tube samples were taken every ten (10) feet Boring locations were selected in order to further define the vertical and horizontal extent of the subsurface contamination The borings were drilled at four (4) locations adjacent to the previous Sodium Hypochlorite (NaOCl) contaminated area

### 4.2 SOIL DRILLING AND SAMPLING

On December 15 & 16, 1997, a total of thirteen (13) soil samples were collected from the four (4) borings (labeled B-3, B-6, B-7, and TK-1) A B-47 drill rig was used, which was equipped with 3-inch diameter hollow-stem augers, and sampled by a California Split Spoon sampler Maximum depth of borings ranged up to 40 feet below the surface Groundwater was not encountered at the time of drilling Tube soil samples were taken at B-3-20, B-3-30 & B-3-40, B-6-20, B-6-30 & B-6-40, B-7-20, B-7-30 & B-7-40, and TK-1-10, TK-1-20, TK-1-30 & TK-1-40 For each boring, soil descriptions, sample type and depth, and related drilling information were summarized and recorded on a boring log, which were reviewed by a Registered Civil Engineer Logs of Borings are found in Attachment A Soil cuttings were backfilled in the original place

### 4.3 SAMPLING PROCEDURES FOR SOIL SAMPLE COLLECTION

Tube soil samples were obtained from the borings using a split barrel modified California sampler, which contained three (3) 1 5-inch ID by 6 0-inch long brass sampling tubes The sampler was driven into the soil using a 140-pound downhole hammer, dropping approximately 30 inches The number of blows required to advance the sampler by 18 inches was recorded on each boring log for each 6-inch increment, when possible All soil samples were completely driven and filled, no head space nor hand-packing was allowed The soil samples were retained in the brass tubes, which were sealed at both ends with Teflon sheeting and tight-fitting plastic caps Each sample was labeled (with the sample number, sample depth, date, time, and project number), placed in a bag, stored in an ice chest, and cooled using ice and refrigerated blue ice packets Chain-of-custody forms were filed to document the handling, transport, and delivery of samples to a California State Certified laboratory (See Attachment C)

All sampling equipment and sampling tubes were decontaminated prior to each sampling by repeated washing using a brush and Liquinox solution, a tap water rinse, and finally a deionized water rinse The sampler and sampling tubes were either air-dried or dried with a clean towel Clean augers were used for each boring

Vapor readings were obtained at ten (10) feet intervals from the bulk samples collected The soil was collected in a plastic ZIPLOC™ bag and placed in a warm area to allow for the volatilization of hydrocarbons After volatilization, a Bacharach TLV Sniffer™ was calibrated for 600 ppm hexane

## *5.0 LABORATORY ANALYSIS*

All soil samples were delivered to CHEMTEK Inc Environmental Laboratories, a California State-certified laboratory whose certification by California Department of Health Services is found in Attachment C The following laboratory analyses were performed on the soil samples

- *Chemicals for Sodium Hypochlorite (NaOCl)*

These laboratory analyses were performed in accordance with the United States Environmental Protection Agency (U S E P A ) Region 9 site assessment requirements Certificates of Analysis for soil samples during this portion of the site assessment are found in Attachments D A summary of all site assessment laboratory results is shown in Table 2

### *TABLE 2: SUMMARY OF LABORATORY RESULTS*

Sodium Hypochlorite (NaOCl)
[reporting units parts per million (ppm)]

| Sample ID | Sodium Hypochlorite (NaOCl) | Date |
|---|---|---|
| B-7-20 | 0 80 | 12/15/97 |
| B-7-30 | 0 74 | 12/15/97 |
| B-7-40 | 0 80 | 12/15/97 |
| B-6-20 | 0 90 | 12/15/97 |
| B-6-30 | <0 5 | 12/15/97 |
| B-6-40 | <0 5 | 12/15/97 |
| TK-1-10 | 0 63 | 12/16/97 |
| TK-1-20 | 0 84 | 12/16/97 |
| TK-1-30 | <0 5 | 12/16/97 |
| TK-1-40 | 0 63 | 12/16/97 |
| B-3-20 | 1 30 | 12/16/97 |
| B-3-30 | <0 5 | 12/16/97 |
| B-3-40 | <0 5 | 12/16/97 |

## *6.0 CONCLUSIONS AND RECOMMENDATIONS*

The laboratory analytical results were compared to the maximum allowable levels as defined by the United States Environmental Protection Agency (U S E P A ) Region 9, "Preliminary Remediation Goals (PRGs) 1996 (see Attachment D)

***TABLE 3:*** ***Maximum Allowable Levels based on the Guidance for Chlorine: Preliminary Remedial Goals (PRGs)***

| CONSTITUENT | CONCENTRATION | AS REQUIRED BY |
|---|---|---|
| Chlorine | 1 7E+05 ppm | USEPA Region 9 |

This subsurface soil investigation revealed slightly elevated levels of chlorine at sample locations B-1 through B-10 and TK-1 Measured concentrations were found to be extremely low and well within the maximum allowable limits of chlorine constituent This concentration can be considered as clean, based on the United States Environmental Protection Agency (U S E P A ) Region 9, "Preliminary Remediation Goals (PRGs) 1996 Based on these analytical results, we believe groundwater contamination is extremely unlikely

Based on these analytical results, WEECO and Mr Luis Lodrigueza (Orange County Health Care Agency) conclude that no further subsurface investigation is necessary for the site At this time, WEECO recommends that Ms Grace Madden does not need additional site assessment

## *7.0 LIMITATIONS*

The services performed, all findings obtained, all soil and groundwater samples obtained and analyzed, and all conclusions and recommendations made, are in accordance with generally and currently accepted engineering and technical principles and practices The conclusions made in this report ONLY reflect the findings of the chemical analyses performed on the soil samples taken at the specified locations, as indicated by bore-hole numbers and the depths of borings The areas, where soil and groundwater sampling and analyses were not performed, are not covered in the conclusions and recommendations of this report No warranties, expressed or implied, are made or intended in connection with this report, by furnishing this report, or by any oral or written statement

# FIGURE (1)

# SITE LOCATION MAP

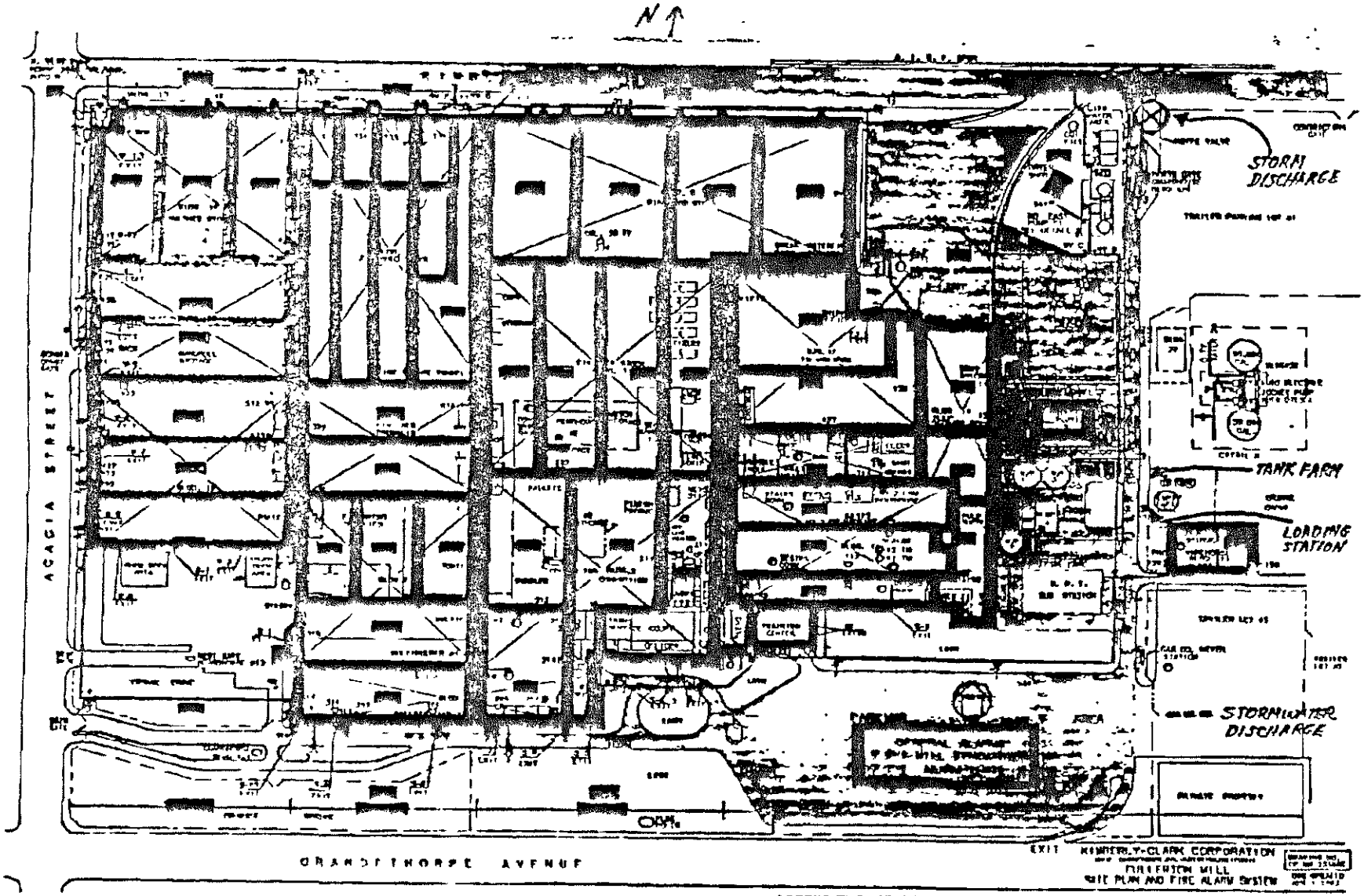



| SITE ADDRESS | PROJECT | BY |
|---|---|---|
| 2001 E Orangethrope Ave<br>Fullerton, CA92631 | Site Location Map<br>for Phase-II<br>Environmental Assessment | WEECO<br>1780 E. McFadden Ave<br>Santa Ana, CA 92705 |

**FIGURE (2)**

**FACTORY LAYOUT**

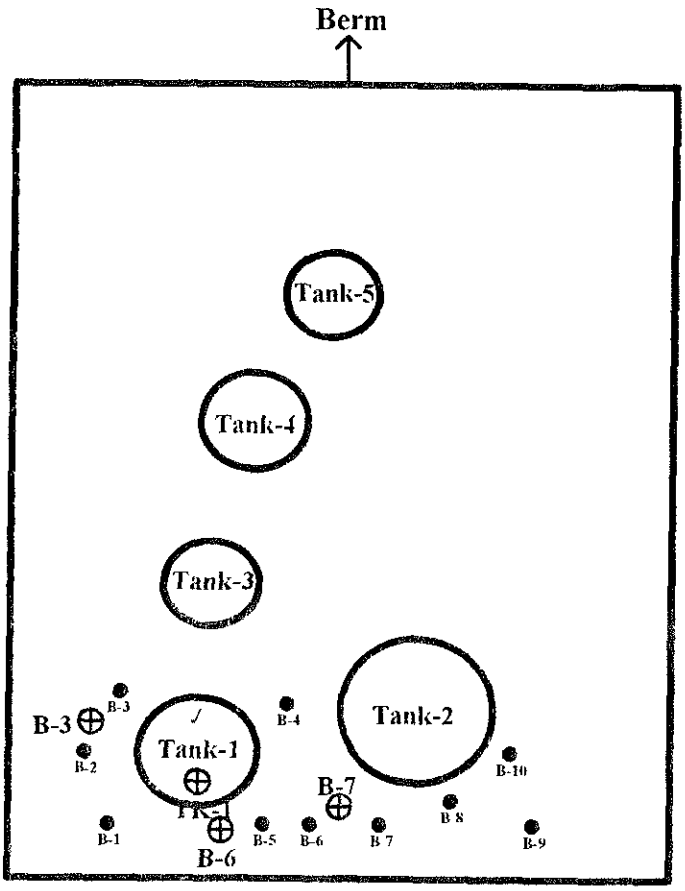
FIGURE (2) Factory Site Plot Plan




OCT 17 1997 8:03PM KIMBERLY FULLERTON P.2/2

# FIGURE (3)

# FACILITY MAP




Scale: 1" = 25 Feet

Site Address Kimberly Clark
2001 E Orangethrope Ave
Fullerton, CA 92631

● Previous drilling locations

⊕ Drilling Locations

**PLOT PLAN**

# ATTACHMENT (A)

# LOGS OF BORINGS

# LOG OF BORING

| Drill Rig | Boring Diameter | | Boring Number |
|---|---|---|---|
| B-47 3" HOLLOW STEM AUGER | 3 inches | | B-7 |

| Drilling Date | Logger | Registered Civil Engineer | This log is a representation of subsurface conditions at the time and place of drilling. The passage of time or other locations may cause consequential changes in conditions |
|---|---|---|---|
| 12-15-97 | JY | AA | |

| BULK | TUBE | VAPOR READINGS | TIME | BLOW COUNTS | DEPTH, FEET | WELL CONSTRUCTION DETAIL | DESCRIPTION AND REMARKS |
|---|---|---|---|---|---|---|---|
| | | | | | | | SURFACE IS NATURAL SOIL |
| | | | | | 5 | | |
| | | | | | 10 | | |
| | | | | | 15 | | |
| X | X | ND | 10 29 | 15-22-27 | 20 | | SURFACE - 20 FT LIGHT BROWN SAND |
| | | | | | 25 | | |
| X | X | ND | 10 58 | 13-11-19 | 30 | | 20 FT - 30 FT LIGHT BROWN SAND |
| | | | | | 35 | | |
| X | X | ND | 11 30 | 18-27-33 | 40 | | 30 FT - 40 FT LIGHT BROWN SAND<br>TD 40 FT<br>BACKFILLED WITH SOIL CUTTINGS |
| | | | | | 45 | | |

WEECO Western Environmental Engineers Co
1780 E McFadden Ave (Suite #117)
Santa Ana, California 92705

