Park
Environmental

THIRD QUARTER 1994
GROUNDWATER MONITORING REPORT
NESTLE FOOD COMPANY
(FORMER CARNATION DAIRY FACILITY)
OAKLAND, CALIFORNIA

Dec 94

[illegible] Auburn Road Suite E Citrus Heights, CA 95610 TEL (916) 723-1776 FAX (916) 723-7698

Park
Environmental

January 31, 1995

Ms. Jennifer Eberle
Alameda County Health Agency
Hazardous Materials Division
80 Swan Way, Room 200
Oakland, California 94601

SUBJECT: QUARTERLY GROUNDWATER MONITORING REPORT
FORMER CARNATION DAIRY FACILITY
1310 14TH STREET, OAKLAND, CALIFORNIA

Dear Ms. Eberle:

Park Environmental Corporation (Park) is pleased to submit this Quarterly Groundwater Monitoring Report on behalf of Nestle USA, Inc. The report documents the groundwater monitoring and sampling work performed for the third quarter, July through September, of 1994 at the subject site.

Park conducted groundwater sampling activities in late December, 1994. A report documenting the fourth quarter groundwater data will be submitted to you in February, 1995. If you have any questions regarding this report, please call Park's new office in Citrus Heights, California at (916) 723-1776.

Thank You,
Park Environmental Corporation

Hugh T. Ashley, Project Engineer

F:\5008J11\HA\naj\3rdQMRcv.ltr

Enclosure

pc: Mr. Binayak Acharya, Nestlé USA, Inc.
Mr. Richard Hiett, CRWQCB, SFBR

Suite E ⁂ Citrus Heights, CA 95610 ⁂ TEL (916) 723-1776 ⁂ FAX (916) 723-7698

THIRD QUARTER 1994
GROUNDWATER MONITORING REPORT
NESTLE FOOD COMPANY
(FORMER CARNATION DAIRY FACILITY)
1310 14TH STREET
OAKLAND, CALIFORNIA

PRESENTED TO:

ALAMEDA COUNTY HEALTH AGENCY
DEPARTMENT OF ENVIRONMENTAL HEALTH
DIVISION OF CLEAN WATER PROGRAM
UST LOCAL OVERSIGHT PROGRAM
80 SWAN WAY, ROOM 200
OAKLAND, CALIFORNIA 94621

ON BEHALF OF:

NESTLE USA, INC.
800 NORTH BRAND BOULEVARD
GLENDALE, CALIFORNIA 91203

PREPARED BY:

PARK ENVIRONMENTAL CORPORATION
8084 OLD AUBURN ROAD, SUITE E
CITRUS HEIGHTS, CALIFORNIA 95610

DECEMBER, 1994

TABLE OF CONTENTS

APPENDICES

1.0 INTRODUCTION

Nestle USA, Inc., (Nestle) has retained **Park Environmental Corporation (Park)** to provide environmental services at the former Carnation facility in Oakland, California. A site location map and plot plan are shown on Figures 1 and 2 in Appendix A. Nestle has authorized **Park** to prepare this Quarterly Groundwater Monitoring Report (QMR), which includes brief groundwater sampling methodology and findings sections.

The Alameda County Health Agency (ACHA) is the lead environmental agency. This work was requested by Ms. Susan Hugo and Ms. Jennifer Eberle with the ACHA in accordance with the meeting between ACHA, Mr. Richard Hiett of the California Regional Water Quality Control Board (CRWQCB), Mr. Walter Carey with Nestle, and Mr. Richard Zipp with **Park**, on September 17, 1992. This site is referenced by the ACHA as 1310 14th Street.

1.1 Scope of Services

Specific tasks completed during this investigation included the following:

- Measure depth to water and/or free product thicknesses in 71 monitoring wells;
- Calculate groundwater flow direction in the vicinity of the free product plume and in the vicinity of the property boundaries;
- Purge, sample and analyze ten monitoring wells (MW-2, MW-3, MW-6, MW-25, MW-26, MW-27, MW-28, MW-29, MW-30 and MW-32) for total petroleum hydrocarbons as gasoline and diesel (TPH G and TPH D; EPA Method 8015), benzene, toluene, ethylbenzene, and total xylenes (BTEX; EPA Method 8020) and two samples (MW-26 and MW-32) for halogenated volatile organic compounds (HVOC; EPA Method 8260). In addition to the above mentioned analyses, modified EPA 8015 for gasoline tests were performed on an equipment blank and field duplicate sample for QA/QC purposes; and
- Prepare this QMR documenting the findings.

2.0 GROUNDWATER MONITORING WELL SAMPLING METHODOLOGY

2.1 Groundwater Measurements

Prior to obtaining depth to groundwater measurements in the sampled wells, the wells were checked for the presence of free product using a new disposable bailer for each well. Depth to groundwater measurements in the sampled wells and un-sampled wells were made using a YSI Model 3000 T-L-C Meter or Slope Indicator. Free product thicknesses were measured using a Free Product Interface Probe (manufactured by MMC). The depths to water or product were measured from the top of the well casing.

Groundwater elevations were calculated using measurements from surveyed monitoring wells not containing free product. Results of these measurements are included in Table I in Appendix B.

on 8-31-94

2.2 Monitoring Well Purging

Each monitoring well was purged with a submersible pump until at least three well volumes of water had been removed. All of the wells sampled are constructed of 4-inch diameter PVC well casing (except MW-6, which is 2-inches in diameter). All purging and sampling equipment was washed in a solution of trisodium phosphate and rinsed in distilled water prior to each usage, to reduce the potential for cross contamination between wells.

As groundwater was removed from the wells, pH, temperature and conductivity were monitored and recorded on a field data sheet. These field documents are kept in a permanent project file. A summary of the data obtained during the purging of the wells is presented in Table II in Appendix B.

The wells were allowed to stand for a period of time to regain equilibrium prior to sampling. Groundwater purged from the wells was placed into DOT-approved 55-gallon drums, pending receipt of analytical results to select the appropriate disposition.

2.3 Groundwater Analyses

Analyses of the groundwater were performed by a California certified laboratory in accordance with state guidelines and EPA protocols. Groundwater samples from nine of the ten monitoring wells MW-2, MW-3, MW-6, MW-25, MW-26, MW-28, MW-29, MW-30 and MW-32). were analyzed for TPH G, TPH D and BTEX. In addition, groundwater from monitoring wells MW-26 and MW-32 were analyzed for HVOC. Monitoring well MW-27 located in 16th Street was not sampled due to a vehicle obstructing access.

2.4 Groundwater Sampling

Proper sampling collection and handling are essential to assure the quality of the data obtained from the given sample. Each groundwater sample therefore was collected using a new sterile disposable bailer. The sampled water was placed in laboratory prepared 40 millimeter glass containers. The sample containers were filled with water to the top to expel air space and were sealed with Teflon-lined caps. Water sample containers were labeled with the name of the sampler, the date, the job number, the preservative, and an identifying well number. The samples were transported to Nestlé USA, Inc. Quality Assurance Laboratory in Dublin, Ohio. Full chain-of-custody (COC) protocol was followed during sample handling and delivery.

3.0 FINDINGS

3.1 Groundwater Conditions

3.1.1 Groundwater Flow Direction and Hydraulic Gradient

Groundwater monitoring wells containing free product were not used for the calculations of groundwater flow direction or hydraulic gradient. Groundwater measurements taken by **Park** on August 31, 1994 indicate that groundwater flow beneath the site continues to be in a north-northwesterly direction. The hydraulic gradient was calculated to be approximately 0.0021 or 0.21-feet drop per 100-feet of run beneath the site. The flow direction of the groundwater is shown graphically on Figure 3 in Appendix A. The measurements taken during this sampling event show the groundwater elevation ranging from about 5.00 to 5.50-feet above mean sea level (MSL), which is consistent with elevations monitored during the previous years. All groundwater measurement data collected are summarized in Table I in Appendix B.

