

# BLYMYER ENGINEERS, INC.

1829 Clement Avenue

Alameda, California 94501-1396

(510) 521-3773 FAX: (510) 865-2594

Alameda County Health Care Services

Dept of Environmental Health  
1131 Harbor Bay Parkway

Alameda, CA 94502-6577

## LETTER OF TRANSMITTAL

DATE: 9/29/94	BEI Job No. 88288
ATTENTION MR. LARRY SETO	
SUBJECT:	
GI TRUCKING COMPANY	
1750 ADAMS AVENUE	
SAN LEANDRO, CA	

### We are sending you

- Invoice
- Copy of letter

### Report

- Prints
- Plans

### Work Order

- Change Order

### Specifications

- \_\_\_\_\_

Copies	Date	Number	Description
1	9/26/94		THIRD QUARTER 1994 GROUNDWATER MONITORING AND SAMPLING

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REMARKS:
THE ENCLOSED 3RD QUARTER 1994 GROUNDWATER MONITORING AND SAMPLING REPORT
IS FOR YOUR USE.

### COPY:

- MR. EDDY SO, RWQCB
- MR. MIKE BAKALDIN, SAN LEANDRO FIRE DEPARTMENT
- MR. WADE STROUPE, JR., CAROLINA FREIGHT CARRIERS CORP.
- MR. BOB HOGENCAMP, GI TRUCKING COMPANY
- MR. TOM MCGUIRE, GI TRUCKING COMPANY

SIGNED: MARK DETTERMAN/ds

If enclosures are not as noted, kindly notify Blymyer Engineers, Inc. at once.

510 521 3773  
11/20/94  
11/20/94



ST 10 1373

Mr. Larry Seto  
Alameda County Health Care Services Agency  
Division of Hazardous Materials  
Department of Environmental Health  
1131 Harbor Bay Parkway  
Alameda, CA 94502-6577

Subject: GI Trucking Company  
1750 Adams Avenue, San Leandro, CA  
Third Quarter 1994 Groundwater Monitoring and Sampling

Dear Mr. Seto:

This letter documents the quarterly groundwater sampling for the third quarter of the sixth year of quarterly groundwater sampling at the subject facility located in San Leandro, California (Figure 1).

Four of the five existing groundwater monitoring wells (MW-2 through MW-5, Figure 2) were sampled on August 23, 1994. Monitoring well MW-1 contained an EZ Skimmer which is used to recover free product in the well, as part of the interim remedial efforts at the site. Consequently, a groundwater sample was not collected from monitoring well MW-1.

Three well casing volumes of water were removed from each of the four wells prior to sampling. A representative groundwater sample was collected from each well using a Teflon<sup>®</sup> bailer and placed in 1-liter amber bottles without a preservative and 40-milliliter vials containing hydrochloric acid as a preservative which were provided by the laboratory. The Well Purging and Sampling Data forms for all wells are attached. The groundwater samples were placed in a cooler with blue ice and delivered via courier to National Environmental Testing, Inc., a California-certified laboratory.

The groundwater samples were analyzed for Total Petroleum Hydrocarbons (TPH) as diesel by modified EPA Method 8015 and benzene, toluene, ethylbenzene, and total xylenes (BTEX) by EPA Method 8020. As indicated in the enclosed analytical report, TPH as diesel was detected only in the groundwater sample collected from monitoring well MW-3 (Table I). TPH as diesel has never been detected in any groundwater samples from monitoring wells MW-2, MW-4, and MW-5 since the initial sampling on November 15, 1988. Toluene was detected in the groundwater sample collected from monitoring well MW-3 for the first time, at a concentration of 0.6 micrograms per liter (Table II). BTEX was not detected in the groundwater samples

Mr. Larry Seto  
Alameda County Health Care Services Agency

September 26, 1994  
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collected from monitoring wells MW-2, MW-4, and MW-5. This is the fifth time groundwater samples have been analyzed for BTEX.

TPH as diesel was first detected in a groundwater sample from well MW-3 collected in February 1990. Except for the December 1990 and December 1992 sampling events, TPH as diesel has been detected in all groundwater samples from this well since February 1990, at concentrations ranging from 0.19 milligrams/liter (mg/L) to 1.6 mg/L. TPH as diesel was detected at 0.45 mg/L in well MW-3 during this sampling event. The groundwater flow direction has consistently been toward the south to southeast at this site (Figure 2). Depth to groundwater measurements are included in Table III.

Monitoring well MW-1 has consistently contained a free product layer. An EZ Skimmer was installed on October 27, 1993. The skimmer is on a monthly operation and maintenance schedule, overseen by on-site personnel. Table IV contains a summary of the amount of free product recovered to date.

