CTTS, Inc.
toxic technology services

February 20, 1990
File No. 90-1

Mr. Verl Rothlisberger
Verl's Construction
753 Peralta Ave.
San Leandro, California 94577

Subject: Soil Sampling of January 18, 1990
342 - 105th Avenue, Oakland, Ca.

Dear Verl:

Enclosed are the results of the ten soil samples collected by Lisa Polos of CTTS, Inc. (Toxic Technology Services) on January 18, 1990.

The samples collected were from under the product pipeline leading from the underground tank to the boiler, from the tank excavation itself, from the excavation around the tank pit and from the pile of topsoil.

In summary, the soil in the tank pit is still quite laden with heavy petroleum hydrocarbons. The excavation around the pit also has petroleum hydrocarbon contamination indicating that this excavation did not encompass the contamination plume. The pipeline shows appreciable contamination from 40' -60'along the pipeline. The topsoil has minor petroleum hydrocarbon contamination and at this point in time, should not be used as fill.

The data thus far indicates two situations. The first is the tank pit itself. The data indicates that the area is heavily contaminated and probably the most economical and less time consuming remediation would be to excavate and haul the highly contaminated material away to a properly licensed disposal facility.

The second situation is the less contaminated soil of the excavation by the tank pit, the pipeline and the topsoil. This soil could feasibly be treated by bioremediation, but could take considerable time. With approval from the local and state agencies, this process or some other appropriate treatment, should be started as soon as possible.

In the meantime, no further excavation should take place until the groundwater quality is determined. With groundwater being at a shallow depth, it is likely that not only the groundwater is contaminated, but is contributing to the contamination of the soil in the saturated zone.

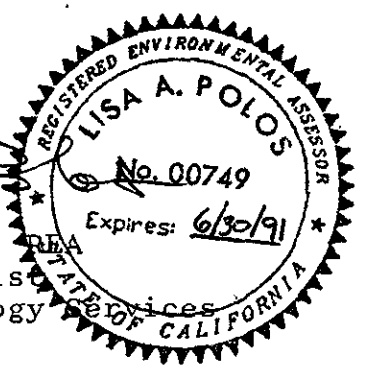
P.O. Box 515 • Rodeo, California 94572 • (415) 799-1140

Table 1 presents the locations of soil samples collected. Appendix A presents the laboratory results. Analytical work was performed by TMA/Norcal in Richmond, a state certified hazardous waste laboratory.

All samples were collected in brass tubes, with the ends covered with aluminum foil and plastic caps. Samples were placed on ice and delivered on January 18, 1990 to TMA/Norcal.

In the event that you have questions, I can be reached at (415) 799-1140.

Sincerely,



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

Enclosures

TABLE 1

SAMPLING LOCATIONS
342 - 105TH AVENUE, OAKLAND

JANUARY 18, 1990

Samples 1-4 are from under the product pipeline leading from the tank to the boiler. Samples were collected at an approximate depth of 24" below grade.

1. At beginning of pipeline; 61' from northeast fence
2. 20' along pipeline; 58' from northeast fence
3. 40' along pipeline; 55' from northeast fence
4. 60' end of pipeline; 51' from northeast fence

5. Tank pit bottom; depth of 9'9"; 6' from sidewalk; 80' from northeast fence corner

Samples 6-8 are from the excavation on the east side of the tank pit.

6. Sidewall; depth of 7'6"; 20' from sidewalk'; 41' from northeast fence corner
7. Excavation bottom; depth of 8'; 20' from sidewalk; 70' from northeast fence corner
8. Sidewall; depth of 7'6"; 20' from sidewalk; 80' from northeast fence corner

Samples 9 & 10 were taken from the pile of topsoil located on the north side of the house. Samples were collected by placing soil in a brass tube with a trowel, every five feet along the pile, starting at the northwest end. Excavation personnel indicated that the top of the pile represented soil that was at a approximate depth of 5' below grade.

9. Composite top soil, 0'-30' along the pile
10. Composite top soil, 35'-70' along the pile

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

February 15, 1990

Ms. Lisa Polos
P.O. Box 515
Rodeo, CA 94572

TMA/Norcal ID: 6937-1, Gary Tompkins & Assoc.

Dear Ms. Polos:

Attached are the results for ten soil samples received on January 18, 1990. Please refer to project number, 90-1 and project name, 105th Avenue. Also attached is a copy of the chain of custody.

If you have any questions, please feel free to give Robert Fox a call at (415) 235-2633.