3.1.2 Occurrence of Free Product

Free product was identified in 24 of the 71 monitoring wells that **Park** monitored for this investigation. The thickness of free product ranged from 0.01-feet to 1.21-feet, with an average thickness of 0.41-feet in the free product measured wells.

Measurements collected during the previous quarter's investigation showed an average free product thickness of 0.86-feet. The reduction of the average free product thickness suggests that the on-going vapor extraction remediation system is removing free phase petroleum hydrocarbons from the subsurface.

As reported by **Park** (July 12, 1994 "Vapor Extraction Remediation Update May and June, 1994"), approximately 2,462 gallons of petroleum hydrocarbons had been removed from the subsurface by July 1, 1994, which further explains the significant reduction of the free product thickness below the site. The occurrence of free product and the relative thicknesses are shown on Figure 4 in Appendix A.

3.1.3 Results of Laboratory Analyses

Laboratory test results for groundwater samples collected on August 31, 1994 for this investigation as well as one year's previous quarterly sampling events are summarized in Table III in Appendix B. Results are also shown on Figure 4 in Appendix A. Laboratory reports and COC documents are included as Appendix C.

4.0 LIMITATIONS

The monitoring services performed by **Park** were performed in a manner consistent with the level of care and skill ordinarily exercised by members of the profession currently practicing in the same locality under similar conditions.

The data presented in this report are representative of conditions at the site when monitoring and sampling was performed. The findings presented are based on the current data and past written and/or oral information provided by the regulatory agencies or Nestle USA.

5.0 PREPARATION OF REPORT

Firm Preparing Report

Park Environmental Corporation
8084 Old Auburn Road, Suite E
Citrus Heights, California 95610

Report Prepared by:

This report was prepared by **Park Environmental Corporation (Park)**. Mr. Richard J. Zipp is the registered professional overseeing this project. This report was written by Ms. Heidi Hubbard, Staff Geologist for **Park**.

This report was prepared to assist the property owner to comply with California Code Of Regulations, Title 23, Chapter 16, Article 5, Section 2652(d), which requires the submittal of reports to the regulatory agencies at a minimum of three month intervals. If you have any questions or need additional information please call the undersigned at (916) 723-1776.

Thank You,

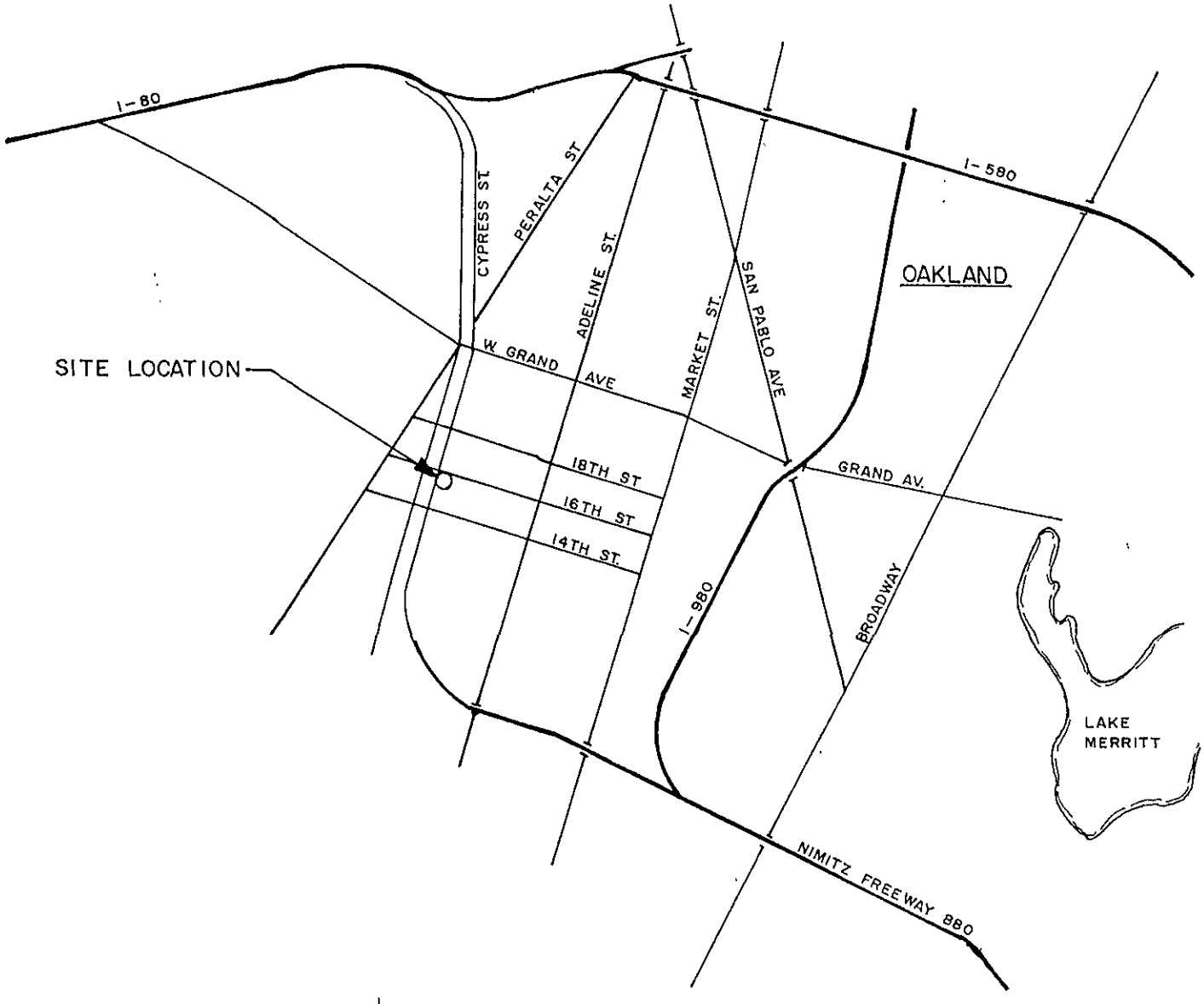
Richard J. Zipp, R.G., C.E.G.
Principal Hydrogeologist

REGISTERED GEOLOGIST
RICHARD J. ZIPP
No. 1096
CERTIFIED ENGINEERING GEOLOGIST
STATE OF CALIFORNIA

Heidi L. Hubbard
Staff Geologist

F:\5008J12\1294.QMR

pc: Ms. Jennifer Eberle, Alameda County Environmental Health
Mr. Richard Hiett, San Francisco Bay RWQCB

