CTTS, Inc.
toxic technology services

DURHAM
TRANSPORTATION

2713 NORTH RIVER AVENUE
POST OFFICE BOX 948
ROSEMEAD, CALIFORNIA 91770-0948
818 571-7020

July 9, 1990

Ms. Pamela Evans
Alameda County Health Care Services Agency
Hazardous Materials Division
80 Swan Way, Suite 200
Oakland, California 94621

RE: TRANSMITTAL OF PROGRESS REPORT #1
19984 MEEKLAND AVENUE, HAYWARD

Dear Ms. Evans:

Enclosed is one copy of Progress Report #1 for the Durham Transportation site located at 19984 Meekland Avenue, in the unincorporated area of Alameda County, near Hayward.

Please review this information and if you have any questions please call Lisa Polos, Toxic Technology Services at (415) 799-1140 or me at (818) 571-7020.

Sincerely,

Jack Worthington
Regional Vice President

JE/k

enclosure

toxic technology services inc.

July 2, 1990
File Nos. 90-2 & 90-4

Mr. Jack Worthington
Durham Transportation
3713 North River Avenue
Rosemead, California 91770

Subject: Progress Report #1
Period Covering
March 23, 1990 - June 30, 1990
19984 Meekland Road, Hayward, CA

Dear Mr. Worthington:

Enclosed is the first progress report for the Phase II investigation to evaluate the extent of soil and groundwater contamination at 19984 Meekland Road in the unincorporated area of Alameda, near Hayward, California.

This report covers the following topics:

Introduction
Site History Up-Date
Work Plan and Health and Safety Plan Development
Characterization of Sump Contents
Monthly Monitoring of Groundwater Elevations
Quarterly Monitoring Well Sampling and Analysis
Soil Gas Testing
Shallow Trenching Activities
Activities in Progress
Summary and Recommendations

After your review of this document, our firm will be happy to forward a copy to Pam Evans of the Alameda County Health Care Services Department, Hazardous Materials Division.

Thank you for this opportunity to provide Durham Transportation with these environmental services.

Sincerely,

Lisa A. Polos, REA, CHMM
Senior Scientist
Toxic Technology Services
CTTS, Inc.

John N. Alt, CEG (#1136)
Consulting Geologist
Toxic Technology Services
CTTS, Inc.

P.O. Box 515 ● Rodeo, California 94572 ● (415) 799-1140

PROGRESS REPORT #1
EVALUATION OF EXTENT OF CONTAMINATION

PERIOD OF ACTIVITY
MARCH 23, 1990 - JUNE 30, 1990

19984 MEEKLAND ROAD
HAYWARD, CALIFORNIA

Prepared For:

Mr. Jack Worthington
Durham Transportation
P.O. Box 948
Rosemead, California 91770

Prepared By:

CTTS, Inc.
Toxic Technology Services
P.O. Box 515
Rodeo, California 94572

July 2, 1990
File Nos. 90-2 & 90-4

TABLE OF CONTENTS

INTRODUCTION

The following is the first progress report of activities in the evaluation of the lateral and vertical extent of soil and groundwater contamination at 19984 Meekland Avenue, in the unincorporated area of Alameda County, near Hayward, California.

The purpose of this on-going investigation is two fold; to assess the vertical and lateral extent of soil and groundwater contamination and to characterize the contamination with regards to constituents and concentration. This investigation will result in the preparation of a remediation plan that will recommend appropriate, available technology.

SITE HISTORY UP-DATE

The subject site is located at the northeast corner of the intersection of Meekland Avenue and Blossom Way in the unincorporated area of Alameda County near the City of Hayward.

According to Mr. Brad Austin, a long-time resident of the area who owns the adjacent property east of the subject site, the subject site was a family run service station in the 1940's. In the 1950's, a petroleum company built a larger station.

Alameda County Building Department files support Mr. Austin's information. Plate 1 is a site plan of how the subject site appeared in May of 1946. This plate is a recreation of the County file map. It appears that the subject site was two parcels, with the house occupying the north side and the service station occupying the south side.

The station had two 1000 gallon fuel tanks located in the southwest region of the site. In the southeast region there was also an old lube rack which contained a sump. The County file contained a blueprint of the sump specifications, which indicated that it was a two-stage system.

The County file also contained a site plan from 1954 describing a proposed service station. Plate 2 is a recreation of this site plan. This proposed station was in fact the layout of the subject site as it existed until demolition in March 1990. A third fuel tank (5000 gallon gasoline) was added in 1972.

A waste oil tank was located behind the service station building. This tank was removed in 1989, along with the three fuel tanks. The 1954 County site plan did not show a waste oil tank in this or any other location. The installation date of this tank is therefore unknown.

It was originally thought that tanks 1 & 2 (Plate 2) were installed in 1947, but in fact these tanks were installed in approximately 1954.

The County file contained no information on the status of the original fuel tanks and sump from 1946.

Three fuel tanks and one waste oil tank were removed in August of 1989 by Toxic Technology Services. The gas station as built in 1954 was demolished in March of 1990. The site is currently vacant and secured with cyclone fence panels. Each panel is chained and locked.

WORK PLAN AND HEALTH AND SAFETY PLAN DEVELOPMENT

On April 6, 1990 a Work Plan and a Health and Safety Plan were prepared by CTTS, Inc. and reviewed by Durham Transportation. These documents were received by the Alameda County Health Care Services Agency, Hazardous Materials Division on April 17, 1990.

Verbal correspondence with Ms. Pamela Evans of the above mentioned agency indicated that initial work plan tasks could proceed upon the receipt of some minor clarifications. Ms. Evans also requested that additional information be provided before any deep trenching takes place on the site.

This conversation was confirmed in writing in a letter dated April 20, 1990 to Lisa Polos of CTTS, Inc. from Mr. Ed Howell, Section Chief.

On April 27, 1990, Ms. Polos responded to issues in this letter pertaining specifically to soil gas testing, so that these tasks could commence.

Ms. Polos will address the issues pertaining to deep trenching activities in a future addendum, before these tasks commence.

Copies of the work plan, health and safety plan and the additional correspondence are available upon request.

CHARACTERIZATION OF SUMP CONTENTS

On March 23, 1990, the sump under the washrack on the north side of the subject site was sampled by Lisa A. Polos and John Alt of Toxic Technology Services.

Two samples were collected; one of the supernatant and one of the heavy bottom sludge. All samples were collected by dipping a glass jar into the appropriate layer.

The supernatant was a clear liquid, thin in consistency and had a petroleum hydrocarbon odor. The bottom sludge was a black, thick semi-solid, that had a stronger odor of petroleum hydrocarbon than the supernatant. After the sludge layer had been disturbed by sample collection, a sewage odor was detectable.

Sample containers were supplied by the analytical laboratory, TMA/Norcal. Samples were put into a cooled ice chest and delivered to the lab the same day. The supernatant was analyzed as a liquid and the sludge was analyzed as a solid. Samples were analyzed for the following:

Total Petroleum Hydrocarbons - Gasoline
Total Petroleum Hydrocarbons - Diesel
Total Petroleum Hydrocarbons - Oil & Grease
Semi-Volatile Organics by GC/MS
Volatile Organics by GC/MS
Polychlorinated Biphenyls (PCBs) and Chlorinated Pesticides
17 Metals as per Title 22

The supernatant is predominately heavy oil and white spirits. There are also notable amounts of Benzene, Toluene and Xylenes (BTX).

White Spirits are defined in the 10th edition of the Merck Index as a petroleum distillate known as Stoddard solvent. Stoddard is a common degreasing solvent and is not atypical for the automotive industry.

The bottom sludge contained higher concentrations of the same basic constituents as the supernatant.

Other compounds were found in both the supernatant and the sludge. These compounds are typically found in the automotive industry, but in this case are not in concentrations high enough to raise a concern.

DDT, a chlorinated pesticide, was found in both phases of the sump contents. This is an unusual compound to find on this site, and appears to be an isolated incident. Concentrations of DDT found in the sump were not high enough to deem the waste a pesticide waste.

The sump contents are a hazardous waste by virtue of the petroleum hydrocarbon constituents and not the level of pesticides, specific semi-volatile organics or heavy metals. The certified TMA/Norcal report is presented under Appendix A.

MONTHLY MONITORING OF GROUNDWATER ELEVATIONS

As stated in previous reports, the groundwater gradient at the

site is essentially flat. The elevation of the groundwater has been measured in the three monitoring wells on-site by surveying the elevation of the top of the casing and measuring the depth to groundwater using an electronic probe. The elevations are based on Alameda County benchmark BLO-MEEK located in the middle of the intersection of Blossom Way and Meekland Avenue. The depth to groundwater was measured December of 1989 and January of 1990. Measurements have been taken monthly since March of 1990. The data are presented on Table 1. They indicate a very low westward to northwestward gradient. The elevations of groundwater in the three wells are within 0.1 foot and are about at the level of error in the measuring techniques. Therefore an exact gradient was not calculated.

The data also indicates that the groundwater table rose approximately 0.9 feet over the first four months of measurement, then flattened out. Characteristic with the dry season, the groundwater table is now receding.

TABLE 1
GROUNDWATER ELEVATION

Date	MW 1	MW 3	MW 4
Elevation top of casing	55.13	54.34	54.61
12/19/89	26.06	25.99	26.02
	(O)	(O)	(o)
1/29/90	26.35	26.34	26.43
3/23/90	26.91	26.83	26.90
	(O,S)	(O,-)	(o,-)
4/24/90	26.50	26.37	26.47
	(O,S)	(o,-)	(-,-)
Elevation top of casing	55.18	--	--
	(new collar for casing MW-1 only)		
5/31/90	26.50	26.44	26.52
	(O,S)	(-,-)	(-,-)
6/20/90	26.30	26.24	26.29
	(O,S)	(-,-)	(-,-)

Note: All measurements are in feet.
(O) = strong odor; (o) = slight odor; (S) = sheen;
(-) = non-detectable

QUARTERLY MONITORING WELL SAMPLING AND ANALYSIS

On March 23, 1990, the three on-site groundwater monitoring wells

(Plate 3) were each purged of 5 gallons of water and samples collected using a new, disposable, plastic bailer for each well.

The first sample from each well was retrieved from the surface of the water, and the contents of the bailer were inspected to assess whether or not there was any floating product present.

In MW-1, odor and sheen were noted. MW-3 had odor but no noticeable sheen and MW-4 had no noticeable sheen and only a very slight odor.

Collected samples were put into a cooled ice chest and transported to TMA/Norcal in Richmond for analysis of Total Petroleum Hydrocarbons as Gasoline and BTEX.

Results indicate the presence of 1,1-Dichloroethane in MW-1 at 16 parts per billion (ppb) and at 26 ppb in MW-3. The State Action Level in drinking water for this chemical is 5 ppb.

BTEX are present in all three wells and are at the highest concentration in MW-1. Levels in MW-3 are lower, but still quite significant. Levels in MW-4 are much lower, but Benzene is present at 7.4 ppb, which exceeds the State Maximum Contaminate Level of 1 ppb.

In summary, contaminant levels of Benzene, Toluene and 1,1-Dichloroethane in MW-1 and MW-3 exceed regulatory limits. Contaminant limits of Benzene in MW-4 exceed regulatory limits.

A complete analytical report of the groundwater monitoring well data is presented under Appendix B.

SOIL GAS TESTING

NET Pacific, Inc., of Santa Rosa, California was contracted to perform soil gas testing as outlined in the work plan of April 6, 1990, which is on file with Alameda County. Testing was conducted from April 30, 1990 through May 3, 1990.

The soil gas results will only be used as a qualitative indicator of areas of contamination. Analyses requested were:

- Petroleum Hydrocarbons (gasoline) which was measured as Hexane,
- Volatile Halogenated Hydrocarbons by Method 8010
- Benzene, Toluene, Ethylbenzene and Xylenes by Method 8020

Samples were collected by pounding a 1 inch probe into the desired depth with a pneumatic hammer. The probe allowed for a sampling interval of up to 6 feet. A vacuum was drawn on each sampling hole and a soil vapor sample collected in an evacuated

glass globe. Before the sampling probe was pulled out, the vapor was monitored with a portable vapor analyzer. Samples were kept on ice until analysis.

Analysis was conducted on-site via a mobile laboratory. The mobile lab is equipped with two gas chromatographs and three detectors; Flame Ionization Detector (FID), Hall Detector and a Photoionization Detector. Analytical standard curves and sample duplicates were run throughout the testing period.

After the sample was taken, each sampling hole was filled with concrete grout. A permit from Zone 7 was obtained for this work. A copy of this permit is presented under Appendix C.

Plate 4 shows the soil gas testing locations. Volatile halogenated hydrocarbon levels were non-detected for all soil gas locations tested. Plate 4 also presents petroleum hydrocarbon values plotted for each location. Results indicate pockets of contamination, but give no clear-cut source or plume.

A complete analytical report from NET Pacific is presented under Appendix D.

SHALLOW TRENCHING ACTIVITIES

On June 20, 1990, shallow exploratory trenching activities were conducted. This was prompted by additional information regarding the site. The 1946 site plan (Plate 1) shows a lube garage containing a sump in the southeast corner of the property and two 1000 gallon tanks in the southwest quadrant of the site. Additionally, several unsuccessful attempts were made to get a soil gas sample in the southwest part of the site, where the tanks were located. At approximately six feet below grade, the probe struck an object or objects that were impenetrable.

Plate 5 shows the locations of the shallow trenches. No trench was greater than a depth of 5 feet. No staining or odor was detected from any of the trenches, so soils were put back in the respective trench.

Trench #1 was a 5 foot deep cut through the area where the old gasoline tanks were located as per the 1946 site plan (Plate 1). No tanks were located. The pit had been backfilled with construction debris presumably from the demolition of the original service station.

Trench #2 was a 5 foot deep cut in the southeast corner of the site. According to the 1946 site plans, this was the location of a lube garage which contained a two-stage, concrete sump. No sign of a sump was found in this trench.

