geo - logic geotechnical and environmental consulting services
1140 - 5th Avenue, Crockett, CA 94525 (510) 787-6867 - Fax (510) 787-1457

June 11, 1999

Mr. Scott O. Seery
Alameda County Department of Environmental Health
1131 Harbor Bay Parkway, 2nd Floor
Alameda, California 94502

RE: Report of Soil Sampling during Tank Removal
and Station Upgrade
Arco Station
15101 Freedom Blvd.
San Leandro, California

Dear Mr. Seery:

Enclosed is the sampling report for the above-referenced site. It is anticipated that additional sampling will be carried out when the tank pit is extended to accommodate the new tanks, and I or Paradiso will notify you to schedule your site visit. Should you have any questions regarding this, please feel free to call me at (510) 787-6867.

Sincerely,

Geo-Logic, Inc.

Joel G. Greger, C.E.G.
Certified Engineering Geologist

License No. EG 1633
Exp. Date 8/31/2000

Attachments: Report

geo - logic geotechnical and environmental consulting services
1140 - 5th Avenue, Crockett, CA 94525 (510) 787-6867 - Fax (510) 787-1457

June 11, 1999
Paradiso Job No. 99-444

Mr. Richard Hirsch
Service Station Properties
640 S. Winchester Boulevard
San Jose, California 95128

RE: Report of Soil Sampling during Tank Removal and Station Upgrade
Arco Station
15101 Freedom Boulevard
San Leandro, California

Dear Mr. Hirsch:

This report summarizes the results of soil sampling performed by Geo-Logic at the referenced site. All work was performed in compliance with the guidelines established by the Regional Water Quality Control Board (RWQCB), and Alameda County Environmental Health Services (ACEHS).

The scope of the work performed by Geo-Logic consisted of the following:

Coordination with the regulatory agencies

Collection of soil samples from beneath each end of the three removed fuel tanks

Collection of soil samples from beneath the dispensers and from the product piping trenches

Collection of additional soil samples during overexcavation of a piping trench, and during additional exploratory digging for vertical delineation within the tank pit

Collection of a composite soil sample from the excavated soils and profiling of the stockpiled soils for disposal

Delivery of soil samples with properly executed Chain of Custody documentation to a certified analytical laboratory

Technical review of data and preparation of this report

SITE HISTORY AND BACKGROUND

The subject site is located at 15101 Freedom Boulevard, between 151st Street and Fairmount Boulevard, just west of the 580 freeway in San Leandro, California. The site is an operating service station. A Site Plan (Figure 1) is attached to this report.

FIELD ACTIVITIES

Geo-Logic's field work at the site began on May 20, 1999, when three 10,000-gallon gasoline tanks were removed from the site. Mr. Scott O. Seery of the ACEHS was present during removal of the first two tanks. Mr. Robert Weston of the ACEHS was present during the removal of the third tank and witnessed sampling of the tank pit and dispenser islands.

The three tanks were made of steel, and appeared to be in good condition, except for the middle tank, which had a small hole in the bottom directly beneath the fill port.

The excavation containing the three 10,000-gallon tanks was completed to a depth of about 12 to 14 feet below grade. The lateral dimensions of th3 excavation measured about 30 by 30 feet. The excavated soil was stockpiled on-site pending the results of the laboratory analyses. The three tanks were transported from the site under proper manifest by ECI, Inc., of Richmond, California.

Six soil samples, labeled T1W (12.5'), T2W (14'), T3W (14'), T1E (12.5'), T2E (12.5'), and T3E (14') were collected from the bottom of the excavation beneath each end of the three tanks, at the depths indicated. An additional sample, labeled T1 (13.5'), was collected one foot below the first sample at the west end of Tank 1. The locations of the sample points are shown on Figure 1.

Six soil samples, labeled P1 (2.5'), P2 (2.5'), P4 (3'), P5 (2.5'), P6 (2.5'), and P7 (2.5') were collected from beneath each of the dispenser locations, at the depths indicated. One sample, labeled P3 (2.5'), was collected from a product piping trench. The locations of these samples are shown on Figure 1.

The undisturbed samples from the tank pit were collected from bulk material excavated by backhoe. The samples from beneath the dispenser islands and from the product piping trench were collected by hand driving the liner with a mallet. The samples were each placed in clean, two-inch diameter brass tubes, sealed with teflon and plastic caps, and stored in a cooled ice chest for delivery to a certified laboratory.

On May 21, 1999 (the following day), Geo-Logic returned to the site to collect additional samples from the product piping trenches and from the soil stockpile. Mr. Scott O. Seery of the ACEHS witnessed the piping trench sampling. These samples, labeled P8 (3.5'), P9 (3.5'), P10 (3.5'), P11 (3'), P12 (3.5'), P13 (3'), and P14 (3'), were collected from beneath the piping intersections at the depths indicated. A composite soil sample was collected at various points approximately 1 foot below the surface of the stockpiled soil. The samples were handled as described above. The locations of the product piping trench samples are shown on Figure 1.

On June 2, 1999, Geo-Logic returned to the site when the area of the piping trench at sample point P12 (3.5') was overexcavated. One sample, labeled P12 (5'), was collected from the overexcavated area at the depth indicated. The excavated soils were stockpiled onsite. The location of the sample is shown on Figure 1.