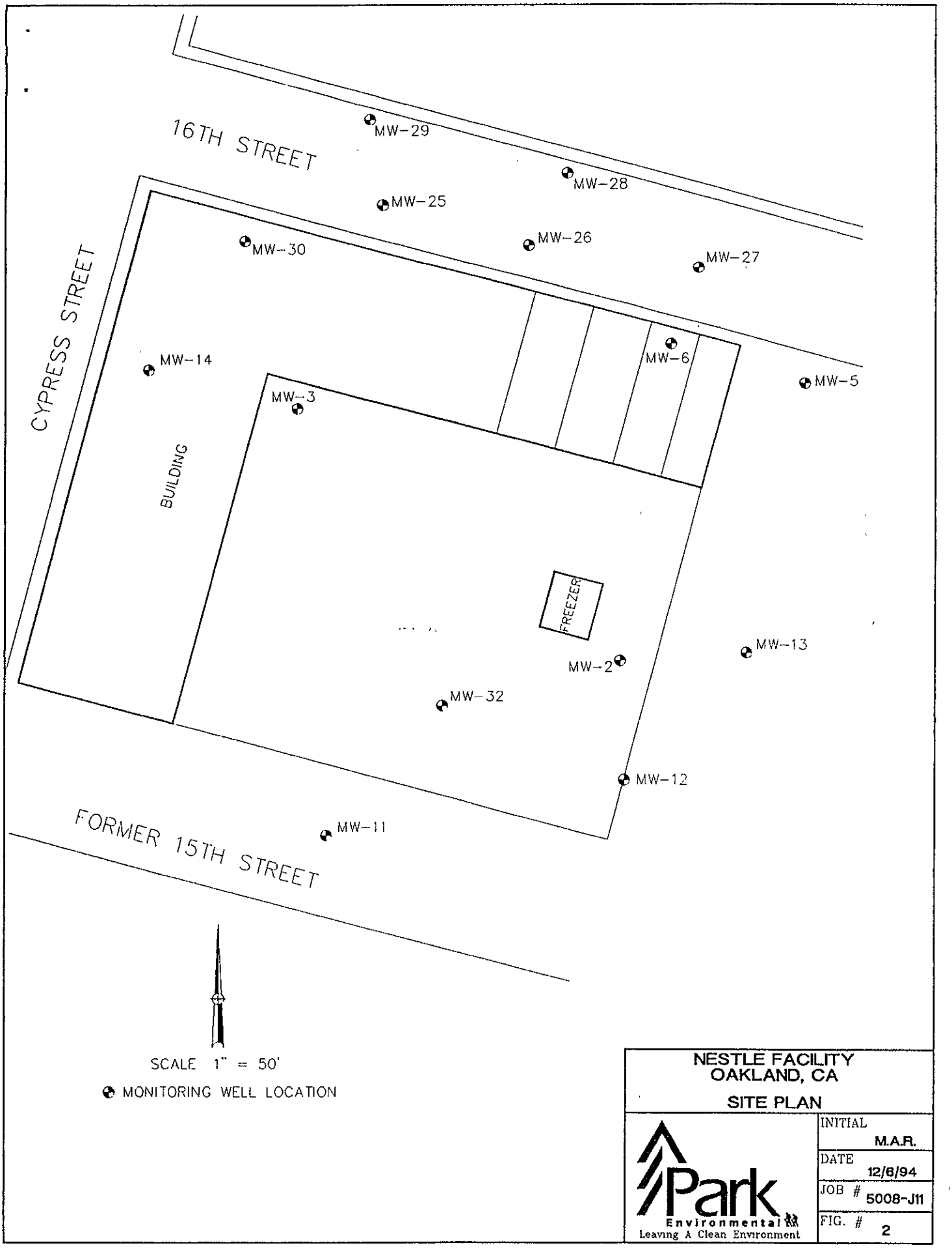


SCALE: 1" = 2200'

NESTLE FACILITY
OAKLAND, CA
SITE LOCATION MAP

Park Environmental
Leaving A Clean Environment

INITIAL	M.A.R.
DATE	12/21/94
JOB #	5008
FIG. #	1



SCALE 1" = 50'

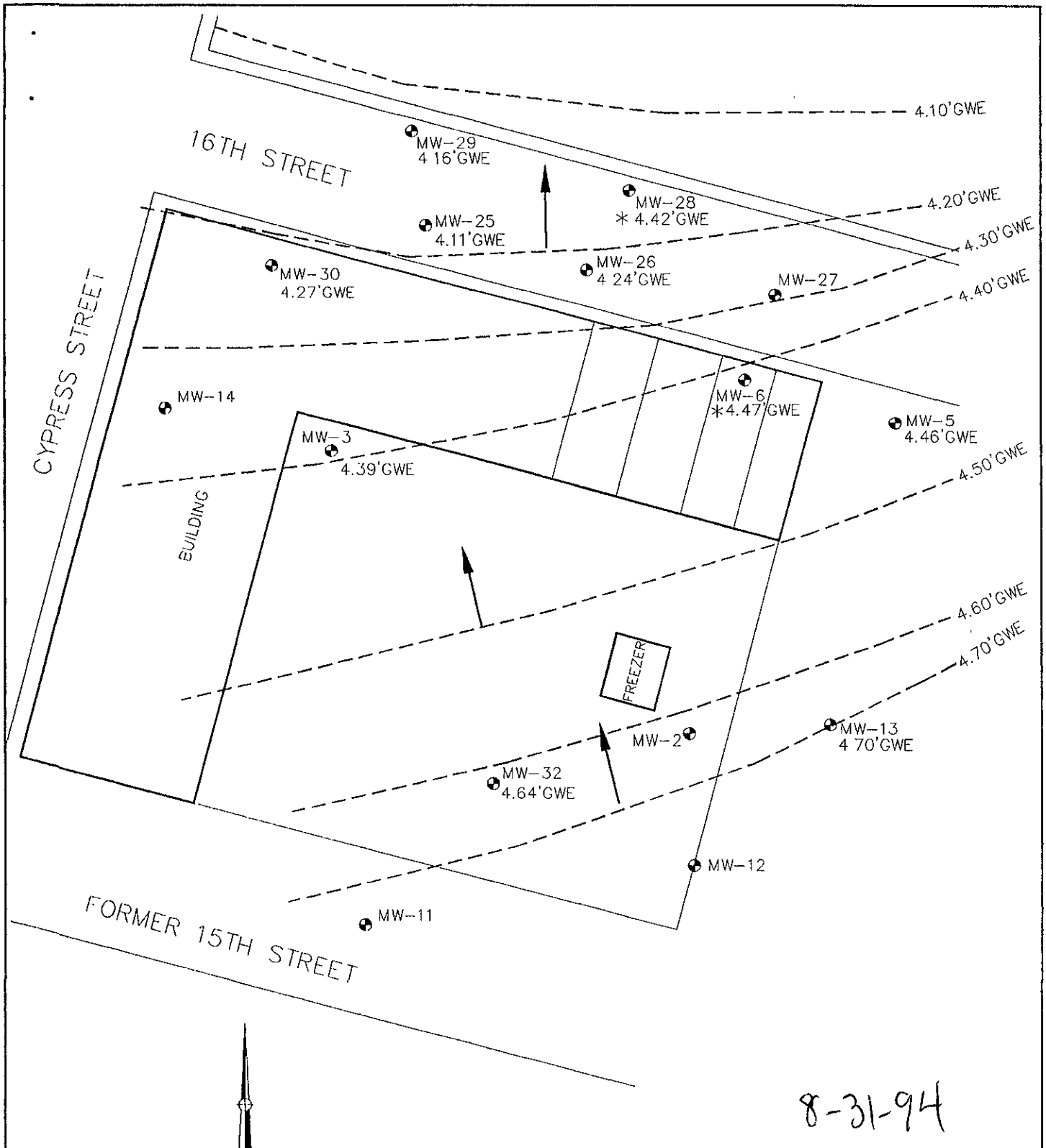
● MONITORING WELL LOCATION

NESTLE FACILITY
OAKLAND, CA

SITE PLAN

Park Environmental
Leaving A Clean Environment

INITIAL	M.A.R.
DATE	12/8/94
JOB #	5008-J11
FIG. #	2



8-31-94

SCALE. 1" = 50'