Trench #3 was a 5 foot deep cut in the southeast corner of the site, approximately 5 feet south of Trench #2. In this trench was a concrete basin, thought to be one stage of the old two stage sump. A clay sewer pipe also ran north/south in this trench. The sewer pipe was dry and had not been used in some time. Attempts made to locate the other stage of the sump were unsuccessful. It is assumed that it has been removed.

Trench #4 was a three foot deep cut on the west side of the concrete sump located on the north side of the property. This sump is from the service station built sometime after 1954. The purpose of this trench was to assess whether or not there are any lines leading from the sump to the west. No such lines were located. The soil in this area was composed of a top layer of fill, approximately a foot deep, the remainder being previously undisturbed native soil.

In summary, results from the shallow trenching activities indicate that the original gasoline tanks from 1946 had been removed and the pit filled with construction rubble. The original sump in the southeast corner of the site was found as evidenced by the concrete basin and the adjacent sewer pipe. This sump apparently was cleaned out and filled in with dirt.

None of the areas trenched had notable visible contamination or odor.

ACTIVITIES IN PROGRESS

The following items are currently in progress:

- Obtaining quotations for disposal of sump and waste oil line contents
- Obtaining permits for hooking up temporary power and water on-site
- Revising the Work Plan and Health and Safety Plan to incorporate new information obtained and address the concerns of the County
- Obtaining quotations for the deep trenching activities and groundwater monitoring well installations
- Researching possible remediation technologies that are applicable to the subject site

SUMMARY AND RECOMMENDATIONS

The data collected thus far indicates that:

- The sump contents contains heavy oil and white spirits to at levels that require the waste to be handled as a hazardous waste.

- DDT, a chlorinated pesticide, was found in both phases of the sump contents. This is an unusual compound to find on this site, and appears to be an isolated incident. Concentrations of DDT found in the sump were not high enough to deem the waste a pesticide waste.

- Groundwater data indicates that contaminant levels of Benzene, Toluene and 1,1-Dichloroethane in MW-1 and MW-3 exceed regulatory limits. Contaminant limits of Benzene in MW-4 exceed regulatory limits.

- The chlorinated solvent contamination in the groundwater monitoring wells does not seem to be associated with the contents of the sump under the washrack.

- Data from the soil gas testing indicates that the sump is not a major source of soil and groundwater contamination. However, confirmatory analysis should be conducted.

- Data from the soil gas testing indicates that material from the waste oil tank may have migrated around and under the service station building. This leakage appears to be quite old because samples from the waste oil pit tested clean when the tank was removed.

- The shallow trenching in the southwest quadrant of the site indicated that the original fuel tanks had been removed and the pit backfilled with construction rubble.

- The shallow trenching in the southeast corner of the site indicated that the original sump was located in that corner as evidenced by the concrete basin and the old sewer line. It appears that sump was filled in when the lube garage was demolished. There were no visible signs of contamination or unusual odors. The soil gas testing also indicated that this part of the site does not seem to be a "hot spot".

The recommendations based on the investigation to date are:

1. Deep trenching should be conducted under the concrete pad of the building, on the north side of the waste oil tank pit, the area immediately south of MW-3 and on the north side of the gasoline pit excavation.

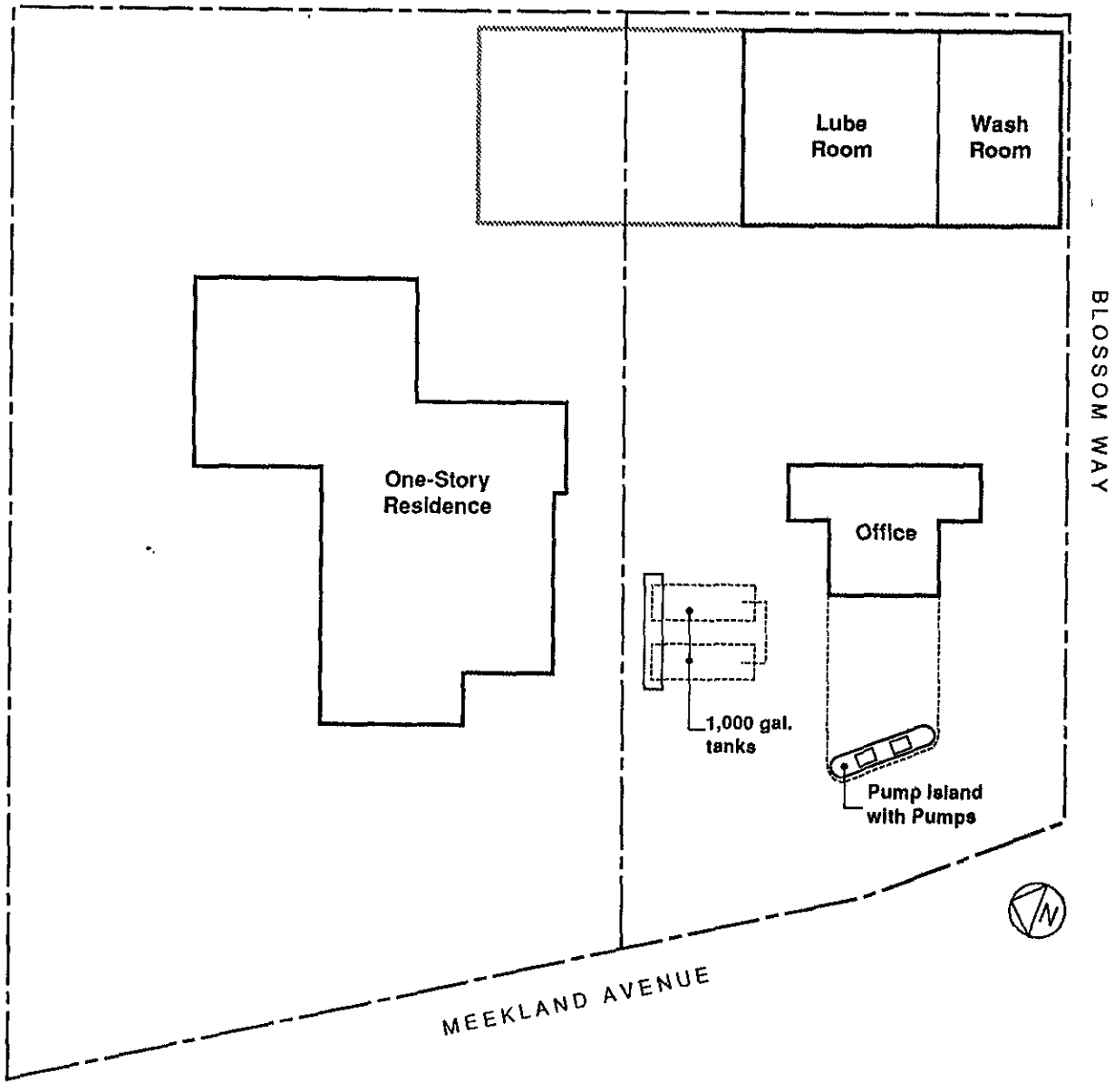
2. One groundwater monitoring well should be installed on the northwest side of the waste oil pit. A second well should be located between the old pump islands (Plate 2).

3. Add White Spirits to the quarterly monitoring well analysis for at least the next two sampling rounds.

4. Rather than trenching a distance of 10 feet or more from the sump as was originally planned, trenching should take place directly around the sump itself. The sump should be removed and the soil under it evaluated and all associated piping should be located.

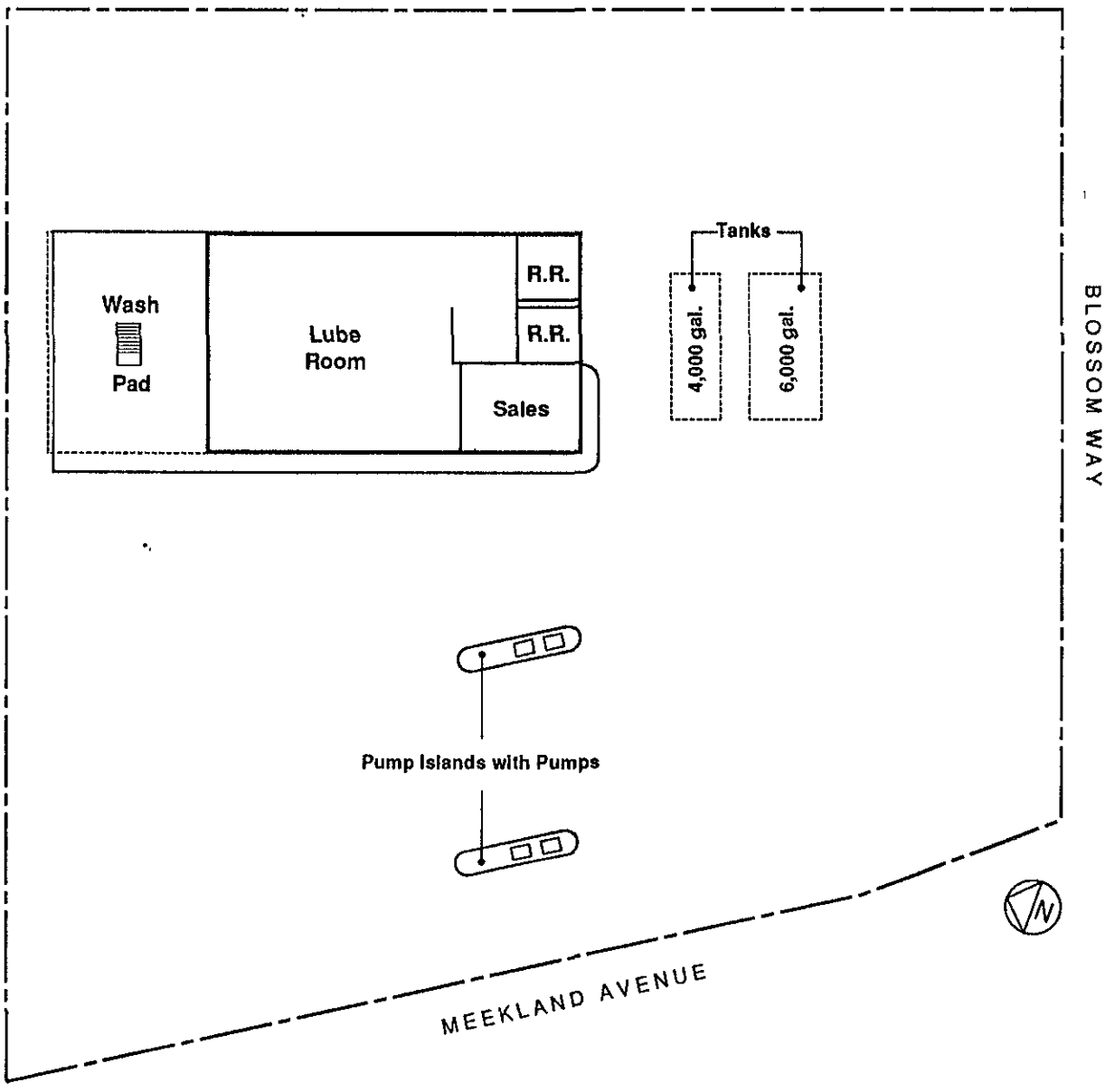
5. Expose automotive hoists and associated piping in order to prepare it for removal and proper disposal.

PLATES



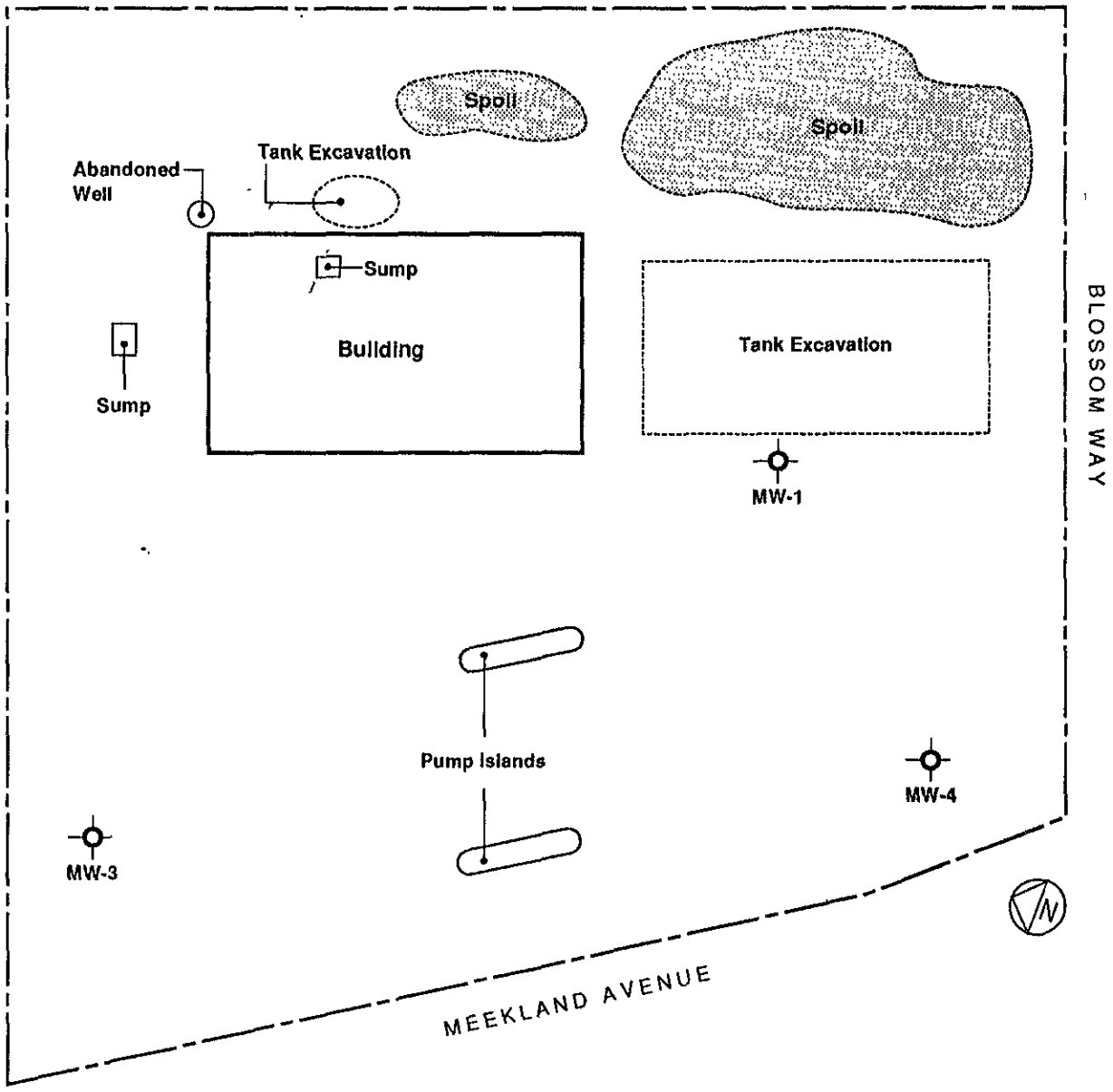
Durham Transportation - Site Plan 1946

Plate No.: 1
Date: July 90
Scale: 1" = 20'-0"
CTTS, Inc. - Toxic Technology Services