PROJECT NAME SITE CHARACTERIZATION

ADDRESS 2001 E ORANGETHROPE AVE
FULLERTON, CA 92631

Project Number 97-611B | Figure Number

# LOG OF BORING

| Drill Rig | Boring Diameter | | Boring Number |
|---|---|---|---|
| B-47 3" HOLLOW STEM AUGER | 3 inches | | B-6 |

| Drilling Date | Logger | Registered Civil Engineer | |
|---|---|---|---|
| 12-15-97 | JY | AA | This log is a representation of subsurface conditions at the time and place of drilling The passage of time or other locations may cause consequential changes in conditions |

| BULK | TUBE | VAPOR READINGS | TIME | BLOW COUNTS | DEPTH, FEET | WELL CONSTRUCTION DETAIL | DESCRIPTION AND REMARKS |
|---|---|---|---|---|---|---|---|
| | | | | | | | SURFACE IS NATURAL SOIL |
| | | | | | 5 | | |
| | | | | | 10 | | |
| | | | | | 15 | | |
| X | X | ND | 14 35 | 12-14-18 | 20 | | SURFACE - 20 FT LIGHT BROWN SAND |
| | | | | | 25 | | |
| X | X | ND | 14 55 | 19-14-13 | 30 | | 20 FT - 30 FT LIGHT BROWN SAND |
| X | X | | | | 35 | | |
| X | X | ND | 15 40 | 18-21-25 | 40 | | 30 FT - 40 FT LIGHT BROWN SAND<br>TD 40 FT<br>BACKFILLED WITH SOIL CUTTINGS |
| | | | | | 45 | | |

WEECO Western Environmental Engineers Co
1780 E McFadden Ave (Suite #117)
Santa Ana, California 92705

PROJECT NAME SITE CHARACTERIZATION

ADDRESS 2001 E ORANGETHROPE AVE
FULLERTON, CA 92631

Project Number 97-611B | Figure Number

# LOG OF BORING

| Drill Rig: B-47 3" HOLLOW STEM AUGER | Boring Diameter : 3 inches | | Boring Number : TK-1 |
|---|---|---|---|
| Drilling Date 12-16-97 / Logger: JY / Registered Civil Engineer: AA | This log is a representation of subsurface conditions at the time and place of drilling. The passage of time or other locations may cause consequential changes in conditions. | | BELOW * OLD TANK SLAB |

| BULK | TUBE | VAPOR READINGS | TIME | BLOW COUNTS | DEPTH, FEET | WELL CONSTRUCTION DETAIL | DESCRIPTION AND REMARKS |
|---|---|---|---|---|---|---|---|
| | | | | | 5 | | CONCRETE PAVING, 8" THICKNESS. FILL: SAND SILT TRACK CLAY. VERY FINE GRAINED SILTY SAND, MOIST FIRM. |
| X | X | ND | 8:30 | 5-7-7 | 10 | | 8" - 10 FT: LIGHT BROWN SAND. |
| | | | | | 15 | | |
| X | X | ND | 8:51 | 4-11-15 | 20 | | 10 FT - 20 FT: LIGHT BROWN SAND. |
| | | | | | 25 | | |
| X | X | ND | 9:12 | 7-6-8 | 30 | | 20 FT - 30 FT: LIGHT BROWN SAND. |
| | | | | | 35 | | |
| X | X | ND | 9:47 | 16-18-20 | 40 | | 30 FT - 40 FT: LIGHT BROWN SAND.<br>TD: 40 FT<br>BACKFILL WITH SOIL CUTTINGS. |
| | | | | | 45 | | |

WEECO Western Environmental Engineers Co.
1780 E. McFadden Ave. (Suite #117)
Santa Ana, California 92705

PROJECT NAME: SITE CHARACTERIZATION

ADDRESS: 2001 E. ORANGETHROPE AVE.
FULLERTON, CA 92631

Project Number: 97-611B | Figure Number

# LOG OF BORING

| Drill Rig | Boring Diameter | | Boring Number |
|---|---|---|---|
| B-47 3" HOLLOW STEM AUGER | 3 inches | | B-3 |

| Drilling Date | Logger | Registered Civil Engineer | |
|---|---|---|---|
| 12-16-97 | JY | AA | This log is a representation of subsurface conditions at the time and place of drilling The passage of time or other locations may cause consequential changes in conditions |

| BULK | TUBE | VAPOR READINGS | TIME | BLOW COUNTS | DEPTH, FEET | WELL CONSTRUCTION DETAIL | DESCRIPTION AND REMARKS |
|---|---|---|---|---|---|---|---|
| | | | | | | | SURFACE IS NATURAL SOIL |
| | | | | | 5 | | |
| | | | | | 10 | | |
| | | | | | 15 | | |
| X | X | ND | 12 03 | 9-10-9 | 20 | | SURFACE - 20 FT LIGHT BROWN SAND |
| | | | | | 25 | | |
| X | X | ND | 12 27 | 3-4-10 | 30 | | 20 FT - 30 FT LIGHT BROWN SAND |
| | | | | | 35 | | |
| X | X | ND | 12 50 | 11-15-18 | 40 | | 30 FT - 40 FT MED BROWN CLAY<br>TD 40 FT<br>BACKFILLED WITH SOIL CUTTINGS |
| | | | | | 45 | | |

WEECO Western Environmental Engineers Co
1780 E McFadden Ave (Suite #117)
Santa Ana, California 92705

PROJECT NAME SITE CHARACTERIZATION

ADDRESS 2001 E ORANGETHROPE AVE
FULLERTON, CA 92631

Project Number 97-611B | Figure Number

# ATTACHMENT (B)

# CHAIN OF CUSTODY FORMS

## CHAIN OF CUSTODY RECORD

Log Number 712040

1 of 2

| | | | |
|---|---|---|---|
| Client name: Kimberly-Clark | Project #: [redacted] | | |
| Address: 2001 E. Orangethorpe Ave | Phone #: / Fax #: | | |
| City, State, Zip: Fullerton, CA | Report attention: James Foon | | |
| | Sampled by: James Foon | | |

| Sample number | Date Sampled | Time Sampled | Type* See key below | Sample description | Number of containers | Analyses required: NaOH | Hazardous sample Special handling required | Remarks |
|---|---|---|---|---|---|---|---|---|
| B-7-20 | 12/15/97 | 10:40 | SO | | 1 | X | | |
| B-7-30 | 12-15-97 | 11:04 | SO | | 1 | X | | |
| B-7-40 | 12-15-97 | 11:45 | SO | | 1 | X | | |
| B-6-20 | 12-15-97 | 14:41 | SO | | 1 | X | | |
| B-6-30 | 12-15-97 | 15:20 | SO | | 1 | X | | |
| B-6-40 | 12-15-97 | 15:55 | SO | | 1 | X | | |
| TK-1-10 | 12/16/97 | 8:35 | " | | 1 | X | | |
| TK-1-20 | " | 8:58 | " | | 1 | X | | |
| TK-1-30 | " | 9:17 | " | | 1 | X | | |
| TK-1-40 | " | 9:50 | " | | 1 | X | | |
| B-3-20 | " | 12:11 | " | | 1 | X | | |
| B-3-30 | " | 12:33 | " | | 1 | X | | |

| | Signature | Print Name | Company | Date | Time |
|---|---|---|---|---|---|
| Relinquished by | | James Foon | WECO | 12/16/97 | 19:00 |
| Received by | Michael Lu | Michael Lu | Chemtek Laboratory | 12/16/97 | 19:00 |
| Relinquished by | | | | | |
| Received by | | | | | |
| Relinquished by | | | | | |
| Received by Laboratory | | | | | |

**CHEMTEK ENVIRONMENTAL LABORATORIES INC.**
14140 Alondra Boulevard, Suite A
Santa Fe Springs, Ca. 90670
Tel. (310) 926-9848 Fax. (310) 926-8324

Note:
Samples are discarded 30 days after results are reported unless other arrangements are made.
Hazardous samples will be returned to client or disposed of at client expense

* Key: AQ-Aqueous NA-Nonaqueous SL-Sludge GW-Groundwater SO-Soil OT-Other PE-Petroleu

DISTRIBUTION. WHITE with report / YELLOW To CHEMTEK / PINK To courier

## CHAIN OF CUSTODY RECORD

Log Number 712040

2 of 2

| | | | |
|---|---|---|---|
| Client name: Kimberly-Clark | | Project # | |
| Address: 2001 E. Orangethorpe Ave. | | Phone # / Fax # | |
| City, State, Zip: Fullerton, CA | | Report attention: James Yuen | |
| | | Sampled by: James Yuen | |

| Sample number | Date Sampled | Time Sampled | Type* See key below | Sample description | Number of containers | Analyses required: MOC | Hazardous sample / Special handling required | Remarks |
|---|---|---|---|---|---|---|---|---|
| B-3-40 | 12/16/97 | 12:56 | S-O | | 1 | X | | |
| | | | | | | | | |
| | | | | | | | | |
| | | | | | | | | |
| | | | | | | | | |
| | | | | | | | | |
| | | | | | | | | |
| | | | | | | | | |
| | | | | | | | | |
| | | | | | | | | |
| | | | | | | | | |

| | Signature | Print Name | Company | Date | Time |
|---|---|---|---|---|---|
| Relinquished by | | James Yuen | CWEEC | 12/16/97 | 19:00 |
| Received by | | | | | |
| Relinquished by | | | | | |
| Received by | | | | | |
| Relinquished by | | | | | |
| Received by Laboratory | | | | | |

**CHEMTEK ENVIRONMENTAL LABORATORIES INC.**
14140 Alondra Boulevard, Suite A
Santa Fe Springs, Ca. 90670
Tel (310) 926-9848 Fax. (310) 926-8324

Note:
Samples are discarded 30 days after results are reported unless other arrangements are made
Hazardous samples will be returned to client or disposed of at client expense

* Key. AQ-Aqueous NA-Nonaqueous SL-Sludge GW-Groundwater SO-Soil OT-Other PE-Petroleum

DISTRIBUTION: WHITE with report / YELLOW To CHEMTEK / PINK To courier

# ATTACHMENT (C)

# LABORATORY CERTIFICATES OF ANALYSIS

# CHEMTEK ENVIRONMENTAL LABORATORIES INC.

"An environment-friendly company"

14140 E. Alondra Blvd. Suite A, Santa Fe Springs, CA 90670
Tel. (562) 926-9848 FAX (562) 926-8324
CA Dept of Health Accredited. (ELAP No. 1435)


## CERTIFICATE OF ANALYSIS

Job No. 712040 Date: 12-19-97

This is the Certificate of Analysis for the following samples:

| | |
|---|---|
| Client | : Western Environmental Eng. Co |
| Contact person | : James Yoon |
| Project | : |
| Date of sample | : 12-15-97 & 12-16-97 |
| Date Received | : 12-16-97 |
| Number of Samples | : 13 |
| Sample Type: | : Soil |

Samples were labeled as follows:

| SAMPLE IDENTIFICATION | LABORATORY NUMBER |
|---|---|
| B-7-20' | 712040-01A |
| B-7-30' | 712040-02A |
| B-7-40' | 712040-03A |
| B-6-20' | 712040-04A |
| B-6-30' | 712040-05A |
| B-6-40' | 712040-06A |
| TK-1-10' | 712040-07A |
| TK-1-20' | 712040-08A |
| TK-1-30' | 712040-09A |
| TK-1-40' | 712040-10A |
| B-3-20' | 712040-11A |
| B-3-30' | 712040-12A |
| B-3-40' | 712040-13A |

Reviewed and Approved:

Michael C.C. Lu

Michael C.C. Lu
Laboratory Director

CHEMTEK ENVIRONMENTAL LAB.
LABORATORY ANALYSIS REPORT

Client: Western Environmental Eng. Co.
Project:
Job No: 712040 Date: 12-19-97

Analysis: Sodium Hypochlorite-NaOCl

Sample ID: See below
Sample type: Soil
Analysis Date: 12-18-97 & 12-19-97

| Sample ID | Sample date | Results (mg/kg NaOCl) | Detection Limit (mg/kg NaOCl) |
|---|---|---|---|
| B-7-20' | 12-15-97 | 0.80 | 0.50 |
| B-7-30' | " | 0.74 | " |
| B-7-40' | " | 0.80 | " |
| B-6-20' | " | 0.90 | " |
| B-6-30' | " | <0.50 | " |
| B-6-40' | " | <0.50 | " |
| TK-1-10' | 12-16-97 | 0.63 | " |
| TK-1-20' | " | 0.84 | " |
| TK-1-30' | " | <0.50 | " |
| TK-1-40' | " | 0.63 | " |
| B-3-20' | " | 1.30 ✓ | " |
| B-3-30' | " | <0.50 | " |
| B-3-40' | " | <0.50 | " |

# ATTACHMENT (D)

## U.S.E.P.A. REGION 9
## PRELIMINARY REMEDIATION GOALS (PRGs) 1996

Feb. 20, 2002

Mr. Steve Long
Fullerton Fire Dept.
Hazardous Materials Specialist
Fullerton Fire Department
312 E. Commonwealth Ave.,
Fullerton, CA 92832-2099

Dear Mr Long:

Please find attached on page 2 a draft copy of the UST Unauthorized Release Report for your review and reporting. Per my phone message, the two 10,000 gallons each fuel oil tanks (National tank, single-walled, carbon-steel tanks) were built in 1955 and installed in 1956. The tanks were removed in May 1986 by Crosby & Overton (Permit # P070-86151). The remaining soil was remediated and closure was obtained in January/February 1992 (Permit # 92-T-001).

I am also enclosing a copy of the tank registration and the closure report. We are also scheduled to start borings again on Friday, Feb. 22. A mobile lab will also be onsite. Fleming Environmental (Terry Fleming – tel : 714.228.0935) is the consultant for this activity. We hope to see you then. If you need additional information, please call or email me.

Thanks again for your help.

Sincerely :

Grace Madden

Grace Madden
Environmental Coordinator
Kimberly Clark WorldWide Inc., Fullerton Mill
Tel : 714.773.7500 x7677
Fax: 714.738.1810
Email: gmadden@kcc.com

# UNDERGROUND STORAGE TANK UNAUTHORIZED RELEASE (LEAK) / CONTAMINATION SITE REPORT

EMERGENCY ☐ YES ☒ NO

HAS STATE OFFICE OF EMERGENCY SERVICES REPORT BEEN FILED ? ☒ YES ☐ NO

REPORT DATE (M M D D Y Y) | CASE #

**FOR LOCAL AGENCY USE ONLY**
I HEREBY CERTIFY THAT I HAVE DISTRIBUTED THIS INFORMATION ACCORDING TO THE DISTRIBUTION SHOWN ON THE INSTRUCTION SHEET ON THE BACK PAGE OF THIS FORM.
SIGNED | DATE

**REPORTED BY**

NAME OF INDIVIDUAL FILING REPORT: GRACE MADDEN | PHONE: (714) 773.7500 | SIGNATURE: G Madden

REPRESENTING ☒ OWNER/OPERATOR ☐ REGIONAL BOARD ☐ LOCAL AGENCY ☐ OTHER _____ | COMPANY OR AGENCY NAME: KIMBERLY CLARK WORLDWIDE INC., FULLERTON MILL

ADDRESS: 2001 E. ORANGETHORPE AVE. (STREET) | FULLERTON (CITY) | CA (STATE) | 92831 (ZIP)

**RESPONSIBLE PARTY**

NAME: KIMBERLY CLARK WORLDWIDE INC. FULLERTON MILL ☐ UNKNOWN | CONTACT PERSON: GRACE MADDEN | PHONE: (714) 773.7500

ADDRESS: 2001 E. ORANGETHORPE AVE. (STREET) | FULLERTON (CITY) | CA (STATE) | 92831 (ZIP)

**SITE LOCATION**

FACILITY NAME (IF APPLICABLE): KIMBERLY CLARK WORLDWIDE INC., FULLERTON MILL | OPERATOR: EDWARD J. BOWERSOX | PHONE: (714) 773.7500

ADDRESS: 2001 E. ORANGETHORPE AVE. (STREET) | FULLERTON (CITY) | CA (COUNTY) | 92831 (ZIP)

CROSS STREET: ACACIA & KIMBERLY AVE.