● MONITORING WELL LOCATION

INFERRED LINE OF EQUAL GROUNDWATER ELEVATION

GWE GROUNDWATER ELEVATION

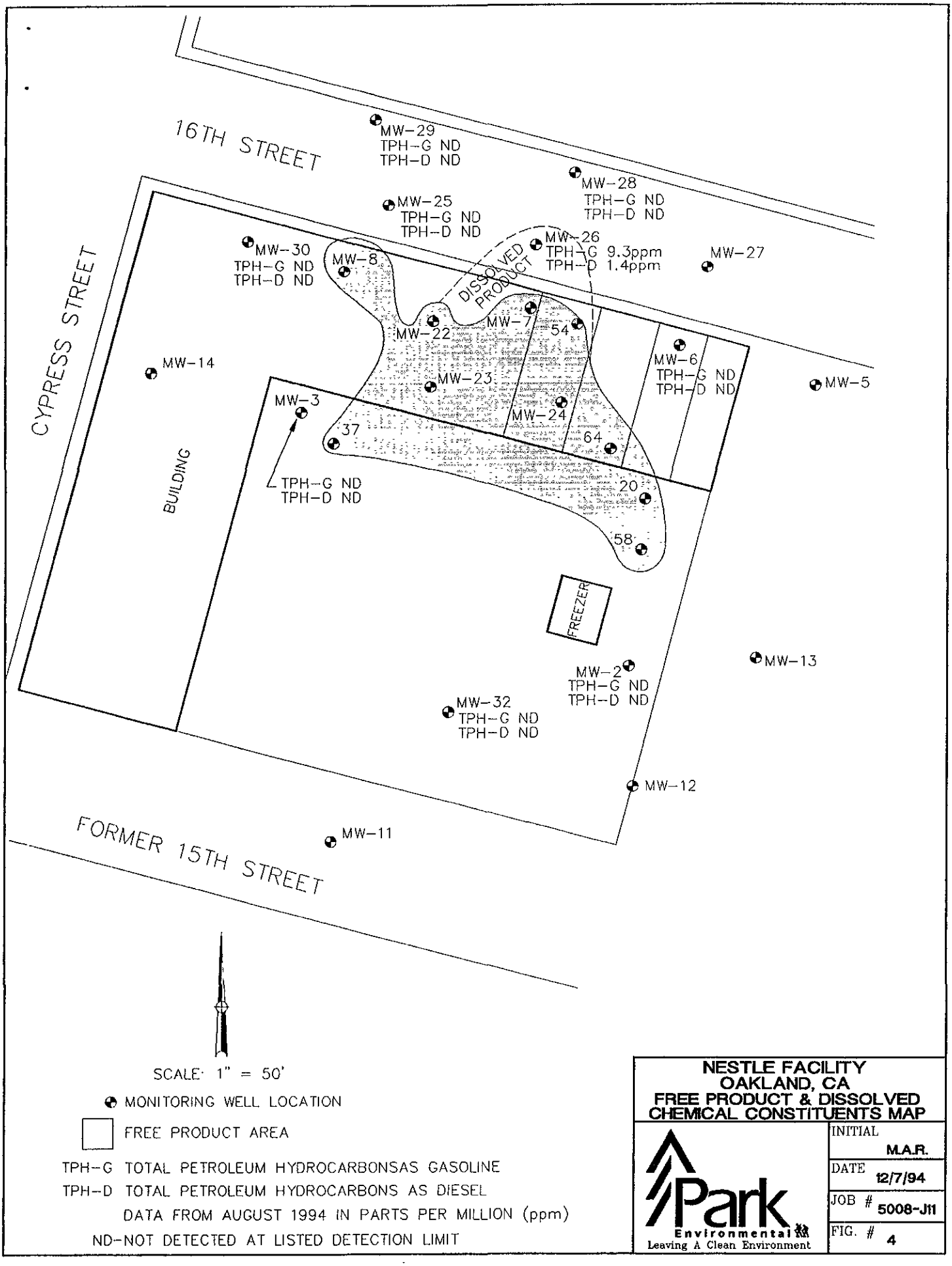
* BELIEVED TO BE AN ANOMALOUS GROUNDWATER ELEVATION AND NOT USED FOR MAP PREPARATION

APPROXIMATE GROUNDWATER FLOW DIRECTION

NESTLE FACILITY
OAKLAND, CA
GROUNDWATER ELEVATION

Park Environmental
Leaving A Clean Environment

INITIAL	M.A.R.
DATE	12/6/94
JOB #	5008-J11
FIG #	3



NESTLE FACILITY
OAKLAND, CA
FREE PRODUCT & DISSOLVED CHEMICAL CONSTITUENTS MAP

Park Environmental
Leaving A Clean Environment

INITIAL	M.A.R.
DATE	12/7/94
JOB #	5008-J11
FIG. #	4

TABLE I
GROUNDWATER MEASUREMENTS

AUGUST 31, 1994

Sample ID	TOC Depth to Product (feet)	TOC Depth to Water (feet)	Casing Elevation (feet)	Product Thickness (feet)	Well Diameter (feet)	Groundwater Elevation (feet)
MW-2*	-	10.49	-	-	4	-
MW-3*	-	9.91	14.30	-	4	4.39
MW-5	-	9.95	14.41	-	4	4.46
MW-6*	-	9.65	14.12	-	2	4.47
MW-7	9.87	9.88	14.29	0.01	4	NC
MW-8	9.82	10.13	14.20	0.31	-	NC
MW-11	-	9.80	-	-	4	-
MW-13	-	10.15	14.85	-	4	4.70
MW-22	9.97	10.16	14.44	0.19	2	NC
MW-23	9.93	10.61	-	0.68	4	NC
MW-24	10.19	10.58	14.67	0.39	2	NC
MW-25*	-	8.75	12.86	-	4	4.11
MW-26*	-	8.47	12.71	-	4	4.24
MW-27	-		14.04	-	4	
MW-28*	-	9.03	13.45	-	4	4.42
MW-29*	-	8.44	12.60	-	4	4.16
MW-30*	-	10.27	14.54	-	4	4.27
MW-32*	-	10.12	14.76	-	4	4.64

OC Top of Casing
* Groundwater Samples Obtained For This Investigation
- *No information*

TABLE I Continued
GROUNDWATER MEASUREMENTS

AUGUST 31, 1994

Sample ID	TOC Depth to Product (feet)	TOC Depth to Water (feet)	Casing Elevation (feet)	Product Thickness (feet)	Well Diameter (inches)	Groundwater Elevation (feet)
PR-20	9.31	10.19	14.36	0.88	2	
PR-21	10.23	10.65	14.37	0.42	2	
PR-22	9.69	10.16	14.43	0.47	2	
PR-23	9.51	9.68	14.47	0.17	2	
PR-24	-	9.81	-	-	-	
PR-26	9.68	9.85	14.38	0.17	2	
PR-27	-	9.67	-	-	2	-
PR-28	-	9.63	-	-	2	-
PR-30	9.46	10.67	-	1.21	-	-
PR-33	-	9.63	14.36	-	2	4.73
PR-34	9.72	10.09	14.49	0.37	2	-
PR-35	9.78	9.90	14.55	0.12	2	-
PR-36	9.72	10.09	-	0.37	-	-
PR-37	9.67	9.81	-	0.14	-	-
PR-39	-	9.93	-	-	-	-
PR-41	11.02	11.45	-	0.43	2	-
PR-42	-	10.15	-	-	-	-
PR-43	-	10.26	-	-	-	-
PR-44	-	11.94	-	-	2	-
PR-45	-	9.94	-	-	2	-
PR-46	-	10.17	-	-	2	-
PR-47	-	9.88	-	-	2	-
PR-48	10.04	10.11	-	0.07	2	-
PR-49	-	10.07	-	-	2	-

TOC Top of casing
* Groundwater samples obtained for this investigation
\- No information

TABLE I Continued
GROUNDWATER MEASURMENTS

AUGUST 31, 1994

Sample ID	TOC Depth to Product (feet)	TOC Depth to Water (feet)	Casing Elevation (feet)	Product Thickness (feet)	Well Diameter (inches)	Groundwater Elevation (feet)
PR-50	-	9.92	-	-	2	-
PR-51	9.78	10.50	-	0.72	2	-
PR-52	10.13	10.18	-	0.05	2	-
PR-53	9.73	10.22	-	0.49	2	-
PR-54	9.97	10.05	-	0.08	2	-
PR-55	-	6.70	-	-	2	-
PR-56	9.95	10.10	-	0.15	2	-
PR-57	-	9.51	-	-	2	-
PR-58	9.40	10.29	-	0.89	2	-
PR-59	-	9.58	-	-	2	-
PR-60	-	10.23	-	-	2	-
PR-61	-	10.08	-	-	2	-
PR-62	-	10.00	-	-	2	-
PR-64	9.85	10 91	-	1.06	4	-
PR-65	-	10.00	-	-	2	-
PR-66	-	9.73	-	-	2	-
PR-68	-	9.81	-	-	2	-
PR-69	-	9.51	-	-	2	-
PR-74	-	9.88	-	-	2	-
PR-75	-	10.00	-	-	2	-
PR-76	-	10.07	-	-	2	-
PR-77	-	9.78	-	-	2	-
V-89	-	9.73	-	-	4	-
V-90	9.77	9.93	-	0.16	4	-