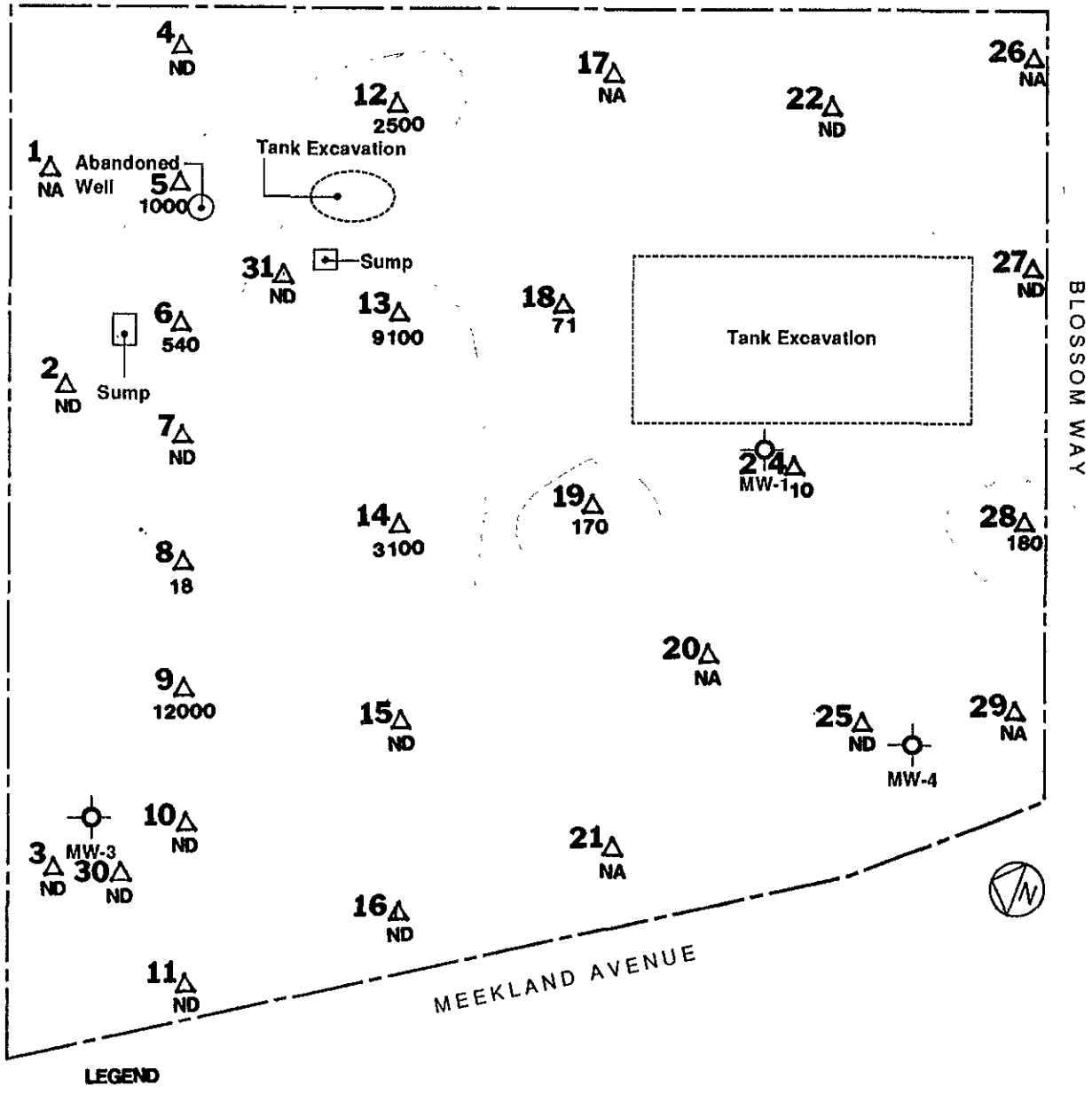
Durham Transportation - Site Plan 1954

Plate No.: **2**
Date: **July 90**
Scale: **1" = 20"-0"**
CTTS, Inc. - Toxic Technology Services



Durham Transportation - Site Plan 1989

Plate No.: 3
Date: July 90
Scale: 1" = 20'-0"
CTTS, Inc. - Toxic Technology Services



1△ Location and number of soil survey point

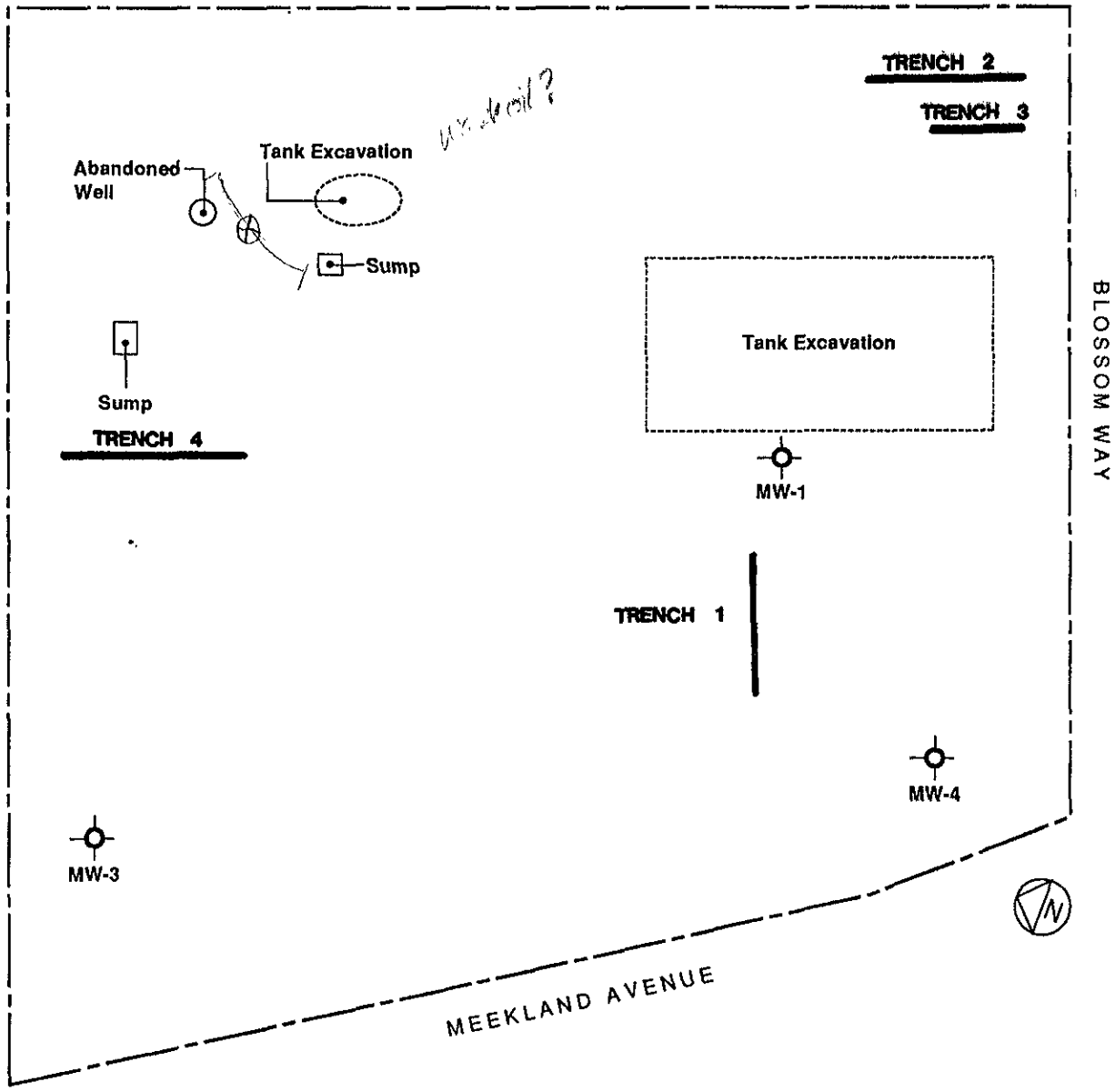
△ 540 Petroleum Hydrocarbons in ppm

ND Not detected

NA Not analyzed

Durham Transportation - Site Plan 1990

Plate No.: 4
Date: July 90
Scale: 1" = 20'-0"
CTTS, Inc. - Toxic Technology Services



Durham Transportation - Site Plan 1990

Plate No.: 5
Date: July 90
Scale: 1" = 20"-0"
CTTS, Inc. - Toxic Technology Services

APPENDICES

APPENDIX A

TMA
Thermo Analytical Inc.

TMA/Norcal
2030 Wright Avenue
P.O. Box 4040
Richmond, CA 94804-0040
(415) 235-2633 Fax No (415) 235-0438

May 1, 1990

Toxic Technology Services
P.O. Box 515
Rodeo, CA 94572

Attention: Ms. Lisa Polos

TMA/Norcal I.D.: 6721-8

Dear Ms. Polos:

Attached are the TPH - Gasoline results for the Sump Top and Sump Bottom samples received on March 23, 1990.

The holding time was missed for this analysis by fourteen days. The analysis was performed per your telephone instructions given on April 23, 1990. In a previous analysis for TPH - Diesel, White Spirits were identified and quantified. For the TPH - Gasoline results, White Spirits were quantified versus gasoline standards.

This report completes all outstanding work for TMA/Norcal data set 6721-8. If you have any questions please call Robert Fox at (415) 235-2633 extension 254.

Submitted by:

Julie Wose
Gas Chromatography
Supervisor

Prepared by:

Robert Fox
Program Manager/Chemist

Attachments: 2 pages

Analysis Results Report
Total Petroleum Hydrocarbons
Water Matrix

Client: TOXIC TECHNOLOGIES SERV.
Sample Delivery Group: 8
Analysis/Method: MOD. 8015 P.& T.

Date Received: 3/23/90
Date Analyzed: 4/20/90
Date Report: 4/24/90

TMA Sample ID	Client ID	Gasoline (mg/L)	Detection Limits (mg/L)
METHOD BLANK	N. A.	< 0.5	0.5
6721-8-1	SUMP TOP	13	0.5
			0.5
			0.5
			0.5
			0.5
			0.5
			0.5
			0.5
			0.5
			0.5

C Smith
Analyst

Data Release Authorized By

Analysis Results Report
Total Petroleum Hydrocarbons
Soil Matrix

Client: TOXIC TECHNOLOGIES SERV.
Sample Delivery Group: 8
Analysis/Method: MOD. 8015 P.& T.

Date Received: 3/23/90
Date Analyzed: 4/20/90
Date Report: 4/24/90

TMA Sample ID	Client ID	Gasoline (ug/G)	Detection Limits (ug/G)
METHOD BLANK	N. A.	< 10	10
6721-8-2	SUMP BOTTOM	31	10

Analyst

Data Release Authorized By

TMA
Thermo Analytical Inc.

TMA/Norcal
2030 Wright Avenue
P.O. Box 4040
Richmond, CA 94804-0040
(415) 235-2633 Fax No. (415) 235-0438

April 23, 1990

Toxic Technologies
P.O. Box 515
Rodeo, CA 94572

Attention: Ms. Lisa Polos

TMA/Norcal I.D.: 6721-8

Dear Ms. Polos:

Attached are the results for four water samples and one sludge sample received on March 23, 1990. Please reference Project 90-2.

The analysis for TPH - Gas was inadvertently missed and the data is still outstanding for the sump top and sump bottom samples. These samples were analyzed on April 20, 1990 and were past their holding time. In the TPH - diesel analysis, gasoline was not found although white spirits were identified and quantified. Even though the State Water Resources Board (LUFT Field Manual) requires gasoline analysis by Purge and Trap, both TPH - Gas and TPH - Diesel (extraction & direct injection) have the same method detection limits for gasoline.

Copies of the Chain of Custody forms are attached. If you have any questions please give Robert Fox a call at (415) 235-2633 extension 254.

