



March 6, 1997
STID 4620

Doug and Carleen Kelly Green
845 Juana Ave.
San Leandro CA 94577

ENVIRONMENTAL HEALTH SERVICES
ENVIRONMENTAL PROTECTION (LOP)
1131 Harbor Bay Parkway, Suite 250
Alameda, CA 94502-6577
(510) 567-6700
FAX (510) 337-9335

REMEDIAL ACTION COMPLETION CERTIFICATION

RE: Kelly's Truck Repair, 1390-7th St., Oakland CA 94607
Case File Number 4620

Dear Mr. and Mrs. Green,

This letter confirms the completion of site investigation and remedial action for the underground storage tank formerly located at the above referenced site. Thank you for your cooperation throughout this investigation. Your willingness and promptness in responding to our inquiries concerning the former underground storage tank is greatly appreciated.

Based on information in the above-referenced file, and with the provision that the information provided to this agency was accurate and representative of site conditions, **no further action related to the underground tank release is required.**

This notice is issued pursuant to a regulation contained in Title 23, Division 3, Chapter 16, Section 2721(e) of the California Code of Regulations.

Please contact our office if you have any questions regarding this matter.

Sincerely,

Mee Ling Tung, Director

cc: Acting Chief, Environmental Protection Division
Kevin Graves, RWQCB
Lori Casias, SWRCB (with attachment)
Dave Deaner, SWRCB, UST Cleanup Fund Program
Mark Detterman, Blymyer Engineers, 1829 Clement Ave., Alameda CA 94501-1395
Jennifer Eberle (3 copies of letter only)

LOP/Completion
je.4620clos.let
enclosure (clos sum)

CASE CLOSURE SUMMARY
Leaking Underground Fuel Storage Tank Program

I. AGENCY INFORMATION

Date: 9/17/96

Agency name: **Alameda County-HazMat** Address: **1131 Harbor Bay Pky**
City/State/Zip: **Alameda CA 94502** Phone: **(510) 567-6700**
Responsible staff person: **Jennifer Eberle** Title: **Hazardous Materials Spec.**

II. CASE INFORMATION

Site facility name: **Kelly's Truck Repair**
Site facility address: **1390-7th St., Oakland CA 94607**
RB LUSTIS Case No: **N/A** Local Case No./LOP Case No.: **4620**
ULR filing date: **2/14/94** SWEEPS No: **N/A**

Responsible Parties: Addresses: Phone Numbers:
Doug and Carleen Kelly Green, 845 Juana Ave., San Leandro CA 94577 (site phone #510-655-9090)

<u>Tank No:</u>	<u>Size in gal.:</u>	<u>Contents:</u>	<u>Closed in-place or removed?:</u>	<u>Date:</u>
1	500	Likely gasoline	Removed	1/27/94

III. RELEASE AND SITE CHARACTERIZATION INFORMATION

Cause and type of release: unknown
Site characterization complete? YES
Monitoring Wells installed? YES Number: One
Proper screened interval? YES
Highest GW depth below ground surface (DTW): 4.15'bgs
Lowest GW depth: 5.22'bgs
Flow direction: Presumed south based on consistent southerly flow direction at 1520-7th St. (Reliable Handi Cab site).
Most sensitive current use at present: truck repair
Are drinking water wells affected? NO Aquifer name:NA
Is surface water affected? Probably not Nearest SW name: SF Bay, approx 4,000' South
Off-site beneficial use impacts (addresses/locations): n/a
Report(s) on file? YES Where is report(s) filed?
Alameda County, 1131 Harbor Bay Pky, Alameda Ca 94502

Leaking Underground Fuel Storage Tank Program

Treatment and Disposal of Affected Material:

<u>Material</u>	<u>Amount (include units)</u>	<u>Action (Treatment of Disposal w/destination)</u>	<u>Date</u>
Tank	500 gal	Transported by H&H to H&H Manifest #92218942	1/27/94
Soil	200 yd ³ ,	aerated and reused onsite, or found to be acceptable for reuse without aeration	
“Oil and Water”	2200 gal	Transported by H&H to PRC Patterson Manifest #92219030	2/9/94
Water from UST pit	350 gal	Transported by H&H to PRC Patterson Manifest #92218941	1/27/94

Maximum Documented Contaminant Concentrations - - Before and After Cleanup

<u>Contaminant</u>	<u>Soil (ppm) In Borings</u>		<u>Soil (ppm) In Tank Excavation</u>		<u>Water (ppb)</u>	
	<u>Before[^]</u>	<u>After^{^^}</u>	<u>Before[*]</u>	<u>After^{**}</u>	<u>Before[#]</u>	<u>After^{##}</u>
TPH (Gas)	2,900	2,500	NA	NA	NA	14,000
TPH (kerosene)	NA	400	730	ND	30,000	3,600
TPH (Diesel)	7,870	ND	ND	ND	NA	ND
Benzene	7.31	0.26	ND	ND	3,400	56
Toluene	90.80	2.0	0.3	ND	7,300	ND
Ethylbenzene	50.90	4.3	0.7	ND	2,000	1,200
Xylenes	279.90	19.0	4.0	ND	12,000	980
semiVOCs	^^^					
TRPH	6,960					

[^] from Tetra Tech report titled “Site Investigation for Kelly’s Truck Repair,” dated February 1993

^{^^} from MW1 boring in 7th St.