Submitted by:

Susan Smith
Inorganic Department
Supervisor

Prepared by:

Robert Fox
Program Manager/Chemist

Attachments: 30 pages

TMA/Norcal ID: 6937-1
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TABLE I

TMA/Norcal ID:	6937-1-9	Detection	EPA
Client ID:	Topsoil 0'-30'	Limit	Method
UNITS: mg/Kg			
Antimony	<30	30	6010
Arsenic	<1	1	7060
Barium	370	3	6010
Beryllium	<1	1	6010
Cadmium	<2	2	6010
Chromium	62	2	6010
Cobalt	14	3	6010
Copper	33	3	6010
Lead	22	7	6010
Mercury	<0.3	0.3	7471
Molybdenum	<2	2	6010
Nickel	64	7	6010
Selenium	<0.5	0.5	7740
Silver	<3	3	6010
Thallium	<30	30	6010
Vanadium	49	5	6010
Zinc	89	4	6010

TMA/Norcal ID: 6937-1
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TABLE II

TMA/Norcal ID: / Client ID:	6937-1-10 Topsoil 35'-70'	Detection Limit	EPA Method
UNITS: mg/Kg			
Antimony	<30 *	30	6010
Arsenic	<10	10	7060
Barium	290	3	6010
Beryllium	<1	1	6010
Cadmium	<2 *	2	6010
Chromium	57	2	6010
Cobalt	17	3	6010
Copper	26	3	6010
Lead	26	7	6010
Mercury	<0.3	0.3	7471
Molybdenum	<2 *	2	6010
Nickel	84 *	7	6010
Selenium	<5	5	7740
Silver	<3	3	6010
Thallium	<30	30	6010
Vanadium	45	5	6010
Zinc	74	4	6010

* Poor spike recovery indicates possible matrix interference.

TMA/Norcal ID: 6937-1
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TABLE III

UNITS = mg/Kg

TMA/Norcal ID	Client ID	Petroleum * Hydrocarbons	Detection Limit
6937-1-1	0' at excav.	<70	70
6937-1-2	20' under pipe	<70	70
6937-1-3	40' under pipe	250	70
6937-1-4	60' end	160	70
6937-1-5	tank pit bottom	7300	70
6937-1-6	sidewall 41'	<70	70
6937-1-7	excav. bottom	970	70
6937-1-8	sidewall 80'	<70	70
6937-1-9	topsoil 0'- 30'	84	70
6937-1-10	topsoil 35'- 70'	170	70

* EPA Method 9071, Oil & Grease including Petroleum Hydrocarbons.

TPH AS DIESEL
ANAYSIS RESULTS REPORT

Lab Name: TMA/Norcal
Client: GARY TOMPKINS & ASSOCIATES
Matrix: soil

Date Received: 12 1-18-90
Date Analyzed: 1- 2-8-90

Analysis/Method: MOD-8015 FULX

TMA/Norcal ID	Client ID	Diesel (mg/kg)	Detection Limits (mg/kg)
6937-1-1	#1	<10 mg/kg	10 mg/kg
6937-1-2	#2	<10 mg/kg	10 mg/kg
6937-1-3	#3	11.2 mg/kg	10 mg/kg
6937-1-4	#4 60' end	4623 mg/kg	10 mg/kg
6937-1-5	#5	<10 mg/kg	10 mg/kg
6937-1-6	#6	62.8 mg/kg	10 mg/kg
6937-1-7	#7	<10 mg/kg	10 mg/kg
6937-1-8	#8	<10 mg/kg	10 mg/kg
6937-1-9	#9	<10 mg/kg	10 mg/kg
6937-1-10	#10	<10 mg/kg	10 mg/kg

Renée Doherty
Analyst

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Analysis Results Report
Total Petroleum Hydrocarbons
Soil Matrix

Client: GARY TOMPKINS & ASSOC.
Sample Delivery Group: 1
Analysis/Method: MOD 8015 P & T

Date Received: 1/18/90
Date Analyzed: 1/23/90
Date Report: 1/30/90

TMA Sample ID	Client ID	Gasoline (mg/Kg)	Detection Limits (mg/Kg)
METHOD BLANK	N. A.	<10	10
6937-1-1	#1TANK 0'EXCAV	<10	10
6937-1-2	#2 20'PIPELINE	<10	10
6937-1-3	#3 40'PIPELINE	<10	10
6937-1-4	#4 60'ENDPIPE	<10	10
6937-1-5	#5TANKPITBOTTM	1100	10
6937-1-6	#6SIDEWALL7.5'	<10	10
6937-1-7	#7EXCAVBOTTM8'	<10	10
6937-1-8	#8SIDEWALL8.5'	<10	10
6937-1-9	#9TOPSOIL0-30	<10	10
6937-1-10	#10TOPSOIL3570	68	10

Analyst

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EPA METHOD 8020
TARGET ANALYTE RESULTS

Client: GARY TOMPKINS & ASSOC.
Client Sample ID: N. A.
TMA/Norcal SAMPLE ID: METHOD BLANK

Date Received: N. A.
Date Analyzed: 1/23/90

CAS. No	COMPOUND	RESULTS (ug/kg)	DETECTION LIMITS (ug/kg)
71-43-2	benzene	<5	5
108-88-3	toluene	18	5
100-41-4	ethylbenzene	<5	5
108-38-3	xylenes	<15	15

C W Smith
Analyst

Data Release Authorized By

EPA METHOD 8020
TARGET ANALYTE RESULTS

Client: GARY TOMPKINS & ASSOC.
Client Sample ID: N. A.
TMA/Norcal SAMPLE ID: INSTRUMENTBLANK