The well head box on monitoring well MW-3 was raised and the PVC casing for the well was lowered after indications of traffic compression in the expansion plug were detected in early 1994. The well was resurveyed to the existing arbitrary datum on May 11, 1994.

In response to a letter from the Alameda County Health Care Services Agency, entitled *RE: G.I. Trucking, 12750 Adams Avenue, San Leandro*, dated August 5, 1994, Carolina Freight Carriers Corporation has requested Blymyer Engineers to proceed with groundwater sampling for TPH as diesel, TPH as gasoline, BTEX, halogenated volatile organic compounds, semivolatile organic compounds, and the metals cadmium, chromium, lead, nickel and zinc with the next quarterly sampling event, currently scheduled for November 1994.

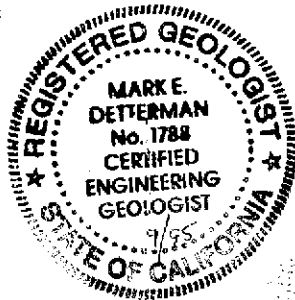
Mr. Larry Seto  
Alameda County Health Care Services Agency

September 26, 1994  
Page 3

If you have any questions, please call us at (510) 521-3773.

Cordially,

Blymyer Engineers, Inc.



By: Mark E. Detterman  
Mark E. Detterman, C.E.G. 1788  
Senior Geologist

And: John Morrison  
John Morrison, R.G. 5773  
Director, Earth Sciences

Attachments: Table I: Summary of Groundwater Sample Analytical Results; Total Petroleum Hydrocarbons as Diesel  
Table II: Summary of Groundwater Sample Analytical Results; Benzene, Toluene, Ethylbenzene, and Total Xylenes  
Table III: Groundwater Elevation Measurements  
Table IV: Free Product Recovery From Monitoring Well MW-1  
Figure 1: Site Location Map  
Figure 2: Site Plan and Groundwater Contour Map, 8/23/94

Well Purging and Sampling Data Forms, dated August 23, 1994  
Laboratory Analytical Report, National Environmental Testing, Inc., dated September 6, 1994

cc: Mr. Eddy So, RWQCB  
Mr. Mike Bakaldin, San Leandro Fire Department  
Mr. Wade Stroupe, Jr., Carolina Freight Carriers Corporation  
Mr. Bob Hogencamp, GI Trucking Company  
Mr. Tom McGuire, GI Trucking Company

md8828888288Q3.94

**Table I, Summary of Groundwater Sample Analytical Results**  
**Total Petroleum Hydrocarbons as Diesel,**  
**Modified EPA Method 8015 (milligrams per liter)**  
**DEI Job No. 88288,**  
**GI Trucking Company**  
**1750 Adams Avenue, San Leandro, California**

Date of Sampling	MW-1	MW-2	MW-3	MW-4	MW-5
November 15, 1988	0.22 feet product	<0.20	<0.20	<0.20	<0.20
February 16, 1989	0.20 feet product	<0.09	<0.09	<0.09	<0.09
May 19, 1989	0.20 feet free product	<0.08	<0.08	<0.08	<0.08
August 22, 1989	0.18 feet free product	<0.03	<0.03	<0.03	<0.03
November 21, 1989	product sheen	<0.03	<0.03	<0.03	<0.03
February 23, 1990	product sheen	<0.05	0.34	<0.05	<0.05
May 23, 1990	0.15 feet free product	<0.05	0.64	<0.05	<0.05
August 27, 1990	product sheen	<0.05	0.41	<0.05	<0.05
December 3, 1990	product sheen	<0.05	<0.05	<0.05	<0.05
March 13, 1991	product sheen	<0.05	1.3	<0.05	<0.05
May 29, 1991	product sheen	<0.05	0.54	<0.05	<0.05
August 28, 1991	0.09 feet free product	<0.05	0.24	<0.05	<0.05
December 9, 1991	0.20 feet free product	<0.05	0.20	<0.05	<0.05
February 18, 1992	0.09 feet free product	<0.05	0.89	<0.05	<0.05
May 15, 1992	0.17 feet free product	<0.05	0.38	<0.05	<0.05
August 13, 1992	0.19 feet free product	<0.05	0.20	<0.05	<0.05
December 3, 1992	0.10 feet free product	<0.05	<0.05	<0.05	<0.05
March 25, 1993	product sheen	<0.05	1.6	<0.05	<0.05
May 21, 1993	0.09 feet free product	<0.05	0.72	<0.05	<0.05
August 17, 1993	0.13 feet free product	<0.05	0.48	<0.05	<0.05
December 13, 1993	free product	<0.05	0.19	<0.05	<0.05
February 24, 1994	free product	<0.05	0.38	<0.05	<0.05
May 11, 1994	heavy sheen	<0.05	0.58	<0.05	<0.05
August 23, 1994	.08 feet free product	<0.05	0.45*	<0.05	<0.05

< x = Detected at less than the indicated detection limit of x.