**IMPLEMENTING AGENCIES**

LOCAL AGENCY — AGENCY NAME: FULLERTON FIRE DEPT. HAZMAT SPECIALIST | CONTACT PERSON: STEVE LONG | PHONE: (714) 738.3160

REGIONAL BOARD | | PHONE: ( )

**SUBSTANCES INVOLVED**

(1) NAME: BLEND OF FUEL OIL #6 and/or #2 FUEL OIL | QUANTITY LOST (GALLONS): est. 55 gal. or ☒ UNKNOWN

(2) NAME: _____ | QUANTITY LOST (GALLONS): _____ ☐ UNKNOWN

**DISCOVERY/ABATEMENT**

DATE DISCOVERED: 02/14/02 (M M D D Y Y) | HOW DISCOVERED: ☐ INVENTORY CONTROL ☐ SUBSURFACE MONITORING ☐ NUISANCE CONDITIONS ☐ TANK TEST ☐ TANK REMOVAL ☒ OTHER CONSTRUCTION EXCAVATION

DATE DISCHARGE BEGAN: (M M D D Y Y) ☒ UNKNOWN

HAS DISCHARGE BEEN STOPPED ? ☒ YES ☐ NO IF YES, DATE (M M D D Y Y)

METHOD USED TO STOP DISCHARGE (CHECK ALL THAT APPLY)
☐ REMOVE CONTENTS ☒ CLOSE TANK & REMOVE (1986) ☐ REPAIR PIPING
☐ REPAIR TANK ☐ CLOSE TANK & FILL IN PLACE ☐ CHANGE PROCEDURE
☐ REPLACE TANK ☒ OTHER REMEDIATION & CLOSURE 1992. // SOIL REMOVAL DONE SINCE DISCOVER on 2-14-02.

**SOURCE/CAUSE**

SOURCE OF DISCHARGE: ☒ TANK LEAK ☒ UNKNOWN ☒ PIPING LEAK ☐ OTHER

CAUSE(S): ☐ OVERFILL ☐ RUPTURE/FAILURE ☐ SPILL ☐ CORROSION ☒ UNKNOWN ☐ OTHER _____

**CASE TYPE**

CHECK ONE ONLY
☐ UNDETERMINED ☒ SOIL ONLY ☐ GROUNDWATER ☐ DRINKING WATER - (CHECK ONLY IF WATER WELLS HAVE ACTUALLY BEEN AFFECTED)

**CURRENT STATUS**

CHECK ONE ONLY
☐ NO ACTION TAKEN ☐ PRELIMINARY SITE ASSESSMENT WORKPLAN SUBMITTED ☐ POLLUTION CHARACTERIZATION
☐ LEAK BEING CONFIRMED ☐ PRELIMINARY SITE ASSESSMENT UNDERWAY ☐ POST CLEANUP MONITORING IN PROGRESS
☒ REMEDIATION PLAN ☐ CASE CLOSED (CLEANUP COMPLETED OR UNNECESSARY) ☐ CLEANUP UNDERWAY

**REMEDIAL ACTION**

CHECK APPROPRIATE ACTION(S) (SEE BACK FOR DETAILS)
☐ CAP SITE (CD) ☒ EXCAVATE & DISPOSE (ED) ☐ REMOVE FREE PRODUCT (FP) ☐ ENHANCED BIO DEGRADATION (IT)
☐ CONTAINMENT BARRIER (CB) ☐ EXCAVATE & TREAT (ET) ☐ PUMP & TREAT GROUNDWATER (GT) ☐ REPLACE SUPPLY (RS)
☐ VACUUM EXTRACT (VE) ☐ NO ACTION REQUIRED (NA) ☐ TREATMENT AT HOOKUP (HU) ☐ VENT SOIL (VS)
☐ OTHER (OT) _____

**COMMENTS**

2-10,000 gallon fuel oil tanks were installed in 1956. (SINGLE-WALLED, CARBON-STEEL NATIONAL TANK) BOTH WERE REMOVED IN 1986 (#PO 90-86151) by CROSBY & OVERTON. REMEDIATION & CLOSURE WAS OBTAINED in FEB. 1992 (PERMIT # 92-T-001) ~~on~~ REMAINING

HSC 05 (8/90)

cc: B. Samuels
C Lyncl
S. Cockerell

FIRE DEPARTMENT
312 EAST COMMONWEALTH AVENUE • FULLERTON, CALIFORNIA 92632
RON COLEMAN FIRE CHIEF
Phones – Administration . . . . . (714) 738-6502
Prevention . . . . . (714) 738-6500
EMERGENCY only . . . . . 911
FAX . . . . . (714) 738-5355

January 22,1992

Ms. Isabella Alasti
Kimberly Clark Corporation
2001 E. Orangethorpe Avenue
Fullerton, CA 92634

Subject: Clean-up Case Closure for Site at 2001 East Orangethorpe Ave., Fullerton, CA

Dear Ms. Alasti:

This letter confirms the completion of site investigation and remedial action at the above address. With the provision that the information provided to this department was accurate and representative of existing conditions, it is the position of this office that no further action is required at this time.

The contents of these reports have also been discussed with staff of the Regional Water Quality Control Board (RWQCB). Based on the information submitted and current requirements, the RWQCB concurs with the determination of this Department that no further action is required at this time.

Please be advised that this letter does not relieve you of any liability under the California Health and Safety Code or Water Code for past, present or future operations at the site. Nor does it relieve you of the responsibility to clean up existing, additional or previously unidentified conditions at the site which cause or threaten to cause pollution or nuisance or otherwise pose a threat to water quality or public health.

Additionally, be advised that changes in the present or proposed use of the site may require further site characterization and mitigation activity. It is the property owner's responsibility to notify this Department of any changes in report content, further contamination findings or site usage.

If you have any questions regarding this matter, please contact me at (714) 738-6508.

Sincerely,

John White
Underground Tank Specialist

cc: SARWQCB- Patricia Hannon

JW:pm

gm
WORKING
COPY

| Post-it® Fax Note 7671 | Date 2-18-02 | # of pages ▶ 2 |
|---|---|---|
| To STEVE LONG | From GRACE MADDEN | |
| Co./Dept. FUL FIRE DEPT. HAZ MAT | Co. KIMBERLY CLARK | |
| Phone # 714.738.3392 | Phone # 714.773.2500 X7677 | |
| Fax # 738.5355 | Fax # 738.1810 | |

M (BLANK)

AUG- 6-97 WED 15:17 FULLERTON FIRE DEPT FAX NO. 7147385355 P.02
NOV 30 '94 09:28AM HCA ENVL HEALTH P.2/3

ATTACHMENT B

Prop 65 ID# _____

# ORANGE COUNTY
# HCA/ENVIRONMENTAL HEALTH
# Proposition 65 Notification Report Form

p. 1 of 2

Any designated government employee who obtains information in the course of his official duties revealing the illegal discharge or threatened illegal discharge of a hazardous waste that is likely to cause substantial injury to the public health and safety, must report such information within 72 hours to the Board of Supervisors and Health Officer or face up to $25,000 in fines and/or up to three years in jail (pursuant to § 25180.7 of the Health and Safety Code). The information submitted in this report is based upon the best available information at the time the report was completed.

**Provide the following information to the Health Care Agency at (714) 667-3765 (24 hours)**

1. Date Reported: VERBAL REPORT 2-14 & 2-15 Time: NOON & PM Designated Employee Reporting: GRACE MADDEN
2. Report submitted on behalf of all designated employees of what agency: _____ SEE ADDITIONAL COMMENTS (#23)
3. Date of Incident: 2-14-02 Time: 8:30AM Source of information (report #): _____
4. Incident Location/ Name of Business (DBA): KIMBERLY CLARK WORLDWIDE INC., FULLERTON MILL
   Address: 2001 E. ORANGETHORPE AVE., City: FULLERTON, CA Zip: 92831
5. Site Telephone: 714.773.7500 Company Contact Person: GRACE MADDEN
6. Description/Cause of Incident (What, where, and how did it happen?):
   DURING CONSTRUCTION EXCAVATION, at approx. 8 FT. BGS, SOME WETNESS / BROWNISH BLACK SOIL STAINS WERE FOUND IN THE AREA THAT USED TO HAVE 2-10,000 gal UST FUEL OIL TANKS THAT WERE REMOVED IN LATE 1980's. SOIL HAS BEEN CONTAMINATED REMOVED (8FT-13 FT BGS).
7. Responsible Party Name: KIMBERLY CLARK WORLDWIDE INC., FULLERTON MILL Telephone: 714.773.7500
   (Business or Company names. Do not identify private citizens)
   ENVIRONMENTAL CONTRACTOR: FLEMING ENVIRONMENTAL 714.228.01
8. Identification of Discharged Waste

| Chemical Name/ Common Name | Solid/Liquid/Gas | Quantity | Hazardous Properties |
|---|---|---|---|
| FUEL OIL IN SOIL | SOLID | ESTIMATED <55 GAL. | COMBUSTIBLE |
| | | | |
| | | | |

9. Field Data or Lab Results (Indicate Soil, Groundwater, etc.): LAB TESTS STILL IN PROGRESS. NO GROUND WATER CONTAMINATION.
10. Environment Affected (check all that apply): ☐ Roadway ☐ Groundwater ☐ Sewer ☐ Storm Drain ☐ Lake ☐ Stream ☐ River ☐ Bay ☐ Ocean ☐ Air ☒ Soil SOIL. ☐ Flood Channel ☐ Paved Ground ☐ Other: _____
11. Locale: ☐ Residential ☐ Commercial ☒ Industrial ☐ Open Area ☐ Rural
12. Property: ☒ Private Property ☐ Public Property

# ATTACHMENT B : PROPOSITION 65 FORM (BLANK)

## (Page 2 of 2)

AUG- 6-97 WED 15:18 FULLERTON FIRE DEPT FAX NO. 7147385355 P. 03

NOV 30 '94 09:28AM HCA ENVL HEALTH P.3/3

ATTACHMENT B
p 2 of 2

13. Describe the Extent of Contamination (How much or how large of an area was contaminated): APPROX. 20FT (L) X 10FT (W) X 6FT DEEP (RANDOM AREAS OF SOIL STAINING)

14. Number of Injuries (As a result of the release): 0

Number of persons receiving medical treatment: 0 Where: N/A

15. Agencies at the scene of incident: NONE - NOT IDLH SITUATION; NOT AN EMERGENCY. NOTIFIED STEVE LONG & CORRIE ALLEN, CITY OF FUL FIRE DEPT. HAZMAT DIVISION.

16. Was the Incident Mitigated?: ☒ Yes ☐ No Does further action need to be taken?: ☒ Yes ☐ No

Action (How was the situation mitigated? If not mitigated, what action should be taken to mitigate?): CONTAMINATED SOIL HAS BEEN REMOVED. STEVE LONG TO VISIT THE SITE ON MONDAY, FEB. 18 at 9AM. A SMALL AMOUNT OF STAINING UNDER BLDG. WILL BE REMOVED WHEN MR. LONG IS ON-SITE.

17. Incident referred to (Person/Agency): NRC-594161 BROWN OES-02-0887 KEVIN Date: 2-15-02 Time: 2:10PM 2:20PM

18. Clean-up Conducted by (Name of Agency, Consultant, etc.): FLEMING ENVIRONMENTAL INC. 714.228.0935

19. Is this the subject of an ongoing legal investigation?: ☐ Yes ☒ No

20. Is the area physically accessible to the public?: ☐ Yes ☒ No Explain: THE SOIL IS IN THE MIDDLE OF A 67 ACRE FACILITY. THE FACILITY IS FENCED AND HAS 24 HOUR SECURITY PERSONNEL.

21. Proximity to public (Distance/direction to homes, schools, etc.): APPROX. 1/2 MILE

22. Factors that are likely to cause substantial injury to the public Health and Safety: NONE

23. Additional Comments: NRC # 594161 (MS. BROWN) REPORTED ON FEB 15, 2002 2:10pm; OES # 02-0887 (MR. KEVIN) REPORTED ON FEB. 15, 2002 2:20pm. REPORTED TO OC ENVIRONMENTAL HEALTH (DAVE DIXON) & JASON LEWIS ON FEB 14, 2002 C/O FLEMING ENVIRONMENTAL. OFF-SITE WASTE DISPOSAL TO START AFTER RECEIPT OF LAB TEST RESULTS.

24. Report Completed By: _____ Date: _____ Time: _____

25. Report Reviewed By: _____ Date: _____ Time: _____
(HCA/EH Prop 65 Compliance Program Staff)

26. Contact for further information: _____ Telephone: _____
(Lead Person/Agency)

Official Registration Form

**California Water Resources Control Board**

# Hazardous Substance Storage Statement

**Who Must File:** Each person storing hazardous substances in any underground container must file this form no later than July 1, 1984 (After October 1, 1984 and no later than January 1, 1985 for tanks used on farms).

**Definition of Underground Containers:** The law applies to "concrete sumps, nonvaulted buried tanks or other underground containers." (Water Code section 13173) All containers, including earthen walled pits, ponds, lagoons and sumps, that are below the normal ground surface level must register. A tank sitting on the ground is not included. Containers partially beneath the surface are included. Lined or unlined pits, ponds and lagoons are covered if earth has been removed from the storage area to construct the facility. Normal grading is not considered construction below ground level.

