

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.
	X	50 ppm	0820		5		2' Sand, yellowish brown, soft, moist, well graded, medium-fine grained size.
	X	30 ppm	0830				4' same as above.
	X	0 ppm	0835		10		6' same as above.
	X	10 ppm	0845				8' same as above.
					15		10' sand, light brown, soft, wet, coarse-medium grained size, less silt. T.D. 10 feet.
					20		
					25		
					30		
					35		
					40		
					45		
WEECO Western Environmental Engineers Co. 1780 E. McFadden Ave. (Suite #117) Santa Ana, California 92705						PROJECT NAME: <u>Kimberly-Clark</u> 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.
	X	50 ppm	0855		5		2' Sand, yellowish brown, soft, moist, well graded, medium-fine grained size.
	X	30 ppm	0900				4' same as above.
	X	0 ppm	0905		10		6' same as above.
	X	30 ppm	0910				8' same as above.
					15		10' sand, light brown, soft, wet, coarse-medium grained size, less silt. T.D. 10 feet.
					20		
					25		
					30		
					35		
					40		
					45		
WEECO Western Environmental Engineers Co. 1780 E. McFadden Ave. (Suite #117) Santa Ana, California 92705						PROJECT NAME: <u>Kimberly-Clark</u> 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**

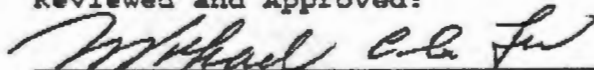
B-1-2'	709065-01A
B-1-4'	709065-02A
B-1-6'	709065-03A
B-1-8'	709065-04A
B-1-10'	709065-05A
B-2-2'	709065-06A
B-2-4'	709065-07A
B-2-6'	709065-08A
B-2-8'	709065-09A
B-2-10'	709065-10A
B-3-2'	709065-11A
B-3-4'	709065-12A
B-3-6'	709065-13A
B-3-8'	709065-14A
B-3-10'	709065-15A
B-4-2'	709065-16A
B-4-4'	709065-17A
B-4-6'	709065-18A

CERTIFICATE OF ANALYSIS

SAMPLE IDENTIFICATIONLABORATORY 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

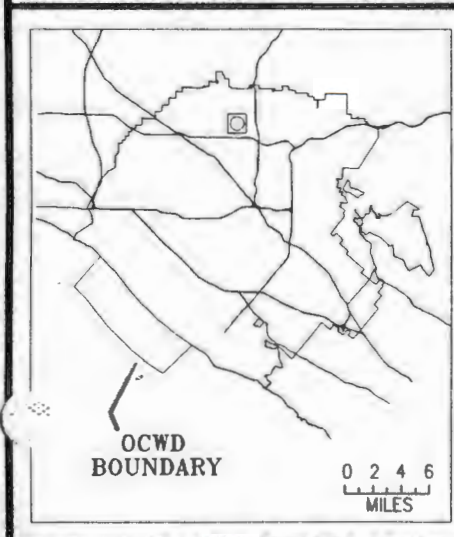
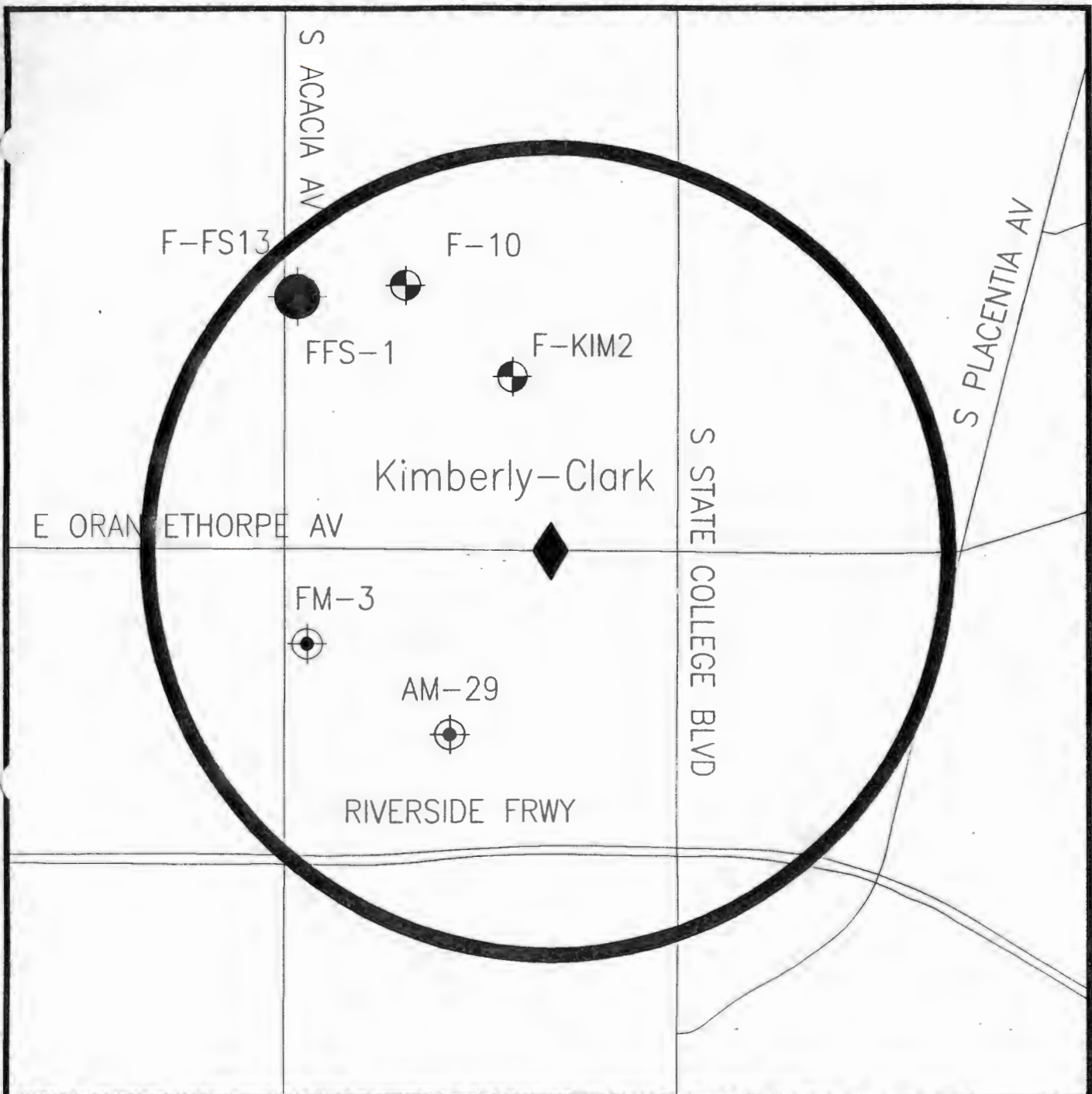
SEARCH RADIUS (MILES): 0.5

SEARCH YEARS: 1996 - PRESENT




INFORMATION PROCESSED

<u># of Pages</u>	<u>Description</u>
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



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



FIGURE 1

Attachment (F)

Sodium Hypochlorite as Hazardous Material

"FIA"	means Federal Insurance Administration;
"FR"	means Federal Register;
"H"	means hazard code for Acute Hazardous Waste;
"HSC"	means Health and Safety Code;
"HWCA"	means Hazardous Waste Control Act (chapter 6.5 (commencing with section 25100) of division 20 of the Health and Safety Code);
"I"	means hazard code for ignitable waste and the potential hazardous property of being ignitable;
"Kg"	means the unit of measure, kilogram;
"NACE"	means National Association of Corrosion Engineers;
"NPDES"	means National Pollutant Discharge Elimination System;
"POHC"	means Principal Organic Hazardous Constituent;
"POTW"	means Publicly Owned Treatment Works;
"R"	means hazard code for reactive waste and the potential hazardous property of being reactive;
"RCRA"	means Resource Conservation and Recovery Act of 1976, as amended (42 U.S.C. section 6901 et seq.);
"SAE"	means Society of Automotive Engineers;
"SAE steel"	means a grade or type of steel;
"SDWA"	means Safe Drinking Water Act of 1976, as amended (42 U.S.C. section 300 f et seq.);
"SIC"	means Standard Industrial Classification;
"SQG"	means Small Quantity Generator;
"STLC"	means Soluble Threshold Limit Concentration;
"SW-846"	means "Test Methods for Evaluating Solid Waste, Physical/Chemical Methods";
"SWMU"	means Solid Waste Management Unit;
"T"	means hazard code for Toxic Waste with a constituent or constituents listed in Appendix VIII of chapter 11;
"TC"	means Toxicity Characteristic;
"TCLP"	means Toxicity Characteristics Leaching Procedure;
"TTLIC"	means Total Threshold Limit Concentration;
"TTU"	means Transportable Treatment Unit;
"UIC"	means Underground Injection Control;
"U.S.C."	means United States Code;
"USDW"	means Underground Source of Drinking Water;
"USEPA"	means United States Environmental Protection Agency;
"WET"	means Waste Extraction Test;
"X"	means the potential hazardous property of being toxic by any of the parameters in section 66261.24;

NOTE: Authority cited: Sections 208, 25150 and 25159, Health and Safety Code.
Reference: Sections 25141 and 25159, Health and Safety Code.

HISTORY

1. New section filed 5-24-91; effective 7-1-91 (Register 91, No. 22).

Article 3. Variances

§ 66260.21. Petitions for Equivalent Testing or Analytical Methods.

(a) The Department shall only grant a variance from the provisions of this chapter to allow use of a test method or analytical method alternative to that prescribed in chapter 11 of this division for use in classifying a specific non-RCRA hazardous waste or a RCRA hazardous waste if the proposed testing or analytical method has been added to 40 CFR Parts 261, 264, or 265 per 40 CFR section 260.21. For the variance to be granted, the applicant must show to the satisfaction of the Department that the proposed alternative test method or analytical method is equal or superior to the appropriate corresponding method in chapter 11 of this division, when applied to the specific waste with respect to accuracy, precision, sensitivity and stringency.

(b) An application for a variance pursuant to section 66260.21(a) shall include all of the following:

(1) the name and address of the generator of the waste and where the waste is located;

(2) a complete description of the waste, including its composition and source or process of generation;

(3) a complete description of the proposed alternative test method or analytical method, including all equipment and procedural steps used;

(4) a comparison of results obtained from a statistically significant number of replicate trials with the proposed alternative test method or analytical method with those results obtained from use of the appropriate corresponding method prescribed in chapter 11 of this division when both methods are applied simultaneously to the applicant's waste;

(5) an assessment of any factors which might interfere with or limit the applicability of the proposed test method or analytical method;

(6) a description of the quality control and quality assurance procedures to be followed to ensure the accuracy, precision, sensitivity and stringency of the proposed test method or analytical method.

(c) The Department shall, within 60 days after receipt of an application for a variance pursuant to section 66260.21(a), notify the applicant that the application is complete and accepted for processing by the Department or that the application is incomplete and what further information is required.

(d) The Department shall, within 180 days of receipt of a complete application for a variance pursuant to section 66260.21(a), notify the applicant that the request for a variance is granted or denied.

(e) If the variance requested pursuant to section 66260.21(a) is denied, the Department shall provide to the applicant in writing the reason for the denial.

NOTE: Authority cited: Sections 208 and 25159, Health and Safety Code and Section 15376, Government Code. Reference: Sections 25141, 25143 and 25159.5, Health and Safety Code and Section 15376, Government Code.

HISTORY

1. New section filed 5-24-91; effective 7-1-91 (Register 91, No. 22).

§ 66260.200. Classification of a Waste as Hazardous or Nonhazardous.

(a) A waste shall be classified a hazardous waste if it meets the definition of a hazardous waste in section 66261.3.

(b) No person shall deviate from the provisions of this chapter in the management of a hazardous waste, except as provided for in section 66260.200(f) or section 66260.210.

(c) It shall be the generator's responsibility to determine if the waste is classified as a hazardous waste pursuant to section 66260.200(a). If the generator determines that the waste is hazardous, the waste shall be managed pursuant to the provisions of this division. If the generator determines that the waste is nonhazardous, the generator, except as provided for in section 66260.200(f), may either proceed to manage the waste as nonhazardous or apply to the Department for concurrence with the nonhazardous determination through the notification procedure set forth in section 66260.200(d) before managing the waste as nonhazardous. A generator who incorrectly determines that a hazardous waste is nonhazardous and fails to manage the waste pursuant to the provisions of this division is in violation of the requirements of this division and is subject to enforcement action.

(d) If a person chooses to obtain departmental concurrence with the nonhazardous waste determination, a notification shall be submitted to the Department which includes all information required by section 66260.200(m). Pending concurrence by the Department pursuant to section 66260.200(e), that person shall manage the waste as hazardous waste.

(e) The Department, within 30 days of receipt of a notification pursuant to section 66260.200(d), shall acknowledge in writing receipt of the notification. Within 60 days of receipt of a notification, the Department shall notify the sender of the notification in writing that concurrence with that person's classification of the waste as nonhazardous is approved, disapproved, or that the notification is incomplete or inadequate and what additional information is needed. Upon receipt of the additional information, the Department, within 60 days of receipt of the additional information, shall notify the sender of the notification in writing that concurrence of that person's classification of the waste as nonhazardous is approved or disapproved. The notification shall be considered disapproved if the sender of the notification fails to provide the additional information with-

Division 4.5. Environmental Health Standards for the Management of Hazardous Waste

Chapter 10. Hazardous Waste Management System: General

Article 1. General

§ 66001. Accidental Occurrence.

NOTE: Authority cited: Section 208, Health and Safety Code. Reference: Sections 25245 and 25246, Health and Safety Code.

HISTORY

1. New section filed 1-3-85; effective thirtieth day hereafter (Register 85, No. 2). For history of Chapter 30, see Register 79, No. 19.
2. Repealer filed 5-24-91; effective 7-1-91 (Register 91, No. 22).

§ 66001.5. Active Portion.

NOTE: Authority cited: Section 208, Health and Safety Code. Reference: Sections 25159 and 25159.5, Health and Safety Code.

HISTORY

1. New section filed 1-3-85; effective thirtieth day thereafter (Register 85, No. 2).
2. Repealer filed 5-24-91; effective 7-1-91 (Register 91, No. 22).

§ 66002. Acute Aquatic 96-Hour LC₅₀.

NOTE: Authority cited: Sections 208, 25141 and 25150, Health and Safety Code. Reference: Section 25141, Health and Safety Code.

HISTORY

1. New section filed 9-27-84; effective thirtieth day thereafter (Register 84, No. 41). For history of Chapter 30, see Register 79, No. 19.
2. Repealer filed 5-24-91; effective 7-1-91 (Register 91, No. 22).

§ 66004. Acute Dermal LD₅₀.

NOTE: Authority cited: Sections 208, 25141 and 25150, Health and Safety Code. Reference: Section 25141, Health and Safety Code.

HISTORY

1. New section filed 9-27-84; effective thirtieth day thereafter (Register 84, No. 41).
2. Repealer filed 5-24-91; effective 7-1-91 (Register 91, No. 22).

§ 66005. Acute Inhalation LC_{LO}.

NOTE: Authority cited: Sections 208, 25141 and 25150, Health and Safety Code. Reference: Section 25141, Health and Safety Code.

HISTORY

1. New section filed 9-27-84; effective thirtieth day thereafter (Register 84, No. 41).
2. Repealer filed 5-24-91; effective 7-1-91 (Register 91, No. 22).

§ 66006. Acute Inhalation LC₅₀.

NOTE: Authority cited: Sections 208, 25141 and 25150, Health and Safety Code. Reference: Section 25141, Health and Safety Code.

HISTORY

1. New section filed 9-27-84; effective thirtieth day thereafter (Register 84, No. 41).
2. Repealer filed 5-24-91; effective 7-1-91 (Register 91, No. 22).

§ 66007. Acute LD_{LO}.

NOTE: Authority cited: Sections 208, 25141 and 25150, Health and Safety Code. Reference: Section 25141, Health and Safety Code.

HISTORY

1. New section filed 9-27-84; effective thirtieth day thereafter (Register 84, No. 41).
2. Repealer filed 5-24-91; effective 7-1-91 (Register 91, No. 22).

§ 66008. Acute Oral LD₅₀.

NOTE: Authority cited: Sections 208, 25141 and 25150, Health and Safety Code. Reference: Section 25141, Health and Safety Code.

HISTORY

1. New section filed 9-27-84; effective thirtieth day thereafter (Register 84, No. 41).
2. Repealer filed 5-24-91; effective 7-1-91 (Register 91, No. 22).

§ 66010. Acute Toxicity.

NOTE: Authority cited: Sections 208, 25141 and 25150, Health and Safety Code. Reference: Section 25141, Health and Safety Code.

HISTORY

1. New section filed 9-27-84; effective thirtieth day thereafter (Register 84, No. 41).
2. Repealer filed 5-24-91; effective 7-1-91 (Register 91, No. 22).

§ 66011. Applicant.

NOTE: Authority cited: Sections 208, 25150 and 25168.1, Health and Safety Code. Reference: Section 25165, Health and Safety Code.

HISTORY

1. New section filed 10-6-81 as an emergency; effective upon filing (Register 81, No. 42). A Certificate of Compliance must be transmitted to OAL within 120 days or emergency language will be repealed on 2-3-82.
2. Certificate of Compliance transmitted to OAL 2-2-82 and filed 3-8-82 (Register 82, No. 11).
3. Repealer filed 5-24-91; effective 7-1-91 (Register 91, No. 22).

§ 66011.1. Aquifer.

NOTE: Authority cited: Section 208, Health and Safety Code. Reference: Sections 25159 and 25159.5, Health and Safety Code.

HISTORY

1. New section filed 1-3-85; effective thirtieth day thereafter (Register 85, No. 2).
2. Repealer filed 5-24-91; effective 7-1-91 (Register 91, No. 22).

§ 66011.2. Assets.

NOTE: Authority cited: Section 208, Health and Safety Code. Reference: Sections 25245 and 25246, Health and Safety Code.

HISTORY

1. New section filed 1-3-85; effective thirtieth day thereafter (Register 85, No. 2).
2. Repealer filed 5-24-91; effective 7-1-91 (Register 91, No. 22).

§ 66011.3. Authorized Representative.

NOTE: Authority cited: Section 208, Health and Safety Code. Reference: Sections 25159 and 25159.5, Health and Safety Code.

HISTORY

1. New section filed 1-3-85; effective thirtieth day thereafter (Register 85, No. 2).
2. Repealer filed 5-24-91; effective 7-1-91 (Register 91, No. 22).

§ 66012. Bioaccumulative Toxic Substance.

NOTE: Authority cited: Sections 208, 25141 and 25150, Health and Safety Code. Reference: Section 25141, Health and Safety Code.

HISTORY

1. New section filed 9-27-84; effective thirtieth day thereafter (Register 84, No. 41).
2. Repealer filed 5-24-91; effective 7-1-91 (Register 91, No. 22).

§ 66013. Bodily Injury.

NOTE: Authority cited: Section 208, Health and Safety Code. Reference: Sections 25245 and 25246, Health and Safety Code.

HISTORY

1. New section filed 1-3-85; effective thirtieth day thereafter (Register 85, No. 2).
2. Repealer filed 5-24-91; effective 7-1-91 (Register 91, No. 22).

§ 66015. Cargo Tank.

NOTE: Authority cited: Sections 208, 25150 and 25168.1, Health and Safety Code. Reference: Sections 25163(d), 25168, 25168.2, 25168.3 and 25169.1, Health and Safety Code.

HISTORY

1. New section filed 10-6-81 as an emergency; effective upon filing (Register 81, No. 42). A Certificate of Compliance must be transmitted to OAL within 120 days or emergency language will be repealed on 2-3-82.
2. Certificate of Compliance transmitted to OAL 2-2-82 and filed 3-8-82 (Register 82, No. 11).
3. Repealer filed 5-24-91; effective 7-1-91 (Register 91, No. 22).

in 90 days from the date the information was requested. However, that person may request in writing an extension, up to 90 days, within which the information shall be submitted or the notification shall be considered disapproved.

(f) If a person wishes to classify and manage as nonhazardous a waste which would otherwise be a non-RCRA hazardous waste because it has mitigating physical or chemical characteristics which render it insignificant as a hazard to human health and safety, livestock and wildlife, that person shall apply to the Department for its approval to classify and manage the waste as nonhazardous. The application for approval shall include the information required by section 66260.200(m). The Department, within 30 days of receipt of the application, shall acknowledge in writing receipt of the application. Pending written approval by the Department, the applicant shall manage the waste as hazardous waste. Within 60 days of receipt of an application, the Department shall notify the applicant in writing that the application for classification and management of the waste as nonhazardous is approved, disapproved, or that the application is incomplete or inadequate and what additional information is needed. Upon receipt of the additional information, the Department, within 60 days of receipt of the additional information, shall notify the applicant in writing that the application for classification and management of the waste as nonhazardous is approved or disapproved. The application shall be considered disapproved if the applicant fails to provide the additional information in writing 90 days from the date the information was requested. However, the applicant may request, in writing, an extension up to 90 days, within which the information shall be submitted or the application shall be considered disapproved.

(g) The Department may find that the notification submitted by a person pursuant to section 66260.200(d) or the application submitted pursuant to section 66260.200(f) is incomplete or inadequate for reasons which may include any of the following:

(1) the application is not complete or there is insufficient information on which to classify the waste; or

(2) the methods used in testing or analyzing the waste are not those prescribed in chapter 11 of this division, or have not been approved by the Department pursuant to section 66260.21(a) as alternative methods; or

(3) sampling and sample management were not in accord with Appendix I of chapter 11 and Table 3 of Appendix III of chapter 11; or

(4) representative samples of the waste are required pursuant to section 66260.200(k) in order that the Department may independently assess the properties of the waste.

(h) If the Department disapproves of a person's determination that a waste is nonhazardous or a person's application to manage as nonhazardous a waste which would otherwise be a non-RCRA hazardous waste, the Department shall give in writing the reason for the disapproval.

(i) If the Department at any time finds that the information submitted or generated for a determination pursuant to section 66260.200(c), a concurrence pursuant to section 66260.200(d) or an approval pursuant to 66260.200(f) was erroneous for any of the following reasons, the Department may notify that person in writing of the deficiencies:

(1) the results given in the laboratory report or other submitted data demonstrate that the waste is hazardous pursuant to the criteria given in chapter 11 of this division; or

(2) fraudulently derived information is utilized or included; or

(3) analysis or testing of the waste performed by the Department or other agencies or information available to the Department demonstrates that the waste is hazardous according to the criteria given in chapter 11 of this division.

(j) A waste person, upon receipt of such notice under section 66260.200(i), shall immediately cease managing the subject waste as a nonhazardous waste and shall manage the waste as hazardous waste.

That person may submit to the Department an amended notification or application. Within 30 days of receipt of an amended notification or application, the Department shall acknowledge in writing receipt of the amended notification or application. Within 60 days of receipt of an

amended notification or application, the Department shall notify the sender of the notification or the applicant in writing that the notification or application is approved, disapproved, or that the notification or application is incomplete or inadequate and what additional information is needed. Upon receipt of the additional information, the Department, within 60 days of receipt of the additional information, shall notify the sender of the notification or the applicant in writing that the notification or application is approved or disapproved. The notification or application shall be considered disapproved if the additional information is not provided within 90 days from the date the information was requested. However, the sender of the notification or the applicant may request in writing an extension, up to 90 days, within which the information shall be submitted or the notification or application shall be considered disapproved.

(k) Not later than 60 days after receipt of an adequate notification or application under section 66260.200(d) or (f), the Department may request representative samples of wastes. The sender of the notification or the applicant shall maintain representative samples for that period of time. The quantity of sample submitted shall be adequate to conduct verification tests. Samples shall be collected, packaged, transported and stored in accordance with the sample management procedures in "Test Methods for Evaluating Solid Waste, Physical and Chemical Methods" (SW-846), Third Edition, incorporated by reference in section 66260.11.

(l) If the waste changes so that the prior notification or application as nonhazardous no longer adequately assesses the waste by the criteria which may render it hazardous, the waste shall be managed as hazardous.

(m) A person seeking Department concurrence with a nonhazardous determination or approval to classify and manage as nonhazardous a waste which would otherwise be a non-RCRA hazardous waste shall supply the following information to the Department:

(1) name, mailing and billing address, location, contact person and phone number for the generating facility;

(2) A description of the waste including a physical description, quantities produced per unit time, a detailed description of the generating process and current waste disposal method;

(3) information on the sampling of the waste including the name and address of the firm sampling the waste, the name(s) of the person(s) sampling the waste, dates and locations of sample collection and a description of the sampling methodology and sample handling and preservation procedures;

(4) testing laboratory information including the name, address, and certification number of the testing laboratory, the test methods used and references for locating these methods, the name(s) and qualifications of the person(s) testing the waste, the method for preparation of laboratory samples from field samples and information needed to identify each sample;

(5) laboratory results including results from all tests required by chapter 11 of this division and a listing of the waste's constituents. Results shall include analyses from a minimum of four representative samples as specified in chapter 9 of "Test Methods for Evaluating Solid Waste, Physical/Chemical Methods," SW-846, 3rd Edition, U.S. Environmental Protection Agency, 1986 (incorporated by reference in section 66260.11 of this chapter);

(6) certification of the veracity of the information submitted, signed and dated by a person who is the responsible manager of the facility.

(n) Notwithstanding the timeframes specified above, the Department shall not notify the applicant of the Department's decision regarding a notification submitted pursuant to subsection (d) of this section or an application submitted pursuant to subsection (f) of this section until the California Board of Equalization receives the fee assessed pursuant to Health and Safety Code section 25205.8.

NOTE: Authority cited: Sections 208, 25141 and 25150, Health and Safety Code and Section 15376, Government Code. Reference: Sections 25205.8, 25141 and 25143, Health and Safety Code and Section 15376, Government Code.

HISTORY

1. New section filed 5-24-91; effective 7-1-91 (Register 91, No. 22).

§ 66260.210. Variances.

(a) The department may grant a variance from one or more of the requirements of this division and chapter 6.5 of division 20 of the Health and Safety Code pursuant to Health and Safety Code section 25143.

(b) The Department shall within 60 calendar days after receipt of an application for a variance inform the applicant in writing that the application is complete and accepted for filing, or that the application is incomplete and what specific information is required for the application to be submitted in complete form. The Department shall, within 60 days of determining that an application is complete, inform the applicant in writing that a variance is granted or denied.

(c) If the variance requested is denied, the Department shall provide to the applicant in writing the reason for the denial.

NOTE: Authority cited: Sections 208, 25141 and 25150, Health and Safety Code and Section 15376, Government Code. Reference: Sections 25141 and 25143, Health and Safety Code and Section 15376, Government Code.

HISTORY

1. New section added 5-24-91; effective 7-1-91 (Register 91, No. 22).

Chapter 11. Identification and Listing of Hazardous Waste

Article 1. General

§ 66261.1. Purpose and Scope.

(a) This chapter identifies those wastes which are subject to regulation as hazardous wastes under this division and which are subject to the notification requirements of Health and Safety Code section 25153.6. In this chapter:

(1) article 1 defines the terms "waste" and "hazardous waste," identifies those wastes which are excluded from regulation under this division, and establishes special management requirements for hazardous waste which is recycled and establishes rules for classifying and managing contaminated containers;

(2) article 2 sets forth the criteria used by the Department to identify characteristics of hazardous waste;

(3) article 3 identifies characteristics of hazardous waste;

(4) article 4 lists particular hazardous wastes;

(5) article 5 identifies categories of hazardous waste including RCRA hazardous waste, non-RCRA hazardous waste, extremely hazardous waste, and special waste, and establishes criteria and management standards for special waste and extremely hazardous waste;

(b)(1) The definition of waste contained in this chapter applies only to wastes that also are hazardous pursuant to this division and chapter 6.5 of division 20 of the Health and Safety Code. It does not apply to materials (such as non-hazardous scrap, paper, textiles, or rubber) that are not otherwise hazardous wastes.

(2) This chapter identifies only some of the materials which are wastes and hazardous wastes for the purposes of Health and Safety Code sections 25185 and 25187.1. A material which is not defined as a waste or identified as a hazardous waste pursuant to this chapter, is still a waste and a hazardous waste for purposes of Health and Safety Code sections 25185 and 25187.1, if the Department has reason to believe that a material may be a waste within the meaning of Health and Safety Code section 25124 and a hazardous waste within the meaning of Health and Safety Code section 25117.

NOTE: Authority cited: Sections 208, 25141, 25150 and 25159, Health and Safety Code. Reference: Sections 25117, 25124, 25141, 25159, 25159.5, 25185 and 25187.1, Health and Safety Code and 40 CFR Section 261.1.

HISTORY

1. New section filed 5-24-91; effective 7-1-91 (Register 91, No. 22).

§ 66261.2. Definition of Waste.

(a) "Waste" means any discarded material of any form (for example, liquid, semi-solid, solid or gaseous) that is not excluded by section 66261.4(a) or that is not excluded by Health and Safety Code section 25143.2(b) or Health and Safety Code section 25143.2(d).

(b) A discarded material is any material which is any of the following:

(1) relinquished as explained in subsection (c) of this section; or

(2) recycled, as explained in subsection (d) of this section; or

(3) considered inherently waste-like, as explained in paragraph (e) of this section.

(c) A material is a waste if it is relinquished by being any of the following:

(1) disposed of;

(2) burned or incinerated;

(3) accumulated, stored or treated, but not recycled, before or in lieu of, being relinquished by being disposed of, burned or incinerated.

(d) A material is a waste if it is recycled, or accumulated, stored or treated before recycling, by being managed:

(1) through being used in a manner constituting disposal:

(A) materials noted with an "*" in column 1 of Table 1 are wastes when they are:

1. applied to or placed on the land in a manner that constitutes disposal; or

2. used to produce products that are applied to or placed on the land or are otherwise contained in products that are applied to or placed on the land (in which cases the product itself is a waste);

(B) however, commercial chemical materials listed in section 66261.33, which are discarded commercial chemical products, off-specification species, container residues, or spill residues thereof, and which are applied to the land and application to the land is their ordinary manner of use are non-RCRA hazardous wastes. Commercial chemical products which are "retrograde materials" as defined in section 66260.10 are not wastes until they become "recyclable materials" pursuant to subsection (e) of the definition of "recyclable materials" in section 66260.10;

(2) through being burned for energy recovery:

(A) materials noted with an "*" in column 2 of Table 1 are wastes when they are:

1. burned to recover energy;

2. used to produce a fuel or are otherwise contained in fuels (in which cases the fuel itself is a waste);

(B) however, commercial chemical materials listed in section 66261.33, which are discarded commercial chemical products, off-specification species, container residues, or spill residues thereof, and which are fuels are non-RCRA hazardous wastes. Commercial chemical products which are "retrograde materials" as defined in section 66260.10 are not wastes until they become "recyclable materials" pursuant to subsection (e) of the definition of "recyclable materials" in section 66260.10;

(3) through being reclaimed: materials noted with an "*" or "***" in column 3 of Table 1 are wastes when reclaimed;

(4) through being accumulated speculatively: materials noted with an "*" or "***" in column 4 of Table 1 are wastes when accumulated speculatively.

TABLE 1

Column	Use Constituting Disposal 66261.2(d)(1) (1)	Energy Recovery/Fuel 66261.2(d)(2) (2)	Reclamation 66261.2(d)(3) (3)	Speculative Accumulation 66261.2(d)(4) (4)
Spent Materials	*	*	*	*
Sludges (listed in section 66261.31 or 66261.32)	*	*	*	*
Sludges exhibiting a characteristic of hazardous waste	*	*	**	*
By-products (listed in section 66261.31 or 66261.32)	*	*	*	*
By-products exhibiting a characteristic of hazardous waste	*	*	**	*
Commercial chemical products (listed in section 66261.33)	*	*	**	**

Note: The terms "spent materials," "sludges," and "by-products" are defined in section 66260.10.

* Except as provided in sections 66261.2(d)(1)(B) and 66261.2(d)(2)(B), a material designated by a single asterisk in Column (1), (2), (3), or (4) is a waste which is not eligible to be classified as a non-RCRA hazardous waste.

** Unless exempt pursuant to Health and Safety Code section 25143.2(d), a material designated with a double asterisk in Column (3) or (4) which is identified as a hazardous waste pursuant to section 66261.3 is a non-RCRA hazardous waste. Commercial chemical products which are "retrograde materials" as defined in section 66260.10 are not wastes until they become "recyclable materials" pursuant to subsection (e) of the definition of "recyclable materials" in section 66260.10.

(c) A material is a waste if it is inherently waste-like when it is recycled. The following materials are wastes when they are recycled: hazardous Waste Nos. F020, F021 (unless used as an ingredient to make a product at the site of generation), F022, F023, F026 and F028.

(f) A material is a waste if it poses a threat to human health or the environment and meets either, or both, of the following:

(1) it is mislabeled or not adequately labeled, unless the material is correctly labeled or adequately labeled within 10 days after the material is discovered to be mislabeled or inadequately labeled;

(2) it is packaged in deteriorated or damaged containers, unless the material is contained in sound or undamaged containers within 96 hours after the containers are discovered to be deteriorated or damaged.

NOTE: Authority cited: Sections 208, 25141, 25150, and 25159, Health and Safety Code. Reference: Sections 25120.5, 25121, 25124, 25143.2, 25159 and 25159.5, Health and Safety Code and 40 CFR Section 261.2.

HISTORY

1. New section filed 5-24-91; effective 7-1-91 (Register 91, No. 22).

§ 66261.3. Definition of Hazardous Waste.

(a) A waste, as defined in section 66261.2, is a hazardous waste if:

(1) it is not excluded from classification as a waste or a hazardous waste under Health and Safety Code section 25143.2(b) or 25143.2(d) or section 66261.4; and

(2) it meets any of the following criteria:

(A) it exhibits any of the characteristics of hazardous waste identified in article 3 of this chapter;

(B) it is listed in article 4 of this chapter and has not been excluded by the USEPA Administrator from 40 CFR Part 261 Subpart D pursuant to 40 CFR sections 260.20 and 260.22;

(C) it is listed in or contains a constituent listed in Appendix X to this chapter. However, the waste is not a hazardous waste if:

1. it is determined that the waste does not meet the criteria of subsection (a)(2)(B) of this section; and

2. it is determined that the waste does not meet the criteria of subsection (a)(2)(A) of this section by:

i. testing the waste according to the methods set forth in article 3 of this chapter, or according to an equivalent method approved by the Department pursuant to section 66260.21; or

ii. applying knowledge of the hazardous properties of the waste in light of the materials or the processes used and the characteristics set forth in article 3 of this chapter;

(D) it is a mixture of a hazardous waste that is listed in article 4 of this chapter other than a hazardous waste listed with hazard code (T) or (H), and another waste, unless the resultant mixture no longer exhibits any characteristic of hazardous waste identified in article 3 of this chapter;

(E) it is a mixture of a waste and one or more hazardous wastes listed in article 4 of this chapter which has not been excluded by the USEPA Administrator from 40 CFR Part 261 Subpart D pursuant to 40 CFR sections 260.20 and 260.22. However, the following mixtures of wastes and hazardous wastes listed in article 4 of this chapter are not hazardous wastes (except by application of subsection (a)(2)(A) or (a)(2)(B) of this section) if the generator can demonstrate that the mixture consists of wastewater, the discharge of which is subject to regulation under either section 402 or section 307(b) of the Clean Water Act (including wastewater at facilities which have eliminated the discharge of wastewater), and:

1. one or more of the following spent solvents listed in section 66261.31 — carbon tetrachloride, tetrachloroethylene, trichloroethylene — provided, that the maximum total weekly usage of these solvents (other than the amounts that can be demonstrated not to be discharged into wastewater) divided by the average weekly flow of wastewater into the headworks of the facility's wastewater treatment or pretreatment system does not exceed 1 part per million; or

2. one or more of the following spent solvents listed in section 66261.31 — methyl chloride, 1,1,1-trichloroethane, chlorobenzene, o-dichlorobenzene, anisols, cresylic acid, nitrobenzene, toluene, methyl ethyl ketone, carbon disulfide, isobutanol, pyridine, spent chlorofluorocarbon solvents — provided that the maximum total weekly usage of these solvents (other than the amounts that can be demonstrated not to be discharged to wastewater) divided by the average weekly flow of wastewater into the headworks of the facility's wastewater treatment or pretreatment system does not exceed 25 parts per million; or

3. heat exchanger bundle cleaning sludge from the petroleum refining industry (EPA Hazardous Waste No. K050); or

4. a discarded commercial chemical product, or chemical intermediate listed in section 66261.33 arising from "de minimis" losses of these materials from manufacturing operations in which these materials are used as raw materials or are produced in the manufacturing process. For purposes of this subsection, "de minimis" losses include those from normal material handling operations, e.g., spills from the unloading or transfer of materials from bins or other containers, leaks from pipes, valves or other devices used to transfer materials; minor leaks of process equipment, storage tanks or containers; leaks from well-maintained pump packings and seals; sample purgings; relief device discharges; discharges from safety showers and rinsing and cleaning of personal safety equipment; and rinsate from empty containers or from containers that are rendered empty by that rinsing;

5. wastewater resulting from laboratory operations containing toxic (T) wastes listed in article 4 of this chapter, provided that the annualized average flow of laboratory wastewater does not exceed one percent of total wastewater flow into the headworks of the facility's wastewater treatment or pretreatment system, or provided the wastes, combined annualized average concentration does not exceed one part per million in the headworks of facility's wastewater treatment or pretreatment facility. Toxic (T) wastes used in laboratories that are demonstrated not to be discharged to wastewater are not to be included in this calculation;

(F) it is not classified as a hazardous waste by application of the criteria in subsections (a)(2)(A) through (a)(2)(E) of this section, but has been classified as a hazardous waste by the Department because it otherwise conforms to the definition of hazardous waste set forth in Health and Safety Code section 25117.

(b) A waste which is not excluded from classification as a waste or hazardous waste under the provisions of section 66261.4(b) or Health and Safety Code section 25143.2(b) or 25143.2(d) becomes a hazardous waste when any of the following events occur:

(1) in the case of a waste listed in article 4 of this chapter, when the waste first meets the listing description set forth in article 4 of this chapter;

(2) in the case of a mixture of waste and one or more hazardous wastes listed in article 4 of this chapter, when the hazardous waste listed in article 4 of this chapter is first added to the waste.

(3) In the case of any other waste (including a waste mixture), when the waste exhibits any of the characteristics identified in article 3 of this chapter.

(c)(1) A hazardous waste will remain a hazardous waste unless and until it meets the criteria of subsection (d) of this section. Except as otherwise provided in subsection (c)(2) of this section, any waste generated from the treatment, storage, or disposal of a hazardous waste, including any sludge, spill residue, ash, emission control dust or leachate including precipitation run-off is a hazardous waste. (However, materials that are reclaimed from wastes and that are used beneficially are not wastes and hence are not hazardous wastes under this provision unless the reclaimed material is burned for energy recovery or used in a manner constituting disposal.)

(c)(2) Waste pickle liquor sludge generated by lime stabilization of spent pickle liquor from the iron and steel industry (SIC Codes 331 and 332) is not hazardous even though it is generated from the treatment, stor-

age, or disposal of a hazardous waste, unless it exhibits one or more of the characteristics of hazardous waste.

(d) Except as provided in subsection (e) of this section, any waste described in subsection (c) of this section is not a hazardous waste if it meets both of the following criteria:

(1) the waste does not exhibit any of the characteristics of hazardous waste identified in article 3 of this chapter; and

(2) in the case of a waste which is a waste listed in article 4 of this chapter, contains a waste listed under article 4 of this chapter or is derived from a waste listed in article 4 of this chapter (but not including precipitation run off), the waste also has been excluded by the USEPA Administrator from the lists of hazardous wastes in 40 CFR Part 261 Subpart D pursuant to 40 CFR sections 260.20 and 260.22.

NOTE: Authority cited: Sections 208, 25141, 25150 and 25159, Health and Safety Code. Reference: Sections 25117, 25141, 25159 and 25159.5, Health and Safety Code and 40 CFR Section 261.3.

HISTORY

1. New section filed 5-24-91; effective 7-1-91 (Register 91, No. 22).

§ 66261.4. Exclusions.

(a) Materials which are not wastes. The following materials are not wastes for the purpose of this chapter:

(1) industrial wastewater discharges that are point source discharges subject to regulation under section 402 of the federal Clean Water Act, as amended (33 U.S.C. section 1342). This exclusion applies only to the actual point source discharge. It does not exclude industrial wastewaters while they are being collected, stored or treated before discharge, nor does it exclude sludges that are generated by industrial wastewater treatment;

(2) source, special nuclear or by-product material as defined by the federal Atomic Energy Act of 1954, as amended, (42 U.S.C. section 2011 et seq);

(3) spent sulfuric acid used to produce virgin sulfuric acid, unless it is accumulated speculatively as defined in section 66260.10.

(b) Wastes which are not hazardous wastes. The following wastes are not hazardous wastes:

(1) infectious waste which consists solely of the carcasses of animals, which is not otherwise hazardous, and which is handled, stored and disposed of according to all applicable requirements established by the Department of Food and Agriculture pursuant to provisions of chapter 1, part 1, division 5 (commencing with section 9101) and of chapter 5, part 3, division 9 (commencing with section 19200) of the Food and Agricultural Code;

(2) materials which are exempted or excluded from classification as solid waste or hazardous waste pursuant to 40 CFR section 261.4 if they do not exhibit a characteristic of a hazardous waste as set forth in article 3 of this chapter;

(c) hazardous wastes which are exempted from certain regulations. A hazardous waste which is generated in a product or raw material storage tank, a product or raw material transport vehicle or vessel, a product or raw material pipeline, or in a manufacturing process unit or an associated non-waste-treatment-manufacturing unit, is not subject to regulation under this division or to the notification requirements of Health and Safety Code section 25153.6 until it exits the unit in which it was generated, unless the unit is a surface impoundment, or unless the hazardous waste remains in the unit more than 90 days after the unit ceases to be operated for manufacturing, or for storage or transportation of product or raw materials;

(d) samples;

(1) except as provided in subsection (d)(2) of this section, a sample of solid waste or a sample of water, soil, or air, which is collected for the sole purpose of testing to determine its characteristics or composition, is not subject to any requirements of this division or to the notification requirements of Health and Safety Code section 25153.6 when:

(b) A container, or an inner liner removed from a container, which previously held a hazardous waste or a hazardous material is empty if it meets the criteria below:

(1) The container or the inner liner removed from a container is empty as defined in 40 CFR section 261.7(b) (revised as of 7/1/90), and

(2) The container or the inner liner removed from a container has been emptied by the generator as much as possible using methods commonly employed to remove waste or material from containers or inner liners, so that:

(A) If the material which the container or inner liner held is pourable, no material can be poured or drained from the container or inner liner when the container or inner liner is held in any orientation (e.g., tilted, inverted, etc.); or

(B) If the material which the container or inner liner held is not pourable, no material or waste remains in the container or inner liner that can feasibly be removed by scraping and chipping.

(c) To qualify for exemption under this section, an empty container or an inner liner removed from a container must be managed by one of the following methods:

(1) For a container of five gallons or less in capacity, or inner liner removed from a container of five gallons or less in capacity, by puncturing, shredding, crushing, or otherwise changing the container or inner liner to prevent subsequent use or reuse, and disposing of it at a solid waste facility, so long as the container or inner liner is packaged and transported in accordance with applicable U.S. Department of Transportation regulations; or

(2) For any container or inner liner, by puncturing, shredding, crushing, or otherwise changing the container or inner liner to prevent subsequent use or reuse, and reclaiming its scrap value onsite or shipping the container or inner liner to a person who reclaims its scrap value, so long as the container or inner liner is packaged and transported in accordance with applicable U.S. Department of Transportation regulations; or

(3) For any container or inner liner, by reconditioning or remanufacturing the container or inner liner onsite pursuant to 49 CFR section 173.28 (c) and (d) (revised at 55 FR 52402 - 52729) for subsequent reuse, or shipping the container or inner liner to a person who reconditions or remanufactures the container or inner liner pursuant to 49 CFR section 173.28 (c) and (d) (revised at 55 FR 52402 - 52729).

(d) Except as provided in subsections (f)(2) and (f)(3) of this section, emptied household hazardous material and pesticide containers of one gallon or less in capacity, which are drained until there is no continuous flow of liquid, are not subject to the provisions of this chapter.

(e) Except as provided in subsection (f), a compressed gas cylinder is exempt from regulation under this chapter and chapter 6.5 of division 20 of the Health and Safety Code when the pressure in the container approaches atmospheric pressure if the container is handled and reused in compliance with applicable State and federal law.

(f) The following containers are not exempt from regulation under this chapter or chapter 6.5 of division 20 of the Health and Safety Code pursuant to this section:

(1) Containers made of wood, paper, cardboard, fabric, or any other similarly absorptive material if the container was in direct contact with a hazardous waste or a hazardous material;

(2) Spent aerosol containers;

(3) Compressed gas cylinders which cannot be reused or whose reuse is prohibited.

(g) Any container, or inner liner removed from a container, which previously held a hazardous waste or hazardous material and which is not empty as defined in subsection (b) of this section, or otherwise exempt from regulation as a hazardous waste under this chapter or chapter 6.5 of division 20 of the Health and Safety Code (commencing with section 25100), shall be managed as a hazardous waste in accordance with this chapter and chapter 6.5 of division 20 of the Health and Safety Code

(commencing with section 25100).

NOTE: Authority cited: Sections 208, 25141, and 25150, Health and Safety Code. Reference: Sections 25141, 25150, 25159.5, and 25143.2(d), Health and Safety Code; 40 CFR Section 261.7.

HISTORY

1. Renumbering and amendment of former section 66730 to section 66261.7(a)-(g) and new subsection (h) filed 5-24-91; operative 7-1-91 (Register 91, No. 22). A Certificate of Compliance must be transmitted to OAL by 6-28-91 or emergency language, subsections (a)-(g) will be repealed by operation of law on the following day.

2. New section refiled 6-28-91 as an emergency; operative 6-28-91 (Register 91, No. 41). A Certificate of Compliance must be transmitted to OAL by 10-28-91 or emergency language will be repealed by operation of law on the following day.

Article 2. Criteria for Identifying the Characteristics of Hazardous Waste

§ 66261.10. Criteria for Identifying the Characteristics of Hazardous Waste.

(a) The Department shall identify and define a characteristic of hazardous waste in article 3 of this chapter only upon determining that:

(1) a waste that exhibits the characteristic may:

(A) cause, or significantly contribute to, an increase in mortality or an increase in serious irreversible, or incapacitating reversible, illness; or

(B) pose a substantial present or potential hazard to human health or the environment when it is improperly treated, stored, transported, disposed of or otherwise managed; and

(2) the characteristic can be:

(A) measured by an available standardized test method which is reasonably within the capability of generators of waste or private sector laboratories that are certified by the Department pursuant to Chapter 44 of this division and available to serve generators of waste; or

(B) reasonably detected by generators of waste through their knowledge of their waste.

NOTE: Authority cited: Sections 208, 25141 and 25159, Health and Safety Code. Reference: Sections 25117, 25141, 25159 and 25159.5, Health and Safety Code and 40 CFR Section 261.10.

HISTORY

1. New section filed 5-24-91; effective 7-1-91 (Register 91, No. 22).

Article 3. Characteristics of Hazardous Waste

§ 66261.20. General.

(a) A waste, as defined in section 66261.2, which is not excluded from regulation as a hazardous waste pursuant to section 66261.4(b), is a hazardous waste if it exhibits any of the characteristics identified in this article.

(b) A waste which is identified as a hazardous waste pursuant to one or more of the characteristics set forth in section 66261.21, 66261.22(a)(1), 66261.22(a)(2), 66261.23 or 66261.24(a)(1) is assigned the EPA Hazardous Waste Number set forth in this article for each characteristic that is applicable to that waste. These numbers shall be used in complying with the notification requirements of Health and Safety Code section 25153.6 and, where applicable, in the recordkeeping and reporting requirements under chapters 12 through 15, 18 and 20 of this division.

(c) Sampling and sample management of wastes and other materials for analysis and testing pursuant to this article shall be in accord with the sampling planning, methodology and equipment, and the sample processing, documentation and custody procedures specified in chapter nine of "Test Methods for Evaluating Solid Waste, Physical/Chemical Methods," SW-846, 3rd edition, U.S. Environmental Protection Agency, 1986 (incorporated by reference, see section 66260.11 of this chapter).

In addition to the sampling methods in chapter nine of SW-846, the Department will consider samples obtained using any of the other applicable sampling methods specified in Appendix I of this chapter to be representative samples.

NOTE: Authority cited: Sections 208, 25141 and 25159, Health and Safety Code. Reference: Sections 25141, 25159 and 25159.5, Health and Safety Code and 40 CFR Section 261.20.

HISTORY

1. New section filed 5-24-91; effective 7-1-91 (Register 91, No. 22).

§ 66261.21. Characteristic of Ignitability.

(a) A waste exhibits the characteristic of ignitability if representative samples of the waste have any of the following properties:

(1) it is a liquid, other than an aqueous solution containing less than 24 percent alcohol by volume, and has a flash point less than 60°C (140°F), as determined by a Pensky-Martens Closed Cup Tester, using the test method specified in ASTM Standard D-93-79 or D-93-80 (incorporated by reference, see section 66260.11), or a Setaflash Closed Cup Tester, using the test method specified in ASTM Standard D-3278-78 (incorporated by reference, see section 66260.11), or as determined by an equivalent test method approved by the Department pursuant to section 66260.21;

(2) it is not a liquid and is capable, under standard temperature and pressure, of causing fire through friction, absorption of moisture or spontaneous chemical changes and, when ignited, burns so vigorously and persistently that it creates a hazard;

(3) it is an ignitable compressed gas as defined in 49 CFR section 173.300 (as amended September 30, 1982) and as determined by the test methods described in that regulation or equivalent test methods approved by the Department pursuant to section 66260.21;

(4) it is an oxidizer as defined in 49 CFR section 173.151 (as amended May 31, 1979).

(b) A waste that exhibits the characteristic of ignitability has the EPA Hazardous Waste Number of D001.

NOTE: Authority cited: Sections 208, 25141 and 25159, Health and Safety Code. Reference: Sections 25117, 25120.2, 25141, 25159 and 25159.5, Health and Safety Code and 40 CFR Section 261.21.

HISTORY

1. New section filed 5-24-91; effective 7-1-91 (Register 91, No. 22).

§ 66261.22. Characteristic of Corrosivity.

(a) A waste exhibits the characteristic of corrosivity if representative samples of the waste have any of the following properties:

(1) it is aqueous and has a pH less than or equal to 2 or greater than or equal to 12.5, as determined by a pH meter using either the EPA test method for pH or an equivalent test method approved by the Department pursuant to section 66260.21. The EPA test method for pH is specified as Method 9040 in "Test Methods for Evaluating Solid Waste, Physical/Chemical Methods," SW-846, 3rd edition, U.S. Environmental Protection Agency, 1986 (incorporated by reference, see section 66260.11);

(2) it is a liquid and corrodes steel (SAE 1020) at a rate greater than 6.35 mm (0.250 inch) per year at a test temperature of 55°C (130°F) as determined by the test method specified in NACE Standard TM-01-69 as standardized in "Test Methods for Evaluating Solid Waste, Physical/Chemical Methods," SW-846, 3rd edition, U.S. Environmental Protection Agency, 1986 (incorporated by reference, see section 66260.11) or an equivalent test method approved by the Department pursuant to section 66260.21;

(3) it is not aqueous and, when mixed with an equivalent weight of water, produces a solution having a pH less than or equal to 2 or greater than or equal to 12.5, as determined by a pH meter using either Method 9040 in "Test Methods for Evaluating Solid Waste, Physical/Chemical Methods," SW-846, 3rd edition, U.S. Environmental Protection Agency, 1986 (incorporated by reference, see section 66260.11) or an equivalent test method approved by the Department pursuant to 66260.21;

(4) it is not a liquid and, when mixed with an equivalent weight of water, produces a liquid that corrodes steel (SAE 1020) at a rate greater than

6.35 mm (0.250 inch) per year at a test temperature of 55°C (130°F) as determined by the test method specified in NACE Standard TM-01-69 as standardized in "Test Methods for Evaluating Solid Waste, Physical/Chemical Methods," SW-846, 3rd edition, U.S. Environmental Protection Agency, 1986 (incorporated by reference, see section 66260.11) or an equivalent test method approved by the Department pursuant to 66260.21.