Date Received: N. A.
Date Analyzed: 1/23/90

CAS. No	COMPOUND	RESULTS (ug/kg)	DETECTION LIMITS (ug/kg)
71-43-2	benzene	<5	5
108-88-3	toluene	<5	5
100-41-4	ethylbenzene	<5	5
108-38-3	xylenes	<15	15

C. Smith
Analyst

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EPA METHOD 8020
TARGET ANALYTE RESULTS

Client: GARY TOMPKINS & ASSOC.
Client Sample ID: #1 TANK 0'EXCAV
TMA/Norcal SAMPLE ID: 6937-1-1

Date Received: 1/18/90
Date Analyzed: 1/23/90

CAS. No	COMPOUND	RESULTS (ug/kg)	DETECTION LIMITS (ug/kg)
71-43-2	benzene	<5	5
108-88-3	toluene	39	5
100-41-4	ethylbenzene	<5	5
108-38-3	xylenes	<15	15

C W Smith
Analyst

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EPA METHOD 8020
TARGET ANALYTE RESULTS

Client: GARY TOMPKINS & ASSOC.
Client Sample ID: #2 20' PIPELINE
TMA/Norcal SAMPLE ID: 6937-1-2

Date Received: 1/18/90
Date Analyzed: 1/23/90

CAS. No	COMPOUND	RESULTS (ug/kg)	DETECTION LIMITS (ug/kg)
71-43-2	benzene	<5	5
108-88-3	toluene	37	5
100-41-4	ethylbenzene	<5	5
108-38-3	xylenes	<15	15

C V Smith
Analyst

Data Release Authorized By

EPA METHOD 8020
TARGET ANALYTE RESULTS

Client: GARY TOMPKINS & ASSOC.
Client Sample ID: #3 40' PIPELINE
TMA/Norcal SAMPLE ID: 6937-1-3

Date Received: 1/18/90
Date Analyzed: 1/23/90

CAS. No	COMPOUND	RESULTS (ug/kg)	DETECTION LIMITS (ug/kg)
71-43-2	benzene	<5	5
108-88-3	toluene	71	5
100-41-4	ethylbenzene	<5	5
108-38-3	xylenes	<15	15

C W Smith
Analyst

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EPA METHOD 8020
TARGET ANALYTE RESULTS

Client: GARY TOMPKINS & ASSOC.
Client Sample ID: #4 60'ENDPIPELN
TMA/Norcal SAMPLE ID: 6937-1-4

Date Received: 1/18/90
Date Analyzed: 1/23/90

CAS. No	COMPOUND	RESULTS (ug/kg)	DETECTION LIMITS (ug/kg)
71-43-2	benzene	<5	5
108-88-3	toluene	28	5
100-41-4	ethylbenzene	<5	5
108-38-3	xylenes	<15	15

C Smith
Analyst

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EPA METHOD 8020
TARGET ANALYTE RESULTS

Client: GARY TOMPKINS & ASSOC.
Client Sample ID: #5 TANK BOTTOM
TMA/Norcal SAMPLE ID: 6937-1-5

Date Received: 1/18/90
Date Analyzed: 1/23/90

CAS. No	COMPOUND	RESULTS (ug/kg)	DETECTION LIMITS (ug/kg)
71-43-2	benzene	<5	5
108-88-3	toluene	17 *	5
100-41-4	ethylbenzene	22	5
108-38-3	xylenes	17	15

* < BLANK

G.D. Smith
Analyst

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EPA METHOD 8020
TARGET ANALYTE RESULTS

Client: GARY TOMPKINS & ASSOC.
Client Sample ID: #6#6SIDEWALL7.5
TMA/Norcal SAMPLE ID: 6937-1-6

Date Received: 1/18/90
Date Analyzed: 1/23/90

CAS. No	COMPOUND	RESULTS (ug/kg)	DETECTION LIMITS (ug/kg)
71-43-2	benzene	<5	5
108-88-3	toluene	19	5
100-41-4	ethylbenzene	<5	5
108-38-3	xylenes	<15	15

G W Smith
Analyst

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EPA METHOD 8020
TARGET ANALYTE RESULTS

Client: GARY TOMPKINS & ASSOC.
Client Sample ID: #7EXCAV BOTTOM8
TMA/Norcal SAMPLE ID: 6937-1-7

Date Received: 1/18/90
Date Analyzed: 1/23/90

CAS. No	COMPOUND	RESULTS (ug/kg)	DETECTION LIMITS (ug/kg)
71-43-2	benzene	<5	5
108-88-3	toluene	26	5
100-41-4	ethylbenzene	<5	5
108-38-3	xylenes	<15	15

C W Smith
Analyst

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EPA METHOD 8020
TARGET ANALYTE RESULTS

Client: GARY TOMPKINS & ASSOC.
Client Sample ID: #8SIDEWALL 7.5'
TMA/Norcal SAMPLE ID: 6937-1-8

Date Received: 1/18/90
Date Analyzed: 1/23/90

CAS. No	COMPOUND	RESULTS (ug/kg)	DETECTION LIMITS (ug/kg)
71-43-2	benzene	<5	5
108-88-3	toluene	18 *	5
100-41-4	ethylbenzene	<5	5
108-38-3	xylenes	<15	15