\* = Laboratory reports that the positive result appears to be a heavier hydrocarbon than diesel.

**Table II, Summary of Groundwater Sample Analytical Results  
Benzene, Toluene, Ethylbenzene, and Total Xylenes  
Modified EPA Method 8020 (micrograms per liter)  
BEI Job No. 88288,  
GI Trucking Company  
1750 Adams Avenue, San Leandro, California**

Date of Sampling	MW-1	MW-2	MW-3	MW-4	MW-5
November 15, 1988 through May 21, 1993	Not Analyzed				
August 17, 1993	0.13 feet free product	<0.5	<0.5	<0.5	<0.5
December 13, 1993	free product recovery	<0.5	<0.5	<0.5	<0.5
February 24, 1994	free product recovery	<0.5	<0.5	<0.5	<0.5
May 11, 1994	free product recovery	<0.5	<0.5	<0.5	<0.5
August 23, 1994	0.08 feet free product	<0.5	0.6 T	<0.5	<0.5

< = Detected at less than the indicated detection limit of x.  
T = Toluene

**Table III, Groundwater Elevation Measurements**  
**BEI Job No. 86288,**  
**GI Trucking Company**  
**1750 Adams Avenue, San Leandro, California**

Date Measured	MW-1 TOC Elevation 100.00*		MW-2 TOC Elevation 100.24*		MW-3 TOC Elevation 100.22* TOC Elevation 100.18**		MW-4 TOC Elevation 99.48*		MW-5 TOC Elevation 99.60*	
	Depth to Water/ Free Product	Water Surface Elevation	Depth to Water	Water Surface Elevation	Depth to Water	Water Surface Elevation	Depth to Water	Water Surface Elevation	Depth to Water	Water Surface Elevation
November 15, 1988	No Measurements Recorded									
February 16, 1989	6.03/5.83	NA	6.13	94.11	6.00	94.22	5.92	93.56	5.42	94.18
May 19, 1989	6.31/6.11	NA	6.24	94.00	6.20	94.02	5.25	94.23	5.53	94.07
August 22, 1989	6.72/6.54	NA	6.68	93.56	6.60	93.62	6.76	92.72	5.94	93.66
November 21, 1989	6.51	93.49	6.64	93.60	6.55	93.67	5.72	93.76	5.91	93.69
February 23, 1990	5.74	94.26	6.04	94.20	5.83	94.39	4.92	94.56	5.69	93.91
May 23, 1990	6.34/6.19	NA	6.40	93.84	6.38	93.84	5.39	94.09	5.92	93.68
August 27, 1990	6.27	93.73	6.70	93.54	6.67	93.55	5.66	93.82	6.17	93.43
December 3, 1990	6.49	93.51	6.83	93.41	6.75	93.47	5.95	93.53	6.05	93.55
March 13, 1991	4.94	95.06	5.64	94.60	5.42	94.80	4.39	95.09	5.01	94.59
May 29, 1991	9.46	90.54	6.31	93.93	6.28	93.94	5.27	94.21	5.57	94.03
August 28, 1991	6.31/6.22	NA	6.68	93.56	6.62	93.60	5.70	93.78	5.90	93.7
December 9, 1991	6.49/6.29	NA	6.69	93.55	6.65	93.57	5.78	93.78	5.99	93.61
February 18, 1992	4.19/4.09	NA	4.96	95.28	4.73	95.49	3.60	95.88	4.45	95.15
May 15, 1992	5.72/5.55	NA	6.07	94.17	5.99	94.23	5.03	94.45	5.33	94.27
August 13, 1992	6.12/5.93	NA	6.42	93.82	6.32	93.90	5.40	94.08	5.62	93.98
December 3, 1992	5.65/5.55	NA	6.25	93.99	6.23	93.99	5.14	94.34	5.58	94.02
March 25, 1993	4.60	95.40	5.40	94.84	5.27	94.95	4.14	95.34	4.34	95.26
May 21, 1993	5.56/5.47	NA	6.04	94.20	5.97	94.25	4.95	94.53	5.28	94.32
August 17, 1993	6.07/5.94	NA	6.42	93.82	6.59	93.63	5.40	94.08	5.61	93.99
December 13, 1993	--	NA	6.09	94.15	6.33	93.89	5.08	94.40	5.38	94.22
February 24, 1994	--	NA	5.57	94.67	5.76	94.46	4.38	95.10	4.90	94.70
May 11, 1994	5.20	94.80	5.94	94.30	5.84	94.34	4.85	94.63	5.23	94.37
August 23, 1994	5.98	94.02	6.44	93.80	6.38	93.80	5.47	94.01	5.70	93.90