Submitted by:

Julie Wose
Gas Chromatography
Supervisor

Prepared by:

Robert Fox
Program Manager/Chemist

Attachments:

Chain of Custody	(2)	EPA Method 8080	(4)
EPA Method 601	(4)	EPA Method 8240	(5)
BTXE	(4)	Mod 8015 - White Spirits	(1)
Mod 8015 P & T	(1)	Mod 8015 - Diesel	(1)
EPA Method 8270	(9)	TPH - SM 5520F	(1)

Toxic Technology Services
Page 2
April 23, 1990

TABLE I

TMA/Norcal ID:	6721-8-1	Detection	EPA
Client ID:	Sump Top	Limit	Method
UNITS: mg/L			
Antimony	<0.3	0.3	6010
Arsenic	.002	.002	7060
Barium	1.55	0.03	6010
Beryllium	<0.01	0.01	6010
Cadmium	0.03	0.02	6010
Chromium	0.04	0.02	6010
Cobalt	<0.03	0.03	6010
Copper	0.22	0.03	6010
Lead	0.58	0.07	6010
Mercury	<0.0002	0.0002	7471
Molybdenum	<0.02	0.02	6010
Nickel	<0.07	0.07	6010
Selenium	<0.002	0.002	7740
Silver	<0.03	0.03	6010
Thallium	<0.3	0.3	6010
Vanadium	<0.05	0.05	6010
Zinc	3.6	0.04	6010

All this water disposed of as hazwaste

TABLE II

TMA/Norcal ID:	6721-8-2	Detection	EPA
Client ID:	Sump Bottom	Limit	Method
UNITS: mg/Kg			
Antimony	<30	30	6010
Arsenic	2.2	0.2	7060
Barium	490	3	6010
Beryllium	<1	1	6010
Cadmium	22	2	6010
Chromium	60	2	6010
Cobalt	4	3	6010
Copper	290	3	6010
Lead	840	7	6010
Mercury	0.24	0.02	7471
Molybdenum	120	2	6010
Nickel	34	7	6010
Selenium	<0.2	0.2	7740
Silver	<3	3	6010
Thallium	<30	30	6010
Vanadium	16	5	6010
Zinc	1200	4	6010

ANALYTICAL REPORT FOR SAMPLE No. 6721-8-1

EPA METHOD 8270
TARGET ANALYTE RESULTS

Client Sample ID Sump Top Client Toxic Technology Services
File ID AD026 Date Extracted 3/28/90 Date of Analysis 4/5/90

TMA/Norcal Set ID 6721-8-1

Cas. No	COMPOUND	RESULTS (ug/L)	DETECTION LIMITS (ug/L)
62-75-9	N-nitrosodimethylamine	≤5.0	5.0
108-95-2	phenol	≤5.0	5.0
111-44-4	bis(2-chloroethyl)ether	≤5.0	5.0
95-57-8	2-chlorophenol	≤5.0	5.0
541-73-1	1,3-dichlorobenzene	≤5.0	5.0
106-46-7	1,4-dichlorobenzene	≤5.0	5.0
95-50-1	1,2-dichlorobenzene	≤5.0	5.0
39638-329	bis(2-chloroisopropyl)ether	≤5.0	5.0
621-64-7	N-nitrosodi-n-propylamine	≤5.0	5.0
67-72-1	hexachloroethane	≤5.0	5.0
98-95-3	nitrobenzene	≤5.0	5.0
78-59-1	isophorone	≤5.0	5.0
88-75-5	2-nitrophenol	≤5.0	5.0
105-67-9	2,4-dimethylphenol	89.1	5.0
11-91-1	bis(2-chloroethoxy)methane	≤5.0	5.0
120-83-2	2,4-dichlorophenol	≤5.0	5.0
120-82-1	1,2,4-trichlorobenzene	≤5.0	5.0
91-20-3	naphthalene	≤5.0	5.0
87-68-3	hexachlorobutadiene	≤5.0	5.0
59-50-7	4-chloro-3-methylphenol	14.7	5.0
77-47-4	hexachlorocyclopentadiene	≤5.0	5.0
88-06-2	2,4,6-trichlorophenol	≤5.0	5.0
91-58-7	2-chloronaphthalene	≤5.0	5.0
131-11-3	dimethyl phthalate	≤5.0	5.0
606-20-2	2,6-dinitrotoluene	≤5.0	5.0
208-96-8	acenaphthylene	≤5.0	5.0
83-32-9	acenaphthene	≤5.0	5.0
51-28-5	2,4-dinitrophenol	≤10.0	10.0
100-02-7	4-nitrophenol	≤10.0	10.0
121-14-2	2,4-dinitrotoluene	≤5.0	5.0
84-66-2	diethyl phthalate	≤5.0	5.0
7005-73-3	4-chlorophenyl-phenylether	≤5.0	5.0
86-73-7	fluorene	≤5.0	5.0
534-52-1	2-methyl-4,6-dinitrophenol	≤10.0	10.0
86-30-6	N-nitrosodiphenylamine	≤5.0	5.0
101-55-3	4-bromophenyl-phenylether	≤5.0	5.0
118-74-1	hexachlorobenzene	≤5.0	5.0
87-86-5	pentachlorophenol	≤10.0	10.0
85-01-8	phenanthrene	≤5.0	5.0
120-12-7	anthracene	≤5.0	5.0

ANALYTICAL REPORT FOR SAMPLE No. 6721-8-1

EPA METHOD 8270

TARGET ANALYTE RESULTS

Client Sample ID Sump Top Client Toxic Technology Services

Cas. No.	COMPOUND	RESULTS (ug/L)	DETECTION LIMITS (ug/L)
84-74-2	di-n-butyl phthalate	<5.0	5.0
206-44-0	fluoranthene	<5.0	5.0
129-00-0	pyrene	<5.0	5.0
92-87-5	benzidine	<5.0	5.0
85-68-7	benzyl-butylphthalate	<5.0	5.0
117-81-7	bis(2-ethylhexyl)phthalate	41.8	5.0
56-55-3	benzo(a)anthracene	<5.0	5.0
218-01-9	chrysene	<5.0	5.0
91-94-1	3,3-dichlorobenzidine	<5.0	5.0
117-84-0	di-n-octylphthalate	6.1	5.0
205-99-2	benzo(b)fluroanthene	<5.0	5.0
207-08-9	benzo(k)fluoranthene	<5.0	5.0
50-32-8	benzo(a)pyrene	<5.0	5.0
193-39-5	indeno(1,2,3-cd)pyrene	<5.0	5.0
53-70-3	dibenzo(a,h)anthracene	<5.0	5.0
191-24-2	benzo(ghi)perylene	<5.0	5.0

See footnotes on page 3 of the analytical report

Analyst

Reviewer

Data Release Authorized By

ANALYTICAL REPORT FOR SAMPLE No. 6721-8-1

NON-TARGET ANALYTE RESULTS
Additional Semi-Volatiles

?

Client Sample ID Sump Top

Cas. No	COMPOUND	Scan Number	Results ug/L	Footnote
106-44-5	4-Methylphenol		60.5	
65-85-0	Benzoic Acid		11.4	
91-57-6	2-Methylnaphthalene		61.3	

FOOTNOTES
- B The analyte was found in the method blank.
- E The reported concentration is an estimate only. The response factor was assumed to be 1.000 relative to an internal standard.
- J Indicates an estimated concentration below the Method Detection Limit.
- K The isomer is unknown.
- N Analytical standards were not analyzed for this compound.
- ND Not detected.
- W The identification is tentative or closely related to the compound.

ANALYTICAL REPORT FOR SAMPLE No. 6721-8-2dl

EPA METHOD 8270
TARGET ANALYTE RESULTS

Client Sample ID Sump Bottom Client Toxic Technology Services

File ID AD025 Date Extracted 4/2/90 Date of Analysis 4/6/90

TMA/Norcal set ID 6721-8-2

Cas. No	COMPOUND	RESULTS (ug/Kg)	METHOD DETECTION LIMITS (MDL) (ug/Kg)
62-75-9	N-nitrosodimethylamine	<7300	7300
108-95-2	phenol	<7300	7300
111-44-4	bis(2-chloroethyl)ether	<7300	7300
95-57-8	2-chlorophenol	<7300	7300
541-73-1	1,3-dichlorobenzene	<7300	7300
106-46-7	1,4-dichlorobenzene	<7300	7300
95-50-1	1,2-dichlorobenzene	<7300	7300
39638-329	bis(2-chloroisopropyl)ether	<7300	7300
621-64-7	N-nitrosodi-n-propylamine	11,540	7300
67-72-1	hexachloroethane	<7300	7300
98-95-3	nitrobenzene	1,132 J	7300
78-59-1	isophorone	2,685 J	7300
88-75-5	2-nitrophenol	<7300	7300
105-67-9	2,4-dimethylphenol	<7300	7300
11-91-1	bis(2-chloroethoxy)methane	<7300	7300
120-83-2	2,4-dichlorophenol	<7300	7300
120-82-1	1,2,4-trichlorobenzene	<7300	7300
91-20-3	naphthalene	21,263	7300
87-68-3	hexachlorobutadiene	<7300	7300
59-50-7	4-chloro-3-methylphenol	<7300	7300
77-47-4	hexachlorocyclopentadiene	<7300	7300
88-06-2	2,4,6-trichlorophenol	<7300	7300
91-58-7	2-chloronaphthalene	<7300	7300
131-11-3	dimethyl phthalate	<7300	7300
606-20-2	2,6-dinitrotoluene	<7300	7300
208-96-8	acenaphthylene	<7300	7300
83-32-9	acenaphthene	<7300	7300
51-28-5	2,4-dinitrophenol	<36000	36000
100-02-7	4-nitrophenol	<36000	36000
121-14-2	2,4-dinitrotoluene	<7300	7300
84-66-2	diethyl phthalate	<7300	7300
7005-73-3	4-chlorophenyl-phenylether	<7300	7300
86-73-7	fluorene	<7300	7300
534-52-1	2-methyl-4,6-dinitrophenol	<36000	36000
86-30-6	N-nitrosodiphenylamine	<7300	7300
101-55-3	4-bromophenyl-phenylether	<7300	7300
118-74-1	hexachlorobenzene	<7300	7300

ANALYTICAL REPORT FOR SAMPLE No. 6721-8-2dl

EPA METHOD 8270
TARGET ANALYTE RESULTS

Client Sample ID Sump Bottom

Cas. No.	COMPOUND	RESULTS (ug/Kg)	METHOD DETECTION LIMITS (MDL) (ug/Kg)
87-86-5	pentachlorophenol	<36000	36000
85-01-8	phenanthrene	373 J	7300
120-12-7	anthracene	<7300	7300
84-74-2	di-n-butyl phthalate	<7300	7300
206-44-0	fluoranthene	352 J	7300
129-00-0	pyrene	441 J	7300
92-87-5	benzidine	<36000	36000
85-68-7	benzyl-butylphthalate	<7300	7300
117-81-7	bis(2-ethylhexyl)phthalate	13,782	7300
56-55-3	benzo(a)anthracene	<7300	7300
218-01-9	chrysene	<7300	7300
91-94-1	3,3-dichlorobenzidine	<7300	7300
117-84-0	di-n-octylphthalate	1,310 J	7300
205-99-2	benzo(b)fluroanthene	<7300	7300
207-08-9	benzo(k)fluoranthene	<7300	7300
50-32-8	benzo(a)pyrene	<7300	7300
193-39-5	indeno(1,2,3-cd)pyrene	<7300	7300
53-70-3	dibenzo(a,h)anthracene	<7300	7300
191-24-2	benzo(ghi)perylene	<7300	7300

See footnotes on page 3

Analyst

Reviewer

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ANALYTICAL REPORT FOR SAMPLE No. 6721-8-2dl

NON-TARGET ANALYTE RESULTS
Additional Semi-Volatiles

Client Sample ID Sump Bottom

Cas. No	COMPOUND	Scan Number	Results ug/Kg	Footnotes
91-57-6	2-Methylnaphthalene		24.826	

FOOTNOTES

- B The analyte was found in the method blank.
- E The reported concentration is an estimate only. The response factor was assumed to be 1.000 relative to an internal standard.
- J Indicates an estimated concentration below the Method Detection Limit.
- K The isomer is unknown.
- N Analytical standards were not analyzed for this compound.
- ND Not detected.
- W The identification is tentative or closely related to the compound.

Received: 04/05/90 04/10/90 13:25:49

REPORT TMA/NORCAL
TO 2030 Wright Avenue
Richmond, CA 94804

ATTEN Sample Control

CLIENT TMA NORCAL SAMPLES 2
COMPANY TMA/NORCAL
FACILITY Richmond,CA

WORK ID 6721-8 / Toxic Tech
TAKEN By TMA Norcal Staff
TRANS By Federal Express
TYPE Liquid
P.O. # TMA 7803
INVOICE under separate cover

PREPARED Thermo Analytical, Inc.
BY 160 Taylor Street
Monrovia, CA 91016

ATTEN Ms. Carole Harris
PHONE 818-357-3247

CERTIFIED BY

CONTACT DDW

This report is for the sole and exclusive use of the client to whom it is addressed and represents only those samples herein described. Samples not destroyed in testing are retained a maximum of 30 days unless otherwise requested.