^{^^^} 34.23 mg/kg naphthalene, 35.00 mg/kg 2-methylnaphthene, etc (see Table 1C)

^{*} Initial soil samples collected during tank removal, 1/28/94; see Table 4.

^{**} Final soil samples collected after last round of overexcavation in tank pit, 2/28/94; see Table 4

[#] Grab groundwater sample collected from open tank pit, 1/28/94; see Table 4

^{##} Final MW sample, 8/1/96; see Table 5

SEE SECTION V. FOR ADDITIONAL COMMENTS on preliminary data from borings installed prior to removal of UST

Leaking Underground Fuel Storage Tank Program

IV. CLOSURE

Does completed corrective action protect existing beneficial uses per the
Regional Board Basin Plan? Undetermined

Does completed corrective action protect potential beneficial uses per the
Regional Board Basin Plan? Undetermined

Does corrective action protect public health for current land use? YES

Site management requirements: A health and safety plan should be prepared for workers in 7th St. in the vicinity of the MW, due to the contamination found therein.

Should corrective action be reviewed if land use changes? YES

Monitoring wells Decommissioned: Not yet

Number Decommissioned: 0 Number Retained: 1

List enforcement actions taken: none

List enforcement actions rescinded: none

V. ADDITIONAL COMMENTS, DATA, ETC.

In December of 1992, Caltrans District 4 retained Tetra Tech to conduct a subsurface geophysical and geologic investigation in order to verify the location of one known 500-gallon UST, to determine if other USTs were present, and to perform a preliminary assessment of the type and extent of contamination, if any. Tetra Tech identified a "single 500 gallon UST" onsite. As per the Tetra Tech report, an initial site assessment prepared by Caltrans indicated that "a small gas station was located on the site for a few years later in the 1950s." Caltrans was presumably interested in locating their new freeway in this area. **See Figure 1.** Four soil borings were advanced to 13.5' below ground surface (bgs) around the UST. **See Figure 3.** Soil samples were collected from 3'bgs, 8'bgs, and 13'bgs, and analyzed for TRPH (by 418.1), TPH-g, TPH-d, and BTEX. Maximum concentrations detected were 12.3 ppm benzene, 6,960 ppm TRPH, 2,900 ppm TPH-g, and 7,870 ppm TPH-d (all in B1-8'bgs). The metals Ar, Cd, Cr, Pb, Hg, and Zn were also analyzed at these three depths; results indicated non-detect (ND) or concentrations below ten times the STLCs. **See Figure 3.**

The soil samples were also analyzed via method 8240 for VOCs and 8270 for semi-VOCs. Napthalene was found at a concentration of 34.2 ppm (B1-8'). **See Table 1C.** A grab groundwater sample was collected from the presumed downgradient boring, B4. Elevated concentrations of TPHg, TPHd, TRPH and BTEX were found; of particular significance was 5,880 ppb benzene. **See Table 2A.** The metals were ND except Cr at the detection limit. **See Table 2B.** VOCs by 8240 and semi-VOCs by 8270 were also analyzed; napthalene was found at 306 ppb. **See Table 2C.**

The Tetra Tech report was unknown to the County representative until after the tank removal.

Leaking Underground Fuel Storage Tank Program

On 1/27/94, one 500-gallon UST was removed from below the sidewalk along 7th St. Mr. Kelly reportedly never used the UST. The last UST operator was possibly K-Line; the UST was reportedly used to fuel the Key System of railroads in the early 1900s. The UST was reportedly last used in the 1950's. There were several holes in the sides of the USTs, as well as rust and pitting. On 1/28/94, two sidewall samples were collected (by a representative from Curtis and Tompkins laboratory) from the ends at 7.5' below ground surface (bgs), near the capillary fringe. A grab water sample was also collected from water which accumulated in the bottom of the pit. Approximately 300 gallons of water had been purged from the pit on 1/27/94. Soil and water samples were analyzed for TEH (by California DOHS Method) and BTEX; TPH-d was not reported due to the overlap of hydrocarbon ranges. The compound detected fell in the kerosene range, and was reported as such.

On 2/15/94, the UST pit was overexcavated and resampled; all four walls were sampled at 7.5' to 8'bgs. A water sample was also collected from water which accumulated in the bottom of the pit.

On 2/28/94, the UST pit was overexcavated and the west end was resampled. Another water sample was collected from water which accumulated in the bottom of the pit. Soil results indicated ND TPHd, TPHk, and BTEX. **See Table 4 for a summary of the tank pit sampling.**

On 3/11/94, the pit was backfilled with some of the stockpile, which was clean. The remaining 150 yd³ of soil was spread out and aerated onsite. On 4/8/94, JE was present during resampling of the aerated stockpiled soil.