TOC = Top of Casing Elevation; \* = Based on an Arbitrary Datum; NA = Not Applicable; -- = Not Available Due to Free Product Recovery \*\* = Resurveyed elevation, May 11, 1994

**Table IV, Free Product Recovery From Monitoring Well MW-1  
BEI Job No. 88288,  
GI Trucking Company  
1750 Adams Avenue, San Leandro, California**

Date	Volume Recovery
November 1993	0.125 Gallons
December 1993	0.25 Gallons
January 1994	0.05 Gallons
February 1994	<0.05 Gallons
March 1994	<0.05 Gallons
April 1994	<0.05 Gallons
May 1994	<0.05 Gallons
June 1994	<0.025 Gallons
July 1994	<0.025 Gallons
August 1994	0.10 Gallons





SOURCE: UNITED STATES GEOGRAPHICAL SURVEY 7.5' QUAD. "SAN LEANDRO, CA" PHOTOREVISED 1980.



**BLMYER**  
ENGINEERS, INC.

BEI JOB NO. 88288      DATE 1/26/94

0      1000      2000

SCALE IN FEET

**SITE LOCATION MAP**

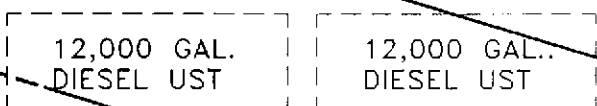
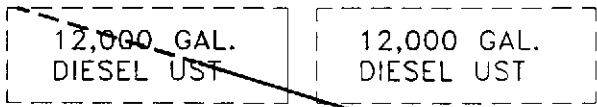
GI TRUCKING  
1750 ADAMS AVE.  
SAN LEANDRO, CA

FIGURE  
**1**



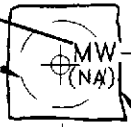
APPARENT  
GROUNDWATER FLOW  
DIRECTION  
AUGUST 23, 1994

MW-4  
⊕ (94.01')

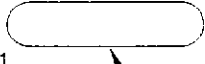


MW-3  
⊕ (93.80')

FORMER  
LOCATION OF  
WASTE OIL UST



MW-2  
⊕ (93.80')



PUMP ISLAND

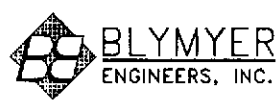
MW-5  
⊕ (93.90')

EXCAVATION

93.95'

93.85'

MAINTENANCE BUILDING



**BLYMYER**  
ENGINEERS, INC.

BEI JOB NO.  
88288

DATE  
9/21/94

LEGEND  
UST UNDERGROUND STORAGE TANK  
⊕ GROUNDWATER MONITORING WELL  
(94.02') GROUNDWATER ELEVATION IN FEET  
(ARBITRARY DATUM)  
— CONTOUR LINE OF EQUAL ELEVATION  
(NA) NOT AVAILABLE

SITE PLAN AND  
GROUNDWATER CONTOUR  
MAP 8/23/94  
GI TRUCKING  
SAN LEANDRO, CA

FIGURE  
2

## Well Purging and Sampling Data

Date	8/23/94	Project Number	88288	Project Name	G.I. Trucking
Well Number	MW-1	Boring Diameter	N/A	Casing Diameter	12"

Column of Liquid in Well		Volume to be Removed	
Depth to product	5.90 ft.	Gallons per foot of casing	= N/A
Depth to water	5.98 ft.	Column of water	x N/A
Total depth of well	N/A	Volume of casing	= N/A
Column of water	N/A	No. of volumes to remove	x N/A
		Total volume to remove	= N/A

Method of measuring liquid	Oil/water interface probe
Method of purging well	N/A
Method of decontamination	Methanol, liqui-nox and distilled water

Physical appearance of water (clarity, color, particulates, odor)	
Initial	N/A
During	N/A
Final	N/A

Field Analysis	Initial	During		Final
Time	N/A	N/A	N/A	N/A
Temperature (F)				
Conductivity (us/cm)				
pH				
Method of measurement	N/A			
Total volume purged	N/A			
Comments Measure free product only. Layer thickness = 0.08 ft.				

