

Soil and Groundwater Sampling  
6973 Village Parkway, Dublin, California

May, 1991

Prepared By:

Gold Coast Technologies  
101 Mill Drive  
Ventura, CA 93001

Project: 91-04.1

# GOLD COAST TECHNOLOGIES

---

May 2, 1991

Mr. Roger Woodward  
Coorwood Car Wash  
POB 2688  
Dublin, CA 94568  
415-828-5151

Dear Mr. Woodward:

Please find the enclosed report "Soil and Groundwater Sampling, 6973 Village Parkway, Dublin, California".

The report covers information obtained during the subsurface investigation of the facility and includes findings, conclusions and recommendations.

If you have any questions or need additional information, please feel free to call anytime. Thank you.

Sincerely,



Darren Rieck  
Project Manager

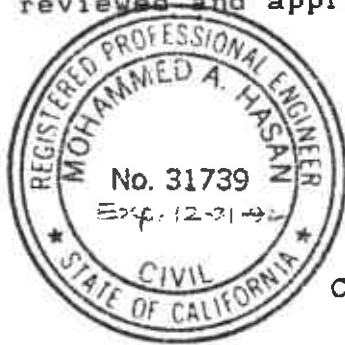
enclosures

*Hasan and Associates*  
CIVIL, MUNICIPAL AND ENVIRONMENTAL ENGINEERS

May 1, 1991

CERTIFICATION

Soil and groundwater sampling for underground tanks at 6973 Village Parkway, Dublin, CA and the interpretation of data generated have been conducted by formally educated and trained personnel working under my general supervision. The field procedures and observational criteria used in their preparation are according to protocols either generated or reviewed and approved by me.



*Mohammed Hasan*  
Mohammed A. Hasan  
Calif. Professional Engineer # 31739  
Calif. Regist. Environmental Assessor # 1827

## TABLE OF CONTENTS

	Page
I. Introduction -----	1
Figure I -----	2
II. Geology and Hydrology -----	3
III. Sampling Protocol -----	3
IV. Conclusions -----	4
Table 1 Soil Laboratory Results -----	5
Table 2 Water Laboratory Results -----	7
V. Recommendations -----	7
VI. Limitations -----	7
Appendix A      Soil Sampling Protocol	
Appendix B      Laboratory Analysis Chain of Custody Boring Logs	
Appendix C      Inventory Records	

I. INTRODUCTION

Coorwood Car Wash is located at 6973 Village Parkway, at the corner of Village Parkway and Lewis Avenue in the City of Dublin, California (Figure I).

The site contains two (2) 10,000 gallon underground storage tanks (UST's) containing unleaded and premium unleaded products.

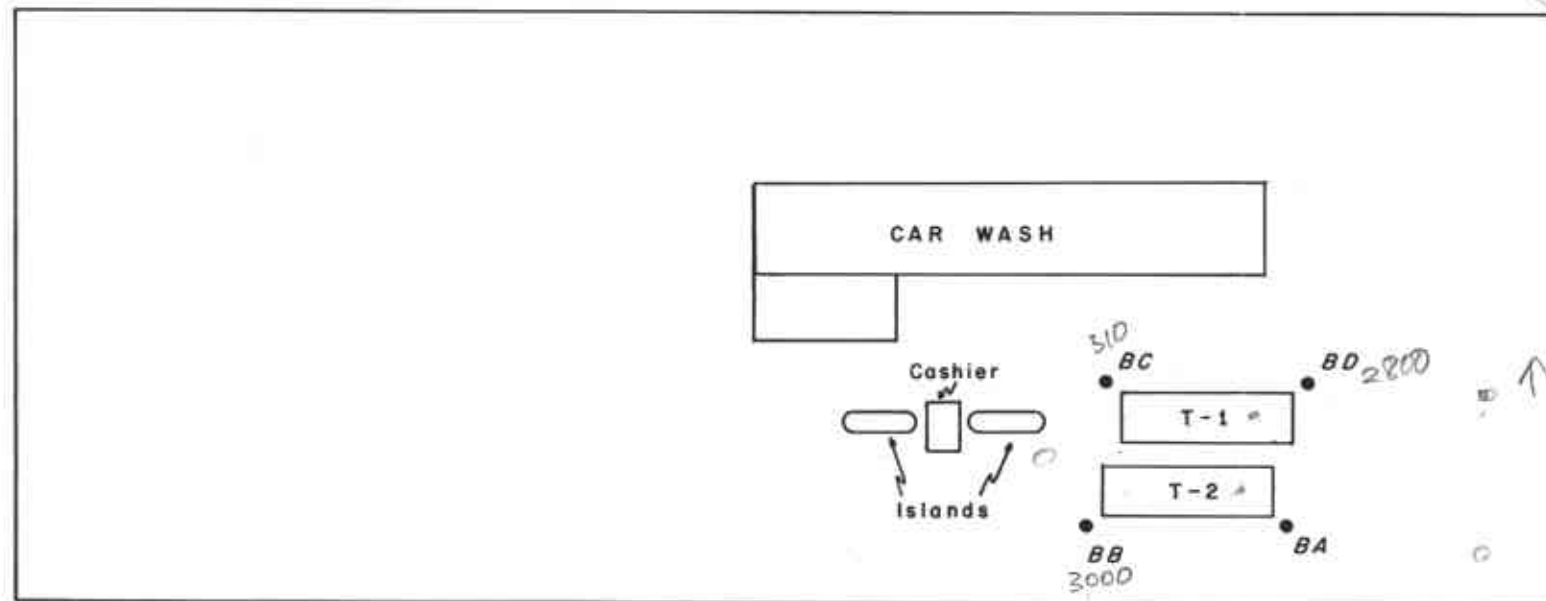
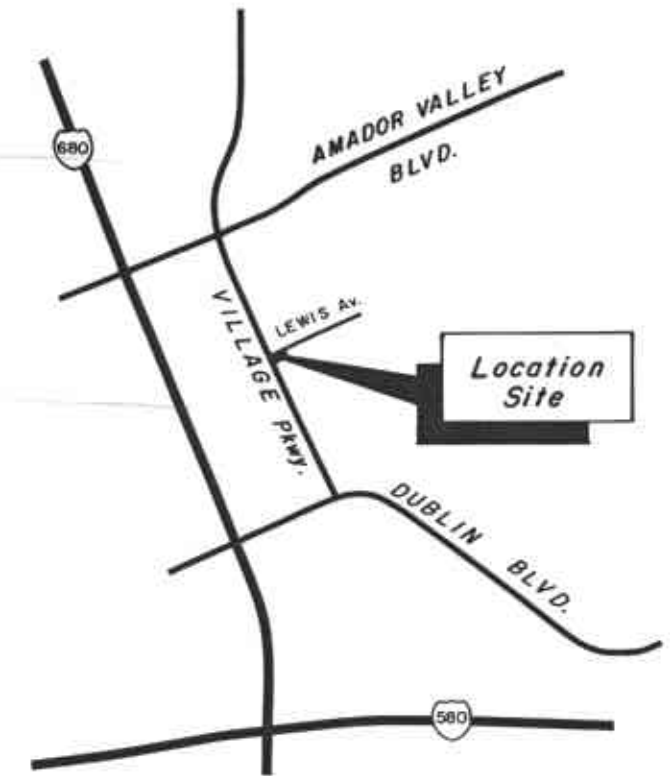
TANK	CAPACITY (Gallons)	PRODUCT
1	10,000	No lead
2	10,000	Super

Timmerman Engineering Construction replaced old dispensing units, set new islands and removed the existing underground piping and replaced it with double walled fiberglass piping.

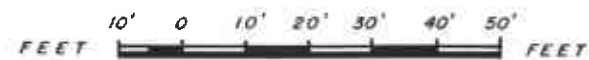
Gold Coast Technologies, Inc. (GCT) was retained to provide interior tank lining and cathodic protection for the two (2) 10,000 gallon tanks. During the cathodic protection anode placement, a subsurface investigation through soil and groundwater sampling was undertaken. To assess the subsurface conditions around the tank cluster, four (4) boreholes were drilled to the ground water beneath the site.

The scope of assessment services will be limited to the site specific information gathered during the drilling of these boreholes only. Specific information on potential ground water uses, water wells in the area, surrounding contaminated sites, mean sea level and other hydrogeological information may be obtained at the Alameda County Environmental Health Hazardous Materials Division, or the District 2 for the Regional Water Quality Board.

Boring	Depth
BA	20'
BB	15'
BC	20'
BD	15'



LEWIS AV.



**GOLD COAST**  
TECHNOLOGIES

CORWOOD CAR WASH  
6973 Village Pkwy.  
Dublin, CA.



LOCATION MAP NO SCALE

## II. GEOLOGY AND HYDROLOGY

The sediments found beneath the site consist of dark grey organic clays with a slight sand content from the five foot sample to dark to light grey inorganic clays with no sand content at the fifteen to twenty foot depths. These sediments are not conducive to migration, though some migration over time may be experienced.

A drilling and sampling program was designed and executed on April 1, 1991 to provide the necessary information to complete the site investigation.

## III. SAMPLING PROTOCOL

- A. The soil sampling protocol is contained in Appendix A. Using a B-75 Mobile Rotary Rig, four (4) boreholes around the tank cluster were drilled. The boreholes were drilled to the top of the water table, upon which water samples were taken.
- B. Table 1 contains a summary of the soil laboratory analysis results.
- C. Table 2 contains a summary of the water laboratory analysis results.