Due to the elevated groundwater contaminant concentrations, one groundwater monitoring well was installed approximately 10' South of the former UST. Blymyer Engineers was retained by Mr. Kelly for this investigation. One well was determined to be adequate, based on the consistent Southerly groundwater flow direction at 1520-7th St. (Reliable Handi Cab site). Soils encountered were clayey sands and sandy clays. **See Boring Log (Attachment A).** Soil was sampled at 5.5'bgs, at the depth where groundwater was encountered. Results indicate 0.26 ppm benzene, 2,500 ppm TPHg, 400 ppm TPHk, and ND TPHd. The laboratory reported that the pattern was characteristic of weathered and degraded gasoline. **See Table 3.**

Groundwater has been sampled for four quarters. **See Table 5.** Results indicate an overall decreasing trend in benzene (from 140 ppb to 56 ppb). These concentrations were compared to the Tier 1 look up table in the American Society of Testing and Materials' (ASTM) "Risk Based Corrective Action Applied at Petroleum Release Sites," document E1739-95. The maximum benzene concentration in groundwater (140 ppb) found during the Blymyer investigation is less than the RBSL for the "groundwater to outdoor air" pathway, commercial scenario, 10⁻⁶ target level (5,340 ppb). However, the Tier 1 assessment is based on a depth to water (DTW) of 300 centimeters or 10 feet below ground surface (bgs). The DTW at this site has been 5.08'bgs, 4.15'bgs, 4.49'bgs, and 5.22'bgs. If we use 5' as the DTW, this means the default value of 10'bgs varies by a factor of 2 from the DTW of 5'bgs. The RBSL is directly proportional to the DTW, + 1, based on the equations shown in Table X2.2 (page 23, 4th equation) and Table X2.5 (page 26, 2nd equation), for the 'groundwater to ambient air' pathway. That means that if the DTW is 5'bgs, we can reduce the RBSL of 5,340 ppb by a factor of 2, with the result of approximately 2,670 ppb. Then we compare our maximum benzene concentration in groundwater (140 ppb), and we see that it is one order of magnitude lower than the adjusted RBSL (2,670 ppb).

Leaking Underground Fuel Storage Tank Program

Accordingly, if we use the higher concentration of benzene detected during the Tetra Tech investigation (5,880 ppb)(note: grab sample), the RBSL (outdoor air) for target level 10^{-6} (5,340 ppb) is exceeded. However, a target level of 10^{-5} is commonly used for commercial/industrial sites, thus changing the RBSL to 53,400 ppb, and adjusting for DTW, halving the RBSL to 26,700 ppb, and rendering the concentration acceptable. This higher concentration exceeds half the RBSL for indoor air for target level 10^{-5} (half of 210 ppb, or 105 ppb). However, the nearest building is situated approximately 60 feet upgradient from the former UST, and so the use of this pathway is dubious at best. (Grab groundwater samples are often believed to be not completely representative of groundwater conditions.)

Similarly, the groundwater concentration of naphthalene found during Tetra Tech's investigation (306 ppb)(note: grab sample) was compared to the RBSL. However, the RBSL does not exist at all possible dissolved concentrations in groundwater volatilizing to outdoor air. The same is true for ethylbenzene, toluene, and xylenes.

To summarize, the reasons that this case should be closed are as follows:

- * The source has been removed (500-gallon USTs, 2,550 gallons of water from the excavation);
- * Soil from the excavation was treated by aeration;
- * The site has been adequately characterized;
- * The monitoring well has shown an overall decrease in benzene (140 ppb to 56 ppb);
- * There are no sensitive human or environmental receptors in the site vicinity: the estuary lies approximately 4,000 feet from the site (a significant and unlikely distance for a hydrocarbon plume to travel), and the site is used as a commercial truck repair facility while the area downgradient of the former UST consists of 7th St;
- * There is no significant risk to human health based on the ASTM Tier 1; and
- * The closure letter will require agency notification if there is a proposal for a change in land use, site activity, or structural configuration of the site (ie basements in new buildings where none were before).

Leaking Underground Fuel Storage Tank Program

VI. LOCAL AGENCY REPRESENTATIVE DATA

Name: Jennifer Eberle Title: Hazardous Materials Specialist
Signature: *J Eberle* Date: 9-30-96