TOC Top of casing
* Groundwater samples obtained for this investigation
\- No information

TABLE II Continued
GROUNDWATER PURGING DATA

AUGUST 31, 1994

Sample ID	Total Gallons Removed	pH	Specific Conductance x 1000	Temperature in Fahrenheit
MW-27***	-	-	-	-
MW-28	5	8.7	0.12	73.8
	10	8.4	0.15	73.8
	15	8.5	0.15	73.8
	20	8.0	0.14	72.7
	25	8.1	0.16	72.0
	30	7.6	0.18	71.7
	35	7.7	0.17	71.8
	40	7.6	0.20	71.6
MW-29	5	8.0	0.20	77.3
	10	8.6	0.18	75.5
	15	8.7	0.17	74.1
	20	8.6	0.17	73.1
	25	8.7	0.16	71.4
	30	8.5	0.16	71.2
	35	8.6	0.17	71.1
MW-30	5	8.7	0.56	69.5
	10	8.5	0.58	68.7
	15	7.8	0.60	67.6
	20	7.8	0.62	67.3
	25	7.8	0.60	67.0
MW-32****	5	8.4	0.65	78.1
	10	8.2	0.65	78.3
	15	8.0	0.67	77.1
	20	7.9	0.68	76.9
	25	7.5	0.71	75.3

* 2-inch well hand bailed using a new disposable bailer
** Well was pumped dry at approximately 15-gallons
*** Well not accessible
**** Well was pumped dry at approximately 25-gallons
\- No information

TABLE III
GROUNDWATER ANALYSES SUMMARY
EPA METHODS 8015, 8020 AND 8010

Sample ID	Date	EPA METHOD						
		8015		8020				8010
		TPH G (ug/l)	TPH D (ug/l)	B (ug/l)	T (ug/l)	E (ug/l)	X (ug/l)	Chlorinated Compounds (ug/l)
MW-2	03/23/93	ND	ND	ND	ND	ND	ND	-
	07/27/93	ND	ND	ND	ND	ND	ND	-
	11/05/93	-	-	-	-	-	-	-
	02/25/94	ND	ND	ND	ND	ND	ND	-
	06/03/94	ND	ND	ND	ND	ND	ND	-
	08/31/94	ND	ND	ND	ND	ND	ND	-
MW-3	03/23/93	300	ND	35	2.9	2.0	3.2	-
	07/27/93	220	ND	97	1.0	4.0	1.1	-
	11/05/93	170	ND	4.9	ND	ND	1.2	-
	02/25/94	100	ND	42	ND	ND	ND	-
	06/03/94	320	ND	120	8.2	8.4	4.5	-
	08/31/94	ND	ND	83	1.1	5.3	2.9	-
MW-6	03/23/93	ND	ND	ND	ND	ND	ND	-
	07/27/93	ND	ND	ND	ND	ND	ND	-
	11/05/93	ND	ND	ND	ND	ND	3.5	-
	02/25/94	ND	ND	ND	ND	ND	ND	-
	06/03/94	69	ND	2.7	8.7	1.6	3.5	-
	08/31/94	ND	ND	ND	ND	ND	ND	-
MW-25	03/23/93	ND	ND	ND	ND	ND	ND	-
	07/27/93	ND	ND	ND	ND	ND	ND	-
	11/05/93	170	ND	4.2	4.4	2.5	20	-
	02/25/94	ND	ND	2.1	ND	ND	ND	-
	06/03/94	97	ND	2.4	14	ND	3.4	-
	08/31/94	ND	ND	0.5	ND	ND	ND	-

TPH G Total petroleum hydrocarbons in the gasoline range
TPH D Total petroleum hydrocarbons in the diesel range
ug/l Micrograms per liter or parts per billion
ND Not detected at method detection limits. See specific laboratory reports for method detection limits
BTEX Benzene, toluene, ethylbenzene, and xylenes
- No information

TABLE III Continued
GROUNDWATER ANALYSES SUMMARY
EPA METHODS 8015, 8020 AND 8010

Sample ID	Date	EPA METHOD						
		8015		8020				8010 8260
		TPH G (ug/l)	TPH D (ug/l)	B (ug/l)	T (ug/l)	E (ug/l)	X (ug/l)	Chlorinated Compounds (ug/l)
MW-26	03/23/93	7000	1300	180	190	55	330	ND
	07/27/93	1800	ND	470	96	30	80	140*
	11/05/93	19000	ND	4700	1300	9.0	1400	120*
	02/25/94	14000	ND	4800	570	200	860	28*
	06/03/94	12000	ND	4100	300	120	230	140*
								1.7**
								0.84***
	08/31/94	9300	1400	4100	360	170	450	ND ****
MW-27	03/23/93	ND	ND	ND	ND	ND	ND	-
	07/27/93	ND	ND	ND	ND	ND	ND	-
	11/05/93	ND	ND	ND	ND	ND	2.6	-
	02/25/94	ND	ND	ND	ND	ND	ND	-
	06/03/94	ND	ND	0.85	ND	ND	ND	-
	08/31/94	+	+	+	+	+	+	+
MW-28	03/23/93	110	ND	ND	ND	ND	ND	-
	07/27/93	ND	ND	ND	ND	ND	ND	-
	11/05/93	ND	ND	ND	ND	ND	2.1	-
	02/25/94	ND	ND	ND	ND	ND	ND	-
	06/03/94	ND	ND	3.1	ND	ND	ND	-
	08/31/94	ND	ND	1.4	ND	ND	ND	-

1,2-DCA

TPH G Total petroleum hydrocarbons in the gasoline range
TPH D Total petroleum hydrocarbons in the diesel range
ug/l Micrograms per liter or parts per billion
ND Not detected at method detection limits. See specific laboratory reports for method detection limits
BTEX Benzene, toluene, ethylbenzene, and xylenes
* 1,2 Dichloroethane
** 1,1 Dichloroethane
*** Dibromochloromethane
**** Chlorinated volatile compounds not detected using EPA Method 8260
+ Well not accessible, groundwater samples not obtained
- No information

TABLE III Continued
GROUNDWATER ANALYSES SUMMARY
EPA METHODS 8015, 8020 AND 8010

Sample ID	Date	EPA METHOD						
		8015		8020				8010 8260
		TPH G (ug/l)	TPH D (ug/l)	B (ug/l)	T (ug/l)	E (ug/l)	X (ug/l)	Chlorinated Compounds (ug/l)
MW-29	03/23/93	ND	ND	ND	ND	ND	ND	-
	07/27/93	ND	ND	ND	ND	ND	ND	-
	11/05/93	ND	ND	ND	ND	2.1	11	-
	02/25/94	ND	ND	ND	ND	ND	ND	-
	06/03/94	ND	ND	ND	ND	ND	ND	-
	08/31/94	ND	ND	ND	ND	ND	ND	-
MW-30	03/23/93	ND	ND	ND	ND	ND	ND	-
	07/27/93	ND	ND	ND	ND	ND	ND	-
	11/05/93	ND	ND	ND	ND	ND	2.8	-
	02/25/94	ND	ND	1.3	ND	ND	ND	-
	06/03/94	ND	ND	1.1	ND	ND	ND	-
	08/31/94	ND	ND	0.8	ND	ND	ND	-
MW-32	03/23/93	440	ND	39	6.2	3.1	9.0	60*
	07/27/93	ND	ND	ND	ND	ND	ND	14*
	11/05/93	170	ND	20	ND	1.8	2.1	7.9*
	02/25/94	ND	ND	5.6	ND	ND	ND	ND
	06/03/94	350	ND	120	1.3	ND	1.4	11*
	08/31/94	ND	ND	39	0.5	2.2	1.2	10* 1,2-DCA

TPH G Total petroleum hydrocarbons in the gasoline range
TPH D Total petroleum hydrocarbons in the diesel range
ug/l Micrograms per liter or parts per billion
ND Not detected at method detection limits. See specific laboratory reports for method detection limits
BTEX Benzene, toluene, ethylbenzene, and xylenes
* 1,2 Dichloroethane
** 1,1 Dichloroethane
*** Dibromochloromethane
**** Chlorinated volatile compounds not detected using EPA Method 8260
\+ Well not accessible, groundwater samples not obtained
\- No informatiion

NESTLÉ USA, INC.