* = BLANK

C W Smith
Analyst

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EPA METHOD 8020
TARGET ANALYTE RESULTS

Client: GARY TOMPKINS & ASSOC.
Client Sample ID: #9TOPSOIL0-30'
TMA/Norcal SAMPLE ID: 6937-1-9

Date Received: 1/18/90
Date Analyzed: 1/23/90

CAS. No	COMPOUND	RESULTS (ug/kg)	DETECTION LIMITS (ug/kg)
71-43-2	benzene	<5	5
108-88-3	toluene	34	5
100-41-4	ethylbenzene	<5	5
108-38-3	xylenes	<15	15

C W Smith
Analyst

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EPA METHOD 8020
TARGET ANALYTE RESULTS

Client: GARY TOMPKINS & ASSOC.
Client Sample ID: #10TOPSOIL35-70
TMA/Norcal SAMPLE ID: 6937-1-10

Date Received: 1/18/90
Date Analyzed: 1/23/90

CAS. No	COMPOUND	RESULTS (ug/kg)	DETECTION LIMITS (ug/kg)
71-43-2	benzene	<5	5
108-88-3	toluene	37	5
100-41-4	ethylbenzene	72	5
108-38-3	xylenes	79	15

G W Smith
Analyst

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ANALYTICAL REPORT FOR SAMPLE No. 6937-1-ØA

EPA METHOD 8270
TARGET ANALYTE RESULTS

Client Sample ID _____ - _____ Client GARY TOMPKINS & ASSOCIATES

File ID BP009 Date Extracted 01/29/90 Date of Analysis 01/31/9

TMA/Norcal set ID 6937-1

Cas. No	COMPOUND	RESULTS (ug/Kg)	METHOD DETECTION LIMITS (MDL) (ug/Kg)
62-75-9	N-nitrosodimethylamine	ND	1000
108-95-2	phenol	1426	660
111-44-4	bis(2-chloroethyl)ether	ND	660
95-57-8	2-chlorophenol	ND	660
541-73-1	1,3-dichlorobenzene	ND	660
106-46-7	1,4-dichlorobenzene	ND	660
95-50-1	1,2-dichlorobenzene	ND	660
39638-329	bis(2-chloroisopropyl)ether	ND	660
621-64-7	N-nitrosodi-n-propylamine	ND	660
67-72-1	hexachloroethane	ND	660
98-95-3	nitrobenzene	ND	660
78-59-1	isophorone	ND	660
88-75-5	2-nitrophenol	ND	660
105-67-9	2,4-dimethylphenol	ND	660
11-91-1	bis(2-chloroethoxy)methane	ND	660
120-83-2	2,4-dichlorophenol	ND	660
120-82-1	1,2,4-trichlorobenzene	ND	660
91-20-3	naphthalene	ND	660
87-68-3	hexachlorobutadiene	ND	660
59-50-7	4-chloro-3-methylphenol	ND	1300
77-47-4	hexachlorocyclopentadiene	ND	660
88-06-2	2,4,6-trichlorophenol	ND	660
91-58-7	2-chloronaphthalene	ND	660
131-11-3	dimethyl phthalate	ND	660
606-20-2	2,6-dinitrotoluene	ND	660
208-96-8	acenaphthylene	ND	660
83-32-9	acenaphthene	ND	660
51-28-5	2,4-dinitrophenol	ND	3300
100-02-7	4-nitrophenol	ND	3300
121-14-2	2,4-dinitrotoluene	ND	660
84-66-2	diethyl phthalate	ND	660
7005-72-3	4-chlorophenyl-phenylether	ND	660
86-73-7	fluorene	ND	660
534-52-1	4,6-dinitro-2-methylphenol	ND	3300
86-30-6	N-nitrosodiphenylamine	ND	660
101-55-3	4-bromophenyl-phenylether	ND	660
118-74-1	hexachlorobenzene	ND	660

ANALYTICAL REPORT FOR SAMPLE No. 6937-1-ØA

EPA METHOD 8270
TARGET ANALYTE RESULTS

Client Sample ID _____

Cas. No.	COMPOUND	RESULTS (ug/Kg)	METHOD DETECTION LIMITS (MDL) (ug/Kg)
87-86-5	pentachlorophenol	ND	3300
85-01-8	phenanthrene	ND	660
120-12-7	anthracene	ND	660
84-74-2	di-n-butyl phthalate	ND	660
206-44-0	fluoranthene	ND	660
129-00-0	pyrene	ND	660
92-87-5	benzidine	ND	1000
85-68-7	benzyl-butylphthalate	7 J	660
117-81-7	bis(2-ethylhexyl)phthalate	98 J	660
56-55-3	benzo(a)anthracene	ND	660
218-01-9	chrysene	ND	660
91-94-1	3,3-dichlorobenzidine	ND	1300
117-84-0	di-n-octylphthalate	ND	660
205-99-2	benzo(b)fluroanthene	ND	660
207-08-9	benzo(k)fluoranthene	ND	660
50-32-8	benzo(a)pyrene	ND	660
193-39-5	indeno(1,2,3-cd)pyrene	ND	660
53-70-3	dibenzo(a,h)anthracene	ND	660
191-24-2	benzo(ghi)perylene	ND	660

See footnotes on page 3

Karl Jones
Analyst

Eileen A Manning
Reviewer

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ANALYTICAL REPORT FOR SAMPLE No. 6937-1-ØA

NON-TARGET ANALYTE RESULTS
Additional Semi-Volatiles

Client Sample ID _____

Cas. No	COMPOUND	Scan Number	Results UG/KG	Fn *
91-57-6	2-METHYLNAPHTHALENE (DL=1000 UG/KG)		3.5	J
100-51-6	BENZYL ALCOHOL (DL= 660 UG/KG)		90	J

FOOTNOTES

[illegible] The analyte was found in the method blank.