Also on June 2, 1999, the area of sample point T1W (13.5') within the tank pit was further excavated to attempt to define the extent of hydrocarbon impacts vertically. Three samples, labeled T1W (16.5'), T1W (19.5'), and T1W (24.5'), were collected at the depths indicated. The samples were collected from bulk material excavated by backhoe and were handled as described above. The excavated soil was placed back in the tank pit and compacted.

SUBSURFACE CONDITIONS

The native soils encountered in the excavations beneath the surficial fill material consisted predominantly of dark grayish brown, hard clayey silt to a depth of approximately 6 to 7 feet below grade, underlain predominantly by green clayey silt to the total depth excavated. The excavated backfill material consisted predominantly of sand with gravel.

ANALYTICAL RESULTS

The samples were analyzed by Calcoast Analytical in Emeryville, California, and were accompanied by properly executed Chain of Custody documentation. The samples were analyzed for total petroleum hydrocarbons (TPH) as gasoline by EPA method 8015, and benzene, toluene, ethylbenzene, and xylenes (BTEX) and methyl tert-butyl ether (MTBE) by EPA method 8020. The highest detected concentrations of MTBE (by EPA Method 8020) were confirmed by EPA

Method 8260. The composite sample from the soil stockpile was also analyzed for total lead. The results of the soil analyses are summarized in Table 1. Copies of the laboratory analyses and the Chain of Custody documentation are attached to this report.

DISTRIBUTION

This report should be sent to Mr. Scott Seery of the ACHCSA.

LIMITATIONS

Soil deposits and rock formations may vary in thickness, lithology, saturation, strength and other properties across any site. In addition, environmental changes, either naturally-occurring or artificially-induced, may cause changes in the extent and concentration of any contaminants. Our studies assume that the field and laboratory data are reasonably representative of the site as a whole, and assume that subsurface conditions are reasonably conducive to interpolation and extrapolation.

The results of this study are based on the data obtained from the field and laboratory analyses obtained from a state certified laboratory. We have analyzed this data using what we believe to be currently applicable engineering techniques and principles in the Northern California region. We make no warranty, either expressed or implied, regarding the above, including laboratory analyses, except that our services have been performed in accordance with generally accepted professional principles and practices existing for such work.

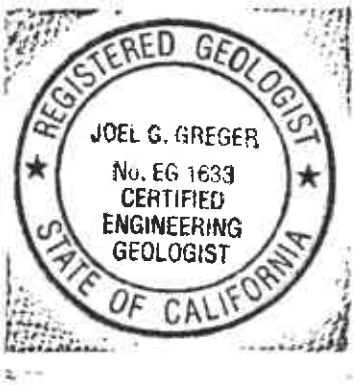
Should you have any questions regarding this report, please feel free to call me at (510) 787-6867.

Sincerely,

Geo-Logic

Joel G. Greger, C.E.G.
Certified Engineering Geologist

License No. EG 1633
Exp. Date 8/31/2000



Attachments: Table 1
Figure 1
Laboratory Analyses and
Chain of Custody documentation

Paradiso Job No. 99-444 June 11, 1999

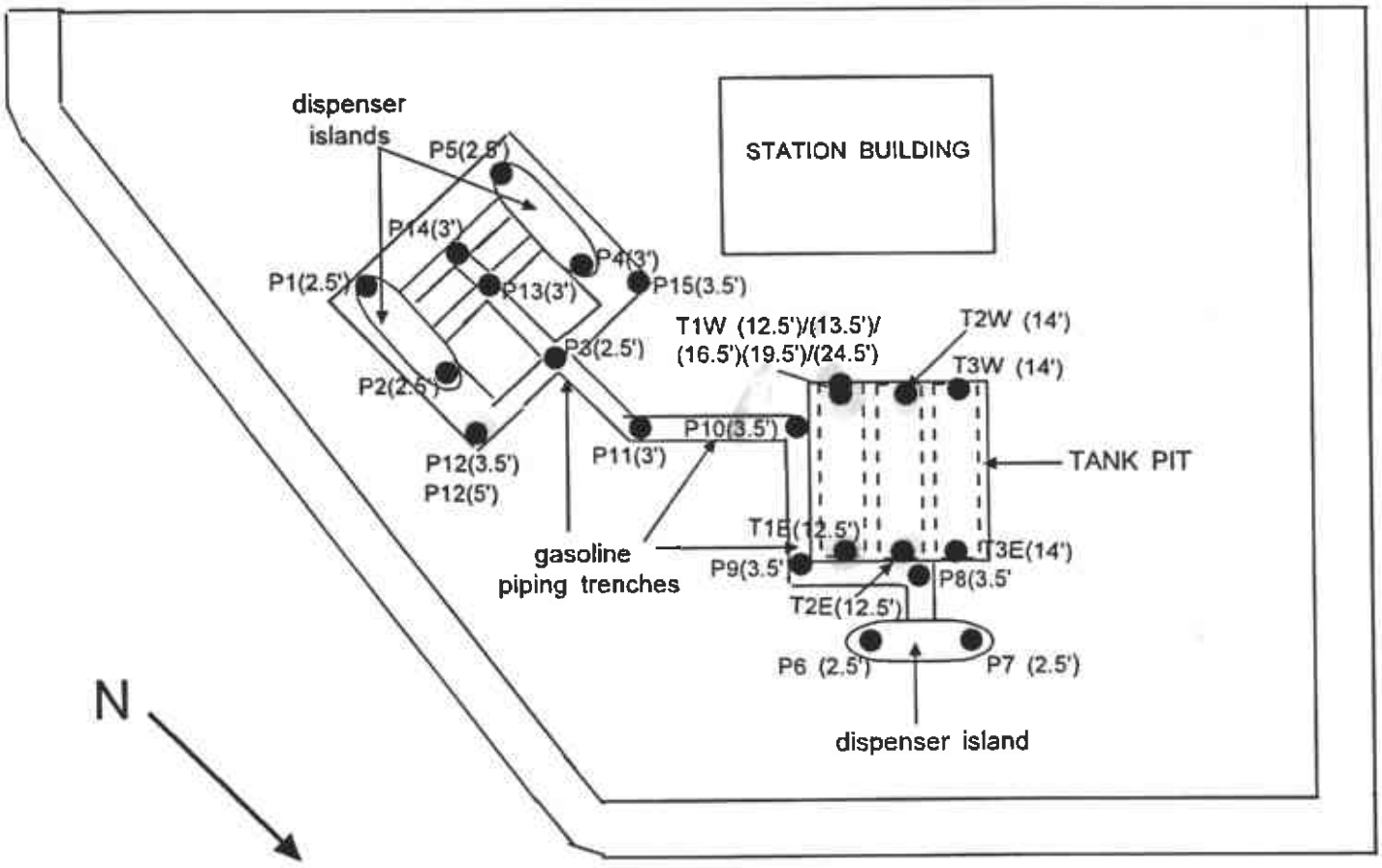
TABLE 1 - SUMMARY OF LABORATORY ANALYSES - SOIL