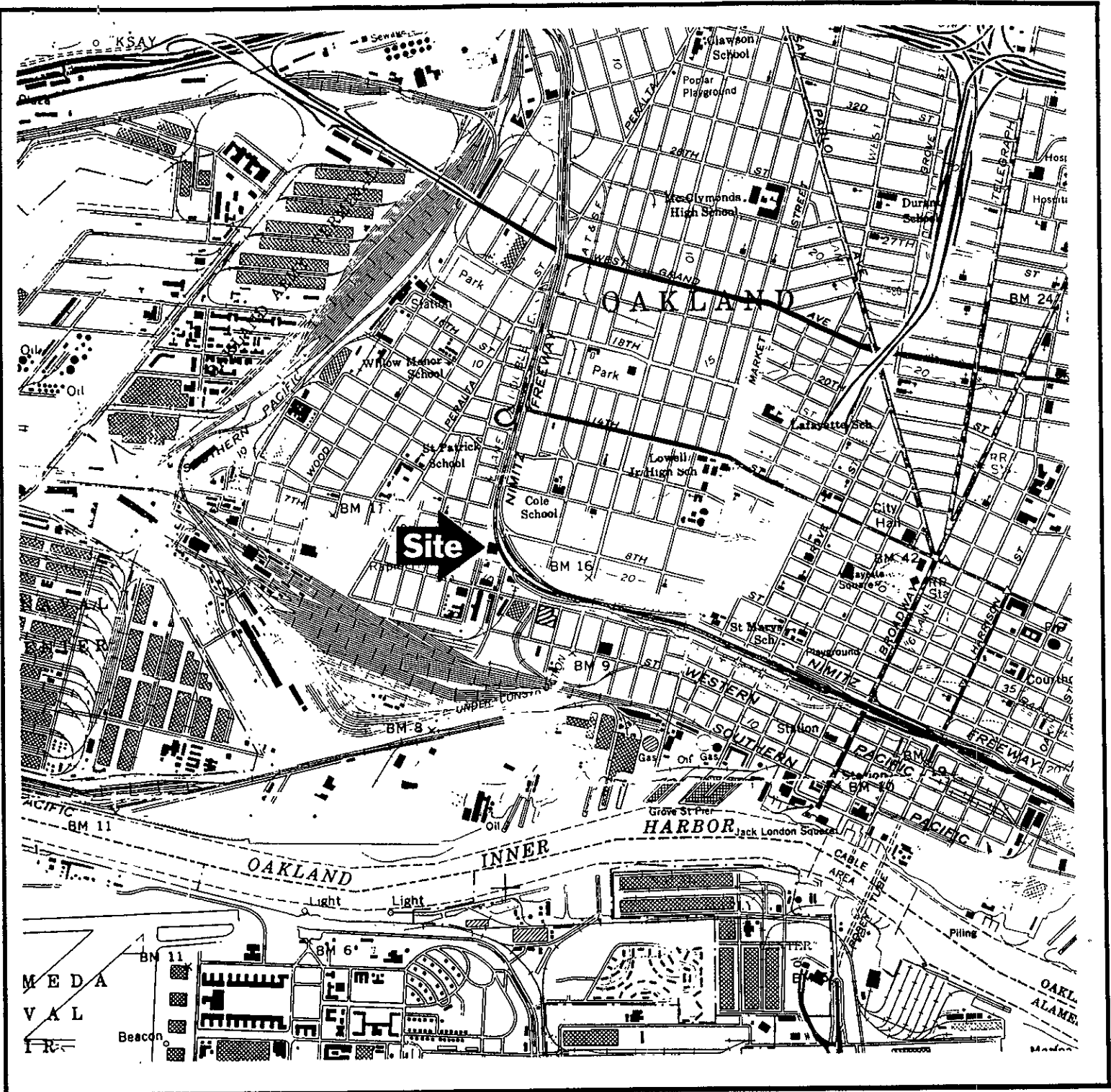
Reviewed by

Name: eva chu Title: Hazardous Materials Specialist
Signature: *eva chu* Date: 9/30/96


Name: Tom Peacock Title: Manager of LOP
Signature: *Tom Peacock* Date: 10-3-96

VII. RWQCB NOTIFICATION

Date Submitted to RWQCB: 10-4-96 RWQCB Response: *Approved*
RWQCB Staff Name: Kevin Graves Title: Associate Water Resources Control Engineer
Date: 10-17-96 *K Graves*

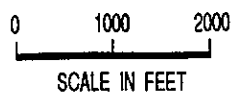


UNITED STATES GEOLOGICAL SURVEY 7.5' QUAD. "OAKLAND WEST, CA" PHOTOREVISED 1980.

BLMYER
ENGINEERS, INC.

BEI JOB NO. 95024 DATE 4/12/95



SITE LOCATION MAP

D. KELLY GREEN
1370 7th ST.
OAKLAND, CA

FIGURE

1

Sample Number	Depth (ft.)	TRPH (ppm)	TPHg (ppm)	TPHd (ppm)	Benzene (ppb)	Toluene (ppb)	Xylene (ppb)	Ethylbenzene (ppb)	Arsenic (ppm)	Cadmium (ppm)	Chromium (ppm)	Lead (ppm)	Mercury (ppm)	Zinc (ppm)
B1-3'	3-3.5	ND	ND	1.6	ND	ND	ND	ND	ND	ND	15.4	ND	ND	17.2
B1-8'	8-8.5	6960	2900	7870	12300	76100	147900	24100	ND	ND	21.6	ND	ND	11.5
B1-13'	13-13.5	ND	10.4	32.3	ND	ND	45	ND	ND	ND	25.3	ND	ND	11.8
B2-3'	3-3.5	ND	1.2	3.5	ND	ND	ND	ND	ND	ND	16.0	9.2	ND	23.3
B2-8'	8-8.5	ND	23.0	59.0	ND	114	238	82	ND	ND	24.5	ND	ND	13.8
B2-13'	13-13.5	ND	1.5	3.8	ND	ND	ND	ND	ND	ND	32.2	ND	ND	18.0
B3-3'	3-3.5	ND	ND	ND	ND	ND	ND	ND	ND	ND	16.6	2.5	ND	20.4
B3-8'	8-8.5	422	562	1470	ND<40	1800	6113	2390	ND	ND	21.3	ND	ND	13.3
B3-13'	13-13.5	ND	3.7	10.3	68	10	ND	ND	ND	ND	17.2	ND	ND	8.0
B4-3'	3-3.5	23.2	1.3	6.9	ND	14	35	ND	1.3	1.6	18.1	43.7	ND	162
B4-8'	8-8.5	ND	14.5	37.8	20	52	ND	169	1.3	ND	41.2	ND	ND	10.7
B4-13'	13-13.5	ND	4.3	12.8	612	16	42	31	ND	ND	31.4	ND	ND	10.6
B4-W1	NA	18.2	8.8	23.9	5880	188	586	520	ND	ND	0.1	ND	ND	ND