[illegible] The reported concentration is an estimate only. The response factor was assumed to be 1.000 relative to an internal standard.

[illegible] Indicates an estimated concentration below the Method Detection Limit.

[illegible] Isomer is unknown.

[illegible] Analytical standards were not analyzed for this compound.

[illegible] Not detected.

[illegible] Identification is tentative or closely related to the compound.

ANALYTICAL REPORT FOR SAMPLE No. 6937-1-5

EPA METHOD 8270
TARGET ANALYTE RESULTS

Client Sample ID #5 TANK PIT BTMClient GARY TOMPKINS & ASSOCIATES

File ID BP010 Date Extracted 01/29/90 Date of Analysis 01/31/9

TMA/Norcal set ID 6937-1

Cas. No	COMPOUND	RESULTS (ug/Kg)	METHOD DETECTION LIMITS (MDL) (ug/Kg)
62-75-9	N-nitrosodimethylamine	ND	1000
108-95-2	phenol	ND	660
111-44-4	bis(2-chloroethyl)ether	ND	660
95-57-8	2-chlorophenol	ND	660
541-73-1	1,3-dichlorobenzene	ND	660
106-46-7	1,4-dichlorobenzene	ND	660
95-50-1	1,2-dichlorobenzene	ND	660
39638-329	bis(2-chloroisopropyl)ether	ND	660
621-64-7	N-nitrosodi-n-propylamine	ND	660
67-72-1	hexachloroethane	ND	660
98-95-3	nitrobenzene	ND	660
78-59-1	isophorone	ND	660
88-75-5	2-nitrophenol	ND	660
105-67-9	2,4-dimethylphenol	ND	660
11-91-1	bis(2-chloroethoxy)methane	ND	660
120-83-2	2,4-dichlorophenol	ND	660
120-82-1	1,2,4-trichlorobenzene	ND	660
91-20-3	naphthalene	3899	660
87-68-3	hexachlorobutadiene	ND	660
59-50-7	4-chloro-3-methylphenol	ND	1300
77-47-4	hexachlorocyclopentadiene	ND	660
88-06-2	2,4,6-trichlorophenol	ND	660
91-58-7	2-chloronaphthalene	ND	660
131-11-3	dimethyl phthalate	ND	660
606-20-2	2,6-dinitrotoluene	ND	660
208-96-8	acenaphthylene	ND	660
83-32-9	acenaphthene	1022	660
51-28-5	2,4-dinitrophenol	ND	3300
[illegible]	4-nitrophenol	ND	3300
[illegible]	2,4-dinitrotoluene	ND	660
[illegible]	diethyl phthalate	ND	660
[illegible]	4-chlorophenyl-phenylether	ND	660
[illegible]	fluorene	1940	660
[illegible]	2-methyl-4,6-dinitrophenol	ND	3300
[illegible]	N-nitrosodiphenylamine	919	660
[illegible]	4-bromophenyl-phenylether	ND	660
[illegible]	hexachlorobenzene	ND	660

ANALYTICAL REPORT FOR SAMPLE No. 6937-1-5

EPA METHOD 8270
TARGET ANALYTE RESULTS

Client Sample ID #5 TANK PIT BTM

Cas. No.	COMPOUND	RESULTS (ug/Kg)	METHOD DETECTION LIMITS (MDL) (ug/Kg)
87-86-5	pentachlorophenol	ND	3300
85-01-8	phenanthrene	4830	660
120-12-7	anthracene	794	660
84-74-2	di-n-butyl phthalate	ND	660
206-44-0	fluoranthene	ND	660
129-00-0	pyrene	1110	660
92-87-5	benzidine	ND	1000
85-68-7	benzyl-butylphthalate	ND	660
117-81-7	bis(2-ethylhexyl)phthalate	ND	660
56-55-3	benzo(a)anthracene	520 J	660
218-01-9	chrysene	587 J	660
91-94-1	3,3-dichlorobenzidine	ND	1300
117-84-0	di-n-octylphthalate	ND	660
205-99-2	benzo(b)fluroanthene	ND	660
207-08-9	benzo(k)fluoranthene	ND	660
50-32-8	benzo(a)pyrene	ND	660
193-39-5	indeno(1,2,3-cd)pyrene	ND	660
53-70-3	dibenzo(a,h)anthracene	ND	660
191-24-2	benzo(ghi)perylene	ND	660

See footnotes on page 3

Analyst

Reviewer

Data Release Authorized By

ANALYTICAL REPORT FOR SAMPLE No. 6937-1-5

NON-TARGET ANALYTE RESULTS
Additional Semi-Volatiles

Client Sample ID #5 TANK PIT BTM

Cas. No	COMPOUND	Scan Number	Results UG/KG	Fn *
91-57-6	2-METHYLNAPHTHALENE (DL=1000 UG/KG)		15,400	B

FOOTNOTES

B The analyte was found in the method blank.
C 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.
N The isomer is unknown.
* Analytical standards were not analyzed for this compound.
** Not detected.
P The identification is tentative or closely related to the compound.