Sample Number	Amount of Sample
N/A	N/A

Signed/Sampler	<i>Stephen W. Moore</i>
Signed/Reviewer	<i>Mark E. [Signature]</i>
Date	8/23/94
Date	7/14/94

## Well Purging and Sampling Data

Date	8/23/94	Project Number	88288	Project Name	G.I. Trucking
Well Number	MW-2	Boring Diameter	N/A	Casing Diameter	2"

Column of Liquid in Well		Volume to be Removed	
Depth to product	N/A	Gallons per foot of casing	= 0.17 gal/ft.
Depth to water	6.44 ft.	Column of water	x 16.81 ft.
Total depth of well	23.25 ft.	Volume of casing	= 2.9 gal.
Column of water	16.81 ft.	No. of volumes to remove	x 3
		Total volume to remove	= 8.7 gal.

Method of measuring liquid	Oil/water interface probe
Method of purging well	Teflon bailer
Method of decontamination	Liqui-nox and distilled water

Physical appearance of water (clarity, color, particulates, odor)	
Initial	Clear, no odor
During	Slightly silty, tan color, no odor
Final	Silty, tan color, no odor

Field Analysis	Initial	During		Final
Time	11:01	11:08	11:15	11:23
Temperature (F)	68.8	68.2	67.7	68.2
Conductivity (us/cm)	774	770	768	777
pH	7.40	7.34	7.31	7.42
Method of measurement	Hydac meter			
Total volume purged	9.0 gal.			
Comments				

Sample Number	Amount of Sample
MW-2	3-40ml VOA w/ HCl
	2-1l amber bottles

Signed/Sampler	Date
<i>Stephen W. Moran</i>	8/23/94
Signed/Reviewer	Date
<i>Mark E. [Signature]</i>	9/14/94

## Well Purging and Sampling Data

Date	8/23/94	Project Number	88288	Project Name	G.I. Trucking
Well Number	MW-3	Boring Diameter	N/A	Casing Diameter	2"

Column of Liquid in Well		Volume to be Removed	
Depth to product	N/A	Gallons per foot of casing	= 0.17 gal/ft.
Depth to water	6.38 ft.	Column of water	x 16.37 ft.
Total depth of well	22.75 ft.	Volume of casing	= 2.8 gal.
Column of water	16.37 ft.	No. of volumes to remove	x 3
		Total volume to remove	= 8.4 gal.

Method of measuring liquid	Oil/water interface probe
Method of purging well	Teflon bailer
Method of decontamination	Liqui-nox and distilled water

Physical appearance of water (clarity, color, particulates, odor)	
Initial	Clear, no odor
During	Silty, tan color, no odor
Final	Silty, tan color, no odor

Field Analysis	Initial	During		Final
Time	12:05	12:10	12:17	12:23
Temperature (F)	71.8	69.5	69.7	68.9
Conductivity (us/cm)	766	755	820	855
pH	7.10	6.99	6.94	7.00
Method of measurement	Hydac meter			
Total volume purged	8.4 gal.			
Comments				

Sample Number	Amount of Sample
MW-3	3-40ml VOA w/ HCl
	2-1l amber bottles

Signed/Sampler	<i>Steph W. Wilson</i>
Signed/Reviewer	<i>Mark E. Jones</i>
Date	8/23/94
Date	9/14/94

## Well Purging and Sampling Data

Date	8/23/94	Project Number	88288	Project Name	G.I. Trucking
Well Number	MW-4	Boring Diameter	N/A	Casing Diameter	2"

Column of Liquid in Well		Volume to be Removed	
Depth to product	N/A	Gallons per foot of casing	= 0.17 gal/ft.
Depth to water	5.47 ft.	Column of water	x 17.32 ft.
Total depth of well	22.79 ft.	Volume of casing	= 2.9 gal.
Column of water	17.32 ft.	No. of volumes to remove	x 3
		Total volume to remove	= 8.7 gal.

Method of measuring liquid	Oil/water interface probe
Method of purging well	Teflon bailer
Method of decontamination	Liqui-nox and distilled water

Physical appearance of water (clarity, color, particulates, odor)	
Initial	Clear, no odor
During	Silty, tan color, no odor
Final	Silty, tan color, no odor

Field Analysis	Initial	During		Final
Time	08:36	08:43	08:49	08:56
Temperature (F)	72.8	69.5	69.7	70.9
Conductivity (us/cm)	833	800	805	822
pH	7.10	6.96	6.90	6.92
Method of measurement	Hydac meter			
Total volume purged	9.0 gal.			
Comments				

Sample Number	Amount of Sample
MW-4	3-40ml VOA w/ HCl
	2-1l amber bottles

Signed/Sampler	<i>Stephen W. White</i>	Date	8/23/94
Signed/Reviewer	<i>Mark [Signature]</i>	Date	9/4/94

## Well Purging and Sampling Data

Date	8/23/94	Project Number	88288	Project Name	G.I. Trucking
Well Number	MW-5	Boring Diameter	N/A	Casing Diameter	2"

Column of Liquid in Well		Volume to be Removed	
Depth to product	N/A	Gallons per foot of casing	= 0.17 gal/ft.
Depth to water	5.70 ft.	Column of water	x 16.55 ft.
Total depth of well	22.25 ft.	Volume of casing	= 2.8 gal.
Column of water	16.55 ft.	No. of volumes to remove	x 3
		Total volume to remove	= 8.4 gal.