Boring logs, chain of custody and laboratory results are contained in Appendix B.

IV. CONCLUSIONS

Appendix C contains inventory records from October 15, 1990 through March 6, 1991. These records demonstrate considerable fluctuation and do not offer substantiating information, but are included for review purposes. The tank system records do not indicate any repairs, but overflow protection was only recently installed, thus, leaving considerable time for years of overfilling.

A. SOIL

1. The sediments surrounding the tank cluster show 260 ppm TPH-gas and 800 ppm TPH-diesel at boring BB at five feet and very low to non-detectable levels at the ten foot sample. Boring BC showed 83 ppm TPH-gas and 410 ppm TPH-diesel at the five foot level and boring BD contained 530 ppm TPH-gas and 65 ppm TPH-diesel and 88 ppm xylene at the ten foot sample (Table 1).

83g  
410d  
5' 260g  
800d

2. Study of the soil samples indicate that all levels encountered exist within the first ten feet, higher at the five foot samples.

530g  
65d  
10' ND

a. BB

BB-5 shows the highest levels with BB-10 showing non-detectable to much lower levels. The soil boring concludes with non-detect at BB-15.

b. BC

BC-5 shows low levels, but the deeper samples indicate non-detect.

c. BD

BD-10 shows low levels concluding with the fifteen foot sample showing non-detect.



87 89 92  
5 6

1.06

Table 1 Soil Laboratory Analysis Summary mg/kg

Sample #	TPH-G	B	T	X	E	Pb (ppm)	TPH-D
BA-5	ND	ND	ND	ND	ND	5.1	ND
BA-10	.6	ND	ND	ND	ND	6.4	13
<del>BA-15</del>	<del>ND</del>	<del>ND</del>	<del>ND</del>	<del>ND</del>	<del>ND</del>	<del>4.3</del>	<del>ND</del>
<del>BA-20</del>	<del>ND</del>	<del>ND</del>	<del>ND</del>	<del>ND</del>	<del>ND</del>	<del>7.2</del>	<del>ND</del>
BB-5	[blot]	[blot]	ND	.78	5.1	11	[blot]
BB-10	1.4	ND	ND	.012	.007	11.7	26
<del>BB-15</del>	<del>ND</del>	<del>ND</del>	<del>ND</del>	<del>ND</del>	<del>ND</del>	<del>4.7</del>	<del>ND</del>
BC-5	83	[blot]	ND	ND	2.6	4.4	[blot]
BC-10	ND	ND	ND	ND	.006	7.0	ND
<del>BC-15</del>	<del>ND</del>	<del>ND</del>	<del>ND</del>	<del>ND</del>	<del>ND</del>	<del>5.0</del>	<del>ND</del>
<del>BC-20</del>	<del>ND</del>	<del>ND</del>	<del>ND</del>	<del>ND</del>	<del>ND</del>	<del>10.1</del>	<del>ND</del>
BD-5	ND	.012	ND	ND	ND	3.9	ND
BD-10	530	1.8	22	88	16	5.6	65
<del>BD-15</del>	<del>ND</del>	<del>ND</del>	<del>ND</del>	<del>ND</del>	<del>ND</del>	<del>5.6</del>	<del>ND</del>

100

15'

CS-10,0

10, - 202

B. WATER

1. Ground water was encountered at approximately fifteen feet for each boring excepting BC, where the water table was sampled at twenty feet (Table 2).
2. The sampling took place during a light rain with every attempt to prevent surface infiltration. There is the possibility that water migrated from the surface, or down the sides of the boring prior to the water sampling.

Part, (1), are analysis by Anamatrix Laboratories and Part, (2), are from Coast to Coast Laboratories.

a. BA-15 H2O

- (1) BA-15 H2O, reveals low to non-detect.
- (2) BA-15 is non-detectable.

b. BB-15 H2O

- (1) BB-15 H2O shows 3000 ppb TPH-gas, 1200 ppb benzene, 22 ppb toluene, 45 ppb xylene and 81 ppb ethylbenzene.
- (2) BB-15 shows very similar levels.

c. BC-20 H2O

- (1) BC-20 H2O reveals low to non-detect.
- (2) BC-20 is non-detectable.

d. BD-15 H2O

- (1) BD-15 H2O shows 2800 ppb TPH-gas, 490 ppb benzene, 170 ppb toluene, 380 ppb xylene and 140 ppb ethylbenzene.
- (2) BD-15 shows similar levels.

3. Levels for the water are expressed in parts per billion. The samples were taken without the aid of a properly developed water monitoring well and the drill rig auger was not steam cleaned on site, leaving room for cross contamination from the drilling at the higher end of the boring.

*but were augers cleaned between borings ...*

Table 2 Water Laboratory Analysis Summary

ug/L → 1PPb

Sample #	TPH-G	B	T	X	E	Pb	TPH-D
BA-15	ND	1.6	ND	ND	1.1	13 *	ND *
BB-15	3000	1200	22	45	81	10 *	ND *
BC-20	310	24	ND	36	13	ND *	ND *
BD-15	2800	490	170	380	140	11 *	ND *

\* The samples were taken from Coast To Coast analytical only.

~~100 PP~~

soil  
↑↑↑↑  
130

V. Recommendations:

The recommendations for this site are limited to the four (4) borings and samples taken surrounding the tank cluster.

- o There exists some gasoline and diesel levels in the soil, mostly at the five foot level with some extending to the ten foot level. However, these levels are non-detectable below ten feet. Study of these borings do not indicate that the areas assessed for this report are effecting ground water quality.
- o The ground water samples appear to indicate low levels of each of the contaminants tested for in BB-15 H2O and BD-15 H2O. The reporting limits for this area, as given by the Regional Board for the Alameda County District, are 50 ppb for gasoline and diesel and .5 ppb for BTEX. Some of the levels are above the reporting limits, but the source of these constituents remains unanswered. Further investigation of the background levels normally found in the area and of other potential sources in the vicinity is warranted.
- o If further sampling is required for this site, the auger should be replaced or steam cleaned at five foot intervals, and a water well must be properly developed prior to water sampling.

VI. Limitations

In connection with an environmental audit or assessment of a site, only a limited amount of service can be performed within times and budgets available under the existing scope of services. As a result, GCT, despite, the use of reasonable care, may fail to detect hazardous substances or underground tanks or may incorrectly determine the concentrations of hazardous substances which are present.

GCT and Hasan & Associates assumes no responsibility for conditions which did not come to its actual knowledge or for conditions not recognized as environmentally unacceptable at the time this report was prepared.

# APPENDIX A

# Unified Soil Classification System

Major Divisions			Group Symbols	Soil Description	
<b>COARSE GRAINED SOIL</b> (More Than 50% Material Larger Than The #200 Sieve)	<b>GRAVEL</b> (More Than 50% Material Larger Than #4 Sieve)	<b>Clean GRAVEL</b> (Less Than 5% Fines)	GW	Well Graded Gravel, Sandy GRAVEL. Must have an equal distribution of Fine and Coarse Gravel.	
		(Less Than 5% Fines)	GP	Poorly Graded Gravel, Sandy GRAVEL. Gap Graded, little or no Fines.	
		<b>GRAVEL With Fines</b> (More Than 12% Fines)	GM	Silty GRAVEL, Silty, Sandy GRAVEL.	
		(More Than 12% Fines)	GC	Clayey GRAVEL, Clayey, Sandy GRAVEL.	
	<b>SAND</b> (More Than 50% Material Smaller Than #4 Sieve)	<b>Clean SAND</b> (Less Than 5% Fines)	SW	Well Graded Sand, Gravelly SAND. Must have an equal distribution of fine, medium, and coarse Sand.	
		(Less Than 5% Fines)	SP	Poorly Graded Sand, Gravelly SAND. Gap Graded, little or no fines.	
		<b>SAND With Fines</b> (More Than 12% Fines)	SM	Silty SAND, Silty, Gravelly SAND.	
		(More Than 12% Fines)	SC	Clayey SAND, Clayey, Gravelly SAND.	
		<b>FINE GRAINED SOIL</b> (More Than 50% Material Smaller Than The #200 Sieve)	<b>SILT &amp; CLAY</b> (Liquid Limit Less Than 50)	ML	Inorganic Silt, Sandy or Clayey SILT. Low to No plasticity.
				CL	Inorganic Clay, Sandy or Silty CLAY. Low to Medium plasticity.
OL	Organic SILT or Organic Silty CLAY. Low to medium plasticity.				
<b>SILT &amp; CLAY</b> (Liquid Limit More Than 50)	MH		Inorganic SILT, Micaceous or Dispersive Sandy SILT, Plastic SILT. Medium to High plasticity.		
	CH	Inorganic CLAY with High plasticity.			
	OH	Organic CLAY & SILT with High plasticity.			
<b>HIGHLY ORGANIC SOIL</b>			PT	PEAT & other Highly Organic soils.	

## Particle Size Limits

(Sieve Opening in millimeters)		0.75	4.75	20	60	200	75	200
SILT & CLAY	SAND			GRAVEL		COBBLES	BOULDERS	
	Fine	Medium	Coarse	Fine	Coarse			
(U.S. Standard Sieve Size)		#200	#40	#10	#4	#20	#10	

Note: Borderline classifications may be designated by the use of dual symbols, in W/S, C/S, M/S, etc.