**Definition of Hazardous Substance:** Any substance listed in Section 6382 of the Labor Code or in Section 25316 of the Health and Safety Code. This includes gasoline, diesel fuel, all industrial solvents, pesticides, herbicides and fumigants. If the material must be carried by a registered hauler, disposed of at a hazardous waste site, is explosive, generates pressure due to heat or decomposition or would harm humans or wildlife you must register the tank. Wastes are included.

**Fee:** For each tank registered a $10 fee must be paid, except that retail gasoline stations pay $5 per tank.

**Penalties:** For failure to file, the penalty is $500-$5,000 per day. If you falsify information, you can be fined up to $20,000 for each day the information is incorrect and has not been corrected.

**Confidentiality:** If you have information protected by trade secret laws, please attach a list of the information on this form that is confidential and the justification for confidentiality, including specific citations of relevant statutory and case law.

**Multiple Containers:** Fill I and II on one form and leave it blank on all the remaining forms. Attach all forms together securely. If you own more than 50 tanks you can file information on computer tape. Call 916/324-1262 for information.

**This is not a Permit Application.** All Underground Tanks will be subject to local regulation. Some jurisdictions have already begun programs. Check with your local county government for further information.

**NOTE: ALL UNDERGROUND CONTAINERS MUST REGISTER EVEN IF STATE AND/OR LOCAL PERMITS ARE IN FORCE.**

## I Owner

| Name (Corporation, Individual or Public Agency) | | | |
|---|---|---|---|
| Kimberly-Clark Corporation | | | |
| **Street Address** | **City** | **State** | **ZIP** |
| 2001 E. Orangethorpe Avenue | Fullerton | CA | 92634 |

## II Facility

| Facility Name | | Dealer/Foreman/Supervisor | | |
|---|---|---|---|---|
| Kimberly-Clark Corporation | | M.R. Holcomb, Mill Manager | | |
| **Street Address** | | **Nearest Cross Street** | | |
| 2001 E. Orangethorpe Avenue | | Acacia Street | | |
| **City** | **County** | | **ZIP** | |
| Fullerton | Orange | | 92634 | |
| **Mailing Address** | **City** | **State** | **ZIP** | |
| P.O. Box 4030 | Fullerton | CA | 92634 | |
| **Phone w/ area code** | **Type of Business** | | | |
| 714-773-7500 | ☐ 01 Motor Vehicle Fuel Station ☒ 02 Other: Tissue Products | | | |
| **Number of Tanks at this Facility** | **Rural Areas Only:** | **Township** | **Range** | **Section** |
| 6 | | | | |

## III 24 Hour Emergency Contact Person

| Days Name (last name first) and Phone w/area code | Nights Name (last name first) and Phone w/ area code |
|---|---|
| Dzamka, Laura 714-680-7477 | CWM Shift Superintendent 714-773-7500 |

**COMPLETE THE FOLLOWING ON A SEPARATE FORM FOR EACH CONTAINER**

## IV Description

| | **Container Number** (If there is no number assign one) |
|---|---|
| A ☐ Tank ☐ Sump ☐ Lagoon ☐ Pit/Pond ☐ Other | |

A. Associated Piping: ☐ 01 Above Ground ☒ 02 Underground ☐ 03 Vaulted

B. Underground Piping: ☐ 01 Gravity ☐ 02 Pressure ☒ 03 Suction ☐ 04 Unknown

C. Piping Repairs: ☐ 01 None ☐ 02 Unknown ☒ 03 Yes. Year of most recent repair: 1975 (approx.)

## VII Leak Detection

☒ 01 Visual ☒ 02 Stock Inventory ☐ 03 Tile Drain ☐ 04 Vapor Sniff Wells ☐ 05 Sensor Instrument

☐ 06 Ground Water Monitoring Wells ☒ 07 Pressure Test ☒ 08 Internal Inspection ☐ 09 None

☐ 10 Other: _____

## VIII Chemical Composition of Materials *Currently* or *Previously* Stored In Underground Containers

If you checked yes to IV-H you are not required to complete this section.

| currently stored | previously stored | CAS # (if known) | Chemical *Do Not Use Commercial Name* (Use additional paper for more room) |
|---|---|---|---|
| ☒ 01 | ☐ 02 | | Blend of #2 and #6 fuel oil |
| ☐ 01 | ☒ 02 | | #2 fuel oil |
| ☐ 01 | ☒ 02 | | #6 fuel oil |
| ☐ 01 | ☐ 02 | | |
| ☐ 01 | ☐ 02 | | |
| ☐ 01 | ☐ 02 | | |
| ☐ 01 | ☐ 02 | | |
| ☐ 01 | ☐ 02 | | |
| ☐ 01 | ☐ 02 | | |
| ☐ 01 | ☐ 02 | | |
| ☐ 01 | ☐ 02 | | |
| ☐ 01 | ☐ 02 | | |
| ☐ 01 | ☐ 02 | | |

Is Container located on an Agricultural Farm? ☐ 01 Yes ☒ 02 No

Official Registration Form

**California Water Resources Control Board**

# Hazardous Substance Storage Statement

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**Definition of Hazardous Substance:** Any substance listed in Section 6382 of the Labor Code or in Section 25316 of the Health and Safety Code. This includes gasoline, diesel fuel, all industrial solvents, pesticides, herbicides and fumigants. If the material must be carried by a registered hauler, disposed of at a hazardous waste site, is explosive, generates pressure due to heat or decomposition or would harm humans or wildlife you must register the tank. Wastes are included.

**Fee:** For each tank registered a $10 fee must be paid, except that retail gasoline stations pay $5 per tank.

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**NOTE: ALL UNDERGROUND CONTAINERS MUST REGISTER EVEN IF STATE AND/OR LOCAL PERMITS ARE IN FORCE.**

## I Owner

| Name (Corporation, Individual or Public Agency) | | | |
|---|---|---|---|
| Street Address | City | State | ZIP |

## II Facility

| Facility Name | Dealer/Foreman/Supervisor | | |
|---|---|---|---|
| Street Address | | Nearest Cross Street | |
| City | County | | ZIP |
| Mailing Address | City | State | ZIP |
| Phone w/area code | Type of Business ☐ 01 Motor Vehicle Fuel Station ☐ 02 Other: | | |
| Number of Tanks at this Facility | **Rural Areas Only:** Township | Range | Section |

## III 24 Hour Emergency Contact Person

| *Days* Name (last name first) and Phone w/area code | *Nights* Name (last name first) and Phone w/area code |
|---|---|
| Dzamka, Laura 714-680-7477 | CWM Shift Superintendent 714-773-7500 |

**COMPLETE THE FOLLOWING ON A SEPARATE FORM FOR EACH CONTAINER**

## IV Description

| A ☒ Tank ☐ 02 Sump ☐ 03 Lagoon Pit or Pond ☐ 04 Other: | **Container Number** (If there is no number assign one) |
|---|---|

A. Associated Piping: ☐ 01 Above Ground ☒ 02 Underground ☐ 03 Vaulted

B. Underground Piping: ☐ 01 Gravity ☐ 02 Pressure ☒ 03 Suction ☐ 04 Unknown

C. Piping Repairs: ☐ 01 None ☐ 02 Unknown ☒ 03 Yes, Year of most recent repair: 1975 (approx.)

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☒ 01 Visual ☒ 02 Stock Inventory ☐ 03 Tile Drain ☐ 04 Vapor Sniff Wells ☐ 05 Sensor Instrument

☐ 06 Ground Water Monitoring Wells ☒ 07 Pressure Test ☒ 08 Internal Inspection ☐ 09 None

☐ 10 Other: _____

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If you checked yes to IV-H you are not required to complete this section.

| currently stored | previously stored | CAS # (If known) | Chemical *Do Not Use Commercial Name* (Use additional paper for more room) |
|---|---|---|---|
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| ☐ 01 | ☒ 02 | | #2 fuel oil |
| ☐ 01 | ☒ 02 | | #6 fuel oil |
| ☐ 01 | ☐ 02 | | |
| ☐ 01 | ☐ 02 | | |
| ☐ 01 | ☐ 02 | | |
| ☐ 01 | ☐ 02 | | |
| ☐ 01 | ☐ 02 | | |
| ☐ 01 | ☐ 02 | | |
| ☐ 01 | ☐ 02 | | |
| ☐ 01 | ☐ 02 | | |
| ☐ 01 | ☐ 02 | | |
| ☐ 01 | ☐ 02 | | |
| ☐ 01 | ☐ 02 | | |

Is Container located on an Agricultural Farm? ☐ 01 Yes ☒ 02 No

# "Fax Cover Sheet"

**Filter Recycling Services Inc.**
*180 West Monte Avenue*
*Rialto, California 92376*
*(909) 873-4141 fax (909) 873-4142*

***Date:*** *2-22-02*

***Name:*** *Grace Madden*

***Fax:*** *714-738-1810*

***Re:*** *Lab work*

***Sender:*** *David Rains*

***YOU SHOULD RECEIVE 22 PAGE(S), INCLUDING THIS COVER SHEET. IF YOU SHOULD NOT RECEIVE ALL THE PAGES, PLEASE CALL (909) 873-4141.***

***PRIVILEGED & CONFIDENTIAL***

*All information transmitted hereby is intended only for the use of the addressee(s) named above. If the reader of the message is not the indicated or intended recipient or the employee or agent responsible for delivering the message to the intended recipient(s), please note that any distribution or copying of this communication is strictly prohibited. Anyone who receives this communication in error should notify us immediately by telephone and return the original.*

Thank you,

David Rains
Chemical Specialist
Filter Recycling Services, Inc.

# REPORT OF SOIL EXCAVATION and SAMPLING
# for the
# KIMBERLY-CLARK FACILITY
# 2001 EAST ORANGETHORPE AVENUE
# FULLERTON, CALIFORNIA

**Prepared For:**

**Kimberly-Clark Fullerton Mill**
**2001 East Orangethorpe Avenue**
**Fullerton, CA 92831**

**March 8, 2002**

**Prepared By:**

**GASTON & ASSOCIATES, LLC**
**4000 Barranca Parkway, Suite 250**
**Irvine, California 92604**

**ph (714) 505-6123**
**fax (714) 505-6185**

Wilbert P. Gaston

**Wilbert P. Gaston, RG 4540**
**Principal Consultant**

REGISTERED GEOLOGIST
WILBERT P. GASTON
NO. 4540
Exp 3/31/03
STATE OF CALIFORNIA

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APPENDIX C BORING LOG

APPENDIX D SOIL BORING SAMPLE LABORATORY RESULTS AND CHAIN-OF-CUSTODY RECORDS

APPENDIX E GROUNDWATER SAMPLE LABORATORY RESULTS AND CHAIN-OF-CUSTODY RECORDS

## EXECUTIVE SUMMARY

Diesel-affected soil was encountered during construction excavation for a planned new building. The Fullerton Fire Department was notified and Inspector Steve Long was present at the site to witness the soil excavation and associated soil sampling. Samples were obtained to document the complete removal of affected soil from the site. An on-site mobile laboratory was used to test the samples for the presence of diesel- and fuel-range hydrocarbons. All of the soil that was possible to excavate was removed. However, due to the presence of the existing boiler room building adjacent to the west, some residual diesel-range hydrocarbons remain at the site that could not be excavated because of the possibility of undermining the existing building. It is estimated that from 500 to 600 tons of diesel-affected soil was excavated and is temporarily stockpiled at the site pending offsite disposal by Kimberly-Clark at an appropriate disposal facility.

Because all of the affected soil could not be removed, the Fullerton Fire Department required drilling of a soil boring at the west side of the excavated area, as near to the area of residual hydrocarbons as possible. This boring was drilled, soil samples were obtained every five feet, and the samples were analyzed by an onsite mobile laboratory. The analysis of the samples from the boring confirm that residual diesel-range hydrocarbons are present in the soil beneath the existing boiler room building.

During drilling of the boring, groundwater was encountered at a depth of 70 feet. Drilling was halted and a groundwater sample was obtained using a bailer lowered through the drilling augers. The sample was tested for TPH as diesel, BTEX, MTBE, and the common fuel oxygenates. The results of the groundwater testing indicate that low concentrations of TPH-d (0.86 mg/L) and total xylenes (7.9 µg/L) were detected in the sample. These concentrations are every low. Although there is no drinking water standard for TPH as a distinct compound, there is a maximum contaminant level (MCL) for total xylenes which is 1,750 µg/L. The detected xylenes are significantly below the MCL. All of the other tested oxygenates were not detected. Although the sample was obtained through the drilling augers, the results indicate that there has not been a significant impact to the groundwater beneath the site.

# REPORT OF SOIL EXCAVATION and SAMPLING
# for the
# KIMBERLY-CLARK FACILITY
# 2001 EAST ORANGETHORPE AVENUE
# FULLERTON, CALIFORNIA

## 1.0 SITE HISTORY

The subject site is located at 2001 East Orangethorpe Avenue in the City of Fullerton, California. The site is occupied by a paper product manufacturing and packaging operation. The site is the location of the planned construction of a new building. It is reported that two 10,000-gallon diesel underground storage tanks (USTs) were formerly located in an area just east of the existing boileroom building, which is the area planned for the new construction. On February 14, 2002, during recent excavation and grading activities, hydrocarbon-affected soil was encountered. The Fullerton Fire Department was notified and it was determined that although the former USTs had been removed, there was no information as to whether any soil samples had been collected and tested for the presence of petroleum hydrocarbons. On February 15, 2002, the concrete slabs which had been at the base of the former underground tanks, were broken up and removed. Subsequent to this, excavation and sampling were conducted under the oversight of the Fullerton Fire Department. A site location map and site layout are included as Figures 1 and 2, respectively.

### 1.1 Previous Investigations

Two 10,000-gallon underground fuel storage tanks were located at the site. However, there were no records provided regarding previous investigations that may have been conducted at the site.

### 1.2 Site Ownership and Occupancy

The property is currently owned by the Kimberly-Clark WorldWide Inc. The contact for the property owner is Ms. Grace Madden who can be reached by telephone at (714) 773-7500, extension 7677.

## 2.0 LOCAL GEOLOGY AND HYDROGEOLOGY

### 2.1 Geology

The site is located within the Peninsular Ranges Geomorphic Province of Southern California at an elevation of approximately 187 feet above sea level. The local topography slopes to the southwest. Based on excavation and soil sampling at the site, the subsurface soils are generally composed of sand or silty sand.

## 2.2 Hydrogeology

The site is located within the Orange County Coastal Groundwater Basin Forebay Area (Metropolitan Water District (1987). The Forebay portion of the Orange County Groundwater Basin contains relatively little impermeable subsurface materials and is the main recharge area for the groundwater basin. The depth to groundwater beneath the site is approximately 70 feet below grade, based on the depth to groundwater encountered during drilling of an exploratory boring. The estimated groundwater flow direction is towards the southwest, in accordance with the local topography.