ANALYTICAL REPORT FOR SAMPLE No. 6937-1-10

EPA METHOD 8270
TARGET ANALYTE RESULTS

Client Sample ID #10 TOPSOIL Client GARY TOMPKINS & ASSOCIATES

File ID >BP012 Date Extracted 01/29/90 Date of Analysis 01/31/

TMA/Norcal set ID 6937-1

Cas. No	COMPOUND	RESULTS (ug/Kg)	METHOD DETECTION LIMITS (MDL) (ug/Kg)
62-75-9	N-nitrosodimethylamine	ND	1000
108-95-2	phenol	ND	660
111-44-4	bis(2-chloroethyl)ether	ND	660
95-57-8	2-chlorophenol	ND	660
541-73-1	1,3-dichlorobenzene	ND	660
106-46-7	1,4-dichlorobenzene	ND	660
95-50-1	1,2-dichlorobenzene	ND	660
39638-32-9	bis(2-chloroisopropyl)ether	ND	660
621-64-7	N-nitrosodi-n-propylamine	ND	660
67-72-1	hexachloroethane	ND	660
98-95-3	nitrobenzene	ND	660
78-59-1	isophorone	ND	660
88-75-5	2-nitrophenol	ND	660
105-67-9	2,4-dimethylphenol	ND	660
11-91-1	bis(2-chloroethoxy)methane	ND	660
120-83-2	2,4-dichlorophenol	ND	660
120-82-1	1,2,4-trichlorobenzene	ND	660
91-20-3	naphthalene	13 J	660
87-68-3	hexachlorobutadiene	ND	660
59-50-7	4-chloro-3-methylphenol	ND	1300
77-47-4	hexachlorocyclopentadiene	ND	660
88-06-2	2,4,6-trichlorophenol	ND	660
91-58-7	2-chloronaphthalene	ND	660
131-11-3	dimethyl phthalate	ND	660
606-20-2	2,6-dinitrotoluene	ND	660
208-96-8	acenaphthylene	ND	660
83-32-9	acenaphthene	ND	660
51-28-5	2,4-dinitrophenol	ND	3300
[illegible]	4-nitrophenol	ND	3300
[illegible]	2,4-dinitrotoluene	ND	660
[illegible]	diethyl phthalate	ND	660
[illegible]	4-chlorophenyl-phenylether	ND	660
[illegible]	fluorene	ND	660
[illegible]	4-methyl-4,6-dinitrophenol	ND	3300
[illegible]	N-nitrosodiphenylamine	ND	660
[illegible]	4-bromophenyl-phenylether	ND	660
[illegible]	hexachlorobenzene	ND	660

ANALYTICAL REPORT FOR SAMPLE No. 6937-1-10

EPA METHOD 8270
TARGET ANALYTE RESULTS

Client Sample ID: #10 TOPSOIL

Cas. No.	COMPOUND	RESULTS (ug/Kg)	METHOD DETECTION LIMITS (MDL) (ug/Kg)
87-86-5	pentachlorophenol	ND	3300
85-01-8	phenanthrene	12 J	660
120-12-7	anthracene	ND	660
84-74-2	di-n-butyl phthalate	15 J	660
206-44-0	fluoranthene	8 J	660
129-00-0	pyrene	10 J	660
92-87-5	benzidine	ND	1000
85-68-7	benzyl-butylphthalate	ND	660
117-81-7	bis(2-ethylhexyl)phthalate	47 J,B	660
56-55-3	benzo(a)anthracene	ND	660
218-01-9	chrysene	ND	660
91-94-1	3,3-dichlorobenzidine	ND	1300
117-84-0	di-n-octylphthalate	ND	660
205-99-2	benzo(b)fluroanthene	ND	660
207-08-9	benzo(k)fluoranthene	ND	660
50-32-8	benzo(a)pyrene	ND	660
193-39-5	indeno(1,2,3-cd)pyrene	ND	660
53-70-3	dibenzo(a,h)anthracene	ND	660
191-24-2	benzo(ghi)perylene	ND	660

See footnotes on page 3

Analyst

Reviewer

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ANALYTICAL REPORT FOR SAMPLE No. 6937-1-10

NON-TARGET ANALYTE RESULTS
Additional Semi-Volatiles

Client Sample ID #10 TOPSOIL

Cas. No	COMPOUND	Scan Number	Results UG/KG	Fn *
91-57-6	2-METHYLNAPHTHALENE (DL=1000 UG/KG)		20	B,J
65-85-0	BENZOIC ACID (DL= 660 UG/KG)		795	

FOOTNOTES

" This analyte was found in the method blank.
' Reported concentration is an estimate only. The response factor was assumed to be 1.000 relative to an internal standard. Indicates an estimated concentration below the Method Detection Limit.
This number is unknown.
Analytical standards were not analyzed for this compound.
No data found.
The identification is tentative or closely related to the compound.