(b) A waste that exhibits the characteristic of corrosivity specified in subsection (a)(1) or (a)(2) of this section has the EPA Hazardous Waste Number of D002.

NOTE: Authority cited: Sections 208, 25141 and 25159, Health and Safety Code. Reference: Sections 25117, 25120.2, 25141, 25159 and 25159.5, Health and Safety Code and 40 CFR Section 261.22.

HISTORY

1. New section filed 5-24-91; effective 7-1-91 (Register 91, No. 22).

§ 66261.23. Characteristic of Reactivity.

(a) A waste exhibits the characteristic of reactivity if representative samples of the waste have any of the following properties:

(1) it is normally unstable and readily undergoes violent change without detonating;

(2) it reacts violently with water;

(3) it forms potentially explosive mixtures with water;

(4) when mixed with water, it generates toxic gases, vapors or fumes in a quantity sufficient to present a danger to human health or the environment;

(5) it is a cyanide or sulfide bearing waste which, when exposed to pH conditions between 2 and 12.5, can generate toxic gases, vapors or fumes in a quantity sufficient to present a danger to human health or the environment;

(6) it is capable of detonation or explosive reaction if it is subjected to a strong initiating source or if heated under confinement;

(7) it is readily capable of detonation or explosive decomposition or reaction at standard temperature and pressure;

(8) it is a forbidden explosive as defined in 49 CFR section 173.51 (as amended April 20, 1987), or a Class A explosive as defined in 49 CFR section 173.53 (as amended April 5, 1967) or a Class B explosive as defined in 49 CFR section 173.88 (as amended May 19, 1980).

(b) A waste that exhibits the characteristic of reactivity has the EPA Hazardous Waste Number of D003.

NOTE: Authority cited: Sections 208, 25141 and 25159, Health and Safety Code. Reference: Sections 25117, 25120.2, 25141, 25159 and 25159.5, Health and Safety Code and 40 CFR Section 261.23.

HISTORY

1. New section filed 5-24-91; effective 7-1-91 (Register 91, No. 22).

§ 66261.24. Characteristic of Toxicity.

(a) A waste exhibits the characteristic of toxicity if representative samples of the waste have any of the following properties:

(1) when using the Toxicity Characteristic Leaching Procedure (TCLP) in Appendix I of chapter 18 of this division or equivalent methods approved by the Department under the procedures set forth in section 66260.21, the extracts from representative samples of the waste contain any of the contaminants listed in Table I of this section at a concentration equal to or greater than the respective value given in that table unless the waste is excluded from classification as a solid waste or hazardous waste or is exempted from regulation pursuant to 40 CFR section 261.4. Where the waste contains less than 0.5 percent filterable solids, the waste itself, after filtering, is considered to be the extract for the purposes of this section;

(A) a waste that exhibits the characteristic of toxicity pursuant to subsection (a)(1) of this section has the EPA Hazardous Waste Number specified in Table I of this section which corresponds to the toxic contaminant causing it to be hazardous;

(B) Table I—Maximum Concentration of Contaminants for the Toxicity Characteristic:

Common Name	Chemical Abstracts Name	Chemical Abstracts No.	EPA Haz. Waste No.	Common Name	Chemical Abstracts Name	Chemical Abstracts No.	EPA Haz. Waste No.
Silver compounds, N.O.S. ¹				Trichloromonofluoromethane	Methane, trichlorofluoromethane	75-69-4	U121
Silver cyanide	Silver cyanide Ag(CN)	506-64-9	P104	2,4,5-Trichlorophenol	Phenol, 2,4,5-trichloro-	95-95-4	See F027
Silvex (2,4,5-TP)	Propanoic acid, 2-(2,4,5-trichlorophenoxy)-	93-72-1	Sec F027	2,4,6-Trichlorophenol	Phenol, 2,4,6-trichloro-	88-06-2	See F027
Sodium cyanide	Sodium cyanide Na(CN)	143-33-9	P106	2,4,5-T	Acetic acid, (2,4,5-trichlorophenoxy)-	93-76-5	See F027
Streptozotocin	D-Glucose, 2-deoxy-2-[[[(methylnitrosoamino)carbonyl]amino]-	18883-66-4	U206	Trichloropropane, N.O.S. ¹		25735-29-9	
Strontium sulfide	Strontium sulfide SrS	1314-96-1	P107	1,2,3-Trichloropropane	Propane, 1,2,3-trichloro-	96-18-4	
Strychnine	Strychnidin-10-one	57-24-9	P108	O,O,O-Triethyl phosphorothioate	Phosphorothioic acid, O,O,O-triethyl ester	126-68-1	
Strychnine salts			P108	1,3,5-Trinitrobenzene	Benzene, 1,3,5-trinitro	99-35-4	U234
TCDD	Dibenzo[b,e][1,4]dioxin, 2,3,7,8-tetrachloro-	1746-01-6		Tris(1-aziridinyl) phosphine sulfide	Aziridine, 1,1',1'-phosphinothioylidynetris-	52-24-4	
1,2,4,5-Tetrachlorobenzene	Benzene, 1,2,4,5-tetrachloro	95-94-3	U207	Tris(2,3-dibromopropyl) phosphate	1-Propanol, 2,3-dibromo-, phosphate (3:1)	126-72-7	U235
Tetrachlorodibenzo-p-dioxins				Trypan blue	2,7-Naphthalenedisulfonic acid, 3,3'-[(3,3'-dimethyl[1,1'-biphenyl]-4,4'-diyl)bis(azo)]bis[5-amino-4-hydroxy-, tetrasodium salt]	72-57-1	U236
Tetrachlorodibenzo-furans				Uracyl mustard	2,4-(1H,3H)-Pyrimidine-dione, 5-[bis(2-chloroethyl)amino]-	66-75-1	U237
Tetrachloroethane, N.O.S. ¹	Ethane, tetrachloro-, N.O.S.	25322-20-7		Vanadium pentoxide	Vanadium oxide V ₂ O ₅	1314-62-1	P120
1,1,1,2-Tetrachloroethane	Ethane, 1,1,1,2-tetrachloro	630-20-6	U208	Vinyl chloride	Ethene, chloro-	75-01-4	U043
1,1,2,2-Tetrachloroethane	Ethane, 1,1,2,2-tetrachloro	79-34-5	U209	Warfarin	2H-1-Benzopyran-2-one, 4-hydroxy-3-(3-oxo-1-phenylbutyl)-, when present at concentrations of 0.3 or less	81-81-2	U248
Tetrachloroethylene	Ethene, tetrachloro-	127-18-4	U210	Warfarin	2H-1-Benzopyran-2-one, 4-hydroxy-3-(3-oxo-1-phenylbutyl)-, when present at concentrations greater than 0.3	81-81-2	P001
2,3,4,6-Tetrachlorophenol	Phenol, 2,3,4,6-tetrachloro-	58-90-2	See F027	Warfarin salts when present at concentrations of 0.3% or less			U248
Tetraethylthiopyrophosphate	Thiodiphosphoric acid, tetraethyl ester	3689-24-5	P109	Warfarin salts when present at concentrations greater than 0.3			P001
Tetranitromethane	Methane, tetranitro-	509-14-8	P112	Zinc cyanide	Zinc cyanide Zn(CN) ₂	557-21-1	P121
Thallium	Same	7440-28-0		Zinc phosphide	Zinc phosphide Zn ₃ P ₂ , when present at concentrations greater than 10	1314-84-7	P122
Thallium compounds, N.O.S. ¹				Zinc phosphide	Zinc phosphide Zn ₃ P ₂ , when present at concentrations of 10% or less	1314-84-7	U249
Thallic oxide	Thallium oxide Tl ₂ O ₃	1314-32-5	P113				
Thallium (I) acetate	Acetic acid, thallium (1+) salt	563-68-8	U214				
Thallium (I) carbonate	Carbonic acid, dithallium (1+) salt	6533-73-9	U215				
Thallium (I) chloride	Thallium chloride TlCl	7791-12-0	U216				
Thallium (I) nitrate	Nitric acid, thallium (1+) salt	10102-45-1	U217				
Thallium selenite	Selenious acid, dithallium (1+) salt	12039-52-0	P114				
Thallium (I) sulfate	Sulfuric acid, dithallium (1+) salt	7446-18-6	P115				
Thioacetamide	Ethanethioamide	62-55-5	U218				
Thiofanox	2-Butanone, 3,3-dimethyl-1-(methylthio)-, O-[(methylamino)carbonyl]oxime	39196-18-4	P045				
Thiomethanol	Methanethiol	74-93-1	U153				
Thiophenol	Benzenethiol	108-98-5	P014				
Thiosemicarbazide	Hydrazinecarbothioamide	79-19-6	P116				
Thiourea	Same	62-56-6	U219				
Thiram	Thioperoxydicarbonic diamide [(H ₂ N)C(S)] ₂ S ₂ , tetramethyl-	137-26-8	U244				
Toluene	Benzene, methyl-	108-88-3	U220				
Toluenediamine	Benzenediamine, <i>m</i> -methyl-	25376-45-8	U221				
Toluene-2,4-diamine	1,3-Benzenediamine, 4-methyl	95-80-7					
Toluene-2,6-diamine	1,3-Benzenediamine, 2-methyl	823-40-5					
Toluene-3,4-diamine	1,2-Benzenediamine, 4-methyl	496-72-0					
Toluene diisocyanate	Benzene, 1,3-diisocyanato-methyl-	26471-62-5	U223				
o-Toluidine	Benzenamine, 2-methyl-	95-53-4	U328				
o-Toluidine hydrochloride	Benzenamine, 2-methyl-, hydrochloride	636-21-5	U222				
p-Toluidine	Benzenamine, 4-methyl	106-49-0	U353				
Toxaphene	Same	8001-35-2	P123				
1,2,4-Trichlorobenzene	Benzene, 1,2,4-trichloro	120-82-1					
1,1,2-Trichloroethane	Ethane, 1,1,2-trichloro	79-00-5	U227				
Trichloroethylene	Ethene, trichloro	79-01-6	U228				
Trichloromethanethiol	Methanethiol, trichloro-	75-70-7	P118				

¹The abbreviation N.O.S. (not otherwise specified) signifies those members of the general class not specifically listed by name in this appendix.

NOTE: Authority cited: Sections 208, 25140 and 25159, Health and Safety Code. Reference: Sections 25140 and 25159, Health and Safety Code and 40 CFR Part 261 Appendix VIII.

HISTORY

1. New section filed 5-24-91; effective 7-1-91 (Register 91, No. 22).

Appendix X

List of Chemical Names and Common Names for Hazardous Wastes and Hazardous Materials

(a) This subdivision sets forth a list of chemicals which create a presumption that a waste is a hazardous waste. If a waste consists of or contains a chemical listed in this subdivision, the waste is presumed to be a hazardous waste unless it is determined that the waste is not a hazardous waste pursuant to the procedures set forth in section 66262.11. The hazardous characteristics which serve as a basis for listing the chemicals are

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indicated in the list as follows: (X) toxic, (C) corrosive, (I) ignitable and (R) reactive. A chemical denoted with an asterisk is presumed to be an extremely hazardous waste unless it does not exhibit any of the criteria set forth in section 66261.110 and section 66261.113. Trademark chemical names are indicated by all capital letters.

1. Acetaldehyde (X,I)
2. Acetic acid (X,C,I)
3. Acetone, Propanone (I)
4. Acetone cyanohydrin (X)
5. Acetonitrile (X,I)
6. * 2-Acetylaminofluorene, 2-AAF (X)
7. Acetyl benzoyl peroxide (X,I,R)
8. * Acetyl chloride (X,C,R)
9. Acetyl peroxide (X,I,R)
10. Acridine (X)
11. * Acrolein, Aqualin (X,I)
12. * Acrylonitrile (X,I)
13. * Adiponitrile (X)
14. * Aldrin; 1,2,3,4,10,10-Hexachloro-1,4,4a,5,8,8a-hexahydro-1,4,5,8-endo-exodimethanonaphthalene (X)
15. * Alkyl aluminum chloride (C,I,R)
16. * Alkyl aluminum compounds (C,I,R)
17. Allyl alcohol, 2-Propen-1-ol (X,I)
18. Allyl bromide, 3-Bromopropene (X,I)
19. Allyl chloride, 3-Chloropropene (X,I)
20. Allyl chlorocarbonate, Allyl chloroformate (X,I)
21. * Allyl trichlorosilane (X,C,I,R)
22. Aluminum (powder) (I)
- 23A. Aluminum chloride (X,C)
- 23B. * Aluminum chloride (anhydrous) (X,C,R)
24. Aluminum fluoride (X,C)
25. Aluminum nitrate (X,I)
26. * Aluminum phosphide, PHOSTOXIN (X,I,R)
27. * 4-Aminodiphenyl, 4-ADP (X)
28. * 2-Aminopyridine (X)
29. * Ammonium arsenate (X)
30. * Ammonium bifluoride (X,C)
31. Ammonium chromate (X,I)
32. Ammonium dichromate, Ammonium bichromate (X,C,I)
33. Ammonium fluoride (X,C)
34. Ammonium hydroxide (X,C)
35. Ammonium molybdate (X)
36. Ammonium nitrate (I,R)
37. Ammonium perchlorate (I,R)
38. Ammonium permanganate (X,I,R)
39. Ammonium persulfate (I,R)
40. Ammonium picrate (I,R)
41. Ammonium sulfide (X,C,I,R)
42. n-Amyl acetate, 1-Acetoxypentane (and isomers) (X,I)
43. n-Amylamine, 1-Aminopentane (and isomers) (X,I)
44. n-Amyl chloride, 1-Chloropentane (and isomers) (X,I)
45. n-Amylene, 1-Pentene (and isomers) (X,I)
46. n-Amyl mercaptan, 1-Pentanethiol (and isomers) (X,I)
47. n-Amyl nitrite, n-Pentyl nitrite (and isomers) (X,I)
48. * Amyl trichlorosilane (and isomers) (X,C,R)
49. Aniline, Aminobenzene (X)
50. Anisoyl chloride (X,C)
51. Anthracene (X)
52. Antimony (X)
53. Antimony compounds (X)
54. * Antimony pentachloride (X,C,R)
55. * Antimony pentafluoride (X,C,R)
56. Antimony pentasulfide (X,I)
57. Antimony potassium tartrate (X)
58. Antimony sulfate, Antimony trisulfate (X,I)
59. Antimony trichloride, Antimony chloride (X,C)
60. Antimony trifluoride, Antimony fluoride (X,C)
61. Antimony trioxide, Antimony oxide (X)
62. Antimony trisulfide, Antimony sulfide (X,I,R)
63. * Arsenic (X)
64. * Arsenic acid and salts (X)
65. * Arsenic compounds (X)
66. * Arsenic pentaselenide (X)
67. * Arsenic pentoxide, Arsenic oxide (X)
68. * Arsenic sulfide, Arsenic disulfide (X)
69. * Arsenic tribromide, Arsenic bromide (X)
70. * Arsenic trichloride, Arsenic chloride (X)
71. * Arsenic triiodide, Arsenic iodide (X)
72. * Arsenic trioxide, Arsenious oxide (X)
73. * Arsenious acid and salts (X)
74. * Arsines (X)
75. Asbestos (including chrysotile, amosite, crocidolite, tremolite, anthophyllite, and actinolite) (X)
76. * AZODRIN, 3-Hydroxy-N-cis-crotonamide (X)
77. Barium (X,I)
78. Barium azide (I,R)
79. Barium bromide (X)
80. Barium carbonate (X)
81. Barium chlorate (X,C,I,R)
82. Barium chloride (X)
83. Barium chromate (X)
84. Barium citrate (X)
85. Barium compounds (soluble) (X)
86. * Barium cyanide (X)
87. Barium fluoride (X)
88. Barium fluosilicate (X)
89. Barium hydroxide (X)
90. Barium iodide (X)
91. Barium manganate (X)
92. Barium nitrate (X,I)
93. Barium oxide, Barium monoxide (X)
94. Barium perchlorate (X,I,R)
95. Barium permanganate (X,I,R)
96. Barium peroxide (X,I,R)
97. Barium phosphate (X)
98. Barium stearate (X)
99. Barium sulfide (X)
100. Barium sulfite (X)
101. Benzene (X,I)
102. * Benzene hexachloride, BHC; 1,2,3,4,5,6-Hexachloro-cyclohexane (X)
103. * Benzenephosphorous dichloride (I,R)
104. Benzenesulfonic acid (X)
105. * Benzidine and salts (X)
106. * Benzotrifluoride, Trifluoromethylbenzene (X,I)
107. * Benzoyl chloride (X,C,R)
108. Benzoyl peroxide, Dibenzoyl peroxide (X,I,R)
109. Benzyl bromide, alpha-Bromotoluene (X,C)
110. Benzyl chloride, alpha-Chlorotoluene (X)
111. * Benzyl chlorocarbonate, Benzyl chloroformate (X,C,R)
112. * Beryllium (X,I)
113. * Beryllium chloride (X)
114. * Beryllium compounds (X)
115. * Beryllium copper (X)
116. * Beryllium fluoride (X)
117. * Beryllium hydride (X,C,I,R)
118. * Beryllium hydroxide (X)
119. * Beryllium oxide (X)
120. * BIDRIN, Dicrotophos, 3-(Dimethylamino)-1-methyl-3-oxo-1-propenyldimethyl phosphate (X)
121. * bis (Chloromethyl) ether, Dichloromethylether, BCME (X)
122. Bismuth (X,I)
123. * bis (Methylmercuric) sulfate, CEREWET, Ceresan liquid (X)
124. Bismuth chromate (X)
125. * BOMYL, Dimethyl 3-hydroxyglutaconate dimethyl phosphate (X)
126. * Boranes (X,I,R)
127. * Bordeaux arsenites (X)
128. * Boron trichloride, Trichloroborane (X,C,R)
129. * Boron trifluoride (X,C,R)
130. Bromic acid (X)
131. * Bromine (X,C,I)
132. * Bromine pentafluoride (X,C,I,R)
133. * Bromine trifluoride (X,C,I,R)
134. * Brucine, Dimethoxystrychnine (X)
135. 1,2,4-Butanetriol trinitrate (R)
136. n-Butyl acetate, 1-Acetoxypentane (and isomers) (X)
137. n-Butyl alcohol, 1-Butanol (and isomers) (X)
138. n-Butyl amine, 1-Aminobutane (and isomers) (X)
139. n-Butyl formate (and isomers) (X)

140. tert-Butyl hydroperoxide (and isomers) (X,I)
141. *n-Butyllithium (and isomers) (X,C,I,R)
142. n-Butyl mercaptan, 1-Butanethiol (and isomers) (X,I)
143. tert-Butyl peroxyacetate, tert-Butyl peracetate (I,R)
144. tert-Butyl peroxybenzoate, tert-Butyl perbenzoate (I,R)
145. tert-Butyl peroxyisovalate (I,R)
146. *n-Butyltrichlorosilane (C,I,R)
147. para-tert-Butyl toluene (X)
148. n-Butyraldehyde, n-Butanal (and isomers) (X,I)
149. *Cacodylic acid, Dimethylarsinic acid (X)
150. *Cadmium (powder) (X,I)
151. Cadmium chloride (X)
152. *Cadmium compounds (X)
153. *Cadmium cyanide (X)
154. Cadmium fluoride (X)
155. Cadmium nitrate (X,I,R)
156. Cadmium oxide (X)
157. Cadmium phosphate (X)
158. Cadmium sulfate (X)
159. *Calcium (I,R)
160. *Calcium arsenate, PENSAL (X)
161. *Calcium arsenite (X)
162. *Calcium carbide (C,I,R)
163. Calcium chlorate (I,R)
164. Calcium chlorite (I)
165. Calcium fluoride (X)
166. *Calcium hydride (C,I,R)
167. Calcium hydroxide, Hydrated lime (C)
168. *Calcium hypochlorite, Calcium oxychloride (dry) (X,C,I,R)
169. Calcium molybdate (X)
170. Calcium nitrate, Lime nitrate, Nitrocalcite (I,R)
171. Calcium oxide, Lime (C)
172. Calcium permanganate (X,I)
173. Calcium peroxide, Calcium dioxide (C,I)
174. *Calcium phosphide (X,I,R)
175. Calcium resinate (I)
176. Caprylyl peroxide, Octyl peroxide (I)
177. *Carbanolate, BANOL, 2-Chloro-4,5-dimethylphenyl methylcarbamate (X)
178. Carbon disulfide, Carbon bisulfide (X,I)
179. Carbon tetrachloride, Tetrachloromethane (X)
180. *Carbophenothion, TRITHION, S[(4-Chlorophenyl)thio]methyl 0,0-diethyl phosphorodithioate (X)
181. Chloral hydrate, Trichloroacetaldehyde (hydrated) (X)
182. *Chlordane; 1,2,4,5,6,7,8,8-Octachloro-4,7-methano-3a,4,7,7a-tetra-hydro-indane; (X)
183. *Chlorfenvinphos, Compound 4072, 2-Chloro-1-(2,4-dichlorophenyl) vinyl diethyl phosphate (X)
184. *Chlorine (X,C,I,R)
185. *Chlorine dioxide (X,C,I,R)
186. *Chlorine pentafluoride (X,C,I,R)
187. *Chlorine trifluoride (X,C,I,R)
188. *Chloroacetaldehyde (X,C)
189. *alpha-Chloroacetophenone, Phenyl chloromethyl ketone (X)
190. *Chloroacetyl chloride (X,C,R)
191. Chlorobenzene (X,I)
192. para-Chlorobenzoyl peroxide (I,R)
193. *ortho-Chlorobenzylidene malonitrile, OCMB (X)
194. Chloroform, Trichloromethane (X)
195. *Chloropicrin, Chlorpicrin, Trichloronitromethane (X)
196. *Chlorosulfonic acid (X,C,I,R)
197. Chloro-ortho-toluidine, 2-Amino-4-chlorotoluene (X)
198. Chromic acid, Chromium trioxide, Chromic anhydride (X,C,I)
199. Chromic chloride, Chromium trichloride (X)
200. Chromic fluoride, Chromium trifluoride (X)
201. Chromic hydroxide, Chromium hydroxide (X)
202. Chromic oxide, Chromium oxide (X)
203. Chromic sulfate, Chromium sulfate (X)
204. Chromium compounds (X,C,I)
205. *Chromyl chloride, Chlorochromic anhydride (X,C,I,R)
206. Cobalt (powder) (X,I)
207. Cobalt compounds (X)
208. Cobaltous bromide, Cobalt bromide (X)
209. Cobaltous chloride, Cobalt chloride (X)
210. Cobaltous nitrate, Cobalt nitrate (X,I)
211. Cobaltous resinate, Cobalt resinate (X,I)
212. Cobaltous sulfate, Cobalt sulfate (X)
213. Cocculus, Fishberry, PicROTOXIN (X)
215. *Copper acetoarsenite, Paris green (X)
216. Copper acetylde (I,R)
217. *Copper arsenate, Cupric arsenate (X)
218. *Copper arsenite, Cupric arsenite (X)
219. Copper chloride, Cupric chloride (X)
220. Copper chlorotetrazole (I,R)
221. Copper compounds (X)
222. *Copper cyanide, Cupric cyanide (X)
223. Copper nitrate, Cupric nitrate (X,I,R)
224. Copper sulfate, Cupric sulfate, Blue vitriol (X)
225. *Curoxon; ortho,ortho-Diethyl-ortho-(3-chloro-4-methylcoumarin-7-yl) phosphate (X)
226. *Coumafuryl, FUMARIN, 3-[1-(2-Furanyl)-3-oxobutyl] 1-4-hydroxy-2H-1-benzopyran-2-one (X)
227. *Coumatetralyl, BAYER 25634, RACUMIN 57, 4-Hydroxy-3-(1,2,3,4-tetrahydro-1-naphthalenyl)-2H-1-benzopyran-2-one (X)
228. *Crimidine, CASTRIX, 2-Chloro-4-dimethylamino-6-methyl-pyrimidine (X)
229. *Crotonaldehyde, 2-Butenal (X)
230. Cumene, Isopropyl benzene (X,I)
231. Cumene hydroperoxide; alpha,alpha-Dimethylbenzyl hydro-peroxide (X,I)
232. Cupriethylene diamine (X)
233. *Cyanide salts (X)
234. Cyanoacetic acid, Malonic nitrile (X)
235. *Cyanogen (X,I,R)
236. Cyanogen bromide, Bromine cyanide (X)
237. Cyanuric triazide (I,R)
238. Cycloheptane (X,I)
239. Cyclohexane (X,I)
240. Cyclohexanone peroxide (I)
241. *Cyclohexenyltrichlorosilane (X,C,R)
242. *Cycloheximide, ACTIDIONE (X)
243. *Cyclohexyltrichlorosilane (X,C,R)
244. Cyclopentane (X,I)
245. Cyclopentanol (I)
246. Cyclopentene (X,I)
247. DDT; 1,1,1-Trichloro-2,2-bis(chlorophenyl) ethane (X)
248. *DDVP, Dichlorvos, VAPONA, Dimethyl dichlorovinyl phosphate (X)
249. *Decaborane (X,I,R)
250. DECALIN, Decahydronaphthalene (X)
251. *Demeton, SYSTOX (X)
252. *Demeton-S-methyl sulfone, METAISOSYSTOX-SULFON, S-[2-(ethyl-sulfonyl) ethyl] O,O-dimethyl phosphorothioate (X)
253. Diazodinitrophenol, DDNP, 2-Diazo-4,6-dinitrobenzene-1-oxide (I,R)
254. *Diborane, Diboron hexahydride (I,R)
255. *1,2-Dibromo-3-chloropropane, DBCP, Fumazone, nemagon (X)
256. n-Dibutyl ether, Butyl ether (and isomers) (X,I)
257. Dichlorobenzene (ortho, meta, para) (X)
258. *3,3-Dichlorobenzidine and salts, DCB (X)
259. 1,2-Dichloroethylene; 1,2-Dichloroethene (X,I)
260. Dichloroethyl ether, Dichloroether (X,I)
261. Dichloroisocyanuric acid, Dichloro-S-triazine-2,4,6-trione (X,I)
262. Dichloromethane, Methylene chloride (X)
263. *2,4-Dichlorophenoxyacetic acid; 2,4-D (X)
264. 1,2-Dichloropropane, Propylene dichloride (X,I)
265. 1,3-Dichloropropylene; 1,3-Dichloropropene (X,I)
266. Dicumyl peroxide (I,X)
267. *Dieldrin; 1,2,3,4,10,10-Hexachloro-6,7-epoxy-1,4,4a,5,6,7,8,8a-octahydro-1,4-endo,exo-5,8-dimethanonaphthalene (X)
268. *Diethylaluminum chloride, Aluminum diethyl monochloride, DEAC (I,R)
269. Diethylamine (X,I)
270. *Diethyl chlorovinyl phosphate, Compound 1836 (X)
271. *Diethyldichlorosilane (X,C,I,R)
272. Diethylene glycol dinitrate (I,R)
273. Diethylene triamine (X)

274. *O,O-Diethyl-S-(isopropylthiomethyl) phosphorodithioate (X)
275. *Diethylzinc, Zinc ethyl (C,I,R)
276. *Difluorophosphoric acid (X,C,R)
277. *Diglycidyl ether, bis(2,3-Epoxypropyl) ether (X)
278. *Diisopropylbenzene hydroperoxide (X,I)
279. *Diisopropyl peroxydicarbonate, Isopropyl percarbonate (X,C,I,R)
280. *Dimefox, Hanane, Pextox 14, Tetramethylphosphorodiamidic fluoride (X)
281. Dimethylamine, DMA (X,I)
282. *Dimethylaminoazobenzene, Methyl yellow (X)
283. *Dimethyldichlorosilane, Dichlorodimethylsilane (X,C,I,R)
284. 2,5-Dimethylhexane-2,5-Dihydroperoxide (I)
285. *1,1-Dimethylhydrazine, UDMH (X,I)
286. *Dimethyl sulfate, Methyl sulfate (X)
287. *Dimethyl sulfide, Methyl sulfide (X,I,R)
288. 2,4-Dinitroaniline (X)
289. *Dinitrobenzene (ortho, meta, para) (I,R)
290. Dinitrochlorobenzene, 1-Chloro-2,4-dinitrobenzene (I,R)
291. *4,6-Dinitro-ortho-cresol, DNPC, SINOX, E
292. *Dinitrophenol(2,3-;2,4-;2,6-isomers) (I,R)
293. 2,4-Dinitrophenylhydrazine (X,I,R)
294. Dinitrotoluene (2,4-;3,4-;3,5-isomers) (X,I,R)
295. *DINOSEB; 2,4-Dinitro-6-sec-butylphenol (X)
296. 1,4-Dioxane; 1,4-Dithylene dioxide (X,I,R)
297. *Dioxathion, DELNAV; S,S-1,4-dioxane-2,3-diyl bis(O,O-diethyl phosphorodithioate) (X)
298. Dipentaerythritol hexanitrate (R)
299. *Diphenyl, Biphenyl, Phenylbenzene (X)
300. Diphenylamine, DPA, N-Phenylaniline (X)
301. *Diphenylamine chloroarsine, Phenarsazine chloride (X)
302. *Diphenyldichlorosilane (X,C,R)
303. Dipicrylamine, Hexanitrodiphenyl amine (I,R)
304. Dipropyl ether (X,I)
305. *Disulfoton, DI-SYSTON; O,O-Diethyl S-[2-(ethylthio) ethyl] phosphorodithioate (X)
306. *Dodecyltrichlorosilane (X,C,R)
307. *DOWCO-139, ZECTRAN, Mexacarbate, 4-(Dimethylamino)-3,5-dimethylphenyl methylcarbamate (X)
309. *DYFONATE, Fonofos, O-Ethyl-S-phenylethyl phosphonodithioate (X)
310. *Endosulfan, THIODAN; 6,7,8,9,10,10-Hexachloro-1,5,5a,6,9,9a-hexa-hydro-6,9-methano-2,4,3-benzo-dioxathiepin-3-oxide (X)
311. *Endothal, 7-Oxabicyclo[2.2.1]heptane-2,3-dicarboxylic acid (X)
312. *Endothion, EXOTHION, S-[(5-Methoxy-4-oxo-4H-pyran-2-yl)-methyl] O,O-dimethyl phosphorothioate (X)
313. *Endrin; 1,2,3,4,10,10-Hexachloro-6,7-epoxy-1,4,4,4a,5,6,7,8,8a-octahydro-1,4-endo-endo-5,8-dimethanonaphthalene (X)
314. Epichlorohydrin, Chloropropylene oxide (X,I)
315. *EPN; O-Ethyl O-para-nitrophenyl phenylphosphonothioate (X)
316. *Ethion, NIALATE; O,O,O',O'-Tetraethyl-S,S-methylenediphosphorodithioate (X)
317. Ethyl acetate (X,I)
318. Ethyl alcohol, Ethanol (X,I)
319. Ethylamine, Aminoethane (X,I)
320. Ethylbenzene, Phenylethane (X,I)
321. Ethyl butyrate, Ethyl butanoate (I)
322. Ethyl chloride, Chloroethane (X,I)
323. *Ethyl chloroformate, Ethyl chlorocarbonate (X,C,I,R)
324. *Ethyldichloroarsine, Dichloroethylarsine (I,R)
325. *Ethyldichlorosilane (X,C,I,R)
326. *Ethylene cyanohydrin, beta-Hydroxypropionitrile (I,R)
327. Ethylene diamine (X)
328. Ethylene dibromide; 1,2-Dibromoethane (X)
329. Ethylene dichloride; 1,2-Dichloroethane (X,I)
330. *Ethyleneimine, Aziridine, EI (X,I,R)
331. Ethylene oxide, Epoxyethane (X,I,R)
332. Ethyl ether, Diethyl ether (I,R)
333. Ethyl formate (X,I)
334. *Ethyl mercaptan, Ethanethiol (X,I,R)
335. Ethyl nitrate (I,R)
336. Ethyl nitrite (I,R)
337. *Ethylphenyldichlorosilane (X,C,R)
338. Ethyl propionate (I)
339. *Ethyltrichlorosilane (I,R)
340. *Fensulfthion, BAYER 25141, DASANT, O,O-Diethyl-O-[4-(methyl-sulfinyl)phenyl] phosphorothioate (X)
341. *Ferric arsenate (X)
342. Ferric chloride, Iron (III) chloride (X,C)
343. *Ferrous arsenate, Iron arsenate (X)
344. *Fluoboric acid, Fluoroboric acid (X,C)
345. Fluoride salts (X)
346. *Fluorine (X,C,R)
347. *Fluoroacetanilide, AFL 1082 (X)
348. *Fluoroacetic acid and salts, Compound 1080 (X)
349. *Fluorosulfonic acid, Fluosulfonic acid (X,C,R)
350. Formaldehyde, Methanal (X,I)
351. Formic acid, Methanoic acid (X,C)
352. Fulminate of mercury, Mercuric cyanate (I,R)
353. *FURADAN, NIA 10,242, Carbofuran; 2,3-Dihydro-2,2-dimethyl-7-benzofuranylmethylcarbamate (X)
354. Furan, Furfuran (X,I,R)
355. Gasoline (I)
356. *GB, O-Isopropyl methyl phosphoryl fluoride (X)
357. Glutaraldehyde (X)
358. Glycerolmonolactate trinitrate (R)
359. Glycol dinitrate, Ethylene glycol dinitrate (R)
360. Gold fulminate, Gold cyanate (R)
361. Guanidine nitrate (I,R)
362. Guanyl nitrosaminoguanilydene hydrazine (R)
363. *Guthion; O,O-Dimethyl-S-4-oxo-1,2,3-benzotriazin-3(4H)-ylmethyl phosphorodithioate (X)
364. Hafnium (I,X,R)
365. *Heptachlor, 1,4,5,6,7,8,8-Heptachloro-3a,4,7,7a-tetrahydro-4,7-methanoindene (X)
366. n-Heptane (and isomers) (X,I)
367. 1-Heptene (and isomers) (X,I)
368. *Hexadecyltrichlorosilane (X,C,R)
369. Hexaethyl tetraphosphate, HETP (X)
370. Hexafluorophosphoric acid (X,C)
371. Hexamethylenediamine; 1,6-Diaminohexane (X)
372. n-Hexane (and isomers) (X,I)
373. 1-Hexene (and isomers) (X,I)
374. n-Hexylamine, 1-Aminohexane (and isomers) (X,I)
375. *Hexyltrichlorosilane (X,C,R)
376. *Hydrazine, Diamine (X,I)
377. Hydrazine azide (I,R)
378. Hydrazoic acid, Hydrogen azide (I,R)
379. *Hydriodic acid, Hydrogen iodide (X,C,R)
380. *Hydrobromic acid, Hydrogen bromide (X,C,R)
381. *Hydrochloric acid, Hydrogen chloride, Muriatic Acid (X,C,R)
382. *Hydrocyanic acid, Hydrogen cyanide (X,I,R)
383. *Hydrofluoric acid, Hydrogen fluoride (X,C,R)
384. Hydrofluosilicic acid, Fluosilicic acid (X,C)
385. Hydrogen peroxide (X,C,I,R)
386. *Hydrogen selenide (X,I)
387. *Hydrogen sulfide (X,I)
388. *Hypochlorite compounds (X,C,I,R)
389. Indium (X)
390. Indium compounds (X)
391. Iodine monochloride (X,C,R)
392. Isooctane; 2,2,4-Trimethylpentane (X,I)
393. Isooctene (mixture of isomers) (I)
394. Isopentane, 2-Methylbutane (I)
395. Isoprene, 2-Methyl-1,3-butadiene (X,I,R)
396. Isopropanol, Isopropyl alcohol, 2-Propanol (X,I)
397. Isopropyl acetate (X,I)
399. Isopropylamine, 2-Aminopropane (X,I)
400. Isopropyl chloride, 2-Chloropropane (I)
401. Isopropyl ether, Diisopropyl ether (I,R)
402. Isopropyl mercaptan, 2-Propanethiol (X,I)
404. *meta-Isopropylphenyl-N-methylcarbamate, Ac 5,727 (X)

- 405A. *Kepone; 1,1a,3,3a,4,5,5,5a,5b,6-Decachloro-octahydro-1,2,4-metheno-2H-cyclobuta (cd) pentalen-2-one, Chloresone (X)
- 405B. Lauroyl peroxide, Di-n-dodecyl peroxide (X,C,I,R)
406. Lead compounds (X)
407. Lead acetate (X)
408. *Lead arsenate, Lead orthoarsenate (X)
409. *Lead arsenite (X)
410. Lead azide (I,R)
411. Lead carbonate (X)
412. Lead chlorite (I,R)
413. *Lead cyanide (X)
414. Lead 2,4-dinitroresorcinate (I,R)
415. Lead mononitroresorcinate (I,R)
416. Lead nitrate (X,I)
417. Lead oxide (X)
418. Lead styphnate, Lead trinitroresorcinate (I,R)
419. *Lewisite, beta-Chlorovinylchloroarsine (X)
420. *Lithium (C,I,R)
421. *Lithium aluminum hydride, LAH (C,I,R)
422. *Lithium amide (C,I,R)
423. *Lithium ferrosilicon (I,R)
424. *Lithium hydride (C,I,R)
425. *Lithium hypochlorite (X,C,I,R)
426. Lithium peroxide (C,I,R)
427. Lithium silicon (I,R)
428. *London purple, Mixture of arsenic trioxide, aniline, lime, and ferrous oxide (X)
429. *Magnesium (I,R)
430. *Magnesium arsenate (X)
431. *Magnesium arsenite (X)
432. Magnesium chlorate (I,R)
433. Magnesium nitrate (I,R)
434. Magnesium perchlorate (X,I,R)
435. Magnesium peroxide, Magnesium dioxide (I)
436. *Maleic anhydride (X)
437. Manganese (powder) (I)
438. Manganese acetate (X)
439. *Manganese arsenate, Manganous arsenate (X)
440. Manganese bromide, Manganous bromide (X)
441. Manganese chloride, Manganous chloride (X)
442. Manganese methyleyclopentadienyl tricarbonyl (X)
443. Manganese nitrate, Manganous nitrate (X,I)
444. Mannitol hexanitrate, Nitromannite (R)
445. *MECARBAM; O,O-Diethyl S-(N-ethoxycarbonyl N-methylcarbamoyl-methyl) phosphorodithioate (X)
446. *Medinoterb acetate, 2-tert-Butyl-5-methyl-4,6-dinitro-phenyl acetate (X)
447. para-Menthane hydroperoxide, Paramenthane hydroperoxide (I)
448. Mercuric acetate, Mercury acetate (X)
449. Mercuric ammonium chloride, Mercury ammonium chloride (X)
450. Mercuric benzoate, Mercury benzoate (X)
451. Mercuric bromide, Mercury bromide (X)
452. *Mercuric chloride, Mercury chloride (X)
453. *Mercuric cyanide, Mercury cyanide (X)
454. Mercuric iodide, Mercury iodide (X)
455. Mercuric nitrate, Mercury nitrate (X,I)
456. Mercuric oleate, Mercury oleate (X)
457. Mercuric oxide (red and yellow) (X,I)
458. Mercuric oxycyanide (I,R)
459. Mercuric-potassium iodide, Mayer's reagent (X)
460. Mercuric salicylate, Salicylated mercury (X)
461. Mercuric subsulfate, Mercuric dioxysulfate (X)
462. Mercuric sulfate, Mercury sulfate (X)
463. Mercuric thiocyanide, Mercury thiocyanate (X)
464. Mercurol, Mercury nucleate (X)
465. Mercurous bromide (X)
466. Mercurous gluconate (X)
467. Mercurous iodide (X)
468. Mercurous nitrate (I,R)
469. Mercurous oxide (X)
470. Mercurous sulfate, Mercury bisulfate (X)
472. *Mercury (X)
473. *Mercury compounds (X)
474. Metal carbonyls (X)
475. *Metal hydrides (I,R)
476. Metal powders (X,I)
- 477A. *Methomyl, LANNATE, S-Methyl-N-((methyl-carbamoyl) oxy) thioacetimidate (X)
- 477B. *Methoxychlor, 1,1,1-Trichloro-2, -bis(p-methoxyphenyl) ethane, CHEMFLORM, MARLATE (X)
478. *Methoxyethylmercuric chloride, AGALLOL, ARETAN (X)
479. Methyl acetate (X,I)
480. Methyl acetone (Mixture of acetone, methyl acetate, and methyl alcohol) (X,I)
481. Methyl alcohol, Methanol (X,I)
482. *Methylaluminum sesquibromide (I,R)
483. *Methylaluminum sesquichloride (I,R)
484. Methylamine, Aminomethane (X,I)
485. n-Methylaniline (X)
486. *Methyl bromide, Bromomethane (X)
487. 2-Methyl-1-butene (I)
488. 3-Methyl-1-butene (I)
489. Methyl butyl ether (and isomers) (X,I)
490. Methyl butyrate (and isomers) (X,I)
491. Methyl chloride, Chloromethane (X,I)
492. *Methyl chloroformate, Methyl chlorocarbonate (X,I,R)
493. *Methyl chloromethyl ether, CMME (X,I)
494. Methylcyclohexane (X,I)
495. *Methyldichloroarsine (X)
496. *Methyldichlorosilane (X,I,R)
497. *4,4-Methylene bis(2-chloroaniline), MOCA (X)
498. Methyl ethyl ether (X,I)
499. Methyl ethyl ketone, 2-Butanone (X,I)
500. Methyl ethyl ketone peroxide (X,I)
501. Methyl formate (X,I)
502. *Methyl hydrazine, Monomethyl hydrazine, MMH (X,I)
503. *Methyl isocyanate (X,I)
504. Methyl isopropenyl ketone, 3-Methyl-3-butene-2-one (X,I)
505. *Methylmagnesium bromide (C,I,R)
506. *Methylmagnesium chloride (C,I,R)
507. *Methylmagnesium iodide (C,I,R)
508. Methyl mercaptan, Methanethiol (X,I)
509. Methyl methacrylate (monomer) (X,I)
510. *Methyl parathion; O,O-Dimethyl-O-para-nitrophenyl-phosphorothioate (X)
511. Methyl propionate (I)
512. *Methyltrichlorosilane (X,C,I,R)
513. Methyl valerate, Methyl pentanoate (and isomers) (I)
514. Methyl vinyl ketone, 3-Butene-2-one (X,I)
- 515A. *Mevinphos, PHOSDRIN, 2-Carbomethoxy-1-methylvinyl dimethylphosphate (X)
- 515B. *Mirex; 1,1a,2,2,3,3a,4,5,5,5a,5b,6-Dodecachlorooctahydro-1,3,4-metheno-1H-cyclobuta (cd) pentalene, Dechlorane (X)
516. *MOCAP, O-Ethyl-S,S-dipropyl phosphorodithioate (X)
517. Molybdenum (powder) (I)
518. Molybdenum trioxide, Molybdenum anhydride (X)
519. Molybdic acid and salts (X)
520. Monochloroacetic acid, Chloroacetic acid, MCA (X,C)
521. Monochloroacetone, Chloroacetone, 1-Chloro-2-propanone (X)
522. Monofluorophosphoric acid (X,C)
523. Naphtha (of petroleum or coal tar origin), Petroleum ether, Petroleum naphtha (X,I)
524. Naphthalene (X)
525. *alpha-Naphthylamine, 1-NA (X)
526. *beta-Naphthylamine, 2-NA (X)
527. Neohexane; 2,2-Dimethylbutane (X,I)
528. Nickel (powder) (X,I)
529. Nickel acetate (X)
530. Nickel antimonide (X)
531. *Nickel arsenate, Nickelous arsenate (X)
532. *Nickel carbonyl, Nickel tetracarbonyl (X)
533. Nickel chloride, Nickelous chloride (X)
534. *Nickel cyanide (X)
535. Nickel nitrate, Nickelous nitrate (X,I,R)
536. Nickel selenide (X)
537. Nickel sulfate (X)
538. Nicotine, beta-pyridyl-alpha-N-methyl pyrrolidine (X)

539. Nicotine salts (X)
 540. Nitric acid (X,C,I)
 541. Nitroaniline, Nitraniline (ortho, meta, para) (I,R)
 542. * Nitrobenzol, Nitrobenzene (X)
 543. * 4-Nitrobiphenyl, 4-NBP (X)
 544. Nitro carbo nitrate (I,R)
 545. Nitrocellulose, Cellulose nitrate, Guncotton, Pyroxylin, Collodion, Pyroxylin (nitrocellulose) in ether and alcohol (I,R)
 546. Nitrochlorobenzene, Chloronitrobenzene (ortho,meta,para) (X)
 547. Nitrogen mustard (X,C)
 548. Nitrogen tetroxide, Nitrogen dioxide (X,I)
 549. Nitroglycerin, Trinitroglycerin (X,I,R)
 550. Nitrohydrochloric acid, Aqua regia (X,C,I)
 551. * Nitrophenol (ortho, meta, para) (X)
 552. * N-Nitrosodimethylamine, Dimethyl nitrosoamine (X)
 553. Nitrosoguanidine (R)
 554. Nitrostarch, Starch nitrate (I,R)
 555. Nitroxylol, Nitroxylene, Dimethylnitrobenzene (2,4-;3,4-; 2,5-isomers) (X)
 556. 1-Nonene, 1-Nonylene (and isomers) (X,I)
 557. * Nonyltrichlorosilane (I,R)
 558. * Octadecyltrichlorosilane (I,R)
 559. n-Octane (and isomers) (X,I)
 560. 1-Octene, 1-Caprylene (X,I)
 561. * Octyltrichlorosilane (I,R)
 563. * Oleum, Fuming sulfuric acid (X,C,R)
 565. Osmium compounds (X)
 566. Oxalic acid (X)
 567. * Oxygen difluoride (X,C,R)
 568. * Para-oxon, MINTACOL; O,O-Diethyl-O-para-nitrophenyl phosphate (X)
 569. * Parathion; O,O-Diethyl-O-para-nitrophenyl phosphorothioate (X)
 570A. * Pentaborane (X,I,R)
 570B. Pentachlorophenol, PCP, DOWICIDE 7 (X)
 571. Pentaerythrit tetranitrate, Pentaerythritol tetranitrate (R)
 572. n-Pentane (and isomers) (X,I)
 573. 2-Pentanone, Methyl propyl ketone (and isomers) (X,I)
 574. Peracetic acid, Peroxyacetic acid (X,C,I,R)
 575. Perchloric acid (X,C,I,R)
 576. Perchloroethylene, Tetrachloroethylene (X)
 577. * Perchloromethyl mercaptan, Trichloromethylsulfenyl chloride (X)
 578. Perchloryl fluoride (X,C,I)
 580. Phenol, Carboic acid (X,C)
 581. * Phenylchloroarsine (X)
 582. Phenylenediamine, Diaminobenzene (ortho,meta,para) (X)
 583. Phenylhydrazine hydrochloride (X)
 584. * Phenylphenol, Orthozenol, DOWICIDE I (X)
 585. * Phenyltrichlorosilane (I,R)
 586. * Phorate, THIMET; O,O-Diethyl-S-[(Ethylthio)methyl] phosphorodithioate (X)
 587. * Phosfolan, CYOLAN, 2-(Diethoxyphosphinylimino)-1,3-dithio-lane (X)
 588. * Phosgene, Carbonyl chloride (I,R)
 589. * Phosphamidon, DIMECRON, 2-Chloro-2-diethyl-carbamoyl-1-methylvinyl dimethyl phosphate (X)
 590. * Phosphine, Hydrogen phosphide (X,I)
 591. Phosphoric acid (C)
 592. Phosphoric anhydride, Phosphorus pentoxide (C,I)
 593. Phosphorus (amorphous, red) (X,I,R)
 594. * Phosphorus (white or yellow) (X,I,R)
 595. * Phosphorus oxybromide, Phosphoryl bromide (X,C,R)
 596. * Phosphorus oxychloride, Phosphoryl chloride (X,C,R)
 597. * Phosphorus pentachloride, Phosphoric chloride (X,C,I,R)
 598. * Phosphorus pentasulfide, Phosphoric sulfide (X,C,I,R)
 599. * Phosphorus sesquisulfide, tetraphosphorus trisulfide (X,C,I,R)
 600. * Phosphorus tribromide (X,C,R)
 601. * Phosphorus trichloride (X,C,R)
 602. Picramide, Trinitroaniline (I,R)
 603. Picric acid, Trinitrophenol (I,R)
 604. Picryl chloride, 2-Chloro-1,3,5-trinitrobenzene (I,R)
 605. * Platinum compounds (X)
 606. * Polychlorinated biphenyls, PCB, Askarel, aroclor, chlorextol, inerteen, pyranol (X)
 607. Polyvinyl nitrate (I,R)
 608. Potasan; O,O-Diethyl-O-(4-methylumbelliferone) phosphoro-thioate (X)
 609. * Potassium (C,I,R)
 610. * Potassium arsenate (X)
 611. * Potassium arsenite (X)
 612. * Potassium bifluoride, Potassium acid fluoride (X,C)
 613. Potassium binoxalate, Potassium acid oxalate (X)
 614. Potassium bromate (X,I)
 615. * Potassium cyanide (X)
 616. Potassium dichloroisocyanurate (X,I)
 617. Potassium dichromate, Potassium bichromate (X,C,I)
 619. Potassium fluoride (X)
 620. * Potassium hydride (C,I,R)
 621. Potassium hydroxide, Caustic potash (X,C)
 622. Potassium nitrate, Saltpeter (I,R)
 623. Potassium nitrite (I,R)
 624. Potassium oxalate (X)
 625. Potassium perchlorate (X,I,R)
 626. Potassium permanganate (X,C,I)
 627. Potassium peroxide (C,I,R)
 628. Potassium sulfide (X,I)
 629. * Propargyl bromide, 3-Bromo-1-propyne (X,I)
 630. * beta-Propiolactone, BPL (X)
 631. Propionaldehyde, Propanal (X,I)
 632. Propionic acid, Propanoic acid (X,C,I)
 633. n-Propyl acetate (X,I)
 634. n-Propyl alcohol, 1-Propanol (X,I)
 635. n-Propylamine (and isomers) (X,I)
 636. * Propyleneimine, 2-Methylaziridine (X,I)
 637. Propylene oxide (X,I)
 638. n-Propyl formate (X,I)
 639. n-Propyl mercaptan, 1-Propanethiol (X,I)
 640. * n-Propyltrichlorosilane (X,C,I,R)
 641. * Prothoate, FOSTION, FAC; O,O-Diethyl-S-carboethoxy-ethyl phosphorodithioate (X)
 642. Pyridine (X,I)
 643. * Pyrosulfuryl chloride, Disulfuryl chloride (X,C,R)
 644. * Quinone; 1,4-Benzoquinone (X)
 645. Raney nickel (I)
 646. * Schradan, Octamethyl pyrophosphoramidate, OMPA (X)
 647A. * Selenium (X)
 647B. * Selenium compounds (X)
 648. * Selenium fluoride (X)
 649. * Selenous acid, Selenious acid and salts (X)
 650. * Silicon tetrachloride, Silicon chloride (X,C,R)
 651. * Silver acetylide (I,R)
 652. Silver azide (I,R)
 653. Silver compounds (X)
 654. Silver nitrate (X)
 655. Silver styphnate, Silver trinitroresorcinat (I,R)
 656. Silver tetrazene (I,R)
 657. * Sodium (C,I,R)
 658. Sodium aluminate (C)
 659. * Sodium aluminum hydride (C,I,R)
 660. * Sodium amide, Sodamide (C,I,R)
 661. * Sodium arsenate (X)
 662. * Sodium arsenite (X)
 663. Sodium azide (I,R)
 664. * Sodium bifluoride, Sodium acid fluoride (X,C)
 665. Sodium bromate (X,I)
 666. * Sodium cacodylate, Sodium dimethylarsenate (X)
 667. Sodium carbonate peroxide (I)
 668. Sodium chlorate (X,I)
 669. Sodium chlorite (X,I)
 670. Sodium chromate (X,C)
 671. * Sodium cyanide (X)
 672. Sodium dichloroisocyanurate (I)
 673. Sodium dichromate, Sodium bichromate (X,C,I)
 674. Sodium fluoride (X)
 675. * Sodium hydride (X,C,I,R)
 676. Sodium hydrosulfite, Sodium hyposulfite (I)
 677. Sodium hydroxide, Caustic soda, Lye (X,C)
 678. * Sodium hypochlorite (X,I,R)