# 3.0 SCOPE OF WORK

## 3.1 Soil Excavation

Hydrocarbon-affected soil was identified at the site during construction excavation operations. Based on oral approval from Inspector Long of the Fullerton Fire Department, excavation began on February 18, 2002 to remove the affected soil from the site. The excavation and backfilling activities continued through February 21, 2002. During this time, hydrocarbon-affected soil was excavated and stockpiled, soil samples were collected and tested by an onsite mobile laboratory to verify that all of the affected soil had been removed, and the excavated area was backfilled and compacted to local code in accordance with the construction plan. Approximately 500 to 600 tons of affected soil were excavated and stockpiled onsite nearby. The area of excavation is shown on Figure 3.

Soil samples were collected from various areas of the excavation as shown on the attached site plan to verify that the affected soil had been removed. Inspector Long was onsite during much of the excavation and sampling process and provided guidance for the sampling locations. The samples were tested for total petroleum hydrocarbons, as diesel, using modified EPA method 8015 and for volatile organic compounds using EPA method 8260B. A total of twelve samples were obtained from the excavation area and tested. The locations from which the soil samples were obtained are shown on Figure 3. The laboratory results are presented below in Table 1. The laboratory reports and chain-of-custody records from the excavation soil sampling are included in Appendix A.

# TABLE 1
## EXCAVATION SOIL SAMPLING LABORATORY RESULTS
February 14, 2002

| Sample Number | Sample Location | TPH -D (mg/kg) | 8260B VOCs (mg/kg) | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | B | T | E | X | MTBE | I | p-IPT | N | nPB | nBB | sec-BB | 1,1,1-TCA | 1,3,5-T | 1,2,4-T |
| 1 | SW Wall | **12,000** | ND | ND | **0.097** | **0.026** | ND | **0.021** | **0.065** | **0.82** | **0.12** | **0.16** | ND | ND | ND | **0.40** |
| 2 | NW Wall | **8,200** | ND | ND | ND | ND | ND | ND | ND | **0.027** | ND | ND | ND | ND | ND | ND |
| 3 | SW Corner | **1,400** | ND | ND | **0.003** | **0.006** | ND | ND | ND | **0.019** | **0.002** | ND | ND | ND | **0.002** | **0.010** |
| 4 | NW Corner | **2,400** | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| 5 | SE Corner | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| 6 | NE Corner | **430** | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | **0.001** | ND | ND |
| 7 | N Wall | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| 8 | E Wall | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| 9 | S Wall | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| 10 | Middle Trench | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| 11 | NE Corner 16' | **1100** | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| 12 | NE Corner 18' | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND |

Notes:
ND = Not Detected at or above the detection limit stated on the official laboratory reports in Appendix A.

I = Isopropylbenzene
N = Naphthalene
nPB = n-Propylbenzene
1,1,1-TCA = 1,1,1-Trichloroethane
1,2,4-T = 1,2,4-Trimethylbenzene
1,2,5-T = 1,3,5-Trimethylbenzene
nBB = n-Butylbenzene
sec-BB = sec Butylbenzene
p-IPT = p-Isopropyltoluene

The laboratory results indicate that all of the accessible hydrocarbon-affected soil has been excavated and removed. Residual diesel-affected soil, however, remains at the site beneath the existing boileroom building, at the western side of the excavated area. Excavation could not extend to the west or deep enough in this area to remove all of the affected soil due to the threat of soil caving which could undermine the existing building foundation. Because excavation could not be competed in this area and since soil samples could not be obtained from near enough to the building using the excavator to properly characterize the vertical extent of the residual hydrocarbons, the Fire Department requested the drilling and sampling of a soil boring in that area. The proposed scope of work is discussed in the following sections.

### 3.2 Drill Soil Boring

Drilling and sampling of a soil boring was recommended to evaluate the vertical extent of hydrocarbon-affected soil at the western side of the excavation, adjacent to the existing boiler room. The purpose of the boring was to obtain and test soil samples to document at least 30 feet of clean soil samples beneath the previously identified residual hydrocarbons beneath the boiler room building. Prior to commencing the drilling, Inspector Long requested submittal of a Workplan that would describe the planned sampling activities. A Workplan for Additional Site assessment was prepared and submitted to the Fullerton Fire Department on February 21, 2002.

#### 3.2.1 Health and Safety Plan

A project Health and Safety Plan was prepared prior to beginning field. The purpose of the Plan was to establish personnel/safety protection standards, define responsibilities of personnel involved, establish safe operation procedures relative to physical and chemical conditions encountered on site, and provide for off site safety issues such as traffic control. A tailgate safety meeting was held prior to commencing project tasks. The Health and Safety Plan was available for review at the site during the field investigation. A copy of the Health and Safety Plan is included in Appendix B.

#### 3.2.2 Soil Sampling Procedures

The boring was drilled by A & R Drilling, a licensed California drilling contractor, using a hollow-stem auger drill rig. A California-registered geologist supervised the drilling and sampling, maintained a log of the boring, classified the soils encountered using the Unified Soil Classification System, and obtained soil samples for field examination and laboratory testing. The boring log is included in Appendix C.

The soil samples were collected in brass sample sleeves using an 18-inch sampling tube that held three 6-inch-long sample sleeves. Advancement of the auger was halted at the desired sample depths (every five feet) and the sampler was lowered into the hole and driven into the soil. The

number of blows required to advance the sampler 18 inches was recorded as an indicator of soil density and consistency.

To prevent cross-contamination between samples, the augers were cleaned and the sampler washed using a 3-bucket wash system prior to each use. The wash system involved washing the sampler in a Alconox and water solution, rinsing sampler in tap water, and rinsing sampler in distilled water.

Upon retrieval, the sample sleeves were capped with Teflon™ sheeting, sealed with plastic end caps, and labeled. The samples were then immediately transferred to an onsite California-certified mobile laboratory for testing using standard chain-of-custody documentation.

A lithologic description of the subsurface materials encountered and collected was maintained on boring logs compiled by the field geologist. Soils were classified in accordance with the Unified Soils Classification System (USCS), and descriptions include soil type, particle size and distribution, color (using the Munsell soil color chart), moisture content, and evidence of contamination (discoloration, unusual odors, etc.). These data were compiled on boring logs maintained throughout the project to record observations. The boring log is included in Appendix C.

### 3.2.3 Head Space Analysis

Head space analysis was performed as a field screening technique using a photo-ionization detector (PID) calibrated using a 50 ppm hexane gas standard. Each soil sample was placed in a zip-lock plastic bag. After being left at ambient temperature approximately 10 minutes, the head space in the bag was evaluated using the field meter. This instrument registers the concentration of organic vapors in the head space, which is an indication of the presence of volatile organic materials in the soil. These readings were included on the boring log in Appendix C.

### 3.2.4 Groundwater Encountered

Soil samples were collected every five feet and groundwater was encountered during drilling at a depth of approximately 70 feet below grade. A groundwater sample was obtained through the augers in order to obtain and test a groundwater sample. The groundwater sample was collected using a clean bailer and was transferred to the mobile laboratory for analysis. Drilling was halted due to the presence of groundwater and the boring was backfilled with a bentonite cement slurry to grade.

## 3.3 Laboratory Analysis

### 3.3.1 Soil Samples

Each of the soil samples collected was tested by the laboratory for total petroleum hydrocarbons as diesel (TPH-d) using modified EPA method 8015 and for volatile organic compounds (VOCs) using EPA methods 8260B and 5035. The principal VOC compounds of concern were benzene, toluene, ethylbenzene, and total xylenes (BTEX), methyl tertiary butyl ether (MTBE) and the common fuel oxygenates.

The results of the exploratory boring soil sample laboratory tests are presented below in Table 2.

**TABLE 2**
**SOIL BORING SAMPLE LABORATORY RESULTS**

| Depth (in feet) | TPH-d (in mg/kg) | 8260B VOCs (mg/kg) | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | | B | T | E | X | MTBE | TBA | DIPE | ETBE | TAME |
| 5 | **43** | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| 10 | **4,100** | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| 15 | **20,000** | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| 20 | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| 25 | **32** | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| 30 | **47,000** | ND | **1.3** | **2.6** | **41** | ND | ND | ND | ND | ND |
| 35 | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| 40 | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| 45 | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| 50 | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| 55 | **42** | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| 60 | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| 65 | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| 70 | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND |

Notes:
See official laboratory reports in Appendix D or complete list of analytes. All other compounds were not detected.
ND = Not detected at or above method detection limit. mg/kg = parts per million
BTEX = Benzene, Toluene, Ethylbenzene, Total Xylenes MTBE = Methyl tertiary butyl ether
TBA= Tertiary butyl alcohol DIPE = Di-isopropyl alcohol ETBE = Ethyl tertiary butyl ether
TAME = Tertiary amyl methyl ether

The laboratory results indicate that before 30 feet of not detected samples could be obtained, groundwater was encountered at a depth of 70 feet. The highest concentration of TPH-d was 47,000 mg/kg at a depth of 30 feet. This is 40 feet above groundwater. Low concentrations of toluene, ethylbenzene, and total xylenes were also detected in that sample. Benzene and MTBE were not detected in that 30 foot sample. No hydrocarbons were detected in any of the deeper samples down to groundwater at 70 feet with the exception of 42 mg/kg TPH-d in the 55 foot sample. There were no volatile compounds detected in that 55 foot sample. The official laboratory reports and chain-of-custody records are included in Appendix D.

In addition, the sample with the highest TPH-d concentration (30 feet) was also tested for the full scan of volatile organic compounds using EPA method 8260B. The results indicate that the following compounds were also detected in the 30 foot sample:

| | |
|---|---|
| chloromethane | 1.1 mg/kg |
| p-isopropyltoluene | 1.4 mg/kg |
| naphthalene | 110 mg/kg |
| n-propylbenzene | 1.5 mg/kg |
| 1,2,4-trimethylbenzene | 64 mg/kg |
| 1,3,5-trimethylbenzene | 26 mg/kg |

These compounds are either common constituents of diesel fuel or may be associated with diesel.

### 3.3.2 Groundwater Sample

The groundwater sample was collected into 40-milliliter VOA vials and an amber liter bottle using a clean, Teflon™ bailer, sealed, labeled, and transferred to the onsite mobile laboratory under proper chain-of-custody procedures. The groundwater sample was identified as sample SB2-02@70AQ. The groundwater sample was tested for TPH as diesel and for VOCs using EPA Method 8260B. The results are shown below in Table 3. The official laboratory reports and chain-of-custody records are included in Appendix E.

The laboratory results indicate that although the groundwater sample was obtained through the drilling augers, the laboratory testing indicates that the only detected compounds were TPH as diesel at 0.86 mg/L and total xylenes at 7.9 µg/L. The TPH-d concentration is low and the xylene concentration is significantly less than the California Maximum Contaminant Level (drinking water standard) for total xylenes of 1,750 µg/L. There is no drinking water standard for TPH-d. All of the other tested compounds, including benzene, toluene, ethylbenzene, MTBE and the other common fuel oxygenates, were all not detected.

**TABLE 3**
**GROUNDWATER SAMPLE LABORATORY RESULTS**

| Compound | Result |
|---|---|
| TPH-d | **0.86 mg/L** |
| MTBE | ND |
| TBA | ND |
| DIPE | ND |
| ETBE | ND |
| TAME | ND |
| Benzene | ND |
| Toluene | ND |
| Ethylbenzene | ND |
| Total Xylenes | **7.9 µg/L** |

See official laboratory reports in Appendix E for complete list of analytes. All other compounds were not detected.
ND = Not detected at or above method detection limit.
µg/L = parts per billion

## 3.4 Investigative Waste Management

In the process of collecting environmental samples during the sampling program, different types of potentially contaminated investigation-derived wastes (IDW) were generated that included the following:

- Used personal protective equipment (PPE)
- Disposable sampling equipment
- Soil cuttings

The Federal EPA's National Contingency Plan (NCP) requires that management of IDW comply with all applicable or relevant and appropriate requirements (ARARs) to the extent practicable. The sampling plan followed the Office of Emergency and Remedial Response (OERR) Directive

9345.3-02 dated May 1991, which provides the guidance for the management of IDW.

Listed below are the procedures that were followed for handling the IDW:

- Used PPE and disposable equipment were double-bagged and placed in a municipal refuse dumpster. These wastes are not considered hazardous and can be sent to a municipal landfill. Any PPE and disposable equipment to be disposed of which could still be reused was rendered inoperable before disposal in the refuse dumpster.

- There was no decontamination water generated at the site. The drilling augers were cleaned prior to arrival at the site and were cleaned by the drilling contractor at their yard following completion of the work.

- Soil cuttings were added to the existing excavated soil stockpile, pending offsite disposal.

All solid IDW (soil cuttings) will be disposed of at an appropriate disposal/treatment/recycling facility. Kimberly-Clark will be responsible for the handling and disposal of the waste generated during this project.

## 4.0 REVIEW OF LABORATORY RESULTS

### 4.1 Soil Samples

Diesel-range hydrocarbons were detected in the soil beneath the site. The highest concentration is 47,000 mg/kg from the boring at a depth of 30 feet. This area that was sampled is just adjacent to the existing boiler room and cannot be removed by excavation due to its proximity to the existing building. There was no benzene or MTBE associated with this sample, although relatively low concentrations of toluene, ethylbenzene, and total xylenes were detected in this sample.
The 30 foot sample was composed of silt, which was an abrupt lithologic change from the overlying sandy material. The fine-grained silt layer extending from a depth of about 30 to 32 feet has apparently served as a relatively impermeable layer which has generally prevented deeper migration of the diesel hydrocarbon release.

Of the eight deeper samples obtained from depths of 35 feet to 70 feet, the only other detected compound was TPH as diesel at 42 mg/kg in the 55 foot sample. All of the other tested compounds were not detected. This suggests that the residual hydrocarbons at the site are of limited vertical extent.

### 4.2 Groundwater Samples

The laboratory results for the groundwater sample indicate that the only detected compounds were TPH as diesel at 0.86 mg/L and total xylenes at 7.9 µg/L. TPH-d has no established drinking water guidance level and is considered to be low. The xylene concentration is significantly less than the California Maximum Contaminant Level (drinking water standard) for total xylenes of 1,750 µg/L. All of the other tested compounds, including benzene, toluene, ethylbenzene, MTBE and the other common fuel oxygenates, were all not detected in the groundwater sample.

This indicates that the released diesel-range hydrocarbons at the site have not caused a significant impact to the underlying groundwater.