## SOIL SAMPLING PROTOCOL

1. Samples of soil will be bagged 5,10,15,20,30, and 40 foot depths and at the bottom of the discovery well if shorter than 40 feet or deeper than 40 feet. selected core(s) will also be taken in a boring(s) at each tank site.
2. For standard truck mounted auger borings, 6 to 10 inch diameter, the core sampler will be a modified Porter or California model with 2.5 inch diameter brass tube liners. For contaminant plume tracking borings, 1 to 4 inches in diameter drilled by one or two-man portable rigs, the core sampler will be a T-bar core sampler with 0.9 inch diameter cellulose acetate liner or brass liner.
3. The corer will be steam cleaned prior to delivery to the job site.
4. The brass tube liners will be washed in a trisodium phosphate (TSP) and rinsed with fresh water prior to delivery to the site. Cellulose acetate liners are single use only, a new clean liner is used each time.
5. On the site , between each use in wells around chemical tanks, and on all programs for the California Regional Water Quality Control Board, the sampling equipment will be brushed and steam cleaned.
6. On the site, between each use in wells around fuel tanks, the corer will be brushed and washed with TSP and water.
7. The corer will be carefully assembled in a clean work area and carefully run down hole. The Porter corer will be driven by a 140 lb. hammer. The T-Bar corer is driven by an electric impact hammer.
8. When driven the proper distance, the corer will be retrieved and opened in a clean work area. The liners will be removed, the ends immediately sealed in aluminum foil (or teflon seals) capped with the plastic end caps, taped, labeled and placed in the chilled storage container.
9. The soil samples will be maintained and transported, in a chilled state, to the State-Certified laboratory. Under normal circumstances, they will be transported within two (2) days, but in no case will it be more than the allowed EPA standard.
10. Proper Chain of Custody forms will be filled out on site and signed. These will be maintained with the samples and delivered to the laboratory.

11. Laboratory documentation will be included with the results.
12. Discrete (non-composited) soil samples will be analyzed to routine levels commonly acceptable to the EPA method. Practicable quantification limits for low level concentrations containing halogenated volatiles will be achieved when required. Composited samples, when appropriate to the investigation, will be analyzed to required levels of concentration.

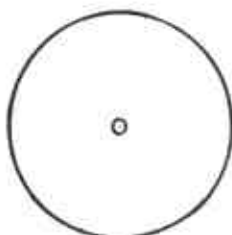


## DISCOVERY WELL DRILLING PROTOCOL

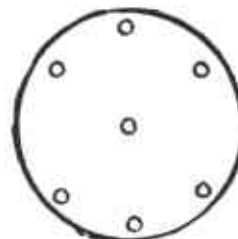
1. Call Underground Service Alert "Call before you dig" at least 48 hours in advance.
2. Set up traffic barriers around the work site.
3. Drill 3/4-inch hole through concrete/asphalt at desired spot for well placement. Vibra probe to 3 to 5 foot depth.
4. If no obstructions are found on initial probing, use a masonry saw, cut a nine inch diameter core through concrete/asphalt. Remove core using the probe hole.

Inspect soil composition for improper or illegal fill surrounding the tanks, i.e., large rocks (8 inch or more long), Chunks of asphalt, cement, broken brick and tile. If questionable fill composition is discovered, first take samples then contact the main office to determine correct procedure.

5. Probe ground beneath concrete with Vibra Probe rod, to 6 to 8 feet in a pattern as shown below:



1). location marked and initial probing



2). Probe to 6 to 8 foot depth

6. In order to avoid cross contamination from a previous site, the drilling and sampling equipment is to be steam cleaned prior to arrival on site and use on any discovery well.

If the program is for testing fuel tanks the augers may be brushed cleaned and hosed down between holes on the same site.

If the program is for discovery wells near chemical tanks and /or a program for the California Regional Water Quality Control Board the augers and sampling equipment will be steam-cleaned between holes.

7. Auger drill a 6-inch diameter well using a "toothless drill bit" to prevent ripping or puncturing a tank or piping. All drilling is to be accomplished at a slow speed (at slow

speed, underground obstacles usually are noticeable by increased resistance on the drill rig, the drill bit may move slower, or a hollow metallic sound be heard). Upon contact, STOP DRILLING and remove the bit from the hole. Manually probe further down. Insert the probe at least five times to discover large obstacles. Fiberglass or metal tanks or piping will make noise and resistance will be felt on the probe rod. Frequent probing will reduce the probability of striking the tank or breaching lines or pipes.

8. Finishing the discovery well. Complete drilling as above to preplanned depth and clean out the hole. Placing the appropriate length of cleaned 2-inch diameter 0.4 inch slotted schedule 40 PVC liner into the well center and backfill with pea gravel. About 10 to 12 inches below the ground surface seal with a 2 to 3 inch bentonite layer. Prepare and finish the surface security traffic well box and cover with a fully enclosing surface seal of concrete as shown on the attached drawing.

# APPENDIX B

CUSTOMER CORWOOD

DATE 4-1-91

PAGE #1 OF 1

LOGGED BY D.R.

DIAMETER OF BORING 8"

WATER AT 15

WELL # BA

LAB RESULTS TPHppm	TLV READING PPM	DEPTH FEET	BLOW COUNT	SAMPLE #	U S C S	L I T H O	SOIL DESCRIPTION
		0'					Concrete cover. Fine tan sands.
ND	0	5'	3,5,6	A-5	OL		Dk grey clay w/ fine tan silty sands inter mixed.
.6	0	10'	2,4,4	A-10	OL		Dk grey moist clay w/ no fines. No odors.
ND	0	15'	3,3,6	A-15	MH		Dk grey clay. Increase moisture. No fines. No odors.
ND	0	20'	3,5,6	A-20	CH		Lighter grey, very moist. No fines.
ND				A-H2O			Water sample, no sheen no odors.

COMMENTS:

CUSTOMER CORWOOD

DATE 4-1-91

PAGE #1 OF 1

LOGGED BY D.R.

DIAMETER OF BORING 8"

WATER AT 15

WELL # BB

LAB RESULTS TPHppm	TLV READING PPM	DEPTH FEET	BLOW COUNT	SAMPLE #	U S C S	L I T H O	SOIL DESCRIPTION
		0'					Concrete cover. Fine tan sands.
260	0	5'	2,3,4	B-5	OL		Dk grey organic clay. Slight odor.
1.4	0	10'	2,3,4	B-10	OL		Lighter grey organic clay. Some fines inter mixed. No odor
ND	0	15'		B-15	OL		Lt grey clay. Increase moisture. Some fines. No odors.
3.0				B-H2O			Water sample, no sheen no odors.

COMMENTS:

CUSTOMER CORWOOD

DATE 4-1-91

PAGE #1 OF 1

LOGGED BY D.R.

DIAMETER OF BORING 8"

WATER AT 15

WELL # BC

LAB RESULTS TPHppm	TLV READING PPM	DEPTH FEET	BLOW COUNT	SAMPLE #	U S C S	L I T H O	SOIL DESCRIPTION
		0'					Concrete cover. Fine tan sands.
83	0	5'	2,3,4	C-5	OL		Dark grey organic clay. Slight odor.
ND	0	10'	3,4,4	C-10	OL		Lighter grey to brown clay. Some fines inter mixed. No odor.
ND	0	15'	3,4,5	C-15	OH		Lt grey to brown organic clay. Moist. Some fines. No odor
ND	0	20'	3,4,6	C-20	OH		Lt grey to brown clay. Wet sample, no odor.
.3				C-H20			Water sample, no sheen no odors.

COMMENTS:

CUSTOMER CORWOOD

DATE 4-1-91

PAGE #1 OF 1

LOGGED BY D.R.

DIAMETER OF BORING 8"

WATER AT 15

WELL # BD

LAB RESULTS TPHppm	TLV READING PPM	DEPTH FEET	BLOW COUNT	SAMPLE #	U S C S	L I T H O	SOIL DESCRIPTION
		0'					Concrete cover. Fine tan sands.
ND	0	5'	3,4,6	D-5	OL		Fine tan sands to dk grey organic clay. No odors.
530	50	10'	3,5,5	D-10	OL		Dark grey organic clay. Some fines inter mixed. Slight odor.
ND	0	15'		D-15	CH		Lt grey to brown in-organic clay. Moist. No odors.
2.8				D-H2O			Water sample, no sheen no odors.

COMMENTS:

Coast-to-Coast  
Analytical  
Services

Coast-to-Coast  
Analytical Services  
751 South Kellogg, Suite A  
Goleta, California 93117  
(805) 964-7838

Lab Number: As Listed  
Collected: 04/01/91  
Received: 04/05/91 @ 12:20  
Tested: 04/10/91 by AMR  
Collected by: Darren Rieck

ATTN: Darren Rieck  
Gold Coast Technology  
101 Mill Drive  
Ventura, CA 93001

Sample Description:  
Corwood, Waters As Listed  
Digested by EPA Method 3005  
by CMS on 04/09/91  
Tested by EPA Method 7421

REPORT

LAB NUMBER	SAMPLE DESCRIPTION	TOTAL RECOVERABLE LEVEL FOUND - mg/l LEAD Detection Limit = 0.005 (PQL)*
GE-0546-1	BA-15	0.013
GE-0546-2	BB-15	0.010
GE-0546-3	BC-20	<0.005
E-0546-4	BD-15	0.011

\*Practical Quantitation Limit

\*\*\*The SOLUBLE THRESHOLD LIMIT CONCENTRATION for lead is 5.0 mg/l as listed in  
22 Cal Adm Code Article 11 Section 66699 as persistent and bioaccumulative  
toxic substance.