SAMPLE IDENTIFICATION

01 6721-8-1 Sump Top
02 6721-8-2 Sump Bottom

TEST CODES and NAMES used on this report

VOA L	Volatile Organics by GC/MS
VOA S	Volatile Organics by GC/MS

Received: 04/05/90 Results by Sample

SAMPLE ID 6721-8-1 Sump Top FRACTION 01A TEST CODE VOA L NAME Volatile Organics by GC/MS

Date & Time Collected 04/04/90 Category

VOLATILE ORGANIC RESULTS

COMPOUND	RESULT	DET LIMIT	COMPOUND	RESULT	DET LIMIT
Chloromethane	ND	250	1,1,2,2-Tetrachloroethane	ND	125
Bromomethane	ND	250	1,2-Dichloropropane	ND	125
Vinyl chloride	ND	250	trans-1,3-Dichloropropene	ND	125
Chloroethane	ND	250	Trichloroethene	ND	125
Methylene chloride	ND	250	Dibromochloromethane	ND	125
Acetone	ND	1000	1,1,2-Trichloroethane	ND	125
Acrolein	ND	500	Benzene	130	125
Acrylonitrile	ND	125	cis-1,3-Dichloropropene	ND	125
Carbon disulfide	ND	125	2-Chloroethyl Vinyl Ether	ND	250
1,1-Dichloroethene	ND	125	Bromoform	ND	125
1,1-Dichloroethane	ND	125	2-Hexanone	ND	250
1,2-Dichloroethene	ND	125	4-Methyl-2-Pentanone	ND	250
Chloroform	ND	125	Tetrachloroethene	ND	125
1,2-Dichloroethane	ND	125	Toluene	850	125
Methylethyl ketone	ND	250	Chlorobenzene	ND	125
1,1,1-Trichloroethane	ND	125	Ethyl benzene	ND	125
Carbon tetrachloride	ND	125	Styrene	ND	125
Vinyl acetate	ND	250	Xylenes (Total)	1300	125
Bromodichloromethane	ND	125			

NOTE: All results reported in ug/L unless otherwise specified
ND = Not detected at the specified limits

SURROGATE COMPOUNDS	% RECOVERY
dB-Toluene	98
Bromofluorobenzene	96
1,2-Dichloroethane-d4	92

ANALYST TZ
DATE INJECTED 04/05/90
DILUTION FACTOR 25.00

Received: 04/05/90 Results by Sample Continued From Above

SAMPLE ID 6721-8-1 Sump Top FRACTION 01A TEST CODE VOA L NAME Volatile Organics by GC/MS

Date & Time Collected 04/04/90 Category

TENTATIVELY IDENTIFIED VOLATILE COMPOUNDS

COMPOUND	APPR. CONC. ug/L
None Detected	

Received: 04/05/90 Results by Sample

SAMPLE ID 6721-8-2 Sump Bottom FRACTION 02A TEST CODE VOA S NAME Volatile Organics by GC/MS
Date & Time Collected 04/04/90 Category

VOLATILE ORGANIC RESULTS

COMPOUND	RESULT	DET LIMIT	COMPOUND	RESULT	DET LIMIT
Chloromethane	ND	250	1,1,2,2-Tetrachloroethane	ND	125
Bromomethane	ND	250	1,2-Dichloropropane	ND	125
Vinyl chloride	ND	250	trans-1,3-Dichloropropene	ND	125
Chloroethane	ND	250	Trichloroethene	ND	125
Methylene chloride	ND	250	Dibromochloromethane	ND	125
Acetone	ND	1000	1,1,2-Trichloroethane	ND	125
Acrolein	ND	500	Benzene	500	125
Acrylonitrile	ND	125	cis-1,3-Dichloropropene	ND	125
Carbon disulfide	ND	125	2-Chloroethyl Vinyl Ether	ND	250
1,1-Dichloroethene	ND	125	Bromoform	ND	125
1,1-Dichloroethane	ND	125	2-Hexanone	ND	250
1,2-Dichloroethene	ND	125	4-Methyl-2-Pentanone	ND	250
Chloroform	ND	125	Tetrachloroethene	ND	125
1,2-Dichloroethane	ND	125	Toluene	3000	125
Methylethyl ketone	ND	250	Chlorobenzene	ND	125
1,1,1-Trichloroethane	ND	125	Ethyl benzene	730	125
Carbon tetrachloride	ND	125	Styrene	ND	125
Vinyl acetate	ND	250	Xylenes (Total)	4000	125
Bromodichloromethane	ND	125			

NOTE: All results reported in ug/L unless otherwise specified
ND = Not detected at the specified limits

SURROGATE COMPOUNDS	% RECOVERY
d8-Toluene	99
Bromofluorobenzene	98
1,2-Dichloroethane-d4	94

ANALYST TZ
DATE INJECTED 04/05/90
DILUTION FACTOR 25.00

SAMPLE ID 6721-B-2 Sump Bottom FRACTION 02A TEST CODE VOA S NAME Volatile Organics by GC/MS
Date & Time Collected 04/04/90 Category ______

TENTATIVELY IDENTIFIED VOLATILE COMPOUNDS

COMPOUND	APPR. CONC. ug/L
None Detected	______

EPA METHOD 8080
TARGET ANALYTE RESULTS

Client: TOXIC TECHNOLOGY SERVICES
Client Sample ID: 6721-8-1
TMA/Norcal SAMPLE ID: SUMP TOP
Extract.Method: CONTINUOUS LIQUID-LIQUID EXTRACTION

Date Received: 3/23/90
Date Extracted: 3/28/90
Date Analyzed: 4/4/90

CAS No	COMPOUND	WATER RESULTS (ug/L)	WATER DETECTION LIMITS (ug/L)
319-84-6	alpha-BHC	< 0.05	0.05
319-85-7	beta-BHC	< 0.05	0.05
319-86-8	delta-BHC	< 0.05	0.05
58-89-9	gamma-BHC(Lindane)	< 0.05	0.05
76-44-8	Heptachlor	< 0.05	0.05
309-00-2	Aldrin	< 0.05	0.05
1024-57-3	Heptachlor Epoxide	< 0.05	0.05
959-98-8	Endosulfan I	< 0.05	0.05
60-57-1	Dieldrin	< 0.10	0.10
72-55-9	4,4'-DDE	< 0.10	0.10
72-20-8	Endrin	< 0.10	0.10
33213-65-9	Endosulfan II	< 0.10	0.10
72-54-8	4,4'-DDD	< 0.10	0.10
1031-07-8	Endosulfan sulfate	< 0.10	0.10
50-29-3	4,4'-DDT	0.643	0.10 → ?
72-43-5	Methoxychlor	< 0.50	0.50
53494-70-5	Endrin ketone	< 0.10	0.10
5103-71-9	alpha-Chlordane	< 0.50	0.50
5103-74-2	gamma-Chlordane	< 0.50	0.50
57-74-9	Technical Chlordane	< 0.50	0.50
8001-35-2	Toxaphene	< 1.00	1.00
12674-11-2	Aroclor-1016	< 0.50	0.50
11104-28-2	Aroclor-1221	< 0.50	0.50
11141-16-5	Aroclor-1232	< 0.50	0.50
53469-21-9	Aroclor-1242	< 0.50	0.50
12672-29-6	Aroclor-1248	< 0.50	0.50
11097-69-1	Aroclor-1254	< 1.00	1.00
11096-82-5	Aroclor-1260	< 1.00	1.00

Analyst

Data Release Authorized By

EPA METHOD 8080
TARGET ANALYTE RESULTS

Client: TOXIC TECHNOLOGY SERVICES
Client Sample ID: 6721-8-2
TMA/Norcal SAMPLE ID: SUMP BOTTOM
Extract.Method: SOXHLET

Date Received: 3/23/90
Date Extracted: 4/2/90
Date Analyzed: 4/6/90

CAS No	COMPOUND	SOIL RESULTS (ug/Kg)	SOIL DETECTION LIMITS (ug/Kg)
319-84-6	alpha-BHC	< 80.0	80.0
319-85-7	beta-BHC	< 80.0	80.0
319-86-8	delta-BHC	< 80.0	80.0
58-89-9	gamma-BHC(Lindane)	< 80.0	80.0
76-44-8	Heptachlor	< 80.0	80.0
309-00-2	Aldrin	< 80.0	80.0
1024-57-3	Heptachlor Epoxide	21.8J	80.0
959-98-8	Endosulfan I	< 80.0	80.0
60-57-1	Dieldrin	< 160.0	160.0
72-55-9	4,4'-DDE	< 160.0	160.0
72-20-8	Endrin	< 160.0	160.0
33213-65-9	Endosulfan II	< 160.0	160.0
72-54-8	4,4'-DDD	< 160.0	160.0
1031-07-8	Endosulfan sulfate	< 160.0	160.0
50-29-3	4,4'-DDT	452.9	160.0
72-43-5	Methoxychlor	< 800.0	800.0
53494-70-5	Endrin ketone	< 160.0	160.0
5103-71-9	alpha-Chlordane	< 800.0	800.0
5103-74-2	gamma-Chlordane	< 800.0	800.0
57-74-9	Technical Chlordane	< 800.0	800.0
8001-35-2	Toxaphene	<1600.0	1600.0
12674-11-2	Aroclor-1016	< 800.0	800.0
11104-28-2	Aroclor-1221	< 800.0	800.0
11141-16-5	Aroclor-1232	< 800.0	800.0
53469-21-9	Aroclor-1242	< 800.0	800.0
12672-29-6	Aroclor-1248	< 800.0	800.0
11097-69-1	Aroclor-1254	<1600.0	1600.0
11096-82-5	Aroclor-1260	<1600.0	1600.0

J: Detected but below the method detection limit.

Analyst

Data Release Authorized By

TOTAL PETROLEUM HYDROCARBONS ANALYSIS RESULTS REPORT

Lab Name: TMA/Norcal
Client: TOXIC TECHNOLOGY SERVICES
Matrix: Water/Soil
Method: Mod 8015

Date Received: 3/23/90
Date Analyzed: 4/4/90

TMA/Norcal ID	Client ID	Diesel	Detection Limit
*6721-8-1	SUMP TOP	<0.5 mg/L	0.5 mg/L
*6721-8-2	SUMP BOTTOM	<10.0 mg/kg	10.0 mg/kg

*Both samples contain some heavy oil and a large amount of white spirits

Renée DeMatteo
Analyst

Data Release Authorized By

TOTAL PETROLEUM HYDROCARBONS
ANALYSIS RESULTS REPORT

Lab Name: TMA/Norcal
Client: TOXIC TECHNOLOGY SERVICES
Matrix: Water/soil
Method: Mod 8015

Date Received: 3/23/90
Date Analyzed: 4/4/90

TMA/Norcal ID	Client ID	White Spirits	Detection Limit
* 6721-8-1	SUMP TOP	53 mg/L	0.5 mg/L
* 6721-8-2	SUMP BOTTOM	19 g/kg	10.0 mg/kg

Renée Doherty
Analyst

Data Release Authorized By

TOTAL PETROLEUM HYDROCARBONS
GRAVIMETRIC METHOD SM5520F

Lab Name: TMA/Norcal
Client: TOXIC TECHNOLOGY SERVICES
Matrix: Sludge

Date Received: 3/23/90
Date Analyzed: 4/6/90

TMA/Norcal ID	Client ID	Results	Detection Limit
6721-8-1	SUMP TOP	173.3 mg/L	2 mg/L
6721-8-2	SUMP BOTTOM	116,800 mg/kg	50 mg/kg

TPH

J. Richmond
Analyst

Data Release Authorized By

EPA METHOD 8080
TARGET ANALYTE RESULTS

Client: TOXIC TECHNOLOGY SERVICES
Client Sample ID: 6721-8-0A
TMA/Norcal SAMPLE ID: BLANK
Extract.Method: SOXHLET

Date Received: NA
Date Extracted: 04/02/90
Date Analyzed: 04/06/90

CAS No	COMPOUND	RESULTS (ug/Kg)	DETECTION LIMITS (ug/Kg)
319-84-6	alpha-BHC	< 8.0	8.0
319-85-7	beta-BHC	< 8.0	8.0
319-86-8	delta-BHC	< 8.0	8.0
58-89-9	gamma-BHC(Lindane)	< 8.0	8.0
76-44-8	Heptachlor	< 8.0	8.0
309-00-2	Aldrin	< 8.0	8.0
1024-57-3	Heptachlor Epoxide	< 8.0	8.0
959-98-8	Endosulfan I	< 8.0	8.0
60-57-1	Dieldrin	< 16.0	16.0
72-55-9	4,4'-DDE	< 16.0	16.0
72-20-8	Endrin	< 16.0	16.0
33213-65-9	Endosulfan II	< 16.0	16.0
72-54-8	4,4'-DDD	< 16.0	16.0
1031-07-8	Endosulfan sulfate	< 16.0	16.0
50-29-3	4,4'-DDT	< 16.0	16.0
72-43-5	Methoxychlor	< 80.0	80.0
53494-70-5	Endrin ketone	< 16.0	16.0
5103-71-9	alpha-Chlordane	< 80.0	80.0
5103-74-2	gamma-Chlordane	< 80.0	80.0
57-74-9	Technical Chlordane	< 80.0	80.0
8001-35-2	Toxaphene	< 160.0	160.0
12674-11-2	Aroclor-1016	< 80.0	80.0
11104-28-2	Aroclor-1221	< 80.0	80.0
11141-16-5	Aroclor-1232	< 80.0	80.0
53469-21-9	Aroclor-1242	< 80.0	80.0
12672-29-6	Aroclor-1248	< 80.0	80.0
11097-69-1	Aroclor-1254	< 160.0	160.0
11096-82-5	Aroclor-1260	< 160.0	160.0

Analyst

Data Release Authorized By

EPA METHOD 8080
TARGET ANALYTE RESULTS

Client: TOXIC TECHNOLOGY SERVICES
Client Sample ID: 6721-8-0A
TMA/Norcal SAMPLE ID: BLANK
Extract.Method: CONTINUOUS LIQUID-LIQUID EXTRACTION

Date Received: NA
Date Extracted: 03/28/90
Date Analyzed: 04/04/90

CAS No	COMPOUND	RESULTS (ug/L)	DETECTION LIMITS (ug/L)
319-84-6	alpha-BHC	< 0.05	0.05
319-85-7	beta-BHC	< 0.05	0.05
319-86-8	delta-BHC	< 0.05	0.05
58-89-9	gamma-BHC(Lindane)	< 0.05	0.05
76-44-8	Heptachlor	< 0.05	0.05
309-00-2	Aldrin	< 0.05	0.05
1024-57-3	Heptachlor Epoxide	< 0.05	0.05
959-98-8	Endosulfan I	< 0.05	0.05
60-57-1	Dieldrin	< 0.10	0.10
72-55-9	4,4'-DDE	< 0.10	0.10
72-20-8	Endrin	< 0.10	0.10
33213-65-9	Endosulfan II	< 0.10	0.10
72-54-8	4,4'-DDD	< 0.10	0.10
1031-07-8	Endosulfan sulfate	< 0.10	0.10
50-29-3	4,4'-DDT	< 0.10	0.10
72-43-5	Methoxychlor	< 0.50	0.50
53494-70-5	Endrin ketone	< 0.10	0.10
5103-71-9	alpha-Chlordane	< 0.50	0.50
5103-74-2	gamma-Chlordane	< 0.50	0.50
57-74-9	Technical Chlordane	< 0.50	0.50
8001-35-2	Toxaphene	< 1.00	1.00
12674-11-2	Aroclor-1016	< 0.50	0.50
11104-28-2	Aroclor-1221	< 0.50	0.50
11141-16-5	Aroclor-1232	< 0.50	0.50
53469-21-9	Aroclor-1242	< 0.50	0.50
12672-29-6	Aroclor-1248	< 0.50	0.50
11097-69-1	Aroclor-1254	< 1.00	1.00
11096-82-5	Aroclor-1260	< 1.00	1.00