Method of measuring liquid	Oil/water interface probe
Method of purging well	Teflon bailer
Method of decontamination	Liqui-nox and distilled water

Physical appearance of water (clarity, color, particulates, odor)	
Initial	Clear, no odor
During	Silty, tan color, no odor
Final	Silty, tan color, no odor

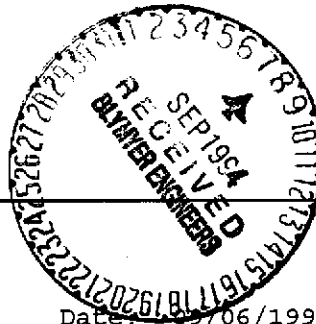
Field Analysis	Initial	During		Final
Time	09:42	09:47	09:54	10:01
Temperature (F)	71.4	70.3	68.9	68.9
Conductivity (us/cm)	880	866	867	884
pH	7.18	7.23	7.24	7.27
Method of measurement	Hydac meter			
Total volume purged	8.5 gal.			
Comments				

Sample Number	Amount of Sample
MW-5	3-40ml VOA w/ HCl
	2-1l amber bottles

Signed/Sampler	Date
<i>Stephen W. White</i>	8/23/94
Signed/Reviewer	Date
<i>Mark E. Johnson</i>	7/14/94



NATIONAL  
ENVIRONMENTAL  
TESTING, INC.®



Santa Rosa Division  
435 Tesconi Circle  
Santa Rosa, CA 95401  
Tel: (707) 526-7200  
Fax: (707) 526-9623

Mark Detterman  
Carolina Freight Carriers  
c/o Blymyer Engineers, Inc  
1829 Clement Ave.  
Alameda, CA 94501

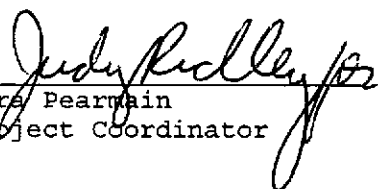
Date: 08/06/1994  
NET Client Acct. No: 61900  
NET Pacific Job No: 94.03764  
Received: 08/24/1994

Client Reference Information

GI Trucking/San Leandro, CA, Job: 88288

Sample analysis in support of the project referenced above has been completed and results are presented on following pages. Results apply only to the samples analyzed. Reproduction of this report is permitted only in its entirety. Please refer to the enclosed "Key to Abbreviations" for definition of terms. Should you have questions regarding procedures or results, please feel welcome to contact Client Services.

Approved by:

  
Nora Pearmain  
Project Coordinator

  
Jim Hoch  
Operations Manager

Enclosure(s)







Client Name: Carolina Freight Carriers  
 Client Acct: 61900  
 NET Job No: 94.03764

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SAMPLE DESCRIPTION: MW-4  
 Date Taken: 08/23/1994  
 Time Taken: 09:15  
 NET Sample No: 212720

Parameter	Results	Flags	Reporting Limit	Units	Method	Date Extracted	Date Analyzed
METHOD 8020 (GC,Liquid)							
DILUTION FACTOR*	1						08/31/1994
Benzene	ND		0.5	ug/L	8020		08/31/1994
Toluene	ND		0.5	ug/L	8020		08/31/1994
Ethylbenzene	ND		0.5	ug/L	8020		08/31/1994
Xylenes (Total)	ND		0.5	ug/L	8020		08/31/1994
SURROGATE RESULTS							
Bromofluorobenzene (SURR)	97			% Rec.	8020		08/31/1994
METHOD M8015 (EXT., Liquid)							
DILUTION FACTOR*	1					08/25/1994	08/27/1994
as Diesel	ND		0.05	mg/L	3510		08/27/1994

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Client Name: Carolina Freight Carriers  
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SAMPLE DESCRIPTION: MW-5