Respectfully submitted,  
COAST-TO-COAST ANALYTICAL SERVICES

*Ronald T. Ohta*  
Ronald T. Ohta, Laboratory Manager

*Mary Havlicek*  
Mary Havlicek, Ph.D., President

MH/ro/jt  
04/10/91  
E0546-pb.wr1 #151



Coast-to-Coast  
Coast  
Analytical  
Services

Coast-to-Coast  
Analytical Services, Inc.  
751 S. Kellogg Avenue, Suite A  
Goleta, California 93117  
(805) 964-7838

Lab Number : GE0546-1  
Collected : 04/01/91  
Received : 04/05/91  
Tested : 04/05/91  
Collected by: Darren Rieck

FUEL FINGERPRINT ANALYSIS BY GC/MS FOR TPH  
(Modified EPA 8240) as cited in CAL-LUFT, p. A18 (Oct. 1989)\*

ATTN: Darren Rieck  
Gold Coast Technology  
101 Mill Drive  
Ventura, CA 93001

EXTRACTED BY EPA METHOD 5030 - Purge & Trap

SAMPLE DESCRIPTION:  
Corwood, BA - 15, water

Compound Analyzed	Detection Limit (#PQL) in ppm	Concentration in ppm
Benzene	0.0003	not found
Toluene	0.0003	not found
Ethylbenzene	0.0006	not found
Xylenes	0.0006	not found
1,2-Dichloroethane (EDC)	0.0003	not found
Ethylene Dibromide (EDB)	0.0003	not found
-----		
TOTAL PURGEABLE PETROLEUM HYDROCARBONS	0.5	
(Gasoline)		<0.5
(Diesel 2)		<0.5
-----		
BTX as a Percent of Fuel		not applicable
Percent Surrogate Recovery		106.

#PQL - Practical Quantitation Limit

\* Cal DHS has approved use of this method for these analytes by this laboratory.  
(ppm = milligrams/liter)

Respectfully submitted,  
COAST-TO-COAST ANALYTICAL SERVICES

*Marissa C. Coronel*  
Marissa C. Coronel, Laboratory Director

*Mary Havlicek*  
Mary Havlicek, Ph.D., President

ge0546f1.wr1  
MH/jam/mc  
msdg1/04/08/91

Coast-to-Coast  
Analytical  
Services

Coast-to-Coast  
Analytical Services, Inc.  
751 S. Kellogg Avenue, Suite A  
Goleta, California 93117  
(805) 964-7838

Lab Number : GE0546-2  
Collected : 04/01/91  
Received : 04/05/91  
Tested : 04/08/91  
Collected by: Darren Rieck

FUEL FINGERPRINT ANALYSIS BY GC/MS FOR TPH  
(Modified EPA 8240) as cited in CAL-LUFT, p. A18 (Oct. 1989)\*

ATTN: Darren Rieck  
Gold Coast Technology  
101 Mill Drive  
Ventura, CA 93001

EXTRACTED BY EPA METHOD 5030 - Purge & Trap

SAMPLE DESCRIPTION:  
Corwood, BB - 15, water

Compound Analyzed	Detection Limit (#PQL) in ppm	Concentration in ppm
Benzene	0.003	0.43
Toluene	0.003	0.015
Ethylbenzene	0.006	0.087
Xylenes	0.006	0.068
1,2-Dichloroethane (EDC)	0.003	not found
Ethylene Dibromide (EDB)	0.003	not found
-----		
TOTAL PURGEABLE PETROLEUM HYDROCARBONS	0.5	
(Gasoline)		3.3
(Diesel 2)		<0.5
-----		
BTX as a Percent of Fuel		16.
Percent Surrogate Recovery		98.

#PQL - Practical Quantitation Limit

\* Cal DHS has approved use of this method for these analytes by this laboratory.  
(ppm = milligrams/liter)

Respectfully submitted,  
COAST-TO-COAST ANALYTICAL SERVICES

*Marissa C. Coronel*  
Marissa C. Coronel, Laboratory Director

*Mary Havlicek*  
Mary Havlicek, Ph.D., President

ge0546f2.wr1  
MH/mm/mc  
msdg1/04/09/91

Coast-to-Coast  
Coast  
Analytical  
Services

Coast-to-Coast  
Analytical Services, Inc.  
751 S. Kellogg Avenue, Suite A  
Goleta, California 93117  
(805) 964-7838

Lab Number : GE0546-3  
Collected : 04/01/91  
Received : 04/05/91  
Tested : 04/09/91  
Collected by: Darren Rieck

FUEL FINGERPRINT ANALYSIS BY GC/MS FOR TPH  
(Modified EPA 8240) as cited in CAL-LUFT, p. A18 (Oct. 1989)\*

ATTN: Darren Rieck  
Gold Coast Technology  
101 Mill Drive  
Ventura, CA 93001

EXTRACTED BY EPA METHOD 5030 - Purge & Trap

SAMPLE DESCRIPTION:  
Corwood, BC - 20, water

Compound Analyzed	Detection Limit (#PQL) in ppm	Concentration in ppm
Benzene	0.0003	not found
Toluene	0.0003	not found
Ethylbenzene	0.0006	not found
Xylenes	0.0006	not found
1,2-Dichloroethane (EDC)	0.0003	not found
Ethylene Dibromide (EDB)	0.0003	not found
-----		
TOTAL PURGEABLE PETROLEUM HYDROCARBONS 0.5		
(Gasoline)		<0.5
(Diesel 2)		<0.5
-----		
BTX as a Percent of Fuel		not applicable
Percent Surrogate Recovery		102.

#PQL - Practical Quantitation Limit

\* Cal DHS has approved use of this method for these analytes by this laboratory.  
(ppm = milligrams/liter)

Respectfully submitted,  
COAST-TO-COAST ANALYTICAL SERVICES

*Marissa C. Coronel*  
Marissa C. Coronel, Laboratory Director

*Mary Havlicek*  
Mary Havlicek, Ph.D., President

ge0546f3.wr1  
MH/mm/mc  
msdg1/04/10/91

Coast-to-  
Coast  
Analytical  
Services

Coast-to-Coast  
Analytical Services, Inc.  
751 S. Kellogg Avenue, Suite A  
Goleta, California 93117  
(805) 964-7838

Lab Number : GE0546-4  
Collected : 04/01/91  
Received : 04/05/91  
Tested : 04/08/91  
Collected by: Darren Rieck

FUEL FINGERPRINT ANALYSIS BY GC/MS FOR TPH

(Modified EPA 8240) as cited in CAL-LUFT, p. A18 (Oct. 1989)\*

ATTN: Darren Rieck  
Gold Coast Technology  
101 Mill Drive  
Ventura, CA 93001

EXTRACTED BY EPA METHOD 5030 - Purge & Trap

SAMPLE DESCRIPTION:  
Corwood, BD - 15, water

Compound Analyzed	Detection Limit (#PQL) in ppm	Concentration in ppm
Benzene	0.003	0.21
Toluene	0.003	0.081
Ethylbenzene	0.006	0.013
Xylenes	0.006	0.30
1,2-Dichloroethane (EDC)	0.003	not found
Ethylene Dibromide (EDB)	0.003	not found
-----		
TOTAL PURGEABLE PETROLEUM HYDROCARBONS	0.5	
(Gasoline)		2.3
(Diesel 2)		<0.5
-----		
BTX as a Percent of Fuel		26.
Percent Surrogate Recovery		77.
-----		

#PQL - Practical Quantitation Limit

\* Cal DHS has approved use of this method for these analytes by this laboratory.  
(ppm = milligrams/liter)

Respectfully submitted,  
COAST-TO-COAST ANALYTICAL SERVICES

*Marissa C. Coronel*  
Marissa C. Coronel, Laboratory Director

*Mary Havlicek*  
Mary Havlicek, Ph.D., President

ge0546f4.wr1  
MH/mm/mc  
msdg1/04/09/91

Coast-to-Coast  
Analytical  
Services

Coast-to-Coast  
Analytical Services, Inc.  
751 S. Kellogg Avenue, Suite A  
Goleta, California 93117  
(805) 964-7838

Lab Number : B040891  
Collected :  
Received :  
Tested : 04/08/91  
Collected by:

FUEL FINGERPRINT ANALYSIS BY GC/MS FOR TPH  
(Modified EPA 8240) as cited in CAL-LUFT, p. A18 (Oct. 1989)\*  
EXTRACTED BY EPA METHOD 5030 - Purge & Trap  
SAMPLE DESCRIPTION:  
Instrument Blank

Compound Analyzed	Detection Limit (#PQL) in ppm	Concentration in ppm
Benzene	0.0003	not found
Toluene	0.0003	not found
Ethylbenzene	0.0006	not found
Xylenes	0.0006	not found
1,2-Dichloroethane (EDC)	0.0003	not found
Ethylene Dibromide (EDB)	0.0003	not found
-----		
TOTAL PURGEABLE PETROLEUM HYDROCARBONS	0.05	
(Gasoline)		<0.05
(Diesel 2)		<0.05
-----		
BTX as a Percent of Fuel		not applicable
Percent Surrogate Recovery		103.