Sample/depth	[redacted]	Benzene	Toluene	Ethyl-benzene	Xylenes	MTBE
(Collected on May 20 and May 21, 1999)						
T1W (12.5')	1,700	11	13	22	19	0.22
T1W (13.5')	3,900	28	34	34	41	0.71/0.58
T1E (12.5')	2,000	15	12	19	20	0.28
middle T2W (14')	1,300	7.7	6.5	10	13	0.14
T2E (12.5')	1,800	20	17	23	26	0.19
T3W (14')	990	5.9	5.7	6.4	6.8	<0.005
T3E (14')	960	5.0	4.3	5.2	5.1	<0.005
P1 (2.5)	5.2	0.015	0.009	0.019	0.021	0.009
P2 (2.5')	1.4	<0.005	<0.005	0.011	0.020	<0.005
P3 (2.5')	0.76	<0.005	<0.005	<0.005	0.017	<0.005
P4 (3')	0.88	<0.005	<0.005	0.010	0.019	<0.005
P5 (2.5')	1.1	<0.005	<0.005	0.016	0.023	<0.005
P6 (2.5')	0.90	<0.005	<0.005	0.022	0.018	<0.005
P7 (2.5')	11	0.037	0.018	0.042	0.044	0.020/0.031
P8 (3.5)	6.1	0.041	0.040	0.052	0.062	0.011
P9 (3.5')	13	0.090	0.077	0.094	0.12	0.052
P10 (3.5')	7.2	0.038	0.044	0.061	0.058	<0.005
P11 (3')	48	0.42	0.27	0.38	0.56	0.28
P12 (3.5')	370	[redacted]	1.4	3.0	2.9	0.93/0.70
P13 (3')	20	0.14	0.096	0.15	0.22	0.17
P14 (3')	2.9	<0.005	<0.005	0.017	0.030	<0.005
P15 (3.5')	13	0.079	0.049	0.099	0.16	0.066
Comp S1*	5.7	0.036	0.029	0.037	0.048	<0.005
(Collected on June 2, 1999)						
T1W (16.5')	390	1.0	0.73	1.1	1.7	0.089
T1W (19.5')	340	1.1	0.66	0.84	1.3	0.12
T1W (24.5')	4,000	12	9.7	12	15	0.78/0.55
P12 (5')	110	0.26	0.15	0.23	0.33	0.026
Det. Limit/ Method Blank	<0.1	<0.005	<0.005	<0.005	<0.005	<0.005

Total lead was detected at a concentration of 42 mg/kg.
The concentrations of MTBE detected by EPA Method 8020 in T1W(13.5'), T1W(24.5'), P7(2.5'), and P12(3.5') were confirmed by EPA Method 8260.

Results are in milligrams per kilogram (mg/kg).

151st Street



Fairmount Blvd.

LEGEND

● Sample (depth)

Samples collected on May 20-21 and June 2, 1999

SCALE: 1" = 30'

ARCO STATION 15101 FREEDOM BLVD. SAN LEANDRO, CALIFORNIA	Figure No: 1	Date: June 11, 1999 Drawn By: JG/Geo-Logic

Sample Location Map

CALCOAST ANALYTICAL

Materials Chemistry

Certified by
California Department of Health Services
City of Los Angeles, Dept. of Building & Safety

May 25, 1999

Geo - Logic
1140 - 5th Avenue
Crockett, CA 94525

Attn: Mr. Joel Greger

Ref: Lab File No.: 0520-7A/N-99(a)

1. SAMPLES:

Seven (7) soil cores;

Project: Arco Station; 15101 Freedom Blvd, San Leandro
Project No: 99 - 444
Samples:
A. T1W (12.5')
B. T1W (13.5')
C. T1E (12.5')
D. T2W (14')
E. T2E (12.5')
F. T3W (14')
G. T3E (14')

Collected: May 20, 1999
Received: May 20, 1999

2. ANALYSIS REQUIRED:

A. Total Petroleum Hydrocarbons - gasoline (TPH-g) by Gas Chromatography (GC).
B. Benzene, Toluene, Ethylbenzene and Xylene (BTEX) by GC.
C. Methyl-tert-butyl ether (MTBE) by GC.
D. MTBE, on Sample B only, by Gas Chromatography / Mass Spectrometry (GC/MS).