ANALYTICAL REPORT FOR SAMPLE No. 6937-1-9

EPA METHOD 8270
TARGET ANALYTE RESULTS

Client Sample ID #9 TOPSOIL Client GARY TOMPKINS & ASSOCIATES

File ID >BP011 Date Extracted 01/29/90 Date of Analysis 01/31/9

TMA/Norcal set ID 6937-1

Cas. No	COMPOUND	RESULTS (ug/Kg)	METHOD DETECTION LIMITS (MDL) (ug/Kg)
62-75-9	N-nitrosodimethylamine	ND	1000
108-95-2	phenol	ND	660
111-44-4	bis(2-chloroethyl)ether	ND	660
95-57-8	2-chlorophenol	ND	660
541-73-1	1,3-dichlorobenzene	ND	660
106-46-7	1,4-dichlorobenzene	ND	660
95-50-1	1,2-dichlorobenzene	ND	660
39638-329	bis(2-chloroisopropyl)ether	ND	660
621-64-7	N-nitrosodi-n-propylamine	ND	660
67-72-1	hexachloroethane	ND	660
98-95-3	nitrobenzene	ND	660
78-59-1	isophorone	ND	660
88-75-5	2-nitrophenol	ND	660
105-67-9	2,4-dimethylphenol	ND	660
111-91-1	bis(2-chloroethoxy)methane	ND	660
120-83-2	2,4-dichlorophenol	ND	660
120-82-1	1,2,4-trichlorobenzene	ND	660
91-20-3	naphthalene	ND	660
87-68-3	hexachlorobutadiene	ND	660
59-50-7	4-chloro-3-methylphenol	ND	1300
77-47-4	hexachlorocyclopentadiene	ND	660
88-06-2	2,4,6-trichlorophenol	ND	660
91-58-7	2-chloronaphthalene	ND	660
131-11-3	dimethyl phthalate	ND	660
606-20-2	2,6-dinitrotoluene	ND	660
208-96-8	acenaphthylene	ND	660
83-32-9	acenaphthene	ND	660
51-28-5	2,4-dinitrophenol	ND	3300
[illegible]	4-nitrophenol	ND	3300
[illegible]	2,4-dinitrotoluene	ND	660
[illegible]	diethyl phthalate	ND	660
[illegible]	4-chlorophenyl-phenylether	ND	660
[illegible]	fluorene	ND	660
[illegible]	4-methyl-4,6-dinitrophenol	ND	3300
[illegible]	N-nitrosodiphenylamine	ND	660
[illegible]	4-bromophenyl-phenylether	ND	660
[illegible]	hexachlorobenzene	ND	660

ANALYTICAL REPORT FOR SAMPLE No. 6937-1-9

EPA METHOD 8270
TARGET ANALYTE RESULTS

Client Sample ID #9 TOPSOIL

Cas. No.	COMPOUND	RESULTS (ug/Kg)	METHOD DETECTION LIMITS (MDL) (ug/Kg)
87-86-5	pentachlorophenol	ND	3300
85-01-8	phenanthrene	16 J	660
120-12-7	anthracene	5 J	660
84-74-2	di-n-butyl phthalate	13 J	660
206-44-0	fluoranthene	18 J	660
129-00-0	pyrene	24 J	660
92-87-5	benzidine	ND	1000
85-68-7	benzyl-butylphthalate	ND	660
117-81-7	bis(2-ethylhexyl)phthalate	28 J,B	660
56-55-3	benzo(a)anthracene	ND	660
218-01-9	chrysene	ND	660
91-94-1	3,3-dichlorobenzidine	ND	1300
117-84-0	di-n-octylphthalate	ND	660
205-99-2	benzo(b)fluroanthene	22 J	660
207-08-9	benzo(k)fluoranthene	30 J	660
50-32-8	benzo(a)pyrene	ND	660
193-39-5	indeno(1,2,3-cd)pyrene	ND	660
53-70-3	dibenzo(a,h)anthracene	ND	660
191-24-2	benzo(ghi)perylene	ND	660

See footnotes on page 3

Analyst

Reviewer

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ANALYTICAL REPORT FOR SAMPLE No. 6937-1-9

NON-TARGET ANALYTE RESULTS
Additional Semi-Volatiles

Client Sample ID #9 TOPSOIL

Cas. No	COMPOUND	Scan Number	Results UG/KG	Fn *
91-57-6	2-METHYLNAPHTHALENE (DL=1000 UG/KG)		11	B,J
65-85-0	BENZOIC ACID (DL= 600 UG/KG)		909	

FOOTNOTE:

B The analyte was found in the method blank.

J The reported concentration is an estimate only. The response factor was assumed to be 1.000 relative to an internal standard. Indicates an estimated concentration below the Method Detection Limit.

