aqua resources inc.

2030 Addison Street, Suite 500 • Berkeley, California 94704 • 415 540-6954

November 3, 1988

87157.5

Alameda County Health Agency
Department of Environmental Health
Hazardous Materials Division
80 Swan Way, Room 200
Oakland, CA 94621

Attention: Mr. Lowell Miller

Subject: Stockpile Disposal
Mill Springs Park Apartments (Formerly Livermore Superblock)
Railroad Avenue, between South P and South L Streets
Livermore, CA

Dear Mr. Miller:

This letter addresses disposal of the two soil stockpiles generated during Phase I soil removal of the subject site. As discussed in our Interim Report dated September 12, 1988, chemical analyses were performed on composite samples of the excavated soils on a 100 cubic yard basis. Results of the chemical analyses were presented in the previously referenced Interim Report.

The chemical analyses indicate that hydrocarbon contamination levels were below 100 ppm for one stockpile. Copies of the chemical analyses for this stockpile were forwarded to the DePaoli Landfill Facility on North Vasco Road in Livermore for disposal approval. This soil stockpile material was accepted by the DePaoli Facility for disposal based on their review of the chemical analyses. This stockpile will be transported to this facility beginning November 3, 1988, after the soil stockpile has been aerated in accordance with the Final Closure Plan approved by you.

Results of chemical analyses on the second stockpile indicate that hydrocarbon concentrations exceed 100 ppm. In accordance with the approved Final Closure Plan this stockpile will be aerated and additional composite samples obtained for chemical analyses. Disposal destination of the stockpile will be determined once the additional chemical analyses have been performed and reviewed.

Respectfully Submitted,
AQUA RESOURCES INC.

Mark Milani

Mark Milani, P.E.
Project Manager

copies: Addressee (1)

Barnett - Range Corporation (1)
P.O. Box 8189
Stockton, CA 95208-1489
Attention: Mr. Larry Malcolm

Regional Water Quality Control Board (1)
Attention: Ms. Lisa McCann

TABLE 4. SUMMARIZED RESULTS FOR ANALYSIS BY EPA METHOD 8270

Analyte	MDL[b] (ug/Kg)	Descriptor, Lab No.[a] & Results (ug/Kg) COMP TP-(1-9) 8"-1.75' 3/31/88 (-7537)[c]
Acenaphthene	33	ND[d]
Acenaphthylene	33	ND
Aldrin	33	ND
Anthracene	33	ND
Benzidine	33	ND
Benzo(a)anthracene	33	ND
Benzo(b)fluoranthene	33	ND
Benzo(k)fluoranthene	33	ND
Benzo(a)pyrene	33	ND
Benzo(ghi)perylene	33	ND
Benzyl butyl phthalate	33	ND
delta-BHC	33	ND
gamma-BHC	33	ND
Bis(2-chloroethyl)ether	33	ND
Bis(2-chloroethoxy)methane	33	ND
Bis(2-chloroisopropyl)ether	33	ND
Bis(2-ethylhexyl)phthalate	3,300	ND
4-Bromophenyl phenyl ether	33	ND
2-Chloronaphthalene	33	ND
4-Chlorophenyl phenyl ether	33	ND
Chrysene	33	ND
4,4'-DDD	33	ND
4,4'-DDE	33	ND
4,4'-DDT	33	ND
Dibenzo(a,h)anthracene	33	ND
Di-n-butyl phthalate	1,650	ND
1,2-Dichlorobenzene	33	ND
1,3-Dichlorobenzene	33	ND
1,4-Dichlorobenzene	33	ND
3,3'-Dichlorobenzidine	33	ND
Dieldrin	33	ND
Diethyl phthalate	33	ND
Dimethyl phthalate	825	ND
2,4-Dinitrotoluene	33	ND
2,6-Dinitrotoluene	33	ND
Di-n-octylphthalate	33	ND
Endrin aldehyde	33	ND
Fluoranthene	33	ND
Fluorene	33	ND
Heptachlor	33	ND
Heptachlor epoxide	33	ND
Hexachlorobenzene	33	ND
Hexachlorobutadiene	33	ND
Hexachlorocyclopentadiene	33	ND
Hexachloroethane	33	ND
Indeno(1,2,3-cd)pyrene	33	ND
Isophorone	33	ND
Naphthalene	33	ND
Nitrobenzene	33	ND
N-Nitrosodi-n-propylamine	1,320	ND
Phenanthrene	33	ND
Pyrene	33	ND
1,2,4-Trichlorobenzene	33	ND
4-Chloro-3-methylphenol	33	ND
2-Chlorophenol	33	ND
2,4-Dichlorophenol	33	ND
2,4-Dimethylphenol	33	ND
2,4-Dinitrophenol	825	ND
2-Methyl-4,6-dinitrophenol	1,650	ND
2-Nitrophenol	33	ND
4-Nitrophenol	825	ND
Pentachlorophenol	33	ND
Phenol	33	ND
2,4,6-Trichlorophenol	33	ND

[a] ug/Kg--Data are expressed in units of micrograms analyte per kilogram sample, as-received basis.
[b] MDL--Method detection limit.
[c] The detection limits for this sample were 1,000x the listed MDLs.
[d] ND--Not detected at the listed method detection limit.