679. * Sodium methylate, Sodium methoxide (C,I,R)
 680. Sodium molybdate (X)
 681. Sodium nitrate, Soda niter (X,I,R)
 682. Sodium nitrite (X,I,R)
 683. Sodium oxide, Sodium monoxide (X,C)
 684. Sodium perchlorate (X,I,R)
 685. Sodium permanganate (X,I)
 686. * Sodium peroxide (X,I,R)
 687. Sodium picramate (X,I,R)
 688. * Sodium potassium alloy, NaK, Nack (C,I,R)
 689. * Sodium selenate (X)
 690. Sodium sulfide, Sodium hydrosulfide (X,I)
 691. Sodium thiocyanate, Sodium sulfocyanate (X)
 692. Stannic chloride, Tin tetrachloride (X,C)
 693. * Strontium arsenate (X)
 694. Strontium nitrate (X,I,R)
 695. Strontium peroxide, Strontium dioxide (I,R)
 696. * Strychnine and salts (X)
 697. Styrene, Vinylbenzene (X,I)
 698. Succinic acid peroxide (X,I)
 699. Sulfide salts (soluble) (X)
 700. * Sulfotepp, DITHIONE, BLACAFUM, Tetraethyldithio-
 pyrophosphate, TEDP (X)
 701. * Sulfur chloride, Sulfur monochloride (X,C,R)
 702. * Sulfur mustard (X,C,R)
 703. * Sulfur pentafluoride (X,C)
 704. Sulfur trioxide, Sulfuric anhydride (X,C,I)
 705. Sulfuric acid, Oil of vitriol, Battery acid (X,C)
 706. Sulfurous acid (X,C)
 707. * Sulfuryl chloride, Sulfonyl chloride (X,C,R)
 708. * Sulfuryl fluoride, Sulfonyl fluoride (X,C,R)
 709. * SUPRACIDE, ULTRACIDE,
 S-[(5-Methoxy-2-oxo-1,3,4-thia-diazo13(2H)-yl)
 methyl]-O,O-dimethyl phosphorodithioate (X)
 710. * SURECIDE, Cyanophenphos, O-para-Cyanophenyl-
 O-ethyl phenyl phosphonothioate (X)
 711. * Tellurium hexafluoride (X,C)
 712. * TELODRIN, Isobenzan; 1,3,4,5,6,7,8-Octachloro-1,3,3a,4,
 7,7a-hexahydro-4,7-methanoisobenzofuran (X)
 713. * TEMIK, Aldicarb, 2-Methyl-2(methylthio)
 propionaldehyde-O-(methylcarbamoyl) oxime (X)
 714. * 2,3,7,8-Tetrachlorodibenzo-para-dioxin, TCDD, Dioxin (X)
 715. sym-Tetrachloroethane (X)
 717. * Tetraethyl lead, TEL (and other organic lead) (X,I)
 718. * Tetraethyl pyrophosphate, TEPP (X)
 719A. Tetrahydrofuran, THF (X,I)
 719B. Tetrahydrophthalic anhydride, Memtetrahydrophthalic an-
 hydride (X)
 720. TETRALIN, Tetrahydronaphthalene (X)
 721. Tetramethyl lead, TML (X,I)
 722. * Tetramethyl succinonitrile (X)
 723. * Tetranitromethane (X,I,R)
 724. * Tetrasul, ANIMERT V-101, S-para-Chlorophenyl-2,4,5-
 trichlorophenyl sulfide (X)
 725. Tetrazene, 4-Amidino-1-(nitrosamino-amidino)-1-
 tetra-zene (I,R)
 726. * Thallium (X)
 727. * Thallium compounds (X)
 728. * Thallous sulfate, Thallium sulfate, RATOX (X)
 729. * Thiocarbonylchloride, Thiophosgene (X,C,R)
 730. * Thionazin, ZINOPHOS; O,O-Tetramethylthiuram
 monosulfide (X)
 731. * Thionyl chloride, Sulfur oxychloride (X,C,R)
 732. * Thiophosphoryl chloride (X,C,R)
 733. Thorium (powder) (I)
 734. Tin compounds (organic) (X)
 735. Titanium (powder) (I)
 736. Titanium sulfate (X)
 737. * Titanium tetrachloride, Titanic chloride (X,C,R)
 738. Toluene, Methylbenzene (X,I)
 739. * Toluene-2,4-diisocyanate, TDI (I,R)
 740A. Toluidine, Aminotoluene (ortho,meta,para) (X)
 740B. * Toxaphene, Polychlorocamphene (X)
 741. * TRANID, exo-3-Chloro-endo-6-cyano-2-
 nortomanone-O- (methylcarbamoyl) oxime (X)
 743. 1,1,2-Trichloroethane (X)
 744. Trichloroethylene; Trichlorethene (X)
 745. Trichloroisocyanuric acid (X,I)
 746. * 2,4,5-Trichlorophenoxyacetic acid; 2,4,5-T (X)
 747. * Trichlorosilane, Silicochloroform (X,C,I,R)
 748. Trimethylamine, TMA (X,I)
 749. Trinitroanisole; 2,4,6-Trinitrophenyl methyl ether (I,R)
 750. 1,3,5-Trinitrobenzene, TNB (I,R)
 751. 2,4,6-Trinitrobenzoic acid (I,R)
 752. Trinitronaphthalene, Naphtite (I,R)
 753. 2,4,6-Trinitroresorcinol, Styphnic acid (I,R)
 754. 2,4,6-Trinitrotoluene, TNT (X,I,R)
 755. * tris(1-Aziridinyl) phosphine oxide, Triethylenephospho-
 ramide, TEPA (X)
 756. Tungstic acid and salts (X)
 757. Turpentine (X,I)
 758. Uranyl nitrate, Uranium nitrate (X,I,R)
 759. Urea nitrate (X,I,R)
 760. n-Valeraldehyde, n-Pentanal (and isomers) (X,I)
 761. Vanadic acid salts (X)
 762. Vanadium oxytrichloride (X,C)
 763. * Vanadium pentoxide, Vanadic acid anhydride (X)
 764. Vanadium tetrachloride (X,C)
 765. Vanadium tetraoxide (X)
 766. Vanadium trioxide, Vanadium sesquioxide (X)
 767. Vanadyl sulfate, Vanadium sulfate (X)
 768. Vinyl acetate (I,X)
 769. * Vinyl chloride (X,I)
 770. Vinyl ethyl ether (I)
 771. Vinylidene chloride, VC (X,I)
 772. Vinyl isopropyl ether (I)
 773. * Vinyltrichlorosilane (X,C,I,R)
 774. VX, O-Ethyl methyl phosphoryl N,N-diisopropyl
 thiocholine (X)
 775. * WEPSYN 155, WP 155, Triamiphos, para-(5-Amino-3-
 phenyl-1H-1,2,4-triazol-1-yl)-N,N,N',N'-tetramethyl
 phosphonic diamide (X)
 776. Xylene, Dimethylbenzene (ortho,meta,para) (X,I)
 777. Zinc (powder) (I)
 778. Zinc ammonium nitrate (X,I)
 779. * Zinc arsenate (X)
 780. * Zinc arsenite (X)
 781. Zinc chloride (X,C)
 782. Zinc compounds (X)
 783. * Zinc cyanide (X)
 784. Zinc nitrate (X,I,R)
 785. Zinc permanganate (X,I)
 786. Zinc peroxide, Zinc dioxide (X,I,R)
 787. * Zinc phosphide (X,I,R)
 788. Zinc sulfate (X)
 789. Zirconium (powder) (I)
 790. * Zirconium chloride, Zirconium tetrachloride (X,C,R)
 791. Zirconium picramate (I)

(b) This subdivision sets forth a list of common names of wastes which are presumed to be hazardous wastes unless it is determined that the waste is not a hazardous waste pursuant to the procedures set forth in section 66262.11. The hazardous characteristics which serve as a basis for listing the common names of wastes are indicated in the list as follows:

(X) toxic, (C) corrosive, (I) ignitable and (R) reactive.

Acetylene sludge (C)
 Acid and water (C)
 Acid sludge (C)
 AFU Flocc (X)
 Alkaline caustic liquids (C)
 Alkaline cleaner (C)
 Alkaline corrosive battery fluid (C)
 Alkaline corrosive liquids (C)
 Asbestos waste (X)
 Ashes (X,C)
 Bag house wastes (X)
 Battery acid (C)
 Beryllium waste (X)

(c) List of California Hazardous Waste Codes arranged alphabetically within each numbered category in this subdivision:

Waste Code Number	Waste Description
(1) Inorganics:	
121	Alkaline solution (pH \geq 12.5) with metals (antimony, arsenic, barium, beryllium, cadmium, chromium, cobalt, copper, lead, mercury, molybdenum, nickel, selenium, silver, thallium, vanadium, and zinc)
122	Alkaline solution without metals (pH \geq 12.5)
131	Aqueous solution ($2 < \text{pH} < 12.5$) containing reactive anions (azide, bromate, chlorate, cyanide, fluoride, hypochlorite, nitrite, perchlorate, and sulfide anions)
133	Aqueous solution with 10% or more total organic residues
134	Aqueous solution with less than 10% total organic residues
132	Aqueous solution with metals (restricted levels and see waste code 121 for a list of metals)
151	Asbestos-containing waste
161	Fluid-cracking catalyst (FCC) waste
172	Metal dust (see 121) and machining waste
171	Metal sludge (see 121)
141	Off-specification, aged, or surplus inorganics
181	Other inorganic solid waste
162	Other spent catalyst
123	Unspecified alkaline solution
135	Unspecified aqueous solution
(2) Organics:	
281	Adhesives
322	Biological waste other than sewage sludge
211	Halogenated solvents (chloroform, methyl chloride, perchloroethylene, etc.)
213	Hydrocarbon solvents (benzene, hexane, Stoddard, etc.)
291	Latex waste
331	Off-specification, aged, or surplus organics
222	Oil/water separation sludge
341	Organic liquids (nonsolvents) with halogens
342	Organic liquids with metals (see 121)
271	Organic monomer waste (includes unreacted resins)
351	Organic solids with halogens
352	Other organic solids
252	Other still bottom waste
212	Oxygenated solvents (acetone, butanol, ethyl acetate, etc.)
231	Pesticide rinse water
232	Pesticides and other waste associated with pesticide production
311	Pharmaceutical waste
261	Polychlorinated biphenyls and material containing PCBs
272	Polymeric resin waste
321	Sewage sludge
251	Still bottoms with halogenated organics
241	Tank bottom waste
223	Unspecified oil-containing waste
343	Unspecified organic liquid mixture
214	Unspecified solvent mixture
221	Waste oil and mixed oil
(3) Sludges:	
411	Alum and gypsum sludge
451	Degreasing sludge
421	Lime sludge
461	Paint sludge
471	Paper sludge/pulp
431	Phosphate sludge
441	Sulfur sludge
481	Tetraethyl lead sludge
491	Unspecified sludge waste
(4) Miscellaneous:	
613	Auto shredder waste
591	Baghouse waste

Waste Code Number	Waste Description
531	Chemical toilet waste
611	Contaminated soil from site clean-ups
561	Detergent and soap
521	Drilling mud
513	Empty containers less than 30 gallons
511	Empty pesticide containers 30 gallons or more
571	Fly ash, bottom ash, ad retort ash
581	Gas scrubber waste
612	Household waste
551	Laboratory waste chemicals
512	Other empty containers 30 gallons or more
541	Photochemical/photoprocessing waste
(5) California Restricted Wastes:	
721	Liquids with arsenic \geq 500 mg/l
722	Liquids with cadmium \geq 100 mg/l
723	Liquids with chromium (VI) \geq 500 mg/l
711	Liquids with cyanides \geq 1000 mg/l
741	Liquids with halogenated organic compounds \geq 1000 mg/l
724	Liquids with lead \geq 500 mg/l
725	Liquids with mercury \geq 20 mg/l
726	Liquids with nickel \geq 134 mg/l
791	Liquids with pH \leq 2
792	Liquids with pH \leq 2 with metals
731	Liquids with polychlorinated biphenyls \geq 50 mg/l
727	Liquids with selenium \geq 100 mg/l
728	Liquids with thallium \geq 130 mg/l
751	Solids or sludges with halogenated organic compounds \geq 1000 mg/l
801	Waste potentially containing dioxins

NOTE: Authority cited: Sections 208 and 25150, Health and Safety Code. Reference: Sections 25117.9, 25122.7, and 25150, Health and Safety Code.

HISTORY

1. New section filed 5-24-91; effective 7-1-91 (Register 91, No. 22).

Chapter 12. Standards Applicable to Generators of Hazardous Waste

Article 1. Applicability

§ 66262.10. Purpose, Scope, and Applicability.

(a) This chapter establishes standards for generators of hazardous waste located in California.

(b) A generator who treats, stores, or disposes of hazardous waste on-site shall only comply with the following sections of this chapter with respect to that waste: section 66262.11 for determining whether or not the generator has a hazardous waste, section 66262.12 for obtaining an identification number, section 66262.34 for accumulation of hazardous waste, section 66262.40(c) and (d) for recordkeeping, section 66262.43 for additional reporting and if applicable, section 66262.70 for farmers.

(c) Any person who imports hazardous waste into the State to a designated facility within the State from outside the United States shall comply with the standards applicable to generators established in this chapter.

(d) A farmer who generates waste pesticides which are hazardous waste and who complies with of the requirements of section 66262.70 is not required to comply with other standards in this chapter or chapters 2014, 15, or 18 of this division with respect to such pesticides.

(e) A person who generates a hazardous waste as defined by chapter 11 of this division is subject to the compliance requirements and penalties prescribed in chapter 6.5 of division 20 of the Health and Safety Code (commencing with section 25100) if the generator does not comply with the requirements of this chapter.

(f) An owner or operator who initiates a shipment of hazardous waste from a treatment, storage, or disposal facility shall comply with the generator standards established in this chapter. The provisions of section 66262.34 shall be applicable to the on-site accumulation of hazardous waste by generators. Therefore, the provisions of section 66262.34 shall only apply to owners or operators who are shipping hazardous waste which they generated at that facility.

(g) A generator who treats, stores, or disposes of hazardous waste on-site shall comply with the applicable standards and permit requirements set forth in chapters 14, 15, 16, and 20 of this division.

(h) This article does not apply to generators handling only hazardous waste produced incidental to owning and maintaining their own place of residence.

NOTE: Authority cited: Sections 208, 25150 and 25159, Health and Safety Code. Reference: Sections 25150, 25159 and 25159.5, Health and Safety Code; 40 CFR Section 262.10.

HISTORY

1. New section filed 5-24-91; effective 7-1-91 (Register 91, No. 22).

§ 66262.11. Hazardous Waste Determination.

A person who generates a waste, as defined in section 66261.2, shall determine if that waste is a hazardous waste using the following method:

(a) the generator shall first determine if the waste is excluded from regulation under section 66261.4 or section 25143.2 of the Health and Safety Code;

(b) the generator shall then determine if the waste is listed as a hazardous waste in article 4 of chapter 11 or in Appendix X of chapter 11 of this division. If the waste is listed in Appendix X and is not listed in article 4 of chapter 11, the generator may determine that the waste from his particular facility or operation is not a hazardous waste by either:

(1) testing the waste according to the methods set forth in article 3 of chapter 11 of this division, or according to an equivalent method approved by the Department pursuant to section 66260.21; or

(2) applying knowledge of the hazard characteristic of the waste in light of the materials or the processes used and the characteristics set forth in article 3 of chapter 11 of this division.

(c) For purposes of compliance with chapter 18 of this division (commencing with section 66268.1), or if the waste is not listed as a hazardous waste in article 4 (commencing with section 66261.30) or in Appendix X of chapter 11 of this division, the generator shall determine whether the waste exhibits any of the characteristics set forth in article 3 of chapter 11 of this division by either:

(1) testing the waste according to the methods set forth in article 3 (commencing with section 66261.20) of chapter 11 of this division, or according to an equivalent method approved by the Department under section 66260.21; or

(2) applying knowledge of the hazard characteristic of the waste in light of the materials or the processes used.

(d) If the waste is determined to be hazardous, the generator shall refer to chapters 14, 15, and 18 of this division for possible exclusions or restrictions pertaining to management of the specific waste.

NOTE: Authority cited: Sections 208, 25150 and 25159, Health and Safety Code. Reference: Sections 25115, 25117, 25159 and 25159.5, Health and Safety Code; 40 CFR Section 262.11.

HISTORY

1. New section filed 5-24-91; effective 7-1-91 (Register 91, No. 22).

§ 66262.12. Identification Numbers for the Generator.

(a) A generator shall not treat, store, dispose of, transport or offer for transportation, hazardous waste without having received an Identification Number.

(b) A generator who has not received an Identification Number may obtain one by applying to the Administrator or to the Department using EPA form 8700-12 (Revised 1/90). Following receipt of the request, the generator will be assigned an identification number.

(c) A generator shall not offer the hazardous waste to transporters or to transfer, treatment, storage or disposal facilities that have not received an Identification Number.

NOTE: Authority cited: Sections 208, 25150 and 25159, Health and Safety Code. Reference: Sections 25159 and 25159.5, Health and Safety Code; 40 CFR Section 262.12.

HISTORY

1. New section filed 5-24-91; effective 7-1-91 (Register 91, No. 22).

Article 2. The Manifest

§ 66262.20. General Requirements.

(a) A generator who transports, or offers for transportation, hazardous waste for off-site transfer, treatment, storage, or disposal shall prepare a Manifest, DHS Form 8022A, and if necessary, the EPA continuation Form 8700-22A, according to the instructions included in the Appendix to chapter 12 of this division before the waste is transported off-site. All manifest requests should be submitted to the following agency:

DEPARTMENT OF GENERAL SERVICES

DOCUMENTS AND PUBLICATIONS

P.O. BOX 1015

NORTH HIGHLANDS, CA 95660

For further information with regard to manifest ordering and associated fees, contact the Department of General Services' Customer Service Office at (916) 973-3700.

(b) A generator shall designate on the manifest one facility which is permitted to handle the waste described on the manifest.

(c) A generator may also designate on the manifest one alternate facility which is permitted to handle the waste in the event an emergency prevents delivery of the waste to the primary designated facility.

(d) If the transporter is unable to deliver the hazardous waste to the designated facility or the alternate facility, the generator shall either designate another facility or instruct the transporter to return the waste.

NOTE: Authority cited: Sections 208, 25150, 25159 and 25161, Health and Safety Code. Reference: Sections 25159, 25159.5 and 25160, Health and Safety Code; 40 CFR Section 262.60.

HISTORY

1. New section filed 5-24-91; effective 7-1-91 (Register 91, No. 22).

§ 66262.21. Acquisition of Manifests.

(a) If the state to which the shipment is manifested (consignment state) supplies the manifest and requires its use, then the generator shall use that manifest.

(b) If the consignment state does not supply the manifest, the generator shall use the California Uniform Hazardous Waste manifest, EPA 8700-22/DHS 8022A (6-89).

NOTE: Authority cited: Sections 208, 25150, 25159 and 25161, Health and Safety Code. Reference: Sections 25159, 25159.5 and 25160, Health and Safety Code; 40 CFR Section 262.21.

HISTORY

1. New section filed 5-24-91; effective 7-1-91 (Register 91, No. 22).

§ 66262.22. Number of Copies.

The manifest consists of at least six copies which will provide the generator with two copies, the transporter with one copy, the owner or operator of the designated facility with one copy and the Department with two copies.

NOTE: Authority cited: Sections 208, 25150, 25159 and 25161, Health and Safety Code. Reference: Sections 25159, 25159.5 and 25160, Health and Safety Code; 40 CFR Section 262.22.

HISTORY

1. New section filed 5-28-91; operative 7-1-91 (Register 91, No. 22).

§ 66262.23. Use of the Manifest.

(a) The generator of any hazardous or extremely hazardous waste to be transported off-site shall:

(1) complete the generator and waste section and sign the manifest certification according to the instructions in the Appendix to this chapter, and

(2) obtain the handwritten signature of the initial transporter and date of acceptance on the manifest; and

(3) retain two copies, in accordance with section 66262.40(a); and
 (4) within 30 days of each shipment of hazardous waste submit to the Department a legible copy of each manifest used.

(b) The generator shall give the transporter the remaining copies of the manifest.

(c) For shipments of hazardous waste within the United States solely by water (bulk shipments only), the generator shall send three copies of the manifest dated and signed in accordance with this section to the owner or operator of the designated facility or the last water (bulk shipment) transporter to handle the waste in the United States if exported by water. Copies of the manifest are not required for each transporter.

(d) For rail shipments of hazardous waste within the United States which originate at the site of generation, the generator shall send at least three copies of the manifest dated and signed in accordance with this section to:

- (1) the next non-rail transporter, if any; or
- (2) the designated facility if transported solely by rail; or
- (3) the last rail transporter to handle the waste in the United States if exported by rail.

NOTE: Authority cited: Sections 208, 25150, 25159 and 25161, Health and Safety Code. Reference: Sections 25159, 25159.5 and 25160, Health and Safety Code; 40 CFR Section 262.23.

HISTORY

1. New section filed 5-24-91; effective 7-1-91 (Register 91, No. 22).

Article 3. Pre-Transport Requirements

§ 66262.30. Packaging.

Before transporting hazardous waste or offering hazardous waste for transportation off-site, a generator shall package the waste in accordance with the applicable Department of Transportation regulations on packaging under Title 49 CFR Parts 173, 178, and 179.

NOTE: Authority cited: Sections 208, 25150, 25159 and 25161, Health and Safety Code. Reference: Sections 25159, 25159.5 and 25160, Health and Safety Code; 40 CFR Section 262.30.

HISTORY

1. New section filed 5-24-91; effective 7-1-91 (Register 91, No. 22).

§ 66262.31. Labeling.

Before transporting or offering hazardous waste for transportation off-site, a generator shall label each package in accordance with the applicable Department of Transportation regulations on hazardous materials under Title 49 CFR Part 172.

NOTE: Authority cited: Sections 208, 25150, 25159 and 25161, Health and Safety Code. Reference: Sections 25159, 25159.5 and 25160, Health and Safety Code; 40 CFR Section 262.31.

HISTORY

1. New section filed 5-24-91; effective 7-1-91 (Register 91, No. 22).

§ 66262.32. Marking.

(a) Before transporting or offering hazardous waste for transportation off-site, a generator shall mark each package of hazardous waste in accordance with the applicable Department of Transportation regulations on hazardous materials under Title 49 CFR Part 172;

(b) Before transporting hazardous waste or offering hazardous waste for transportation off-site, a generator shall mark each container of 110 gallons or less used in such transportation with the following words and information displayed in accordance with the requirements of Title 49 CFR 172.304:

HAZARDOUS WASTE—State and Federal Law Prohibit Improper Disposal. If found, contact the nearest police or public safety authority, the U.S. Environmental Protection Agency or the California Department of Health Services.

Generator's Name and Address _____

Manifest Document Number _____

NOTE: Authority cited: Sections 208, 25150, 25159 and 25161, Health and Safety Code. Reference: Sections 25159, 25159.5 and 25160, Health and Safety Code; 40 CFR Section 262.32.

HISTORY

1. New section filed 5-28-91; operative 7-1-91 (Register 91, No. 22).

§ 66262.33. Placarding.

Before transporting hazardous waste or offering hazardous waste for transportation off-site, a generator shall ensure that the transport vehicle is correctly placarded according to Department of Transportation regulations for hazardous materials under Title 49 CFR Part 172, Subpart F.

NOTE: Authority cited: Sections 208, 25150, 25159 and 25161, Health and Safety Code. Reference: Sections 25159, 25159.5 and 25160, Health and Safety Code; 40 CFR Section 262.33.

HISTORY

1. New section filed 5-24-91; effective 7-1-91 (Register 91, No. 22).

§ 66262.34. Accumulation Time.

(a) Except as provided in subsection (d) of this section, a generator may accumulate hazardous waste on-site for 90 days or less without a permit or grant of interim status, provided that:

(1) the waste is placed in containers and the generator complies with article 9 of chapter 15 of this division, or the waste is placed in tanks and the generator complies with article 10 of chapter 15 of this division, except sections 66265.197(c) and 66265.200. In addition, such a generator is exempt from all the requirements in articles 7 and 8 of chapter 15 of this division, except for sections 66265.111 and 66265.114; and

(2) the generator complies with the requirements of subsection (f) of this section; and

(3) the generator complies with the requirements for owners or operators in articles 3 and 4 of chapter 15 of this division and with section 66265.16;

(4) the generator complies with the requirements for owners or operators in article 3 (commencing with section 66265.30) and 4 (commencing with section 66265.50) of chapter 15 of this division and with section 66265.16.

(b) The beginning of the 90 day period specified in subsections (a) and (c) of this section is determined as follows:

(1) if the generator does not generate more than 100 kilograms of hazardous waste or one kilogram of acutely hazardous waste (listed in section 66261.33(e)) or one kilogram of extremely hazardous waste during any calendar month, the 90 day period begins on the date the generator has accumulated 100 kilograms of hazardous waste or one kilogram of acutely hazardous waste or one kilogram of extremely hazardous waste;

(2) if the generator generates more than 100 kilograms of hazardous waste or one kilogram of acutely hazardous waste or one kilogram of extremely hazardous waste during any calendar month, the 90-day period begins on the first date on which any amount of hazardous waste begins to accumulate during that month.

(c) A generator who accumulates hazardous waste for more than 90 days is an operator of a storage facility and is subject to the requirements of chapters 14 and 15 of this division and the permit requirements of chapter 20 of this division, unless the generator has been granted an extension to the 90-day period or meets the requirements of subsection (e) of this section. An extension may be granted by the Department if hazardous wastes must remain on-site for longer than 90 days due to unforeseen, temporary, and uncontrollable circumstances. An extension of up to 30 days may be granted at the discretion of the Department on a case-by-case basis.

(d) A generator who stores more than 5000 U.S. gallons or 45,000 pounds, whichever is greater, of hazardous waste onsite in a tank for any period of time is an operator of a storage facility, and is subject to the requirements of chapters 14 and 15 of this division and the permit requirements of chapter 20 of this division.

(1) For purposes of this subsection, tank does not include a portable tank marked or labeled in compliance with subsection (f) of this section and meeting either of the following conditions:

(A) the portable tank is used to store hazardous waste onsite which has been generated from onsite maintenance operations which occur less frequently than annually; or

**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 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

All depths and elevations in feet.

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Abbreviations:

Elev GS – Elevation of Ground Surface	WL Status – Water Level Status
Elev RP – Elevation of Reference Point	Perfs – Perforated Interval
Elev WS – Elevation of Water Surface	

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

All depths and elevations in feet.

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

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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	

All depths and elevations in feet.

10/27/1997 08:53 OCWD WRMS RPT#: 2153 Page: 3

Abbreviations:

Elev GS -- Elevation of Ground Surface WL Status -- Water Level Status
 Elev RP -- Elevation of Reference Point Perfs -- Perforated Interval
 Elev WS -- Elevation of Water Surface

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	

All depths and elevations in feet.

Abbreviations:

Elev GS – Elevation of Ground Surface WL Status – Water Level Status
 Elev RP – Elevation of Reference Point Perfs – Perforated Interval
 Elev WS – Elevation of Water Surface

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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	

All depths and elevations in feet.

Abbreviations:

Elev GS – Elevation of Ground Surface WL Status – Water Level Status
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Elev WS – Elevation of Water Surface

10/27/1997 08:53 OCWD WRMS RPT#: 2153 Page: 5



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

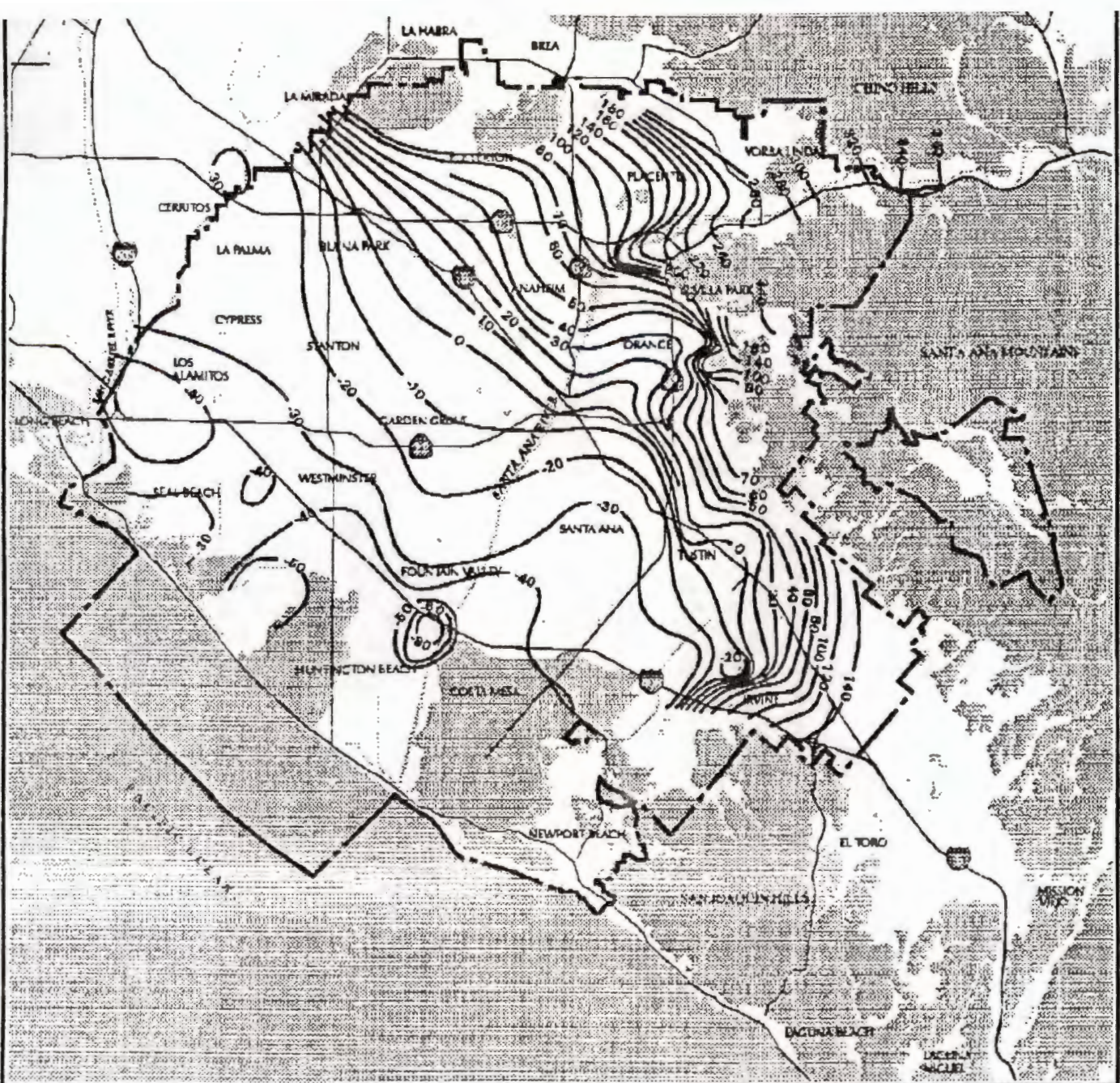
DATE: October 9, 1997
TO: Jack L.
Western Environmental Engineers
FAX NO.: (714) 542-2520
PHONE: (714) 542-2644
FROM: Rita Hintlian
PHONE: (714) 378-3252







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



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PHILIP L. ANTHONY
WES BANNISTER
KATHRYN L. BARR
JOHN V. FONLEY
DANIEL E. GRISSET
LAWRENCE P. KRAEVEY JR.
GEORGE OSBORNE
LANGDON W. OWEN
IRV PICKLER
ARNT G. "BUD" QUIST



Officers
WES BANNISTER
President
DANIEL E. GRISSET
First Vice President
ARNT G. "BUD" QUIST
Second Vice President

WILLIAM R. MILLS JR.
General Manager
CLARK IDE
General Counsel

ORANGE COUNTY WATER DISTRICT

GUIDE TO INFORMATION REQUESTS

The Orange County Water District provides ground water information for the following cities:

Anaheim
Buena Park
Costa Mesa
Cypress
Fountain Valley
Fullerton
Garden Grove
Huntington Beach

Irvine
La Palma
Los Alamitos
Midway City
Newport Beach
Orange
Placentia

Santa Ana
Seal Beach
Stanton
Tustin
Villa Park
Westminster
Yorba Linda

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.

P.O. BOX 8300, FOUNTAIN VALLEY, CA 92728-E300 • 10500 ELLIS AVENUE, FOUNTAIN VALLEY, CA 92706
TELEPHONE (714) 378-3200 FAX (714) 378-3379

Attachment (E)

MSDS Sheets for NaOCl

171120 gm PL 11/10/11 TC

H3 FD R1
CORROSIVE

Sunny Sol 150 - Jones Chemicals, Inc.
MSDS# 1201.9048 Revision# 1994.01015

MATERIAL SAFETY DATA SHEET

*PPE: rubber floor
goggles face shield
(if needed)
Use respirator if
needed.*

Jones Chemicals, Inc.
80 Munson Street
LaRoy, 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 1500
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	12.5-15.6	7681-52-9	Not Applicable	Not Applicable
Sodium Hydroxide	0.1-2.0	1310-73-2	2mg/m ³ ceiling	STEL/CEIL(c) 2mg/m ³ 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.

CONDITIONS CONTRIBUTING TO HAZARDOUS POLYMERIZATION

Will not occur.

SECTION VII - SPILL OR LEAK PROCEDURES

STEPS TO BE TAKEN IF MATERIAL IS RELEASED OR SPILLED

Cleanup personnel must wear proper protective equipment (See Section VIII). Contain in diked area. Neutralize with sodium bisulfite or ferrous salt solutions. Place neutralized material in DOT specification approved container(s). Flush area with large amounts of water. Comply with all Federal, State and Local reporting requirements.

WASTE DISPOSAL

Contact Federal, State, County, and Local environmental regulators for guidance regarding proper disposal.

SECTION VIII - SPECIAL PROTECTION INFORMATION

VENTILATION REQUIREMENTS

Local exhaust is recommended.

SPECIFIC PERSONAL PROTECTIVE EQUIPMENT

RESPIRATORY: Use National Institute of Occupational Safety and Health (NIOSH) or Mine Safety and Health Administration (MSHA) approved respirator appropriate for this product when permissible exposure limits are exceeded.

EYES: Use chemical goggles and face shield.

GLOVES: Use chemical resistant rubber, plastic, or neoprene gloves.

OTHER: Use chemical resistant splash apron and boots. Safety shower and eye wash fountain should be located nearby.

SECTION IX - SPECIAL PRECAUTIONS

PRECAUTIONS TO BE TAKEN IN HANDLING

DANGER: This product is corrosive and may cause severe skin irritation or chemical burns to broken skin. Causes eye damage. Do not get in eyes, on skin or on clothing. Wear goggles and face shield and chemical resistant gloves when handling this product. Wash after handling. Avoid breathing vapors. Vacate poorly ventilated areas as soon as possible. Do not return until odors have dissipated.

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.

RECEIVED

FEB 19 1998

HEALTH CARE AGENCY
ENVIRONMENTAL HEALTH



**COUNTY OF ORANGE
HEALTH CARE AGENCY**

TOM URAM
DIRECTOR

HUGH F. STALLWORTH, M.D.
HEALTH OFFICER

JACK MILLER, REHS
DEPUTY DIRECTOR

MAILING ADDRESS:
2009 EAST EDINGER AVENUE
SANTA ANA, CA 92705-4720

TELEPHONE: (714) 667-3600
FAX: (714) 972-0749

**PUBLIC HEALTH
DIVISION OF ENVIRONMENTAL HEALTH**

April 21, 1998

Charles Choi
Western Environmental Engineers Company
1780 E. McFadden Avenue, Suite 117
Santa Ana, CA 92705

Subject: **Case Closure**
Re: Kimberly-Clark
2001 E. Orangethorpe Avenue
Fullerton, CA 92831
OCHCA Case # 98IC9

Dear Mr. Choi:

This letter confirms the completion of remedial investigation at the above-referenced site. With the provision that the information provided to this Agency was accurate and representative of existing conditions, it is the position of this office that no further action is required at this time.

This confirmation of completion is limited in scope. It is limited to site conditions made known to this Agency under the above-referenced case number. It is based on an evaluation of the health threat presented by the inhalation, ingestion, or dermal absorption of the residual contaminants. In addition, this evaluation considered the present and proposed use of the property. Changes in the present or proposed land use may require further site characterization and/or site mitigation activity.

The presence of sodium hypochlorite (NaOCl) and the potential for residual contamination present at this site to cause groundwater contamination was discussed with Robert Holub and Kamron Saremi of the Santa Ana Regional Water Quality Control Board. Regional Board staff concurred 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. It is the property owner's responsibility to notify this Agency of any changes in future contamination findings or site usage.

Charles Choi
April 21, 1998
Page 2

If you have any questions regarding this matter, please contact Luis Lodrigueza at (714) 667-3717.

Sincerely,

Karen L. Hodel

Karen L. Hodel, R.G.
Program Manager
Hazardous Materials Management Section
Environmental Health Division

KLH:LL:

cc: Robert Holub, Santa Ana Regional Water Quality Control Board
Grace Madden, Kimberly-Clark Company
William J. Diekmann, O. C. Supervising Hazardous Waste Specialist

Closure Rationale

OCHCA Case No.: 98IC9

April 14, 1998

DBA: **Kimberly-Clark**

2001 E. Orangethorpe Avenue
Fullerton, CA 92831

Responsible Party: Kimberly-Clark
c/o Charles Choi/WEECO

Current Land Use: Commercial

Future Land Use: Commercial

Adjacent Land Use: Commercial

<u>Contaminant</u>	<u>Concentrations in Soil</u>		<u>US EPA PRG (Ind**)</u>
	<u>Maximum</u>	<u>Deepest Known</u>	<u>(mg/kg)</u>
Sodium hypochlorite (NaOCl)	13 ppm (2')	0.80 ppm (40')*	1.7E+05 (170,000)

*Depth in feet below grade **Industrial setting

Soil types: Sandy silt to silt, with occasional pea gravel

Depth to groundwater: 100-110 ft below grade (bg), estimated

This rationale pertains to the bermed 120 ft by 110 ft tank farm area at the mid-eastern edge of the property. Five aboveground tanks containing fuel oil and chemicals are situated in this farm. A site investigation was conducted in this location after two spill incidents of sodium hypochlorite (12.5-15.6% NaOCl solution) occurred in the tank farm. The first incident was discovered on August 6, 1997 when NaOCl solution leaked from an aboveground tank (No. 1) and wet about 177 square feet of soil on its way to a 250-gallon capacity concrete-lined collection sump situated in a relatively depressed area. The contaminated soil was removed and placed in thirteen (13) 50-gallon drums on site. The tank was decommissioned and replaced with a temporary storage tank. The second incident happened about 7 months later. The vacuum hose connected to the temporary storage tank ruptured, spilling some 270 gallons of NaOCl: most collected in the concrete sump, but about 20 gallons of the liquid spilled into the ground. No soil removal was undertaken at this time. In both instances, the leakage was confined to the bermed area of the tank farm, and there was no known discharge to any sewer, storm drain or waterway.

Kimberly Clark contracted WEECO to determine the extent of contamination resulting from the spillage. WEECO installed 10 hand auger borings on site because of accessibility problems with a mechanized drill rig. The boreholes were drilled in the immediate vicinity of Tank No.1 and nearby Tank No. 2. Soil samples were collected from depths of 2, 4, 6, 8 and 10 ft below grade (bg) and sent to a State-certified laboratory for NaOCl analysis. Results showed the presence of significant NaOCl in all boreholes. The contamination extended from the surface to various depths of 4 ft to 10 ft bg and NaOCl concentrations ranged from below detection (1 ppm method detection limit) to a maximum of 13 ppm.

The presence of NaOCl at depth prompted the installation of 4 additional boreholes in locations that had the deepest known impact. A mechanical rig was used this time and the borings extended to a maximum depth of 40 ft bg. Two off-path boreholes showed detectable (>0.5 ppm NaOCl) contamination down to only 20 ft bg, while two others (one at the location of the removed leaking tank and another directly downgradient of the spill flow) showed contamination of up to 0.8 ppm at the maximum drill depth of 40 ft bg.

WEECO submitted to OCHCA a report on the investigation and requested an evaluation of the need for any additional work and/or mitigation of the contamination.

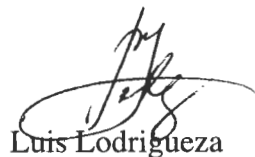
Sodium hypochlorite aqueous solution (12.5%-15.6% by weight) is used by Kimberly Clark as a bleaching agent for its paper (pulp); it is also generally used as a swimming pool disinfectant, fungicides

and in laundering. Its corrosive and irritant properties especially make it hazardous, aside from its being an oxidizing agent. The concentration of the solution and the duration of exposure affect the degree of sodium hypochlorite's toxicity.

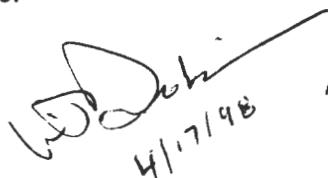
A comparison between the amount of sodium hypochlorite used in swimming pool disinfection and the concentration of NaOCl solution spilled at this site was made to determine the impact of human exposure to the contamination at this site. Sodium hypochlorite is one of 4 common disinfecting chemicals used in swimming pools (chlorine gas, lithium and calcium hypochlorite are the other three). OCHCA staff responsible for swimming pool inspections said that normally 5-7 ppm of available chlorine is considered acceptable as residual chlorine concentration in a pool and a maximum of 10 ppm chlorine had been accepted in several cases. Although no formal policy so dictates, this 10 ppm maximum chlorine residual is the current standard used by HCA staff. [Compare: Per HCA Water Quality Unit staff, the acceptable chlorine level at the drinking water distribution system (tap) is currently 0.02 ppm; there is no maximum value for drinking water at the tap, but odor and taste thresholds would be taken into account to determine acceptability.]

The NaOCl solution used by Kimberly Clark is supplied by Jones Chemicals, Inc. under the brand name of "Sunny Sol 150" and contains 12.5%-15.6% NaOCl by weight. Based on industry standards, this would contain about 10% to 12% (100,000-120,000 ppm) available chlorine. The maximum detected NaOCl concentration in the soil within the tank farm was 13 ppm, which would equate to 10.8 ppm available chlorine—a concentration only slightly above the accepted chlorine standard used for swimming pools. Compared to the swimming pool environment where pool water is in direct contact with users and could be easily ingested, the tank farm is fenced off and not easily accessible to workers in this industrial setting. [It is to be noted that of the NaOCl spilled, some would have decomposed to free chlorine and hypochlorous acid, the latter likely reacting with waste matter to produce chloramines, both of which would effectively reduce the available chlorine. Furthermore, given time, the NaOCl would be converted to non-toxic sodium chloride, sodium chlorite and oxygen.] Given the amount of rainfall that the county had received in the last quarter of 1997 and the first quarter of 1998, the concentration of NaOCl should be expected to have been drastically diminished to insignificant levels.

In view of the very low levels of NaOCl in soil beneath the tank farm within this industrial facility, which is comparable to the amount of exposure acceptable in a more sensitive locale (swimming pool)--and which is only a tiny fraction of the amount (in terms of chlorine) considered by the US EPA to be safe to be left in place [10.8 ppm (soil concentration) vs. 170,000 ppm (PRG)]--the contamination at this site is not deemed to be of any significant threat to human health or the environment. Water quality beneath this site is also unlikely to be impacted because of the deep water table and the progressive decrease in NaOCl concentration with depth, reaching less than 1 ppm some 60 ft away from the water table. Since no further action appears necessary at this location; it is recommended that this case be closed. Kamron Saremi of the Santa Ana Regional Water Quality Board was contacted regarding this and he concurred with closure.



Luis Lodrigueza
Hazardous Waste Specialist


4/17/98

Kamron Saremi
4/20/98

TREATMENT

INTRODUCE 15 PPM NEW CHLORINE TO THE POOL TO ACHIEVE BREAKPOINT.

AMOUNT OF CHLORINE COMPOUND TO INTRODUCE ONE PPM

% AVAILABLE CHLORINE	GALLONS IN POOL					
	1,000	5,000	10,000	15,000	20,000	25,000
10%	1/5 C.	8/10 C.	1 6/10 C.	1 2/10 pts.	1 6/10 pts.	1 qt.
35%	0.024 lbs.	0.119 lbs.	0.238 lbs.	0.356 lbs.	0.477 lbs.	0.596 lbs.
60%	0.014 lbs.	0.070 lbs.	0.139 lbs.	0.209 lbs.	0.278 lbs.	0.348 lbs.
65%	0.013 lbs.	0.064 lbs.	0.128 lbs.	0.192 lbs.	0.257 lbs.	0.321 lbs.

1 Cup = 8 oz. liquid

10% as liquid bleach (sodium hypochlorite)

35% as lithium hypochlorite

60% as sodium dichloroisocyanurate

65% as calcium hypochlorite

From the table — 20,000 gal. — 65% Available Chlorine

1 ppm = 0.257 lbs.

$0.257 \times 15 \text{ ppm} = 3.855 \text{ lbs.}$

TEST METHODS FOR CHLORINE

1. DPD

Diethyl-p-phenylene diamine (DPD) is the accepted method because of color stability, accuracy and reproducibility.

MEASURES: 1. Free Available Chlorine (FAC)
2. Total Available Chlorine (TAC)

2. COLORIMETRY



Colorimetry incorporates a monochromatic (single color) light source to electronically (photometrically) measure the chlorine residual.

MEASURES: 1. Free Available Chlorine (FAC)

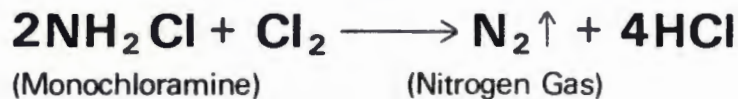
3. OTO

Orthotolidine (OTO) is vulnerable to many interfering agents. Because of this, OTO has poor accuracy and reproducibility. Furthermore, OTO could be a potential cause of cancerous tumors in the urinary tract. It has been placed on the EPA list of carcinogenic agents.

MEASURES: 1. Total Available Chlorine (FAC)

BREAKPOINT CHLORINATION

Breakpoint chlorination is the process of adding sufficient chlorine to chemically convert chloramines to inert nitrogen gas. The terms shocking and superchlorination have oftentimes been confused with breakpoint chlorination.



FREE AVAILABLE CHLORINE (FAC) DPD #1

COMBINED AVAILABLE CHLORINE (CAC)

TOTAL AVAILABLE CHLORINE (TAC) DPD #1 + DPD #3

Mathematical Relationship

$$\text{TAC} = \text{FAC} + \text{CAC}$$

$$\text{CAC} = \text{TAC} - \text{FAC}$$

$$\text{ppm chlorine required to achieve breakpoint} = \text{CAC} \times 10$$

EXAMPLE OF BREAKPOINT CHLORINATION

20,000 gal. pool - 65% available chlorine in the form of calcium hypochlorite on hand.

Testing shows FAC = 0.5 ppm; and TAC = 2.0 ppm; pH = 7.5

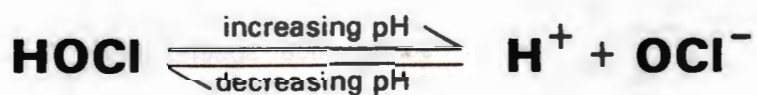
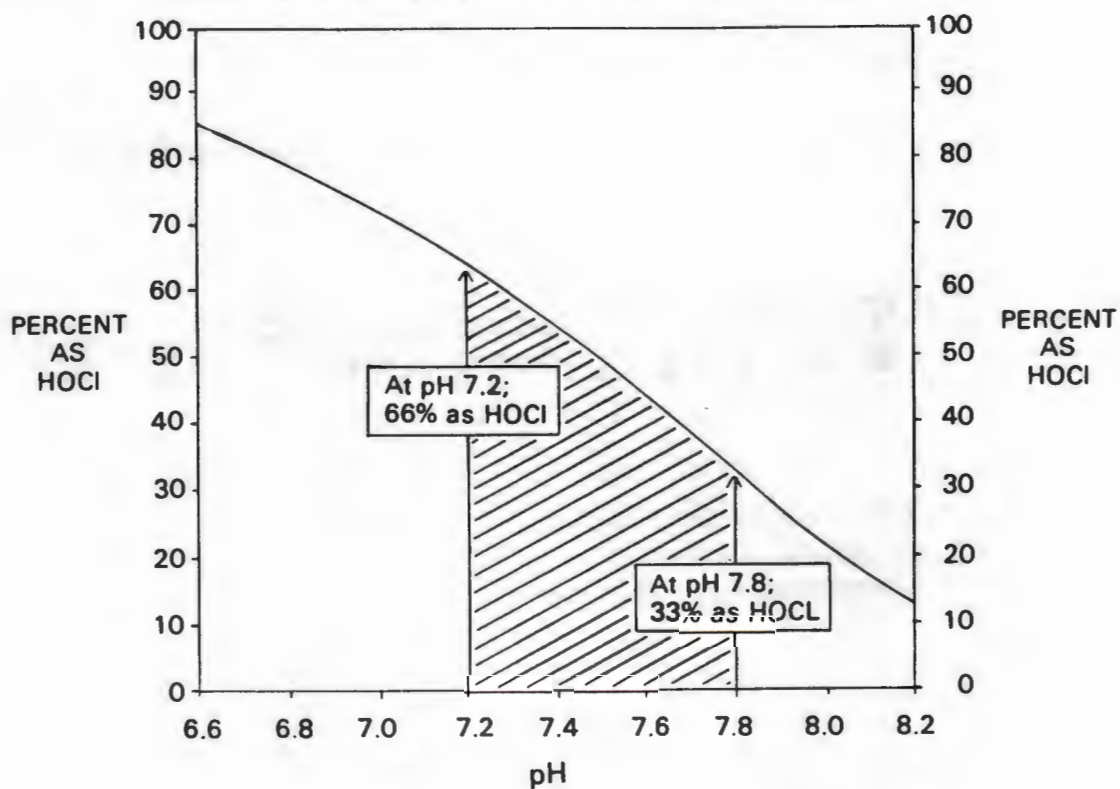
Complaint — Eye irritation and strong "chlorine odor."

Analysis:

$$\begin{array}{r} \text{TAC} = 2.0 \text{ ppm} \\ -\text{FAC} = 0.5 \text{ ppm} \\ \hline \text{CAC} = 1.5 \text{ ppm} \end{array}$$

Using Formula: $1.5 \text{ ppm} \times 10 = 15 \text{ ppm}$ of new chlorine must be added to remove chloramines.