U The compound is unknown.

N [illegible] standards were not analyzed for this compound.

NA Not applicable.

P The [illegible] may be tentative or closely related to the [illegible].

EPA METHOD 8080
TARGET ANALYTE RESULTS

Client: GARY TOMPKINS ASSO.
Client Sample ID: #5TANKPITBOTTOM
TMA/Norcal SAMPLE ID: 6937-1-5
Extract.Method: SOXHLET

Date Received: 1/18/90
Date Extracted: 1/24/90
Date Analyzed: 1/30/90

CAS No	COMPOUND	SOIL RESULTS (ug/Kg)	SOIL DETECTION LIMITS (ug/Kg)
319-84-6	alpha-BHC	< 40.0	40.0
319-85-7	beta-BHC	< 40.0	40.0
319-86-8	delta-BHC	< 40.0	40.0
58-89-9	gamma-BHC(Lindane)	< 40.0	40.0
76-44-8	Heptachlor	< 40.0	40.0
309-00-2	Aldrin	< 40.0	40.0
1024-57-3	Heptachlor Epoxide	< 40.0	40.0
959-98-8	Endosulfan I	< 40.0	40.0
60-57-1	Dieldrin	< 80.0	80.0
72-55-9	4,4'-DDE	< 80.0	80.0
72-20-8	Endrin	< 80.0	80.0
33213-65-9	Endosulfan II	< 80.0	80.0
72-54-8	4,4'-DDD	< 80.0	80.0
1031-07-8	Endosulfan sulfate	< 80.0	80.0
50-29-3	4,4'-DDT	< 80.0	80.0
72-43-5	Methoxychlor	92.0 J	400.0
53494-70-5	Endrin ketone	< 80.0	80.0
5103-71-9	alpha-Chlordane	< 400.0	400.0
5103-74-2	gamma-Chlordane	< 400.0	400.0
57-74-9	Technical Chlordane	< 400.0	400.0
8001-35-2	Toxaphene	< 800.0	800.0
12674-11-2	Aroclor-1016	< 400.0	400.0
11104-28-2	Aroclor-1221	< 400.0	400.0
11141-16-5	Aroclor-1232	< 400.0	400.0
53469-21-9	Aroclor-1242	< 400.0	400.0
12672-29-6	Aroclor-1248	< 400.0	400.0
11097-69-1	Aroclor-1254	< 800.0	800.0
11096-82-5	Aroclor-1260	< 800.0	800.0

J: COMPOUND FOUND AT LOWER THAN DETECTION LIMIT.

Analyst

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EPA METHOD 8080
TARGET ANALYTE RESULTS

Client: GARY TOMPKINS ASSO.
Client Sample ID: #9TOPSOIL0'-30'
TMA/Norcal SAMPLE ID: 6937-1-9
Extract.Method: SOXHLET

Date Received: 1/18/90
Date Extracted: 1/24/90
Date Analyzed: 1/30/90

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

Approved

Data Release Authorized By

EPA METHOD 8080
TARGET ANALYTE RESULTS

Client: GARY TOMPKINS ASSO.
Client Sample ID: #10TOPS.35'-70'
TMA/Norcal SAMPLE ID: 6937-1-10
Extract.Method: SOXHLET

Date Received: 1/18/90
Date Extracted: 1/24/90
Date Analyzed: 1/30/90

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

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(415) 233-2035
(TWX) 910-382 8132

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CHAIN OF CUSTODY RECORD

PROJ. NO.	PROJECT NAME
90-1	105th Ave.

SAMPLERS: (Signature) Lisa Q. Polos (415) 799-1140

Report to: Lisa Polos, PO Box 515, Rodeo CA 94572 (415) 799-1140

LAB. NO.	DATE	TIME	COMP.	GRAB	STATION LOCATION	NO. OF CONTAINERS	analyses: CAM 17 metals	8270	8080	TPH-Diesel	TPH-Gas	BTEX	Total Oil & Grease (Freon Ext.)	REMARKS
1	1/18/90			X	0' at excavation	1				X	X	X	X	Normal Turnaround
2				X	20' under pipe	1				X	X	X	X	
3				X	40' under pipe	1				X	X	X	X	added 1/24 per t.p.
4				X	60' end	1				X	X	X	X	
5				X	tank pit bottom	1		X	X	X	X	X	X	added 1/22 per t.p. low dilution
6				X	sidewall 41'	1				X	X	X	X	
7				X	excav. bottom	1				X	X	X	X	
8				X	sidewall 80'	1				X	X	X	X	
9			X		topsoil 0'-30'	1	X	X	X	X	X	X	X	
10			X		topsoil 35'-70'	1	X	X	X	X	X	X	X	

Relinquished by: (Signature)	Date / Time	Received by: (Signature)	Relinquished by: (Signature)	Date / Time	Received by: (Signature)
Lisa Q. Polos	1/19/90 17:45				
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	
			1/22/90 17:55	Bill: Gary Tompkins & Assoc. 1984 A Santa Rita Rd. Suite 365 Pleasanton, CA. 94566	

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