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FAX (510) 652-3085
P.O. BOX 8702 • EMERYVILLE, CA 94662
4072 WATTS STREET • EMERYVILLE, CA 94608

3. METHODS OF ANALYSIS:

A. EPA Method 8015; SW-846
B. EPA Method 8020; SW-846
C. EPA Method 8020; SW-846
D. EPA Method 8260; SW-846

4. RESULTS:

A. TPH - gasoline

SAMPLE	TPH - gasoline (mg/kg)
A. T1W (12.5')	1,700
B. T1W (13.5')	3,900
C. T1E (12.5')	2,000
D. T2W (14')	1,300
E. T2E (12.5')	1,800
F. T3W (14')	990
G. T3E (14')	960

Method Blank/Detection Limit = < 0.1 mg/kg (none detected)
Mean Spike Recovery = 108%

B. BTEX

Sample	Concentration - (mg/kg)			
	Benzene	Toluene	Ethylbenzene	Xylene
A. T1W (12.5')	11	13	22	19
B. T1W (13.5')	28	34	34	41
C. T1E (12.5')	15	12	19	20
D. T2W (14')	7.7	6.5	10	13
E. T2E (12.5')	20	17	23	26
F. T3W (14')	5.9	5.7	6.4	6.8
G. T3E (14')	5.0	4.3	5.2	5.1
Method Blank	<0.005(ND)	<0.005(ND)	<0.005(ND)	<0.005(ND)
Mean Spike Recovery	101%	107%	106%	93%

C. MTBE - GC

SAMPLE	MTBE (mg/kg)
A. T1W (12.5')	0.22
B. T1W (13.5')	0.71
C. T1E (12.5')	0.28
D. T2W (14')	0.14
E. T2E (12.5')	0.19
F. T3W (14')	< 0.005 (ND)
G. T3E (14')	< 0.005 (ND)

Method Blank/Detection Limit = <0.005mg/kg (none detected)

D. MTBE - GC/MS

SAMPLE	MTBE (mg/kg)
B. T1W (13.5')	0.58

Method Blank/Detection Limit = <0.005mg/kg (none detected)

Ronald W. Shrewsbury
Analytical Chemist

Calcoast Analytical, Inc.

Chain of Custody

Date 5/20/99 Page 1 of 2

Proj. Mgr.: Joel Greger - Geologic
Company: for Paradiso Mechanical
Address: 2600 Williams St
POB 1836
San Leandro CA

Samples (signature): Joel [signature]
(Phone No.) 510 7876867
(Fax No.) 510 7871457

Analysis Report

Sample ID	Type	Date	Time	Matrix	Preserve.	TPH - Gasoline (EPA 5030, 8015)	TPH - Gasoline (5030, 8015) w/ BTEX (EPA 602, 8020)	TPH - Diesel, TEPH (EPA 3510/3550, 8015)	PURGEABLE AROMATICS BTEX (EPA 602, 8020)	PURGEABLE HALOCARBONS (EPA 601, 8010)	VOLATILE ORGANICS (EPA 624, 8240, 524.2)	BASE/NEUTRALS, ACIDS (EPA 625/627, 8270, 525)	TOTAL OIL & GREASE (EPA 5520, B+F, E+F)	PCB (EPA 608, 8080)	PESTICIDES (EPA 608, 8080)	TOTAL RECOVERABLE HYDROCARBONS (EPA 418.1)
T1W(12.5')		5/20/99	12PM	Soil			X									
T1W(13.5')		↓	↓	↓			X									
T1E(12.5')							X									
T2W(14')							X									
T2E(12.5')							X									
T3W(14')							X									
T3E(14')							X									

Sample ID	MTBE-8020	LUFT METALS: Cd, Cr, Pb, Zn, Ni	CAM METALS (17)	PRIORITY POLLUTANT METALS (13)	TOTAL LEAD	EXTRACTION (TCLP, STLC)	MTBE 8260					NUMBER OF CONTAINERS
T1W(12.5')	X											1
T1W(13.5')	X											1
T1E(12.5')	X											1
T2W(14')	X											1
T2E(12.5')	X											1
T3W(14')	X											1
T3E(14')	X											1

Confirm the one sample with the highest concentration

Project Information

Project Name: Arco 15101 Freedom Bl
Project No. 99-444
PO #
TAT: (Standard 5-Day) circled | 24 | 48 | 72 | Other

Sample Receipt

Total No. of Containers:
Head Space:
Rec'd Good Condition/Cold:
Conforms To Record:

Special Instructions / Comments:
Refer to Job Address + Job No. on lab sheets + invoice:
Arco Station
15101 Freedom Bl
San Leandro
Paradiso Job # 99-444

	1.	2.	3.
Relinquished By: (Signature)	[signature]		
(Printed Name)	Joel G. Greger		
(Date) (Time)	5/20/99 2:40PM		
Received By: (Signature)	David P. Gollub [signature]		
(Printed Name)	David P. Gollub		
(Date) (Time)	5/20/99 2:45		

CALCOAST ANALYTICAL

Materials Chemistry

Certified by
California Department of Health Services
City of Los Angeles, Dept. of Building & Safety