QUALITY ASSURANCE LABORATORY
P.O. BOX 1516
6625 EITERMAN ROAD
DUBLIN, OH 43017-1516
TEL. (614) 791-9144
FAX (614) 793-5353

September 23, 1994

Binayak Acharya
Nestlé USA, Inc.
800 North Brand Blvd.
Glendale, CA 91203

cc: Walt Carey
Howard Hold

RE: WATER SAMPLES FROM OAKLAND, CA

Dear Binayak:

Attached are the analytical reports for the ten water samples (NQAL # 94SEP45-000/009) submitted to NQAL by Howard Hold, Park Environmental, from Oakland, CA. Please note that no field or trip blanks accompanied these samples.

The Diesel Range Organics (DRO) value of 1.4 mg/L on well MW-26 is primarily due to the gasoline range organics (concentration 9.3 mg/L). There are common components which are present in both gasoline and diesel and, due to how the California LUFT method is written, would be reported in both. The higher boiling components of diesel fuel were not detected.

If you have any questions please feel free to call.

Sincerely,

John R Heuser

John R. Heuser, Ph.D.
Manager, Organic Contaminants

JRH:hy

Attachment

n/environ/cover/1994/misc/sep45.doc

NESTLÉ USA, INC.

QUALITY ASSURANCE LABORATORY
P.O BOX 1516
6625 EITERMAN ROAD
DUBLIN, OH 43017-1516
TEL. (614) 791-9144
FAX (614) 793-5353

Client: Binayak Acharya
Company: Nestle USA Inc.

Date of Report: 9/22/94
Date Sample Collected: 8/31/94
Date Sample Received: 9/2/94

Sample ID: MW-2
Sample Location: Oakland, CA

NQAL #: 94SEP45-000

Final Report

Analyte	Method	Units	Result	MDL	Date Analyzed
Volatiles					
Benzene	EPA 602	µg/L	ND	0.3	9/12/94
Toluene	EPA 602	µg/L	ND	0.3	9/12/94
Ethyl Benzene	EPA 602	µg/L	ND	0.3	9/12/94
Total Xylenes	EPA 602	µg/L	ND	0.6	9/12/94
Leaking Underground Fuel Tank (LUFT) Methods					
Gasoline Range Organics	CA LUFT	mg/L	ND	0.5	9/9/94
Diesel Range Organics	CA LUFT	mg/L	ND	0.5	9/20/94

ND = Not Detected
MDL = Method Detection Limit

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DUBLIN, OH 43017-1516
TEL. (614) 791-9144
FAX (614) 793-5353

Client: Binayak Acharya
Company: Nestle USA Inc.

Date of Report: 9/22/94
Date Sample Collected: 8/31/94
Date Sample Received: 9/2/94

Sample ID: MW-3
Sample Location: Oakland, CA

NQAL #: 94SEP45-001

Final Report

Analyte	Method	Units	Result	MDL	Date Analyzed
Volatiles					
Benzene	EPA 602	µg/L	83	0.3	9/12/94
Toluene	EPA 602	µg/L	1.1	0.3	9/12/94
Ethyl Benzene	EPA 602	µg/L	5.3	0.3	9/12/94
Total Xylenes	EPA 602	µg/L	2.9	0.6	9/12/94
Leaking Underground Fuel Tank (LUFT) Methods					
Gasoline Range Organics	CA LUFT	mg/L	ND	0.5	9/9/94
Diesel Range Organics	CA LUFT	mg/L	ND	0.5	9/20/94

ND = Not Detected
MDL = Method Detection Limit

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P.O. BOX 1516
6625 EITERMAN ROAD
DUBLIN, OH 43017-1516

TEL. (614) 791-9144
FAX (614) 793-5353

Client: Binayak Acharya
Company: Nestle USA Inc.

Date of Report: 9/22/94
Date Sample Collected: 8/31/94
Date Sample Received: 9/2/94

Sample ID: MW-6
Sample Location: Oakland, CA

NQAL #: 94SEP45-002

Final Report

Analyte	Method	Units	Result	MDL	Date Analyzed
Volatiles					
Benzene	EPA 602	µg/L	ND	0.3	9/12/94
Toluene	EPA 602	µg/L	ND	0.3	9/12/94
Ethyl Benzene	EPA 602	µg/L	ND	0.3	9/12/94
Total Xylenes	EPA 602	µg/L	ND	0.6	9/12/94
Leaking Underground Fuel Tank (LUFT) Methods					
Gasoline Range Organics	CA LUFT	mg/L	ND	0.5	9/9/94
Diesel Range Organics	CA LUFT	mg/L	ND	0.5	9/20/94

ND = Not Detected
MDL = Method Detection Limit

NESTLÉ USA, INC.

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P.O. BOX 1516
6625 EITERMAN ROAD
DUBLIN, OH 43017-1516
TEL. (614) 791-9144
FAX (614) 793-5353

Client: Binayak Acharya
Company: Nestle USA Inc.

Date of Report: 9/22/94
Date Sample Collected: 8/31/94
Date Sample Received: 9/2/94

Sample ID: MW-25
Sample Location: Oakland, CA

NQAL #: 94SEP45-003

Final Report

Analyte	Method	Units	Result	MDL	Date Analyzed
Volatiles					
Benzene	EPA 602	µg/L	0.5	0.3	9/12/94
Toluene	EPA 602	µg/L	ND	0.3	9/12/94
Ethyl Benzene	EPA 602	µg/L	ND	0.3	9/12/94
Total Xylenes	EPA 602	µg/L	ND	0.6	9/12/94
Leaking Underground Fuel Tank (LUFT) Methods					
Gasoline Range Organics	CA LUFT	mg/L	ND	0.5	9/9/94
Diesel Range Organics	CA LUFT	mg/L	ND	0.5	9/20/94

ND = Not Detected
MDL = Method Detection Limit

NESTLÉ USA, INC.

QUALITY ASSURANCE LABORATORY
P.O BOX 1516
6625 EITERMAN ROAD
DUBLIN, OH 43017-1516

TEL. (614) 791-9144
FAX (614) 793-5353

Client: Binayak Acharya
Company: Nestle USA Inc.

Date of Report: 9/22/94
Date Sample Collected: 8/31/94
Date Sample Received: 9/2/94

Sample ID: MW-26
Sample Location: Oakland, CA

NQAL #: 94SEP45-004

Final Report

Analyte	Method	Units	Result	MDL	Date Analyzed
Volatiles					
Benzene	EPA 602	µg/L	4100	0.3	9/12/94
Toluene	EPA 602	µg/L	360	0.3	9/12/94
Ethyl Benzene	EPA 602	µg/L	170	0.3	9/12/94
Total Xylenes	EPA 602	µg/L	450	0.6	9/12/94
Leaking Underground Fuel Tank (LUFT) Methods					
Gasoline Range Organics	CA LUFT	mg/L	9.3	0.5	9/9/94
Diesel Range Organics	CA LUFT	mg/L	1.4	0.5	9/20/94
Volatiles					
Bromobenzene	EPA 8260	µg/L	ND	4.0	9/12/94
Bromodichloromethane	EPA 8260	µg/L	ND	4.0	9/12/94
Bromoform	EPA 8260	µg/L	ND	4.0	9/12/94
Bromomethane	EPA 8260	µg/L	ND	4.0	9/12/94
Carbon tetrachloride	EPA 8260	µg/L	ND	4.0	9/12/94
Chlorobenzene	EPA 8260	µg/L	ND	4.0	9/12/94
Chloroethane	EPA 8260	µg/L	ND	4.0	9/12/94
Chloroform	EPA 8260	µg/L	ND	4.0	9/12/94
Chloromethane	EPA 8260	µg/L	ND	4.0	9/12/94
2-Chlorotoluene	EPA 8260	µg/L	ND	4.0	9/12/94
4-Chlorotoluene	EPA 8260	µg/L	ND	4.0	9/12/94
Dibromochloromethane	EPA 8260	µg/L	ND	4.0	9/12/94
Dibromomethane	EPA 8260	µg/L	ND	4.0	9/12/94
1,2-Dichlorobenzene	EPA 8260	µg/L	ND	4.0	9/12/94