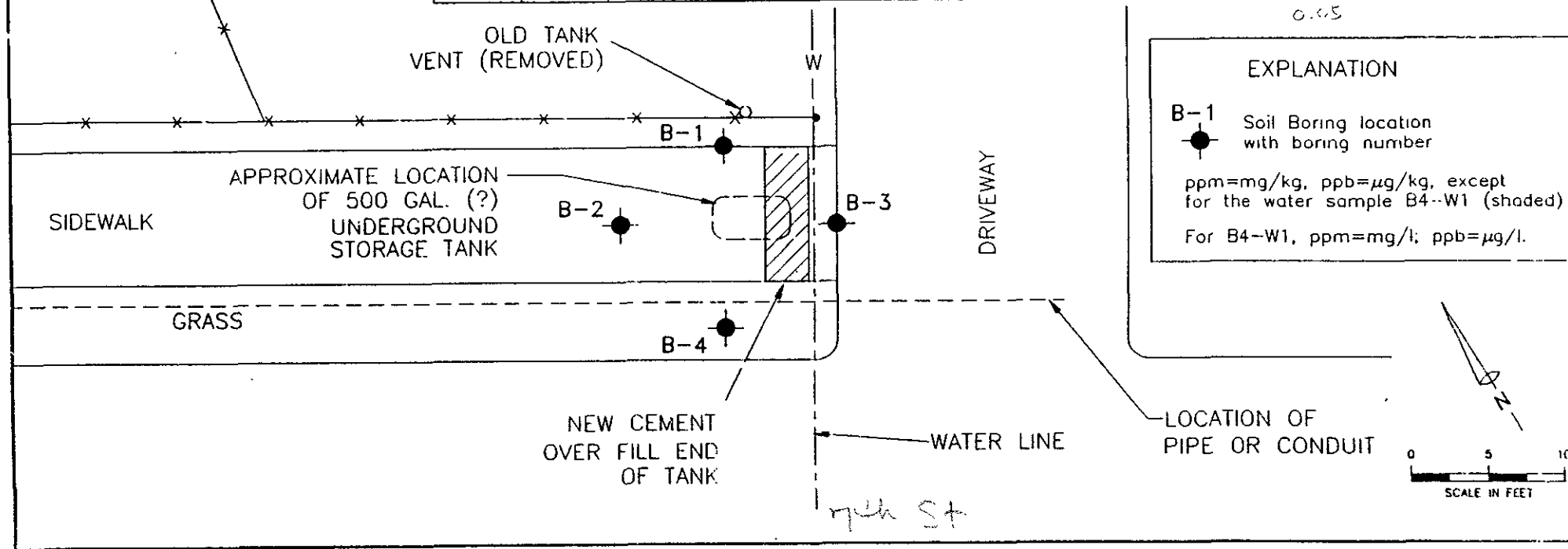


Figure 3 Tank Area, showing location of soil borings and analytical results

KELLY'S TRUCK REPAIR
1370 7TH STREET
OAKLAND, CALIFORNIA



**TABLE 1C
ANALYTICAL RESULTS FOR VOLATILE AND SEMIVOLATILE ORGANICS IN SOIL SAMPLES COLLECTED
FROM KELLY'S TRUCK REPAIR, OAKLAND, CALIFORNIA**

Sample No.	Volatile Organic Compounds (EPA 8240)		Semivolatile Organic Compounds (EPA 8270)	
	Name	Results (ug/kg)	Name	Results (ug/kg)
B1-3	All analytes (n = 40)	ND	All analytes (n = 67)	ND
B1-8	Benzene	7,310	Napthalene	34,229
	Toluene	90,800	2-Methylnapthene	34,995
	Ethylbenzene	50,900	Other 65 analytes	ND
	Meta- & Para-Xylene	201,000		
	Ortho-Xylene	78,900		
	Other 35 analytes	ND		
B1-13	All analytes (n = 40)	ND	All analytes (n = 67)	ND
B2-3	All analytes (n = 40)	ND	All analytes (n = 67)	ND
B2-8	Ethylbenzene	11	All analytes (n = 67)	ND
	Meta- & Para-Xylene	18		
	Other 38 analytes	ND		
B2-13	All analytes (n = 40)	ND	All analytes (n = 67)	ND