May 25, 1999

Geo - Logic
1140 - 5th Avenue
Crockett, CA 94525

Attn: Mr. Joel Greger

Ref: Lab File No.: 0520-7A/N-99(b)

1. SAMPLES:

Seven (7) soil cores;

Project: Arco Station; 15101 Freedom Blvd, San Leandro
Project No: 99 - 444
Samples:
A. P1 (2.5')
B. P2 (2.5')
C. P3 (2.5')
D. P4 (3')
E. P5 (2.5')
F. P6 (2.5')
G. P7 (2.5')

Collected: May 20, 1999
Received: May 20, 1999

2. ANALYSIS REQUIRED:

A. Total Petroleum Hydrocarbons - gasoline (TPH-g) by Gas Chromatography (GC).
B. Benzene, Toluene, Ethylbenzene and Xylene (BTEX) by GC.
C. Methyl-tert-butyl ether (MTBE) by GC.
D. MTBE, on Sample G only, by Gas Chromatography / Mass Spectrometry (GC/MS).

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4072 WATTS STREET • EMERYVILLE, CA 94608

3. METHODS OF ANALYSIS:

A. EPA Method 8015; SW-846
B. EPA Method 8020; SW-846
C. EPA Method 8020; SW-846
D. EPA Method 8260; SW-846

4. RESULTS:

A. TPH - gasoline

SAMPLE	TPH - gasoline (mg/kg)
A. P1 (2.5')	5.2
B. P2 (2.5')	1.4
C. P3 (2.5')	0.76
D. P4 (3')	0.88
E. P5 (2.5')	1.1
F. P6 (2.5')	0.90
G. P7 (2.5')	11

Method Blank/Detection Limit = < 0.1 mg/kg (none detected)
Mean Spike Recovery = 105%

B. BTEX

Sample	Concentration - (mg/kg)			
	Benzene	Toluene	Ethylbenzene	Xylene
A. P1 (2.5')	0.015	0.009	0.019	0.021
B. P2 (2.5')	<0.005(ND)	<0.005(ND)	0.011	0.020
C. P3 (2.5')	<0.005(ND)	<0.005(ND)	<0.005(ND)	0.017
D. P4 (3')	<0.005(ND)	<0.005(ND)	0.010	0.019
E. P5 (2.5')	<0.005(ND)	<0.005(ND)	0.016	0.023
F. P6 (2.5')	<0.005(ND)	<0.005(ND)	0.022	0.018
G. P7 (2.5')	0.037	0.018	0.042	0.044
Method Blank	<0.005(ND)	<0.005(ND)	<0.005(ND)	<0.005(ND)
Mean Spike Recovery	95%	97%	109%	108%

C. MTBE - GC

SAMPLE	MTBE (mg/kg)
A. P1 (2.5')	0.009
B. P2 (2.5')	<0.005(ND)
C. P3 (2.5')	<0.005(ND)
D. P4 (3')	<0.005(ND)
E. P5 (2.5')	<0.005(ND)
F. P6 (2.5')	<0.005(ND)
G. P7 (2.5')	0.020

Method Blank/Detection Limit = <0.005mg/kg (none detected)

D. MTBE - GC/MS

SAMPLE	MTBE (mg/kg)
G. P7 (2.5')	0.031

Method Blank/Detection Limit = <0.005mg/kg (none detected)

Ronald W. Shrewsbury
Analytical Chemist

Calcoast Analytical, Inc.

Date 5/20/99 **Chain of Custody** Page 2 of 2

Proj. Mgr.: Joel Gregor - Geologic
Company: For Paradiso Mechanical
Address: 2600 Williams St
San Leandro CA

Samples (signature) Joel Gregor (Phone No.) 510 7876867
(Fax No.) 510 7871457

Analysis Report

Sample ID	Type	Date	Time	Preserve	TPH - Gasoline (EPA 5030, 8015)	TPH - Gasoline (5030, 8015) w/ BTEX (EPA 602, 8020)	TPH - Diesel, TEPH (EPA 3510/3550, 8015)	PURGEABLE AROMATICS BTEX (EPA 602, 8020)	PURGEABLE HALOCARBONS (EPA 601, 8010)	VOLATILE ORGANICS (EPA 624, 8240, 524.2)	BASE/NEUTRALS, ACIDS (EPA 625/627, 8270, 525)	TOTAL OIL & GREASE (EPA 5520, B+F, E+F)	PCB (EPA 608, 8080)	PESTICIDES (EPA 608, 8080)	TOTAL RECOVERABLE HYDROCARBONS (EPA 418.1)	MTBE - 8020	LUFT METALS: Cd, Cr, Pb, Zn, Ni	CAM METALS (17)	PRIORITY POLLUTANT METALS (13)	TOTAL LEAD	EXTRACTION (TCLP, STLC)	MTBE - 8260				NUMBER OF CONTAINERS
P1 (2.5')	Soil	5/20/99	1PM			X										X						Confirm by GC/MS with 4:5 ppt Concentration				1
P2 (2.5')						X										X										1
P3 (2.5')						X										X										1
P4 (3')						X										X										1
P5 2.5')						X										X										1
P6 2.5')						X										X										1
P7 (2.5')						X										X										1

Project Information

Project Name: ARCO
1501 Freedom Bl
Project No: 99-444
PO #:
TAT: (Standard) 5-Day | 24 | 48 | 72 | Other

Sample Receipt

Total No. of Containers	
Head Space	
Rec'd Good Condition/Cold	
Conforms To Record	