ACID DISSOCIATION CURVE FOR HOCl



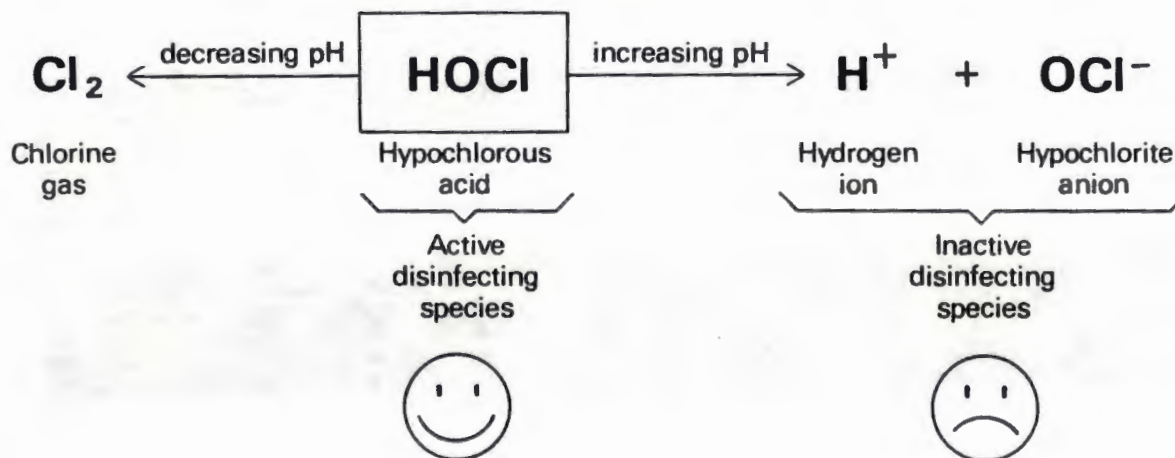
pH	PERCENT AS ACTIVE HOCl	PERCENT AS INACTIVE OCl ⁻
5.0	100	0
6.0	96	4
7.0	75	25
7.2	66	34
7.5	48	52
7.8	33	67
8.0	22	78

HOW DOES HYPOCHLOROUS ACID KILL GERMS AND DESTROY BACTERIA?

- I. Chemical interference of a vital, life-supporting enzymatic reaction.
- II. Direct attack and rupture of the cell wall.

HYPOCHLOROUS ACID AND pH

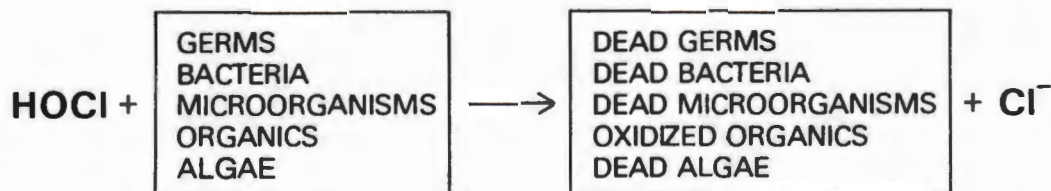
Hypochlorous acid (HOCl) dissociates (separates) or ionizes at higher pH's to form inactive hydrogen (H^+) ion and hypochlorite (OCl^-) anion. These chemical species have virtually zero disinfecting properties.



CHEMISTRY OF HYPOCHLOROUS ACID

HOCl

Hypochlorous acid is the active chlorine species that kills bacteria, deactivates microorganisms, oxidizes organic and nitrogen compounds and destroys algae. The sanitizing and oxidizing power of hypochlorous acid is due to the fact that the chlorine atom of the hypochlorous acid molecule is present in an UNSTABLE (+1) oxidation state. When reacting with germs, bacteria, microorganisms, organics and algae, the chlorine atom is converted to chloride ion (Cl^-).



NOTE: The chloride ion (Cl^-) has no disinfection or oxidizing power.

Equivalent Sanitizing Quantities of Pool Chlorine Products

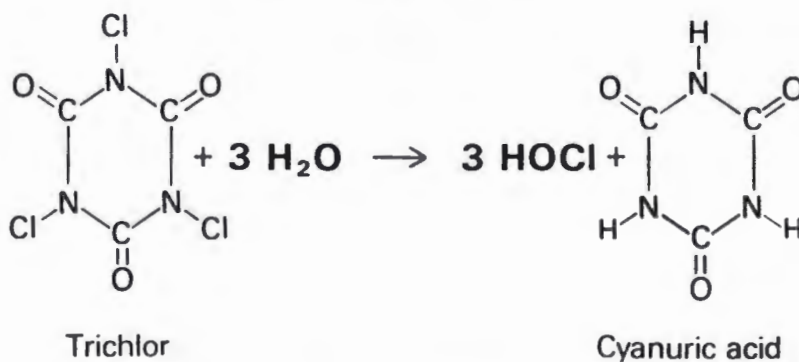
Sodium Hypochlorite Liquid Bleach 12% NaOCl	Calcium Hypochlorite 70% Hi Chlor Ca(OCl) ₂	Calcium Hypochlorite 65% HTH Ca(OCl) ₂	Lithium Hypochlorite 29% LiOCl	Trichloro-s triazinetrione Tablets 99.5% TCCA	Sodium Dichloro-s triazinetrione 100% NaDCC
1 GALLON (U.S.) EQUIVALENT TO	1 POUND EQUIVALENT TO	1 POUND EQUIVALENT TO	1 POUND EQUIVALENT TO	1 POUND EQUIVALENT TO	1 POUND EQUIVALENT TO
1	0.69	0.64	0.36	0.85	0.62
1.5	1	0.93	0.52	1.2	0.90
1.6	1.1	1	0.56	1.3	0.97
2.8	1.9	1.8	1	2.4	1.7
1.2	0.81	0.75	0.42	1	0.73
1.6	1.1	1.0	0.58	1.4	1

Gallons (U.S.) of	Sodium Hypochlorite Liquid Bleach 12% NaOCl
Pounds of	Calcium Hypochlorite 70% Hi Chlor Ca(OCl) ₂
Pounds of	Calcium Hypochlorite 65% HTH Ca(OCl) ₂
Pounds of	Lithium Hypochlorite 29% LiOCl
Pounds of	Trichloro-s triazinetrione Tablets 99.5% TCCA
Pounds of	Sodium Dichloro-s triazinetrione 100% NaDCC

Amount of Stabilizer Required to Accomplish the
Desired Increases Listed Below.

Desired Increase	Pool Volume (gallons)					
	1,000	5,000	10,000	20,000	50,000	100,000
10 ppm	0.083 lb	0.42 lb	0.83 lb	1.7 lb	4.2 lb	8.3 lb
20 ppm	0.17 lb	0.84 lb	1.6 lb	3.4 lb	8.4 lb	16.6 lb
30 ppm	0.25 lb	1.3 lb	2.5 lb	5.1 lb	12.6 lb	24.9 lb
40 ppm	0.33 lb	2.1 lb	3.3 lb	6.8 lb	16.8 lb	33.2 lb
50 ppm	0.42 lb	2.9 lb	4.2 lb	8.5 lb	21.0 lb	41.5 lb

TRICHLOROISOCYANURIC ACID



ACTIVE STRENGTH — 90 - 100%
AVAILABLE CHLORINE CONTENT — 90%
pH — 2.8

Advantages

- Easily handled
- Dissolves slowly
- Ideal for erosion chlorinators
- Stabilized against U.V. degradation

Disadvantages

- Low pH
- Reduces total alkalinity
- Elevated cyanuric acid levels

CALCIUM HYPOCHLORITE

$\text{Ca}(\text{OCl})_2$



ACTIVE STRENGTH — 65%
AVAILABLE CHLORINE CONTENT — 65%
pH — 11

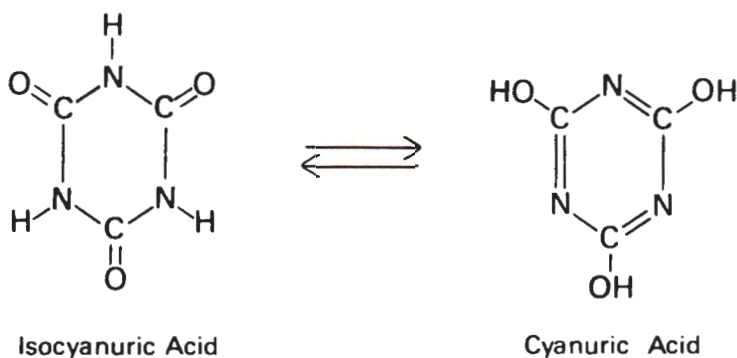
Advantages

- Easily handled
- No significant decomposition if stored properly

Disadvantages

- Can cause cloudy water, scale or clogged filters if pH and total alkalinity are not properly maintained
- Raises pH
- Slow to dissolve

STABILIZATION (CONDITIONING)



Characteristics

- Cyanuric acid protects the free available chlorine residual from the destructive properties of ultraviolet radiation (SUNLIGHT)
- Proper range: 25 to 50 ppm
- pH: 6.3
- Slow dissolving
- Not degraded by any pool chemicals, therefore cyanuric acid is diluted by draining and refilling

SODIUM HYPOCHLORITE (NaOCl)



ACTIVE STRENGTH — 10.8%
AVAILABLE CHLORINE CONTENT — 10.3%
pH — 13

Advantages

- Next to chlorine gas, this liquid chlorine compound is the cheapest form of chlorine.
- No dissolving required; goes into action immediately.

Disadvantages

- Bulky and heavy.
- Requires large storage areas.
- Raises pH dramatically
- Not stable in storage except at very low temperatures.
- Bleaches any colored materials (i.e., clothes, bathing suits, etc.).

LITHIUM HYPOCHLORITE (LiOCl)



ACTIVE STRENGTH — 29%
AVAILABLE CHLORINE CONTENT — 35%
pH — 10

Advantages

- Very soluble
- Safe and easily handled
- No significant decomposition if properly stored
- No predissolving required

Disadvantages

- Similar in price to calcium hypochlorite, however it requires 1.8 times as much to achieve the same activity
- Raises pH

BREAKING THE CONFUSION BARRIER BETWEEN:

- **ACTIVE STRENGTH**

Refers to the actual percentage by weight of the sanitizer.

Example: Calcium Hypochlorite - $\text{Ca}(\text{OCl})_2$
Active Strength: 65%
Inert Ingredients: 35%

- **AVAILABLE CHLORINE CONTENT (ACC)**

Refers to the relative sanitizing and oxidizing strength when referenced to gas chlorine which is 100% available chlorine.

CHLORINE GAS - Cl_2



ACTIVE STRENGTH — 100%
AVAILABLE CHLORINE CONTENT — 100%
pH — Very low

Advantages

- Cheapest source of chlorine sanitizer.

Disadvantages

- Requires expensive feed equipment
- Chlorine gas is very toxic and dangerous to handle.
- Lowers pH.
- Experienced chlorine gas operator required to change gas cylinders and make adjustments.
- Requires soda ash (Na_2CO_3) feed equipment to compensate for the low pH of gas chlorine.

CHLORINE DISINFECTION

THE TWO MAJOR CLASSES OF POOL CHLORINES ARE:

(A). UNSTABILIZED (INORGANIC)

1. Gas Chlorine
2. Sodium Hypochlorite
3. Lithium Hypochlorite
4. Calcium Hypochlorite

(B). STABILIZED (ORGANIC)

1. Trichloro-s-Triazinetrione (TRICHLOR)
2. Sodium Dichloro-s-Triazinetrione (DICHLOR)

POPULAR METHODS OF POOL DISINFECTION

Method	Active Agent
Chlorine	Hypochlorous Acid (HOCl)
Bromine	Hypobromous Acid (HOBr) Bromamines
Iodine	Hypoiodous Acid (HOI) Free Iodine (I ₂)
Ozone	Ozone (O ₃)
Ultraviolet Radiation	U.V./Hydrogen Peroxide

SWIMMING POOL DISINFECTION

IMPORTANT DEFINITIONS

- **DISINFECTION** is the process of destroying living organisms and bacteria in sufficient numbers (99.9%) to prevent disease. **Disinfection** does not necessarily imply complete destruction of all living organisms.
- **STERILIZATION** is the complete (100%) destruction of all living organisms and bacteria.
- **OXIDATION** is the process of cleansing or purging the pool of organic and nitrogen contaminants such as dust, algae and human wastes. **Oxidation** is the burning out process to convert complex organic molecules to simple compounds that can eventually escape as a harmless gas (i.e., carbon dioxide, elemental nitrogen and others).
- **HALOGEN** is the general term describing any of the five (5) elements of group VII of the periodic chart.

Group VII	Molecular Form	Physical State
Fluorine	F ₂	Gas
Chlorine	Cl ₂	Gas
Bromine	Br ₂	Liquid
Iodine	I ₂	Solid
Astatine	At ₂	Solid

WEECO WESTERN ENVIRONMENTAL ENGINEERS CO.

1780 E. McFadden Ave. (Suite 117)
Santa Ana, CA 92705

(714) 542-2644
FAX (714) 542-2520

(Fax) 714-773-9291 (Fax) 714-568-5116 (Refaxed on 4/2/98)

Mr. Luis Lodrigueza (Total 7-copies)
Environmental Health
HCA, County of Orange

March 25, 1998

RE: Kimberly-Clark Factory NaOCl Spill Problem

Dear Mr. Lodrigueza:

Here are the answers to your question of your fax of March 24, 1998.

- (1). There were two occasions of NaOCl leaks at the tank farm of the Kimberly-Clark factory.

(The first incident) August 5, 1997 at 7:30 AM (See Attached report from Kimberly-Clark to O.C. HCA/Environmental Health)

A unknown amount of NaOCl solution was found leaked from the Tank No. 1 shown in Figure (1).

The NaOCl solution leak was found inside the bermed tank farm area. The liquid had gone into a lined concrete sump. Approximately 197 square-feet of soil was found contaminated. There was no discharge to the waterways. The cause of the spill was not known at that time. The spill was stopped, cleaned up, and contained. The leaked tank (No. 1) was emptied, and not used.

A temporary tank was brought inside the tank farm, and was used to store NaOCl solution.

(Second Incident) Sept. 21, 1997, at 12:45 AM (See Kimberly-Clark Report to O.C. HCA/Environmental Health)

A leak was found in the vacuum hose that was connected to a temporary NaOCl tank which was located inside the tank farm. Around 270-gallons of NaOCl solution (15.6% solution) was found to have leaked. Around 250-gallons of NaOCl went into the concrete sump, and the

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HEALTH CARE AGENCY
ENVIRONMENTAL HEALTH

remainder of 20-gallons was believed to have spilled onto the soil inside the tank farm. There was no discharge into the storm drain waterways.

(2). Figure (1) shows the tank locations and the spill locations.

As shown in this figure, the NaOCl spill occurred from the Tank No.1. The lower point in the bermed tank farm is at the bottom of the left-hand side(Southwest corner). All leaked liquid was flown to the southwest direction from the point of leak.

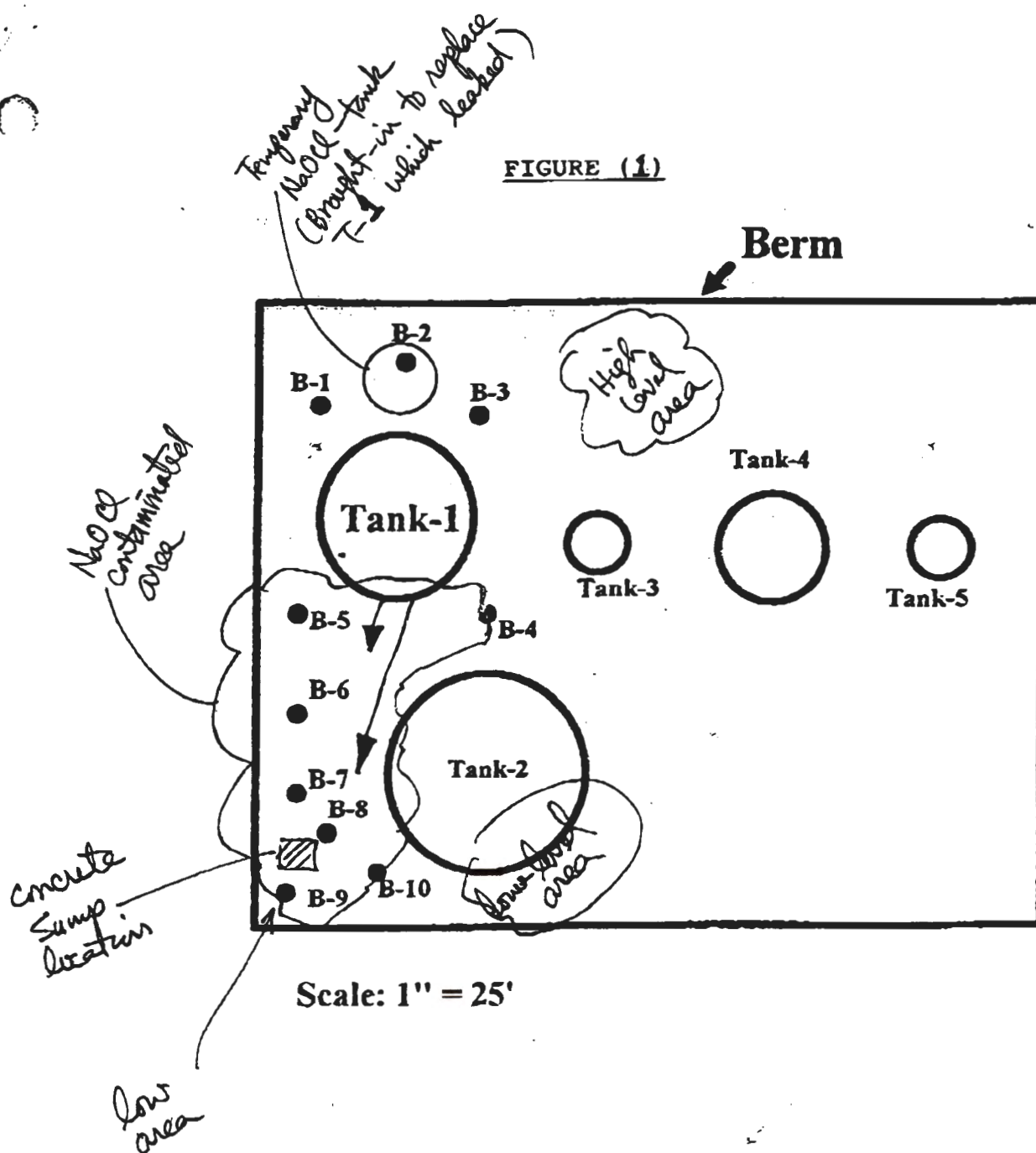
As shown in Figure (1), man borings were drilled in the west and the southwest areas of the tank farm where the leaked NaOCl solution was found to migrated.

If you have any more questions, please call me at any time.

Best regards,


Charles Choi/WEECO

FIGURE (1)



Scale: 1" = 25'

N



Site Plan

WEECO	Western Environmental Engineers Company
Drawn By:	
Project Nbr: 97-106	Kimberly Clark
Site Address: 2001 East Orangethorpe Ave. Fullerton, CA 92631	

P. 2/5

Prop 65 IDS

ORANGE COUNTY HCA/ENVIRONMENTAL HEALTH Proposition 65 Notification Report Form

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 Supervisor and Health Officer or face up to \$26,000 in fine and/or up to three years in jail (pursuant to § 26180.7 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: 8-6-97 Time: 1:13 PM Designated Employee Reporting: GRACE MADDEN
2. Report submitted on behalf of all designated employees of what agency: KIMBERLY CLARK CORP.
3. Date of Incident: 8-5-97 Time: 7:30 AM Source of Information (report to): DIRECT OBSERVATION
4. Incident Location/ Name of Business (DBA): KIMBERLY CLARK
Address: 2001 E. ORANGETHORPE AVE., City: FULLERTON, CA Zip: 92831
Phone: (714) 773-7500 Company Contact Person: GRACE MADDEN (EXT 7677)
6. Description/Cause of Incident (What, where, and how did it happen?):
A SODIUM HYPOCHLORITE SOLUTION SPILL WAS FOUND ON AUGUST 5TH AROUND 7:30 AM IN THE KIMBERLY CLARK TANK FARM. SPILL WAS INSIDE AN EXISTING BERM. THE LIQUID HAD GONE TO A LINED CONCRETE SUMP (250K CAPACITY). APPROX. 1975 LB OF SPILL WAS MET OR CONTAMINATED. THERE WAS NO DISCHARGE TO THE UNDERWAYS. AT THIS TIME, CAUSE OF SPILL HAS NOT BEEN IDENTIFIED. THE TANK CONTRACTOR SHOULD BE HERE ON AVE. 8. THE SPILL WAS STOPPED, CONTAINED, CLEANED UP, TANK WAS EMPLOYED + IS CONTINUED BEING USED. (PLI. REFER TO QUESTION #16 FOR MORE INFO.)
7. Responsible Party Name: KIMBERLY CLARK Telephone: 714-773-7500
(Business or Company names. Do not identify private citizens)
8. Identification of Discharged Waste

Chemical Name/ Common Name	Solid/Liquid/Gas	Quantity	Hazardous Properties
SODIUM HYPOCHLORITE SOLUTION (CAS# 7621-82-9)	LIQUID	100-200 LBS. MAXIMUM = 165 GALLONS MINIMUM = 110 GALLONS OR LESS	CORROSIVE ; RQ = 100 LBS.

LAB RESULTS ARE NOT YET IN.
3 SAMPLES WERE COLLECTED : SAMPLE A =

9. Field Data or Lab Results (Indicate Soil, Groundwater, etc.):
DRUMMED MATERIAL ; SAMPLE B = GROUND SOIL SAMPLES AFTER CLEAN-UP ;
SAMPLE C = LIQUID FROM THE SUMP
10. Environment Affected (check all that apply):
☐ Roadway ☐ Groundwater ☐ Sewer
☐ Storm Drain ☐ Lake ☐ Stream ☐ River ☐ Bay ☐ Ocean ☐ Air ☒ Soil
☐ Road Channel ☐ Paved Ground ☐ Other: _____
11. Locale: ☐ Residential ☐ Commercial ☒ Industrial ☐ Open Area ☐ Rural
12. Property: ☒ Private Property ☐ Public Property

Report: 8-6-97

(p3 of 5)

13. Describe the Extent of Contamination (How much or how large of an area was contaminated):
THE SODIUM HYPOCHLORITE SOLUTION TRAVELLED APPROX. 50 FT. TOWARD THE SUMI
(LINED & CONCRETE MAT'L). APPROX. 177 SQ FT OF SOIL WAS WET OR GOT CONTAMINATED.

14. Number of Injuries (As a result of the release): ZERO

Number of persons receiving medical treatment: ZERO Where: N/A

15. Agencies at the scene of incident: NONE

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?):

- ① LEAKAGE WAS STOPPED AND CONTAINED. THE ABOVE GROUND STORAGE TANK WAS EMPTIED. [TANK IS NOT IN SERVICE - WE BROUGHT IN A PORTABLE TANKER].
 - ② THE WET SOIL WAS REMOVED. THE SOIL CONTAMINATED WITH NaOCl WAS PLACED IN 13 HAZARDOUS WASTE DRUMS (TOTAL = 9,084 LBS OF CONTAMINATED SOIL).
 - ③ SOIL SAMPLES AND LIQUID (FROM SUMP) SAMPLES WERE SENT TO LAB FOR ANALYSIS.
 - ④ LAB RESULTS TO DETERMINE DISPOSITION OF HAZARDOUS WASTE AND GROUND SOIL SAMPLE WILL DETERMINE IF THE GROUND IS FREE OF CONTAMINANTS.
 - ⑤ PAUSE OF THE SPILL (TANK) NEEDS TO BE IDENTIFIED AND FIXED.
17. Incident referred to (Person/Agency): THE CALIF. DEPT. OF ENV. & NAT. RES. (CALIF. DEPT. OF ENV. & NAT. RES. DIV., ENV. HAZARD DISC. UNIT)
[SEE #6 ABOVE] REPORT: 398299 DATE: 8-6-97 TIME: 1:12 PM
REMARK: REST WAS ALSO REPORTED ON 8-6-97.

18. Cleanup Conducted by (Name of Agency, Consultant, etc.): EVERGREEN ENVIRONMENTAL / HAZ FAK

19. Is this the subject of an ongoing legal investigation? ☐ Yes ☒ No

20. Is the area physically accessible to the public? ☐ Yes ☒ No Explain: TANK FARM IS FENCED. IT IS APPROX.
600 FEET TO A GUARDED GUARD HOUSE (24 HOURS) WHICH IS ALSO 60 FT AWAY FROM THE STREET.
THE PERIMETER OF THE PROPERTY IS FENCED. FENCES ARE MONITORED WITH SURVEILLANCE CAMERAS
24 HRS. A DAY - GUARDS TOUR THE FENCES EVERY HOUR.

21. Proximity to public (Distance/direction to homes, schools, etc.): ONE-HALF MILE

22. Factors that are likely to cause substantial injury to the public Health and Safety: NONE

23. Additional Comments: THERE WAS NO DISCHARGE TO THE WATERWAYS.
IT WAS NOT AN IDLH (IMMEDIATELY DANGEROUS TO LIFE & HEALTH) SITUATION.

24. Report Completed By: Grace Madden Date: 8-7-97 Time: 12:02 PM

25. Report Reviewed By: _____ Date: _____ Time: _____

26. Contact for further information: GRACE MADDEN Telephone: 714-793-2500 X2677

P405

(2nd Incident)

ORANGE COUNTY
 HCA/ENVIRONMENTAL HEALTH
 Proposition 65 Notification Report Form

Prop 65 ID#

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: 9-21-97 Time: 2:22 PM Designated Employee Reporting: GRACE MADDEN
2. Report submitted on behalf of all designated employees of what agency: KIMBERLY CLARK
 FIRE REPORT #: 404497
3. Date of Incident: 9-21-97 Time: 12:45 AM Source of Information (report to): DES CONTROL # : 97-3709
4. Incident Location/ Name of Business (DBA): KIMBERLY CLARK
 Address: 2001 E. ORANGETHORPE AVE. City: FULLERTON, CA Zip: 92831
5. Site Telephone: (714) 993-7500 Company Contact Person: GRACE MADDEN (EXT. 7677)
6. Description/Cause of Incident (What, where, and how did it happen?):
REGULAR ON SEPT 21 AT 12:45 AM, A BOILER OPERATOR WAS DOING HIS ROUNDS IN THE KIMBERLY CLARK TANK FARM EASTERN BERM WHEN HE SMELLED AND FOUND THE LEAK / SPLIT ON A 2" DIAMETER VALVE HOSE THAT CONNECTS THE TANKS ABOVE GROUND TANKER STORAGE. THE OPERATOR DID AN EARLIER CHECK AT 12:00 MIDNIGHT. IN 45 MINUTES, 20 GALLONS OF 15.6% SODIUM HYPOCHLORITE SOLUTION WAS SPILLED. 20 GAL. WENT TO A CONCRETE LINED SOIL. 20 GALLONS OR 33 LBS. OF SODIUM HYPOCHLORITE WAS RELEASED TO THE SOIL. THE RB. IN NO DCI = 100 POUNDS. THERE WAS NO DISCHARGE TO THE WATERWAY (STORM DRAIN). THE TANKER WAS TURNED OFF.
7. Responsible Party Name: KIMBERLY CLARK Telephone: 714.993.7500
 (Business or Company names. Do not identify private citizens)
8. Identification of Discharged Waste

Chemical Name/ Common Name	Solid/Liquid/Gas	Quantity Released	Hazardous Properties
<u>15.6% SODIUM HYPOCHLORITE SOLUTION (CAS # 7661-90-9)</u>	<u>LIQUID</u>	<u>20 GAL OR 33 POUNDS</u> <u>WAS RELEASED TO THE SOIL.</u>	<u>CORROSIVE; RQ = 100 LBS.</u>

9. Field Data or Lab Results (Indicate Soil, Groundwater, etc.): SOIL SAMPLES WILL BE PULLED TO DETERMINE FREE CHLORINE CONTENT. THIS WILL DETERMINE SOIL TREATMENT / REMEDIATION DISPOSITION.
10. Environment Affected (check all that apply):
☐ Storm Drain ☐ Lake ☐ Stream ☐ River ☐ Bay ☐ Ocean ☐ Air ☒ Soil
☐ Flood Channel ☐ Paved Ground ☐ Other: _____
11. Locals: ☐ Residential ☐ Commercial ☒ Industrial ☐ Open Area ☐ Rural
12. Property: ☒ Private Property ☐ Public Property

NOV. 12. 1997 11:53AM KIMBERLY FULLERTON

NO. 170 P. 5/5

Report: 9-21-97

P. 5/5

13. Describe the Extent of Contamination (How much or how large of an area was contaminated): THE SODIUM ASPICULURATE SOLUTION (N.S.P.) TRAVELLED APPROXIMATELY 50 FT TOWARD THE SUMP. APPROXIMATELY 25 SQ. FT. OF SOIL GOT CONTAMINATED IN 45 MINUTES. LINED
14. Number of Injuries (As a result of the release): ZERO
- Number of persons receiving medical treatment: ZERO Where: N/A
15. Agencies at the scene of Incident: NONE
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?):
- ① LEAKAGE WAS STOPPED AND CONTAINED. THIS TEMPORARY TANKER WILL BE REPLACED BY A BETTER, SAFER, PORTABLE ABOVE-GROUND TANK. NEW TANKS WILL BE IN PLACE BY THE END OF THIS WEEK OR SOON AFTER. A PERMANENT RETICULATION ABOVE-GROUND STORAGE TANK SHOULD BE IN PLACE WITHIN 4 MONTHS OR SO.
 - ② THE CONTAMINATED SOIL WILL BE REMOVED. THE SUMP WILL BE PUMPED OUT & THE LIQUID WILL BE RECYCLED. CLEAN-UP STARTS ON SEP 22 AT 9:00 AM.
 - ③ SOIL SAMPLES WILL BE SENT FOR ANALYSIS. RESULTS WILL DETERMINE DISPOSITION OF HAZARDOUS WASTE AND GROUND SOIL. SAMPLES WILL BE TAKEN IF THE GROUND IS FREE OF CONTAMINANTS.
 - ④ THE SPILL WAS REPORTED TO NRC: REPORT #: 404292 & N.E.S.: CONTROL #: 97-9709
- NRC QUALITY GUARD: REPORT #: 404292 9-21-97 2:22 PM
OAT: OFFICE OF ENVIRONMENTAL SERVICES 9-21-97 2:30 PM
CONTROL #: 97-9709
17. Incident referred to (Person/Agency): HAZ PAK ENVIRONMENTAL SERVICES
18. Cleanup Conducted by (Name of Agency, Consultant, etc.): HAZ PAK ENVIRONMENTAL SERVICES
19. Is this the subject of an ongoing legal investigation? ☐ Yes ☒ No
20. Is the area physically accessible to the public? ☐ Yes ☒ No Explain: TANK FARM IS FENCED. IT IS APPROXIMATELY 600 FT. TO A GUARDED GUARD HOUSE (24 HOURS) WHICH IS ALSO 60 FT AWAY FROM THE STREET. THE PERIMETER OF THE PROPERTY IS FENCED. FENCES ARE MONITORED WITH SURVEILLANCE CAMERAS - 24 HOURS A DAY. GUARDS TOUR THE FACILITY EVERY HOUR.
21. Proximity to public (Distance/direction to homes, schools, etc.): ONE - HALF MILE
22. Factors that are likely to cause substantial injury to the public Health and Safety: NONE
23. Additional Comments: THERE WAS NO DISCHARGE TO THE WATERWAYS (STORM DRAIN). IT WAS NOT AN IDLH (IMMEDIATELY DANGEROUS TO LIFE & HEALTH) SITUATION.
24. Report Completed By: Grace Madden Date: 9-22-97 Time: 3:07 PM
25. Report Reviewed By: _____ Date: _____ Time: _____
(Hazardous Waste Compliance Program 2001)
26. Contact for further information: GRACE MADDEN Telephone: 714-922-2170 X7677
(Lead Person/Agency)



**COUNTY OF ORANGE
HEALTH CARE AGENCY**

**PUBLIC HEALTH
DIVISION OF ENVIRONMENTAL HEALTH**

TOM URAM
DIRECTOR

HUGH F. STALLWORTH, M.D.
HEALTH OFFICER

JACK MILLER, REHS
DEPUTY DIRECTOR

MAILING ADDRESS:
2009 EAST EDINGER AVENUE
SANTA ANA, CA 92705-4720

TELEPHONE: (714) 667-3600
FAX: (714) 568-5116

FAX TO THE FOLLOWING NUMBER: (714) 542-2520

THE FOLLOWING PAGES ARE FOR:

Name of Individual: Charles Chou

Firm Name: WEECO

Documents Transmitted: Follow-up on Kimberly-Clark:

(1) which tank(s) contained NaOCl?

Comments: (2) what was nature of NaOCl spill/release - how extensive?

Were borings located in areas where spillage occurred? Send
map showing release/leakage area(s).

Please respond as soon as possible to expedite closure. Thanks.

From: Luis Rodriguez
HCA/Environmental Health

Number of Pages

This Information Sheet plus 6 page(s)

Date Sent: 3-25-98 Time Sent: _____ a.m. / p.m. (circle one)

If you do not receive all the pages, please call (714) 667-3638 as soon as possible to request a retransmission.

Fax Operator: Denise

7/31/97

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FILE	FILE TYPE	OPTION	TEL NO.	PAGE	RESULT
026	MEMORY TX		95422520	01/01	OK

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7/31/97

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Date Sent: *3-25-98* Time Sent: _____ a.m. / p.m. (circle one)

This Information Sheet plus *6* page(s)

Number of Pages

HCA/Environmental Health

From: *Lisa Lofgren*



**COUNTY OF ORANGE
HEALTH CARE AGENCY**

**PUBLIC HEALTH
DIVISION OF ENVIRONMENTAL HEALTH**

TOM URAM
DIRECTOR

HUGH F. STALLWORTH, M.D.
HEALTH OFFICER

JACK MILLER, REHS
DEPUTY DIRECTOR

MAILING ADDRESS:
2009 EAST EDINGER AVENUE
SANTA ANA, CA 92705-4720

TELEPHONE: (714) 667-3600
FAX: (714) 972-0749

March 16, 1998

Charles Choi
Western Environmental Engineers Company
1780 E. McFadden Avenue, Suite 117
Santa Ana, A 92705

Subject: Request for Oversight

Re: Kimberly-Clark
2001 E. Orangethorpe Avenue
Fullerton, CA 92831
O.C.H.C.A. Case # 98IC9

Dear Mr. Choi:

Based on information received by this Agency, it has been determined that a release of sodium hypochlorite has occurred at the location referenced above, and that the company you represent is responsible for the property at which this release occurred. Due to concerns that this release may represent a public health or environmental hazard, you have requested this Agency to review reports of site investigation and oversee whatever corrective action may be required for the above-referenced location.

The documentation of this release has become a part of this Agency's records, and as such is now part of the public record. Be advised that in addition to local, state and federal hazardous substance release reporting requirements, any owner of nonresidential real property who knows, or has reasonable cause to believe, that any release of a hazardous substance has come to be located on or beneath that real property shall, prior to sale, lease, or rental of the real property, give written notice of that condition to each buyer, lessee, or renter of the real property (California Health and Safety Code [H&SC], Division 20, Chapter 6.8, Section 25359.7[a]). Also any lessee or renter of real property who knows or has reasonable cause to believe that any release of a hazardous substance has come or will come to be located on or beneath that real property shall, following its discovery, give written notice of that condition to the owner of the real property or the lessor (H&SC 25359.7[b]).

This Agency will provide governmental oversight at contaminated sites where State or Federal law does not require oversight by another governmental agency, or where an order to investigate or mitigate a site has not already been issued by an empowered State or Federal Agency. You may elect to have this Agency provide oversight at the above referenced site to satisfy possible city or county land use concerns; lender, buyer, lessee, or renter concerns; or your own concerns. Upon

the satisfactory completion of a site investigation and any necessary soil remediation, this Agency will write a letter of completion. Where the site investigation reveals a possible threat to groundwater resources, your site will be referred to the appropriate Regional Water Quality Control Board (RWQCB) for review. When the RWQCB requires soil remedial action you will be requested to submit remedial action plans to both Agencies for review and concurrence.

You may also request governmental oversight from the California's Environmental Protection Agency, Department of Toxic Substances Control (DTSC). This Agency may request that the DTSC review case documentation for the purpose of determining whether mandatory case oversight will be required, when the responsible party does not request voluntary governmental case oversight.

As you have acknowledged in your letter, a service fee will be assessed for the actual time Health Care Agency (HCA) staff expends in overseeing this case. Per resolution of the County Board of Supervisors, the current site cleanup oversight fee is \$123 per hour.

A site investigation work plan will have to be submitted to this office for review and concurrence prior to implementation. The work plan should include the proposed methods used to obtain the following information:

1. An identification of the lateral and vertical extent of soil contamination and the concentration of contaminants.
2. The depth to groundwater.
3. A description of soil profile.

The plan must include:

1. A site history that will serve as rationale for the selection of the locations of soil samples and soil borings and laboratory methods.
2. The proposed number and locations of soil samples and soil borings, and sampling methodology.
3. The proposed laboratory analysis and methods
4. A health and safety plan where assessment activities pose a threat to public health.

All required permits must be obtained prior to beginning exploratory borings and construction of wells. All borings and abandoned wells must be properly sealed. Wells should be secured to prevent unauthorized access. For further information regarding required well permits and well abandonment, call (714) 667-3750. Drilling procedures, well design and construction. Design and procedures should be developed by a registered professional (R.G., C.E.G., R.C.E., or equivalent) with expertise in subsurface investigations. Reports that include logs of soil borings or any findings or conclusions relating to subsurface information must be signed by a properly registered professional (R.G., C.E.G., or equivalent).

Site assessment can begin as soon as possible after review and concurrence of the work plan by HCA staff. Be sure to notify this office 48 hours in advance of any site sampling activity.

The next step after completion of site investigation is the submittal to HCA for review and concurrence of a report that outlines the findings of the site investigation and presents a proposed remedial action plan. Possible proposals include:

1. Leaving contaminated soil in place
2. Reducing contamination to acceptable level
3. Monitoring of contaminant fate and movement
4. Removal of contaminated soil to background or non-detectable levels.

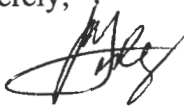
The remedial action plan should be implemented as soon as possible after review and concurrence by HCA staff. After the remedial action plan has been fully implemented, remediation completion will be determined by site sampling overseen by HCA staff.

If any material to be removed is hazardous waste as defined in the California Health & Safety Code, Chapter 6.5 or as identified in the California Code of Regulations, Title 22, Division 4.5, Chapter 30, the use of a registered hazardous waste hauler is required and a photocopy of every manifest, signed by the receiving facility, must be forwarded to this office for verification of proper disposal. Contaminated soil not meeting hazardous waste criteria should not be removed and placed at other than a Class I hazardous waste landfill without verification by this Agency and approval of the appropriate Regional Water Quality Control Board.

This office will review the reports of investigation you submitted and will provide appropriate comments/recommendations as soon as possible.

If you have any questions regarding this matter, please contact me at (714) 667-3717.

Sincerely,



Luis Lodrigueza
Hazardous Waste Specialist
Hazardous Materials Management Section
Environmental Health Division

LL:

cc: Robert Holub, Santa Ana Regional Water Quality Control Board
Greg Holmes, Cleanup Operations, Southern California Branch, DTSC
Grace Madden, Kimberly-Clark Company
Steve Long, Fullerton Fire Department
William J. Diekmann, O. C. Supervising Hazardous Waste Specialist



Genium Publishing Corporation

1145 Catalyn Street
Schenectady, NY 12303-1836 USA
(518) 377-8854

Material Safety Data Sheets Collection:

Sheet No. 115

Sodium Hypochlorite Aqueous Solution

Issued: 2/83

Revision: A, 11/90

Section 1. Material Identification

33

Sodium Hypochlorite (NaOCl) Aqueous Solution Description: Sodium hypochlorite is derived by addition of chlorine to cold dilute solution of sodium hydroxide. Used as a swimming pool disinfectant; as an intermediate and a reagent; in bleaching paper pulp and textiles; in organic chemicals; in medicine, fungicides, germicides; and in laundering.
Other Designations: CAS No. 7681-52-9; Antiformin; B-K Liquid; bleach; Chlorox; chlorox; Clorox; Dakin's Solution; Hychlorite; hypochlorite solution; hypochlorous acid, sodium salt; Milton; soda bleach liquor.
Manufacturer: Contact your supplier or distributor. Consult the latest *Chemicalweek Buyers' Guide*⁽⁷⁾ for a suppliers list.

R 1
I -
S 3
K 0

Genium



HMIS
H 3
F 0
R 0
PPG*
* Sec. 8

Cautions: Sodium hypochlorite is a strong eye, skin, and mucous membrane irritant. The extent of irritation depends on concentration of sodium hypochlorite and the duration of exposure. Although nonflammable, sodium hypochlorite presents a *dangerous fire and explosion hazard* since it may cause ignition when in contact with organic materials such as paper, wood, or oil.

Section 2. Ingredients and Occupational Exposure Limits

Sodium hypochlorite aqueous solution*

1989 OSHA PEL
None established

1990-91 ACGIH TLV
None established

1988 NIOSH REL
None established

1985-86 Toxicity Data†

Human, cytogenetic analysis, lymphocyte: 100 ppm/24 hr
Rabbit, eye: 10 mg produces moderate irritation
Rat, oral (12% solution), LD₅₀: ca 12 mg/kg

* The usual composition of an industrial sodium hypochlorite solution is 10.5% sodium hypochlorite and 0.8 to 2.4% sodium hydroxide. The available chlorine is ~10.0%. Solutions containing excess sodium hydroxide (NaOH) pose an increased alkalinity hazard.

† See NIOSH, RTECS (NH3486300), for additional mutative data.

Section 3. Physical Data

Boiling Point: Decomposes

Melting Point: Decomposes

Vapor Pressure: 17.5 mm Hg at 20 °C

pH: 9 to 10*

Molecular Weight: 75.45

Specific Gravity (20 °C/4 °C): 5.25% NaOCl (household bleach): 1.09

8.0% NaOCl: 1.15

12.0% NaOCl: 1.21

Water Solubility: Complete solubility

Appearance and Odor: Sodium hypochlorite is a white, crystalline solid. The aqueous solution is a clear, pale yellow or greenish liquid with a chlorine odor.

* This is the pH of a neutral solution. Some products may contain an excess of NaOH and have a higher pH.

Section 4. Fire and Explosion Data

Flash Point: None reported

Autoignition Temperature: None reported

LEL: None reported

UEL: None reported

Extinguishing Media: Use dry chemical, CO₂, halon, water spray, or standard foam. Use water spray from a safe distance to cool fire-exposed containers, dilute liquid, and control vapors.

Unusual Fire or Explosion Hazards: Sodium hypochlorite is an oxidizing agent and vigorous reactions can occur with oxidizable materials in a fire situation.

Special Fire-fighting Procedures: Since fire may produce toxic fumes, wear a self-contained breathing apparatus (SCBA) with a full facepiece operated in the pressure-demand or positive-pressure mode and full protective gear. If feasible, remove containers from fire area to prevent pressure rupture. Be aware of runoff from fire control methods. Do not release to sewers or waterways.

Common Synonyms Clorox Liquid bleach	Watery liquid Green to yellow Bleaching liquid odor Sinks and mixes with water.
Stop discharge if possible. Avoid contact with liquid. Isolate and remove discharged material. Notify local health and pollution control agencies.	
Fire	Not flammable. Cool exposed containers with water.
Exposure	CALL FOR MEDICAL AID. LIQUID Irritating to skin and eyes. Harmful if swallowed. Remove contaminated clothing and shoes. Flush affected areas with plenty of water. IF IN EYES, hold eyelids open and flush with plenty of water. IF SWALLOWED and victim is CONSCIOUS, have victim drink water or milk, and have victim induce vomiting. IF SWALLOWED and victim is UNCONSCIOUS OR HAVING CONVULSIONS, do nothing except keep victim warm.
Water Pollution	Harmful to aquatic life in very low concentrations. May be dangerous if it enters water intakes. Notify local health and wildlife officials. Notify operators of nearby water intakes.
1. RESPONSE TO DISCHARGE <small>(See Response Methods Handbook, CG 446-4)</small> Issue warning—CORROSIVE Disperse and flush	2. LABELS No hazard label required by Code of Federal Regulations
3. CHEMICAL DESIGNATIONS 3.1 Synonyms: Clorox Liquid bleach 3.2 Coast Guard Competibility Classification: Not applicable 3.3 Chemical Formula: NaOCl—H ₂ O 3.4 IMCO/United Nations Numerical Designation: 8.0/1791	4. OBSERVABLE CHARACTERISTICS 4.1 Physical State (as shipped): Liquid 4.2 Color: Green-yellow 4.3 Odor: Like bleach solution
5. HEALTH HAZARDS 5.1 Personal Protective Equipment: Rubber gloves; goggles. 5.2 Symptoms Following Exposure: Liquid can be irritating to skin and eyes if contact is maintained. 5.3 Treatment for Exposure: INGESTION: induce vomiting, give water, and repeat. SKIN: wash off contacted skin area. EYES: flush with plenty of water for 15 min. and consult a physician. 5.4 Toxicity by Inhalation (Threshold Limit Value): Not pertinent 5.5 Short-Term Inhalation Limits: Not pertinent 5.6 Toxicity by Ingestion: Grade I; oral rat LD ₅₀ = 8.91 g/kg 5.7 Late Toxicity: None 5.8 Vapor (Gas) Irritant Characteristics: Slight irritation of eyes and mucous membranes. 5.9 Liquid or Solid Irritant Characteristics: Irritates eyes and skin on prolonged contact. 5.10 Odor Threshold: Data not available	

6. FIRE HAZARDS 6.1 Flash Point: Not flammable 6.2 Flammable Limits in Air: Not flammable 6.3 Fire Extinguishing Agents: Not pertinent 6.4 Fire Extinguishing Agents Not to be Used: Not pertinent 6.5 Special Hazards of Combustion Products: Not pertinent 6.6 Behavior in Fire: May decompose, generating irritating chlorine gas. 6.7 Ignition Temperature: Not flammable 6.8 Electrical Hazard: Not pertinent 6.9 Burning Rate: Not flammable	8. WATER POLLUTION 8.1 Aquatic Toxicity: Data not available 8.2 Waterfowl Toxicity: Data not available 8.3 Biological Oxygen Demand (BOD): None 8.4 Food Chain Concentration Potential: None
7. CHEMICAL REACTIVITY 7.1 Reactivity with Water: No reaction 7.2 Reactivity with Common Materials: No reaction 7.3 Stability During Transport: Stable 7.4 Neutralizing Agents for Acids and Caustics: Destroy with sodium bisulfite or hypo and water, then neutralize with soda ash. 7.5 Polymerization: Not pertinent 7.6 Inhibitor of Polymerization: Not pertinent	9. SELECTED MANUFACTURERS 1. Clorox Co. 7901 Oakport St. Oakland, Calif. 94621 2. Pures Corp., Ltd. 5101 Clark Ave. Lakewood, Calif. 90712 3. Sobin Chemicals, Inc. Sobin Park Boston, Mass. 02210
11. HAZARD ASSESSMENT CODE <small>(See Hazard Assessment Handbook, CG 446-3)</small> A-P	10. SHIPPING INFORMATION 10.1 Grades or Purity: Several grades and concentrations, typified by ordinary household bleach. 10.2 Storage Temperature: Ambient 10.3 Inert Atmosphere: No requirement 10.4 Venting: Pressure-vacuum
12. HAZARD CLASSIFICATIONS 12.1 Code of Federal Regulations: Not Listed 12.2 NAS Hazard Rating for Bulk Water Transportation: Not listed 12.3 NFPA Hazard Classifications: Not listed	13. PHYSICAL AND CHEMICAL PROPERTIES 13.1 Physical State at 15°C and 1 atm: Liquid 13.2 Molecular Weight: Not applicable 13.3 Boiling Point at 1 atm: Decomposes 13.4 Freezing Point: Not pertinent 13.5 Critical Temperature: Not pertinent 13.6 Critical Pressure: Not pertinent 13.7 Specific Gravity: 1.06 at 20°C (liquid) 13.8 Liquid Surface Tension: Not pertinent 13.9 Liquid-Water Interfacial Tension: Not pertinent 13.10 Vapor (Gas) Specific Gravity: Not pertinent 13.11 Ratio of Specific Heats of Vapor (Gas): Not pertinent 13.12 Latent Heat of Vaporization: Not pertinent 13.13 Heat of Combustion: Not pertinent 13.14 Heat of Decomposition: Not pertinent 13.15 Heat of Solution: (est.) -90 Btu/lb = -50 cal/g = -2 × 10 ⁵ J/kg 13.16 Heat of Polymerization: Not pertinent
NOTES	

WEECO WESTERN ENVIRONMENTAL ENGINEERS CO.

1780 E. McFadden Ave. (Suite 117)
Santa Ana, CA 92705

(714) 542-2644

FAX (714) 542-2520

Mr. Luis Lodrigueza
Hazardous Waste Specialist
Health Care Agency
Hazardous Material Management Section
Orange County
Fax 714-972-0749

Feb. 25, 1998

**RE: Site Closure Certificate for the Soil Contamination Problem at
Kimberly-Clark Paper Factory at 2001 E. Orangethorpe Ave., Fullerton, CA.**

Dear Mr. Lodrigueza:

This letter is to authorize you to spend up to 10 hours maximum of your time to review and evaluate the soil-test reports submitted to your office in regards with the soil contamination problem that was found due to the accidental spill of Sodium Hypochlorite (NaOCl) solution at the tank farm of the factory.

It is understood that the rate of payment to your organization for this oversight work will be at \$123/hour. **WEECO will guarantee this payment to you.**

Since it has passes a long time since the spill was found, Kimberly-Clark Company would like to obtain a site closure letter from you as soon as possible.

Would you please start to review and evaluate the reports submitted by WEECO for this project as soon as possible?

Also, please let us know roughly when you may finish the review and you will be able to write a site closure letter to Kimberly-Clark. The final site closure report should be sent to the attention of the following person in Kimberly-Clark.

(Attn) Ms. Grace Madden
Laboratory Leader
Kimberly-Clark, Inc
2001 E. Orangethorpe Ave.
Fullerton, CA. 92631

(Tel)714-773-7500

Sincerely,

Charles K. Choi

Charles Choi/WEECO

FAX
MR. Lodrigueza
Kimberly-Clark Company
needs a written letter from
you for this site "closure".
Charles Choi
3/13/98

RECEIVED

MAR 13 1998

HEALTH CARE AGENCY
ENVIRONMENTAL HEALTH

WEECO WESTERN ENVIRONMENTAL ENGINEERS CO.

1780 E. McFadden Ave. (Suite 117)
Santa Ana, CA 92705

(714) 542-2644
FAX (714) 542-2520

Mr. Luis Lodrigueza
Hazardous Waste Specialist
Health Care Agency
Hazardous Material Management Section
Orange County
Fax 714-972-0749

FAKED

Feb. 25, 1998

for again
(3/12/98)

**RE: Site Closure Certificate for the Soil Contamination Problem at
Kimberly-Clark Paper Factory at 2001 E. Orangethorpe Ave., Fullerton, CA.**

Dear Mr. Lodrigueza:

This letter is to authorize you to spend up to 10 hours maximum of your time to review and evaluate the soil-test reports submitted to your office in regards with the soil contamination problem that was found due to the accidental spill of Sodium Hypochlorite (NaOCl) solution at the tank farm of the factory.

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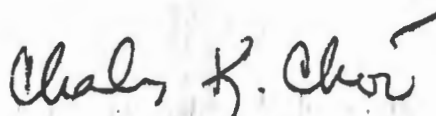
Would you please start to review and evaluate the reports submitted by WEECO for this project as soon as possible?

Also, please let us know roughly when you may finish the review and you will be able to write a site closure letter to Kimberly-Clark. The final site closure report should be sent to the attention of the following person in Kimberly-Clark.