#PQL - Practical Quantitation Limit

\* Cal DHS has approved use of this method for these analytes by this laboratory.  
(ppm = milligrams/liter)

Respectfully submitted,  
COAST-TO-COAST ANALYTICAL SERVICES

*Marissa C. Coronel*  
Marissa C. Coronel, Laboratory Director

*Mary Havlicek*  
Mary Havlicek, Ph.D., President

b040891f.wr1  
MH/mm/mc  
msdg1/04/09/91



141 Suburban Road  
751 S. Kellogg, Suite A  
1885 North Kelly Road  
9333 Tech Center Dr., Ste. 800  
2400 Cumberland Dr.

• San Luis Obispo, CA 93401  
• Goleta, CA 93117  
• Napa, CA 94558  
• Sacramento, CA 95826  
• Valparaiso, Indiana 46383

(805) 543-2553  
(805) 964-7838  
(707) 257-7211  
(916) 368-1333  
(219) 464-2389

FAX (805) 543-2685  
FAX (805) 964-4386  
FAX (707) 226-1001  
FAX (916) 362-2484  
FAX (219) 462-2953

# Chain of Custody

Page 1 of 1

PLEASE PRINT IN PEN

Client	Contact	Phone #	FAX #
Address	City	State	Zip
Project Name/Number			Project MGR
Bill (If different than above)			
Sampler	Due Date	Circle for RUSH	Copies To: Auth. Init.

Sample Description	Date/Time Coll'd	*Matrix	# of Containers	Pres.	Filt. y/n	Analysis	Remarks	Lab ID #
BA 15	/		1			FF T 1-d		161
Q 15	/		1			FF		2
Q 20	/		1			FF		3
R.D. 15	/		1			FF		4
	/							
	/							
	/							
	/							

Relinquished By	Date/Time	Received By	Relinquished By	Date/Time	Received By
	/			/	

Shipping Method	Shipping #	Received By	Date/Time	Condition (See Remarks)		
			/	Cold	Sealed	Intact

REMARKS \_\_\_\_\_

- \* Matrix:
- DW - Drinking Water
  - WW - Wastewater
  - GW - Groundwater
  - SW - Surface Water
  - IM - Impinger
  - FI - Filter
  - FP - Free Product
  - A/G - Air/Gas
  - SL - Sludge/Soil/Solid
  - OT - Other

FOR LAB USE ONLY

REPORT SUMMARY  
ANAMETRIX, INC. (408)432-8192

MR. DARREN REICH  
GOLD COAST  
101 MILL DRIVE  
VENTURA, CA 93001

Workorder # : 9104011  
Date Received : 04/01/91  
Project ID : N/A  
Purchase Order: N/A  
Department : GC  
Sub-Department: TPH

SAMPLE INFORMATION:

ANAMETRIX SAMPLE ID	CLIENT SAMPLE ID	MATRIX	DATE SAMPLED	METHOD
9104011- 1	BA-5	SOIL	04/01/91	TPHd
9104011- 2	BA-10	SOIL	04/01/91	TPHd
9104011- 3	BA-15	SOIL	04/01/91	TPHd
9104011- 4	BA-20	SOIL	04/01/91	TPHd
9104011- 6	BB-5	SOIL	04/01/91	TPHd
9104011- 7	BB-10	SOIL	04/01/91	TPHd
9104011- 8	BB-15	SOIL	04/01/91	TPHd
9104011-10	BC-5	SOIL	04/01/91	TPHd
9104011-11	BC-10	SOIL	04/01/91	TPHd
9104011-12	BC-15	SOIL	04/01/91	TPHd
9104011-13	BC-20	SOIL	04/01/91	TPHd
9104011-15	BD-5	SOIL	04/01/91	TPHd
9104011-16	BD-10	SOIL	04/01/91	TPHd
9104011-17	BD-15	SOIL	04/01/91	TPHd
9104011- 1	BA-5	SOIL	04/01/91	TPHg/BTEX
9104011- 2	BA-10	SOIL	04/01/91	TPHg/BTEX
9104011- 3	BA-15	SOIL	04/01/91	TPHg/BTEX
9104011- 4	BA-20	SOIL	04/01/91	TPHg/BTEX
9104011- 5	BA-15 H2O	WATER	04/01/91	TPHg/BTEX
9104011- 6	BB-5	SOIL	04/01/91	TPHg/BTEX
9104011- 7	BB-10	SOIL	04/01/91	TPHg/BTEX
9104011- 8	BB-15	SOIL	04/01/91	TPHg/BTEX
9104011- 9	BB-15 H2O	WATER	04/01/91	TPHg/BTEX

REPORT SUMMARY  
ANAMETRIX, INC. (408)432-8192

MR. DARREN REICH  
GOLD COAST  
101 MILL DRIVE  
VENTURA, CA 93001

Workorder # : 9104011  
Date Received : 04/01/91  
Project ID : N/A  
Purchase Order: N/A  
Department : GC  
Sub-Department: TPH

SAMPLE INFORMATION:

ANAMETRIX SAMPLE ID	CLIENT SAMPLE ID	MATRIX	DATE SAMPLED	METHOD
9104011-10	BC-5	SOIL	04/01/91	TPHg/BTEX
9104011-11	BC-10	SOIL	04/01/91	TPHg/BTEX
9104011-12	BC-15	SOIL	04/01/91	TPHg/BTEX
9104011-13	BC-20	SOIL	04/01/91	TPHg/BTEX
9104011-14	BC-20 H2O	WATER	04/01/91	TPHg/BTEX
9104011-15	BD-5	SOIL	04/01/91	TPHg/BTEX
9104011-16	BD-10	SOIL	04/01/91	TPHg/BTEX
9104011-17	BD-15	SOIL	04/01/91	TPHg/BTEX
9104011-18	BD-15 H2O	WATER	04/01/91	TPHg/BTEX



REPORT SUMMARY  
ANAMETRIX, INC. (408)432-8192

MR. DARREN REICH  
GOLD COAST  
101 MILL DRIVE  
VENTURA, CA 93001

Workorder # : 9104011  
Date Received : 04/01/91  
Project ID : N/A  
Purchase Order: N/A  
Department : GC  
Sub-Department: TPH

QA/QC SUMMARY :

- No QA/QC problems encountered for these samples.

Cheryl Balmer 4/10/91  
Department Supervisor Date

Lorith Voigt 4/10/91  
Chemist Date

ANALYSIS DATA SHEET - TOTAL PETROLEUM HYDROCARBONS  
(GASOLINE WITH BTEX)  
ANAMETRIX, INC. - (408) 432-8192

Anamatrix W.O.: 9104011  
Matrix : WATER  
Date Sampled : 04/01/91

Project Number : N/A  
Date Released : 04/09/91

COMPOUNDS	Reporting Limit (ug/L)	Sample I.D.#	Sample I.D.#	Sample I.D.#	Sample I.D.#	Sample I.D.#
		BA-15 WATER	BB-15 WATER	BC-20 WATER	BD-15 WATER	12B0405B
		-05	-09	-14	-18	BLANK
Benzene	0.5	1.6	1200	24	490	ND
Toluene	0.5	ND	22	ND	170	ND
Ethylbenzene	0.5	1.1	81	13	140	ND
Total Xylenes	0.5	ND	45	36	380	ND
TPH as Gasoline	50	ND	3000	310	2800	ND
% Surrogate Recovery		145%	147%	100%	142%	96%
Instrument I.D.		HP12	HP12	HP12	HP12	HP12
Date Analyzed		04/04/91	04/04/91	04/05/91	04/04/91	04/05/91
RLMF		1	25	5	25	1

- ND - Not detected at or above the practical quantitation limit for the method.  
 TPHg - Total Petroleum Hydrocarbons as gasoline is determined by GCFID using EPA Method 5030.  
 BTEX - Benzene, Toluene, Ethylbenzene, and Total Xylenes are determined by modified EPA Method 8020.  
 RLMF - Reporting Limit Multiplication Factor.  
 Anamatrix control limits for surrogate recovery are 53-147%.

All testing procedures follow California Department of Health Services (Cal-DHS) approved methods.

Jesse Livakos 04-11-91  
Analyst Date

Charles Balmer 4/11/91  
Supervisor Date

ANALYSIS DATA SHEET - TOTAL PETROLEUM HYDROCARBONS  
 (GASOLINE WITH BTEX)  
 ANAMETRIX, INC. - (408) 432-8192

Anamatrix W.O.: 9104011  
 Matrix : WATER  
 Date Sampled : 04/01/91

Project Number : N/A  
 Date Released : 04/09/91

COMPOUNDS	Reporting Limit (ug/L)	Sample I.D.# 12B0404C BLANK
Benzene	0.5	ND
Toluene	0.5	ND
Ethylbenzene	0.5	ND
Total Xylenes	0.5	ND
TPH as Gasoline	50	ND
% Surrogate Recovery		94%
Instrument I.D.		HP12
Date Analyzed		04/05/91
RLMF		1

ND - Not detected at or above the practical quantitation limit for the method.  
 TPHg - Total Petroleum Hydrocarbons as gasoline is determined by GCFID using EPA Method 5030.  
 BTEX - Benzene, Toluene, Ethylbenzene, and Total Xylenes are determined by modified EPA Method 8020.  
 RLMF - Reporting Limit Multiplication Factor.  
 Anamatrix control limits for surrogate recovery are 53-147%.  
 All testing procedures follow California Department of Health Services (Cal-DHS) approved methods.