Special Instructions / Comments:
Refer to Job Address + Job No on lab sheets + invoice:
Arco Station
1501 Freedom Bl.
San Leandro

Paradiso Job No 99-444

Relinquished By: 1.
(Signature) Joel Gregor
Joel G. Gregor
(Printed Name)
5/20/99 2:40 pm
(Date) (Time)

Relinquished By: 2.
(Signature)
(Printed Name)
(Date) (Time)

Received By: 1.
(Signature) David P. Dolan
(Printed Name) David P. Golla
(Date) 5/20/99 (Time) 2:45

Received By: 2.
(Signature)
(Printed Name)
(Date) (Time)

C:\My Documents\Calcoast\Templates\Chain of Custody.doc

CALCOAST ANALYTICAL

Materials Chemistry

Certified by
California Department of Health Services
City of Los Angeles, Dept. of Building & Safety

May 26, 1999

Geo - Logic
1140 - 5th Avenue
Crockett, CA 94525

Attn: Mr. Joel Greger

Ref: Lab File No.: 0521-8A/I-99(b)

1. SAMPLES:

Eight (8) soil cores;

Project: Arco Station; 15101 Freedom Blvd, San Leandro
Project No: 99 - 444
Samples:
A. P8 (3.5')
B. P9 (3.5')
C. P10 (3.5')
D. P11 (3')
E. P12 (3.5')
F. P13 (3')
G. P14 (3')
H. P15 (3.5')

Collected: May 21, 1999
Received: May 21, 1999

2. ANALYSIS REQUIRED:

A. Total Petroleum Hydrocarbons - gasoline (TPH-g) by Gas Chromatography (GC).
B. Benzene, Toluene, Ethylbenzene and Xylene (BTEX) by GC.
C. Methyl-tert-butyl ether (MTBE) by GC.
D. MTBE, on Sample E only, by Gas Chromatography / Mass Spectrometry (GC/MS).

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FAX (510) 652-3085
P.O. BOX 8702 • EMERYVILLE, CA 94662
4072 WATTS STREET • EMERYVILLE, CA 94608

3. METHODS OF ANALYSIS:

A. EPA Method 8015; SW-846
B. EPA Method 8020; SW-846
C. EPA Method 8020; SW-846
D. EPA Method 8260; SW-846

4. RESULTS:

A. TPH - gasoline

SAMPLE	TPH - gasoline (mg/kg)
A. P8 (3.5')	6.1
B. P9 (3.5')	13
C. P10 (3.5')	7.2
D. P11 (3')	48
E. P12 (3.5')	370
F. P13 (3')	20
G. P14 (3')	2.9
H. P15 (3.5')	13

Method Blank/Detection Limit = < 0.1 mg/kg (none detected)
Mean Spike Recovery = 94%

B. BTEX

Sample	Concentration - (mg/kg)			
	Benzene	Toluene	Ethylbenzene	Xylene
A. P8 (3.5')	0.041	0.040	0.052	0.062
B. P9 (3.5')	0.090	0.077	0.094	0.12
C. P10 (3.5')	0.038	0.044	0.061	0.058
D. P11 (3')	0.42	0.27	0.38	0.56
E. P12 (3.5')	2.6	1.4	3.0	2.9
F. P13 (3')	0.14	0.096	0.15	0.22
G. P14 (3')	<0.005(ND)	<0.005(ND)	0.017	0.030
H. P15 (3.5')	0.079	0.049	0.099	0.16
Method Blank	<0.005(ND)	<0.005(ND)	<0.005(ND)	<0.005(ND)
Mean Spike Recovery	109%	106%	110%	105%

C. MTBE - GC

SAMPLE	MTBE (mg/kg)
A. P8 (3.5')	0.011
B. P9 (3.5')	0.052
C. P10 (3.5')	< 0.005 (ND)
D. P11 (3')	0.28
E. P12 (3.5')	0.93
F. P13 (3')	0.17
G. P14 (3')	<0.005(ND)
H. P15 (3.5')	0.066

Method Blank/Detection Limit = <0.005mg/kg (none detected)

D. MTBE - GC/MS

SAMPLE	MTBE (mg/kg)
E. P12 (3.5')	0.70

Method Blank/Detection Limit = <0.005mg/kg (none detected)

Ronald W. Shrewsbury
Analytical Chemist

ALL SAMPLES SUBMITTED FOR TESTING WILL BE HELD 30 DAYS FROM REPORT DATE AT WHICH TIME THEY WILL BE RETURNED TO CLIENT OR DESTROYED. CLIENT WILL BE RESPONSIBLE FOR ALL SHIPPING, HANDLING, AND DISPOSAL CHARGES. SAMPLES WILL BE STORED UPON WRITTEN INSTRUCTIONS AND FEE ARRANGEMENTS.

CALCOAST ANALYTICAL

Materials Chemistry

Certified by
California Department of Health Services
City of Los Angeles, Dept. of Building & Safety

May 25, 1999

Geo - Logic
1140 - 5th Avenue
Crockett, CA 94525

Attn: Mr. Joel Greger

Ref: Lab File No.: 0521-8A/I-99(a)

1. SAMPLES:

Four (4) soil cores which are composited into one (1) sample for analysis;

Project: Arco Station; 15101 Freedom Blvd, San Leandro
Project No: 99 - 444
Sample: A. Comp. S1

Collected: May 20 - 21, 1999
Received: May 21, 1999

2. ANALYSIS REQUIRED:

A. Total Petroleum Hydrocarbons - gasoline (TPH-g) by Gas Chromatography (GC).
B. Benzene, Toluene, Ethylbenzene and Xylene (BTEX) by GC.
C. Methyl-tert-butyl ether (MTBE) by GC.
D. MTBE by Gas Chromatography / Mass Spectrometry (GC/MS).
E. Total lead (Pb) by Atomic Absorption Spectroscopy (AAS).