(Attn) Ms. Grace Madden
Laboratory Leader
Kimberly-Clark, Inc
2001 E. Orangethorpe Ave.
Fullerton, CA. 92631

(Tel) 714-773-7500

Sincerely,



Charles Choi/WEECO

RECEIVED

MAR 12 1998

HEALTH CARE AGENCY
ENVIRONMENTAL HEALTH



WESTERN ENVIRONMENTAL ENGINEERS CO.

1780 E. McFadden Ave. (Suite 117)
Santa Ana, CA 92705

(714) 542-2644
FAX (714) 542-2520

Mr. Luis Lodrigueza
Environmental Health Div.
Health Care Agency, Orange County
1005 Edinger Street
Santa Ana, CA.

CC: Mr. Steve Long
Fire Prevention Department
Fire Department, City of Fullerton

Feb. 13, 1998

**RE: Site Closure Application for The Sodium Hypochlorite Spill
at the Tank Farm of Kimberly-Clark Plant(2001 E. Orangethorpe Ave.,
Fullerton)**

Dear Gentlemen:

It was reported that there were chemical spills occurred at the tank farm of Kimberly-Clark Paper Plant at 2001 E. Orangethorpe Avenue, Fullerton, in 1997. The chemical that was spilled in the tank farm was "Sodium Hypochlorite, NaOCl" which is normally used as a bleaching solution for paper industries.

Our company(WEECO) was retained as their consulting company and has conducted soil sampling/testing works at two occasions for this site and produced two reports after the two occasions of soil testing : the first report was issued as of Nov. 13, 1997, and the second report was issued as of January 19, 1998.

As delineated in this report, the horizontal and the vertical extent of spill were found to be minor, and are not considered to have adverse effects to the quality of the groundwater and to the human-beings in the subject area.

Would you please review the enclosed reports and please write a letter of site closure to the following person in Kimberly-Clark Company?

Attn: Ms. Grace Madden
Kimberly-Clark Company
2001 E. Orangethorpe Avenue
Fullerton, CA. 92631

If you have any questions, please feel free to call us at any time.

Enclosed: Two Reports

Sincerely,

Charles Choi/President

RECEIVED
FEB 19 1998
HEALTH CARE AGENCY
ENVIRONMENTAL HEALTH

COUNTY OF ORANGE/HEALTH CARE AGENCY
ENVIRONMENTAL HEALTH
2009 E. Edinger, Santa Ana, CA 92705
(714) 667-3700

SITE MITIGATION/CLEANUP REPORTING FORM

Case No.: 98IC9

Account No.: _____

Date Received: 3-13-98

DBA: Kimberly-Clark Paper Factory

Address: 2001 East Orangewood Avenue

City: (7) Fullerton Zip: 92831

Responsible Party: Charles Choi

Mailing Address: Western Environmental Engineers Company
1780 E. McFadden Avenue, Suite 117
Santa Ana, CA 92705

Chem ID: 675, w - NaOCl

How Discovered: 4- Soil monitoring Leak Type: 3- Spill/Release

Leak Cause: 4- Acc. Spill Affected Resources: 3- Soil

Remediation Technology (Water): 97 - Not Appl.

Remediation Technology (Soil): 1 - Excavation

Amount of contaminated soil taken off-site for treatment: _____ tons

Amount of contaminated soil taken off-site for disposal: _____ tons

How disposed: _____

Completed By: Luis Rodriguez

cc: Deb Chung 3/16/98
4/22/98

**COUNTY OF ORANGE
ENVIRONMENTAL HEALTH DIVISION
WASTE MANAGEMENT AGENCY**

ACTIVITIES REPORT

98IC9

Company Name: Kirkerly - Clark

Address: 2001 E. Orangewood Ave.

City: (2) Fullerton State: CA Zip: 92831

Contact Person(s): Charles Choi - WEECS Phone: 562-2644

Date	Staff	Activities/Comments
3-13-98	Luis Ladronega	Opened case file. Discussed case with Supervisor.
		Reviewed reports of investigation. Conducted research on chemical properties/toxicity data for NaOCl. Started report review.
3-16-98	Ladronega	Prepared, posted Ayn-letter re: oversight. Continued reports review. Called Charles Choi for questions. Message. C.C. returned call: he'll contact K. Clark to find out which tank(s) contained NaOCl & which tank(s) leaked.
3-25-98 (4.72 hrs)	Ladronega	Provided info requirements to Charles Choi. Consulted Water Quality (Thomica) re Cl ₂ levels in water bodies.
4-2-98	Ladronega	Call from Charles Choi - he wanted to know if I received his response to my query. Sent for another copy. Received/reviewed forced response.
4-6-98	Ladronega	Called Charles C: I told him I'm working on closure but actual closure will take longer due to constraints by preparation time/review time (of closure report). He understood.
4-10-98	Ladronega	Care closure review/analysis.
4-13-98	Ladronega	Cl ₂ summary/rationale preparation.
4-14-98	Ladronega	Cl ₂ summary/rationale continued. Contacted Kamron Sarami of Reg. Board: he concurred with closure.
4-21-98	Ladronega	Cl ₂ letter prep.
4-22-98	Ladronega	Closure protocol. Closed case.



FULLERTON FIRE DEPARTMENT

312 East Commonwealth Avenue, Fullerton, CA 92832

PHONE: 714-738-6500 FAX: 714-738-3392

DATE RCVD: _____

DATE DUE: _____

INSTRUCTIONS: Please complete the below information and return to us via fax or mail. In accordance with the Public Records Act, please allow 10 days for us to respond to your request. We will provide notice of any extension and reason thereof. Once documents are available, we will contact you to advise of amount due, if any. Fees are as follows:

\$15.00

**\$0.15 per page
as charged**

Each Incident Report

Per page for other records

USPS POSTAGE

REQUESTED BY

CONTACT NAME: _____ DATE: _____

COMPANY NAME: _____ PHONE NUMBER: _____

MAILING ADDRESS: _____ E-MAIL ADDRESS: _____

NAME OF INSURED: _____ POLICY NUMBER: _____

INCIDENT / SITE LOCATION

FACILITY / SITE NAME

FULL ADDRESS

ADDITIONAL INFORMATION: Please use this area to provide us with specific information you feel will assist us in locating the requested records:

REQUEST FOR INCIDENT RECORDS

INCIDENT DATE: _____

INCIDENT TIME (APPROXIMATE): _____ AM / PM

FIRE DEPT REFERENCE: _____ (REFERENCE NUMBERS BEGIN WITH "F" AND CONTAIN 6 NUMBERS)

TYPE OF INCIDENT:

☐ INCIDENT REPORT

☐ PARAMEDIC REPORT

☐ FIRE CAUSE

☐ OTHER: _____

REQUEST FOR SITE RECORDS

DATE RANGE: ☐ SPECIFIC DATE RANGE _____
☐ HISTORICAL

HAZMAT RECORDS

☐ BUSINESS EMERGENCY PLAN

☐ CHEMICAL INVENTORY

☐ CLEAN-UP/SPILL INFO

☐ AST INFORMATION

☐ * UST INFORMATION

☐ HAZ MAT INSPECTIONS

☐ HAZ MAT VIOLATION HISTORY

☐ PERMITS ISSUED

☐ NPDES

* FOR UST RECORDS PRIOR TO 1991, CONTACT: Orange County Health Care Agency,
Custodian of Records @ 714-834-3536 *

LIFE SAFETY RECORDS

☐ LIFE SAFETY INSPECTIONS

☐ LIFE SAFETY VIOLATION HISTORY

☐ PERMITS ISSUED

BELOW IS FOR FULLERTON FIRE DEPARTMENT USE ONLY

☐ RELEASE AUTHORIZED

☐ UNABLE TO RELEASE *

* REPORT IS NOT RELEASABLE FOR THE FOLLOWING REASON

REVIEWED BY

DATE

PAYMENT INFORMATION:

AMOUNT RECEIVED: \$ _____

☐ CASH

☐ CHECK # _____

RELEASE INFORMATION

PROCESSED BY

DATE

DELIVERY METHOD

cc: B. Samuel
C. Lynch
S. Lowheisel



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,

A handwritten signature in blue ink, appearing to read "John White".

John White
Underground Tank Specialist

cc: SARWQCB- Patricia Hannon

JW:pm

cc: BSaunders
John White - Full 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

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Depth to Ground Water

Analytical Testing

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Figure 2 - Secondary Excavation Sample Location Plot Plan

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 petroleum 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.

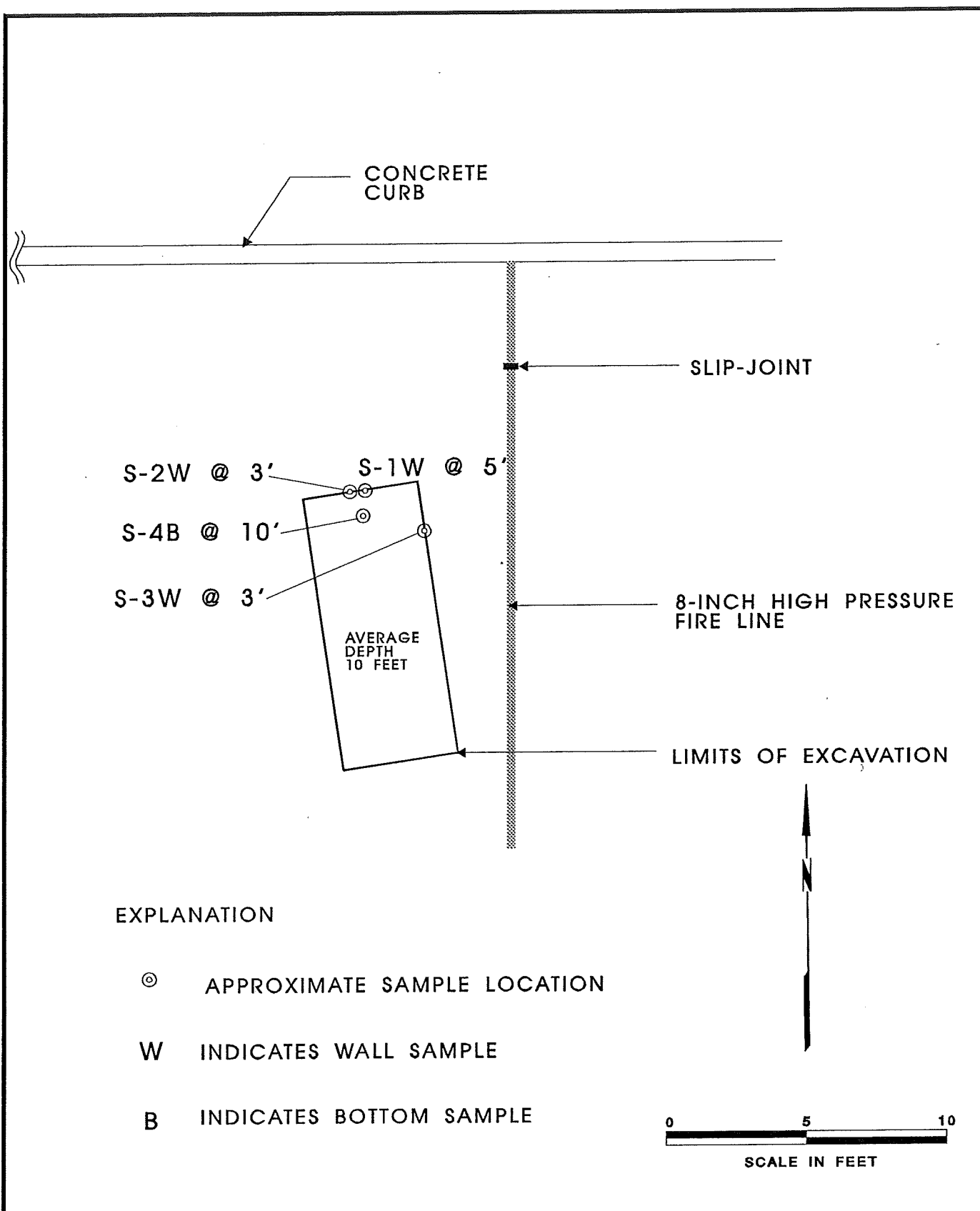
Sample Location Plot Plan (Figure 1) shows initial excavation limits and location of samples for work done on February 5, 1992. Sample Location Plot Plan (Figure 2) shows final excavation limits and location of samples for work done on February 10, 1992 and the arrangement of fire line in relation to 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 virtually impossible without undermining the surrounding 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 staging 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 evaluate 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 temporarily back-filled while evaluating the analytical results.



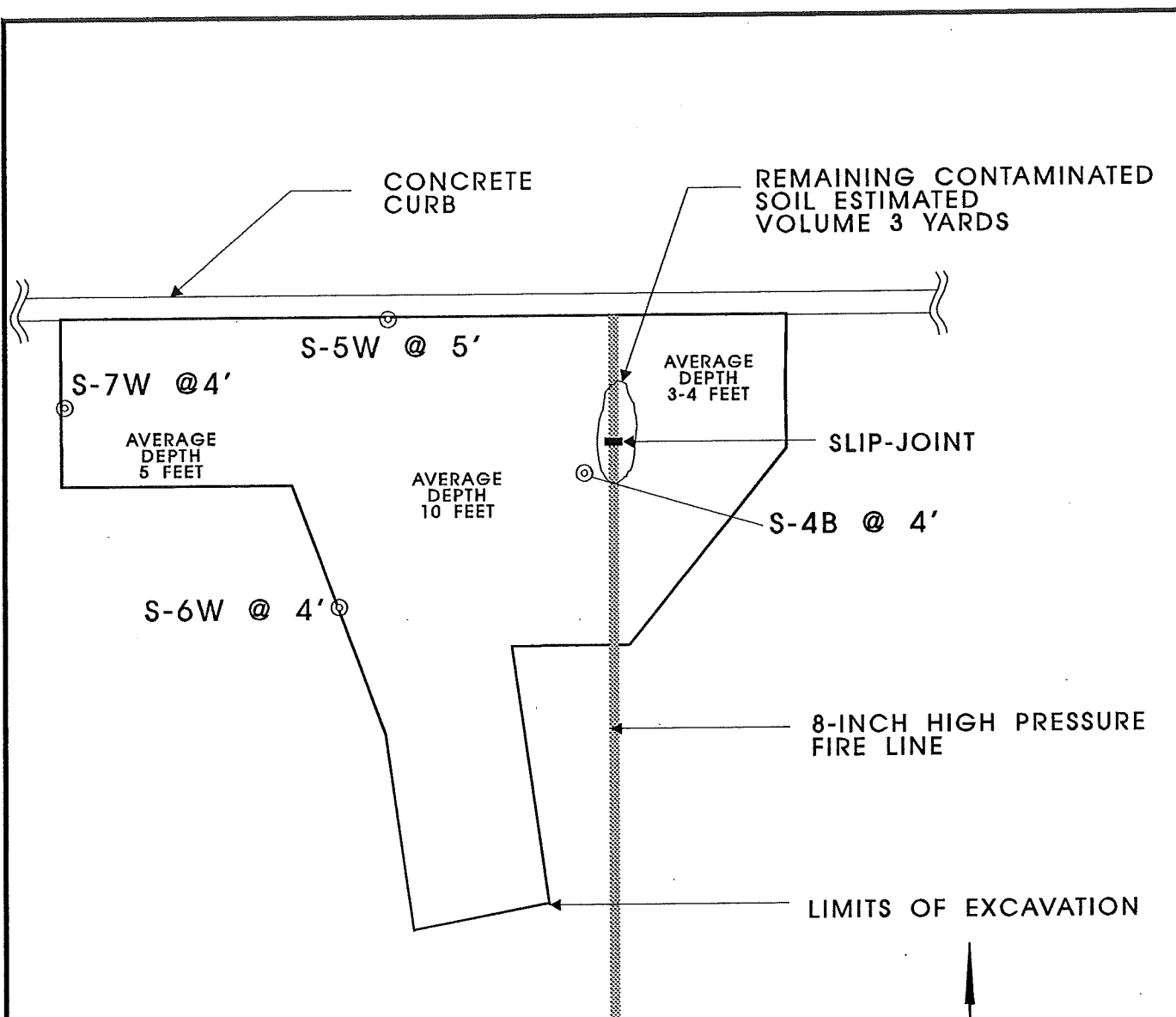
**LEDSAM
CONTRACTING
INCORPORATED**

**SAMPLE LOCATION PLOT PLAN
ORIGINAL EXCAVATION
FOR: KIMBERLY-CLARK CORPORATION
2001 Orangethorpe Ave, Fullerton, CA**

Project No.
92108

Date
2/92

Figure No.
1

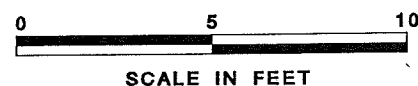


EXPLANATION

⊙ APPROXIMATE SAMPLE LOCATION

W INDICATES WALL SAMPLE

B INDICATES BOTTOM SAMPLE



**LEDSAM
CONTRACTING
INCORPORATED**

**SAMPLE LOCATION PLOT PLAN
SECOND EXCAVATION
FOR: KIMBERLY-CLARK CORPORATION
2001 Orangethorpe Ave, Fullerton, CA**

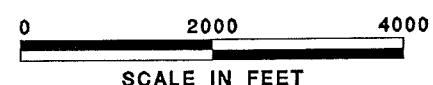
Project No.
92108

Date
2/92

Figure No.
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. 92108	Date 2/92	Figure No. 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 determined that four more samples should be taken. Under his direction, samples were obtained and analyzed, see Figure #2 and Attachment A, Analytical Results, dated 2/10/92. It was determined 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 February 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.

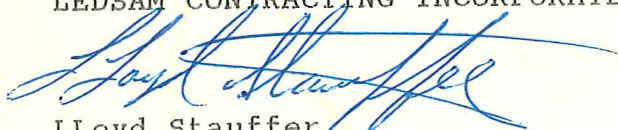
LIMITATIONS

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.

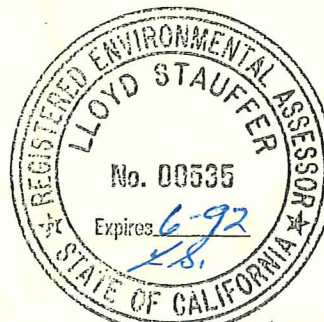
Please call if you have any questions regarding this report.

Sincerely,

LEDSAM CONTRACTING INCORPORATED



Lloyd Stauffer
Vice President
Registered Environmental Assessor #535



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
- 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

LEDSAM CONTRACTING CO.
FILE# 71555
2702 CALIFORNIA AVE.
SIGNAL HILL, CA. 90806

02/07/92

Attn: LLOYD STAUFFER
213/490/2056

KIMBERLY CLARK
MOBILE LAB #2, C.O.C.

Sample #: 2037081001
Received: 02/06/92
Type: SOIL

Collector: Client
Sampling Date & Time: 02/05/92, ****
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
Received: 02/06/92
Type: SOIL

Collector: Client
Sampling Date & Time: 02/05/92, ****
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

**SMITH-EMERY COMPANY***The Full Service Independent Testing Laboratory, Established 1904*

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• (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,


Shahid Noori, Manager Chemical Lab



SMITH-EMERY COMPANY
The Full Service Independent Testing Laboratory, Established 1904

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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) 745-6372
- Fax: (415) 822-5864
- Fax: (714) 693-1034

CHAIN OF CUSTODY AND
ANALYSIS REQUEST

DATE: 2/5/92 PAGE: 1 OF 1
FILE NO. LAB NO.

CLIENT NAME:

PROJECT NAME:

PROJECT NO.

P.O. NO.

ANALYSES REQUESTED:

REMARKS:

ADDRESS:

PROJECT MANAGER:

PHONE #:

FAX #:

SAMPLER NAME:

(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	
				WATER	SOIL	SLUDGE	OTHER	#		TYPE	

8015M GAS ☐ DIESEL ☐
602/8020 BTEX
418.1

SAMPLE CONDITION/
COMMENTS:

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



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

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



SMITH-EMERY COMPANY

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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

Sample #: 2042112803
Received: 02/11/92
Type: SOIL

Collector: Client
Sampling Date & Time: 02/10/92, ****
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
Received: 02/11/92
Type: SOIL

Collector: Client
Sampling Date & Time: 02/10/92, ****
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

ATTACHMENT B

Documentation and Manifests

I HAVE READ AND UNDERSTAND FULLERTON FIRE DEPT. STANDARD # _____



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

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

Permit Fee \$ 180.00

Permit Expires 2-28-92

FULLERTON FIRE PREVENTION BUREAU

BY [Signature]
Specialist John White
for Chief Ron Coleman

Treasurer's Receipt # _____

Paid -- Receipt #137618

payable to City Treasurer per

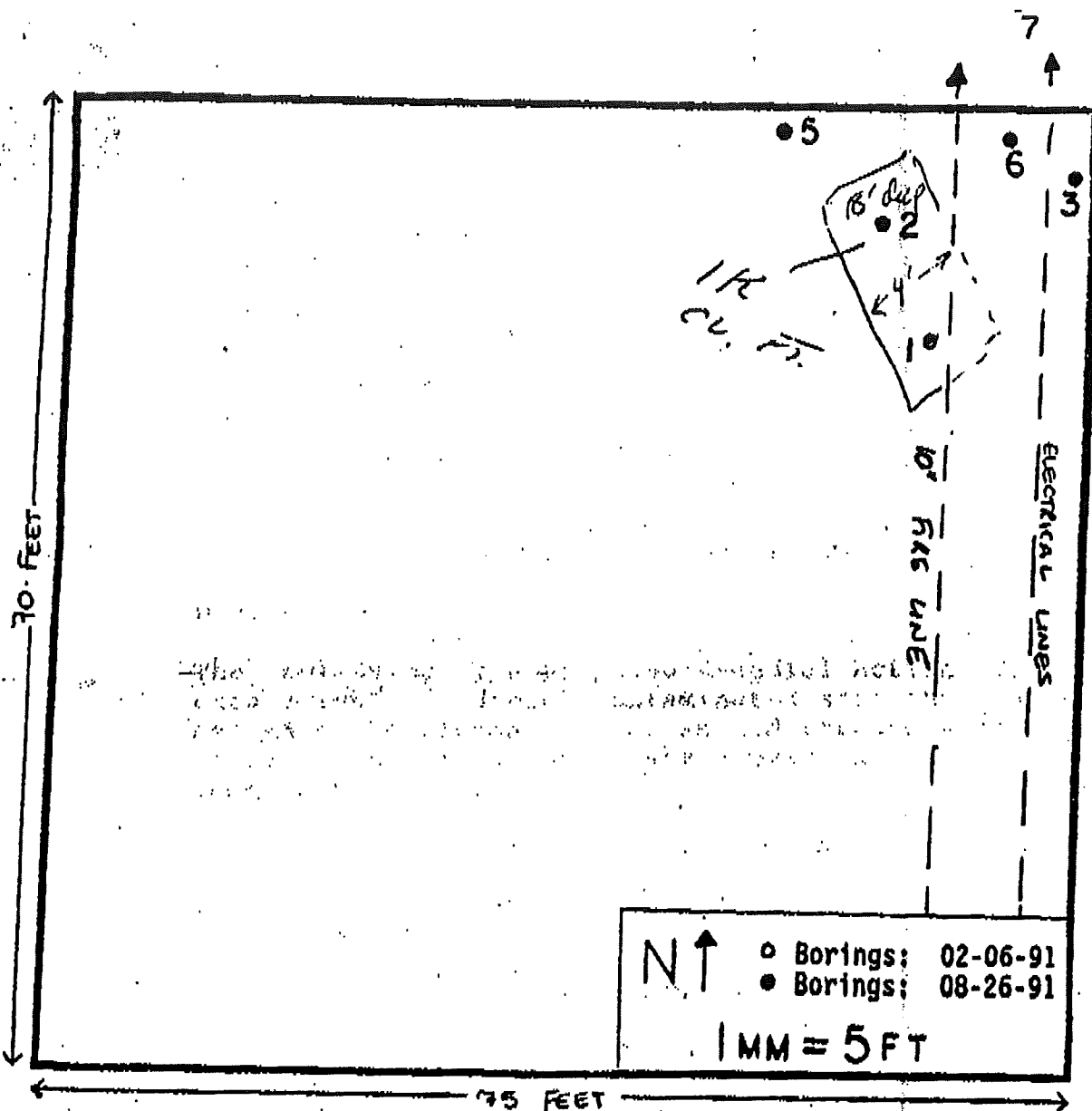
FMC 13.10.040, amended 12/79

FMC, Section 13.10
(UFC Amendment Ord.)

FP 33 - 6/90

ORIGINAL-WHITE CUSTOMER RECEIPT-GREEN YELLOW-TREASURY COPY PINK-FILE GOLDENROD-FILE

BOILER HOUSE



ANALYSIS:

FULLERTON FIRE DEPARTMENT
312 East Commonwealth Ave.
Fullerton, California 92632
Telephone (714) 738-6500

APPROVED
2/24/92

BUREAU OF FIRE PREVENTION

By

[Signature]

APPROVED

FULLERTON FIRE DEPARTMENT
312 E. COMMONWEALTH AVE.
FULLERTON, CA 92632

[Signature] 2/24/92 91-T-911
Reviewed By

REMARKS

is approved. This approval is based on the information provided in the application and the inspection. Any later information received by the Bureau of Fire Prevention will be considered on a case-by-case basis and on the photos or at the site. This approval must be submitted for approval if any changes are made by the applicant.

In addition, the applicant must submit the reports required by the Bureau of Fire Prevention and the Fire Management

underground tank inspection and maintenance and be scheduled for inspection. The inspection will be scheduled 8 hours in advance. The inspection will be scheduled at the

copy of these reports will be submitted at the 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. ORANGE THORPE AVE
FULLERTON, CA 92634
MAILING ADDRESS SAME AS ABOVE
TELEPHONE 213-490-2056
TECHNICAL CONTACT LOYD STUFFER (LCE) 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.

B. E. Off Manager 2/19/92
SIGNATURE TITLE DATE

FACILITY DECISION

ACCEPT _____ REJECT _____

BY _____ DATE _____

TO BE COMPLETED BY GENERATOR

NAME Kimberly Clark Corporation

ADDRESS 2001 E. Orangethorpe Avenue

CITY, STATE, ZIP Fullerton, CA 92634

EPA I.D. NO. 7(14) 773-9291

PHONE NO. 7(14) 773-9291

CONTAINERS: No. _____ VOLUME _____ WEIGHT 22 ton (est)

TYPE: ☐ TANK TRUCK ☒ DUMP TRUCK ☐ DRUMS ☐ CARTONS ☐ OTHER _____

WASTE DESCRIPTION Non-RCRA Contaminated Soil Tank Removal

COMPONENTS OF WASTE	PPM	%	COMPONENTS OF WASTE	PPM	%
1. <u>Soil</u> <u>>99</u>			5. _____		
2. <u>Diesel</u> <u><.01</u>			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. Keating B.E.K. 2/12/92

TYPED OR PRINTED FULL NAME & SIGNATURE DATE

TRANSPORTER

Cummings Transport

EPA I.D. NO. CAD983567272

NAME _____

P. O. Box 607

ADDRESS _____

Maricopa, CA 93252

CITY, STATE, ZIP _____

(800) 828-4281

PHONE NO. () _____

TRUCK, UNIT, I.D. NO. 921

Gary McMaster

TYPED OR PRINTED FULL NAME & SIGNATURE

SERVICE ORDER NO. _____

PICK UP DATE 2-19-92

DATE 2-19-92

TSD FACILITY

Noramco, Inc.

NAME _____

6501 Schirra Court, Ste 400

ADDRESS _____

Bakersfield, CA 93313

CITY, STATE, ZIP _____

(805) 832-4842

PHONE NO. _____

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/O		RT/CD	HWDF NONE	

DISCREPANCY

NON-HAZARDOUS WASTE DATA FORM

TO BE COMPLETED BY GENERATOR	NAME <u>Kimberly Clark Corporation</u>		EPA I.D. NO.																
	ADDRESS <u>2001 E. Orangethorpe Avenue</u>																		
	CITY, STATE, ZIP <u>Fullerton, CA 92634</u>		PHONE NO. <u>(714) 773-9291</u>																
	CONTAINERS: No. _____ VOLUME _____		WEIGHT <u>22 ton (est)</u>																
	TYPE: <input type="checkbox"/> TANK TRUCK <input checked="" type="checkbox"/> DUMP TRUCK <input type="checkbox"/> DRUMS <input type="checkbox"/> CARTONS <input type="checkbox"/> OTHER _____ WASTE DESCRIPTION <u>Non-RCRA Contaminated Soil</u> GENERATING PROCESS <u>Tank Removal</u>																		
	COMPONENTS OF WASTE		PPM	%	COMPONENTS OF WASTE	PPM	%												
	1. <u>Soil</u>		<u>>99</u>		5. _____														
	2. <u>Diesel</u>		<u><.01</u>		6. _____														
	3. _____				7. _____														
	4. _____				8. _____														
	PROPERTIES: pH _____ <input checked="" type="checkbox"/> SOLID <input type="checkbox"/> LIQUID <input type="checkbox"/> SLUDGE <input type="checkbox"/> SLURRY <input type="checkbox"/> OTHER _____ HANDLING INSTRUCTIONS: <u>Wear Gloves</u>																		
	THE GENERATOR CERTIFIES THAT THE WASTE AS DESCRIBED IS 100% NON-HAZARDOUS. <u>Brian E. Kesting</u> <u>B. E. Kesting</u> <u>2/19/92</u> TYPED OR PRINTED FULL NAME & SIGNATURE DATE																		
TRANSPORTER	NAME <u>Cummings Transport</u>		EPA I.D. NO.	<u>CAD983567272</u>															
	ADDRESS <u>P. O. Box 607</u>		SERVICE ORDER NO. _____																
	CITY, STATE, ZIP <u>Maricopa, CA 93252</u>		PICK UP DATE <u>2-19-92</u>																
	PHONE NO. <u>(800) 828-4281</u>																		
	TRUCK, UNIT, I.D. NO. <u>921</u> <u>GARY KEMSTER</u> <u>2-19-92</u> TYPED OR PRINTED FULL NAME & SIGNATURE DATE																		
TSD FACILITY	NAME <u>Novamco, Inc. R.R.T.</u>		EPA I.D. NO.																
	ADDRESS <u>6501 Schirra Court, Ste 400</u>		DISPOSAL METHOD <input type="checkbox"/> LANDFILL <input checked="" type="checkbox"/> OTHER <u>Recycle</u>																
	CITY, STATE, ZIP <u>Bakersfield, CA 93313</u>																		
	PHONE NO. <u>(805) 832-4842</u>																		
	<u>James Lucas</u> <u>James Lucas</u> <u>2/19/92</u> TYPED OR PRINTED FULL NAME & SIGNATURE DATE																		
<table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td>GEN</td> <td>OLD/NEW</td> <td>L</td> <td>A</td> <td>TONS</td> </tr> <tr> <td>TRANS</td> <td></td> <td>S</td> <td>B</td> <td></td> </tr> <tr> <td>C/O</td> <td></td> <td>RT/CD</td> <td></td> <td>HWDF NONE</td> </tr> </table>		GEN	OLD/NEW	L	A	TONS	TRANS		S	B		C/O		RT/CD		HWDF NONE	DISCREPANCY _____		
GEN	OLD/NEW	L	A	TONS															
TRANS		S	B																
C/O		RT/CD		HWDF NONE															

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 Tank Removal

COMPONENTS OF WASTE			PPM	%	COMPONENTS OF WASTE			PPM	%
1. <u>Soil</u>	<u>>99</u>				5. _____				
2. <u>Diesel</u>	<u><.01</u>				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 Alasti Michelle A 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 2-17-92

TRUCK, UNIT, I.D. NO. 44/B-5 Bernie F. Stanley B. Stanley 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

78,180 Gross wt.
32,000 Empty wt.

Nº 92108-2

NON-HAZARDOUS WASTE DATA FORM

TO BE COMPLETED BY GENERATOR

NAME Kimberly Clark Corporation EPA ID. 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. <u>Soil</u>	<u>>99</u>	<u> </u>	<u> </u>	5. <u> </u>	<u> </u>	<u> </u>	<u> </u>
2. <u>Diesel</u>	<u><.01</u>	<u> </u>	<u> </u>	6. <u> </u>	<u> </u>	<u> </u>	<u> </u>
3. <u> </u>	<u> </u>	<u> </u>	<u> </u>	7. <u> </u>	<u> </u>	<u> </u>	<u> </u>
4. <u> </u>	<u> </u>	<u> </u>	<u> </u>	8. <u> </u>	<u> </u>	<u> </u>	<u> </u>

PROPERTIES: pH ☒ SOLID ☐ LIQUID ☐ SLUDGE ☐ SLURRY ☐ OTHER

HANDLING INSTRUCTIONS: 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 ID. NO. CAD983567272

ADDRESS P. O. Box 607

CITY, STATE, ZIP Maricopa, CA 93252 SERVICE ORDER NO.

PHONE NO. (800) 828-4281 PICK UP DATE 2-19-92

TRUCK, UNIT, I.D. NO. 44/B-5 Philip Stanley 2-19-92
TYPED OR PRINTED FULL NAME & SIGNATURE DATE

TSD FACILITY

NAME Neuamco, Inc. EPA ID. NO.

ADDRESS 6501 Schirra Court, Ste 400 DISPOSAL METHOD ☐ LANDFILL ☒ OTHER Reception

CITY, STATE, ZIP Bakersfield, CA 93313

PHONE NO. (805) 832-4842

James Lucas 2/19/92
TYPED OR PRINTED FULL NAME & SIGNATURE DATE

GEN	OLD/NEW	L	A	TONS
TRANS		S	B	
C/O		RY/CO	HWDF	NONE

DISCREPANCY

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 _____

Non-RCRA Contaminated Soil Tank Removal

WASTE DESCRIPTION			GENERATING PROCESS		
COMPONENTS OF WASTE	PPM	%	COMPONENTS OF WASTE	PPM	%
1. <u>Soil</u> <u>>99</u>			5. _____		
2. <u>Diesel</u> <u><.01</u>			6. _____		
3. _____			7. _____		
4. _____			8. _____		

PROPERTIES: pH _____ ☒ SOLID ☐ LIQUID ☐ SLUDGE ☐ SLURRY ☐ OTHER _____

Wear Gloves

HANDLING INSTRUCTIONS: _____

THE GENERATOR CERTIFIES THAT
 THE WASTE AS DESCRIBED IS 100%
 NON-HAZARDOUS.

Brian E. Kertin 2/19/92
 TYPED OR PRINTED FULL NAME & SIGNATURE DATE

TRANSPORTER

NAME Cummings Transport EPA I.D. NO. CAD983567272

ADDRESS P. O. Box 607 R E ATKINS

CITY, STATE, ZIP Maricopa, CA 93252 SERVICE ORDER NO. _____

PHONE NO. (800) 828-4281 714, 592-2859 PICK UP DATE 2-19-92

TRUCK, UNIT, I.D. NO. 44 Tom Anderson 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

CITY, STATE, ZIP Bakersfield, CA 93313 DISPOSAL METHOD

PHONE NO. _____ ☐ LANDFILL ☒ OTHER Recycle

TYPED OR PRINTED FULL NAME & SIGNATURE DATE

GEN	OLD/NEW	L	A	TONS
TRANS		S	B	
C/Q			RT/CD	

DISCREPANCY

175,000 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

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 Tank Removal

COMPONENTS OF WASTE			GENERATING PROCESS		
	PPM	%		PPM	%
1. Soil	>99				
2. Diesel	<.01				
3. _____					
4. _____					

PROPERTIES: pH _____ ☒ SOLID ☐ LIQUID ☐ SLUDGE ☐ SLURRY ☐ OTHER _____

HANDLING INSTRUCTIONS: Wear Gloves

THE GENERATOR CERTIFIES THAT
THE WASTE AS DESCRIBED IS 100%
NON-HAZARDOUS.

Brian L. Kestner Brian L. Kestner 2/19/92
TYPED OR PRINTED FULL NAME & SIGNATURE DATE

TRANSPORTER

NAME Cummings Transport

ADDRESS P. O. Box 607

CITY, STATE, ZIP Maricopa, CA 93252

PHONE NO. (800) 828-4281

TRUCK UNIT, I.D. NO. 44

SERVICE ORDER NO. 0907050

PICK UP DATE 2-19-92

DISPOSAL METHOD ☐ LANDFILL ☒ OTHER Recycle

TSD FACILITY

NAME Noramco, Inc.

ADDRESS 6501 Schirra Court, Ste 400

CITY, STATE, ZIP Bakersfield, CA 93313

PHONE NO. (805) 832-4842

DISPOSAL METHOD ☐ LANDFILL ☒ OTHER Recycle

TYPED OR PRINTED FULL NAME & SIGNATURE JAMES L. Kestner James L. Kestner 3/14/92
DATE

GEN	TRANS	OLD/NEW	L	A	TONS
			S	B	

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

Non-RCRA Contaminated Soil Tank Removal

WASTE DESCRIPTION GENERATING PROCESS

COMPONENTS OF WASTE		PPM	%	COMPONENTS OF WASTE		PPM	%
1. <u>Soil</u>	<u>>99</u>			5. <u> </u>			
2. <u>Diesel</u>	<u><.01</u>			6. <u> </u>			
3. <u> </u>				7. <u> </u>			
4. <u> </u>				8. <u> </u>			

PROPERTIES: pH ☒ SOLID ☐ LIQUID ☐ SLUDGE ☐ SLURRY ☐ OTHER

Wear Gloves

HANDLING INSTRUCTIONS:

THE GENERATOR CERTIFIES THAT
THE WASTE AS DESCRIBED IS 100%
NON-HAZARDOUS.

Isabelle Mark Schill-AL 2-19-92
TYPED OR PRINTED FULL NAME & SIGNATURE DATE

TRANSPORTER

NAME Cummings Transport EPA I.D. NO. CA0983567272

ADDRESS P. O. Box 607

CITY, STATE, ZIP Maricopa, CA 93252 SERVICE ORDER NO.

PHONE NO. (800) 828-4281 PICK UP DATE 2-19-92

TRUCK, UNIT, I.D. NO. B1 MELVIN BETHUR
TYPED OR PRINTED FULL NAME & SIGNATURE DATE

TSD FACILITY

NAME Noramco, Inc. EPA I.D. NO.

ADDRESS 6501 Schirra Court, Ste 400

CITY, STATE, ZIP Bakersfield, CA 93313 DISPOSAL METHOD ☐ LANDFILL ☒ OTHER Reception

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

30,012 Empty w/

Nº 921

NON-HAZARDOUS WASTE DATA FORM

TO BE COMPLETED BY GENERATOR

NAME Kimberly Clark Corporation

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 _____

Non-RCRA Contaminated Soil Tank Removal

WASTE DESCRIPTION

COMPONENTS OF WASTE			GENERATING PROCESS		
	PPM	%		PPM	%
Soil	>99				
1. Diesel	<.01		5. _____		
2. _____			6. _____		
3. _____			7. _____		
4. _____			8. _____		

PROPERTIES: pH _____ ☒ SOLID ☐ LIQUID ☐ SLUDGE ☐ SLURRY ☐ OTHER _____

Wear Gloves

HANDLING INSTRUCTIONS: _____

THE GENERATOR CERTIFIES THAT THE WASTE AS DESCRIBED IS 100% NON-HAZARDOUS.

Isabelle Alark Michelle 2-19-92

TYPED OR PRINTED FULL NAME & SIGNATURE DATE

TRANSPORTER

NAME Cummings Transport

ADDRESS P. O. Box 607

CITY, STATE, ZIP Maricopa, CA 93252

PHONE NO. (800) 828-4281

TRUCK UNIT, I.D. NO. B-1

SERVICE ORDER NO. _____

PICK UP DATE 2-19-92

MELVA BETH Michelle Betty 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

DISPOSAL METHOD ☐ LANDFILL ☒ OTHER Recycle

TAMM LUCAS James Lucas 2/19/92

TYPED OR PRINTED FULL NAME & SIGNATURE DATE

GEN	OLD/NEW	L	A	TONS
TRANS		S	B	
C/O		RT/OD	HWDF	NONE

DISCREPANCY

RRP INC.
RESOURCE RENEWAL TECHNOLOGIES

P.O. Box 40441
Bakersfield, CA 93384-0441

(805) 832-4841
Haz. Sub. Lic. 38244
Haz. Haul CAD 98243703

February 24, 1992

Ledsam Contracting Company
2702 California Avenue
Signal Hill, California 90806

Job: Kimberly Clark

<u>DATA FORM</u>	<u>TONS</u>
92108-1	24.69
92108-2	25.09
92108-3	22.00
92108-4	<u>25.99</u>
TOTAL TONS	97.77

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 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. SEE ATTACHED NOTICE PERTAINING TO THE EXCAVATION STANDARD WITH ITS COMPETENT PERSON REQUIREMENTS.	Various	Statewide	1/1/92	12/31/92

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 L. Stauffer		Received By George Godzak	
<input type="checkbox"/> Cash	Amount	Date	
<input checked="" type="checkbox"/> Check	\$100.-	1/3/92	

Investigated by *George Godzak* 1/3/92
Safety Engr. Date

Approved by *ADM BK* 1-3-92
Dist. Manager Date

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

the grading operations were performed in accordance with the requirements of the regulating agencies.

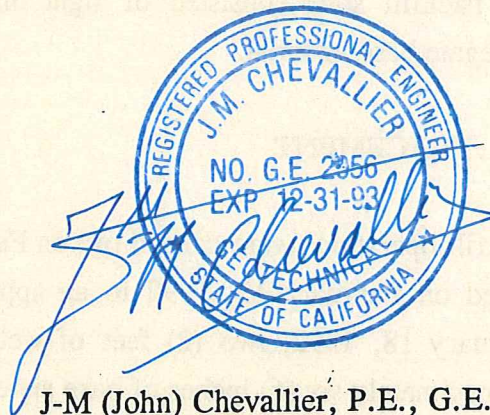
Services performed by GEOBASE, INC. were prepared in accordance with generally accepted geotechnical engineering principles and practices. No other warranty, expressed or implied, is made as to the conclusions and professional advice included in this report.

This letter report is subject to review by the appropriate regulating agencies.

Respectfully submitted
GEOBASE, INC.



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

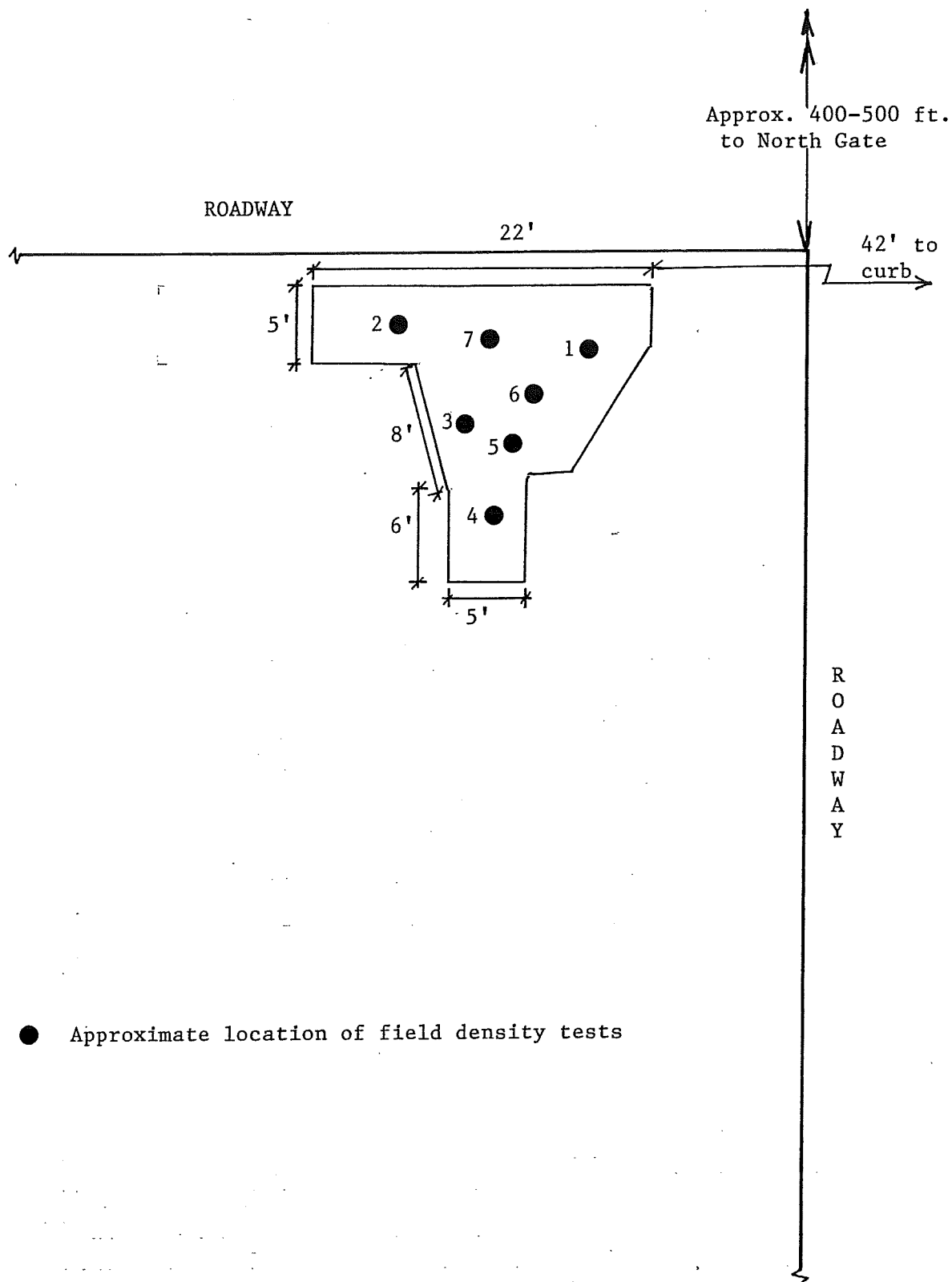
TABLE I
MAXIMUM DRY DENSITY/OPTIMUM MOISTURE CONTENT
ASTM D1557-78

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)



● Approximate location of field density tests

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
WEECO

WEECO Project No. 97-611

**INITIAL PHASE-2 SITE ENVIRONMENTAL 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

**Charles Choi
Registered Environmental Assessor
California Registration No. 3066**



by

Abnish Amar

**Abnish Amar, PhD
Registered Civil Engineer
California Registration No. C28906**

Table of Content

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2 0 Site Description	1
3 0 Site Background Conditions-Site Geology	2
-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 bleaching 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 gravelly and clayey 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 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.

(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:

(1). Excavation and Treatment At An Off-site Location

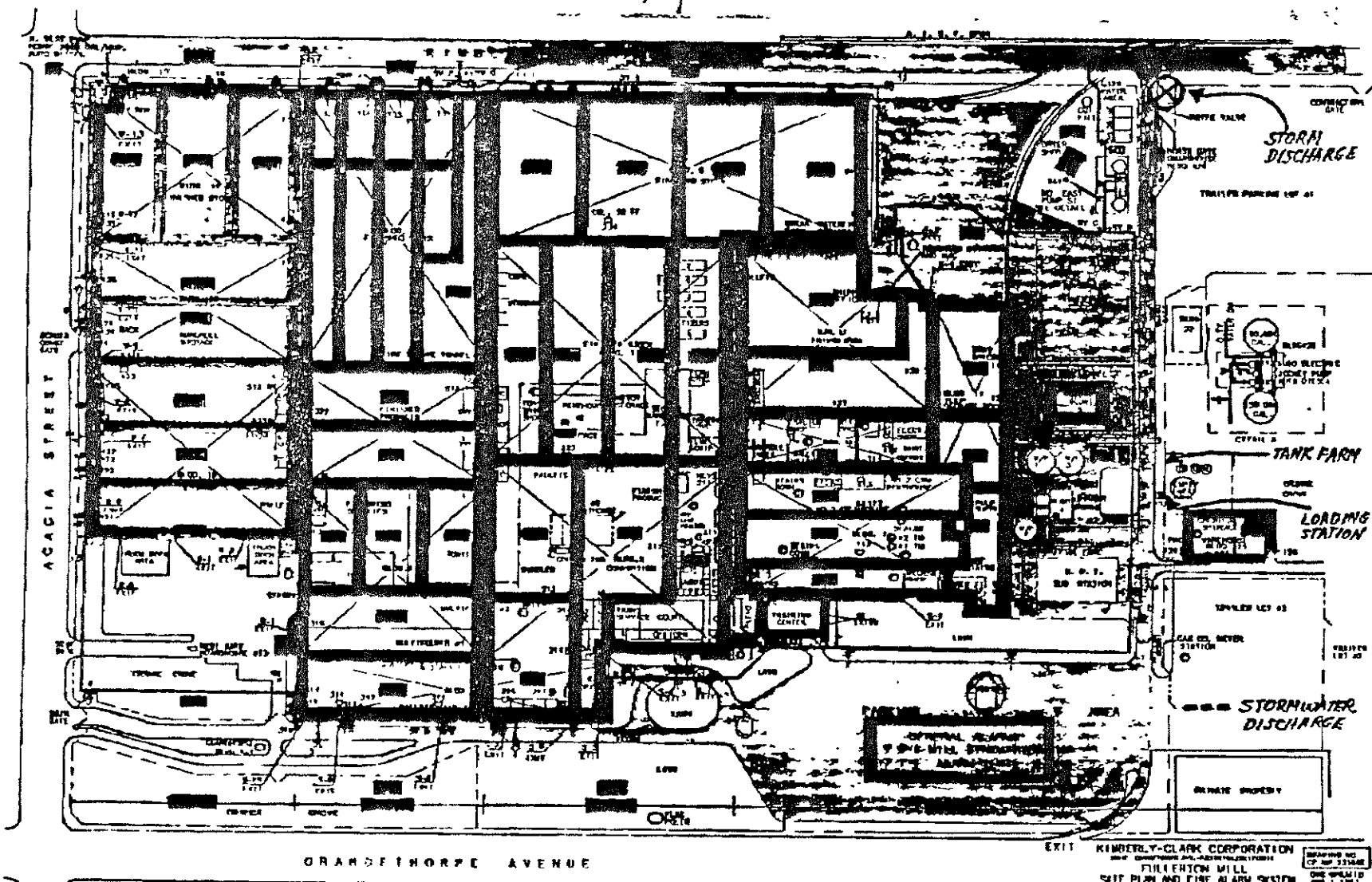
- Treatment may include passive aeration for NaOCl decomposition
- Or, Treatment may include active aeration with air injection method
- Or, Treatment may include spraying a neutralization chemical in order to convert NaOCl into NaCl salt. NaCl salt is a non-hazardous chemical, and thus will be satisfactory 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.

FIGURE (2) Factory Site Plot Plan

N ↑



OPERATION OF FIRE ALARM SYSTEM

Automatic Alarm
Alarm electric horns automatically sound throughout the entire mill and surrounding grounds when the code transmitters in a fire area is switched on by:

- 1) Water flow in a fire sprinkler system from an open sprinkler head or hidden cartridger head
- 2) Call or broken on a fire alarm box.

Manual Alarm Sound by Security Guard
Guard in front lobby will set code and sound alarm signal based on the location described by caller when a fire is reported by phone.