Analyst

Data Release Authorized By

ANALYTICAL REPORT FOR SAMPLE No. 6721-8-0A

EPA METHOD 8270
TARGET ANALYTE RESULTS

Client Sample ID BLANK Client Toxic Technology Services
File ID AD023 Date Extracted 3/28/90 Date of Analysis 4/5/90

TMA/Norcal Set ID 6721-8-0A

Cas. No	COMPOUND	RESULTS (ug/L)	DETECTION LIMITS (ug/L)
62-75-9	N-nitrosodimethylamine	<2.5	2.5
108-95-2	phenol	<2.5	2.5
111-44-4	bis(2-chloroethyl)ether	<2.5	2.5
95-57-8	2-chlorophenol	<2.5	2.5
541-73-1	1,3-dichlorobenzene	<2.5	2.5
106-46-7	1,4-dichlorobenzene	<2.5	2.5
95-50-1	1,2-dichlorobenzene	<2.5	2.5
39638-329	bis(2-chloroisopropyl)ether	<2.5	2.5
621-64-7	N-nitrosodi-n-propylamine	<2.5	2.5
67-72-1	hexachloroethane	<2.5	2.5
98-95-3	nitrobenzene	<2.5	2.5
78-59-1	isophorone	<2.5	2.5
88-75-5	2-nitrophenol	<2.5	2.5
105-67-9	2,4-dimethylphenol	<2.5	2.5
11-91-1	bis(2-chloroethoxy)methane	<2.5	2.5
120-83-2	2,4-dichlorophenol	<2.5	2.5
120-82-1	1,2,4-trichlorobenzene	<2.5	2.5
91-20-3	naphthalene	<2.5	2.5
87-68-3	hexachlorobutadiene	<2.5	2.5
59-50-7	4-chloro-3-methylphenol	<2.5	2.5
77-47-4	hexachlorocyclopentadiene	<2.5	2.5
88-06-2	2,4,6-trichlorophenol	<2.5	2.5
91-58-7	2-chloronaphthalene	<2.5	2.5
131-11-3	dimethyl phthalate	<2.5	2.5
606-20-2	2,6-dinitrotoluene	<2.5	2.5
208-96-8	acenaphthylene	<2.5	2.5
83-32-9	acenaphthene	<2.5	2.5
51-28-5	2,4-dinitrophenol	<5.0	5.0
100-02-7	4-nitrophenol	<5.0	5.0
121-14-2	2,4-dinitrotoluene	<2.5	2.5
84-66-2	diethyl phthalate	<2.5	2.5
7005-73-3	4-chlorophenyl-phenylether	<2.5	2.5
86-73-7	fluorene	<2.5	2.5
534-52-1	2-methyl-4,6-dinitrophenol	<5.0	5.0
86-30-6	N-nitrosodiphenylamine	<2.5	2.5
101-55-3	4-bromophenyl-phenylether	<2.5	2.5
118-74-1	hexachlorobenzene	<2.5	2.5
87-86-5	pentachlorophenol	<5.0	5.0
85-01-8	phenanthrene	<2.5	2.5
120-12-7	anthracene	<2.5	2.5

ANALYTICAL REPORT FOR SAMPLE No. 6721-8-0A

EPA METHOD 8270

TARGET ANALYTE RESULTS

Client Sample ID BLANK Client Toxic Technology Services

Cas. No.	COMPOUND	RESULTS (ug/L)	DETECTION LIMITS (ug/L)
84-74-2	di-n-butyl phthalate	≤2.5	2.5
206-44-0	fluoranthene	≤2.5	2.5
129-00-0	pyrene	≤2.5	2.5
92-87-5	benzidine	≤2.5	2.5
85-68-7	benzyl-butylphthalate	≤2.5	2.5
117-81-7	bis(2-ethylhexyl)phthalate	≤2.5	2.5
56-55-3	benzo(a)anthracene	≤2.5	2.5
218-01-9	chrysene	≤2.5	2.5
91-94-1	3,3-dichlorobenzidine	≤2.5	2.5
117-84-0	di-n-octylphthalate	≤2.5	2.5
205-99-2	benzo(b)fluroanthene	≤2.5	2.5
207-08-9	benzo(k)fluoranthene	≤2.5	2.5
50-32-8	benzo(a)pyrene	≤2.5	2.5
193-39-5	indeno(1,2,3-cd)pyrene	≤2.5	2.5
53-70-3	dibenzo(a,h)anthracene	≤2.5	2.5
191-24-2	benzo(ghi)perylene	≤2.5	2.5

See footnotes on page 3 of the analytical report

Analyst

Reviewer

Data Release Authorized By

ANALYTICAL REPORT FOR SAMPLE No. 6721-8-0A

NON-TARGET ANALYTE RESULTS
Additional Semi-Volatiles

Client Sample ID BLANK

Cas. No	COMPOUND	Scan Number	Results	Footnotes
	NO ADDITIONAL ANALYTES REQUESTED			

FOOTNOTES
- B The analyte was found in the method blank.
- E The reported concentration is an estimate only. The response factor was assumed to be 1.000 relative to an internal standard.
- J Indicates an estimated concentration below the Method Detection Limit.
- K The isomer is unknown.
- N Analytical standards were not analyzed for this compound.
- ND Not detected.
- W The identification is tentative or closely related to the compound.

2330 Wright Avenue
Richmond, California 94804
(415) 235-2633
(TWX) 910-382-8132

Lisa Poles
Toxic Technology
(415)799-1140

TMA
Thermo Analytical Inc.

CHAIN OF CUSTODY RECORD

PROJ. NO.	PROJECT NAME
90-2	Durham Meakland Rd.

(Signature) Lisa Poles

DATE	Description	NO. OF CONTAINERS	analyses: PCB's (8080)	8240	8270	TPH-G	TPH-D	O&G (Petrol)	17 Cam Metals	REMARKS
3/23/90	Sump Top		X	X	X	X	X	X	X	
3/23/90	Sump Bottom		X	X	X	X	X	X	X	Pour off supernatant; analyze sludge

Relinquished by: (Signature)	Date / Time	Received by: (Signature)	Relinquished by: (Signature)	Date / Time	Received by: (Signature)
Lisa M. Poles	3/23/90 14:30	M Corsi			
Relinquished by: (Signature)	Date / Time	Received by: (Signature)	Relinquished by: (Signature)	Date / Time	Received by: (Signature)
Relinquished by: (Signature)	Date / Time	Received for Laboratory by: (Signature)	Date / Time	Remarks	

APPENDIX B

EPA METHOD 601
TARGET ANALYTE RESULTS

Client: TOXIC TECHNOLOGY SERVICES
Client Sample ID: MW-1
TMA/Norcal SAMPLE ID: 6721-8-3

Date Received: 3/23/90
Date Analyzed: 4/05/90

CAS No	COMPOUND	RESULTS (ug/L)	DETECTION LIMITS (ug/L)
75-71-8	Dichlorodifluoromethane	< 2.00	2.00
29479-9	Chloromethane	< 0.50	0.50
29584-5	Bromomethane	< 1.20	1.20
75-01-4	Vinyl Chloride	< 0.50	0.50
29480-2	Chloroethane	< 0.52	0.52
75-09-2	Dichloromethane	< 0.50	0.50
75-69-4	Trichlorofluoromethane	< 0.80	0.80
75-35-4	1,1-Dichloroethene	< 0.50	0.50
75-34-3	1,1-Dichloroethane	16	0.50
156-60-5	trans-1,2-Dichloroethene	< 0.50	0.50
76-66-3	Chloroform	< 0.50	0.50
107-06-2	1,2-Dichloroethane	< 0.50	0.50
71-55-6	1,1,1-Trichloroethane	< 0.50	0.50
56-23-5	Carbon Tetrachloride	< 0.50	0.50
75-27-4	Bromodichloromethane	< 0.50	0.50
78-87-5	1,2-Dichloropropane	< 0.50	0.50
10061-02-6	trans-1,3-Dichloropropene	< 0.50	0.50
79-01-6	Trichloroethene	< 0.50	0.50
124-48-1	Chlorodibromomethane	< 0.50	0.50
79-00-5	1,1,2-Trichloroethane	< 0.50	0.50
10061-01-5	cis-1,3-Dichloropropene	< 0.50	0.50
110-75-8	2-Chloroethylvinyl ether	< 0.50	0.50
75-25-2	Bromoform	< 0.50	0.50
79-34-5	1,1,2,2-Tetrachloroethane	< 0.50	0.50
127-18-4	Tetrachloroethene	< 0.50	0.50
108-90-7	Chlorobenzene	< 0.50	0.50
541-73-1	1,3-Dichlorobenzene	< 0.50	0.50
95-50-1	1,2-Dichlorobenzene	< 0.50	0.50
106-46-7	1,4-Dichlorobenzene	< 0.50	0.50

C W Smith
Analyst

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EPA METHOD 601
TARGET ANALYTE RESULTS

Client: TOXIC TECHNOLOGY SERVICES
Client Sample ID: MW-3
TMA/Norcal SAMPLE ID: 6721-8-4

Date Received: 3/23/90
Date Analyzed: 4/05/90

CAS No	COMPOUND	RESULTS (ug/L)	DETECTION LIMITS (ug/L)
75-71-8	Dichlorodifluoromethane	< 2.00	2.00
29479-9	Chloromethane	< 0.50	0.50
29584-5	Bromomethane	< 1.20	1.20
75-01-4	Vinyl Chloride	< 0.50	0.50
29480-2	Chloroethane	< 0.52	0.52
75-09-2	Dichloromethane	< 0.50	0.50
75-69-4	Trichlorofluoromethane	< 0.80	0.80
75-35-4	1,1-Dichloroethene	< 0.50	0.50
75-34-3	1,1-Dichloroethane	26	0.50
156-60-5	trans-1,2-Dichloroethene	< 0.50	0.50
76-66-3	Chloroform	< 0.50	0.50
107-06-2	1,2-Dichloroethane	< 0.50	0.50
71-55-6	1,1,1-Trichloroethane	< 0.50	0.50
56-23-5	Carbon Tetrachloride	< 0.50	0.50
75-27-4	Bromodichloromethane	< 0.50	0.50
78-87-5	1,2-Dichloropropane	< 0.50	0.50
10061-02-6	trans-1,3-Dichloropropene	< 0.50	0.50
79-01-6	Trichloroethene	< 0.50	0.50
124-48-1	Chlorodibromomethane	< 0.50	0.50
79-00-5	1,1,2-Trichloroethane	< 0.50	0.50
10061-01-5	cis-1,3-Dichloropropene	< 0.50	0.50
110-75-8	2-Chloroethylvinyl ether	< 0.50	0.50
75-25-2	Bromoform	< 0.50	0.50
79-34-5	1,1,2,2-Tetrachloroethane	< 0.50	0.50
127-18-4	Tetrachloroethene	< 0.50	0.50
108-90-7	Chlorobenzene	< 0.50	0.50
541-73-1	1,3-Dichlorobenzene	< 0.50	0.50
95-50-1	1,2-Dichlorobenzene	< 0.50	0.50
106-46-7	1,4-Dichlorobenzene	< 0.50	0.50

C D Smith
Analyst

Data Release Authorized By

EPA METHOD 601
TARGET ANALYTE RESULTS

Client: TOXIC TECHNOLOGY SERVICES
Client Sample ID: MW-4
TMA/Norcal SAMPLE ID: 6721-8-5

Date Received: 3/23/90
Date Analyzed: 4/05/90

CAS No	COMPOUND	RESULTS (ug/L)	DETECTION LIMITS (ug/L)
75-71-8	Dichlorodifluoromethane	< 2.00	2.00
29479-9	Chloromethane	< 0.50	0.50
29584-5	Bromomethane	< 1.20	1.20
75-01-4	Vinyl Chloride	< 0.50	0.50
29480-2	Chloroethane	< 0.52	0.52
75-09-2	Dichloromethane	< 0.50	0.50
75-69-4	Trichlorofluoromethane	< 0.80	0.80
75-35-4	1,1-Dichloroethene	< 0.50	0.50
75-34-3	1,1-Dichloroethane	< 0.50	0.50
156-60-5	trans-1,2-Dichloroethene	< 0.50	0.50
76-66-3	Chloroform	< 0.50	0.50
107-06-2	1,2-Dichloroethane	< 0.50	0.50
71-55-6	1,1,1-Trichloroethane	< 0.50	0.50
56-23-5	Carbon Tetrachloride	< 0.50	0.50
75-27-4	Bromodichloromethane	< 0.50	0.50
78-87-5	1,2-Dichloropropane	< 0.50	0.50
10061-02-6	trans-1,3-Dichloropropene	< 0.50	0.50
79-01-6	Trichloroethene	< 0.50	0.50
124-48-1	Chlorodibromomethane	< 0.50	0.50
79-00-5	1,1,2-Trichloroethane	< 0.50	0.50
10061-01-5	cis-1,3-Dichloropropene	< 0.50	0.50
110-75-8	2-Chloroethylvinyl ether	< 0.50	0.50
75-25-2	Bromoform	< 0.50	0.50
79-34-5	1,1,2,2-Tetrachloroethane	< 0.50	0.50
127-18-4	Tetrachloroethene	< 0.50	0.50
108-90-7	Chlorobenzene	< 0.50	0.50
541-73-1	1,3-Dichlorobenzene	< 0.50	0.50
95-50-1	1,2-Dichlorobenzene	< 0.50	0.50
106-46-7	1,4-Dichlorobenzene	< 0.50	0.50

C W Smith
Analyst

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EPA METHOD 8020
TARGET ANALYTE RESULTS

Client: TOXIC TECHNOLOGY SERVICES
Client Sample ID: MW-1
TMA/Norcal SAMPLE ID: 6721-8-3

Date Received: 3/23/90
Date Analyzed: 4/05/90

CAS. No	COMPOUND	RESULTS (ug/L) = ppb in groundwater	DETECTION LIMITS (ug/L)
71-43-2	Benzene	2700	6
108-88-3	Toluene	840	6
100-41-4	Ethylbenzene	491	6
108-38-3	Xylenes	800	12

Analyst

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State Action levels for clean up of groundwater = .5 ppb for BTXE

EPA METHOD 8020
TARGET ANALYTE RESULTS

Client: TOXIC TECHNOLOGY SERVICES
Client Sample ID: MW-3
TMA/Norcal SAMPLE ID: 6721-8-4

Date Received: 3/23/90
Date Analyzed: 4/06/90

CAS. No	COMPOUND	RESULTS (ug/L)	DETECTION LIMITS (ug/L)
71-43-2	Benzene	2300	6
108-88-3	Toluene	300	6
100-41-4	Ethylbenzene	59	6
108-38-3	Xylenes	490	12

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EPA METHOD 8020
TARGET ANALYTE RESULTS

Client: TOXIC TECHNOLOGY SERVICES
Client Sample ID: MW-4
TMA/Norcal SAMPLE ID: 6721-8-5

Date Received: 3/27/90
Date Analyzed: 4/06/90

CAS. No	COMPOUND	RESULTS (ug/L)	DETECTION LIMITS (ug/L)
71-43-2	Benzene	7.4	0.3
108-88-3	Toluene	2.0	0.3
100-41-4	Ethylbenzene	2.0	0.3
108-38-3	Xylenes	1.1	0.6

G W Smith
Analyst

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Analysis Results Report
Total Petroleum Hydrocarbons
Water Matrix

Client: TOXIC TECHNOLOGY SERVICES
Sample Delivery Group: 8
Analysis/Method: MOD 8015 P.& T.