TELEPHONE (510) 652-2979
FAX (510) 652-3085
P.O. BOX 8702 • EMERYVILLE, CA 94662
4072 WATTS STREET • EMERYVILLE, CA 94608

3. METHODS OF ANALYSIS:

A. EPA Method 8015; SW-846
B. EPA Method 8020; SW-846
C. EPA Method 8020; SW-846
D. EPA Method 8260; SW-846
E. Sample Digestion - EPA Method 3050; SW-846
AAS Analysis - EPA Method 7240; SW-846

4. RESULTS:

A. TPH - gasoline

SAMPLE	TPH - gasoline (mg/kg)
Comp. S1	5.7

Method Blank/Detection Limit = < 0.1 mg/kg (none detected)
Mean Spike Recovery = 94%

B. BTEX

Sample	Concentration - (mg/kg)			
	Benzene	Toluene	Ethylbenzene	Xylene
Comp. S1	0.036	0.029	0.037	0.048
Method Blank	<0.005(ND)	<0.005(ND)	<0.005(ND)	<0.005(ND)
Mean Spike Recovery	109%	106%	110%	105%

C. MTBE - GC

SAMPLE	MTBE (mg/kg)
Comp. S1	< 0.005 (ND)

Method Blank/Detection Limit = <0.005mg/kg (none detected)

D. MTBE - GC/MS

SAMPLE	MTBE (mg/kg)
Comp. S1	< 0.005 (ND)

Method Blank/Detection Limit = <0.005mg/kg (none detected)

E. Total Pb

SAMPLE	Total Lead (mg/kg)
Comp. S1	42

Method Blank/Detection Limit = <0.005mg/kg (none detected)

Ronald W. Shrewsbury
Analytical Chemist

ALL SAMPLES SUBMITTED FOR TESTING WILL BE HELD 30 DAYS FROM REPORT DATE AT WHICH TIME THEY WILL BE RETURNED TO CLIENT OR DESTROYED. CLIENT WILL BE RESPONSIBLE FOR ALL SHIPPING, HANDLING, AND DISPOSAL CHARGES. SAMPLES WILL BE STORED UPON WRITTEN INSTRUCTIONS AND FEE ARRANGEMENTS.

Date 5/21/99 **Chain of Custody** Page 1 of 1

Calcoast Analytical, Inc.

Proj. Mgr.: Joel Greger - Geologic
Company: for Paradiso Mechanical
Address: POB 1836
2600 Williams St
San Leandro CA

Samples (signature) Joel [signature]
(Phone No.) 510 787 6867
(Fax No.) 510 787 1457

Analysis Report

Sample ID	Type	Date	Time	Matrix	Preserve	TPH - Gasoline (EPA 5030, 8015)	TPH - Gasoline (5030, 8015) w/ BTEX (EPA 602, 8020)	TPH - Diesel, TEPH (EPA 3510/3550, 8015)	PURGEABLE AROMATICS BTEX (EPA 602, 8020)	PURGEABLE HALOCARBONS (EPA 601, 8010)	VOLATILE ORGANICS (EPA 624, 8240, 524.2)	BASE/NEUTRALS, ACIDS (EPA 625/627, 8270, 525)	TOTAL OIL & GREASE (EPA 5520, B-F, E+F)	PCB (EPA 608, 8080)	PESTICIDES (EPA 608, 8080)	TOTAL RECOVERABLE HYDROCARBONS (EPA 418.1)	MTBE - 8020	LUFT METALS: Cd, Cr, Pb, Zn, Ni	CAM METALS (17)	PRIORITY POLLUTANT METALS (13)	TOTAL LEAD	EXTRACTION (TCLP, STLC)	NUMBER OF CONTAINERS
P15 (3.5)		5/21/99					X										(X) X				X		4
Compsi	soil	5/20-21/99		soil			X										X						1
P8 (3.5)		5/21/99					X										X						1
P9 (3.5')							X										X						1
P10 (3.5)							X										X						1
P11 (3')							X										X						1
P12 (3.5')							X										X						1
P13 (3')							X										X						1
P14 (3')							X										X						1

Verify highest concentration of MTBE by 8260

Project Information

Project Name: Arco - 15101 Freedom Blvd
Project No.
PO # 99-444
TAT: (Standard 5-Day)

Sample Receipt

Total No. of Containers			
Head Space			
Rec'd Good Condition/Cold			
Conforms To Record			
24	48	72	Other

Special Instructions / Comments:
Refer to Job Name + Job # on lab sheets + invoice:
Arco Station
15101 Freedom Blvd
San Leandro Ca
Paradiso Job # 99-444

1. Relinquished By: (Signature)	2. Relinquished By: (Signature)	3. Relinquished By: (Signature)
Joel [signature]		
(Printed Name) Joel G. Greger	(Printed Name)	(Printed Name)
(Date) 5/21/99 (Time) 12:10 pm	(Date) (Time)	(Date) (Time)

1. Received By: (Signature)	2. Received By: (Signature)	3. Received By: (Signature)
[signature]		
(Printed Name) Ronald Shrewsbury	(Printed Name) (Date)	(Printed Name)
(Date) 5/21/99 (Time) 12:10 pm	(Date) (Time)	(Date) (Time)