## 5.0 CONCLUSIONS

Diesel-affected soil was encountered during construction excavation for a planned new building. The Fullerton Fire Department was notified and an inspector was present at the site to witness the soil excavation and associated soil sampling. Samples were obtained to document the complete removal of affected soil from the site. An on-site mobile laboratory was used to test the samples for the presence of diesel- and fuel-range hydrocarbons. All of the soil that was possible to excavate was removed. However, due to the presence of the existing boiler room building adjacent to the west, some residual diesel-range hydrocarbons remain at the site that could not be excavated because of the possibility of undermining the existing building. It is estimated that from 500 to 600 tons of diesel-affected soil was excavated and is temporarily stockpiled at the site pending offsite disposal by Kimberly-Clark at an appropriate disposal facility.

Because all of the affected soil could not be removed, the Fullerton Fire Department required drilling of a soil boring at the west side of the excavated area, as near to the area of residual hydrocarbons as possible. This boring was drilled, soil samples were obtained every five feet, and the samples were analyzed by an onsite mobile laboratory. The analysis of the samples from the boring confirm that residual diesel-range hydrocarbons are present in the soil beneath the existing boiler room building.

During drilling of the boring, groundwater was encountered at a depth of 70 feet. Drilling was halted and a groundwater sample was obtained using a bailer lowered through the drilling augers. The sample was tested for TPH as diesel, BTEX, MTBE, and the common fuel oxygenates. The results of the groundwater testing indicate that low concentrations of TPH-d (0.86 mg/L) and total xylenes (7.9 µg/L) were detected in the sample. These concentrations are every low. Although there is no drinking water standard for TPH as a distinct compound, there is a maximum contaminant level (MCL) for total xylenes which is 1,750 µg/L. The detected xylenes are significantly below the MCL. All of the other tested oxygenates were not detected. Although

the sample was obtained through the drilling augers, the results indicate that there has not been a significant impact to the groundwater beneath the site.

## 6.0 RECOMMENDATIONS

The findings of this assessment indicate that the diesel-affected soil has been excavated and removed to the practical limits of the site. Residual hydrocarbon-affected soil remains beneath the existing boiler room. Soil sampling from a boring drilled at the site have defined the vertical extent of hydrocarbons in the soil. Groundwater was encountered at 70 feet and a groundwater sample was obtained through the drilling augers for testing. The laboratory results from the groundwater sample indicate that hydrocarbons in the soil at the site have not resulted in a significant impact to the underlying groundwater.

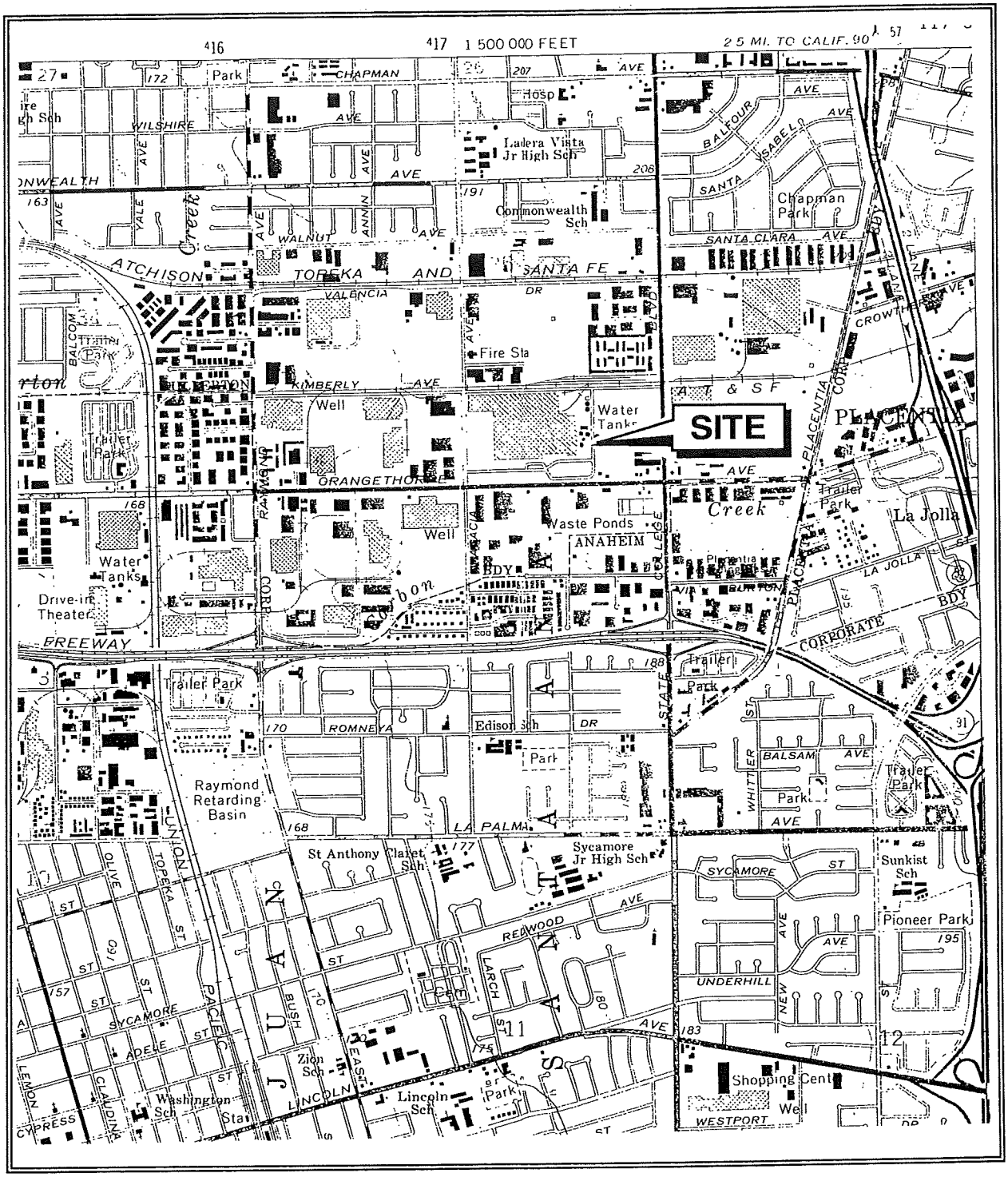
Therefore, since all of the accessible hydrocarbon-affected soil has been excavated from the site, and a groundwater sample does not indicate a significant impact to groundwater, the residual affected soil that cannot be excavated is not considered to pose a threat to the groundwater beneath the site. Therefore, site closure with no further action required is recommended.

## 7.0 REFERENCES

Metropolitan Water District, 1987, Groundwater Quality and its Impact on Water Supply in the Metropolitan Water District Service Area.

United State Geological Survey Topographic Map, Anaheim Quadrangle, 1965, photorevised 1981.

# FIGURES

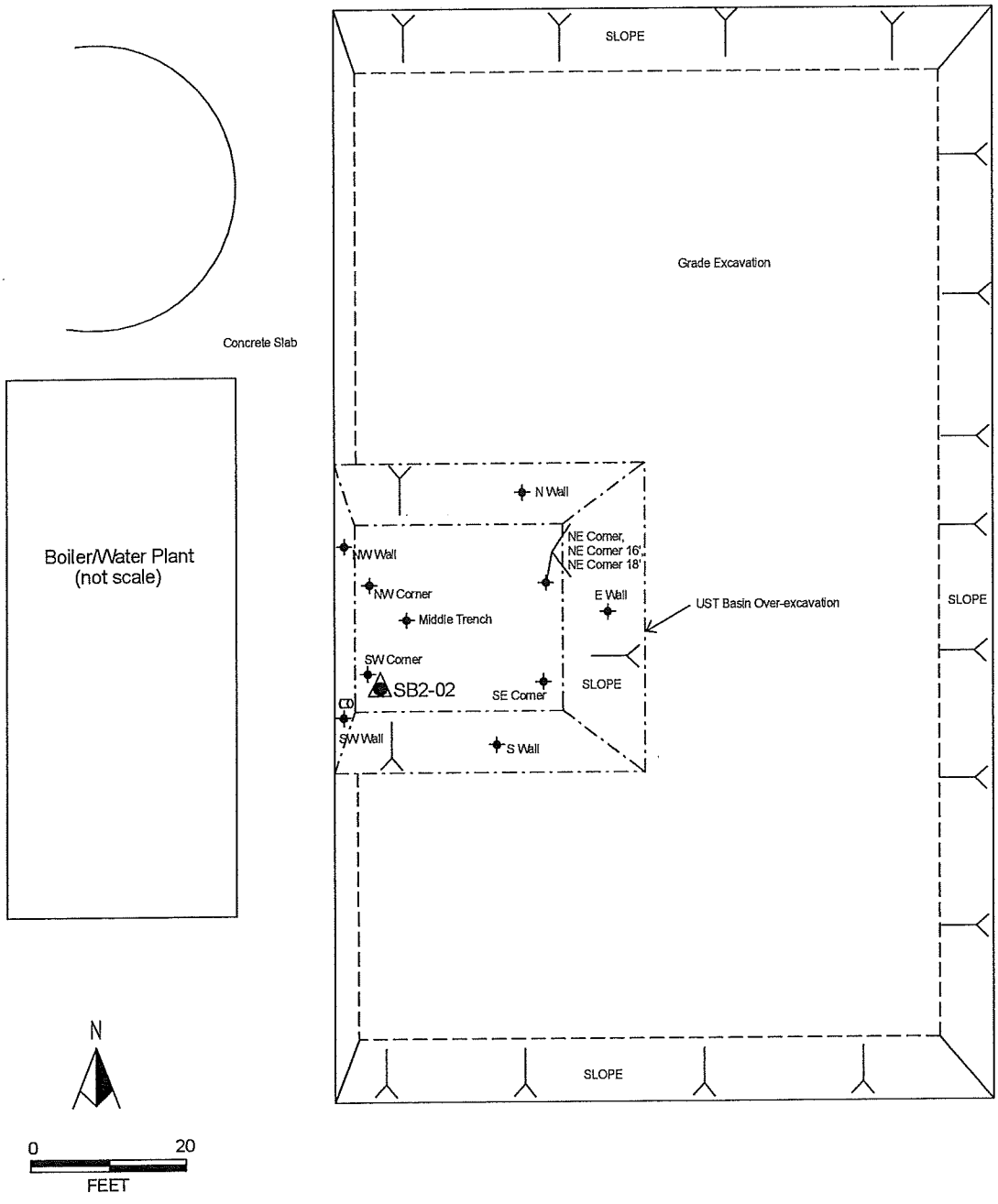



## SITE VICINITY MAP

*Ref: U.S.G.S. Topographic Maps:*
*ANAHEIM QUADRANGLE, 7.5 Minute Series, 1965 (Photorevised 1981) SCALE: 1:24,000*

KIMBERLY CLARK FACILITY
FULLERTON, CA

2001 EAST ORANGETHORPE AVE.
FIGURE 1




# LEGEND

SB2-02 = Vertical Soil Boring - Advanced on February 22, 2002

S Wall = Over-excavation Soil Sample Location

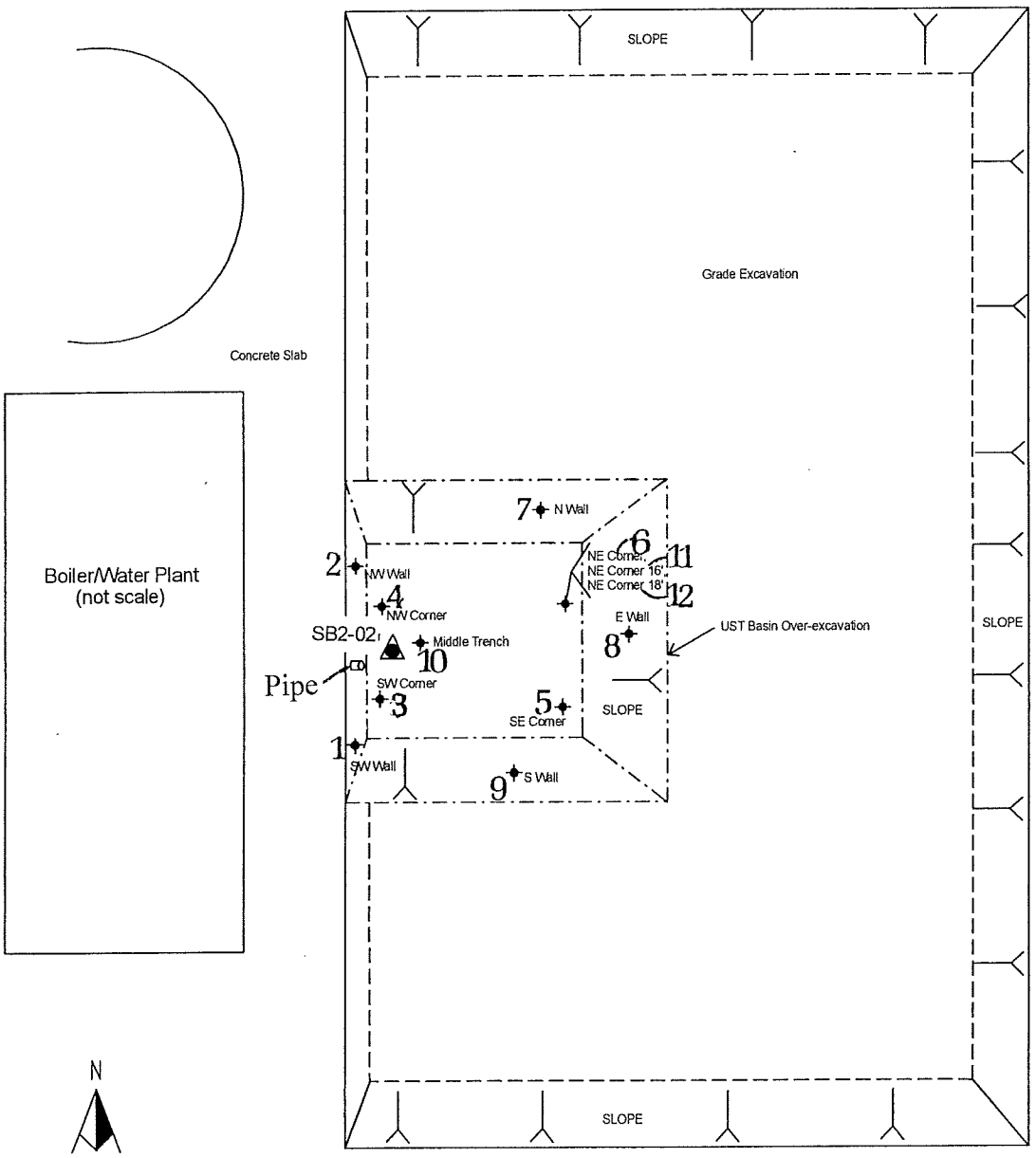
# SITE PLAN

Kimberly-Clark Facility
2001 East Orangethorpe Ave.
Fullerton, California

GASTON & ASSOCIATES, LLC
714-505-6123

Figure 2

8 FT




TPH Diesel Concentrations in parts per million

1- 12,000
2 - 8,200
3 - 1,400
4 - 2,400
5 - ND
6 - 430
7 - ND
8 - ND
9 - ND
10 - ND
11 - 1,100
12 - ND

Number corresponds to sample location

## LEGEND

SB2-02 = Vertical Soil Boring - Advanced on February 22, 2002

S Wall = Over-excavation Soil Sample Location

# SITE PLAN

Kimberly-Clark Facility
2001 East Orangethorpe Ave.
Fullerton, California

GASTON & ASSOCIATES, LLC
714-505-6123

Figure 3

# APPENDIX A

# EXCAVATION SOIL SAMPLE LABORATORY RESULTS
# AND
# CHAIN-OF-CUSTODY RECORDS

**Centrum Analytical Laboratories, Inc.**
CERTIFIED HAZARDOUS WASTE TESTING MOBILE & IN HOUSE LABORATORIES

Client: Fleming Environmental
6130 Valleyview Street
Buena Park, CA 90620

Date Sampled: 02/18/02
Date Received: 02/18/02
Job Number: M4-348

Project: Kimberly-Clarke

## CASE NARRATIVE

The following information applies to samples which were received for analysis by Centrum Analytical Mobile Environmental Laboratory Number Four (MEL #4) on: 02/18/02

The samples were received at the project site intact and were either analyzed immediately or stored at 4°C until analyzed.