Date Received: 3/23/90
Date Analyzed: 4/05/90
Date Report: 4/09/90

TMA Sample ID	Client ID	Gasoline (mg/L)	Detection Limits (mg/L)
METHOD BLANK	NA	< 0.5	0.5
6721-8-3	MW-1	27	0.5
6721-8-4	MW-3	12	0.5
6721-8-5	MW-4	< 0.5	0.5

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EPA METHOD 8020
TARGET ANALYTE RESULTS

Client: TOXIC TECHNOLOGY SERVICES
Client Sample ID: NA
TMA/Norcal SAMPLE ID: METHOD BLANK

Date Received: NA
Date Analyzed: 4/05/90

CAS. No	COMPOUND	RESULTS (ug/L)	DETECTION LIMITS (ug/L)
71-43-2	Benzene	< 0.3	0.3
108-88-3	Toluene	< 0.3	0.3
100-41-4	Ethylbenzene	< 0.3	0.3
108-38-3	Xylenes	< 0.6	0.6

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EPA METHOD 601
TARGET ANALYTE RESULTS

Client: TOXIC TECHNOLOGY SERVICES
Client Sample ID: NA
TMA/Norcal SAMPLE ID: METHOD BLANK

Date Received: NA
Date Analyzed: 4/05/90

CAS No	COMPOUND	RESULTS (ug/L)	DETECTION LIMITS (ug/L)
75-71-8	Dichlorodifluoromethane	< 2.00	2.00
29479-9	Chloromethane	< 0.50	0.50
29584-5	Bromomethane	< 1.20	1.20
75-01-4	Vinyl Chloride	< 0.50	0.50
29480-2	Chloroethane	< 0.52	0.52
75-09-2	Dichloromethane	< 0.50	0.50
75-69-4	Trichlorofluoromethane	< 0.80	0.80
75-35-4	1,1-Dichloroethene	< 0.50	0.50
75-34-3	1,1-Dichloroethane	< 0.50	0.50
156-60-5	trans-1,2-Dichloroethene	< 0.50	0.50
76-66-3	Chloroform	< 0.50	0.50
107-06-2	1,2-Dichloroethane	< 0.50	0.50
71-55-6	1,1,1-Trichloroethane	< 0.50	0.50
56-23-5	Carbon Tetrachloride	< 0.50	0.50
75-27-4	Bromodichloromethane	< 0.50	0.50
78-87-5	1,2-Dichloropropane	< 0.50	0.50
10061-02-6	trans-1,3-Dichloropropene	< 0.50	0.50
79-01-6	Trichloroethene	< 0.50	0.50
124-48-1	Chlorodibromomethane	< 0.50	0.50
79-00-5	1,1,2-Trichloroethane	< 0.50	0.50
10061-01-5	cis-1,3-Dichloropropene	< 0.50	0.50
110-75-8	2-Chloroethylvinyl ether	< 0.50	0.50
75-25-2	Bromoform	< 0.50	0.50
79-34-5	1,1,2,2-Tetrachloroethane	< 0.50	0.50
127-18-4	Tetrachloroethene	< 0.50	0.50
108-90-7	Chlorobenzene	< 0.50	0.50
541-73-1	1,3-Dichlorobenzene	< 0.50	0.50
95-50-1	1,2-Dichlorobenzene	< 0.50	0.50
106-46-7	1,4-Dichlorobenzene	< 0.50	0.50

G D Smith
Analyst

Data Release Authorized By

2000 Wright Avenue
Richmond, California 94804
(415) 235-2633
(TWX) 910-382-5132

TMTA

Thermo Analytical Inc.

CHAIN OF CUSTODY RECORD

PROJ. NO.	PROJECT NAME
90-2	Dunker - Medford Rd.

(Signature)
Lisa Peters

Date	Description	NO. OF CONTAINERS	analyses: TPH-G	BTEX	Chlorinated Volatiles (601)				REMARKS
3/23/90	MW-1		X	X	X				
↓	MW-3		X	X	X				
↓	MW-4		X	X	X				

Relinquished by: (Signature)	Date / Time	Received by: (Signature)	Relinquished by: (Signature)	Date / Time	Received by: (Signature)
Lisa Peters	3/23/90 14:30	[illegible]			
Relinquished by: (Signature)	Date / Time	Received by: (Signature)	Relinquished by: (Signature)	Date / Time	Received by: (Signature)
Relinquished by: (Signature)	Date / Time	Received for Laboratory by: (Signature)	Date / Time	Remarks	

APPENDIX C

ALAMEDA COUNTY FLOOD CONTROL AND WATER CONSERVATION DISTRICT

5997 PARKSIDE DRIVE ♦ PLEASANTON, CALIFORNIA 94566 ♦ (415) 484-260(

GROUNDWATER PROTECTION ORDINANCE PERMIT APPLICATION

FOR APPLICANT TO COMPLETE

(1) LOCATION OF PROJECT 19984 Mookland Road Hayward

(2) CLIENT
Name Durham Transportation
Address 27577 "A" Industrial Blvd.
City Hayward Zip 94545
(415) 887-6005

(3) APPLICANT
Name Lisa Polos
Toxic Technology Services
Address P.O. Box 515 Phone (415) 799-1145
City Rodeo Zip 94572

(4) DESCRIPTION OF PROJECT
Water Well Construction ___ Geotechnical Investigation
Cathodic Protection ___ General ___
Well Destruction ___ Contamination X
Soil Gas testing

(5) PROPOSED WATER WELL USE
Domestic ___ Industrial ___ Irrigation ___
Municipal ___ Monitoring ___ Other ___

(6) PROPOSED CONSTRUCTION
Drilling Method:
Mud Rotary ___ Air Rotary ___ Auger ___
Cable ___ Other X - no casing; use pneumatic hammer

DRILLER'S LICENSE NO. NET Pacific Labs

WELL PROJECTS
Drill Hole Diameter ___ in. Maximum
Casing Diameter ___ in. Depth [redacted] ft.
Surface Seal Depth ___ ft. Number [redacted]

GEOTECHNICAL PROJECTS
Number of Borings 30 Maximum
Hole Diameter 3/4 in. Depth 20 ft.

(7) ESTIMATED STARTING DATE 4/30/90
ESTIMATED COMPLETION DATE 5/3/90

(8) I hereby agree to comply with all requirements of this permit and Alameda County Ordinance No. 73-68.

APPLICANT'S SIGNATURE Lisa Polos Date 4/26/90

FOR OFFICE USE

PERMIT NUMBER 90263
LOCATION NUMBER

PERMIT CONDITIONS

Circled Permit Requirements Apply

A. GENERAL
1. A permit application should be submitted so arrive at the Zone 7 office five days pri proposed starting date.
2. Submit to Zone 7 within 60 days after compl of permitted work the original Departmer Water Resources Water Well Drillers Repor equivalent for well projects, or drilling and location sketch for geotechnical projects
3. Permit is void if project not begun withi days of approval date.

B. WATER WELLS, INCLUDING PIEZOMETERS
1. Minimum surface seal thickness is two inch cement grout placed by tremie.
2. Minimum seal depth is 50 feet for municipal industrial wells or 20 feet for domestic, ir tion, and monitoring wells unless a lesser is specially approved.

C. GEOTECHNICAL. Backfill bore hole with compacted tings or heavy bentonite and upper two feet with pacted material. In areas of known or susp contamination, tremied cement grout shall be use place of compacted cuttings.

D. CATHODIC. Fill hole above anode zone with con placed by tremie.

E. WELL DESTRUCTION. See attached.

Note: sampling pipe is 3/4" diameter; no casing used. Boring grouted up by gravity dropping cement into bore hole. cement slurry is 10 gallons of water to 1 bag of cement.

Approved Wyman Hong Date 27 Apr
Wyman Hong

2

APPENDIX D

90-4

NATIONAL ENVIRONMENTAL TESTING, INC.

NET Pacific, Inc.
435 Tesconi Circle
Santa Rosa, CA 95401
Tel: (707) 526-7200
Fax: (707) 526-9623

Jack Worthington
Durham Transportation, Inc
2713 N. River Ave.
Rosemead, CA 91770

Date: 05-18-90
NET Client Acct No: 699
NET Pacific Log No: 1755
Received: 05-15-90 1524

Client Reference Information

19984 Meekland Rd., Hayward

Sample analysis in support of the project referenced above has been completed and results are presented on following pages. Please refer to the enclosed "Key to Abbreviations" for definition of terms. Should you have questions regarding procedures or results, please feel welcome to contact Client Services.

Approved by:

Jules Skamarack
Laboratory Manager

cc: Lisa Poles
Toxic Technology
P.O. Box 515
Rodeo, CA 94572

JS:rct
Enclosure(s)

Client No: 699
Client Name: Durham Transportation, Inc
NET Log No: 1755

Date: 05-18-90
Page: 2

Ref: 19984 Meekland Rd., Hayward

Parameter	Method	Reporting Limit	Descriptor, Lab No. and Results 10 14-20' 04-30-90 0950 53013	 10 DUP 14-20 04-30-90 0955 53014	Units
DATE ANALYZED			04-30-90	04-30-90	
DILUTION FACTOR*			8	8	
METHOD 8010					
1,1-Dichloroethene		0.02	ND	ND	ppmv
trans-1.2-Dichloroethene		0.02	ND	ND	ppmv
Trichloroethene		0.02	ND	ND	ppmv
cis-1,2-Dichloroethene		0.02	ND	ND	ppmv
METHOD 8020			--	--	
Benzene		0.02	ND	ND	ppmv
Ethylbenzene		0.02	0.48	ND	ppmv
Toluene		0.02	0.54	0.33	ppmv
Xylenes		0.02	ND	0.83	ppmv
DATE ANALYZED			04-30-90	04-30-90	
DILUTION FACTOR*			1	1	
PETROLIUM HYDROCARBONS			--	--	
METHOD GC FID/5030			--	--	
Volatile, as Hexane		10	ND	ND	ppmv

Client No: 699
Client Name: Durham Transportation, Inc
NET Log No: 1755

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Ref: 19984 Meekland Rd., Hayward

Parameter	Method	Reporting Limit	Descriptor, Lab No. and Results 3 14-20' 04-30-90 1110 53015	 11 14-20' 04-30-90 1030 53016	Units
DATE ANALYZED			04-30-90	04-30-90	
DILUTION FACTOR*			8	8	
METHOD 8010					
1,1-Dichloroethene		0.02	ND	ND	ppmv
trans-1.2-Dichloroethene		0.02	ND	ND	ppmv
Trichloroethene		0.02	ND	ND	ppmv
cis-1,2-Dichloroethene		0.02	ND	ND	ppmv
METHOD 8020			--	--	
Benzene		0.02	ND	ND	ppmv
Ethylbenzene		0.02	0.96	ND	ppmv
Toluene		0.02	ND	ND	ppmv
Xylenes		0.02	ND	0.56	ppmv
DATE ANALYZED			04-30-90	04-30-90	
DILUTION FACTOR*			1	1	
PETROLEUM HYDROCARBONS					
METHOD GC FID/5030			--	--	
Volatile, as Hexane		10	ND	ND	ppmv

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Client Name: Durham Transportation, Inc
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Parameter	Method	Reporting Limit	Descriptor, Lab No. and Results 16 14-20' 04-30-90 1120 53017	 9 14-20' 04-30-90 1415 53018	Units
DATE ANALYZED			04-30-90	04-30-90	
DILUTION FACTOR*			8	8	
METHOD 8010					
1,1-Dichloroethene		0.02	ND	ND	ppmv
trans-1.2-Dichloroethene		0.02	ND	ND	ppmv
Trichloroethene		0.02	ND	ND	ppmv
cis-1,2-Dichloroethene		0.02	ND	ND	ppmv
METHOD 8020			--	--	
Benzene		0.02	ND	2,500	ppmv
Ethylbenzene		0.02	ND	2.4	ppmv
Toluene		0.02	ND	6.0	ppmv
Xylenes		0.02	0.58	3.7	ppmv
DATE ANALYZED			04-30-90	04-30-90	
DILUTION FACTOR*			1	1	
PETROLEUM HYDROCARBONS					
METHOD GC FID/5030			--	--	
Volatile, as Hexane		10	ND	12,000	ppmv

Client No: 699 Date: 05-18-90
Client Name: Durham Transportation, Inc
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Ref: 19984 Meekland Rd., Hayward