David Vogel 4/10/91  
 Analyst Date

Cheryl Balmer 4/11/91  
 Supervisor Date

ANALYSIS DATA SHEET - TOTAL PETROLEUM HYDROCARBONS  
(GASOLINE WITH BTEX)  
ANAMETRIX, INC. - (408) 432-8192

Anamatrix W.O.: 9104011  
Matrix : SOIL  
Date Sampled : 04/01/91

Project Number : N/A  
Date Released : 04/09/91

COMPOUNDS	Reporting Limit (mg/Kg)	Sample I.D.# BA-5	Sample I.D.# BA-10	Sample I.D.# BA-15	Sample I.D.# BA-20	Sample I.D.# BB-5
Benzene	0.005	ND	ND	ND	ND	1.1
Toluene	0.005	ND	ND	ND	ND	ND
Ethylbenzene	0.005	ND	ND	ND	ND	5.1
Total Xylenes	0.005	ND	ND	ND	ND	0.78
TPH as Gasoline	0.5	ND	0.6	ND	ND	260
‡ Surrogate Recovery		99%	112%	72%	86%	123%
Instrument I.D.		HP4	HP4	HP4	HP4	HP4
Date Analyzed		04/04/91	04/04/91	04/04/91	04/05/91	04/04/91
RLMF		1	1	1	1	25

ND - Not detected at or above the practical quantitation limit for the method.

TPHg - Total Petroleum Hydrocarbons as gasoline is determined by GCFID using EPA Method 5030.

BTEX - Benzene, Toluene, Ethylbenzene, and Total Xylenes are determined by modified EPA Method 8020.

RLMF - Reporting Limit Multiplication Factor.  
Anamatrix control limits for surrogate recovery are 53-147%.

All testing procedures follow California Department of Health Services (Cal-DHS) approved methods.

Scott Voigt 4/10/91  
Analyst Date

Carol Bolmer 4/10/91  
Supervisor Date

ANALYSIS DATA SHEET - TOTAL PETROLEUM HYDROCARBONS AS DIESEL  
ANAMETRIX, INC. (408) 432-8192

Anametrix W.O.: 9104011  
Matrix : SOIL  
Date Sampled : 04/01/91  
Date Extracted: 04/02/91

Project Number : N/A  
Date released : 04/09/91  
Instrument I.D.: HP9

Anametrix I.D.	Client I.D.	Date Analyzed	Reporting Limit (mg/Kg)	Amount Found (mg/Kg)
9104011-01	BA-5	04/02/91	10	ND
9104011-02	BA-10	04/02/91	10	13
9104011-03	BA-15	04/02/91	10	ND
9104011-04	BA-20	04/02/91	10	ND
9104011-06	BB-5	04/02/91	10	800
9104011-07	BB-10	04/03/91	10	26
9104011-08	BB-15	04/03/91	10	ND
9104011-10	BC-5	04/03/91	10	410
9104011-11	BC-10	04/03/91	10	ND
9104011-12	BC-15	04/03/91	10	ND
9104011-13	BC-20	04/03/91	10	ND
9104011-15	BD-5	04/03/91	10	ND
9104011-16	BD-10	04/03/91	10	65
9104011-17	BD-15	04/03/91	10	ND
DSBL040291	METHOD BLANK	04/03/91	10	ND

Note : Reporting limit is obtained by multiplying the dilution factor times 10mg/Kg.  
 ND - Not detected at or above the practical quantitation limit for the method.  
 TPHd - Total Petroleum Hydrocarbons as diesel is determined by GCFID following sample extraction by EPA Method 3550.

All testing procedures follow California Department of Health Services (Cal-DHS) approved methods.

Steve J. Jaramol                      04-11-91  
Analyst                                      Date

Cheryl Balmer                      4/11/91  
Supervisor                                      Date

ANALYSIS DATA SHEET - TOTAL PETROLEUM HYDROCARBONS  
(GASOLINE WITH BTEX)  
ANAMETRIX, INC. - (408) 432-8192

Anametrix W.O.: 9104011  
Matrix : SOIL  
Date Sampled : 04/01/91

Project Number : N/A  
Date Released : 04/09/91

Reporting Limit	Sample I.D.# BB-10	Sample I.D.# BB-15	Sample I.D.# BC-5	Sample I.D.# BC-10	Sample I.D.# BC-15
COMPOUNDS (mg/Kg)	-07	-08	-10	-11	-12
Benzene	0.005	ND	ND	0.73	ND
Toluene	0.005	ND	ND	ND	ND
Ethylbenzene	0.005	0.007	ND	2.6	0.006
Total Xylenes	0.005	0.012	ND	ND	ND
TPH as Gasoline	0.5	1.4	ND	83	ND
* Surrogate Recovery	118%	128%	136%	66%	77%
Instrument I.D.	HP4	HP4	HP4	HP4	HP4
Date Analyzed	04/05/91	04/04/91	04/05/91	04/04/91	04/04/91
RLMF	1	1	25	1	1

ND - Not detected at or above the practical quantitation limit for the method.  
 TPHg - Total Petroleum Hydrocarbons as gasoline is determined by GCFID using EPA Method 5030.  
 BTEX - Benzene, Toluene, Ethylbenzene, and Total Xylenes are determined by modified EPA Method 8020.  
 RLMF - Reporting Limit Multiplication Factor.  
 Anametrix control limits for surrogate recovery are 53-147%.

All testing procedures follow California Department of Health Services (Cal-DHS) approved methods.

Scott Vogt 4/10/91  
Analyst Date

Cheryl Balmer 4/10/91  
Supervisor Date







REPORT SUMMARY  
ANAMETRIX, INC. (408)432-8192

MR. DARREN REICH  
GOLD COAST  
101 MILL DRIVE  
VENTURA, CA 93001

Workorder # : 9104011  
Date Received : 04/01/91  
Project ID : N/A  
Purchase Order: N/A  
Department : METALS  
Sub-Department: METALS

SAMPLE INFORMATION:

ANAMETRIX SAMPLE ID	CLIENT SAMPLE ID	MATRIX	DATE SAMPLED	METHOD
9104011- 1	BA-5	SOIL	04/01/91	6010
9104011- 2	BA-10	SOIL	04/01/91	6010
9104011- 3	BA-15	SOIL	04/01/91	6010
9104011- 4	BA-20	SOIL	04/01/91	6010
9104011- 6	BB-5	SOIL	04/01/91	6010
9104011- 7	BB-10	SOIL	04/01/91	6010
9104011- 8	BB-15	SOIL	04/01/91	6010
9104011-10	BC-5	SOIL	04/01/91	6010
9104011-11	BC-10	SOIL	04/01/91	6010
9104011-12	BC-15	SOIL	04/01/91	6010
9104011-13	BC-20	SOIL	04/01/91	6010
9104011-15	BD-5	SOIL	04/01/91	6010
9104011-16	BD-10	SOIL	04/01/91	6010
9104011-17	BD-15	SOIL	04/01/91	6010
9104011-20	BA, BB, BD-15, BC-20,	WATER	04/01/91	6010
9104011-19	B-SAND	SOIL	04/01/91	7420

ANALYSIS DATA SHEET - INDIVIDUAL METALS  
 ANAMETRIX, INC. - (408) 432-8192

Anamatrix W.O.: 9104011  
 Matrix : SOIL  
 Date Sampled : 04/01/91  
 Project Number: N/A

Date Prepared : 04/02/91  
 Date Analyzed : 04/11/91  
 Date Released : 04/15/91  
 Instrument I.D.: ICP1

ELEMENTS		Lead (Pb)
EPA METHOD		6010
REPORTING LIMIT		2.0
ANAMETRIX ID	CLIENT ID	(mg/Kg)
9104011-01	BA-5	5.1
9104011-02	BA-10	6.4
9104011-03	BA-15	4.3
9104011-04	BA-20	7.2
9104011-08	BB-15	4.7
9104011-10	BC-5	4.4
9104011-11	BC-10	7.0
9104011-12	BC-15	5.0
9104011-15	BD-5	3.9
9104011-16	BD-10	5.6
9104011-17	BD-15	5.6
MB0402S	METHOD BLANK	ND

ND : Not detected at or above the practical quantitation limit for the method.

All Metals by EPA Method 6010/7000, Test Method for Evaluating Solid Waste, SW-846 3rd Edition November 1986, and California Administrative Code Title 22, Section 66699.

Maunpagan 4/15/91  
 Chemist Date

Michael A. Hoban 4/15/91  
 Chemist Date

ANALYSIS DATA SHEET - INDIVIDUAL METALS  
ANAMETRIX, INC. - (408) 432-8192

Anamatrix W.O.: 9104011  
Matrix : SOIL  
Date Sampled : 04/01/91  
Project Number: N/A

Date Prepared : 04/02/91  
Date Analyzed : 04/11/91  
Date Released : 04/15/91  
Instrument I.D.: ICP1

ELEMENTS		Lead (Pb)
EPA METHOD		6010
REPORTING LIMIT		5.0
ANAMETRIX ID	CLIENT ID	(mg/Kg)
9104011-06	BB-5	11.0
9104011-07	BB-10	11.7
9104011-13	BC-20	10.1

ND : Not detected at or above the practical quantitation limit for the method.

All Metals by EPA Method 6010/7000, Test Method for Evaluating Solid Waste, SW-846 3rd Edition November 1986, and California Administrative Code Title 22, Section 66699.