Unless otherwise noted below, the Quality Control acceptance criteria were met for all samples for every analysis requested. The date of issue for this report is 02/28/02.

Report approved by:

James M. Reed
Mobile Lab Supervisor

Rodolfo Vergara, Jr.
Quality Assurance Manager

ELAP # 2373

DL : Detection Limit -- The lowest level at which the compound can reliably be detected under normal laboratory conditions.
ND : Not Detected -- The compound was analyzed for but was not found to be present at or above the detection limit.
NA : Not Analyzed -- Per client request, this analyte was not on the list of compounds to be analyzed for.

Centrum
Analytical
Laboratories, Inc.

# EPA 8015B modified - Total Extractable Petroleum Hydrocarbons as Diesel

| | | | |
|---|---|---|---|
| Client: | Fleming Environmental | Date Sampled: | 02/18/02 |
| Project: | Kimberly-Clarke | Date Received: | 02/18/02 |
| Job No.: | M4-348 | Date Extracted: | 02/22/02 |
| Matrix: | Soil | Date Analyzed: | 02/22-25/02 |
| Analyst: | MBH/JTS | Batch Number: | M48015DS646 |

| | Reporting Limit | Diesel | Surrogate (OTP) |
|---|---|---|---|
| **Sample ID** | mg/Kg | mg/Kg | Limit: 50 - 150% |
| **Blank** | 10 | ND | 101 % |
| **S/W Wall** | 10 | **12,000** | 143 % |
| **N/W Wall** | 10 | **8,200** | 92 % |
| **SW Corner** | 10 | **1,400** | 88 % |
| **NW Corner** | 10 | **2,400** | 98 % |
| **SE Corner** | 10 | ND | 100 % |
| **NE Corner** | 10 | **430** | 92 % |
| **N Wall** | 10 | ND | 97 % |
| **E Wall** | 10 | ND | 95 % |
| **S Wall** | 10 | ND | 95 % |
| **Middle Trench** | 10 | ND | 99 % |
| **NE Corner 16'** | 10 | **1,100** | 101 % |
| **NE Corner 18'** | 10 | ND | 97 % |

Centrum Analytical Laboratories, Inc.

# QC Sample Report - EPA 8015B Diesel

Matrix: Soil
Batch #: M48015DS640

## Batch Accuracy Results

Sample ID: Laboratory Control Sample

| Analyte | Spike Concentration mg/Kg | % Recovery LCS | Acceptance Limits % Recovery | Pass/Fail |
|---|---|---|---|---|
| Diesel | 500 | **104** | 70 - 130 | **Pass** |

Analytical Notes:

## Batch Precision Results

MS/MSD Sample ID: Laboratory Control Sample

| Analyte | Spike Sample Recovery mg/Kg | Spike Duplicate Recovery mg/Kg | Relative Percent Difference (RPD) | Upper Control Limit RPD | Pass/Fail |
|---|---|---|---|---|---|
| Diesel | 523.2 | 490.9 | **6%** | 25% | **Pass** |

Analytical Notes:

MS: Matrix Spike Sample
MSD: Matrix Spike Duplicate

Centrum Analytical Laboratories, Inc.

# EPA 8260B - Volatile Organics

| | | | |
|---|---|---|---|
| Client: | Fleming Environmental | Date Sampled: | 02/18/02 |
| Project: | Kimberly-Clarke | Date Received: | 02/18/02 |
| Job No.: | M4-348 | Date Analyzed: | 02/18-20/02 |
| Matrix: | Soil | Batch Number: | M48260S639 |
| Analyst: | MBH/ZL | | MS48260S2819 |

| | Sample ID: | Blank | SW Corner | NW Corner | SE Corner | NE Corner | N Wall |
|---|---|---|---|---|---|---|---|
| Compounds | RL | mg/Kg | mg/Kg | mg/Kg | mg/Kg | mg/Kg | mg/Kg |
| Acetone | 0.050 | ND | ND | ND | ND | ND | ND |
| tert-Amyl Methyl Ether (TAME) | 0.005 | ND | ND | ND | ND | ND | ND |
| Benzene | 0.001 | ND | ND | ND | ND | ND | ND |
| Bromobenzene | 0.005 | ND | ND | ND | ND | ND | ND |
| Bromochloromethane | 0.005 | ND | ND | ND | ND | ND | ND |
| Bromodichloromethane | 0.001 | ND | ND | ND | ND | ND | ND |
| Bromoform | 0.005 | ND | ND | ND | ND | ND | ND |
| Bromomethane | 0.005 | ND | ND | ND | ND | ND | ND |
| tert-Butanol (TBA) | 0.020 | ND | ND | ND | ND | ND | ND |
| 2-Butanone (MEK) | 0.010 | ND | ND | ND | ND | ND | ND |
| n-Butylbenzene | 0.002 | ND | ND | ND | ND | ND | ND |
| sec-Butylbenzene | 0.002 | ND | ND | ND | ND | ND | ND |
| tert-Butylbenzene | 0.002 | ND | ND | ND | ND | ND | ND |
| Carbon disulfide | 0.010 | ND | ND | ND | ND | ND | ND |
| Carbon tetrachloride | 0.001 | ND | ND | ND | ND | ND | ND |
| Chlorobenzene | 0.001 | ND | ND | ND | ND | ND | ND |
| Chloroethane | 0.005 | ND | ND | ND | ND | ND | ND |
| Chloroform | 0.002 | ND | ND | ND | ND | ND | ND |
| Chloromethane | 0.005 | ND | ND | ND | ND | ND | ND |
| 2-Chlorotoluene | 0.002 | ND | ND | ND | ND | ND | ND |
| 4-Chlorotoluene | 0.002 | ND | ND | ND | ND | ND | ND |
| Dibromochloromethane | 0.002 | ND | ND | ND | ND | ND | ND |
| 1,2-Dibromoethane | 0.002 | ND | ND | ND | ND | ND | ND |
| 1,2-Dibromo-3-chloropropane | 0.010 | ND | ND | ND | ND | ND | ND |
| Dibromomethane | 0.001 | ND | ND | ND | ND | ND | ND |
| 1,2-Dichlorobenzene | 0.001 | ND | ND | ND | ND | ND | ND |
| 1,3-Dichlorobenzene | 0.002 | ND | ND | ND | ND | ND | ND |
| 1,4-Dichlorobenzene | 0.002 | ND | ND | ND | ND | ND | ND |
| Dichlorodifluoromethane | 0.005 | ND | ND | ND | ND | ND | ND |
| 1,1-Dichloroethane | 0.001 | ND | ND | ND | ND | ND | ND |
| 1,2-Dichloroethane | 0.001 | ND | ND | ND | ND | ND | ND |
| 1,1-Dichloroethene | 0.005 | ND | ND | ND | ND | ND | ND |
| cis-1,2-Dichloroethene | 0.002 | ND | ND | ND | ND | ND | ND |
| trans-1,2-Dichloroethene | 0.002 | ND | ND | ND | ND | ND | ND |
| 1,2-Dichloropropane | 0.001 | ND | ND | ND | ND | ND | ND |
| 1,3-Dichloropropane | 0.001 | ND | ND | ND | ND | ND | ND |
| 2,2-Dichloropropane | 0.001 | ND | ND | ND | ND | ND | ND |
| 1,1-Dichloropropene | 0.001 | ND | ND | ND | ND | ND | ND |

Centrum Analytical Laboratories, Inc.

# EPA 8260B - Volatile Organics

| | | | |
|---|---|---|---|
| Client: | Fleming Environmental | Date Sampled: | 02/18/02 |
| Project: | Kimberly-Clarke | Date Received: | 02/18/02 |
| Job No.: | M4-348 | Date Analyzed: | 02/18-20/02 |
| Matrix: | Soil | Batch Number: | M48260S639 |
| Analyst: | MBH/ZL | | MS48260S2819 |

| | Sample ID: | Blank | SW Corner | NW Corner | SE Corner | NE Corner | N Wall |
|---|---|---|---|---|---|---|---|
| **Compounds** | **RL** | mg/Kg | mg/Kg | mg/Kg | mg/Kg | mg/Kg | mg/Kg |
| cis-1,3-Dichloropropene | 0.001 | ND | ND | ND | ND | ND | ND |
| trans-1,3-Dichloropropene | 0.001 | ND | ND | ND | ND | ND | ND |
| Diisopropyl Ether (DIPE) | 0.005 | ND | ND | ND | ND | ND | ND |
| Ethylbenzene | 0.001 | ND | **0.003** | ND | ND | ND | ND |
| Ethyl tert-Butyl Ether (EtBE) | 0.005 | ND | ND | ND | ND | ND | ND |
| Hexachlorobutadiene | 0.001 | ND | ND | ND | ND | ND | ND |
| 2-Hexanone | 0.010 | ND | ND | ND | ND | ND | ND |
| Isopropylbenzene | 0.001 | ND | ND | ND | ND | ND | ND |
| p-Isopropyltoluene | 0.002 | ND | ND | ND | ND | ND | ND |
| Methylene chloride | 0.050 | ND | ND | ND | ND | ND | ND |
| 4-Methyl-2-pentanone | 0.010 | ND | ND | ND | ND | ND | ND |
| Methyl tert-Butyl Ether (MtBE) | 0.005 | ND | ND | ND | ND | ND | ND |
| Naphthalene | 0.005 | ND | **0.019** | ND | ND | ND | ND |
| n-Propylbenzene | 0.001 | ND | **0.002** | ND | ND | ND | ND |
| Styrene | 0.001 | ND | ND | ND | ND | ND | ND |
| 1,1,1,2-Tetrachloroethane | 0.001 | ND | ND | ND | ND | ND | ND |
| 1,1,2,2-Tetrachloroethane | 0.002 | ND | ND | ND | ND | ND | ND |
| Tetrachloroethene | 0.001 | ND | ND | ND | ND | ND | ND |
| Toluene | 0.001 | ND | ND | ND | ND | ND | ND |
| 1,2,3-Trichlorobenzene | 0.002 | ND | ND | ND | ND | ND | ND |
| 1,2,4-Trichlorobenzene | 0.002 | ND | ND | ND | ND | ND | ND |
| 1,1,1-Trichloroethane | 0.001 | ND | ND | ND | ND | **0.001** | ND |
| 1,1,2-Trichloroethane | 0.003 | ND | ND | ND | ND | ND | ND |
| Trichloroethene | 0.001 | ND | ND | ND | ND | ND | ND |
| 1,2,3-Trichloropropane | 0.003 | ND | ND | ND | ND | ND | ND |
| Trichlorofluoromethane | 0.001 | ND | ND | ND | ND | ND | ND |
| Trichlorotrifluoroethane | 0.005 | ND | ND | ND | ND | ND | ND |
| 1,2,4-Trimethylbenzene | 0.001 | ND | **0.010** | ND | ND | ND | ND |
| 1,3,5-Trimethylbenzene | 0.001 | ND | **0.002** | ND | ND | ND | ND |
| Vinyl chloride | 0.002 | ND | ND | ND | ND | ND | ND |
| Xylenes, m-,p- | 0.002 | ND | **0.004** | ND | ND | ND | ND |
| Xylene, o- | 0.001 | ND | **0.002** | ND | ND | ND | ND |

**Surrogates (% Recovery)** Limits: 70 - 130

| | Sample ID: | Blank | SW Corner | NW Corner | SE Corner | NE Corner | N Wall |
|---|---|---|---|---|---|---|---|
| Dibromofluoromethane | | 99 | 103 | 106 | 97 | 100 | 98 |
| Toluene-d8 | | 100 | 95 | 90 | 99 | 94 | 98 |
| Bromofluorobenzene | | 101 | 87 | 85 | 103 | 94 | 98 |

Centrum
Analytical
Laboratories, Inc.