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6625 EITERMAN RD
DUBLIN, OH 43017-1516
TEL. (614) 791-9144
FAX (614) 793-5353

Sample ID: MW-26 **NQAL #:** 94SEP45-004
Sample Location: Oakland, CA

Final Report

Analyte	Method	Units	Result	MDL	Date Analyzed
Volatiles					
1,3-Dichlorobenzene	EPA 8260	µg/L	ND	4.0	9/12/94
1,4-Dichlorobenzene	EPA 8260	µg/L	ND	4.0	9/12/94
Dichlorodifluoromethane	EPA 8260	µg/L	ND	4.0	9/12/94
1,1-Dichloroethane	EPA 8260	µg/L	ND	4.0	9/12/94
1,2-Dichloroethane	EPA 8260	µg/L	ND	4.0	9/12/94
1,1-Dichloroethene	EPA 8260	µg/L	ND	4.0	9/12/94
cis-1,2-Dichloroethene	EPA 8260	µg/L	ND	4.0	9/12/94
trans-1,2-Dichloroethene	EPA 8260	µg/L	ND	4.0	9/12/94
1,2-Dichloropropane	EPA 8260	µg/L	ND	4.0	9/12/94
1,3-Dichloropropane	EPA 8260	µg/L	ND	4.0	9/12/94
2,2-Dichloropropane	EPA 8260	µg/L	ND	4.0	9/12/94
1,1-Dichloropropene	EPA 8260	µg/L	ND	4.0	9/12/94
Methylene Chloride	EPA 8260	µg/L	ND	4.0	9/12/94
1,1,1,2-Tetrachloroethane	EPA 8260	µg/L	ND	4.0	9/12/94
1,1,2,2-Tetrachloroethane	EPA 8260	µg/L	ND	4.0	9/12/94
Tetrachloroethene	EPA 8260	µg/L	ND	4.0	9/12/94
1,2,3-Trichlorobenzene	EPA 8260	µg/L	ND	4.0	9/12/94
1,2,4-Trichlorobenzene	EPA 8260	µg/L	ND	4.0	9/12/94
1,1,1-Trichloroethane	EPA 8260	µg/L	ND	4.0	9/12/94
1,1,2-Trichloroethane	EPA 8260	µg/L	ND	4.0	9/12/94
Trichloroethene	EPA 8260	µg/L	ND	4.0	9/12/94
Trichlorofluoromethane	EPA 8260	µg/L	ND	4.0	9/12/94
1,2,3-Trichloropropane	EPA 8260	µg/L	ND	4.0	9/12/94
Vinyl chloride	EPA 8260	µg/L	ND	4.0	9/12/94

ND = Not Detected
MDL = Method Detection Limit

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P.O. BOX 1516
6625 EITERMAN ROAD
DUBLIN, OH 43017-1516
TEL (614) 791-9144
FAX (614) 793-5353

Client: Binayak Acharya
Company: Nestle USA Inc.

Date of Report: 9/22/94
Date Sample Collected: 8/31/94
Date Sample Received: 9/2/94

Sample ID: MW-28
Sample Location: Oakland, CA

NQAL #: 94SEP45-005

Final Report

Analyte	Method	Units	Result	MDL	Date Analyzed
Volatiles					
Benzene	EPA 602	µg/L	1.4	0.3	9/12/94
Toluene	EPA 602	µg/L	ND	0.3	9/12/94
Ethyl Benzene	EPA 602	µg/L	ND	0.3	9/12/94
Total Xylenes	EPA 602	µg/L	ND	0.6	9/12/94
Leaking Underground Fuel Tank (LUFT) Methods					
Gasoline Range Organics	CA LUFT	mg/L	ND	0.5	9/9/94
Diesel Range Organics	CA LUFT	mg/L	ND	0.5	9/20/94

ND = Not Detected
MDL = Method Detection Limit

NESTLÉ USA, INC.

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DUBLIN, OH 43017-1516
TEL. (614) 791-9144
FAX (614) 793-5353

Client: Binayak Acharya
Company: Nestle USA Inc.

Date of Report: 9/22/94
Date Sample Collected: 8/31/94
Date Sample Received: 9/2/94

Sample ID: MW-29
Sample Location: Oakland, CA

NQAL #: 94SEP45-006

Final Report

Analyte	Method	Units	Result	MDL	Date Analyzed
Volatiles					
Benzene	EPA 602	µg/L	ND	0.3	9/12/94
Toluene	EPA 602	µg/L	ND	0.3	9/12/94
Ethyl Benzene	EPA 602	µg/L	ND	0.3	9/12/94
Total Xylenes	EPA 602	µg/L	ND	0.6	9/12/94
Leaking Underground Fuel Tank (LUFT) Methods					
Gasoline Range Organics	CA LUFT	mg/L	ND	0.5	9/9/94
Diesel Range Organics	CA LUFT	mg/L	ND	0.5	9/20/94

ND = Not Detected
MDL = Method Detection Limit

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DUBLIN, OH 43017-1516
TEL (614) 791-9144
FAX (614) 793-5353

Client: Binayak Acharya
Company: Nestle USA Inc.

Date of Report: 9/22/94
Date Sample Collected: 8/31/94
Date Sample Received: 9/2/94

Sample ID: MW-30
Sample Location: Oakland, CA

NQAL #: 94SEP45-007

Final Report

Analyte	Method	Units	Result	MDL	Date Analyzed
Volatiles					
Benzene	EPA 602	µg/L	0.8	0.3	9/12/94
Toluene	EPA 602	µg/L	ND	0.3	9/12/94
Ethyl Benzene	EPA 602	µg/L	ND	0.3	9/12/94
Total Xylenes	EPA 602	µg/L	ND	0.6	9/12/94
Leaking Underground Fuel Tank (LUFT) Methods					
Gasoline Range Organics	CA LUFT	mg/L	ND	0.5	9/9/94
Diesel Range Organics	CA LUFT	mg/L	ND	0.5	9/20/94

ND = Not Detected
MDL = Method Detection Limit

NESTLÉ USA, INC.

QUALITY ASSURANCE LABORATORY
P.O. BOX 1516
6625 EITERMAN RD.
DUBLIN, OH 43017-1516
TEL. (614) 791-9144
FAX (614) 793-5353

Client: Binayak Acharya
Company: Nestle USA Inc.