TABLE 1C
ANALYTICAL RESULTS FOR VOLATILE AND SEMIVOLATILE ORGANICS IN SOIL SAMPLES COLLECTED
FROM KELLY'S TRUCK REPAIR, OAKLAND, CALIFORNIA

Sample No.	Volatile Organic Compounds (EPA 8240)		Semivolatile Organic Compounds (EPA 8270)	
	Name	Results (ug/kg)	Name	Results (ug/kg)
B3-3	All analytes (n = 40)	ND	All analytes (n = 67)	ND
B3-8	Ethylbenzene	496	Pyrene	10,526
	Meta- & Para-Xylene	411	Benzo(A)Anthracene	13,062
	Other 38 analytes	ND	Chrysene	17,962
			Benzo(B)Fluoranthene	26,697
			Benzo(K)Fluoranthene	11,961
			Benzo(A)Pyrene	22,106
			Indeno(1,2,3-CD)Pyrene	27,566
			Dibenzo(A,H)Anthracene	8,338
			Benzo(G,H,I)Perylene	31,744
			Other 58 analytes	ND
B3-13	Benzene	12	All analytes (n = 67)	ND
	Other 39 analytes	ND		
B4-3	Toluene	7	All analytes (n = 67)	ND
	All other analytes (n = 39)	ND		
B4-8	Ethylbenzene	9	All analytes (n = 67)	ND
	All other analytes (n = 39)	ND		
B4-13	Benzene	46	All analytes (n = 67)	ND
	All other analytes (n = 39)	ND		

ND = Not Detected at or above listed detection limit for each analyte. See Laboratory results (Appendix C) for detection limits.

TABLE 2A
ANALYTICAL RESULTS FOR HYDROCARBONS IN WATER SAMPLE COLLECTED
FROM KELLY'S TRUCK REPAIR, OAKLAND, CALIFORNIA

Sample No.	Date Collected	TRPH (418.1) (mg/l)	TPH-G (8015 mod) (mg/l)	TPH-D (8015 mod) (mg/l)	Benzene (602) (ug/l)	Toluene (602) (ug/l)	Ethylbenzene (602) (ug/l)	Xylenes (602) (ug/l)
B4-W1	12/29/92	18.2	8.8	23.9	5880	188	520	586
Detection Limit		1	1	1	10	10	10	10

ND = Not Detected at or above listed detection limit.

TABLE 2B
ANALYTICAL RESULTS FOR DISSOLVED METALS IN WATER SAMPLE COLLECTED
FROM KELLY'S TRUCK REPAIR, OAKLAND, CALIFORNIA

Sample No.	Date Collected	Arsenic (6010) (mg/l)	Cadmium (6010) (mg/l)	Chromium (6010) (mg/l)	Lead (6010) (mg/l)	Mercury (6010) (mg/l)	Zinc (6010) (mg/l)
B4-W1	12/29/92	ND	ND	0.1	ND	ND	ND
Detection Limit		0.5	0.1	0.1	0.5	0.2	0.1

ND = Not Detected at or above listed detection limit.

TABLE 2C
ANALYTICAL RESULTS FOR VOLATILE AND SEMIVOLATILE ORGANICS
IN GROUND WATER SAMPLE COLLECTED
FROM KELLY'S TRUCK REPAIR, OAKLAND, CALIFORNIA

Sample No.	Volatile Organic Compounds (EPA 8240)		Semivolatile Organic Compounds (EPA 8270)	
	Name	Results (ug/l)	Name	Results (ug/l)
B4-W1	Benzene	5,500	Napthalene	306
	Toluene	212	All other analytes (n = 66)	ND
	Ethylbenzene	660		
	Meta- & Para-Xylene	612		
	Other 36 analytes	ND		

ND = Not Detected at or above listed detection limit for each analyte. See Laboratory results (Appendix C) for detection limits.

Table 3

Table 3: Summary of Soil Sample Analytical Results BEI Job No. 95024, D. K. Green Property, 1370 7th Street, Oakland, California								
Sample Identification	Date Sampled	Modified EPA Method 8015 (mg/kg)			EPA Method 8020 (mg/kg)			
		TPH as Diesel ^a	TPH as Kerosene	TPH as Gasoline	Benzene	Toluene	Ethylbenzene	Total Xylenes
MW-1-5.5'	6/14/95 ✓	<10 ^b ✓	400 ^c	2,500 ✓	0.26 ✓	2.0 ✓	4.3 ✓	19.0 ✓

- Notes: TPH = Total Petroleum Hydrocarbons
 mg/kg = Milligrams per kilogram
 a = Laboratory report states that the result is based on a non-diluted analysis.
 b = Laboratory report states that due to method limitation and high concentrations of other target analytes, the detection limit was reported as 10 mg/kg.
 c = Laboratory report states that hydrocarbon pattern is within kerosene range; however, the pattern is characteristic of weathered and degraded gasoline.