Manny Lopez 4/15/91  
Chemist Date

Michael A. Hill 4/15/91  
Chemist Date

ANALYSIS DATA SHEET - TOTAL LEAD EPA METHOD 6010  
ANAMETRIX, INC. - (408) 432-8192

Anamatrix W.O.: 9104011  
Matrix : WATER  
Date Sampled : 04/01/91  
Project Number: N/A

Date Prepared : 04/11/91  
Date Analyzed : 04/12/91  
Date Released : 04/15/91  
Instrument I.D.: ICP1

-----		-----	-----
ELEMENTS		LEAD	-----
-----		-----	-----
EPA METHOD		6010	-----
-----		-----	-----
REPORTING LIMIT		40.0	-----
-----	-----	-----	-----
ANAMETRIX ID	CLIENT ID	(ug/L)	-----
-----	-----	-----	-----
9104011-20	BA, BB, BD-15, BC-20	75.0	-----
MB0411W	METHOD BLANK	ND	-----

ND : Not detected at or above the practical quantitation limit for the method.

All Metals by EPA Method 6010/7000, Test Method for Evaluating Solid Waste, SW-846 3rd Edition November 1986, and California Administrative Code Title 22, Section 66699.

Manny Guerra 4/15/91  
Chemist Date

Michael A. Hobbs 4/15/91  
Chemist Date

4/04011

ANAMETRIX CHAIN - OF - CUSTODY

ANAMETRIX Workorder Number						Number of Entries	Type of Containers	Type of Analysis				Condition of Samples	Initial
Gold Coast								TPH GAS	TPH Pinned	BTEX	Low Temp		
Send Report Attention of: <i>D. ...</i>								TPH GAS	TPH Pinned	BTEX	Low Temp		
Sample Number	Date	Time	Comp	Grab	Station Location								
01	BA-5	4-1-91				1	Brass	X	X	X	X		
02	BA-10	"				1	"	X	X	X	X		
03	BA-15	"				1	"	X	X	X	X		
04	BA-20	"				1	"	X	X	X	X		
05	BA-15 H2O	"				1	Glass	X	X	X	X		
06	BB-5	"		9:55		1	Brass	X	X	X	X		
07	BB-10	"				1	"	X	X	X	X		
08	BB-15	"				1	"	X	X	X	X		
09	BB-15 H2O	"				1	Glass	X	X	X	X		
10	BC-5	"		10:52		1	Brass	X	X	X	X		
11	BC-10	"				1	"	X	X	X	X		
12	BC-15	"				1	"	X	X	X	X		

Normal TAT

Relinquished by: (Signature) <i>Dana Reid</i>	Date/Time 4-1-91 1:45	Received by: (Signature) <i>Thomas ...</i>	Date/Time 4-1-91 1:45
Relinquished by: (Signature) <i>Thomas ...</i>	Date/Time 4-1-91 1:05	Received by: (Signature) <i>Mike ...</i>	Date/Time 4-1-91 17:00
Relinquished by: (Signature)	Date/Time	Received by: (Signature)	Date/Time

Remarks:

**ANAMETRIX INC**  
 LABORATORY SERVICES  
 1961 Concourse Drive, Suite E, San Jose, CA 95131  
 Phone: (408)432-8192 Fax: (408)432-8198





**APPENDIX C**

			1	2	3	4	5	6
			87 Book	Stick	+/-	87 Book	Stick	+/-
1	10/15	S	8810			8467		
2	✓	S	302			584		
3	✓	S	8508	8506	-2	7883	8059	176
4	10/16	S	240			575		
5	✓	S	8268	8257	-11	7368	7337	-31
6	10/17	S	295			769		
7	✓	S	7973	7996	23	6599	6642	43
8	10/18	S	72			261		
9	✓	S	7901	7824	-77	6338	6574	176
10	10/19	S	428			613		
11	✓	S	7473	7398	-75	5705	5823	98
12	10/20	S	298			575		
13	✓	S	7175	7007	-148	5750	5368	108
14	10/21	S	261			553		
15	✓	S	6914	6803	-111	4597	4700	125
16	10/22	S	231			512		
17	✓	S	6683	6675	-8	4035	4222	167
18	10/23	S	204			629		
19	✓	S	6479	6482	3	3116	3466	50
20	10/24	Sales	223			1667		
21	✓	gastrolog	2384			6355		
22	✓	gm	8640	8744	104	9104	9294	190
23	10/25	S	162			399		
24	✓	S	8478	8612	134	8705	8770	65
25	10/26	S	351			856		
26	✓	S	8137	8229	102	7849	7996	147
27	10/27	S	402			681		
28	✓	S	7705	7761	39	7168	7337	169
29	10/28	S	195			444		
30	✓	S	7530	7644	114	6704	6835	111
31	10/29	S	237			608		
32	✓	S	7213	7337	44	6116	6252	136
33	10/30	S	141			481		
34	✓	S	7152	7275	123	5635	6187	552
35	10/31	S	72			177		
36	✓	S	7080	7153	73	5458	5591	133
37	11/1	S	183			619		
38	✓	S	6897	6899	2	4839	4922	83
39	11/2	S	294			691		
40	✓	S	6603	6642	39	4148	4222	7



		92 Book	Stick	+/-	87 Book	Stick	+/-
1	603P	6603			4148		
2	11/3 S	360			672		
3	Y Q	6243	6252	9	3476	3937	461
4	11/4 S	310			401		
5	✓ gas drop	2879			5502		
6	✓ pm	8812	8896	84	8577	8770	193
7	adjust decoder	410			15		
8	11/5 S	156			457		
9	✓ Q	8666	8605	-11	8125	8285	160
10	11/6 S	146			403		
11	✓ Q	8520	8612	92	7722	7822	100
12	11/7 S	211			667		
13	✓ Q	8309	8368	59	7055	7184	129
14	11/8 S	200			671		
15	✓ Q	8089	8116	27	6384	6482	98
16	11/9 S	270			594		
17	✓ Q	7819	7853	34	5790	5989	199
18	11/10 S	258			459		
19	✓ Q	7561	7644	83	5331	5659	328
20	11/11 S	178			536		
21	✓ Q	7383	7298	15	4795	5056	261
22	11/12 S	209			685		
23	✓ Q	7174	7215	41	4110	4222	112
24	11/13 S	167			320		
25	✓ Q	7007	7091	84	3790	3924	134
26	11/14 S	48			33		
27	✓ Q	6959	6963	4	3757	3858	101
28	11/15 S	273			570		
29	✓ adj. wts + measures	40			40		
30	✓ pm	6726	6675	-51	3227	3370	143
31	11/16 S	184			497		
32	✓ Q	6542	6579	37	2709	2889	159
33	11/17 S	415			784		
34	✓ Q	6127	6135	28	1946	1980	34
35	11/18 S	202			322		
36	✓ Q	5925	5989	64	1354	1584	30
37	11/19 S	190			283		
38	✓ gas drop	2290			5260		
39	✓ pm	8625	8770	145	6531	6835	304
40	11/20 S	187			502		
	✓ Q	8438	8452	14	6029	6252	223

			1	2	3	4	5	6
			92 back	stick	+/-	87 Back	stick	+/-
1	082F		8438			6029		
2	11/21	S	290			515		
3	✓	P	ms 8148	8785	637	-1 5514	5989	4155
4	11/23	S	342			553		
5	✓	P	+35 7806	7942	136	-1 4961	5191	230
6	11/24	S	375			507		
7	✓	P	+25 7487	7398	-89	-1 4452	4656	202
8	11/25	S	48			179		
9	✓	P	+25 7393	7460	77	-1 4215	4622	347
10	11/30	S	171			424		
11	✓	P	+35 7212	7275	63	-1 3851	3597	-254
12	11/27	S	160			422		
13	✓	P	ms 7052	7091	39	-1 3423	3597	174
14	11/28	S	277			376		
15	✓	P	6775	6899	124	3047	3209	162
16	11/29	S	67			362		
17	✓	P	6708	6835	127	2085	2889	204
18	11/30	gates	290			617		
19	✓	gas drop	2716			6007		
20	✓	pm	9214	9205	-9	8075	8479	404
21	12/1	S	302			616		
22	✓	P	+1 8872	9017	145	7459	7764	305
23	12/2	S	193			423		
24	✓	P	+1 8679	8871	192	7086	7153	117
25	12/3	S	159			417		
26	✓	P	+ 8520	8612	92	6619	6771	152
27	12/4	S	230			327		
28	✓	P	-1 8287	8452	165	6292	6579	287
29	12/5	S	195			482		
30	✓	P	8092	8116	24	5810	6089	279
31	12/6	S	187			599		
32	✓	P	7905	8059	154	5211	5458	247
33	12/7	S	419			797		
34	✓	P	7486	7644	158	+48 4414	4722	308
35	12/8	S	420			509		
36	✓	P	7066	7059	-7	+48 3925	4057	132
37	12/9	S	265			443		
38	✓	P	6801	6899	98	+48 3162	3722	266
39	way	November	+4					
40	12/10	S	41			49		
	✓	P	-4 6761	6771	10	ms 3413	3597	184