FM 135

How To Read Fire Alarm Code
Example: [Symbol] - North End Building #11 (Pulp Storage Dock), with sound 1 2 2 on bellman

Area Code [Symbol] - (From various) 1 West (Main), 2 West (Main), 3 West (Main), 4 West (Main), 5 West (Main), 6 West (Main), 7 West (Main), 8 West (Main), 9 West (Main), 10 West (Main), 11 West (Main), 12 West (Main), 13 West (Main), 14 West (Main), 15 West (Main), 16 West (Main), 17 West (Main), 18 West (Main), 19 West (Main), 20 West (Main), 21 West (Main), 22 West (Main), 23 West (Main), 24 West (Main), 25 West (Main), 26 West (Main), 27 West (Main), 28 West (Main), 29 West (Main), 30 West (Main), 31 West (Main), 32 West (Main), 33 West (Main), 34 West (Main), 35 West (Main), 36 West (Main), 37 West (Main), 38 West (Main), 39 West (Main), 40 West (Main), 41 West (Main), 42 West (Main), 43 West (Main), 44 West (Main), 45 West (Main), 46 West (Main), 47 West (Main), 48 West (Main), 49 West (Main), 50 West (Main), 51 West (Main), 52 West (Main), 53 West (Main), 54 West (Main), 55 West (Main), 56 West (Main), 57 West (Main), 58 West (Main), 59 West (Main), 60 West (Main), 61 West (Main), 62 West (Main), 63 West (Main), 64 West (Main), 65 West (Main), 66 West (Main), 67 West (Main), 68 West (Main), 69 West (Main), 70 West (Main), 71 West (Main), 72 West (Main), 73 West (Main), 74 West (Main), 75 West (Main), 76 West (Main), 77 West (Main), 78 West (Main), 79 West (Main), 80 West (Main), 81 West (Main), 82 West (Main), 83 West (Main), 84 West (Main), 85 West (Main), 86 West (Main), 87 West (Main), 88 West (Main), 89 West (Main), 90 West (Main), 91 West (Main), 92 West (Main), 93 West (Main), 94 West (Main), 95 West (Main), 96 West (Main), 97 West (Main), 98 West (Main), 99 West (Main), 100 West (Main)

Alarm will normally repeat six (6) times, each time sounding the 2 and 3 bell code.

LEGEND OF SYMBOLS

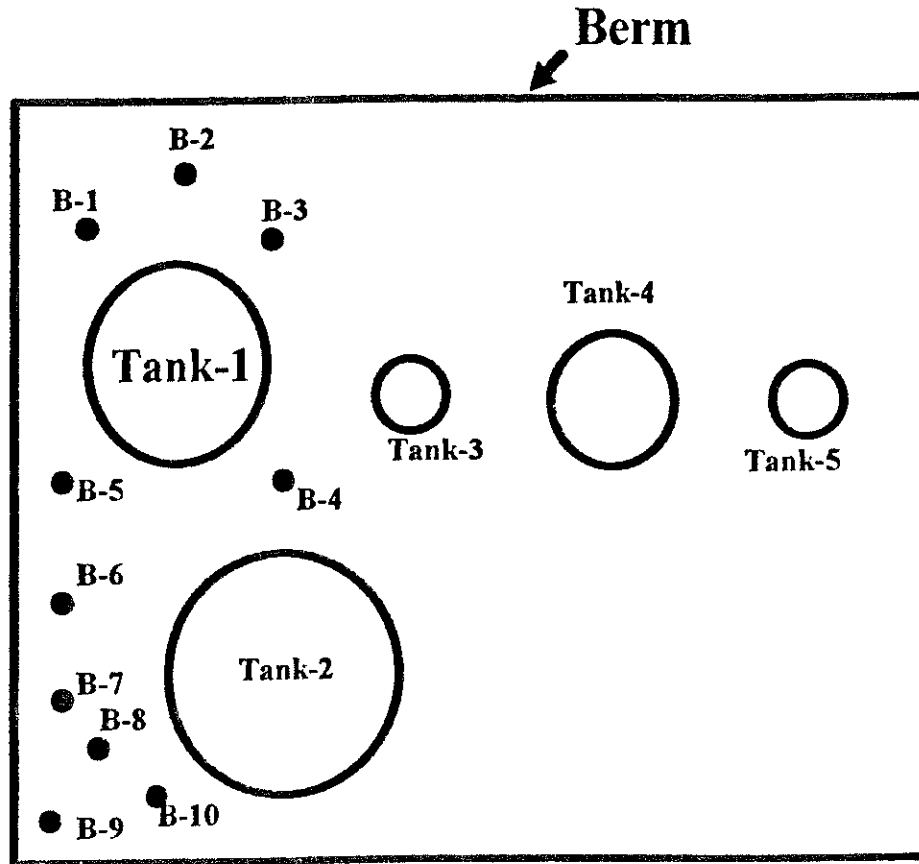
- ALARM BOX - BREAK GLASS
- SAME - ON ROOF OR OUTDOOR
- △ SAME - LOCATED IN BASEMENT
- ◇ FRESH WATER FLOW TRANSDUCER
- ▽ FRESH WATER FLOW TRANSDUCER
- ▽ FRESH WATER FLOW TRANSDUCER
- ▽ REACTION CONTROL VALVE
- ▽ FIRE DEPT. PUMPED CONNECTION
- ▽ FIRE HYDRANT CONNECTION
- ▽ HOUSE HOUSE
- COMBUSTIBLE LIQUID
- MANUAL GAS SHUT OFF

DATE PRINTED: JANUARY 28, 1967

TO REPORT A FIRE

1. BREAK GLASS ON NEAREST FIRE ALARM BOX (IF LOCATED IN SAME AREA AS FIRE) AND LISTEN IF ALARM DOES NOW SOUND, DIAL 7511 AND STATE LOCATION OF FIRE.
2. IF PHONE IS CLOSER TO FIRE THAN BOX, DIAL 7511 AND STATE LOCATION OF FIRE.
3. DIRECT FIRE BRIGADE TO THE FIRE.
4. REPORT ALL FIRES

FIGURE (3)



Scale: 1" = 25'



Site Plan

<div style="display: flex; align-items: center;"> <div style="border: 1px solid black; border-radius: 50%; padding: 2px 10px; margin-right: 10px;">WEECO</div> <div>Western Environmental Engineers Company</div> </div>	
Drawn By Jack Liu	Date October 14, 1997
Project Nbr. 97-106	Kimberly Clark
Site Address 2001 East Orangethorpe Ave Fullerton, CA 92631	

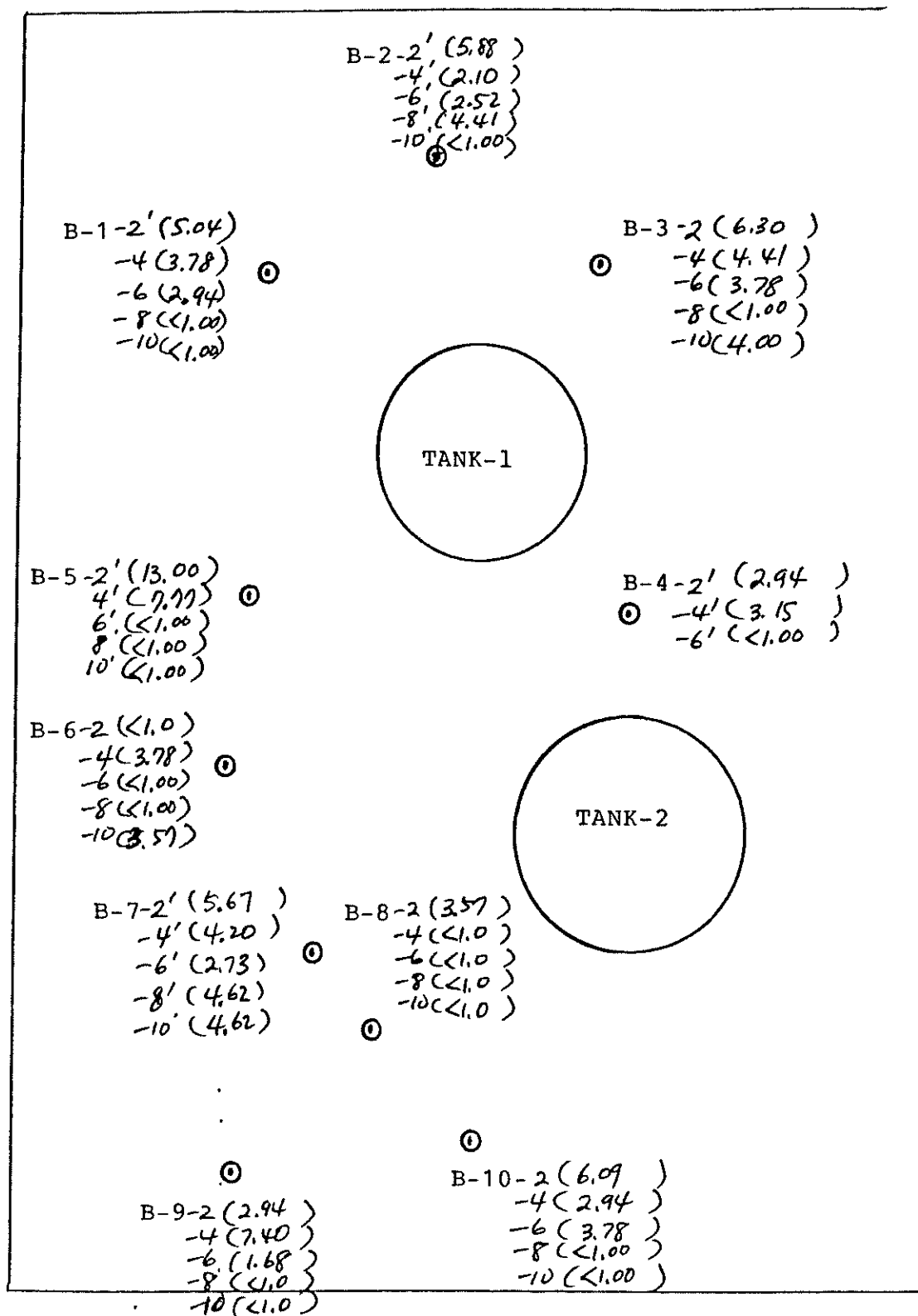


FIGURE (4)

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 <u>WEECO</u>				Project #		Analyses required											
Address <u>1750 E McAdams Ave #117</u>				Phone # <u>714-542-2600</u>		<div style="display: flex; justify-content: space-between;"> <div style="writing-mode: vertical-rl; transform: rotate(180deg);">Sodium Hypochlorite</div> <div></div> <div style="writing-mode: vertical-rl; transform: rotate(180deg);">Hazardous sample Special handling required</div> </div>											
City, State Zip <u>Santa Ana CA 92705</u>				Fax #													
Report attention <u>Jack Liu</u>				Sampled by <u>Jack Liu</u>		Number of containers		Remarks									
Sample number	Date Sampled	Time Sampled	Type* See key below	Sample description													
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		0950		B-2-2'													
7		0955		B-2-4'													
8		0959		B-2-6'													
9		1005		B-2-8'													
10		1025		B-2-10'													
11		1040		B-2-2'													
12		1046		B-3-4'													

Signature	Print Name	Company	Date	Time
Relinquished by <u>Jack Liu</u>	<u>Jack Liu</u>	<u>WEECO</u>	<u>9/2/97</u>	<u>1100</u>
Received by <u>Michael J. ...</u>	<u>Michael J. ...</u>	<u>ChemTek Laboratory</u>	<u>9/2/97</u>	<u>1100</u>
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 WEECO				Project #		Analyses required											
Address 1750 E McFadden Ave #117				Phone # 714-592-7162		<div style="display: flex; justify-content: space-between;"> <div style="writing-mode: vertical-rl; transform: rotate(180deg);">Sediment: Haploids</div> <div style="writing-mode: vertical-rl; transform: rotate(180deg);">Hazardous sample Special handling required</div> </div>											
City, State, Zip Santa Ana CA 92705				Report attention Jack Liu													
Sampled by Jack Liu				Number of containers													
Sample number	Date Sampled	Time Sampled	Type* See key below	Sample description													Remarks
13	9/29/97	1050	SO	B-3-6'	1	X											
14		1055		B-3-8'													
15		1105		B-3-10'													
16		1135		B-4-2'													
17		1150		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: <i>[Signature]</i>	Jack Liu	WEECO	9/29/97	1305
Received by: <i>[Signature]</i>	Michael Lu	ChemTek Laboratory	9/27/97	1305
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

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CHAIN OF CUSTODY RECORD

Log Number

70910655

Client name WEECO				Project #		Analyses required										
Address 1780 E. McFadden Ave #117				Phone # 714-542-2644		<div style="display: flex; justify-content: space-between;"> <div style="writing-mode: vertical-rl; transform: rotate(180deg);">Soil: Heavy</div> <div style="writing-mode: vertical-rl; transform: rotate(180deg);">Hazardous sample Special handling required</div> </div>										
City, State, Zip Santa Ana CA 92705				Report attention Jack Liu												
Sampled by Jack Liu				Number of containers												
Sample number	Date Sampled	Time Sampled	Type* See key below	Sample description		Remarks										
25	9/21/97	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	✓	1420	✓	B-7-10'	✓	✓										

Signature	Print Name	Company	Date	Time
Relinquished by <i>[Signature]</i>	Jack Liu	WEECO	9/21/97	1430
Received by <i>[Signature]</i>	Michael Li	Chem-Tek Laboratories	9/21/97	1430
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

Log Number 710012

Client name WEECO				Project #		<div style="display: flex; justify-content: space-between;"> <div style="writing-mode: vertical-rl; transform: rotate(180deg);">Sodium Heavy Metals</div> <div>Analyses required</div> <div style="writing-mode: vertical-rl; transform: rotate(180deg);">Hazardous sample Special handling required</div> </div>							
Address 1780 E. McFadden Ave #117				Phone # 714-542-7600 Fax # 714-542-2520									
City, State, Zip San Jose CA 95128				Report attention Jack Liu									
Sample number	Date Sampled	Time Sampled	Type* See key below	Sampled by Jack Liu	Number of containers	Remarks							
1	10/6/97	0730	SO	B-8-2'	1	<div style="display: flex; justify-content: space-between;"> <div style="writing-mode: vertical-rl; transform: rotate(180deg);">Sodium Heavy Metals</div> <div>Analyses required</div> <div style="writing-mode: vertical-rl; transform: rotate(180deg);">Hazardous sample Special handling required</div> </div>							
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 <i>[Signature]</i>		Jack Liu		WEECO		10/6/97		7:30Am					
Received by <i>[Signature]</i>		John W. Zhang		CHEMTEK		10/6/97		9:30AM					
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

Log Number 710 072

	Log Number
Sodium Hypochlorite.	Analyses required
	Hazardous sample Special handling required

CHEMTEK ENVIRONMENTAL LABORATORIES INC.
14140 Alondra Boulevard, Suite A
Santa Fe Springs, Ca. 90670
Tel: (310) 926-9848 Fax: (310) 926-8324

* 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 (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		5		Surface silt with peegravels 2' Sand, light brown, soft, moist, well graded, little silt, fine-medium grain size
	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		15		10' sand, light brown, coarse-grained size, well graded T D 10 feet.
					20		
					25		
					30		
					35		
					40		
					45		
WEECO Western Environmental Engineers Co 1780 E McFadden Ave (Suite #117) Santa Ana, California 92705						PROJECT NAME. <u>Kimberly-Clark</u> 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		5		Surface silt with peegravels 2' Sand, light brown, soft, moist, well graded, little gravel, medium grain size
	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		15		10' sand, light brown, coarse-grained size, well graded T D 10 feet
					20		
					25		
					30		
					35		
					40		
					45		
WEECO Western Environmental Engineers Co 1780 E McFadden Ave (Suite #117) Santa Ana, California 92705						PROJECT NAME <u>Kimberly-Clark</u> ADDRESS 2001 E Orangethorpe Avenue Fullerton, CA 92631	
						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		5		Surface silt with peegravels
	X	70 ppm	1045				2' Sand, light brown, soft, moist, well graded, little gravel, medium grain size
	X	60 ppm	1050				4' same as above
	X	80 ppm	1055		10		6' same as above
	X	70 ppm	1105				8' sand, bright brown, soft, wet, coarse-grained size, poor graded, little gravels,
					15		10' sand, light brown, coarse-grained size, poor graded
					20		T D 10 feet
					25		
					30		
					35		
					40		
					45		
WEECO Western Environmental Engineers Co 1780 E McFadden Ave (Suite #117) Santa Ana, California 92705						PROJECT NAME <u>Kimberly-Clark</u> ADDRESS 2001 E Orangethorpe Avenue 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		5		Surface dirt with peegravels 2' Sand, light brown, soft, moist, well graded, little gravel, medium grain size
	X	60 ppm	1150				4' same as above
	X	60 ppm	1200		10		6' Sand, light brown, soft, moist, well graded, medium-coarse grained size little gravel T D 6 feet Due to the big rock, the hole can't be drill through
					15		
					20		
					25		
					30		
					35		
					40		
					45		
WEECO Western Environmental Engineers Co 1780 E McFadden Ave (Suite #117) Santa Ana, California 92705						PROJECT NAME <u>Kimberly-Clark</u> ADDRESS 2001 E Orangethorpe Avenue Fullerton, CA 92631	
						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		5		Surface silty dirt 2' Sand, yellowish brown, soft, moist, well graded, fine-medium grained size, little silt
	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 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 <u>Kimberly-Clark</u> 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		5		Surface silty dirt 2' Sand, yellowish brown, soft, moist, well graded, fine-medium grained size, little silt
	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				
					15		10' sandy gravel, light brown, coarse-grained size, poor graded T D 10 feet
					20		
					25		
					30		
					35		
					40		
					45		
WEECO Western Environmental Engineers Co 1780 E McFadden Ave (Suite #117) Santa Ana, California 92705						PROJECT NAME <u>Kimberly-Clark</u> ADDRESS 2001 E Orangethorpe Avenue 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		5		Surface silty dirt 2' Sand, dark brown, soft, wet, well graded, fine grained size, little silt
	X	60 ppm	1408				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 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 <u>Kimberly-Clark</u> 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.
	X	40 ppm	0740		5		2' Sand, yellowish brown, soft, moist, well graded, medium-fine grained size
	X	0 ppm	0745				4' same as above
	X	20 ppm	0755		10		6' same as above
	X	0 ppm	0805				8' same as above
					15		10' sand, light brown, soft, wet, coarse-medium grained size, less silt
					20		T D 10 feet
					25		
					30		
					35		
					40		
					45		
WEECO Western Environmental Engineers Co. 1780 E McFadden Ave (Suite #117) Santa Ana, California 92705						PROJECT NAME <u>Kimberly-Clark</u> 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		5		Surface silty dirt 2' Sand, yellowish brown, soft, moist, well graded, medium-fine grained size
	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 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 <u>Kimberly-Clark</u> 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		5		Surface silty dirt
	X	50 ppm	0855				2' Sand, yellowish brown, soft, moist, well graded, medium-fine grained size
	X	30 ppm	0900				4' same as above
	X	0 ppm	0905		10		6' same as above
	X	30 ppm	0910				8' same as above
					15		10' sand, light brown, soft, wet, coarse-medium grained size, less silt
					20		T D 10 feet.
					25		
					30		
					35		
					40		
					45		
WEECO Western Environmental Engineers Co 1780 E McFadden Ave (Suite #117) Santa Ana, California 92705						PROJECT NAME <u>Kimberly-Clark</u> 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 IDENTIFICATIONLABORATORY 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 IDENTIFICATIONLABORATORY 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)

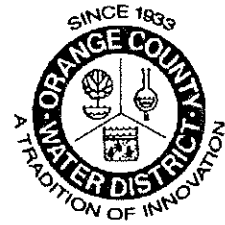
Depth-to-Groundwater in the Neighborhood

**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

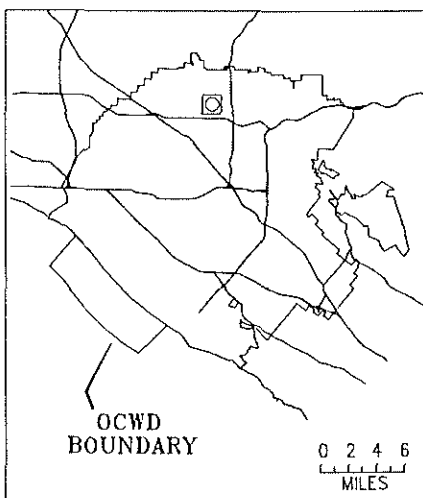
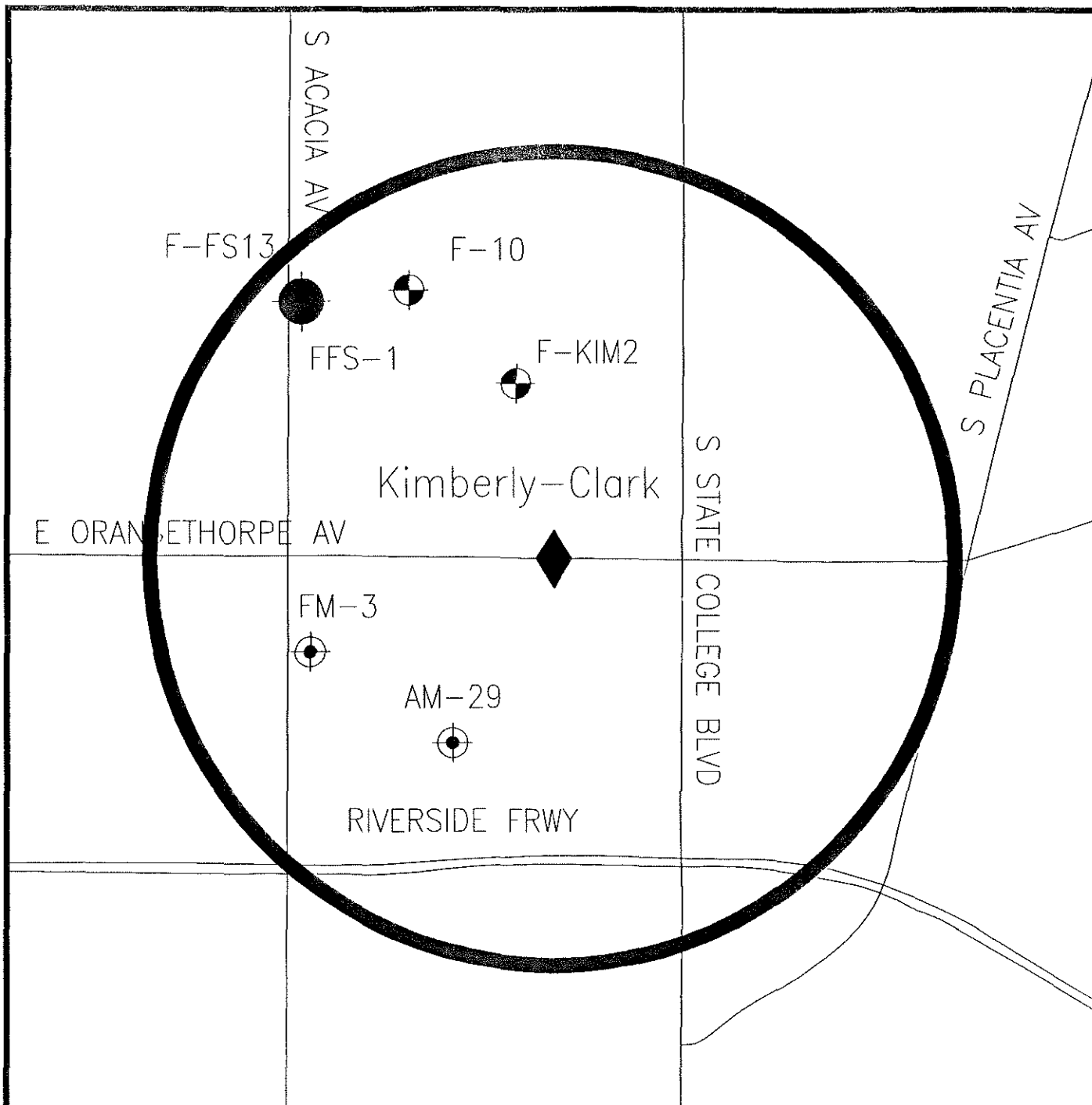
SEARCH RADIUS (MILES): 0.5

SEARCH YEARS: 1996 - PRESENT




INFORMATION PROCESSED

<u># of Pages</u>	<u>Description</u>
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



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



FIGURE 1

**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	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

All depths and elevations in feet.

10/27/1997 08:53 OCWD WRMS RPT#: 2153 Page: 1

Abbreviations:

Elev GS -- Elevation of Ground Surface WL Status -- Water Level Status
Elev RP -- Elevation of Reference Point Perfs -- Perforated Interval
Elev WS -- Elevation of Water Surface

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

All depths and elevations in feet.

10/27/1997 08:53 OCWD WRMS RPT#: 2153 Page: 2

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. G.: 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	

All depths and elevations in feet.

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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	

All depths and elevations in feet.

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Abbreviations:

Elev GS – Elevation of Ground Surface WL Status – Water Level Status
 Elev RP – Elevation of Reference Point Perfs – Perforated Interval
 Elev WS – Elevation of Water Surface

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	

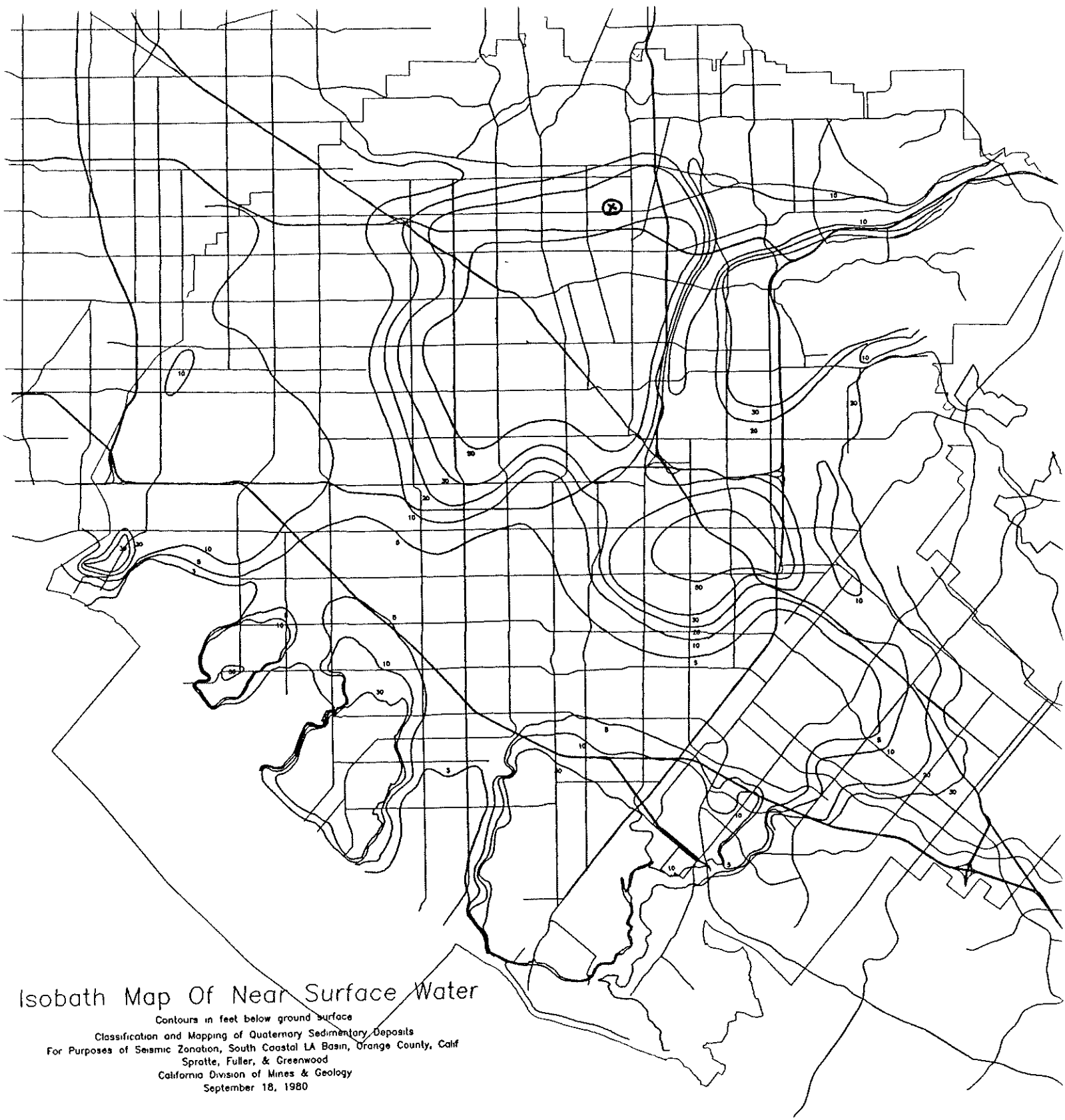
All depths and elevations in feet.

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

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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.



Directors

PHILIP L. ANTHONY
 WES BANNISTER
 KATHRYN L. BARR
 JOHN V. FONLEY
 DANIEL E. GRISET
 LAWRENCE P. KRAEVEY JR.
 GEORGE OSBORNE
 LANGDON W. OWEN
 IRV. PICKLER
 ARNT G. "BUD" QUIST

*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

ORANGE COUNTY WATER DISTRICT

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.

Attachment (E)

MSDS Sheets for NaOCl

TM 50 gm PL Mat TC

H3 FO R1 [⊗]
CORROSIVE

Sunny Sol 150 - Jones Chemicals, Inc.
MSDS# 1201.9048 Revision# 1994.01015

MATERIAL SAFETY DATA SHEET

*PPE: rubber glove
goggles, face shield
(if needed)
Use respirator if
needed.*

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	12.5-15.6	7681-52-9	Not Applicable	Not Applicable
Sodium Hydroxide	0.1-2.0	1310-73-2	2mg/m ³ ceiling	STEL/CEIL(c) 2mg/m ³ 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



Prepared by:

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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.

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 - 5116 773-9291 (2 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

<u>Sodium Hypochlorite (NaOCl)</u> [reporting units parts per million (ppm)]		
<u>Sample ID</u>	<u>Sodium Hypochlorite (NaOCl)</u>	<u>Date</u>
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)]

<u>Sample ID</u>	<u>Sodium Hypochlorite (NaOCl)</u>	<u>Date</u>
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 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 gravelly 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

<u>Sodium Hypochlorite (NaOCl)</u> [reporting units: parts per million (ppm)]		
<u>Sample ID</u>	<u>Sodium Hypochlorite (NaOCl)</u>	<u>Date</u>
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.

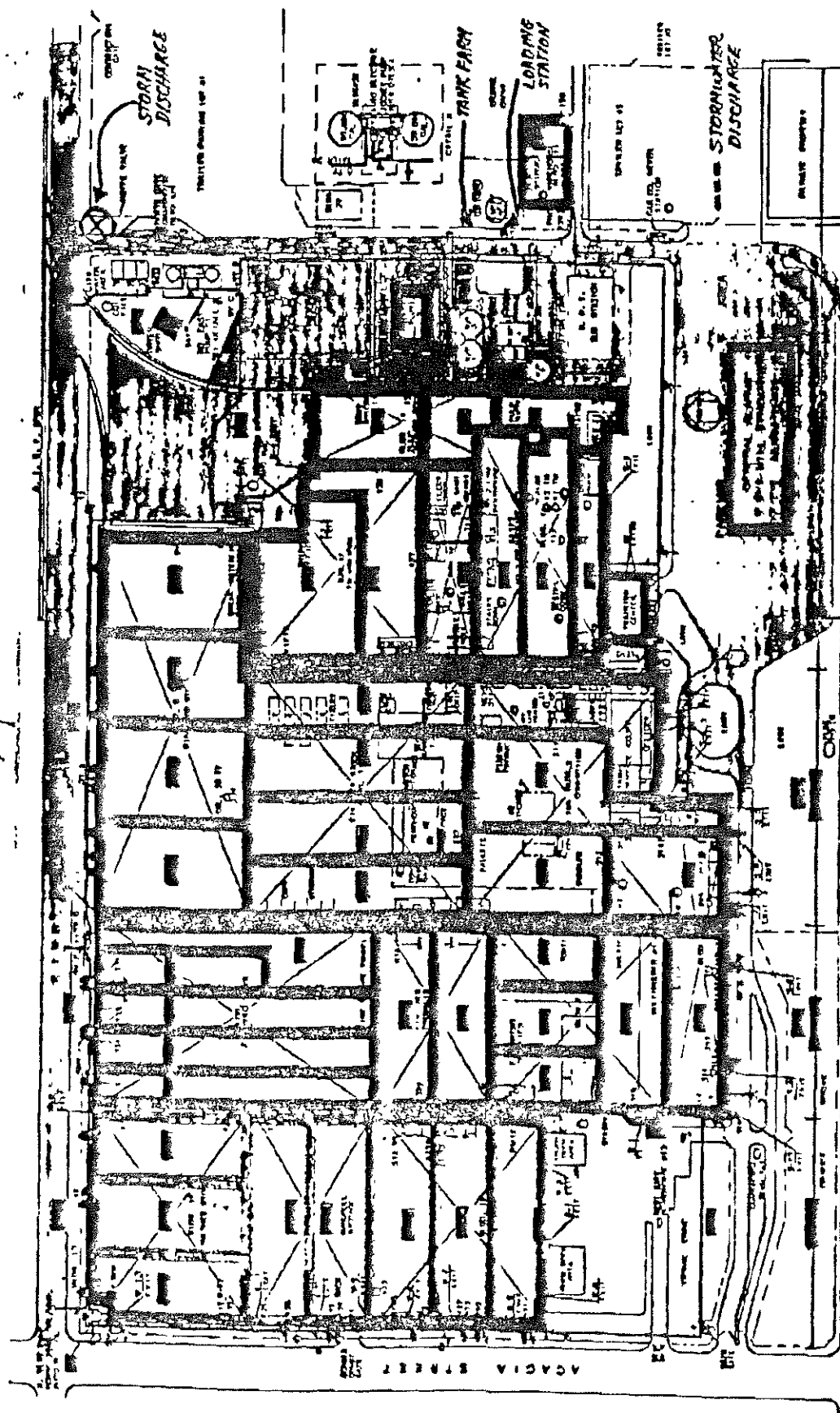
FIGURE (1)

SITE LOCATION MAP

FIGURE (2)

FACTORY LAYOUT

FIGURE (2) Factory Site Plot Plan



24001111 HORTON AVE N 11 E

REPAIRATION OF FIRE ALARM SYSTEM

It has been said that the most important factor in the success of a business is the quality of its management. This is true, but it is also true that the quality of the product is equally important. A business cannot succeed if it produces a poor quality product, no matter how well it is managed. Therefore, a business must focus on both the quality of its management and the quality of its product in order to be successful.

8) Can't breathe can do a little rest
Should A Home Breathing by Shalimar Chatterji
Chatterji has been helped by all gods and women there, so that he
can breathe through his chest when he is in need of his breath.

51

LEGEND OF SYMBOLS

- 10 ALIASING - POINTING TO THE SAME ADDRESS
- 11 SAME - OR POINTING TO THE SAME ADDRESS
- 12 SAME - LOCKING IN THE ADDRESS
- 13 SAME - WORKING IN THE ADDRESS
- 14 THE SAME ADDRESS
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How To Win And Lose Sports Cards

Admitted to U.S. District Court
at New York, New York
on 10/10/1961
by Judge [redacted]

Lat Code ~~1000000~~ - (Area covered) 1 Wood (1000000) 1000000
 † Woods (1000000) 1000000 2 Woods (1000000) 1000000

Altogether with extremely rapid rate of growth, each young sapling can be used from 1945.

UNITED Y-CLARK CORPORATION

7719 NE 15TH AVE
MILWAUKEE, WI 53221

WIT PLUM AND FIRE ALARM

DATE PRINTED: JANUARY 28, 1987

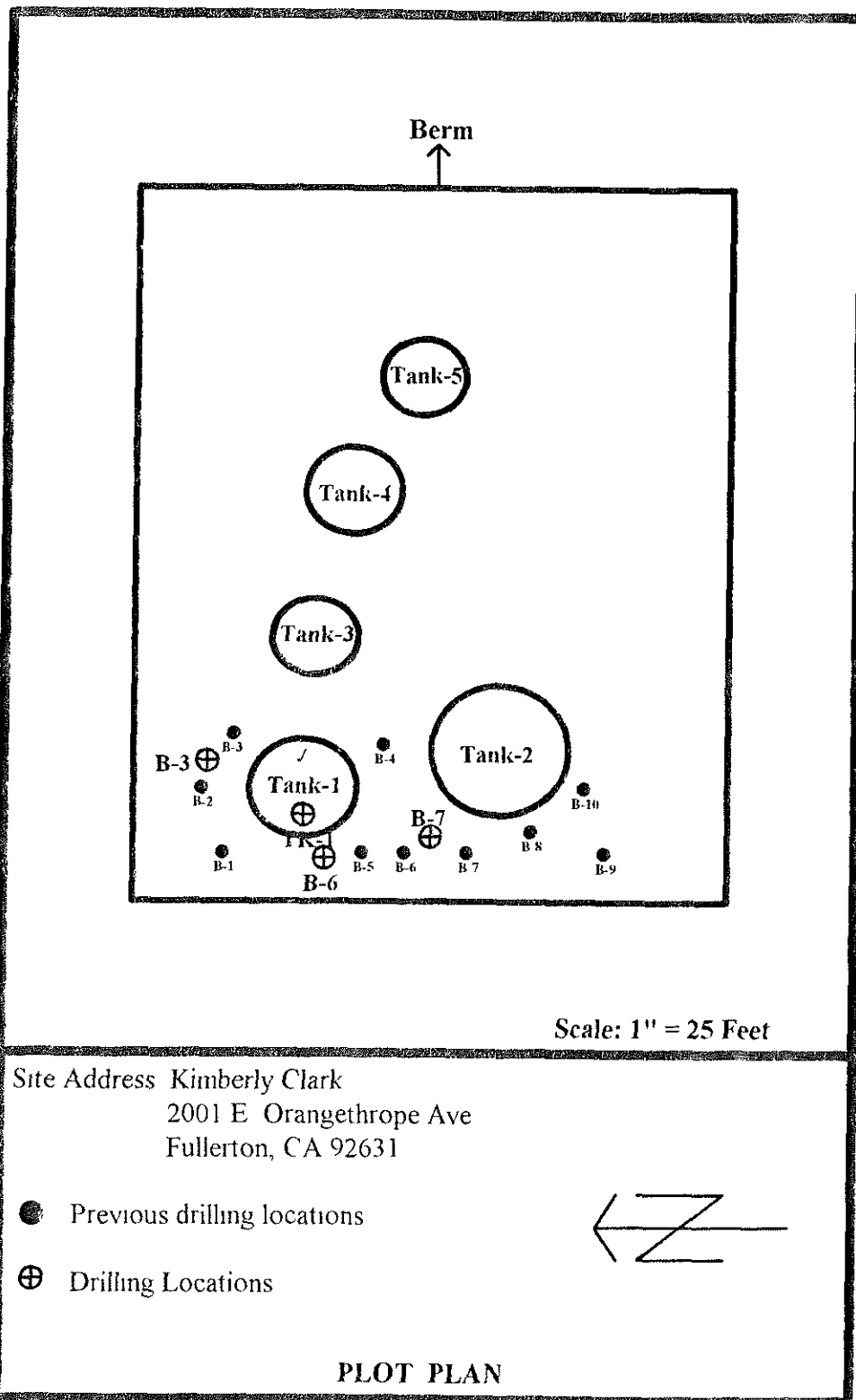
THE POWER & FEAR

- 1 SPARK BLAZE ON WEAREST FIVE IN AREA BOX BY
2 LOCATED IN SAME AREA AS FIVE AND CRITERION IS
3 ALARM DOES NOT SOUND DIAL. 1971 AMBULANCE
4 LOCATION OF FIVE
5 IF PHONE IS CLOSER TO FIVE THAN BOX, DIAL
6 1971 AND STATE LOCATION OF FIVE
7 DIRECT FIVE BLAZE TO THE FIVE
8 REPORT ALL FIRES

51

FIGURE (3)

FACILITY MAP



ATTACHMENT (A)

LOGS OF BORINGS

LOG OF BORING

Drill Rig B-47 3" HOLLOW STEM AUGER				Boring Diameter 3 inches		Boring Number B-7	
Drilling Date 12-15-97		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			
BULK	TUBE	VAPOR READINGS	TIME	BLOW COUNTS	DEPTH, FEET	WELL CONSTRUCTION DETAIL	DESCRIPTION AND REMARKS
					5		SURFACE IS NATURAL SOIL
					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
					45		TD 40 FT BACKFILLED WITH SOIL CUTTINGS
WEECO Western Environmental Engineers Co 1780 E McFadden Ave (Suite #117) Santa Ana, California 92705						PROJECT NAME <u>SITE CHARACTERIZATION</u> 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 B-6	
Drilling Date 12-15-97		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			
BULK	TUBE	VAPOR READINGS	TIME	BLOW COUNTS	DEPTH, FEET	WELL CONSTRUCTION DETAIL	DESCRIPTION AND REMARKS
					5		SURFACE IS NATURAL SOIL
					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
					35		
X	X	ND	15 40	18-21-25	40		30 FT - 40 FT LIGHT BROWN SAND
					45		TD 40 FT BACKFILLED WITH SOIL CUTTINGS
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. TD: 40 FT BACKFILL WITH SOIL CUTTINGS.
					45		
WEECO Western Environmental Engineers Co. 1780 E. McFadden Ave. (Suite #117) Santa Ana, California 92705						PROJECT NAME: <u>SITE CHARACTERIZATION</u> 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 B-3	
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			
BULK	TUBE	VAPOR READINGS	TIME	BLOW COUNTS	DEPTH, FEET	WELL CONSTRUCTION DETAIL	DESCRIPTION AND REMARKS
					5		SURFACE IS NATURAL SOIL
					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
					45		TD 40 FT BACKFILLED WITH SOIL CUTTINGS
WEECO <u>Western Environmental Engineers Co</u> 1780 E McFadden Ave (Suite #117) Santa Ana, California 92705						PROJECT NAME <u>SITE CHARACTERIZATION</u> 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

Client name <u>Kimberly - Clark</u>				Project # <u>9-2-86</u>		Analyses required										1 of 2
Address <u>2001 E. Orangeflake Ave</u>				Phone #		<div style="display: flex; justify-content: space-between;"> <div style="writing-mode: vertical-rl; transform: rotate(180deg);">No OCA</div> <div style="writing-mode: vertical-rl; transform: rotate(180deg);">Hazardous sample Special handling required</div> </div>										
City, State, Zip <u>Fulford, CA</u>				Report attention <u>James Fourn</u>												
Sample number	Date Sampled	Time Sampled	Type* See key below	Sampled by <u>James Fourn</u>	Number of containers											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 <u>[Signature]</u>		James Fourn		WECO		12/16/97	19:00
Received by <u>[Signature]</u>		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-Petroleum

DISTRIBUTION. WHITE with report / YELLOW To CHEMTEK / PINK To courier

Log Number 712040

Signature	Print Name	Company	Date	Time
Relinquished by 	Tanner	WGLL	12/16/97	19:00
Received by				
Relinquished by				
Received by				
Relinquished by				
Received by Laboratory				

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
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

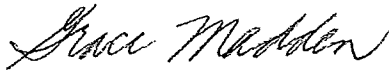
Dear Mr Long:

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
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 <input type="checkbox"/> YES <input checked="" type="checkbox"/> NO		HAS STATE OFFICE OF EMERGENCY SERVICES REPORT BEEN FILED? <input checked="" type="checkbox"/> YES <input type="checkbox"/> NO		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.	
REPORT DATE M M D D Y Y		CASE #		SIGNED _____ DATE _____	
REPORTED BY	NAME OF INDIVIDUAL FILING REPORT GRACE MADDEN		PHONE (714) 773-7500		SIGNATURE <i>G. Madden</i>
	REPRESENTING <input type="checkbox"/> LOCAL AGENCY <input checked="" type="checkbox"/> OWNER/OPERATOR <input type="checkbox"/> REGIONAL BOARD <input type="checkbox"/> OTHER		COMPANY OR AGENCY NAME KIMBERLY CLARK WORLDWIDE INC., FULLERTON MILL		
	ADDRESS 2001 E. ORANGETHORPE AVE., FULLERTON CA 92831				
RESPONSIBLE PARTY	NAME KIMBERLY CLARK WORLDWIDE INC. FULLERTON MILL <input type="checkbox"/> UNKNOWN		CONTACT PERSON GRACE MADDEN		PHONE (714) 773-7500
	ADDRESS 2001 E. ORANGETHORPE AVE., FULLERTON CA 92831				
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., FULLERTON CA 92831				
	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) BLEND OF FUEL OIL #6 and/or #2 FUEL OIL				QUANTITY LOST (GALLONS) est. 55 gal. or <input checked="" type="checkbox"/> UNKNOWN
	(2)				<input type="checkbox"/> UNKNOWN
DISCOVERY/ABATEMENT	DATE DISCOVERED 02/14/02		HOW DISCOVERED <input type="checkbox"/> INVENTORY CONTROL <input type="checkbox"/> SUBSURFACE MONITORING <input type="checkbox"/> NUISANCE CONDITIONS <input type="checkbox"/> TANK TEST <input type="checkbox"/> TANK REMOVAL <input checked="" type="checkbox"/> OTHER CONSTRUCTION EXCAVATION		
	DATE DISCHARGE BEGAN M M D D Y Y <input checked="" type="checkbox"/> UNKNOWN		METHOD USED TO STOP DISCHARGE (CHECK ALL THAT APPLY) <input type="checkbox"/> REMOVE CONTENTS <input checked="" type="checkbox"/> CLOSE TANK & REMOVE <input type="checkbox"/> REPAIR PIPING <input type="checkbox"/> REPAIR TANK <input type="checkbox"/> CLOSE TANK & FILL IN PLACE <input type="checkbox"/> CHANGE PROCEDURE <input type="checkbox"/> REPLACE TANK <input checked="" type="checkbox"/> OTHER REMEDIATION SOIL REMOVAL DONE SINCE DISCOVERY		
	HAS DISCHARGE BEEN STOPPED? <input checked="" type="checkbox"/> YES <input type="checkbox"/> NO IF YES, DATE M M D D Y Y				
SOURCE/CAUSE	SOURCE OF DISCHARGE <input checked="" type="checkbox"/> TANK LEAK <input checked="" type="checkbox"/> UNKNOWN <input type="checkbox"/> PIPING LEAK <input type="checkbox"/> OTHER		CAUSE(S) <input type="checkbox"/> OVERFILL <input type="checkbox"/> RUPTURE/FAILURE <input type="checkbox"/> SPILL <input type="checkbox"/> CORROSION <input checked="" type="checkbox"/> UNKNOWN <input type="checkbox"/> OTHER		
	CASE TYPE CHECK ONE ONLY <input type="checkbox"/> UNDETERMINED <input checked="" type="checkbox"/> SOIL ONLY <input type="checkbox"/> GROUNDWATER <input type="checkbox"/> DRINKING WATER - (CHECK ONLY IF WATER WELLS HAVE ACTUALLY BEEN AFFECTED)				
CURRENT STATUS	CHECK ONE ONLY <input type="checkbox"/> NO ACTION TAKEN <input type="checkbox"/> PRELIMINARY SITE ASSESSMENT WORKPLAN SUBMITTED <input type="checkbox"/> POLLUTION CHARACTERIZATION <input type="checkbox"/> LEAK BEING CONFIRMED <input type="checkbox"/> PRELIMINARY SITE ASSESSMENT UNDERWAY <input type="checkbox"/> POST CLEANUP MONITORING IN PROGRESS <input checked="" type="checkbox"/> REMEDIATION PLAN <input type="checkbox"/> CASE CLOSED (CLEANUP COMPLETED OR UNNECESSARY) <input type="checkbox"/> CLEANUP UNDERWAY				
	REMEDIAL ACTION CHECK APPROPRIATE ACTION(S) (SEE BACK FOR DETAILS) <input type="checkbox"/> CAP SITE (CD) <input checked="" type="checkbox"/> EXCAVATE & DISPOSE (ED) <input type="checkbox"/> REMOVE FREE PRODUCT (FP) <input type="checkbox"/> ENHANCED BIO DEGRADATION (IT) <input type="checkbox"/> CONTAINMENT BARRIER (CB) <input type="checkbox"/> EXCAVATE & TREAT (ET) <input type="checkbox"/> PUMP & TREAT GROUNDWATER (GT) <input type="checkbox"/> REPLACE SUPPLY (RS) <input type="checkbox"/> VACUUM EXTRACT (VE) <input type="checkbox"/> NO ACTION REQUIRED (NA) <input type="checkbox"/> TREATMENT AT HOOKUP (HU) <input type="checkbox"/> VENT SOIL (VS) <input type="checkbox"/> 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 70-86151) BY CROSBY & OVERON. REMEDIATION & CLOSURE WAS OBTAINED IN FEB. 1992 (PERMIT # 92-T-001) on site REMAINING				
	REMEDIATION & CLOSURE WAS OBTAINED IN FEB. 1992 (PERMIT # 92-T-001)				

cc: B. Samuels
C. Lynch
S. Lowke self



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

Post-it® Fax Note 7671

Date <u>2-18-02</u>	# of pages <u>2</u>
To <u>STEVE LONG</u>	From <u>GRACE MADDEN</u>
Co./Dept. <u>FUL FIRE DEPT. HAZ MAT</u>	Co. <u>KIMBERLY CLARK</u>
Phone # <u>714.738.3392</u>	Phone # <u>714.773.7500 X7677</u>
Fax # <u>738.5355</u>	Fax # <u>738.1810</u>

gm
WORKING
COPY

M (BLANK)

AUG- 6-97 WED 15:17 FULLERTON FIRE DEPT
- NOV 30 '94 05:28AM HCA ENVL HEALTH

FAX NO. 7147385355

P.02
P.2/3

ATTACHMENT B

Prop 65 IDS

ORANGE COUNTY
HCA/ENVIRONMENTAL HEALTH
Proposition 65 Notification Report Form

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: 2-14-02 Time: NOON-4PM Designated Employee Reporting: GRACE MADDEN
2. Report submitted on behalf of all designated employees of what agency: _____
3. Date of Incident: 2-14-02 Time: 8:30AM Source of Information (report by): _____
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 GA
UST FUEL OIL TANKS THAT WERE REMOVED IN LATE 1980'S. SOIL HAS BEEN REMOVED (8 FT - 13 FT
BGS).
7. Responsible Party Name: KIMBERLY CLARK WORLDWIDE INC., FULLERTON MILL Telephone: 714.773.7500
8. Identification of Discharged Waste

SEE ADDITIONAL
COMMENTS (#23)

ENVIRONMENTAL
CONTRACTOR:
FLEMING
ENVIRONMENT
714.228.04

Chemical Name/ Common Name	Solid/Liquid/Gas	Quantity	Hazardous Properties
FUEL OIL in SOIL	SOLID	ESTIMATED LESS THAN 55 GALLONS	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):
☐ Storm Drain ☐ Lake ☐ Stream ☐ River ☐ Roadway ☐ Groundwater ☐ Sewer
☐ Flood Channel ☐ Paved Ground ☐ Other: SOIL ☐ Bay ☐ Ocean ☐ Air
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
NOV 30 '94 09:28AM HCA ENL HEALTH

FAX NO. 7147385355

P. 03

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 X 10FT 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 2-15-02 2:10PM
OES-02-0887 KEVIN 2-15-02 2:20PM

18. Cleanup 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: _____
OIC/ADH 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 2001 E. Orangethorpe Avenue	City Fullerton	State CA	ZIP 92634

II Facility

Facility Name Kimberly-Clark Corporation		Dealer/Foreman/Supervisor M.R. Holcomb, Mill Manager	
Street Address 2001 E. Orangethorpe Avenue		Nearest Cross Street Acacia Street	
City Fullerton		County Orange	ZIP 92634
Mailing Address P.O. Box 4030		City Fullerton	State CA
		ZIP 92634	
Phone w/area code 714-773-7500		Type of Business <input type="checkbox"/> 01 Motor Vehicle Fuel Station <input checked="" type="checkbox"/> 02 Other: Tissue Products	
Number of Tanks at this Facility 6	Rural Areas Only:	Township	Range
		Section	

III 24 Hour Emergency Contact Person

Days Name (last name first) and Phone w/area code Dzanka, Laura 714-680-7477	Nights Name (last name first) and Phone w/area code 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. 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)
<input checked="" type="checkbox"/> 01	<input type="checkbox"/> 02		Blend of #2 and #6 fuel oil
<input type="checkbox"/> 01	<input checked="" type="checkbox"/> 02		#2 fuel oil
<input type="checkbox"/> 01	<input checked="" type="checkbox"/> 02		#6 fuel oil
<input type="checkbox"/> 01	<input type="checkbox"/> 02		
<input type="checkbox"/> 01	<input type="checkbox"/> 02		
<input type="checkbox"/> 01	<input type="checkbox"/> 02		
<input type="checkbox"/> 01	<input type="checkbox"/> 02		
<input type="checkbox"/> 01	<input type="checkbox"/> 02		
<input type="checkbox"/> 01	<input type="checkbox"/> 02		
<input type="checkbox"/> 01	<input type="checkbox"/> 02		
<input type="checkbox"/> 01	<input type="checkbox"/> 02		
<input type="checkbox"/> 01	<input type="checkbox"/> 02		
<input type="checkbox"/> 01	<input type="checkbox"/> 02		

Is Container located on an Agricultural Farm? ☐ 01 Yes ☒ 02 No

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).