# EPA 8260B - Volatile Organics

| | | | |
|---|---|---|---|
| Client: | Fleming Environmental | Date Sampled: | 02/18/02 |
| Project: | Kimberly-Clarke | Date Received: | 02/18/02 |
| Job No.: | M4-348 | Date Analyzed: | 02/18-20/02 |
| Matrix: | Soil | Batch Number: | M48260S639 |
| Analyst: | MBH/ZL | | MS48260S2819 |

| | Sample ID: | E Wall | S Wall | Middle Trench |
|---|---|---|---|---|
| **Compounds** | **RL** | mg/Kg | mg/Kg | mg/Kg |
| Acetone | 0.050 | ND | ND | ND |
| tert-Amyl Methyl Ether (TAME) | 0.005 | ND | ND | ND |
| Benzene | 0.001 | ND | ND | ND |
| Bromobenzene | 0.005 | ND | ND | ND |
| Bromochloromethane | 0.005 | ND | ND | ND |
| Bromodichloromethane | 0.001 | ND | ND | ND |
| Bromoform | 0.005 | ND | ND | ND |
| Bromomethane | 0.005 | ND | ND | ND |
| tert-Butanol (TBA) | 0.020 | ND | ND | ND |
| 2-Butanone (MEK) | 0.010 | ND | ND | ND |
| n-Butylbenzene | 0.002 | ND | ND | ND |
| sec-Butylbenzene | 0.002 | ND | ND | ND |
| tert-Butylbenzene | 0.002 | ND | ND | ND |
| Carbon disulfide | 0.010 | ND | ND | ND |
| Carbon tetrachloride | 0.001 | ND | ND | ND |
| Chlorobenzene | 0.001 | ND | ND | ND |
| Chloroethane | 0.005 | ND | ND | ND |
| Chloroform | 0.002 | ND | ND | ND |
| Chloromethane | 0.005 | ND | ND | ND |
| 2-Chlorotoluene | 0.002 | ND | ND | ND |
| 4-Chlorotoluene | 0.002 | ND | ND | ND |
| Dibromochloromethane | 0.002 | ND | ND | ND |
| 1,2-Dibromoethane | 0.002 | ND | ND | ND |
| 1,2-Dibromo-3-chloropropane | 0.010 | ND | ND | ND |
| Dibromomethane | 0.001 | ND | ND | ND |
| 1,2-Dichlorobenzene | 0.001 | ND | ND | ND |
| 1,3-Dichlorobenzene | 0.002 | ND | ND | ND |
| 1,4-Dichlorobenzene | 0.002 | ND | ND | ND |
| Dichlorodifluoromethane | 0.005 | ND | ND | ND |
| 1,1-Dichloroethane | 0.001 | ND | ND | ND |
| 1,2-Dichloroethane | 0.001 | ND | ND | ND |
| 1,1-Dichloroethene | 0.005 | ND | ND | ND |
| cis-1,2-Dichloroethene | 0.002 | ND | ND | ND |
| trans-1,2-Dichloroethene | 0.002 | ND | ND | ND |
| 1,2-Dichloropropane | 0.001 | ND | ND | ND |
| 1,3-Dichloropropane | 0.001 | ND | ND | ND |
| 2,2-Dichloropropane | 0.001 | ND | ND | ND |
| 1,1-Dichloropropene | 0.001 | ND | ND | ND |

Centrum Analytical Laboratories, Inc.

# EPA 8260B - Volatile Organics

| | | | |
|---|---|---|---|
| Client: | Fleming Environmental | Date Sampled: | 02/18/02 |
| Project: | Kimberly-Clarke | Date Received: | 02/18/02 |
| Job No.: | M4-348 | Date Analyzed: | 02/18-20/02 |
| Matrix: | Soil | Batch Number: | M48260S639 |
| Analyst: | MBH/ZL | | MS48260S2819 |

| | Sample ID: | E Wall | S Wall | Middle Trench |
|---|---|---|---|---|
| **Compounds** | **RL** | mg/Kg | mg/Kg | mg/Kg |
| cis-1,3-Dichloropropene | 0.001 | ND | ND | ND |
| trans-1,3-Dichloropropene | 0.001 | ND | ND | ND |
| Diisopropyl Ether (DIPE) | 0.005 | ND | ND | ND |
| Ethylbenzene | 0.001 | ND | ND | ND |
| Ethyl tert-Butyl Ether (EtBE) | 0.005 | ND | ND | ND |
| Hexachlorobutadiene | 0.001 | ND | ND | ND |
| 2-Hexanone | 0.010 | ND | ND | ND |
| Isopropylbenzene | 0.001 | ND | ND | ND |
| p-Isopropyltoluene | 0.002 | ND | ND | ND |
| Methylene chloride | 0.050 | ND | ND | ND |
| 4-Methyl-2-pentanone | 0.010 | ND | ND | ND |
| Methyl tert-Butyl Ether (MtBE) | 0.005 | ND | ND | ND |
| Naphthalene | 0.005 | ND | ND | ND |
| n-Propylbenzene | 0.001 | ND | ND | ND |
| Styrene | 0.001 | ND | ND | ND |
| 1,1,1,2-Tetrachloroethane | 0.001 | ND | ND | ND |
| 1,1,2,2-Tetrachloroethane | 0.002 | ND | ND | ND |
| Tetrachloroethene | 0.001 | ND | ND | ND |
| Toluene | 0.001 | ND | ND | ND |
| 1,2,3-Trichlorobenzene | 0.002 | ND | ND | ND |
| 1,2,4-Trichlorobenzene | 0.002 | ND | ND | ND |
| 1,1,1-Trichloroethane | 0.001 | ND | ND | ND |
| 1,1,2-Trichloroethane | 0.003 | ND | ND | ND |
| Trichloroethene | 0.001 | ND | ND | ND |
| 1,2,3-Trichloropropane | 0.003 | ND | ND | ND |
| Trichlorofluoromethane | 0.001 | ND | ND | ND |
| Trichlorotrifluoroethane | 0.005 | ND | ND | ND |
| 1,2,4 Trimethylbenzene | 0.001 | ND | ND | ND |
| 1,3,5-Trimethylbenzene | 0.001 | ND | ND | ND |
| Vinyl chloride | 0.002 | ND | ND | ND |
| Xylenes, m-,p- | 0.002 | ND | ND | ND |
| Xylene, o- | 0.001 | ND | ND | ND |

**Surrogates (% Recovery)** Limits: 70 - 130

| | Sample ID: | E Wall | S Wall | Middle Trench |
|---|---|---|---|---|
| Dibromofluoromethane | | 96 | 96 | 101 |
| Toluene-d8 | | 99 | 98 | 99 |
| Bromofluorobenzene | | 103 | 100 | 104 |

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## EPA 8260B - Volatile Organics

| | | | |
|---|---|---|---|
| Client: | Fleming Environmental | Date Sampled: | 02/18/02 |
| Project: | Kimberly-Clarke | Date Received: | 02/18/02 |
| Job No.: | M4-348 | Date Analyzed: | 02/18-20/02 |
| Matrix: | Soil | Batch Number: | M48260S639 |
| Analyst: | MBH/ZL | | MS48260S2819 |

| | Sample ID: | NE Corner 16' | NE Corner 18' |
|---|---|---|---|
| Compounds | RL | mg/Kg | mg/Kg |
| Acetone | 0.050 | ND | ND |
| tert-Amyl Methyl Ether (TAME) | 0.005 | ND | ND |
| Benzene | 0.001 | ND | ND |
| Bromobenzene | 0.005 | ND | ND |
| Bromochloromethane | 0.005 | ND | ND |
| Bromodichloromethane | 0.001 | ND | ND |
| Bromoform | 0.005 | ND | ND |
| Bromomethane | 0.005 | ND | ND |
| tert-Butanol (TBA) | 0.020 | ND | ND |
| 2-Butanone (MEK) | 0.010 | ND | ND |
| n-Butylbenzene | 0.002 | ND | ND |
| sec-Butylbenzene | 0.002 | ND | ND |
| tert-Butylbenzene | 0.002 | ND | ND |
| Carbon disulfide | 0.010 | ND | ND |
| Carbon tetrachloride | 0.001 | ND | ND |
| Chlorobenzene | 0.001 | ND | ND |
| Chloroethane | 0.005 | ND | ND |
| Chloroform | 0.002 | ND | ND |
| Chloromethane | 0.005 | ND | ND |
| 2-Chlorotoluene | 0.002 | ND | ND |
| 4-Chlorotoluene | 0.002 | ND | ND |
| Dibromochloromethane | 0.002 | ND | ND |
| 1,2-Dibromoethane | 0.002 | ND | ND |
| 1,2-Dibromo-3-chloropropane | 0.010 | ND | ND |
| Dibromomethane | 0.001 | ND | ND |
| 1,2-Dichlorobenzene | 0.001 | ND | ND |
| 1,3-Dichlorobenzene | 0.002 | ND | ND |
| 1,4-Dichlorobenzene | 0.002 | ND | ND |
| Dichlorodifluoromethane | 0.005 | ND | ND |
| 1,1-Dichloroethane | 0.001 | ND | ND |
| 1,2-Dichloroethane | 0.001 | ND | ND |
| 1,1-Dichloroethene | 0.005 | ND | ND |
| cis-1,2-Dichloroethene | 0.002 | ND | ND |
| trans-1,2-Dichloroethene | 0.002 | ND | ND |
| 1,2-Dichloropropane | 0.001 | ND | ND |
| 1,3-Dichloropropane | 0.001 | ND | ND |
| 2,2-Dichloropropane | 0.001 | ND | ND |
| 1,1-Dichloropropene | 0.001 | ND | ND |

Centrum Analytical Laboratories, Inc.

# EPA 8260B - Volatile Organics

| | | | |
|---|---|---|---|
| Client: | Fleming Environmental | Date Sampled: | 02/18/02 |
| Project: | Kimberly-Clarke | Date Received: | 02/18/02 |
| Job No.: | M4-348 | Date Analyzed: | 02/18-20/02 |
| Matrix: | Soil | Batch Number: | M48260S639 |
| Analyst: | MBH/ZL | | MS48260S2819 |

| | Sample ID: | NE Corner 16' | NE Corner 18' |
|---|---|---|---|
| **Compounds** | **RL** | mg/Kg | mg/Kg |
| cis-1,3-Dichloropropene | 0.001 | ND | ND |
| trans-1,3-Dichloropropene | 0.001 | ND | ND |
| Diisopropyl Ether (DIPE) | 0.005 | ND | ND |
| Ethylbenzene | 0.001 | ND | ND |
| Ethyl tert-Butyl Ether (EtBE) | 0.005 | ND | ND |
| Hexachlorobutadiene | 0.001 | ND | ND |
| 2-Hexanone | 0.010 | ND | ND |
| Isopropylbenzene | 0.001 | ND | ND |
| p-Isopropyltoluene | 0.002 | ND | ND |
| Methylene chloride | 0.050 | ND | ND |
| 4-Methyl-2-pentanone | 0.010 | ND | ND |
| Methyl tert-Butyl Ether (MtBE) | 0.005 | ND | ND |
| Naphthalene | 0.005 | ND | ND |
| n-Propylbenzene | 0.001 | ND | ND |
| Styrene | 0.001 | ND | ND |
| 1,1,1,2-Tetrachloroethane | 0.001 | ND | ND |
| 1,1,2,2-Tetrachloroethane | 0.002 | ND | ND |
| Tetrachloroethene | 0.001 | ND | ND |
| Toluene | 0.001 | ND | ND |
| 1,2,3-Trichlorobenzene | 0.002 | ND | ND |
| 1,2,4-Trichlorobenzene | 0.002 | ND | ND |
| 1,1,1-Trichloroethane | 0.001 | ND | ND |
| 1,1,2-Trichloroethane | 0.003 | ND | ND |
| Trichloroethene | 0.001 | ND | ND |
| 1,2,3-Trichloropropane | 0.003 | ND | ND |
| Trichlorofluoromethane | 0.001 | ND | ND |
| Trichlorotrifluoroethane | 0.005 | ND | ND |
| 1,2,4-Trimethylbenzene | 0.001 | ND | ND |
| 1,3,5-Trimethylbenzene | 0.001 | ND | ND |
| Vinyl chloride | 0.002 | ND | ND |
| Xylenes, m-,p- | 0.002 | ND | ND |
| Xylene, o- | 0.001 | ND | ND |

**Surrogates (% Recovery)** Limits: 70 - 130

| | Sample ID: | NE Corner 16' | NE Corner 18' |
|---|---|---|---|
| Dibromofluoromethane | | 99 | 97 |
| Toluene-d8 | | 98 | 99 |
| Bromofluorobenzene | | 97 | 100 |

Centrum Analytical Laboratories, Inc.

# EPA 8260B - Volatile Organics

| | | | |
|---|---|---|---|
| Client: | Fleming Environmental | Date Sampled: | 02/18/02 |
| Project: | Kimberly-Clarke | Date Received: | 02/18/02 |
| Job No.: | M4-348 | Date Analyzed: | 02/18-20/02 |
| Matrix: | Soil | Batch Number: | M48260S639 |
| Analyst: | MBH/ZL | | MS48260S2819 |

| | Sample ID: | S/W Wall | N/W Wall |
|---|---|---|---|
| **Compounds** | RL | mg/Kg | mg/Kg |
| Acetone | 0.25 | ND | ND |
| tert-Amyl Methyl Ether (TAME) | 0.025 | ND | ND |
| Benzene | 0.005 | ND | ND |
| Bromobenzene | 0.025 | ND | ND |
| Bromochloromethane | 0.025 | ND | ND |
| Bromodichloromethane | 0.005 | ND | ND |
| Bromoform | 0.025 | ND | ND |
| Bromomethane | 0.025 | ND | ND |
| tert-Butanol (TBA) | 0.10 | ND | ND |
| 2-Butanone (MEK) | 0.050 | ND | ND |
| n-Butylbenzene | 0.010 | **0.16** | ND |
| sec-Butylbenzene | 0.010 | **0.060** | ND |
| tert-Butylbenzene | 0.010 | ND | ND |
| Carbon disulfide | 0.050 | ND | ND |
| Carbon tetrachloride | 0.005 | ND | ND |
| Chlorobenzene | 0.005 | ND | ND |
| Chloroethane | 0.025 | ND | ND |
| Chloroform | 0.010 | ND | ND |
| Chloromethane | 0.025 | ND | ND |
| 2-Chlorotoluene | 0.010 | ND | ND |
| 4-Chlorotoluene | 0.010 | ND | ND |
| Dibromochloromethane | 0.010 | ND | ND |
| 1,2-Dibromoethane | 0.010 | ND | ND |
| 1,2-Dibromo-3-chloropropane | 0.050 | ND | ND |
| Dibromomethane | 0.005 | ND | ND |
| 1,2-Dichlorobenzene | 0.005 | ND | ND |
| 1,3-Dichlorobenzene | 0.010 | ND | ND |
| 1,4-Dichlorobenzene | 0.010 | ND | ND |
| Dichlorodifluoromethane | 0.025 | ND | ND |
| 1,1-Dichloroethane | 0.005 | ND | ND |
| 1,2-Dichloroethane | 0.005 | ND | ND |
| 1,1-Dichloroethene | 0.025 | ND | ND |
| cis-1,2-Dichloroethene | 0.010 | ND | ND |
| trans-1,2-Dichloroethene | 0.010 | ND | ND |
| 1,2-Dichloropropane | 0.005 | ND | ND |
| 1,3-Dichloropropane | 0.005 | ND | ND |
| 2,2-Dichloropropane | 0.005 | ND | ND |
| 1,1-Dichloropropene | 0.005 | ND | ND |