Table 4: Summary of Groundwater Sample Analytical Results BEI Job No. 95024, D. K. Green Property, 1370 7th Street, Oakland, California								
Sample Identification	Date Sampled	Modified EPA Method 8015 (µg/L)			EPA Method 8020 (µg/L)			
		TPH as Diesel ^a	TPH as Kerosene ^a	TPH as Gasoline	Benzene	Toluene	Ethylbenzene	Total Xylenes
MW-1	6/23/95	<50 ✓	4,000 ^b ✓	5,500 ^c ✓	140 ✓	19 ✓	3.2 ✓	240 ✓

- Notes: TPH = Total Petroleum Hydrocarbons
 µg/L = Micrograms per Liter
 a = Laboratory report states that the result is based on multiple dilutions.
 b = Laboratory report states that hydrocarbon pattern is within kerosene range; however, the pattern is characteristic of weathered and degraded gasoline. ✓
 c = Laboratory report states that the concentration was estimated; result was greater than highest calibration level.

Table 4

Soil Results: (all in ppm)

Date	Location	Depth	TPH-k	TPH-d	Benz	T	E	X	Notes
1-28-94	West Side	7.5'	730	(*)	ND	0.3	0.7	4.0	
	East Side	7.5'	40	ND	ND	0.008	0.031	0.120	
	Fill Pile (from under UST)		330	(*)	1.6	20	15	82	★
2-15-94 (after overex)	East end	7.5'	ND	ND	ND	ND	ND	ND	
	South side	8'	ND	ND	ND	.600	1.6	4.8	
	West end	8'	270	(*)	ND	ND	.01	.023	
	North side	8'	4	ND	ND	ND	.008	ND	
	overburden #1		15	(*)	.008		.057	.110	
	Comp. new SP1+2		15	(*)	.008		.008	.320	★
2-28-94 (more overex)	West end	8'	ND	ND	ND	ND	ND	ND	
	Comp pile #3		3	ND	ND	ND	ND	ND	★

(*) diesel range not reported due to overlap of HC ranges. ★ = stockpiles

Groundwater Results: (all in ppb)

Date	Notes	TPH-k	1: benz	2: T	1: E	4: X
1-26 rain						
1-28-94 (*)		30,000	3,400	7,300	2,000	12,000
2-10 rain	2,200 gal water pumped on 2-9					
2-15-94		4,300	72	9.7	77	20
2-28-94		180	ND	ND	5.8	7.4

(*) prior to this sample, ~300 gal water pumped from pit (on 1-27). It may be rain water from previous night.

Table 5

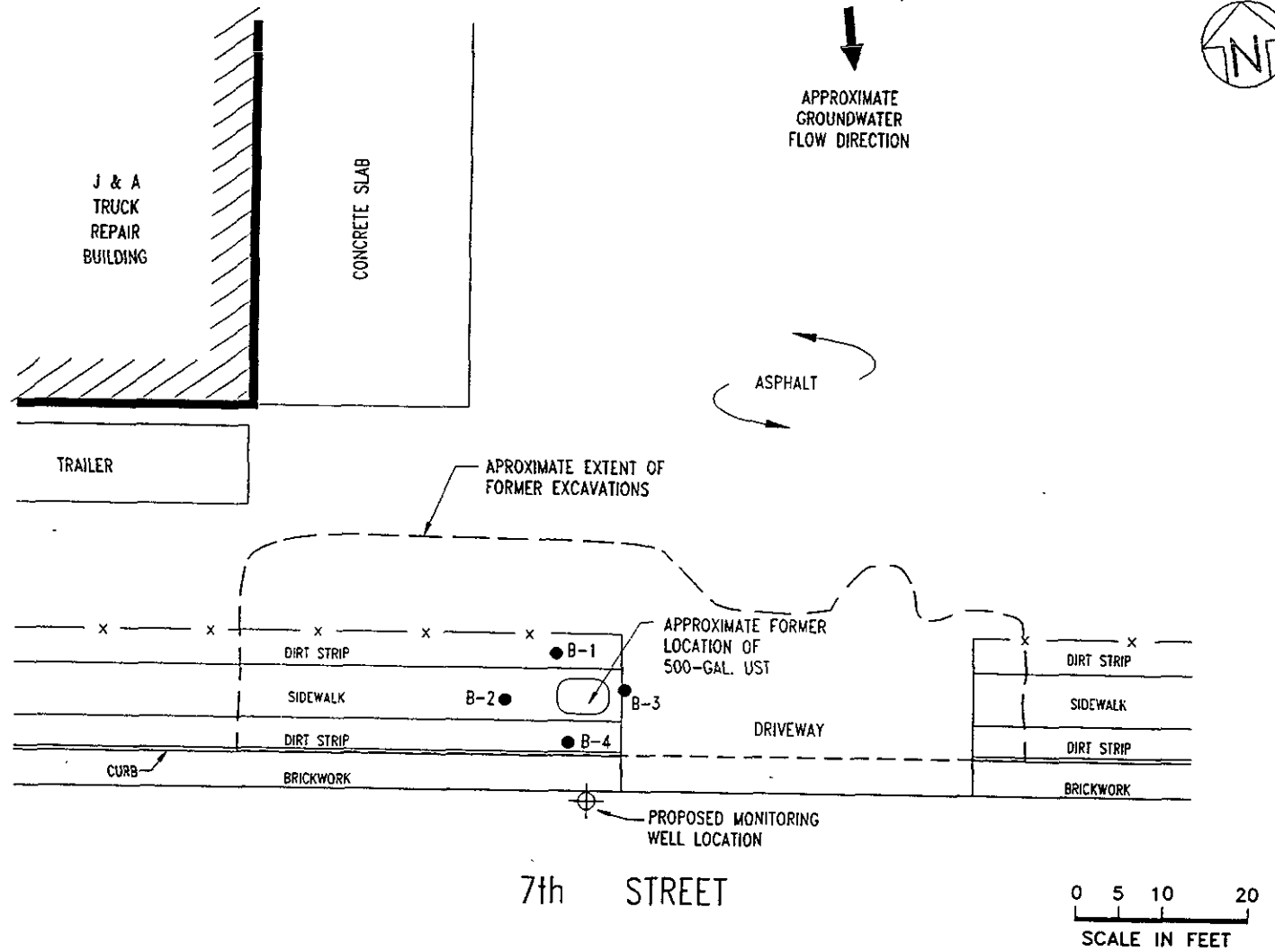
Table 1. Summary of Groundwater Sample Analytical Results
BEI Job No. 95024, D. K. Green Property, 1370 7th Street, Oakland, California