Date Taken: 08/23/1994

Time Taken: 10:20

NET Sample No: 212721

Parameter	Results	Flags	Reporting		Method	Date	Date
			Limit	Units		Extracted	Analyzed
METHOD 8020 (GC, Liquid)							
DILUTION FACTOR*	1						08/31/1994
Benzene	ND		0.5	ug/L	8020		08/31/1994
Toluene	ND		0.5	ug/L	8020		08/31/1994
Ethylbenzene	ND		0.5	ug/L	8020		08/31/1994
Xylenes (Total)	ND		0.5	ug/L	8020		08/31/1994
SURROGATE RESULTS							
Bromofluorobenzene (SURRE)	92			% Rec.	8020		08/31/1994
METHOD M8015 (EXT., Liquid)							
DILUTION FACTOR*	1					08/25/1994	
as Diesel	ND		0.05	mg/L	3510		08/27/1994

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Client Acct: 61900  
NET Job No: 94.03764

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SAMPLE DESCRIPTION: MW-2  
Date Taken: 08/23/1994  
Time Taken: 11:45  
NET Sample No: 212722

Parameter	Results	Flags	Reporting Limit	Units	Method	Date Extracted	Date Analyzed
METHOD 8020 (GC,Liquid)							
DILUTION FACTOR*	1						08/31/1994
Benzene	ND		0.5	ug/L	8020		08/31/1994
Toluene	ND		0.5	ug/L	8020		08/31/1994
Ethylbenzene	ND		0.5	ug/L	8020		08/31/1994
Xylenes (Total)	ND		0.5	ug/L	8020		08/31/1994
SURROGATE RESULTS							
Bromofluorobenzene (SURR)	96			% Rec.	8020		08/31/1994
METHOD M8015 (EXT., Liquid)							
DILUTION FACTOR*	1					08/25/1994	
as Diesel	ND		0.05	mg/L	3510		08/27/1994

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SAMPLE DESCRIPTION: MW-3  
 Date Taken: 08/23/1994  
 Time Taken: 12:55  
 NET Sample No: 212723

Parameter	Results	Flags	Reporting		Method	Date	Date
			Limit	Units		Extracted	Analyzed
METHOD 8020 (GC,Liquid)							
DILUTION FACTOR*	1						08/31/1994
Benzene	ND		0.5	ug/L	8020		08/31/1994
Toluene	0.6	C	0.5	ug/L	8020		08/31/1994
Ethylbenzene	ND		0.5	ug/L	8020		08/31/1994
Xylenes (Total)	ND		0.5	ug/L	8020		08/31/1994
SURROGATE RESULTS							
Bromofluorobenzene (SURR)	94			% Rec.	8020		08/31/1994
METHOD M8015 (EXT., Liquid)							
DILUTION FACTOR*	1					08/25/1994	08/27/1994
as Diesel	0.45	DH	0.05	mg/L	3510		08/27/1994

C : Positive result confirmed by secondary column or GC/MS analysis.  
 DH : The positive result appears to be a heavier hydrocarbon than Diesel.

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## CONTINUING CALIBRATION VERIFICATION STANDARD REPORT

Parameter	CCV	CCV	CCV	Units	Date Analyzed	Analyst Initials
	Standard	Standard Amount	Standard Amount			
	% Recovery	Found	Expected			
METHOD 8020 (GC,Liquid)						
Benzene	87.8	4.39	5.00	ug/L	08/31/1994	lss
Toluene	94.4	4.72	5.00	ug/L	08/31/1994	lss
Ethylbenzene	93.2	4.66	5.00	ug/L	08/31/1994	lss
Xylenes (Total)	92.0	13.8	15.0	ug/L	08/31/1994	lss
Bromofluorobenzene (SURR)	99.0	99	100	% Rec.	08/31/1994	lss
METHOD M8015 (EXT., Liquid)						
as Diesel	102.9	1029	1000	mg/L	08/27/1994	tdn

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### METHOD BLANK REPORT

Parameter	Method	Reporting	Units	Date	Analyst
	Blank				
	Amount	Limit		Analyzed	Initials
	Found				
METHOD 8020 (GC,Liquid)					
Benzene	ND	0.5	ug/L	08/31/1994	aal
Toluene	ND	0.5	ug/L	08/31/1994	aal
Ethylbenzene	ND	0.5	ug/L	08/31/1994	aal
Xylenes (Total)	ND	0.5	ug/L	08/31/1994	aal
Bromofluorobenzene (SURR)	98		% Rec.	08/31/1994	aal
METHOD M8015 (EXT., Liquid)					
as Diesel	ND	0.05	mg/L	08/27/1994	tdn

NOTE: Results apply only to the samples analyzed. Reproduction of this report is permitted only in its entirety.