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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.

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)			
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 <input type="checkbox"/> 01 Motor Vehicle Fuel Station <input type="checkbox"/> 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 Dzanka, Laura 714-680-7477	Nights Name (last name first) and Phone w/area code CWM Shift Superintendent 714-773-7500
--	---

COMPLETE THE FOLLOWING ON A SEPARATE FORM FOR EACH CONTAINER

IV Description

A. <input checked="" type="checkbox"/> Tank <input type="checkbox"/> Sump <input type="checkbox"/> Lagoon Pit or Pond <input type="checkbox"/> 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.)

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)
<input checked="" type="checkbox"/> 01	<input type="checkbox"/> 02		Blend of #2 and #6 fuel oil
<input type="checkbox"/> 01	<input checked="" type="checkbox"/> 02		#2 fuel oil
<input type="checkbox"/> 01	<input checked="" type="checkbox"/> 02		#6 fuel oil
<input type="checkbox"/> 01	<input type="checkbox"/> 02		
<input type="checkbox"/> 01	<input type="checkbox"/> 02		
<input type="checkbox"/> 01	<input type="checkbox"/> 02		
<input type="checkbox"/> 01	<input type="checkbox"/> 02		
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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

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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**

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Wilbert P. Gaston

**Wilbert P. Gaston, RG 4540
Principal Consultant**

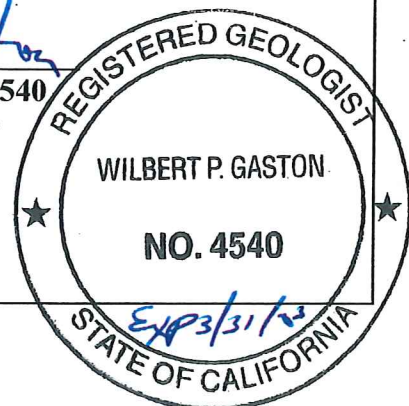


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**SOIL BORING SAMPLE LABORATORY RESULTS AND
CHAIN-OF-CUSTODY RECORDS**

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 $\mu\text{g/L}$) were detected in the sample. These concentrations are very 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 $\mu\text{g/L}$. 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 boilerroom 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

1,1,1-TCA = 1,1,1-Trichloroethane

nBB = n-Butylbenzene

N = Naphthalene

1,2,4-T = 1,2,4-Trimethylbenzene

sec-BB = sec Butylbenzene

nPB = n-Propylbenzene

1,2,5-T = 1,3,5-Trimethylbenzene

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 boilerroom 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 completed 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 very 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.

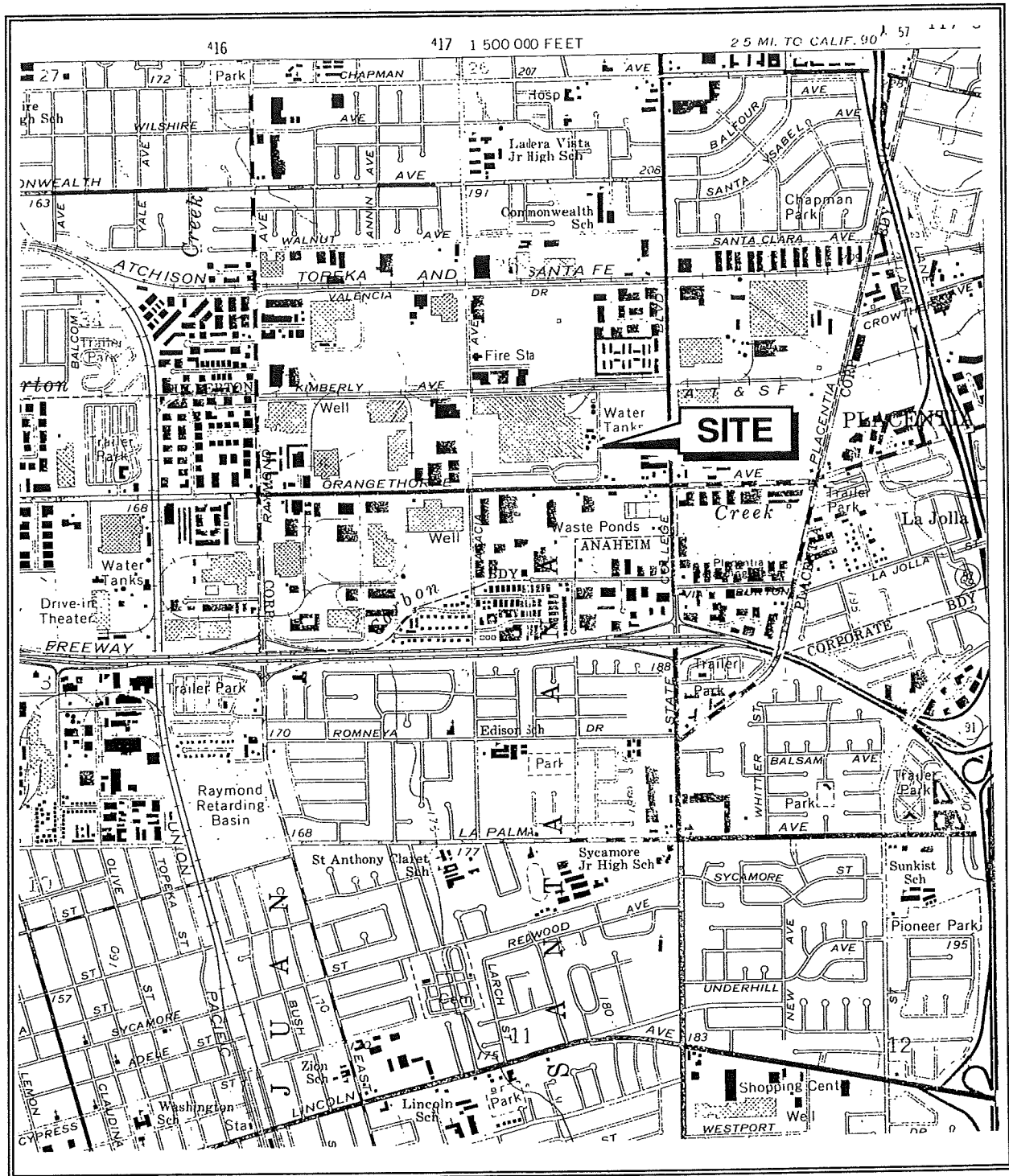
Therefore, since all of the accessible hydrocarbon-affected soil has been excavated from the site, and a groundwater sample does not indicate a significant impact to groundwater, the residual affected soil that cannot be excavated is not considered to pose a threat to the groundwater beneath the site. 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



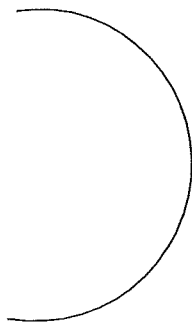
SITE VICINITY MAP

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**





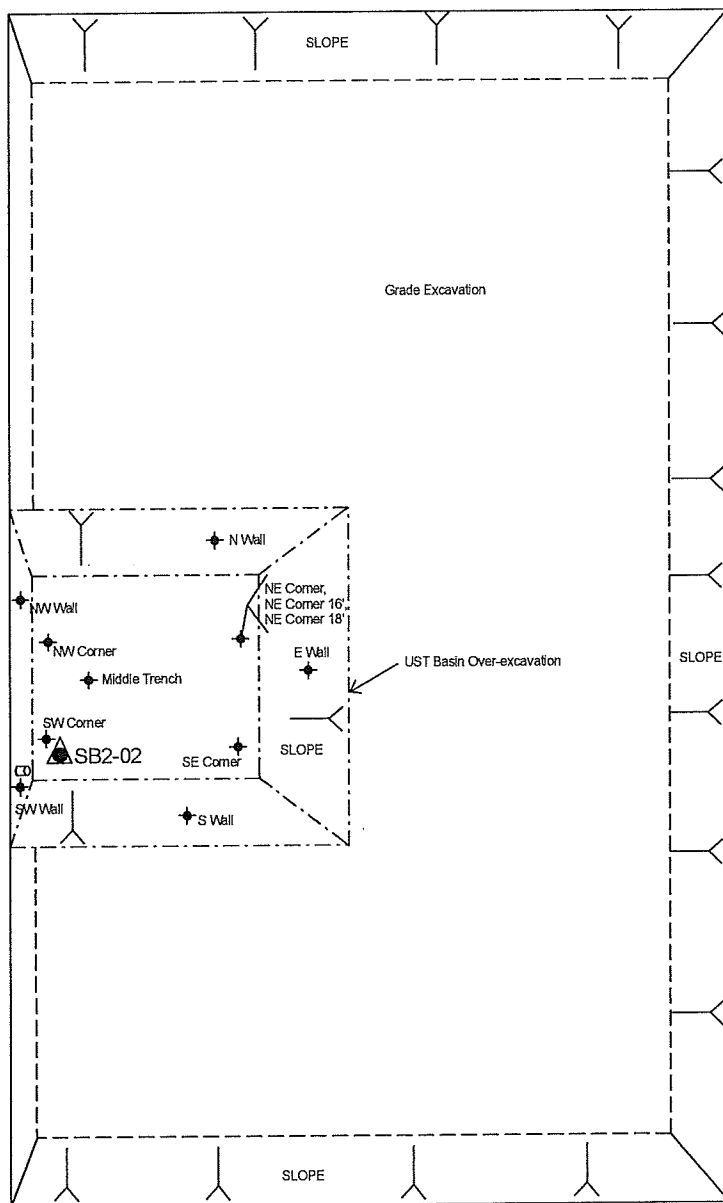
Concrete Slab

Boiler/Water Plant
(not scale)



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

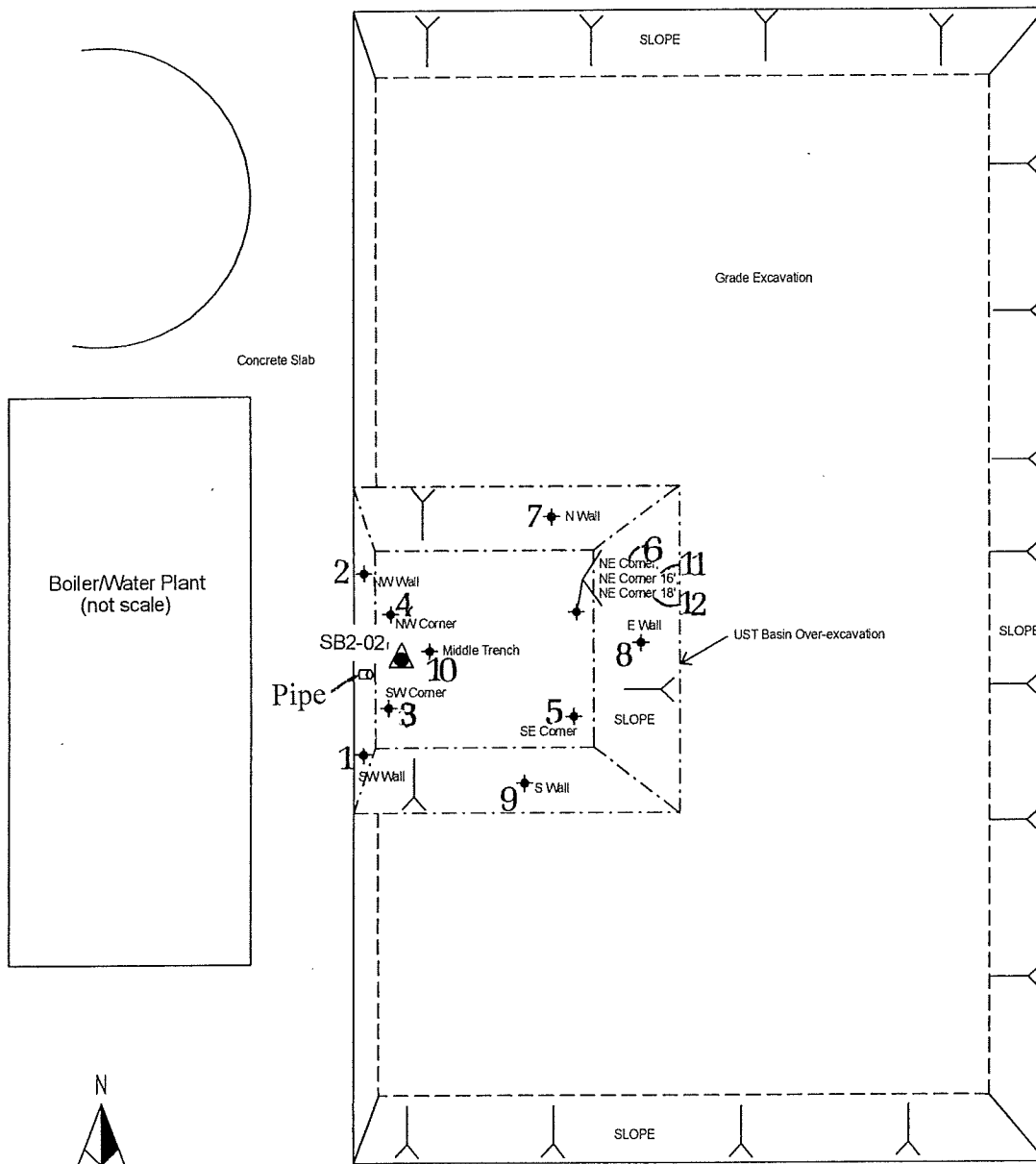
Figure 2

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 Well = 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

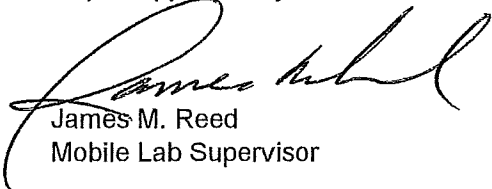
CASE NARRATIVE

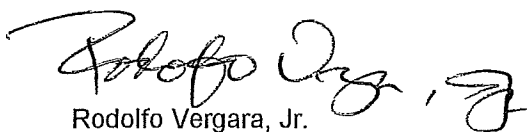
The following information applies to samples which were received for analysis by Centrum Analytical Mobile Environmental Laboratory Number Four (MEL #4) on: 02/18/02

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.

EPA 8015B modified - Total Extractable Petroleum Hydrocarbons as Diesel

Client: Fleming Environmental
Project: Kimberly-Clarke
Job No.: M4-348
Matrix: Soil
Analyst: MBH/JTS

Date Sampled: 02/18/02
Date Received: 02/18/02
Date Extracted: 02/22/02
Date Analyzed: 02/22-25/02
Batch Number: M48015DS646

Sample ID	Reporting Limit mg/Kg	Diesel mg/Kg	Surrogate (OTP) 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 %

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

EPA 8260B - Volatile Organics

Client: Fleming Environmental
Project: Kimberly-Clarke
Job No.: M4-348
Matrix: Soil
Analyst: MBH/ZL

Date Sampled: 02/18/02
Date Received: 02/18/02
Date Analyzed: 02/18-20/02
Batch Number: M48260S639
MS48260S2819

Compounds	Sample ID: RL	Blank mg/Kg	SW Corner mg/Kg	NW Corner mg/Kg	SE Corner mg/Kg	NE Corner mg/Kg	N Wall 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

EPA 8260B - Volatile Organics

Client: Fleming Environmental
Project: Kimberly-Clarke
Job No.: M4-348
Matrix: Soil
Analyst: MBH/ZL

Date Sampled: 02/18/02
Date Received: 02/18/02
Date Analyzed: 02/18-20/02
Batch Number: M48260S639
MS48260S2819

Compounds	Sample ID: RL	Blank mg/Kg	SW Corner mg/Kg	NW Corner mg/Kg	SE Corner mg/Kg	NE Corner mg/Kg	N Wall 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

EPA 8260B - Volatile Organics

Client: Fleming Environmental
Project: Kimberly-Clarke
Job No.: M4-348
Matrix: Soil
Analyst: MBH/ZL

Date Sampled: 02/18/02
Date Received: 02/18/02
Date Analyzed: 02/18-20/02
Batch Number: M48260S639
MS48260S2819

Compounds	Sample ID: RL	E Wall mg/Kg	S Wall mg/Kg	Middle Trench 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

EPA 8260B - Volatile Organics

Client: Fleming Environmental
Project: Kimberly-Clarke
Job No.: M4-348
Matrix: Soil
Analyst: MBH/ZL

Date Sampled: 02/18/02
Date Received: 02/18/02
Date Analyzed: 02/18-20/02
Batch Number: M48260S639
MS48260S2819

Compounds	Sample ID: RL	E Wall mg/Kg	S Wall mg/Kg	Middle Trench 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

EPA 8260B - Volatile Organics

Client: Fleming Environmental
Project: Kimberly-Clarke
Job No.: M4-348
Matrix: Soil
Analyst: MBH/ZL

Date Sampled: 02/18/02
Date Received: 02/18/02
Date Analyzed: 02/18-20/02
Batch Number: M48260S639
MS48260S2819

Compounds	Sample ID: RL	NE Corner 16' mg/Kg	NE Corner 18' 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

EPA 8260B - Volatile Organics

Client: Fleming Environmental
Project: Kimberly-Clarke
Job No.: M4-348
Matrix: Soil
Analyst: MBH/ZL

Date Sampled: 02/18/02
Date Received: 02/18/02
Date Analyzed: 02/18-20/02
Batch Number: M48260S639
MS48260S2819

Compounds	Sample ID: RL	NE Corner 16' mg/Kg	NE Corner 18' 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

EPA 8260B - Volatile Organics

Client: Fleming Environmental
Project: Kimberly-Clarke
Job No.: M4-348
Matrix: Soil
Analyst: MBH/ZL

Date Sampled: 02/18/02
Date Received: 02/18/02
Date Analyzed: 02/18-20/02
Batch Number: M48260S639
MS48260S2819

Compounds	Sample ID:	S/W Wall	N/W Wall
	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

EPA 8260B - Volatile Organics

Client: Fleming Environmental
Project: Kimberly-Clarke
Job No.: M4-348
Matrix: Soil
Analyst: MBH/ZL

Date Sampled: 02/18/02
Date Received: 02/18/02
Date Analyzed: 02/18-20/02
Batch Number: M48260S639
MS48260S2819

Compounds	Sample ID: RL	S/W Wall mg/Kg	N/W Wall mg/Kg
cis-1,3-Dichloropropene	0.005	ND	ND
trans-1,3-Dichloropropene	0.005	ND	ND
Diisopropyl Ether (DIPE)	0.025	ND	ND
Ethylbenzene	0.005	0.097	ND
Ethyl tert-Butyl Ether (EtBE)	0.025	ND	ND
Hexachlorobutadiene	0.005	ND	ND
2-Hexanone	0.050	ND	ND
Isopropylbenzene	0.005	0.021	ND
p-Isopropyltoluene	0.010	0.065	ND
Methylene chloride	0.25	ND	ND
4-Methyl-2-pentanone	0.050	ND	ND
Methyl tert-Butyl Ether (MtBE)	0.025	ND	ND
Naphthalene	0.025	0.82	0.027
n-Propylbenzene	0.005	0.12	ND
Styrene	0.005	ND	ND
1,1,1,2-Tetrachloroethane	0.005	ND	ND
1,1,2,2-Tetrachloroethane	0.010	ND	ND
Tetrachloroethene	0.005	ND	ND
Toluene	0.005	ND	ND
1,2,3-Trichlorobenzene	0.010	ND	ND
1,2,4-Trichlorobenzene	0.010	ND	ND
1,1,1-Trichloroethane	0.005	ND	ND
1,1,2-Trichloroethane	0.015	ND	ND
Trichloroethene	0.005	ND	ND
1,2,3-Trichloropropane	0.015	ND	ND
Trichlorofluoromethane	0.005	ND	ND
Trichlorotrifluoroethane	0.025	ND	ND
1,2,4-Trimethylbenzene	0.005	0.40	ND
1,3,5-Trimethylbenzene	0.005	ND	ND
Vinyl chloride	0.010	ND	ND
Xylenes, m-,p-	0.010	0.026	ND
Xylene, o-	0.005	ND	ND

Surrogates (% Recovery) Limits: 70 - 130

Sample ID:	S/W Wall	N/W Wall
Dibromofluoromethane	109	104
Toluene-d8	92	97
Bromofluorobenzene	88	100

QC Sample Report - EPA 8260B

Matrix: Soil
Batch #: M48260S639

Batch Accuracy Results

Sample ID: Laboratory Control Sample

Analyte	Spike Concentration mg/Kg	% Recovery LCS	Acceptance Limits % Recovery	Pass/Fail
1,1-Dichloroethene	0.050	101	70 - 130	Pass
Benzene	0.050	103	70 - 130	Pass
Trichloroethene	0.050	101	70 - 130	Pass
Toluene	0.050	106	70 - 130	Pass
Chlorobenzene	0.050	105	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
1,1-Dichloroethene	0.0505	0.0525	4%	25%	Pass
Benzene	0.0517	0.0551	6%	25%	Pass
Trichloroethene	0.0507	0.0537	6%	25%	Pass
Toluene	0.0532	0.0565	6%	25%	Pass
Chlorobenzene	0.0525	0.0550	5%	25%	Pass

Analytical Notes:

MS: Matrix Spike Sample

MSD: Matrix Spike Duplicate

QC Sample Report - EPA 8260B

Matrix: Soil
Batch #: MS48260S2819

Batch Accuracy Results

Sample ID: Laboratory Control Sample

Analyte	Spike Concentration mg/Kg	% Recovery LCS	Acceptance Limits % Recovery	Pass/Fail
1,1-Dichloroethene	0.020	113	70 - 130	Pass
Benzene	0.020	117	70 - 130	Pass
Trichloroethene	0.020	114	70 - 130	Pass
Toluene	0.020	114	70 - 130	Pass
Chlorobenzene	0.020	117	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
1,1-Dichloroethene	0.0226	0.0224	1%	25%	Pass
Benzene	0.0235	0.0232	1%	25%	Pass
Trichloroethene	0.0228	0.0229	1%	25%	Pass
Toluene	0.0230	0.0226	1%	25%	Pass
Chlorobenzene	0.0234	0.0226	4%	25%	Pass

Analytical Notes:

MS: Matrix Spike Sample
MSD: Matrix Spike Duplicate



Centrum Analytical Laboratories, Inc.
1401 Research Park Drive, Suite 100
Riverside, CA 92507
Voice: 909.779.0310 • 800.798.9336
Fax: 909.779.0344

Chain of Custody Record

Centrum Job #

114-348

3299 Hill Street, Suite 305
Signal Hill, CA 90806
Voice: 562.498.7005
Fax: 562.498.8617

www.centrum-labs.com

lab@centrum-labs.com

Page 1 of 2

Project No:				Project Name:			
Project Manager:				Phone:			
Client Name:				Address:			
(Report and Billing)				(Report and Billing)			
Fleming Environmental				Buena Park CA 90620			
Centrum ID (Lab use only)	Sample ID (As it should appear on report)	Date sampled	Time sampled	Sample matrix	Site location	Containers: # and type	
1	S/W wall	2/18/12	810	Soil		1450055 Soil	
2	N/W wall		815				
3	S/W corner		930				
4	N/W corner		935				
5	SE corner		940				
6	NE corner		945				
7	N wall		950				
8	E wall		955				
9	S wall		955				
10	Middle Trench		1005				
1) Relinquished by: (Sampler's Signature)				Date:			
2) Received by:				Date:			
3) Relinquished by:				Date:			
4) Received by:				Date:			
5) Relinquished by:				Date:			
6) Received for Laboratory by:				Date:			
The delivery of samples and the signature on this chain of custody form constitutes authorization to perform the analyses specified above under the Terms and Conditions set forth on the back hereof.							
Laboratory Notes:							

Please Circle Analyses Requested									
GC or GCMS Volatiles by 5035*	GCMS: 8260B, 8021B, 624, 524, 2	GCMS: MIBE Conf. Only, BTEX/Oxygenates Only	GCMS: 8270C, 625	8080: Pesticides, PCBs, Pest/PCB	Metals: Title 22 (CAM), RCRA, PP	pH, TDS, TSS, Conductivity	Flashpoint, Hex Cr	Turn-Around Time	Remarks/Special Instructions
<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/> 24 Hr. RUSH*	*Requires PRIOR approval, additional charges apply
<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/> 48 Hr. RUSH*	
<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/> Normal TAT	Requested due date:

To be completed by Laboratory personnel:		Sample Disposal	
Samples chilled? <input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> From Field	Custody seals? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	<input type="checkbox"/> Client will pick up	<input type="checkbox"/> Return to client
All sample containers intact? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/> Courier <input checked="" type="checkbox"/> UPS/Fed Ex <input checked="" type="checkbox"/> Hand carried	<input type="checkbox"/> Lab disposal	

Sample Locator No.



Centrum Analytical Laboratories, Inc.
1401 Research Park Drive, Suite 100
Riverside, CA 92507
Voice: 909.779.0310 • 800.798.9336
Fax: 909.779.0344

Chain of Custody Record

3299 Hill Street, Suite 305
Signal Hill, CA 90806
Voice: 562.498.7005
Fax: 562.498.8617

www.centrum-labs.com lab@centrum-labs.com

Centrum Job #

MY-348

Page 2 of 2

Project No:				Project Name:			
Project Manager:				Phone:			
Project Address:				Fax:			
Client Name:				Address:			
(Report and Billing)				(Report and Billing)			
Fleming Environmental				6130 Valley View			
Baena Park, CA 90620							
Centrum ID (Lab use only)	Sample ID (As it should appear on report)	Date sampled	Time sampled	Sample matrix	Site location	Containers: # and type	
11	NE Corner 15'	2/18/12	1400	Soil		100% Glass Jar	
12	NE Corner 18'	L	1430				
Please Circle Analyses Requested							
Turn-Around Time <input type="checkbox"/> 24 Hr. RUSH* <input type="checkbox"/> 48 Hr. RUSH* <input checked="" type="checkbox"/> Normal TAT *Requires PRIOR approval, additional charges apply Requested due date:							
Remarks/Special Instructions							
Metals: Title 22 (CAM), RCRA, PP							
pH, TDS, TSS, Conductivity							
Flashpoint, Hex Cr							
GCMS: 8270C, 625							
GCMS: MIBE Conf. Only, BTEX/Oxygenates Only							
GCMS: 8260B, 8021B, 624, 524.2							
GC or GCMS Volatiles by 5035*							
418.1 (TRPH), 413.2, 1664							
8021B: BTEX/MIBE Only							
8015M: Gas only							
8015M: Diesel Fuel Screen, Carbon Chain							
To be completed by Laboratory personnel: Samples chilled? <input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> From Field Custody seals? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No All sample containers intact? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Courier <input type="checkbox"/> UPS/Fed Ex <input checked="" type="checkbox"/> Hand carried							
Sample Disposal <input type="checkbox"/> Client will pick up <input type="checkbox"/> Return to client <input type="checkbox"/> Lab disposal							
Sample Locator No.							

1) Relinquished by: (Sampler's Signature)
X Bob Martin
2) Received by: [Signature]
Date: 2/18/12
3) Relinquished by:
Date:
4) Received by:
Date:
5) Relinquished by:
Date:
6) Received for Laboratory by:
Date:

The delivery of samples and the signature on this chain of custody form constitutes authorization to perform the analyses specified above under the Terms and Conditions set forth on the back hereof.

Laboratory Notes:

APPENDIX B

HEALTH AND SAFETY PLAN

SITE SPECIFIC HEALTH AND SAFETY PLAN

1.0 Site Name and Address

Kimberly Clark Facility
2001 E. Orangethorpe Avenue
Fullerton, California

(714)
738-3160

2.0 Site Personnel

Project Director
Field Technical Services

Will Gaston
Scott Edwards

3.0 Site Description & Background

Kimberly Clark is a manufacturing facility.

4.0 Planned Site Activities

We anticipate a total of one exploratory soil boring will be installed during this investigation. Soil sampling at the site will be performed using A & R Drilling. The boring will be advanced to a total depth of approximately 50 feet beneath ground surface (bgs), and soil samples will be collected every 5 feet, starting at 25 feet. The samples will be collected and submitted to a mobile laboratory (Spectrum Lab) for analysis. After sampling is completed, each sample location is to be backfilled with bentonite chips and native soil, and patched at the surface with a like paving material.

Appropriate first aid and decontamination equipment will be prepared and maintained on-site for all field portions of this project.

5.0 Health and Safety Precautions

Diesel concentrations in these soils are not known; however, these samples are being used as clean-up confirmation samples. Therefore, sampling will be performed in modified Level D. This includes use of personal protection equipment, including safety glasses and Nitrile gloves. Gloves are to be changed between each sample.

6.0 Contingency Procedures

In the event of an emergency, the initial action will be to use a cell phone to call the City of Fullerton Fire Department at 911. If the emergency consists of an injury, the project team must act to stop bleeding, prevent the injured person from going into shock and ready him for transport.

If emergency consist of fire or a potentially explosive situation, the project team must:

- Shut down all equipment (if feasible and if this action does not result in risk to life or property);
- Clear the area; and
- Re-assemble in the parking lot adjacent to the Kimberly Gate.

At that time, the City of Fullerton Fire Department can be contacted by either cellular phone or landline.

A safety kit containing a fire extinguisher and first aid kit will be maintained at the site in the Field Technicians Vehicle. Daily tailgate safety meetings will be held for all site workers to identify hazards not discussed in this HSP and to review and refine these contingency procedures.

7.0 Physical Hazards

Physical hazards associated with site activities include crushing and cutting injuries associated with heavy machinery, slips, trips, falls, contact and eye abrasions, contusions, lacerations, flammability and potential for explosion.

Other physical hazards include the potential for heat exhaustion and heat stroke.

8.0 Minimum required Health and Safety Procedures

All workers engaged in site activities will wear hard hats, safety glasses and safety shoes while on the job site. All workers will be OSHA 40-hour trained and medically approved for respirator use and show written evidence thereof prior to the commencement of site activities.

9.0 Safety Procedures

9.1 Site Entry/Access: The work area will be controlled to prevent entrance of unauthorized persons. The Field Technician will control access to this area. Area access will be limited to those persons required to perform soil-sampling activities.

9.2 Egress: The facility gate will remain open during fieldwork so that workers can vacate the area in the event of an emergency.

9.3 Decontamination: Distilled water and Alconox will be used for the decontamination of both personnel and sampling equipment.

10.0 Special Procedures and Precautions

All on-site work will be coordinated with Fleming Environmental.

11.0 Emergency Contacts

- AMBULANCE: 911
- POLICE: 911
- FIRE: 911
- HOSPITAL: 911
- NATIONAL RESPONSE CENTER: 1-800-424-8802
- POISON CONTROL CENTER: 1-800-682-9211
- TOXLINE: 1-301-496-1131
- CHEMTREX 1-800-424-9300

12.0 Nearest Medical Facility

Anaheim Memorial Hospital
1111 W. La Palma Avenue
Anaheim, CA 92801
(714) 774-1450

DIRECTIONS TO HOSPITAL:

Start our going West on **E. Orangethorpe Avenue** towards **S. Acacia Avenue** by turning RIGHT.
Turn LEFT onto **S. Lemon Street**.
Turn RIGHT onto **W. La Palma Avenue**.
Anaheim Memorial Hospital will be on your RIGHT.

Project Director / Date

[illegible]

APPENDIX C
BORING LOG

Date Completed: 2/22/02 Drilling Contractor: A&R Drilling Drilling Method: 8" Hollow Stem Auger Sampling Method: Split Spoon	Borehole Depth: 70 Feet Descriptions By: R. Scott Edwards, R.G.	Well/Boring ID: SB2-02 Client: Kimberly-Clark 2001 E. Orangethorpe Ave. Fullerton, California Location: Former UST Basin Adjacent to Boiler Plant
---	---	---

DEPTH	ELEVATION	Sample Interval	Blows/6 in	PID Headspace (ppm)	USCS Code	Geologic Column	Stratigraphic Description	Comments
See comment								Assume an assigned elevation for historical grade to be 179.5 feet
5	170			0	SP		Sand, fine to medium grained, poorly graded poorly sorted, imported fill	
10	165		9 11 17	0				
15	160		10 16 22	200	SW		Sand, coarse to medium grained; well graded; strong odor; arkosic in composition; moist	
20	155		9 30 40	0	SP		Sand, coarse to medium grained; poorly graded; well sorted; some random large clasts up to 1 cm on long axis; some dark organic staining; no odor	
25	150		12 24 27	0			Sand, medium to fine grained; homogeneous texture; micaceous; tan in color; black staining in one 2 to 4 cm layer; no odor	
							Cuttings are stained black; no odor/PID	
30	145			0			Sand, abruptly becomes silt; silt is homogeneous and may have slight odor; submit silt to lab for analysis	

GASTON & ASSOCIATES, LLC 4000 Barranca Parkway, Suite 250 Irvine, California 92604 714-505-6123	Remarks:
---	----------

Date Completed: 2/22/02 Drilling Contractor: A&R Drilling Drilling Method: 8" Hollow Stem Auger Sampling Method: Split Spoon				Borehole Depth: 70 Feet Descriptions By: R. Scott Edwards, R.G.		Well/Boring ID: SB2-02 Client: Kimberly-Clark 2001 E. Orangethorpe Ave. Fullerton, California Location: Former UST Basin Adjacent to Boiler Plant		
DEPTH	ELEVATION	Sample Interval	Blows/6 in	PID Headspace (ppm)	USCS Code	Geologic Column	Stratigraphic Description	Comments
35	140			0	SP		Sand, fine to medium grained, moderately graded micaceous; brown; no staining; no odor	
40	135		38 50/3	0	SW		Sand, coarse to medium grained; well graded; dense; some gravel (<10%); arkosic in composition; moist	
45	130		40 50/3	0			As above	
50	125		40 50/6	0	SW		Sand, coarse to very fine; well graded; may become a silt at top of grading sequence; dark brown; moist; no odor	
55	120		40 50/3	0			Sand, coarse; grades rapidly to thin silt layers;	
60	115			0			Sand, abruptly becomes silt; silt is homogeneous; moist to very moist;	
GASTON & ASSOCIATES, LLC 4000 Barranca Parkway, Suite 250 Irvine, California 92604 714-505-6123						Remarks:		

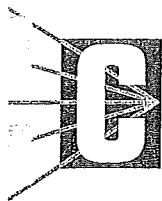
Date Completed: 2/22/02 Drilling Contractor: A&R Drilling Drilling Method: 8" Hollow Stem Auger Sampling Method: Split Spoon	Borehole Depth: 70 Feet Descriptions By: R. Scott Edwards, R.G.	Well/Boring ID: SB2-02 Client: Kimberly-Clark 2001 E. Orangethorpe Ave. Fullerton, California Location: Former UST Basin Adjacent to Boiler Plant
---	---	---

DEPTH	ELEVATION	Sample Interval	Blows/6 in	PID Headspace (ppm)	USCS Code	Geologic Column	Stratigraphic Description	Comments
85	110		12	0	ML		Silt; soft; slight plasticity; dense; moist to wet	
			18					
			25					
70	105			0			Silt; as above; wet to saturated	Approximate position of perched groundwater

GASTON & ASSOCIATES, LLC 4000 Barranca Parkway, Suite 250 Irvine, California 92604 714-505-6123	Remarks:
---	----------

APPENDIX D

SOIL BORING 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 St.
Buena Park, CA 90620

Date Sampled: 02/22/02
Date Received: 02/22/02
Job Number: M4-351

Project: Kimberly-Clark

CASE NARRATIVE

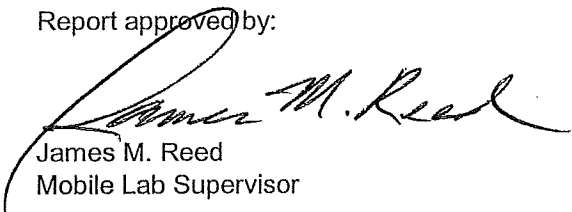
The following information applies to samples which were received for analysis by Centrum Analytical Mobile Environmental Laboratory Number Four (MEL #4) on: 02/22/02

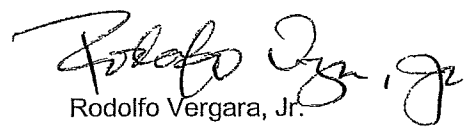
The samples were received at the project site intact and were either analyzed immediately or stored at 4°C until analyzed.

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.

EPA 8260B: Some samples were run at a dilution due to high levels of hydrocarbons in the sample; consequently, reporting limits were raised.

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.

EPA 8015B modified - Total Extractable Petroleum Hydrocarbons as Diesel

Client: Fleming Environmental
Project: Kimberly-Clark
Job No.: M4-351
Matrix: Soil
Analyst: MBH/JTS

Date Sampled: 02/22/02
Date Received: 02/22/02
Date Extracted: 02/22/02
Date Analyzed: 02/22-25/02
Batch Number: M48015DS646

Sample ID	Reporting Limit mg/Kg	Diesel mg/Kg	Surrogate (OTP) Limit: 50 - 150%
Method Blank	10	ND	100 %
SB2-02@20	10	ND	98 %
SB2-02@30	10	47,000	95 %
SB2-02@45	10	ND	114 %
SB2-02@5	10	43	119 %
SB2-02@10	10	4,100	106 %
SB2-02@15	10	20,000	126 %
SB2-02@25	10	32	123 %
SB2-02@35	10	ND	108 %
SB2-02@40	10	ND	110 %
SB2-02@50	10	ND	113 %
SB2-02@55	10	42	114 %
SB2-02@60	10	ND	109 %
SB2-02@65	10	ND	116 %
SB2-02@70	10	ND	111 %

QC Sample Report - EPA 8015B Diesel

Matrix: Soil
Batch #: M48015DS646

Batch Accuracy Results

Sample ID: Laboratory Control Sample

Analyte	Spike Concentration mg/Kg	% Recovery LCS	Acceptance Limits % Recovery	Pass/Fail
Diesel	500	103	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	516.0	498.0	4%	25%	Pass

Analytical Notes:

MS: Matrix Spike Sample
MSD: Matrix Spike Duplicate

BTEX & Oxygenates by EPA 8260B

Client: Fleming Environmental
Project: Kimberly-Clark
Job No.: M4-351
Matrix: Soil
Analyst: MBH/JTS

Date Sampled: 02/22/02
Date Received: 02/22/02
Date Analyzed: 02/22-25/02
Batch Number: M48260S645

Sample ID:	Blank	SB2-02@20	SB2-02@45	SB2-02@5	SB2-02@25	SB2-02@35
Compounds	RL	mg/Kg	mg/Kg	mg/Kg	mg/Kg	mg/Kg
Methyl-tert-butyl ether (MtBE)	0.005	ND	ND	ND	ND	ND
t-Butyl alcohol (TBA)	0.020	ND	ND	ND	ND	ND
Diisopropyl ether (DIPE)	0.005	ND	ND	ND	ND	ND
Ethyl-t-butyl ether (EtBE)	0.005	ND	ND	ND	ND	ND
t-Amyl-methyl ether (TAME)	0.005	ND	ND	ND	ND	ND
Benzene	0.005	ND	ND	ND	ND	ND
Toluene	0.005	ND	ND	ND	ND	ND
Ethylbenzene	0.005	ND	ND	ND	ND	ND
m,p-Xylenes	0.010	ND	ND	ND	ND	ND
o-Xylene	0.005	ND	ND	ND	ND	ND

Surrogates (% Recovery) Limits: 70 - 130

Sample ID:	Blank	SB2-02@20	SB2-02@45	SB2-02@5	SB2-02@25	SB2-02@35
Dibromofluoromethane	100	99	99	101	99	100
Toluene-d8	100	99	99	85	99	100
Bromofluorobenzene	102	104	103	108	101	103

BTEX & Oxygenates by EPA 8260B

Client: Fleming Environmental
Project: Kimberly-Clark
Job No.: M4-351
Matrix: Soil
Analyst: MBH/JTS

Date Sampled: 02/22/02
Date Received: 02/22/02
Date Analyzed: 02/22-25/02
Batch Number: M48260S645

Sample ID: SB2-02@40 SB2-02@50 SB2-02@55 SB2-02@60 SB2-02@65 SB2-02@70							
Compounds	RL	mg/Kg	mg/Kg	mg/Kg	mg/Kg	mg/Kg	mg/Kg
Methyl-tert-butyl ether (MtBE)	0.005	ND	ND	ND	ND	ND	ND
t-Butyl alcohol (TBA)	0.020	ND	ND	ND	ND	ND	ND
Diisopropyl ether (DIPE)	0.005	ND	ND	ND	ND	ND	ND
Ethyl-t-butyl ether (EtBE)	0.005	ND	ND	ND	ND	ND	ND
t-Amyl-methyl ether (TAME)	0.005	ND	ND	ND	ND	ND	ND
Benzene	0.005	ND	ND	ND	ND	ND	ND
Toluene	0.005	ND	ND	ND	ND	ND	ND
Ethylbenzene	0.005	ND	ND	ND	ND	ND	ND
m,p-Xylenes	0.010	ND	ND	ND	ND	ND	ND
o-Xylene	0.005	ND	ND	ND	ND	ND	ND

Surrogates (% Recovery) Limits: 70 - 130

Sample ID: SB2-02@40 SB2-02@50 SB2-02@55 SB2-02@60 SB2-02@65 SB2-02@70						
Dibromofluoromethane	100	100	100	100	100	96
Toluene-d8	100	100	98	99	99	99
Bromofluorobenzene	104	103	101	103	102	101

BTEX & Oxygenates by EPA 8260B

Client: Fleming Environmental
Project: Kimberly-Clark
Job No.: M4-351
Matrix: Soil
Analyst: MBH/JTS

Date Sampled: 02/22/02
Date Received: 02/22/02
Date Analyzed: 02/22-25/02
Batch Number: M48260S645

Sample ID: SB2-02@10		
Compounds	RL*	mg/Kg
Methyl-tert-butyl ether (MtBE)	0.6	ND
t-Butyl alcohol (TBA)	2.5	ND
Diisopropyl ether (DIPE)	0.6	ND
Ethyl-t-butyl ether (EtBE)	0.6	ND
t-Amyl-methyl ether (TAME)	0.6	ND
Benzene	0.6	ND
Toluene	0.6	ND
Ethylbenzene	0.6	ND
m,p-Xylenes	1.3	ND
o-Xylene	0.6	ND

*See Case Narrative regarding raised reporting limits.

Surrogates (% Recovery) Limits: 70 - 130

Sample ID: SB2-02@10	
Dibromofluoromethane	99
Toluene-d8	100
Bromofluorobenzene	105

BTEX & Oxygenates by EPA 8260B

Client: Fleming Environmental
Project: Kimberly-Clark
Job No.: M4-351
Matrix: Soil
Analyst: MBH/JTS

Date Sampled: 02/22/02
Date Received: 02/22/02
Date Analyzed: 02/22-25/02
Batch Number: M48260S645

Sample ID: SB2-02@15		
Compounds	RL*	mg/Kg
Methyl-tert-butyl ether (MtBE)	1.3	ND
t-Butyl alcohol (TBA)	5.0	ND
Diisopropyl ether (DIPE)	1.3	ND
Ethyl-t-butyl ether (EtBE)	1.3	ND
t-Amyl-methyl ether (TAME)	1.3	ND
Benzene	1.3	ND
Toluene	1.3	ND
Ethylbenzene	1.3	ND
m,p-Xylenes	2.5	ND
o-Xylene	1.3	ND

*See Case Narrative regarding raised reporting limits.

Surrogates (% Recovery) Limits: 70 - 130

Sample ID: SB2-02@15	
Dibromofluoromethane	100
Toluene-d8	100
Bromofluorobenzene	102



**Centrum
Analytical
Laboratories, Inc.**

BTEX & Oxygenates by EPA 8260B

Client: Fleming Environmental
Project: Kimberly-Clark
Job No.: M4-351
Matrix: Soil
Analyst: MBH/JTS

Date Sampled: 02/22/02
Date Received: 02/22/02
Date Analyzed: 02/22-25/02
Batch Number: M48260S645

Sample ID: SB2-02@30		
Compounds	RL	mg/Kg
Methyl-tert-butyl ether (MtBE)	2.5	ND
t-Butyl alcohol (TBA)	10	ND
Diisopropyl ether (DIPE)	2.5	ND
Ethyl-t-butyl ether (EtBE)	2.5	ND
t-Amyl-methyl ether (TAME)	2.5	ND
Benzene	2.5	ND
Toluene	2.5	1.6
Ethylbenzene	2.5	3.3
m,p-Xylenes	5.0	27
o-Xylene	2.5	24

Surrogates (% Recovery) Limits: 70 - 130

Sample ID: SB2-02@30	
Dibromofluoromethane	99
Toluene-d8	100
Bromofluorobenzene	103

QC Sample Report - EPA 8260B

Matrix: Soil
Batch #: M48260S645

Batch Accuracy Results

Sample ID: Laboratory Control Sample

Analyte	Spike Concentration mg/Kg	% Recovery LCS	Acceptance Limits % Recovery	Pass/Fail
1,1-Dichloroethene	0.050	82	70 - 130	Pass
Benzene	0.050	80	70 - 130	Pass
Trichloroethene	0.050	81	70 - 130	Pass
Toluene	0.050	83	70 - 130	Pass
Chlorobenzene	0.050	83	70 - 130	Pass

Analytical Notes:

Batch Precision Results

MS/MSD Sample ID: SB2-02@50

Analyte	Spike Sample Recovery mg/Kg	Spike Duplicate Recovery mg/Kg	Relative Percent Difference (RPD)	Upper Control Limit RPD	Pass/Fail
1,1-Dichloroethene	0.0441	0.0453	3%	25%	Pass
Benzene	0.0449	0.0452	1%	25%	Pass
Trichloroethene	0.0446	0.0447	0%	25%	Pass
Toluene	0.0460	0.0476	3%	25%	Pass
Chlorobenzene	0.0456	0.0463	2%	25%	Pass

Analytical Notes:

MS: Matrix Spike Sample
MSD: Matrix Spike Duplicate

EPA 8260B - Volatile Organics

Client: Fleming Environmental
Project: Kimberly-Clark
Job No.: M4-351
Matrix: Soil
Analyst: MBH/JTS/ZL

Date Sampled: 02/22/02
Date Received: 02/22/02
Date Analyzed: 02/25-26/02
Batch Number: MS48260S2823

*Chloromethane
methyl Chloride
C*

Compounds	Sample ID:	Blank	SB2-02@30'
	RL	mg/Kg	mg/Kg
Acetone	25	ND	ND
tert-Amyl Methyl Ether (TAME)	2.5	ND	ND
Benzene	0.50	ND	ND
Bromobenzene	2.5	ND	ND
Bromochloromethane	2.5	ND	ND
Bromodichloromethane	0.50	ND	ND
Bromoform	2.5	ND	ND
Bromomethane	2.5	ND	ND
tert-Butanol (TBA)	10	ND	ND
2-Butanone (MEK)	5.0	ND	ND
n-Butylbenzene	1.0	ND	ND
sec-Butylbenzene	1.0	ND	ND
tert-Butylbenzene	1.0	ND	ND
Carbon disulfide	5.0	ND	ND
Carbon tetrachloride	0.50	ND	ND
Chlorobenzene	0.50	ND	ND
Chloroethane	2.5	ND	ND
Chloroform	1.0	ND	ND
Chloromethane	0.50	ND	1.1
2-Chlorotoluene	1.0	ND	ND
4-Chlorotoluene	1.0	ND	ND
Dibromochloromethane	1.0	ND	ND
1,2-Dibromoethane	1.0	ND	ND
1,2-Dibromo-3-chloropropane	5.0	ND	ND
Dibromomethane	0.50	ND	ND
1,2-Dichlorobenzene	0.50	ND	ND
1,3-Dichlorobenzene	1.0	ND	ND
1,4-Dichlorobenzene	1.0	ND	ND
Dichlorodifluoromethane	2.5	ND	ND
1,1-Dichloroethane	0.50	ND	ND
1,2-Dichloroethane	0.50	ND	ND
1,1-Dichloroethene	2.5	ND	ND
cis-1,2-Dichloroethene	1.0	ND	ND
trans-1,2-Dichloroethene	1.0	ND	ND
1,2-Dichloropropane	0.50	ND	ND
1,3-Dichloropropane	0.50	ND	ND
2,2-Dichloropropane	0.50	ND	ND
1,1-Dichloropropene	0.50	ND	ND

EPA 8260B - Volatile Organics

Client: Fleming Environmental
Project: Kimberly-Clark
Job No.: M4-351
Matrix: Soil
Analyst: MBH/JTS/ZL

Date Sampled: 02/22/02
Date Received: 02/22/02
Date Analyzed: 02/25-26/02
Batch Number: MS48260S2823

Compounds	Sample ID: RL	Blank mg/Kg	SB2-02@30' mg/Kg
cis-1,3-Dichloropropene	0.50	ND	ND
trans-1,3-Dichloropropene	0.50	ND	ND
Diisopropyl Ether (DIPE)	2.5	ND	ND
Ethylbenzene	0.50	ND	2.6
Ethyl tert-Butyl Ether (EtBE)	2.5	ND	ND
Hexachlorobutadiene	0.50	ND	ND
2-Hexanone	5.0	ND	ND
Isopropylbenzene	0.50	ND	ND
p-Isopropyltoluene	1.0	ND	1.4
Methylene chloride	25	ND	ND
4-Methyl-2-pentanone	5.0	ND	ND
Methyl tert-Butyl Ether (MtBE)	2.5	ND	ND
Naphthalene	1.0	ND	110
n-Propylbenzene	0.50	ND	1.5
Styrene	0.50	ND	ND
1,1,1,2-Tetrachloroethane	0.50	ND	ND
1,1,2,2-Tetrachloroethane	1.0	ND	ND
Tetrachloroethene	0.50	ND	ND
Toluene	0.50	ND	1.3
1,2,3-Trichlorobenzene	1.0	ND	ND
1,2,4-Trichlorobenzene	1.0	ND	ND
1,1,1-Trichloroethane	0.50	ND	ND
1,1,2-Trichloroethane	1.5	ND	ND
Trichloroethene	0.50	ND	ND
1,2,3-Trichloropropane	1.5	ND	ND
Trichlorofluoromethane	0.50	ND	ND
Trichlorotrifluoroethane	2.5	ND	ND
1,2,4-Trimethylbenzene	0.50	ND	64
1,3,5-Trimethylbenzene	0.50	ND	26
Vinyl chloride	1.0	ND	ND
Xylenes, m-,p-	1.0	ND	22
Xylene, o-	0.50	ND	19

Surrogates (% Recovery) Limits: 70 - 130

Compounds	Sample ID: Blank	SB2-02@30'
Dibromofluoromethane	106	101
Toluene-d8	101	100
Bromofluorobenzene	106	101

QC Sample Report - EPA 8260B

Matrix: Soil

Batch #: MS482602823

Batch Accuracy Results

Sample ID: Laboratory Control Sample

Analyte	Spike Concentration mg/Kg	% Recovery LCS	Acceptance Limits % Recovery	Pass/Fail
1,1-Dichloroethene	0.020	123	70 - 130	Pass
Benzene	0.020	116	70 - 130	Pass
Trichloroethene	0.020	119	70 - 130	Pass
Toluene	0.020	115	70 - 130	Pass
Chlorobenzene	0.020	119	70 - 130	Pass

Analytical Notes:

Batch Precision Results

MS/MSD Sample ID: 20081-1

Analyte	Spike Sample Recovery mg/Kg	Spike Duplicate Recovery mg/Kg	Relative Percent Difference (RPD)	Upper Control Limit RPD	Pass/Fail
1,1-Dichloroethene	0.0237	0.0250	5%	25%	Pass
Benzene	0.0229	0.0233	2%	25%	Pass
Trichloroethene	0.0227	0.0237	4%	25%	Pass
Toluene	0.0229	0.0229	0%	25%	Pass
Chlorobenzene	0.0236	0.0247	5%	25%	Pass

Analytical Notes:

MS: Matrix Spike Sample

MSD: Matrix Spike Duplicate



Centrum Analytical Laboratories, Inc.
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Chain of Custody Record

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Centrum Job # **MY-351**

Page **1** of **2**

Project No:		Project Name:		Please Circle Analyses Requested		Turn-Around Time	
Project Manager:		Phone:		Metals: Title 22 (CAM), RCRA, PP		<input type="checkbox"/> 24 Hr. RUSH*	
Client Name:		Address:		GC/MS: 8260B, 8021B, 624, 524.2		<input type="checkbox"/> 48 Hr. RUSH*	
(Report and Billing)		(Report and Billing)		GC/MS: MIB Conf. Only, BTEX/Oxygenates Only		<input checked="" type="checkbox"/> Normal TAT	
Centrum ID (Lab use only)	Sample ID (As it should appear on report)	Date sampled	Time sampled	Sample matrix	Site location	Containers: # and type	*Requires PRIOR approval, additional charges apply
1	SBZ-02020	1/24/02	8:36	Soil		8015M: Diesel 8021B: BTEX/MIB Only 418.1 (TRPH), 413.2, 1664	Requested due date: _____
2	SBZ-02030	2/22/02	8:50				
3	SBZ-02045						
4	SBZ-0205						
5	SBZ-02010						
6	SBZ-02015						
7	SBZ-02025						
8	SBZ-02035						
9	SBZ-02040						
10	SBZ-02050						
Relinquished by: (Signature)		Date:	Time:	3) Relinquished by:	Date:	Time:	To be completed by Laboratory personnel: Samples chilled? <input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> From Field Custody seals? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No All sample containers intact? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Courier <input type="checkbox"/> UPS/Fed Ex <input checked="" type="checkbox"/> Hand carried
2) Received by: (Signature)		Date:	Time:	4) Received by:	Date:	Time:	
		Date:	Time:	5) Relinquished by:	Date:	Time:	
		Date:	Time:	6) Received for Laboratory by:	Date:	Time:	
The delivery of samples and the signature on this chain of custody form constitutes authorization to perform the analyses specified above under the Terms and Conditions set forth on the back hereof.							
Laboratory Notes: * Client specified Carbon chain ranges. Run 13200 on highest hit 8015D							



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Centrum Job #

114-351

Page

2 of 2

Project No:				Project Name: <i>Kimberly - Clark</i>		Please Circle Analyses Requested		Turn-Around Time										
Project Manager: <i>Terry Fleming</i>				Phone: <i>714-228-0935</i>		Fax: <i>228-9231</i>		<input type="checkbox"/> 24 Hr. RUSH*										
Client Name: <i>Fleming Env.</i>				Address: <i>6130 Valley view St.</i>		City: <i>Buena Park, CA 90620</i>		<input type="checkbox"/> 48 Hr. RUSH*										
State: <i>CA</i>				Site location		Containers: # and type		<input checked="" type="checkbox"/> Normal TAT										
Centrum ID (Lab use only)	Sample ID (As it should appear on report)	Date sampled	Time sampled	Sample matrix	Site location	Containers: # and type	8015M: Diesel	8015M: Gas only	8021B: BTEX/MIBE Only									
11	SB2-02055	2/10/04		Soil		1 Brown 5 Green	X	X	X									
12	SB2-02060						X	X	X									
13	SB2-02065						X	X	X									
14	SB2-02070						X	X	X									
15	SB2-02070AQ			AQ	Open Auger/H2O Square		X	X	X									
<i>* logged elsewhere</i>																		
Relinquished by: (Signature) <i>[Signature]</i>				Date:		Time:		To be completed by Laboratory personnel:										
Received by: <i>[Signature]</i>				Date:		Time:		Samples chilled? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No										
				Date:		Time:		Custody seals? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No										
				Date:		Time:		All sample containers intact? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No										
				Date:		Time:		<input type="checkbox"/> Courier <input type="checkbox"/> UPS/Fed Ex <input checked="" type="checkbox"/> Hand carried										
The delivery of samples and the signature on this chain of custody form constitutes authorization to perform the analyses specified above under the Terms and Conditions set forth on the back hereof.																		
Laboratory Notes:																		

Sample Disposal
☐ Client will pick up
☐ Return to client
☐ Lab disposal

Sample Locator No.