Parameter	Method	Reporting Limit	Descriptor, Lab No. and Results 8 18-24' 04-30-90 1520 53019	 7 15-21' 04-30-90 1730 53020	Units
DATE ANALYZED			04-30-90	05-01-90	
DILUTION FACTOR*			1	8	
METHOD 8010					
1,1-Dichloroethene		0.02	ND	ND	ppmv
trans-1.2-Dichloroethene		0.02	ND	ND	ppmv
Trichloroethene		0.02	ND	ND	ppmv
cis-1,2-Dichloroethene		0.02	ND	ND	ppmv
METHOD 8020			--	--	
Benzene		0.02	1.3	0.51	ppmv
Ethylbenzene		0.02	ND	ND	ppmv
Toluene		0.02	1.1	1.1	ppmv
Xylenes		0.02	1.9	0.91	ppmv
DATE ANALYZED			04-30-90	05-01-90	
DILUTION FACTOR*			1	1	
PETROLEUM HYDROCARBONS					
METHOD GC FID/5030			--	--	
Volatile, as Hexane		10	18	ND	ppmv

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Ref: 19984 Meekland Rd., Hayward

Parameter	Method	Reporting Limit	Descriptor, Lab No. and Results 2 18-24' 04-30-90 1630 53021	 14 18-24' 05-01-90 1010 53022	Units
DATE ANALYZED			05-01-90	05-01-90	
DILUTION FACTOR*			1	5	
METHOD 8010					
1,1-Dichloroethene		0.02	ND	ND	ppmv
trans-1.2-Dichloroethene		0.02	ND	ND	ppmv
Trichloroethene		0.02	ND	ND	ppmv
cis-1,2-Dichloroethene		0.02	ND	ND	ppmv
METHOD 8020			--	--	
Benzene		0.02	0.46	220	ppmv
Ethylbenzene		0.02	0.55	3.6	ppmv
Toluene		0.02	1.2	27	ppmv
Xylenes		0.02	1.8	16	ppmv
DATE ANALYZED			05-01-90	05-01-90	
DILUTION FACTOR*			1	4	
PETROLEUM HYDROCARBONS					
METHOD GC FID/5030			--	--	
Volatile, as Hexane		10	ND	3,100	ppmv

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Ref: 19984 Meekland Rd., Hayward

Parameter	Method	Reporting Limit	Descriptor, Lab No. and Results 6 21.5-24' 05-01-90 1340 53023	 5 21-24' 05-01-90 1550 53024	Units
DATE ANALYZED			05-01-90	05-01-90	
DILUTION FACTOR*			10	150	
METHOD 8010					
1,1-Dichloroethene		0.02	ND	ND	ppmv
trans-1.2-Dichloroethene		0.02	ND	ND	ppmv
Trichloroethene		0.02	ND	ND	ppmv
cis-1,2-Dichloroethene		0.02	ND	ND	ppmv
METHOD 8020			--	--	
Benzene		0.02	5.5	120	ppmv
Ethylbenzene		0.02	ND	ND	ppmv
Toluene		0.02	7.6	330	ppmv
Xylenes		0.02	9.0	550	ppmv
DATE ANALYZED			05-01-90	05-01-90	
DILUTION FACTOR*			4	10	
PETROLEUM HYDROCARBONS					
METHOD GC FID/5030			--	--	
Volatile, as Hexane		10	540	1,000	ppmv

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Client Name: Durham Transportation, Inc
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Ref: 19984 Mockland Rd., Hayward

Parameter	Method	Reporting Limit	Descriptor, Lab No. and Results 13 20.5-24' 05-01-90 1700 53025	 12 21-24' 05-01-90 1755 53026	Units
DATE ANALYZED			05-01-90	05-01-90	
DILUTION FACTOR*			150	150	
METHOD 8010					
1,1-Dichloroethene		0.02	ND	ND	ppmv
trans-1.2-Dichloroethene		0.02	ND	ND	ppmv
Trichloroethene		0.02	ND	ND	ppmv
cis-1,2-Dichloroethene		0.02	ND	ND	ppmv
METHOD 8020			--	--	
Benzene		0.02	7,800	250	ppmv
Ethylbenzene		0.02	ND	ND	ppmv
Toluene		0.02	360	340	ppmv
Xylenes		0.02	590	680	ppmv
DATE ANALYZED			05-01-90	05-01-90	
DILUTION FACTOR*			1	1	
PETROLEUM HYDROCARBONS					
METHOD GC FID/5030			--	--	
Volatile, as Hexane		10	9,100	2,500	ppmv

Client No: 699
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Parameter	Method	Reporting Limit	Descriptor, Lab No. and Results 4 23-24' 05-02-90 0930 53027	 19 22.5-24' 05-02-90 1100 53028	Units
DATE ANALYZED			05-02-90	05-02-90	
DILUTION FACTOR*			8	150	
METHOD 8010					
1,1-Dichloroethene		0.02	ND	ND	ppmv
trans-1.2-Dichloroethene		0.02	ND	ND	ppmv
Trichloroethene		0.02	ND	ND	ppmv
cis-1,2-Dichloroethene		0.02	ND	ND	ppmv
METHOD 8020			--	--	
Benzene		0.02	ND	1,200	ppmv
Ethylbenzene		0.02	ND	160	ppmv
Toluene		0.02	0.36	890	ppmv
Xylenes		0.02	0.45	1,000	ppmv
DATE ANALYZED			05-02-90	05-02-90	
DILUTION FACTOR*			1	10	
PETROLEUM HYDROCARBONS					
METHOD GC FID/5030			--	--	
Volatile, as Hexane		10	ND	170	ppmv

Client No: 699
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Parameter	Method	Reporting Limit	Descriptor, Lab No. and Results 28 22.5-24' 05-02-90 1250 53029	 24 23-24' 05-02-90 1350 53030	Units
DATE ANALYZED			05-02-90	05-02-90	
DILUTION FACTOR*			8	8	
METHOD 8010					
1,1-Dichloroethene		0.02	ND	ND	ppmv
trans-1.2-Dichloroethene		0.02	ND	ND	ppmv
Trichloroethene		0.02	ND	ND	ppmv
cis-1,2-Dichloroethene		0.02	ND	ND	ppmv
METHOD 8020			--	--	
Benzene		0.02	0.77	0.74	ppmv
Ethylbenzene		0.02	ND	0.71	ppmv
Toluene		0.02	0.90	2.1	ppmv
Xylenes		0.02	1.1	4.4	ppmv
DATE ANALYZED			05-02-90	05-02-90	
DILUTION FACTOR*			1	1	
PETROLEUM HYDROCARBONS					
METHOD GC FID/5030			--	--	
Volatile, as Hexane		10	180	10	ppmv

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Parameter	Method	Reporting Limit	Descriptor, Lab No. and Results 18 22.5-24' 05-02-90 1750 53031	 22 22.5-24' 05-03-90 1100 53032	Units
DATE ANALYZED			05-03-90	05-03-90	
DILUTION FACTOR*			40	8	
METHOD 8010					
1,1-Dichloroethene		0.02	ND	ND	ppmv
trans-1.2-Dichloroethene		0.02	ND	ND	ppmv
Trichloroethene		0.02	ND	ND	ppmv
cis-1,2-Dichloroethene		0.02	ND	ND	ppmv
METHOD 8020			--	--	
Benzene		0.02	6.0	ND	ppmv
Ethylbenzene		0.02	ND	ND	ppmv
Toluene		0.02	ND	0.49	ppmv
Xylenes		0.02	ND	0.74	ppmv
DATE ANALYZED			05-03-90	05-03-90	
DILUTION FACTOR*			5	1	
PETROLEUM HYDROCARBONS					
METHOD GC FID/5030			--	--	
Volatile, as Hexane		10	71	ND	ppmv

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Client Name: Durham Transportation, Inc
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Parameter	Method	Reporting Limit	Descriptor, Lab No. and Results 27 22.5-24' 05-03-90 1000 53033	 15 22.5-24' 05-03-90 1200 53034	Units
DATE ANALYZED			05-03-90	05-03-90	
DILUTION FACTOR*			8	8	
METHOD 8010					
1,1-Dichloroethene		0.02	ND	ND	ppmv
trans-1,2-Dichloroethene		0.02	ND	ND	ppmv
Trichloroethene		0.02	ND	ND	ppmv
cis-1,2-Dichloroethene		0.02	ND	ND	ppmv
METHOD 8020			--	--	
Benzene		0.02	ND	ND	ppmv
Ethylbenzene		0.02	ND	ND	ppmv
Toluene		0.02	0.40	0.62	ppmv
Xylenes		0.02	0.53	0.85	ppmv
DATE ANALYZED			05-03-90	05-03-90	
DILUTION FACTOR*			2	1	
PETROLEUM HYDROCARBONS					
METHOD GC FID/5030			--	--	
Volatile, as Hexane		10	ND	ND	ppmv

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Ref: 19984 Meekland Rd., Hayward

Parameter	Method	Reporting Limit	Descriptor, Lab No. and Results 30 22.5-24' 05-03-90 1320 53035	 30Dp 22.5-24 05-03-90 1320 53036	Units
DATE ANALYZED			05-03-90	05-03-90	
DILUTION FACTOR*			8	8	
METHOD 8010					
1,1-Dichloroethene		0.02	ND	ND	ppmv
trans-1.2-Dichloroethene		0.02	ND	ND	ppmv
Trichloroethene		0.02	ND	ND	ppmv
cis-1,2-Dichloroethene		0.02	ND	ND	ppmv
METHOD 8020			--	--	
Benzene		0.02	0.32	0.39	ppmv
Ethylbenzene		0.02	ND	ND	ppmv
Toluene		0.02	0.71	0.74	ppmv
Xylenes		0.02	1.0	1.0	ppmv
DATE ANALYZED			05-03-90	05-03-90	
DILUTION FACTOR*			1	1	
PETROLEUM HYDROCARBONS					
METHOD GC FID/5030			--	--	
Volatile, as Hexane		10	ND	ND	ppmv

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Parameter	Method	Reporting Limit	Descriptor, Lab No. and Results 25 23-24' 05-03-90 1425 53037	 31 23-24' 05-03-90 1630 53038	Units
DATE ANALYZED			05-03-90	05-03-90	
DILUTION FACTOR*			8	8	
METHOD 8010					
1,1-Dichloroethene		0.02	ND	ND	ppmv
trans-1.2-Dichloroethene		0.02	ND	ND	ppmv
Trichloroethene		0.02	ND	ND	ppmv
cis-1,2-Dichloroethene		0.02	ND	ND	ppmv
METHOD 8020			--	--	
Benzene		0.02	0.39	0.47	ppmv
Ethylbenzene		0.02	ND	ND	ppmv
Toluene		0.02	0.77	0.83	ppmv
Xylenes		0.02	1.1	1.1	ppmv
DATE ANALYZED			05-03-90	05-03-90	
DILUTION FACTOR*			1	1	
PETROLEUM HYDROCARBONS					
METHOD GC FID/5030			--	--	
Volatile, as Hexane		10	ND	ND	ppmv

KEY TO ABBREVIATIONS and METHOD REFERENCES

<	:	Less than; When appearing in results column indicates analyte not detected at the value following. This datum supercedes the listed Reporting Limit.
*	:	Reporting Limits are a function of the dilution factor for any given sample. To obtain the actual reporting limits for this sample, multiply the stated Reporting Limits by the dilution factor (but do not multiply reported values).
ICVS	:	Initial Calibration Verification Standard (External Standard).
mean	:	Average; sum of measurements divided by number of measurements.
mg/Kg (ppm)	:	Concentration in units of milligrams of analyte per kilogram of sample, wet-weight basis (parts per million).
mg/L	:	Concentration in units of milligrams of analyte per liter of sample.
mL/L/hr	:	Milliliters per liter per hour.
MPN/100 mL	:	Most probable number of bacteria per one hundred milliliters of sample.
N/A	:	Not applicable.
NA	:	Not analyzed.
ND	:	Not detected; the analyte concentration is less than applicable listed reporting limit.
NTU	:	Nephelometric turbidity units.
RPD	:	Relative percent difference, 100 [Value 1 - Value 2]/mean value.
SNA	:	Standard not available.
ug/Kg (ppb)	:	Concentration in units of micrograms of analyte per kilogram of sample, wet-weight basis (parts per billion).
ug/L	:	Concentration in units of micrograms of analyte per liter of sample.
umhos/cm	:	Micromhos per centimeter.

Method References

Methods 100 through 493: see "Methods for Chemical Analysis of Water & Wastes", U.S. EPA, 600/4-79-020, rev. 1983.

Methods 601 through 625: see "Guidelines Establishing Test Procedures for the Analysis of Pollutants" U.S. EPA, 40 CFR, Part 136, rev. 1988.

Methods 1000 through 9999: see "Test Methods for Evaluating Solid Waste", U.S. EPA SW-846, 3rd edition, 1986.

SM: see "Standard Methods for the Examination of Water & Wastewater, 16th Edition, APHA, 1985.

NET Pacific, Inc.

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CHAIN OF CUSTODY RECORD

PROJ. NO. 1755

PROJECT NAME 19984 Meekland Rd., (699) Hayward, Durham Transport, Jack Worthington

SAMPLERS (Signature)

LAB NO.	DATE	TIME	COMP	GRAB	STATION LOCATION	NO. OF CONTAINERS	TCE, t-1,2 DCE, c-1,2-DCE, 1,1 DCE, TPH-Gas (as Hexane), BTEX	REMARKS
#10	4/30	0950			14-20'	1		soil vapor
#10		0955			Dup 14-20'	1		
#3		1110			14-20'	1		
#11		1030			14-20'	1		
#16		1120			14-20'	1		
#9		1415			14-20'	1		
#8		1520			18-24'	1		
#7		1730			15-21'	1		
#2		1630			18-24	1		
#14	5/1	1010			18-24'	1		
#6		1340			21.5-24'	1		
#5		1550			21-24'	1		
#13		1700			20.5-24'	1		
#12		1755			21-24'	1		

Relinquished by: (Signature)	Date / Time	Received by: (Signature)	Relinquished by: (Signature)	Date / Time	Received by: (Signature)
Relinquished by: (Signature)	Date / Time	Received by: (Signature)	Relinquished by: (Signature)	Date / Time	Received by. (Signature)
Relinquished by: (Signature)	Date / Time	Received for Laboratory by: (Signature) Kemple	Date / Time 5/4/90	1524	Remarks Copy of report to Toxic Tech services, Lisa Polos also Hold all samples