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### MATRIX SPIKE / MATRIX SPIKE DUPLICATE

Parameter	Matrix Spike			Spike Amount	Sample Conc.	Matrix Spike		Units	Date Analyzed	Analyst Initials
	% Rec.	% Rec.	RPD			Conc.	Conc.			
METHOD 8020 (GC,Liquid)										
Benzene	109.3	103.5	5.5	36.7	ND	40.1	38.0	ug/L	08/31/1994	aal
Toluene	108.5	102.8	5.4	106	ND	115	109	ug/L	08/31/1994	aal

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## LABORATORY CONTROL SAMPLE REPORT

<u>Parameter</u>	<u>LCS</u> <u>% Recovery</u>	<u>RPD</u>	<u>LCS</u> <u>Amount</u> <u>Found</u>	<u>LCS</u> <u>Amount</u> <u>Expected</u>	<u>Units</u>	<u>Date</u> <u>Analyzed</u>	<u>Analyst</u> <u>Initials</u>
METHOD M8015 (EXT., Liquid) as Diesel	84.8		0.848	1.00	mg/L	08/27/1994	tdn
METHOD M8015 (EXT., Liquid) as Diesel	83.8	1.2	0.838	1.00	mg/L	08/27/1994	tdn

NOTE: Results apply only to the samples analyzed. Reproduction of this report is permitted only in its entirety.





KEY TO ABBREVIATIONS and METHOD REFERENCES

- < : Less than; When appearing in results column indicates analyte not detected at the value following. This datum supercedes the listed Reporting Limit.
- \* : Reporting Limits are a function of the dilution factor for any given sample. Actual reporting limits and results have been multiplied by the listed dilution factor. Do not multiply the reporting limits or reported values by the dilution factor.
- dw : Result expressed as dry weight.
- mean : Average; sum of measurements divided by number of measurements.
- mg/Kg (ppm) : Concentration in units of milligrams of analyte per kilogram of sample, wet-weight basis (parts per million).
- mg/L : Concentration in units of milligrams of analyte per liter of sample.
- mL/L/hr : Milliliters per liter per hour.
- MPN/100 mL : Most probable number of bacteria per one hundred milliliters of sample.
- N/A : Not applicable.
- NA : Not analyzed.
- ND : Not detected; the analyte concentration is less than the applicable listed reporting limit.
- NTU : Nephelometric turbidity units.
- RPD : Relative percent difference,  $100 \text{ [Value 1 - Value 2] / mean value}$ .
- SNA : Standard not available.
- ug/Kg (ppb) : Concentration in units of micrograms of analyte per kilogram of sample, wet-weight basis (parts per billion).
- ug/L : Concentration in units of micrograms of analyte per liter of sample.
- umhos/cm : Micromhos per centimeter.

Method References

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

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

Methods 1000 through 9999: see "Test Methods for Evaluating Solid Waste", U.S. EPA SW-846, 3rd edition, 1986., Rev. 1, December 1987.

SM: see "Standard Methods for the Examination of Water & Wastewater, 17th Edition, APHA, 1989.

# BLMYER

ENGINEERS, INC.

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## CHAIN OF CUSTODY RECORD

2116

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JOB #		PROJECT NAME/LOCATION			# OF CONTAINERS	TPH AS GASOLINE + BTXE (MOD EPA 8015/8020)	TPH AS DIESEL (MOD EPA 8015)	VOC (EPA 624/8240)	SEMI-VOC (EPA 625/8270)	TRPH (EPA 418.1)	BTXE (EPA 8020/602)	HOLD	TURNAROUND TIME
88288		GI Trucking / San Leandro CA											standard
SAMPLERS (SIGNATURE)													
Steph W Moore													
DATE	TIME	COMP	GRAB	SAMPLE NAME/LOCATION									REMARKS:
8/23/94	0815		X	BB-1	5							X	
8/23/94	0915		X	MW-4	5		X				X		
8/23/94	1020		X	MW-5	5		X				X		
8/23/94	1145		X	MW-2	5		X				X		1 volt broken in trans +
8/23/94	1255		X	MW-3	5		X				X		
													COO/SEALED 8/23/94 [Signature] seal intact
REQUESTED BY: Mark Detterman						RESULTS AND INVOICE TO: Carolina Freight Carriers, Corp. c/o Blymyer Engineers, Inc							
RELINQUISHED BY: (SIGNATURE)		DATE / TIME		RECEIVED BY: (SIGNATURE)		RELINQUISHED BY: (SIGNATURE)		DATE / TIME		RECEIVED BY: (SIGNATURE)			
Steph W Moore		8/23/94 1425		[Signature]		[Signature]		8/23 17:00					
RELINQUISHED BY: (SIGNATURE)		DATE / TIME		RECEIVED FOR LABORATORY BY: (SIGNATURE)		DATE / TIME		REMARKS:					
(via NCS)				[Signature]		8/24/94 0800		JET Temp Read: 0.9°C					

WHITE: Company Sample

YELLOW: BEI, After Lab Siges

PINK: Original Sampler