Sample Identification	Date Sampled	EPA Method 8020 (µg/L)					Modified EPA Method 8015 (µg/L) ^a		
		Benzene	Toluene	Ethylbenzene	Total Xylenes	MTBE	TPH as gasoline	TPH as diesel	TPH as kerosene
DTW MW-1	06/23/95	140	19	3.2	240	NA	5,500 ^{b,c}	<50	4,000 ^{b,d}
4.15	02/06/96	39	4.5	580 ^e	370 ^f	16 ^g	8,600 ^f	NA	2,900
4.49	05/07/96	50	6.5	760 ^f	240	<20 ^h	9,800	NA	2,800
5.22	08/01/96	56	<5.0	1,200	980	NA	14,000	<50	3,600
MCL		1.0	150	700	1,750	NE	N/A	N/A	N/A

- Notes:
- µg/L = Micrograms per liter
 - MTBE = Methyl-tert-butyl ether
 - TPH = Total Petroleum Hydrocarbons
 - a = Results originally reported by laboratory in units of milligrams per liter beginning on February 6, 1996
 - b = Laboratory reported that result is based on multiple dilutions
 - c = Laboratory reported that concentration was estimated; result was greater than highest calibration level
 - d = Laboratory reported that hydrocarbon pattern is within kerosene range; however, the pattern is characteristic of weathered and degraded gasoline
 - e = Dilution factor of 10 used
 - f = Dilution factor of 100 used
 - g = Estimated concentration; confirmation analysis by EPA Method 8260 not performed
 - h = Result of confirmation analysis by EPA Method 8260
 - NA = Not analyzed
 - MCL = Maximum Contaminant Level
 - N/A = Not applicable
 - NE = Not established

2

THE USE OF THESE DRAWINGS AND SPECIFICATIONS SHALL BE RESTRICTED TO THE ORIGINAL USE FOR WHICH THEY WERE PREPARED. REUSE, REPRODUCTION, OR PUBLICATION, IN WHOLE OR IN PART, IS PROHIBITED WITHOUT THE WRITTEN CONSENT OF BLYMYER ENGINEERS, INC.



 BLYMYER ENGINEERS, INC.		LEGEND UST UNDERGROUND STORAGE TANK ● B-1 APPROXIMATE FORMER SOIL BORE LOCATION	SITE PLAN D. KELLY GREEN 1370 7TH STREET OAKLAND, CA	FIGURE 2
BEI JOB NO. 95024	DATE 4/10/95			

BLMYER
ENGINEERS, INC.

BORE & WELL CONSTRUCTION LOG: MW-1

Job No.: 95024
Client: D. K. Green
Site: 1370 7th Street
Oakland, California
Date Drilled: June 14, 1995
Logged By: D. Underwood

Drilling Company: Gregg Drilling & Testing
Driller: M. Hoover
Drilling Equipment: B-81 Hollow Stem Auger
Sample Method: Modified CA split-spoon
Bore Diameter: 8 in.
Total Depth: 15.5 ft.

Well Completion Depth: 14 ft. Component Size/Type	Depths in feet	
	From	To
Surface Completion: Traffic-Rated Well Vault		
Surface Seal: Concrete	.00	2.50
Annular Seal: Bentonite	2.50	3.50
Seal: see above		
Sand Pack: #2/12 RMC Lonestar	3.50	15.50
Bottom Seal: N/A		
Blank Casing: 2" Diam. PVC	.50	4.00
Screened Casing: 0.01" Slot-2" Diam. PVC	4.00	14.00

Initial Water Depth: ∇ 5.5 ft.
Stabilized Water Depth: ∇

Unified Soil Classification
Graphic Log
Water Depth

LITHOLOGIC DESCRIPTION