92 book    stick    +/-    87 book    stick    +/-

1	BOF		6761				3413		
2	12/11	Sales	25				82		
3	✓	pm	-4	6726	6835	99	1148 3331	3629	298
4	12/12	S	181				437		
5	✓	P	-2	6535	6642	87	1148 2894	3145	251
6	12/13	S	218				489		
7	✓	P	-4	6327	6383	46	1148 2465	2582	177
8	12/14	S	313				437		
9	✓	P		6021	6089	65	1968	2038	70
10	12/16	S	140				267		
11	✓	P		5884	5758	-106	1701	1807	606
12	12/17	S	221				529		
13	✓	P		5063	5791	128	1172	1210	38
14	12/18	S	144				245		
15	✓	P		5519	5591	72	827	820	-7
16	12/19	S	81				201		
17	✓	gas drop		2804	2		5320		
18	✓	pm		8212	8228	-14	6146	6318	172
19	12/20	S	237				481		
20	✓	P		8005	8116	111	5065	5856	191
21	12/21	S	207				314		
22	✓	P		7792	7882	84	5357	5392	41
23	12/22	S	324				521		
24	✓	P	+7	7464	7522	58	4820	5791	371
25	12/23	S	228				576		
26	✓	P	+2	7196	7337	141	4304	4455	151
27	12/24	S	224				457		
28	✓	P	+2	6942	6995	53	3853	3957	104
29	12/26	S	241				670		
30	✓	P	+7	6598	6642	44	3183	3338	155
31	12/27	S	186				535		
32	✓	P	+7	6412	6449	37	2648	2708	60
33	12/28	S	227				572		
34	✓	P	+2	6125	6089	-36	2076	2127	51
35	12/29	S	280				627		
36	✓	P	+2	5845	5791	-54	1449	1421	-28
37	12/30	S	240				322		
38	✓	gas drop		2232			5807		
39	✓	pm	+2	8427	8422	-5	6924	7153	229
40	12/31	S	321				572		
	✓	P	+2	8116	8201	85	6302	6482	120

			92 Back	STICK	+/-		87 Back	STICK	+/-	
1	<del>000</del>		8116				<del>6362</del>			
2	1/2	S	151				1027			
3	✓	P	7962	7996	34	-1	5795	5856	131	
4	1/3	S	203				274			
5	✓	gas drop for tank top		2170			4516			
6	✓	pna uncoat 11800		9929	9836	-93	-1	9967	9978	6
7	1/4	S	357				710			
8	✓	P	9572	9501	-71	-1	9257	9330	73	
9	1/5	S	359				609			
10	✓	P	9213	9159	-54	+8	8648	8770	122	
11	1/6	S	197				642			
12	✓	P	9016	8969	-47	+8	8906	8229	223	
13	1/7	S	46				103			
14	✓	P	8970	8820	-150	+8	7903	8116	213	
15	1/8	S	179				222			
16	✓	P	8793	8770	-23	+3	7681	7912	231	
17	1/9	S	113				307			
18	✓	P	8680	8718	38	+3	7374	7275	-99	
19	1/10	S	203				555			
20	✓	P	8417	8452	35	+2	6819	7027	208	
21	1/11	S	339				449			
22	✓	P	8078	7971	-107	+2	6370	6262	212	
23	1/12	S	137				447			
24	✓	P	7941	7942	-1	+8	5923	6351	428	
25	1/13	S	330				547			
26	✓	P	7611	7584	-27	+8	5376	5525	149	
27	1/14	S	120				418			
28	✓	P	7491	7337	-154	+5	4958	5191	235	
29	1/15	S	228				505			
30	✓	P	7263	7275	12	+7	4453	4722	269	
31	1/16	S	311				922			
32	✓	P	6952	6995	43	+7	5531	3728	197	
33		hoj dec					3			
34	1/17	S	528				530			
35	✓	P	6024	6642	18		2998	3145	147	
36	1/18	S	305				832			
37	✓	P	6319	6318	-1		2166	2336	170	
38	1/19	S	290				601			
39	✓	P	6029	5924	-105		1525	1640	75	
40	1/20	S	284				493			
	✓	P	5745	5791	46		1072	1084	12	

		1	2	3	4	5	6
		92 Book	SHCK	+/-	97 Book	SHCK	+/-
1	60F	5745			1072		
2	1/21	292			576		
3	✓				8371		
4	✓	5453	5392	-61	8867	9017	150
5	1/22	205			686		
6	✓	5248	5191	-57	8181	8452	271
7	1/23	207			613		
8	✓	5041	4990	-51	7568	7942	374
9	1/24	238			609		
10	✓	4803	4722	-81	6959	7327	378
11	1/25	323			433		
12	✓	4480	4355	-125	6526	6835	309
13	1/26	412			674		
14	✓	4068	4024	-44	5852	6252	400
15	1/27	144			622		
16	✓	3924	3793	-131	5230	5591	361
17	1/28	225			256		
18	✓	3699	3597	-102	4874	5191	317
19	1/29	168			501		
20	✓	3531	3402	-129	4313	4755	382
21	1/30	<del>235</del>			689		
22	✓	3246	3209	-37	3624	3924	240
23	1/31	240			392		
24	✓	3056	2889	-167	3292	3531	239
25	2/1	292			424		
26	✓	2764	2582	-182	2868	3049	181
27	2/2	36			47		
28	✓	3726	<del>6514</del>		4631		
29	✓	6254	6514	-140	7442	7704	262
30	2/3	142			338		
31	✓	6572	6449	-63	7114	7584	470
32	Adj	+1			+1		
33	2/4	107			160		
34	✓	6406	6383	-23	6935	7027	72
35	2/5	46			66		
36	✓	6360	6449	89	6889	7337	448
37	2/6	207			315		
38	-	6153	5989	-164	6524	6707	183
39	2/7	101			404		
40	✓	6052	6056	4	6120	6514	394

1/21 sales  
 ✓ gas drop  
 ✓ pm

1/22 S  
 1/23 S  
 1/24 @ S  
 1/25 S  
 1/26 S  
 1/27 S  
 1/28 S  
 1/29 S  
 1/30 S  
 1/31 S  
 2/1 S  
 2/2 S  
 2/3 S  
 2/4 S  
 2/5 S  
 2/6 S  
 2/7 S  
 2/8 gas drop  
 2/9 pm  
 2/10 S  
 2/11 S  
 2/12 S  
 2/13 S  
 2/14 S  
 2/15 S  
 2/16 S  
 2/17 S  
 2/18 S  
 2/19 S  
 2/20 S  
 2/21 S  
 2/22 S  
 2/23 S  
 2/24 S  
 2/25 S  
 2/26 S  
 2/27 S  
 2/28 S  
 2/29 S  
 2/30 S  
 2/31 S

-30

+180

+180

+180

2

			92Back	Stick	+/-		87Back	Stick	+/-
1	BOF		6062				6120		
2	218	S	305				504		
3	✓	P	5747	5725	-22	+	5616	5956	340
4	219	S	373				669		
5	✓	P	5374	5358	-16	+	4917	5258	341
6	216	S	216				577		
7	✓	P	5728	5056	-72	+	4370	4422	53
8	211	S	218				572		
9	✓	P	4916	4789	-121	+	3798	4057	259
10	212	S	162				469		
11	✓	P	4748	4722	-26	+	3209	3095	316
12	213	S	290				600		
13	✓	P	4458	4555	97	+	2725	3081	356
14	214	S	297				663		
15	✓	P	4161	4123	-38	+	2062	2276	214
16	215	S	346				581		
17	✓	gas drop	3622				4903		
18	✓	pm	+100 7437	7584	147	+	6384	6835	451
19	216	S	493				666		
20	✓	P	+100 6944	6899	-45	+	5711	5956	245
21	217	S	229				489		
22	✓	P	+100 6715	6739	24	+	5209	5659	450
23	218	S	397				507		
24	✓	P	+100 6318	6318	0	+	4722	5158	436
25	219	S	257				626		
26	✓	P	+100 6061	5989	-72	+	4026	4455	369
27	2122	S	244				710		
28	✓	P	+100 5817	5692	-125	+	3276	2113	-263
29	2121	S	265				469		
30	✓	gas drop	3577				4956		
31	✓	pm	+100 9069	9041	-28	+	7863	8201	338
32	2120	S	380				687		
33	✓	P	8689	8533	-156	+	7176	6867	-309
34	2123	S	415				738		
35	✓	P	8274	8285	11	+	1438	6835	397
36	2124	S	398				681		
37	✓	P	7876	7853	-23	+	5757	6122	365
38	2125	S	477				577		
39	✓	P	7399	7522	123	+	5180	5591	411
40	2126	S	150				468		
	✓	P	7249	7153	-96	+	4712	5056	344

		1	2	3	4	5	6
		92 Back	Stick	+/-	87 Back	Stick	+/-
1	00F	7049			4712		
2	2127 ✓	25			65		
3	2128 ✓	7004 ✓	7153	-71	4647 ✓	4956	309
4		29			38		
5		7195 ✓	7153	-42	4609 -	4956	347
6	31 ✓	36			11		
7	312 ✓	7159 -	7122	-37	4598 ✓	4956	358
8		99			111		
9	315 ✓	7060 ✓	7153	93	4487 ✓	4922	435
10		91			264		
11		6969 ✓	7091	122	4222 ✓	4622	399
12		217			574		
13	316 ✓	6622 ✓	6574	-108	3649 ✓	3991	342
14							
15							
16							
17							
18							
19							
20							
21							
22							
23							
24							
25							
26							
27							
28							
29							
30							
31							
32							
33							
34							
35							
36							
37							
38							
39							
40							