Date of Report: 9/22/94
Date Sample Collected: 8/31/94
Date Sample Received: 9/2/94

Sample ID: MW-32
Sample Location: Oakland, CA

NQAL #: 94SEP45-008

Final Report

Analyte	Method	Units	Result	MDL	Date Analyzed
Volatiles					
Benzene	EPA 602	µg/L	39	0.3	9/12/94
Toluene	EPA 602	µg/L	0.5	0.3	9/12/94
Ethyl Benzene	EPA 602	µg/L	2.2	0.3	9/12/94
Total Xylenes	EPA 602	µg/L	1.2	0.6	9/12/94
Leaking Underground Fuel Tank (LUFT) Methods					
Gasoline Range Organics	CA LUFT	mg/L	ND	0.5	9/9/94
Diesel Range Organics	CA LUFT	mg/L	ND	0.5	9/20/94
Volatiles					
Bromobenzene	EPA 8260	µg/L	ND	4.0	9/12/94
Bromodichloromethane	EPA 8260	µg/L	ND	4.0	9/12/94
Bromoform	EPA 8260	µg/L	ND	4.0	9/12/94
Bromomethane	EPA 8260	µg/L	ND	4.0	9/12/94
Carbon tetrachloride	EPA 8260	µg/L	ND	4.0	9/12/94
Chlorobenzene	EPA 8260	µg/L	ND	4.0	9/12/94
Chloroethane	EPA 8260	µg/L	ND	4.0	9/12/94
Chloroform	EPA 8260	µg/L	ND	4.0	9/12/94
Chloromethane	EPA 8260	µg/L	ND	4.0	9/12/94
2-Chlorotoluene	EPA 8260	µg/L	ND	4.0	9/12/94
4-Chlorotoluene	EPA 8260	µg/L	ND	4.0	9/12/94
Dibromochloromethane	EPA 8260	µg/L	ND	4.0	9/12/94
Dibromomethane	EPA 8260	µg/L	ND	4.0	9/12/94
1,2-Dichlorobenzene	EPA 8260	µg/L	ND	4.0	9/12/94

NESTLÉ USA, INC.

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P.O. BOX 1516
6625 EITERMAN RD.
DUBLIN, OH 43017-1516

TEL. (614) 791-9144
FAX (614) 793-5353

Sample ID: MW-32 **NQAL #:** 94SEP45-008
Sample Location: Oakland, CA

Final Report

Analyte	Method	Units	Result	MDL	Date Analyzed
Volatiles					
1,3-Dichlorobenzene	EPA 8260	µg/L	ND	4.0	9/12/94
1,4-Dichlorobenzene	EPA 8260	µg/L	ND	4.0	9/12/94
Dichlorodifluoromethane	EPA 8260	µg/L	ND	4.0	9/12/94
1,1-Dichloroethane	EPA 8260	µg/L	ND	4.0	9/12/94
1,2-Dichloroethane	EPA 8260	µg/L	10	4.0	9/12/94
1,1-Dichloroethene	EPA 8260	µg/L	ND	4.0	9/12/94
cis-1,2-Dichloroethene	EPA 8260	µg/L	ND	4.0	9/12/94
trans-1,2-Dichloroethene	EPA 8260	µg/L	ND	4.0	9/12/94
1,2-Dichloropropane	EPA 8260	µg/L	ND	4.0	9/12/94
1,3-Dichloropropane	EPA 8260	µg/L	ND	4.0	9/12/94
2,2-Dichloropropane	EPA 8260	µg/L	ND	4.0	9/12/94
1,1-Dichloropropene	EPA 8260	µg/L	ND	4.0	9/12/94
Methylene Chloride	EPA 8260	µg/L	ND	4.0	9/12/94
1,1,1,2-Tetrachloroethane	EPA 8260	µg/L	ND	4.0	9/12/94
1,1,2,2-Tetrachloroethane	EPA 8260	µg/L	ND	4.0	9/12/94
Tetrachloroethene	EPA 8260	µg/L	ND	4.0	9/12/94
1,2,3-Trichlorobenzene	EPA 8260	µg/L	ND	4.0	9/12/94
1,2,4-Trichlorobenzene	EPA 8260	µg/L	ND	4.0	9/12/94
1,1,1-Trichloroethane	EPA 8260	µg/L	ND	4.0	9/12/94
1,1,2-Trichloroethane	EPA 8260	µg/L	ND	4.0	9/12/94
Trichloroethene	EPA 8260	µg/L	ND	4.0	9/12/94
Trichlorofluoromethane	EPA 8260	µg/L	ND	4.0	9/12/94
1,2,3-Trichloropropane	EPA 8260	µg/L	ND	4.0	9/12/94
Vinyl chloride	EPA 8260	µg/L	ND	4.0	9/12/94

ND = Not Detected
MDL = Method Detection Limit

NESTLÉ USA, INC.

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P.O. BOX 1516
6625 EITERMAN ROAD
DUBLIN, OH 43017-1516
TEL (614) 791-9144
FAX (614) 793-5353

Client: Binayak Acharya
Company: Nestle USA Inc.

Date of Report: 9/22/94
Date Sample Collected: 8/31/94
Date Sample Received: 9/2/94

Sample ID: Duplicate
Sample Location: Oakland, CA

NQAL #: 94SEP45-009

Final Report

Analyte	Method	Units	Result	MDL	Date Analyzed
Leaking Underground Fuel Tank (LUFT) Methods					
Gasoline Range Organics	CA LUFT	mg/L	ND	0.5	9/9/94

ND = Not Detected
MDL = Method Detection Limit

Nestlé USA Quality Assurance Laboratory - Confidential

6625 Eiterman Road, Dublin OH 43017

t Information

Company Name: Park Environmental
Address: 4231 Pacific Street, Suite 7
Rocklin, Ca 95677
Submitter: Howard Hold
Phone #: 916-652-3861
Fax #: 916-652-4195

Send Reports To: Howard Hold

Date Submitted: September 1, 1994

Date Received:

Purchase Order Number:

Turnaround Time: [ ] Urgent (10 days or Less) [x] Routine (11 days and up)

COPY

PROJECT: 5008-J12

NQAL #	Sample ID	Matrix (s=soil, w=water)	# of Containers	Date/Time of Sampling	Preservation (water only) HCl: EPA 8015/8020 mod	EPA 8015 Diesel	EPA 8010 Vol. HCl	Analysis Requested	Remarks
	mw-2	W	4	Aug 31, 1994	X				
	mw-2	W	1	Aug 31, 1994		X			
	mw-3	W	4	Aug 31, 1994	X	X			
	mw-3	W	1	Aug 31, 1994		X			
	mw-6	W	4	Aug 31, 1994	X				
	mw-6	W	1	Aug 31, 1994		X			
	mw-25	W	4	Aug 31, 1994	X				
	mw-25	W	1	Aug 31, 1994		X			
	mw-26	W	4	Aug 31, 1994	X				
	mw-26	W	1	Aug 31, 1994		X			
	mw-26	W	4	Aug 31, 1994			X		

quished by:	Date/Time:	Accepted by:	Date/Time:	Remarks upon reception:
Howard Hold	Sept 1, 1994, 10:30 AM			
quished by:	Date/Time:	Accepted by:	Date/Time:	

Nestlé USA Quality Assurance Laboratory - Confidential

6625 Eiterman Road, Dublin OH 43017

t Information

Company Name: Park Environmental
Address: 4231 Pacific Street, Suite 7
Rocklin, Ca 95677
Submitter: Howard Hold
Phone #: 916-652-[illegible]861
Fax #: 916-652-4195

Send Reports To: Howard Hold

Date Submitted: Sept 7 1994

Date Received:

Turnaround Time: Urgent (10 days or Less) ☒ Routine (11 days and up)

Purchase Order Number

COPY

PROJECT: 5008-J12

Analysis Requested

NQAL #	Sample ID	Preservation (water only)	Matrix (s=soil, w=water)	# of Containers	Date/Time of Sampling	HCl EPA 8015/8020 MOD	HCl EPA 8015 Gas	HCl EPA 8015 Diesel	HCl EPA 8010	Remarks
	mw-28		W	4	Aug 31, 1994	X				
	MW-28		W	1	8-31-94			X		
	MW-29		W	4	8-31-94	X				
	MW-29		W	1	8-31-94			X		
	MW-30		W	4	8-31-94	X				
	MW-30		W	1	8-31-94			X		
	MW-32		W	4	8-31-94	X				
	MW-32		W	1	8-31-94			X		
	MW-32		W	4	8-31-94				X	
	Duplicate		W	2	8-31-94		X			

quished by:	Date/Time:	Accepted by:	Date/Time:	Remarks upon reception:
Howard Hold	9-1-94, 10:30 AM			
quished by:	Date/Time:	Accepted by:	Date/Time:	