APPENDIX E

GROUNDWATER SAMPLE LABORATORY RESULTS
AND
CHAIN-OF-CUSTODY RECORDS



**Centrum
Analytical
Laboratories, Inc.**

CERTIFIED HAZARDOUS WASTE TESTING MOBILE & IN HOUSE LABORATORIES

Client: Fleming Environmental
6130 Valley View
Buena Park, CA 90620

Date Sampled: 02/22/02
Date Received: 02/22/02
Job Number: 20086

Project: Kimberly-Clark

CASE NARRATIVE

The following information applies to samples which were received on 02/22/02 :

The sample was received at the laboratory directly from the field and was cooled to 4°C upon arrival. The sample container was intact.

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:

Tom Wilson
Laboratory Director

Rodolfo Vergara, Jr.
Quality Assurance Manager

ELAP Lab# 2419

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.



Client: Fleming Environmental
Project: Kimberly-Clark
Job No.: 20086
Matrix: Water
Analyst: JB

Date Sampled: 02/22/02
Date Received: 02/22/02
Date Extracted: 02/26/02
Date Analyzed: 02/26/02
Batch Number: 8015DW2495

Page 2 of 3

QC Sample Report - EPA 8015B Diesel

Matrix: Water

Batch #: 8015DW2495

Batch Accuracy Results

Sample ID: Laboratory Control Sample

Analyte	Spike Concentration mg/L	% Recovery LCS	Acceptance Limits % Recovery	Pass/Fail
Diesel	0.80	80	70 - 130	Pass

Analytical Notes:

Batch Precision Results

MS/MSD Sample ID: Laboratory Control Sample

Analyte	Spike Sample Recovery mg/L	Spike Duplicate Recovery mg/L	Relative Percent Difference (RPD)	Upper Control Limit RPD	Pass/Fail
Diesel	0.64	0.58	10%	25%	Pass

Analytical Notes:

MS: Matrix Spike Sample

MSD: Matrix Spike Duplicate



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Centrum Job #

04-351

Page 2 of 2

Project No:		Project Name:		Please Circle Analyses Requested		Turn-Around Time	
Project Manager:		Phone:		Flashpoint, Hex Cr		<input type="checkbox"/> 24 Hr. RUSH*	
Client Name:		Address:		Metals: Title 22 (CAM), RCRA, PP		<input type="checkbox"/> 48 Hr. RUSH*	
(Report and Billing)		(Report and Billing)		GCMS: 8270C, 625		<input checked="" type="checkbox"/> Normal TAT	
Centrum ID	Sample ID	Date sampled	Time sampled	Site location	Containers: # and type	GCMS: 8260B, 8021B, 624, 624.2	*Requires PRIOR approval, additional charges apply
(Lab use only)	(As it should appear on report)					GCMS: 8270C, 625	Requested due date:
11	SB2-02055	2/2/02		Soil	1 Brass 6 LBS	GCMS: 8260B, 8021B, 624, 624.2	
12	SB2-02060					GCMS: 8270C, 625	
13	SB2-02065					GCMS: 8260B, 8021B, 624, 624.2	
14	SB2-02070					GCMS: 8270C, 625	
	SB2-02070AQ			AQ Open Auger/H2O	3 glass	GCMS: 8260B, 8021B, 624, 624.2	
Relinquished by (Sampler's Signature)		Date:	Time:	3) Relinquished by:	Date:	Time:	
Received by:		Date:	Time:	4) Received by:	Date:	Time:	
		Date:	Time:	5) Relinquished by:	Date:	Time:	
		Date:	Time:	6) Received for Laboratory by:	Date:	Time:	
The delivery of samples and the signature on this chain of custody form constitutes authorization to perform the analyses specified above under the Terms and Conditions set forth on the back hereof.							
Laboratory Notes:							

Sample Disposal
☐ Client will pick up
☐ Return to client
☐ Lab disposal

To be completed by Laboratory personnel:
Samples chilled? ☐ Yes ☒ No From Field
Custody seals? ☐ Yes ☒ No
All sample containers intact? ☒ Yes ☐ No
☐ Courier ☐ UPS/Fed Ex ☒ Hand carried

Sample Locator No.

Rur 8260 on Highest 8015D

BTEX & Oxygenates by EPA 8260B

Client: Fleming Environmental
Project: Kimberly-Clark
Job No.: M4-351
Matrix: Water
Analyst: MBH/JTS

Date Sampled: 02/22/02
Date Received: 02/22/02
Date Analyzed: 02/22/02
Batch Number: M48260W647

	Sample ID:	Blank	SB2-02@70AQ
Compounds	RL	µg/L	µg/L
Methyl-tert-butyl ether (MtBE)	1.0	ND	ND
t-Butyl alcohol (TBA)	10	ND	ND
Diisopropyl ether (DIPE)	5.0	ND	ND
Ethyl-t-butyl ether (EtBE)	5.0	ND	ND
t-Amyl-methyl ether (TAME)	5.0	ND	ND
Benzene	1.0	ND	ND
Toluene	1.0	ND	ND
Ethylbenzene	1.0	ND	ND
m,p-Xylenes	2.0	ND	4.6
o-Xylene	1.0	ND	3.3

Surrogates (% Recovery) Limits: 70 - 130

	Sample ID:	Blank	SB2-02@70AQ
Dibromofluoromethane		100	100
Toluene-d8		100	99
Bromofluorobenzene		102	104

QC Sample Report - EPA 8260B

Matrix: Water
Batch #: M48260W647

Batch Accuracy Results

Sample ID: Laboratory Control Sample

Analyte	Spike Concentration ug/L	% Recovery LCS	Acceptance Limits % Recovery	Pass/Fail
1,1-Dichloroethene	50.0	82	70 - 130	Pass
Benzene	50.0	80	70 - 130	Pass
Trichloroethene	50.0	81	70 - 130	Pass
Toluene	50.0	83	70 - 130	Pass
Chlorobenzene	50.0	83	70 - 130	Pass

Analytical Notes:

Batch Precision Results

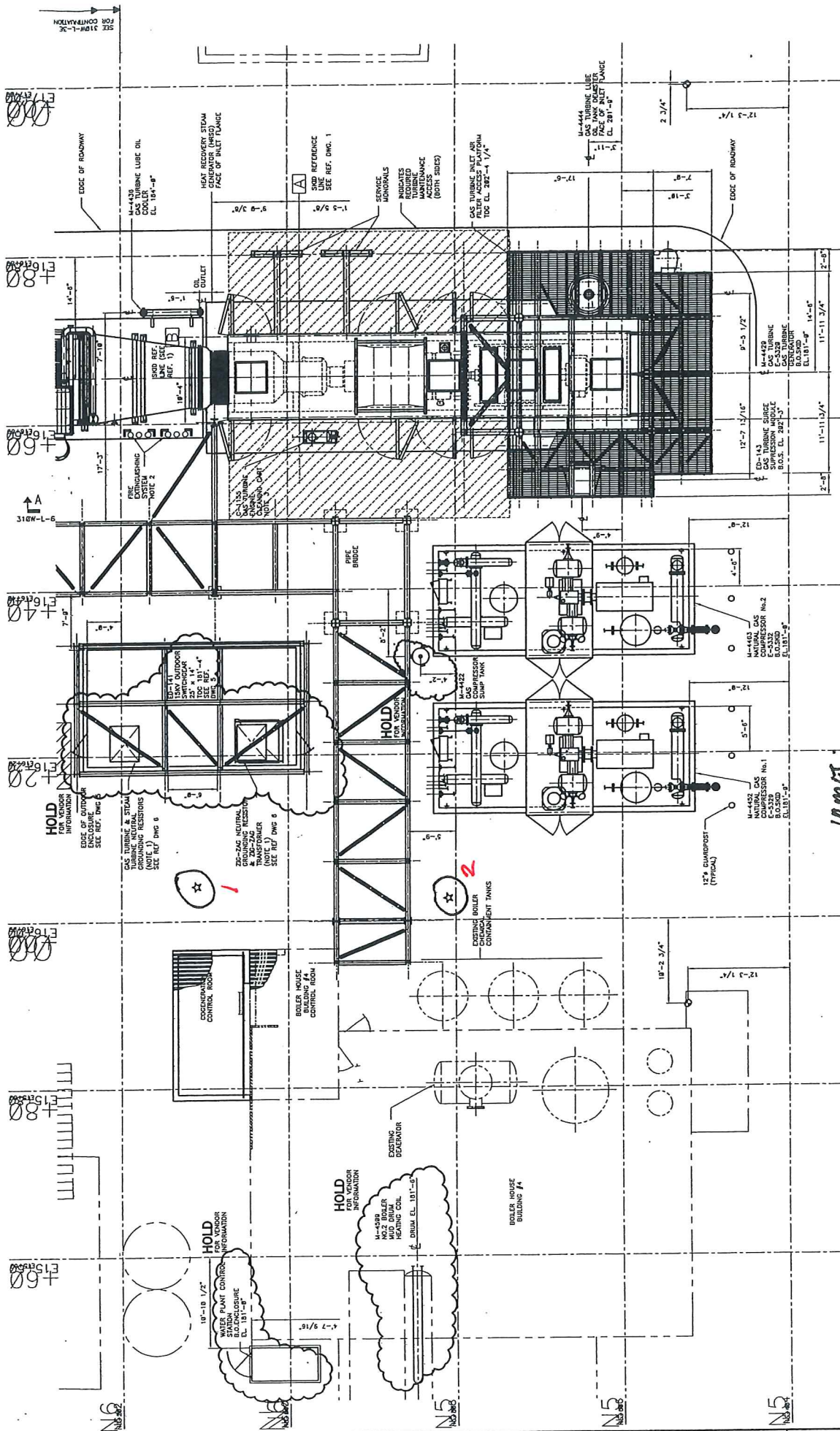
MS/MSD Sample ID: Laboratory Control Sample

Analyte	Spike Sample Recovery ug/L	Spike Duplicate Recovery ug/L	Relative Percent Difference (RPD)	Upper Control Limit RPD	Pass/Fail
1,1-Dichloroethene	40.94	43.85	7%	25%	Pass
Benzene	40.26	45.24	12%	25%	Pass
Trichloroethene	40.34	43.83	8%	25%	Pass
Toluene	42.17	46.16	9%	25%	Pass
Chlorobenzene	41.63	45.79	10%	25%	Pass

Analytical Notes:

MS: Matrix Spike Sample
MSD: Matrix Spike Duplicate




p1



12m2

PROPOSED MONITORING WELL LOCATIONS.

LEGEND

	SURVEY MONUMENT
	MAINTENANCE ACCESS SPACE TO BE KEPT CLEAR INCLUDING OVERHEAD SPACE
	SAFETY STATION & HOT WASH STATION

★ 3 PROPOSED BORING SITES - PLS. ADVISE IF


Date **4-3-02** # of pages **1**

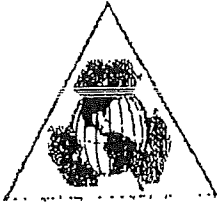
From GRACE MADDEN

Co. KIM. CLARK

Phone # 714.773.7500 x767

Fax # 738.1810

FOR SIZE 31E		MATING PAK						K-C					
		NEW CONVERSION X INCHES .XX .XX .XX .XX .XX .XX		METRIC (MM) .XX .XX .XX .XX .XX .XX		ANGULAR TOL. 5° 30' FIN. TOL. .0005 DIM. & TOL. PER ASMT 11-13.4		BREAKS AND ENDS CLASS 2 DIM. & TOL. PER ASMT 11-13.4		THIS PAK IS THE PROPERTY OF NUMERICAL TOOL COMPANY USE ONLY FOR PURPOSES FOR WHICH LOANED. NO COPYING OR REPRODUCTION ALLOWED.		DRAWN _____ CHECK _____ APPD _____	

**FLEMING ENVIRONMENTAL INCORPORATED**

6130 VALLEY VIEW STREET * BUENA PARK, CA 90620

(714) 228-0935 * FAX (714) 228-9231

LICENSE #746017

Fax Cover

To: Grace Madukun

From: Terry Fleming

Company: Kimberly Clark

Pages: 15 (Including Cover)

Fax: (714) 738-1810

Date: 02/27/02

Phone:

CC:

Re: Cogeneration Facility

☐ Urgent☐ For Review☐ Please Comment☒ Please Reply☐ Please Recycle

* Comments:

PRELIMINARY RESULTS
SUBJECT TO CHANGE
PENDING QA/QC REVIEW

Client: Fleming Environmental
8130 Valleyview St.
Buena Park, CA 90620

Date Sampled: 02/22/02
Date Received: 02/22/02
Job Number: M4-351

Project: Kimberly-Clark

CASE NARRATIVE

The following information applies to samples which were received for analysis by Centrum Analytical Mobile Environmental Laboratory Number Four (MEL #4) on: 02/22/02

ELAP Number: 2973

Unless otherwise noted below, the Quality Control acceptance criteria were met for all samples for every analysis requested.

The samples were received at the project site intact and were either analyzed immediately or stored at 4°C until analyzed.

Report approved by:

James M. Reed
Mobile Lab Supervisor

Rodolfo Vergara, Jr.
Quality Assurance Manager

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.

PRELIM
SUB
PENDING REVIEW
LTS

Modified 8015 - Total Extractable Petroleum Hydrocarbons as Diesel

Client: Fleming Environmental
Project: Kimberly-Clark
Job No.: M4-351
Matrix: Soil
Analyst: MAH/JTS

Date Sampled: 02/22/02
Date Received: 02/22/02
Date Extracted: 02/22/02
Date Analyzed: 02/22-25/02
Batch Number: M48015DS646

Sample ID	Detection Limit mg/Kg	Diesel mg/Kg	Surrogate (OTP) Limit: 50 - 150%
Method Blank	10	ND	100 %
SB2-02@20'	10	ND	98 %
SB2-02@20'	10	47,000	98 %
SB2-02@45'	10	ND	114 %
SB2-02@55'	10	43	118 %
SB2-02@10'	10	4,100	106 %
SB2-02@15'	10	20,080	126 %
SB2-02@25'	10	32	123 %
SB2-02@35'	10	ND	108 %
SB2-02@40'	10	ND	110 %
SB2-02@50'	10	ND	113 %
SB2-02@55'	10	42	114 %
SB2-02@60'	10	ND	109 %
SB2-02@65'	10	ND	116 %
SB2-02@70'	10	ND	111 %

QC Sample Report - EPA 8015M Diesel

Matrix: Soil
Batch #: M48015DSG40

PREPARED
SD
PENDING REVIEW
RESULTS
CHANGE
REVIEW

Batch Accuracy Results

Sample ID: Laboratory Control Sample

Analyte	Spike Concentration mg/Kg	% Recovery LCS	Acceptance Limits % Recovery	Pass/Fail
Diesel	500	103	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	510.0	498.0	4%	25%	Pass

Analytical Notes:

MS: Matrix Spike Sample
MSD: Matrix Spike Duplicate

BTEX & Oxygenates by EPA Method 8260B

Client: Fleming Environmental
Project: Kimberly-Clark
Job No.: M4-351
Matrix: Soil
Analyst: MBH/JTS

Date Sampled: 02/22/02
Date Received: 02/22/02
Date Analyzed: 02/22-26/02
Batch Number: M48260S645

PRELIMINARY RESULTS
SC
PERMANENT RECORD

Sample ID:	Blank	SB2-02@20'	SB2-02@45'	SB2-02@5'	SB2-02@25'	SB2-02@35'
Compounds	DL	mg/Kg	mg/Kg	mg/Kg	mg/Kg	mg/Kg
Methyl-tert-butyl ether (MTBE)	0.005	ND	ND	ND	ND	ND
Ethyl-tert-butyl ether (ETBE)	0.005	ND	ND	ND	ND	ND
Diisopropyl ether (DIPE)	0.005	ND	ND	ND	ND	ND
Isobutyl methyl ether (IBME)	0.005	ND	ND	ND	ND	ND
t-Butyl methyl ether (TBME)	0.005	ND	ND	ND	ND	ND
Acetone	0.005	ND	ND	ND	ND	ND
Toluene	0.005	ND	ND	ND	ND	ND
Ethylbenzene	0.005	ND	ND	ND	ND	ND
m,p-Xylenes	0.010	ND	ND	ND	ND	ND
o-Xylene	0.005	ND	ND	ND	ND	ND

Surrogates (% Recovery) Limits: 70 - 130

Sample ID:	Blank	SB2-02@20'	SB2-02@45'	SB2-02@5'	SB2-02@25'	SB2-02@35'
1,2,4-Trichlorobenzene	100	99	99	101	99	100
Toluene-d8	100	98	99	85	99	100
1,2,4-Trichlorobenzene	102	104	105	108	101	103

PRELIMINARY RESULTS
SUE.
PENDING QA/QC REVIEW

BTEX & Oxygenates by EPA Method 8260B

Client: Fleming Environmental
Project: Kimberly-Clark
Job No.: M4-351
Matrix: Soil
Analyst: MBL/VJS

Date Sampled: 02/22/02
Date Received: 02/22/02
Date Analyzed: 02/22-26/02
Batch Number: M48260S645

Compound	DL	mg/Kg	mg/Kg	mg/Kg	mg/Kg	mg/Kg	mg/Kg
Methyl tert-butyl ether (MTBE)	0.005	ND	ND	ND	ND	ND	ND
t-Butyl Alcohol (TBA)	0.020	ND	ND	ND	ND	ND	ND
Diisopropyl ether (DIPE)	0.005	ND	ND	ND	ND	ND	ND
Ethyl tert-butyl ether (ETBE)	0.005	ND	ND	ND	ND	ND	ND
t-Amyl-methyl ether (TAME)	0.005	ND	ND	ND	ND	ND	ND
Benzene	0.005	ND	ND	ND	ND	ND	ND
Toluene	0.005	ND	ND	ND	ND	ND	ND
Ethylbenzene	0.005	ND	ND	ND	ND	ND	ND
m,p-Xylenes	0.010	ND	ND	ND	ND	ND	ND
o-Xylene	0.005	ND	ND	ND	ND	ND	ND

Surrogates (% Recovery) Limits: 70 - 130

Sample ID: SB2-02@40' SB2-02@60' SB2-02@65' SB2-02@80' SB2-02@85' SB2-02@70'						
Chloroethane/methane	100	100	100	100	100	100
Toluene d8	100	100	98	99	98	99
Bromobenzene	104	103	101	103	102	101

BTEX & Oxygenates by EPA Method 8260B

Client: Fleming Environmental
Project: Kimberly Clark
Job No.: M4-351
Matrix: Soil
Analyst: MBH/JYS

Date Sampled: 02/22/02
Date Received: 02/22/02
Date Analyzed: 02/22-25/02
Batch Number: M48280S645

PRELIMINARY RESULTS
SUBJECT TO CHANGE
PENDING QA/QC REVIEW

Sample ID: SB2-02@10'		
Compounds	DL	mg/Kg
Methyl-tert-butyl ether (MTBE)	0.6	ND
t-Butyl alcohol (TBA)	2.5	ND
Diisopropyl ether (DIPE)	0.6	ND
Ethyl-tert-butyl ether (ETBE)	0.6	ND
t-Amyl-methyl ether (TAME)	0.6	ND
Benzene	0.6	ND
Toluene	0.6	ND
Ethylbenzene	0.6	ND
m,p-Xylenes	1.3	ND
o-Xylene	0.6	ND

Surrogates (% Recovery) Limits: 70 - 130

Sample ID: SB2-02@10'		
Dibromofluorobenzene	92	
Toluene-d8	100	
Bromofluorobenzene	105	

BTEX & Oxygenates by EPA Method 8260B

PRELIMINARY RESULTS
SUBJECT TO CHANGE
PENDING CLOUD REVIEW

Client: Fleming Environmental
Project: Kimberly-Clark
Job No.: M4-361
Matrix: Soil
Analyst: MBH/JTS

Date Sampled: 02/22/02
Date Received: 02/22/02
Date Analyzed: 02/22-25/02
Batch Number: M482605645

Sample ID: SB2-02@15'		
Compounds	DL	mg/Kg
Methyl-tert-butyl ether (MTBE)	1.3	ND
t-butyl alcohol (TBA)	5.0	ND
Diisopropyl ether (DIPE)	1.3	ND
Ethyl-tert-butyl ether (ETBE)	1.3	ND
t-Amyl-methyl ether (TAME)	1.3	ND
Benzene	1.3	ND
Toluene	1.3	ND
Ethylbenzene	1.3	ND
m,p-Xylenes	2.5	ND
n-Xylene	1.3	ND

Surrogates (% Recovery) Limits: 70 - 130

Sample ID: SB2-02@15'	
1,1,1-trichloroethane	100
Toluene-d8	100
Bromofluorobenzene	102

BTEX & Oxygenates by EPA Method 8260B

PRELIMINARY RESULTS
SUBJECT TO CHANGE
SENDING CANNOT REVIEW

Client: Fleming Environmental
Project: Kimberly Clark
Job No.: M4-051
Matrix: Soil
Analyst: MDHANTS

Date Sampled: 02/22/02
Date Received: 02/22/02
Date Analyzed: 02/22-26/02
Batch Number: M49260S045

Sample ID: SBZ-02@30'		
Compounds	DL	mg/Kg
Methyl-tert-butyl ether (MTBE)	2.5	ND
tert-butyl alcohol (TBA)	10.0	ND
Diisopropyl ether (DIPE)	2.5	ND
tert-butyl ether (BEE)	2.5	ND
tert-Amyl-methyl ether (TAME)	2.5	ND
Perthane	2.5	ND
Toluene	2.5	1.6
Ethylbenzene	2.5	0.8
m,p-Xylenes	5.0	27
o-Xylene	2.5	24

Surrogates (% Recovery) Limits: 70 - 130

Sample ID: SBZ-02@30'	
Dibromofluoromethane	89
Toluene d8	100
Bromofluorobenzene	103

PRELIMINARY RESULTS
SUBMITTED TO: 02/27/02
BY: 02/27/02

QC Sample Report - EPA Method 8260B

Matrix: Soil
Batch #: M48260S645

Batch Accuracy Results

Sample ID: Laboratory Control Sample

Analyte	Spike Concentration mg/Kg	% Recovery LOS	Acceptance Limits	% Recovery	Pass/Fail
1,1-Dichloroethene	0.060	82	70 - 130		Pass
Benzene	0.050	80	70 - 130		Pass
Trichloroethene	0.050	81	70 - 130		Pass
Toluene	0.060	83	70 - 130		Pass
Chlorobenzene	0.050	83	70 - 130		Pass

Analytical Notes:

Batch Precision Results

MS/MSD Sample ID: SB2-02050

Analyte	Spike Sample Recovery mg/Kg	Spike Duplicate Recovery mg/Kg	Relative Percent Difference (RPD)	Upper Control Limit RPD	Pass/Fail
1,1-Dichloroethene	0.0441	0.0453	3%	25%	Pass
Benzene	0.0449	0.0452	1%	25%	Pass
Trichloroethene	0.0446	0.0447	0%	25%	Pass
Toluene	0.0460	0.0476	3%	25%	Pass
Chlorobenzene	0.0458	0.0463	2%	25%	Pass

Analytical Notes:

MS: Matrix Spike Sample
MSD: Matrix Spike Duplicate

BTEX & Oxygenates by EPA Method 8260B

Client: Fleming Environmental
Project: Kimberly-Clark
Job No.: M4-361
Matrix: Water
Analyst: MBH/JS

Date Sampled: 02/22/02
Date Received: 02/22/02
Date Analyzed: 02/22/02
Batch Number: M48260WB47

Compounds	Sample ID: DL	Blank µg/L	SB2-02@70AQ µg/L
Methyl-tert-butyl ether (MTBE)	1.0	ND	ND
tert-butyl alcohol (TBA)	1.0	ND	ND
Dileopropyl ether (DIPE)	6.0	ND	ND
Ethyl-tert-butyl ether (ETBE)	5.0	ND	ND
t-Amyl methyl ether (TAME)	5.0	ND	ND
Benzene	1.0	ND	ND
Toluene	1.0	ND	ND
Ethylbenzene	1.0	ND	ND
m,p-Xylenes	2.0	ND	4.6
o-Xylene	5.0	ND	3.3

Surrogates (% Recovery) Limits: 70 - 130

Surrogates	Sample ID: Blank	SB2-02@70AQ
Dibromofluoromethane	100	100
Toluene-d8	100	90
Bromofluorobenzene	100	104

QC Sample Report - EPA Method 8260B

Matrix: Water
Batch #: M4E260W647

Batch Accuracy Results

Sample ID: Laboratory Control Sample

Analyte	Spike Concentration ug/L	% Recovery LCS	Acceptance Limits % Recovery	Pass/Fail
1,1-Dichloroethene	50.0	82	70 - 130	Pass
Benzene	50.0	80	70 - 130	Pass
Trichloroethene	50.0	81	70 - 130	Pass
Toluene	50.0	85	70 - 130	Pass
Chlorobenzene	50.0	83	70 - 130	Pass

Analytical Notes:

Batch Precision Results

MS/MSD Sample ID: Laboratory Control Sample

Analyte	Spike Sample Recovery ug/L	Spike Duplicate Recovery ug/L	Relative Percent Difference (RPD)	Upper Control Limit RPD	Pass/Fail
1,1-Dichloroethene	40.9	43.9	7%	25%	Pass
Benzene	40.3	45.2	12%	25%	Pass
Trichloroethene	40.3	43.8	8%	25%	Pass
Toluene	42.2	46.2	9%	25%	Pass
Chlorobenzene	41.6	45.8	10%	25%	Pass

Analytical Notes:

MS: Matrix Spike Sample
MSD: Matrix Spike Duplicate

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Date Sampled: 02/22/02
Date Received: 02/22/02
Date Analyzed: 02/25-26/02
Batch Number: MS48260S2823

Page 12 of 14

EPA Method 8260B - Volatile Organics

Client: Fleming Environmental
Project: Kimberly-Clark
Job No.: M4-361
Matrix: Soil
Analyst: MBI/VJS/ZL

Date Sampled: 02/22/02
Date Received: 02/22/02
Date Analyzed: 02/25-26/02
Batch Number: MS48260S2823

Compound	Sample ID: RL	Blank mg/Kg	SE2-02@30' mg/Kg
cis-1,3 Dichloropropene	0.50	ND	ND
trans-1,3 Dichloropropene	0.50	ND	ND
Diisopropyl Ether (DIPE)	2.5	ND	ND
Ethylbenzene	0.50	ND	2.8
Ethyl tert-Butyl Ether (ETBE)	2.5	ND	ND
Hexachlorocyclopentadiene	0.50	ND	ND
2-Hexanone	5.0	ND	ND
Isopropylbenzene	0.50	ND	ND
p-Isopropyltoluene	1.0	ND	1.4
Methylene chloride	2.5	ND	ND
4-Methyl-2-pentanone	5.0	ND	ND
Methyl tert-Butyl Ether (MTBE)	2.5	ND	ND
Naphthalene	1.0	ND	110
n-Propylbenzene	0.50	ND	1.6
Styrene	0.50	ND	ND
1,1,1,2-Tetrachloroethane	0.50	ND	ND
1,1,2,2-Tetrachloroethane	1.0	ND	ND
Tetrachloroethane	0.50	ND	ND
Toluene	0.50	ND	1.3
1,2,3-Trichlorobenzene	1.0	ND	ND
1,2,4-Trichlorobenzene	1.0	ND	ND
1,1,1-Trichloroethane	0.50	ND	ND
1,1,2-Trichloroethane	1.5	ND	ND
Trichloroethane	0.50	ND	ND
1,2,3-Trichloropropane	1.5	ND	ND
Trichlorofluoroethane	0.50	ND	ND
Trichlorotrifluoroethane	2.5	ND	ND
1,2,4-Trimethylbenzene	0.50	ND	8.4
1,3,5-Trimethylbenzene	0.50	ND	28
Vinyl chloride	1.0	ND	ND
Xylenes, m,p-	1.0	ND	22
Xylene, o-	0.50	ND	19

Surrogates (% Recovery) Limits: 70 - 130

Compound	Sample ID: RL	Blank	SE2-02@30'
Dibromodifluoromethane		100	101
Toluene-d8		101	100
Bromofluorobenzene		100	101

QC Sample Report - EPA 8260B

Matrix: Soil
Batch #: MC482602823

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Batch Accuracy Results

Sample ID: Laboratory Control Sample

Analyte	Spike Concentration mg/Kg	% Recovery LCS	Acceptance Limits % Recovery	Pass/Fail
1,1-Dichloroethene	0.0200	123	70 - 130	Pass
Benzene	0.0200	118	70 - 130	Pass
Trichloroethene	0.0200	119	70 - 130	Pass
Toluene	0.0200	118	70 - 130	Pass
Chlorobenzene	0.0200	119	70 - 130	Pass

Analytical Notes:

Batch Precision Results

MS/MSD Sample ID: S14-4-15

Analyte	Spike Sample Recovery mg/Kg	Spike Duplicate Recovery mg/Kg	Relative Percent Difference (RPD)	Upper Control Limit RPD	Pass/Fail
1,1-Dichloroethene	0.0237	0.0250	5%	25%	Pass
Benzene	0.0229	0.0233	2%	25%	Pass
Trichloroethene	0.0227	0.0237	4%	25%	Pass
Toluene	0.0229	0.0229	0%	25%	Pass
Chlorobenzene	0.0236	0.0247	5%	25%	Pass

Analytical Notes:

MS: Matrix Spike Sample
MSD: Matrix Spike Duplicate

FLEMING ENVIRONMENTAL INCORPORATED

6130 VALLEY VIEW STREET * BUENA PARK, CA 90620

(714) 228-0935 * FAX (714) 228-9231

LICENSE #746017

LETTER OF TRANSMITTAL

To: Kimberly Clark Facility

2001 E. Orangethorpe Ave.

Fullerton, CA 92831

Date: 3/1/02

Attention: Grace Madden

RE: Cogeneration Facility

WE ARE SENDING YOU:

- ☒ Attached ☐ Under separate cover via _____ the following items.
- ☐ Payment ☐ Prints ☐ Plans ☐ Samples ☐ Specifications
- ☐ Copy of Letter ☐ Change Order _____ ☐ Other _____

Copies	Date(d)	Submittal No.	Description
1			Workplan for drilling activities
1			Soil analytical for sampling on 2/18/02

THESE ARE TRANSMITTED as checked below:

- ☐ For Approval ☐ Approved as Submitted ☐ Resubmit _____ copies for approval
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REMARKS:

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SIGNED: 
Terry L. Fleming, Jr.

PRELIMINARY RESULTS
SUBJECT TO CHANGE
PENDING QA/QC REVIEW

Modified 8015 - Hydrocarbons by Carbon Chain Length

Client: Fleming Environmental
 Project: Kimberly-Clarke, Fullerton
 Job No.: M4-348
 Matrix: Soil
 Analyst: MBH

Date Sampled: 02/18/02
 Date Received: 02/18/02
 Batch Number: M48015DS640

Carbon Chain Length:		Diesel	Surrogate
Detection Limits:		10	(OTP)
Units:		mg/Kg	Limit: 50 - 150%
	Blank	ND	101 %
1	S/W Wall	12,000	143 %
2	N/W Wall	8,200	92 %
3	SW Corner	1,400	88 %
4	NW Corner	2,400	98 %
5	SE Corner	ND	100 %
6	NE Corner	430	92 %
7	N Wall	ND	97 %
8	E Wall	ND	95 %
9	S Wall	ND	95 %
10	Middle Trench	ND	89 %
11	NE Corner 18'	1,100	101 %
12	NE Corner 18'	ND	97 %
Date Extracted:		02/18/02	02/18/02
Date Analyzed:		02/18/02	02/18/02

PRELIMINARY RESULTS
SUBJECT TO CHANGE
PENDING QA/QC REVIEW

EPA Method 8260B - Volatile Organics

Client: Fleming Environmental
 Project: Kimberly-Clarke, Fullerton
 Job No.: M4-348
 Matrix: Soil
 Analyst: MBH

Date Sampled: 02/18/02
 Date Received: 02/18/02
 Date Analyzed: 02/18/02
 Batch Number: M48260S639

Compounds	Sample ID: RL	Blank mg/Kg	SE Corner mg/Kg	NE Corner mg/Kg	N Wall mg/Kg	E Wall mg/Kg	S Wall 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

PRELIMINARY RESULTS
SUBJECT TO CHANGE
PENDING QAVC REVIEW

EPA Method 8260B - Volatile Organics

Client: Fleming Environmental
Project: Kimberly-Clarke, Fullerton
Job No.: M4-348
Matrix: Soil
Analyst: MBH

Date Sampled: 02/18/02
Date Received: 02/18/02
Date Analyzed: 02/18/02
Batch Number: M482605639

Compounds	Sample ID: RL	Blank mg/Kg	SE Corner mg/Kg	NE Corner mg/Kg	N Wall mg/Kg	E Wall mg/Kg	S Wall 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	ND	ND	ND	ND	ND
Ethyl tert-Butyl Ether (EtBE)	0.005	ND	ND	ND	ND	ND	ND
Hexachlorocyclopentadiene	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
Methylcyclohexane	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	ND	ND	ND	ND	ND
n-Propylbenzene	0.001	ND	ND	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	0.001	ND	ND	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	ND	ND	ND	ND	ND
1,3,5-Trimethylbenzene	0.001	ND	ND	ND	ND	ND	ND
Vinyl chloride	0.002	ND	ND	ND	ND	ND	ND
Xylenes, m,p-	0.002	ND	ND	ND	ND	ND	ND
Xylene, o-	0.001	ND	ND	ND	ND	ND	ND

Surrogates (% Recovery) Limits: 70 - 130

Sample ID:	Blank	SE Corner	NE Corner	N Wall	E Wall	S Wall
Dibromofluoromethane	99	97	100	98	96	98
Toluene-d8	100	99	94	98	99	98
Bromofluorobenzene	101	103	94	98	103	100

PRELIMINARY RESULTS
SUBJECT TO CHANGE
PENDING QA/QC REVIEW

EPA Method 8260B - Volatile Organics

Client: Fleming Environmental
Project: Kimberly-Clarke, Fullerton
Job No.: M4-348
Matrix: Soil
Analyst: MBH

Date Sampled: 02/18/02
Date Received: 02/18/02
Date Analyzed: 02/18/02
Batch Number: M48260S639

Compounds	Sample ID: RL	Middle Trench mg/Kg	NE Corner 16' mg/Kg	NE Corner 18' 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

PRELIMINARY RESULTS
SUBJECT TO CHANGE
PENDING QA/QC REVIEW

EPA Method 8260B - Volatile Organics

Client: Fleming Environmental
Project: Kimberly-Clarke, Fullerton
Job No.: M4-348
Matrix: Soil
Analyst: MBH

Date Sampled: 02/18/02
Date Received: 02/18/02
Date Analyzed: 02/18/02
Batch Number: M48260S639

Compounds	Sample ID: RL	Middle Trench mg/Kg	NE Corner 16' mg/Kg	NE Corner 18' 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:	Middle Trench	NE Corner 16'	NE Corner 18'
Dibromofluoromethane	101	99	97
Toluene-d8	99	98	99
Bromofluorobenzene	104	97	100

PRELIMINARY RESULTS
SUBJECT TO CHANGE
PENDING QA/QC REVIEW

EPA Method 8260B - Volatile Organics

Client: Fleming Environmental
Project: Kimberly-Clarke, Fullerton
Job No.: M4-348
Matrix: Soil
Analyst: MBH

Date Sampled: 02/18/02
Date Received: 02/18/02
Date Analyzed: 02/18/02
Batch Number: M48260S639

Compounds	Sample ID: RL	SW Corner mg/Kg	NW Corner 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-Dichloropropane	0.001	ND	ND

PRELIMINARY RESULTS
SUBJECT TO CHANGE
PENDING QA/QC REVIEW

EPA Method 8260B - Volatile Organics

Client: Fleming Environmental
 Project: Kimberly-Clarke, Fullerton
 Job No.: M4-348
 Matrix: Soil
 Analyst: MBH

Date Sampled: 02/18/02
 Date Received: 02/18/02
 Date Analyzed: 02/18/02
 Batch Number: M48260S639

Compounds	Sample ID: RL	SW Corner mg/Kg	NW Corner 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	0.003	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	0.019	ND
n-Propylbenzene	0.001	0.002	ND
Styrene	0.001	ND	ND
1,1,1,2-Tetrachloroethane	0.001	ND	ND
1,1,2,2-Tetrachloroethane	0.002	ND	ND
Tetrachloroethane	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
Trichlorobenzene	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	0.010	ND
1,3,5-Trimethylbenzene	0.001	0.002	ND
Vinyl chloride	0.002	ND	ND
Xylenes, m-p-	0.002	0.004	ND
Xylene, o-	0.001	0.002	ND

Surrogates (% Recovery) Limits: 70 - 130

Sample ID:	SW Corner	NW Corner
Dibromofluoromethane	103	106
Toluene-d8	95	90
Bromofluorobenzene	87	85

PRELIMINARY RESULTS
SUBJECT TO CHANGE
PENDING QA/QC REVIEW

EPA Method 8260B - Volatile Organics

Client: Fleming Environmental
 Project: Kimberly-Clarke, Fullerton
 Job No.: M4-348
 Matrix: Soil
 Analyst: MBH

Date Sampled: 02/18/02
 Date Received: 02/18/02
 Date Analyzed: 02/18/02
 Batch Number: M48260S639

Compounds	Sample ID:	S/W Wall	N/W Wall
	RL	mg/Kg	mg/Kg
Acetone	0.260	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)	0.100	ND	ND
2-Butanone (MEK)	0.050	ND	ND
n-Butylbenzene	0.01	0.16	ND
sec-Butylbenzene	0.010	0.060	ND
tert-Butylbenzene	0.01	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	0.01	ND	ND
Chloromethane	0.025	ND	ND
2-Chlorotoluene	0.01	ND	ND
4-Chlorotoluene	0.01	ND	ND
Dibromochloromethane	0.010	ND	ND
1,2-Dibromoethane	0.01	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	0.01	ND	ND
1,4-Dichlorobenzene	0.01	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	0.01	ND	ND
trans-1,2-Dichloroethene	0.01	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

PRELIMINARY RESULTS
 SUBJECT TO CHANGE
 PENDING QA/QC REVIEW

EPA Method 8260B - Volatile Organics

Client: Fleming Environmental
 Project: Kimberly-Clarke, Fullerton
 Job No.: M4-348
 Matrix: Soil
 Analyst: MBH

Date Sampled: 02/18/02
 Date Received: 02/18/02
 Date Analyzed: 02/18/02
 Batch Number: M48260S639

Compounds	Sample ID: RL	S/W Wall mg/Kg	N/W Wall mg/Kg
cis-1,3-Dichloropropene	0.005	ND	ND
trans-1,3-Dichloropropene	0.005	ND	ND
Diisopropyl Ether (DIPE)	0.025	ND	ND
Ethylbenzene	0.005	0.097	ND
Ethyl tert-Butyl Ether (EtBE)	0.025	ND	ND
Hexachlorobutadiene	0.005	ND	ND
2-Hexanone	0.050	ND	ND
Isopropylbenzene	0.005	0.021	ND
p-Isopropyltoluene	0.010	0.065	ND
Methylene chloride	0.250	ND	ND
4-Methyl-2-pentanone	0.050	ND	ND
Methyl tert-Butyl Ether (MTBE)	0.025	ND	ND
Naphthalene	0.025	0.82	0.027
n-Propylbenzene	0.005	0.12	ND
Styrene	0.005	ND	ND
1,1,1,2-Tetrachloroethane	0.005	ND	ND
1,1,2,2-Tetrachloroethane	0.010	ND	ND
Tetrachloroethene	0.005	ND	ND
Toluene	0.005	ND	ND
1,2,3-Trichlorobenzene	0.010	ND	ND
1,2,4-Trichlorobenzene	0.010	ND	ND
1,1,1-Trichloroethane	0.005	ND	ND
1,1,2-Trichloroethane	0.015	ND	ND
Trichloroethene	0.005	ND	ND
1,2,3-Trichloropropane	0.015	ND	ND
Trichlorofluoromethane	0.005	ND	ND
Trichlorotrifluoroethane	0.025	ND	ND
1,2,4-Trimethylbenzene	0.005	0.40	0.006
1,3,5-Trimethylbenzene	0.005	ND	ND
Vinyl chloride	0.010	ND	ND
Xylenes, m-p-	0.010	0.026	ND
Xylene, o-	0.005	ND	ND

Surrogates (% Recovery) Limits: 70 - 130

Sample ID:	S/W Wall	N/W Wall
Dibromofluoromethane	109	101
Toluene-d8	92	97
Bromofluorobenzene	88	90

GASTON & ASSOCIATES, LLC

Environmental Consulting
Environmental Litigation and Transactional Support

4000 Barranca Parkway, Suite 250
Irvine, California 92604

phone (714) 505-6123 fax (714) 505-6185 mobile (949) 278-4650

FEB 23 2002

February 21, 2002

Mr. Steve Long
Fullerton Fire Department
Fire Prevention Division
312 East Commonwealth Avenue
Fullerton, CA 92832-2099

Subject: Workplan for Additional Soil Investigation at the Kimberly Clark site located at
2001 East Orangethorpe Avenue, Fullerton, California

Dear Mr. Long:

Enclosed is the Workplan for additional site assessment activities at the subject site as requested by your office.

We appreciate your assistance and look forward to working with you in this matter. If there are any questions, please call at (714) 505-6123.

Respectfully submitted,

GASTON & ASSOCIATES, LLC



Wilbert P. Gaston, R.G. 4540
Principal Consultant

cc: Mr. Terry Fleming, Fleming Environmental

Enviro - Chem, Inc.
1214 E. Lexington Avenue, Pomona, CA 91766 Tel (909) 590-5905 Fax (909) 590-5907

Date: February 22, 2002

Mr. David Rains
Filter Recycling
180 W. Monte Ave.
Rialto, CA 92316
Tel (909) 873-4141 Fax (909) 873-4142

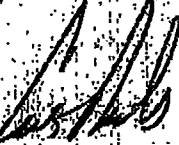
Project: **Kimberly Clark**

Dear Mr. Rains:

The analytical results for the soil samples, received by our laboratory on February 21, 2002, are attached.

Enviro-Chem appreciates the opportunity to provide you and your company this and other services. Please do not hesitate to call Mr. John Ackerman, our Customer Service Specialist, or myself, if you have any questions.

Sincerely,



Curtis Desilets
Vice President/Program Manager

Mina Farag
Lab Manager

Enviro - Chem, Inc.
1214 E. Lexington Avenue, Pomona, CA 91766 Tel (909) 590-5905 Fax (909) 590-5907

LABORATORY REPORT

CUSTOMER: FILTER RECYCLING, 180 W. MONTE, RIALTO, CA 92376
TEL (909) 873-4141 FAX (909) 873-4142

PROJECT: Kimberly Clark

MATRIX: SOIL

SAMPLING DATE: 02/21/02

REPORT TO: MR. DAVID BAINS

DATE RECEIVED: 02/21/02

DATE ANALYZED: 02/22/02

DATE REPORTED: 02/22/02

TOTAL RECOVERABLE PETROLEUM HYDROCARBONS (TRPH) ANALYSIS

METHOD: EPA 418.1

UNIT: MG/KG = MILLIGRAM PER KILOGRAM = PPM

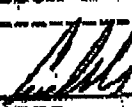
SAMPLE I.D.	LAB I.D.	TRPH RESULT
022102 N	020221-14	2340
022102 S	020221-15	517
022102 E	020221-16	1180
022102 W	020221-17	189
METHOD BLANK	---	ND
	PQL	10

COMMENTS

PQL = PRACTICAL QUANTITATION LIMIT

ND = BELOW THE PQL OR NON-DETECTED

TRPH = TOTAL RECOVERABLE PETROLEUM HYDROCARBONS

DATA REVIEWED AND APPROVED BY: 

QAL-DHS BLAF CERTIFICATE No.: 1555

Enviro - Chem, Inc.

1214 E. Lexington Avenue, Pomona, CA 91766 Tel (909) 590-5905 Fax (909) 590-5907

LABORATORY REPORT

CUSTOMER: FILTER RECYCLING, 180 W. MONTE, RIALTO, CA 92376
 TEL (909) 873-4141 FAX (909) 873-4142

PROJECT: Kimberly Clark

MATRIX: SOIL

SAMPLING DATE: 02/21/02

REPORT TO: MR. DAVID RAINS

DATE RECEIVED: 02/21/02

DATE ANALYZED: 02/21-22/02

DATE REPORTED: 02/22/02

SAMPLE I.D.: 022102 N

LAB I.D.: 020221-14

TOTAL THRESHOLD LIMIT CONCENTRATION ANALYSIS
 UNIT: MG/KG = MILLIGRAM PER KILOGRAM = PPM

ELEMENT ANALYZED	SAMPLE RESULT	PQL	TTLC LIMIT	STLC LIMIT	EPA METHOD
Antimony (Sb)	ND	1.0	500	15	6010B
Arsenic (As)	1.57	0.5	500	5.0	6010B
Barium (Ba)	95.7	5.0	10,000	100	6010B
Beryllium (Be)	ND	0.5	75	0.75	6010B
Cadmium (Cd)	ND	0.5	100	1.0	6010B
Chromium (Cr) Total	17.6	0.5	2,500	560/50	6010B
Chromium VI (Cr6)	--	1.0	500	5.0	7196A
Cobalt (Co)	2.35	1.0	8,000	80	6010B
Copper (Cu)	8.86	1.0	2,500	25	6010B
Lead (Pb)	6.65	0.5	1,000	5.0	6010B
Mercury (Hg)	ND	0.1	20	0.2	7471A
Molybdenum (Mo)	ND	5.0	3,500	350	6010B
Nickel (Ni)	11.3	2.5	2,000	20	6010B
Selenium (Se)	ND	1.0	100	1.0	6010B
Silver (Ag)	ND	1.0	500	5.0	6010B
Thallium (Tl)	ND	1.0	700	7.0	6010B
Vanadium (V)	40.5	5.0	2,400	24	6010B
Zinc (Zn)	58.1	0.5	5,000	250	6010B

COMMENTS:

PQL = Practical Quantitation Limit

ND = The concentration is below the PQL or non-detected

TTLC = Total Threshold Limit Concentration

STLC = Soluble Threshold Limit Concentration


@ = Must meet both the STLC Limit at 560 and EPA-TCLP Limit at 5

* = STLC analysis for the metal is recommended (if marked)

** = TCLP-Chromium analysis is recommended (if marked)

*** = The concentration exceeds the TTLC Limit, and the sample is defined as hazardous waste as per CCR-TITLE 22 (if marked)

-- = Not analyzed/not requested

Data Reviewed and Approved by: 

CAL-DHS ELAP CERTIFICATE No.: 1555