CALCOAST ANALYTICAL

Materials Chemistry

Certified by
California Department of Health Services
City of Los Angeles, Dept. of Building & Safety

June 3, 1999

Geo - Logic
1140 - 5th Avenue
Crockett, CA 94525

Attn: Mr. Joel Greger

Ref: Lab File No.: 0602-2A/D-99

1. SAMPLES:

Four (4) soil cores;

Project: Arco Station; 15101 Freedom Blvd, San Leandro
Project No: 99 - 444
Samples:
A. T1W (16.5')
B. T1W (19.5')
C. T1W (24.5')
D. P12 (5')

Collected: June 2, 1999
Received: June 2, 1999

2. ANALYSIS REQUIRED:

A. Total Petroleum Hydrocarbons - gasoline (TPH-g) by Gas Chromatography (GC).
B. Benzene, Toluene, Ethylbenzene and Xylene (BTEX) by GC.
C. Methyl-tert-butyl ether (MTBE) by GC.
D. MTBE, on Sample C only, by Gas Chromatography / Mass Spectrometry (GC/MS).

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FAX (510) 652-3085
P.O. BOX 8702 • EMERYVILLE, CA 94662
4072 WATTS STREET • EMERYVILLE, CA 94608

3. METHODS OF ANALYSIS:

A. EPA Method 8015; SW-846
B. EPA Method 8020; SW-846
C. EPA Method 8020; SW-846
D. EPA Method 8260; SW-846

4. RESULTS:

A. TPH - gasoline

SAMPLE	TPH - gasoline (mg/kg)
A. T1W (16.5')	390
B. T1W (19.5')	340
C. T1W (24.5')	4,000
D. P12 (5')	110

Method Blank/Detection Limit = < 0.1 mg/kg (none detected)
Mean Spike Recovery = 94%

B. BTEX

Sample	Concentration - (mg/kg)			
	Benzene	Toluene	Ethylbenzene	Xylene
A. T1W (16.5')	1.0	0.73	1.1	1.7
B. T1W (19.5')	1.1	0.66	0.84	1.3
C. T1W (24.5')	12	9.7	12	15
D. P12 (5')	0.26	0.15	0.23	0.33
Method Blank	<0.005(ND)	<0.005(ND)	<0.005(ND)	<0.005(ND)
Mean Spike Recovery	109%	106%	110%	105%

C. MTBE - GC

SAMPLE	MTBE (mg/kg)
A. T1W (16.5')	0.089
B. T1W (19.5')	0.12
C. T1W (24.5')	0.78
D. P12 (5')	0.026

Method Blank/Detection Limit = <0.005mg/kg (none detected)

D. MTBE - GC/MS

SAMPLE	MTBE (mg/kg)
C. T1W (24.5')	0.55

Method Blank/Detection Limit = <0.005mg/kg (none detected)

Ronald W. Shrewsbury
Analytical Chemist

Chain of Custody

Date 6/2/99 Page 1 of 1

Calcoast Analytical, Inc.

Proj. Mgr.: Joel Gregor-Geologic
Company: for Paradiso Mechanical
Address: POB 1836
2600 Williams St
San Leandro
Samples (signature) Joel Gr (Phone No.) 510 787 6870 (Fax No.) 510 787 1457

Sample ID	Type	Date	Time	Matrix	Preserve.	TPH - Gasoline (EPA 5030, 8015)	TPH - Gasoline (5030, 8015) w/ BTEX (EPA 602, 8020)	TPH - Diesel, TEPH (EPA 3510/3550, 8015)	PURGEABLE AROMATICS BTEX (EPA 602, 8020)	PURGEABLE HALOCARBONS (EPA 601, 8010)	VOLATILE ORGANICS (EPA 624, 8240, 524.2)	BASE/NEUTRALS, ACIDS (EPA 625/627, 8270, 525)	TOTAL OIL & GREASE (EPA 5520, B+F, E+F)	PCB (EPA 608, 8080)	PESTICIDES (EPA 608, 8080)	TOTAL RECOVERABLE HYDROCARBONS (EPA 418.1)	mTBE 8020	LUFT METALS: Cd, Cr, Pb, Zn, Ni	CAM METALS (17)	PRIORITY POLLUTANT METALS (13)	TOTAL LEAD	EXTRACTION (TCLP, STLC)	mTBE - 8260	NUMBER OF CONTAINERS
TW 06.5)	soil	6/2/99	AM				X										X						composite right for 8260	1
TW (19.5)	↓	↓	↓				X										X							1
TW (24.5)							X										X							1
2 (5')							X										X							1

Project Information

Project Name: ARCO 1510 Freedom Blvd
Project No: 99-444
PO #
TAT: Standard / 5-Day

Sample Receipt

	24	48	72	Other
Total No. of Containers				
Head Space				
Rec'd Good Condition/Cold				
Conforms To Record				

Special Instructions / Comments:
Refer to Job address + Job No. on lab sheets + invoice:
Arco Station
1510 Freedom Blvd
San Leandro

	1.	2.	3.
Relinquished By: (Signature)	Joel Gr		
(Printed Name)	Joel G. Gregor		
(Date) / (Time)	6/2/99 9:20AM		
Received By: (Signature)			
(Printed Name)	Ronald Shrewsbury		
(Date) / (Time)	6/2/99 9:20AM		

Paradiso Job NO
99-444