TABLE 4. SUMMARIZED RESULTS FOR ANALYSIS BY EPA METHOD 8270

Analyte	MDL[b] (ug/Kg)	Descriptor, Lab No, & Results (ug/Kg)[a] COMP TP-(1-9) 8"-1.75' 3/31/88 (-7537)[c]
Acenaphthene	33	ND[d]
Acenaphthylene	33	ND
Aldrin	33	ND
Anthracene	33	ND
Benzidine	33	ND
Benzo(a)anthracene	33	ND
Benzo(b)fluoranthene	33	ND
Benzo(k)fluoranthene	33	ND
Benzo(a)pyrene	33	ND
Benzo(ghi)perylene	33	ND
Benzyl butyl phthalate	33	ND
delta-BHC	33	ND
gamma-BHC	33	ND
Bis(2-chloroethyl)ether	33	ND
Bis(2-chloroethoxy)methane	33	ND
Bis(2-chloroisopropyl)ether	33	ND
Bis(2-ethylhexyl)phthalate	3,300	ND
4-Bromophenyl phenyl ether	33	ND
2-Chloronaphthalene	33	ND
4-Chlorophenyl phenyl ether	33	ND
Chrysene	33	ND
4,4'-DDD	33	ND
4,4'-DDE	33	ND
4,4'-DDT	33	ND
Dibenzo(a,h)anthracene	33	ND
Di-n-butyl phthalate	1,650	ND
1,2-Dichlorobenzene	33	ND
1,3-Dichlorobenzene	33	ND
1,4-Dichlorobenzene	33	ND
3,3'-Dichlorobenzidine	33	ND
Dieldrin	33	ND
Diethyl phthalate	33	ND
Dimethyl phthalate	825	ND
2,4-Dinitrotoluene	33	ND
2,6-Dinitrotoluene	33	ND
Di-n-octylphthalate	33	ND
Endrin aldehyde	33	ND
Fluoranthene	33	ND
Fluorene	33	ND
Heptachlor	33	ND
Heptachlor epoxide	33	ND
Hexachlorobenzene	33	ND
Hexachlorobutadiene	33	ND
Hexachlorocyclopentadiene	33	ND
Hexachloroethane	33	ND
Indeno(1,2,3-cd)pyrene	33	ND
Isophorone	33	ND
Naphthalene	33	ND
Nitrobenzene	33	ND
N-Nitrosodi-n-propylamine	1,320	ND
Phenanthrene	33	ND
Pyrene	33	ND
1,2,4-Trichlorobenzene	33	ND
4-Chloro-3-methylphenol	33	ND
2-Chlorophenol	33	ND
2,4-Dichlorophenol	33	ND
2,4-Dimethylphenol	33	ND
2,4-Dinitrophenol	825	ND
2-Methyl-4,6-dinitrophenol	1,650	ND
2-Nitrophenol	33	ND
4-Nitrophenol	825	ND
Pentachlorophenol	33	ND
Phenol	33	ND
2,4,6-Trichlorophenol	33	ND

[a] ug/Kg--Data are expressed in units of micrograms analyte per kilogram sample, as-received basis.
[b] MDL--Method detection limit.
[c] The detection limits for this sample were 1,000x the listed MDLs.
[d] ND--Not detected at the listed method detection limit.

ANATEC LABORATORIES INC.

435 Tesconi Circle
Santa Rosa, CA 95401
707-526-7200
Fax 707-526-9623

Dewey Burbank
Aqua Resources, Inc.
2030 Addison Street, Ste 500
Berkeley, CA 94704

May 4, 1988
ANATEC Log No: 2744 (1-10)
Series No: 424/017
Client Ref: Proj 87157.3

Subject: Additional Results for Ten Soil Samples Identified as "Livermore Superblock" Received March 31, 1988.

			Results (mg/Kg)[a]	
Lab No.	Descriptor		Arsenic	Lead
7527	TP-1 4'	3/31/88	39	9.3
7528	TP-5 4'	3/31/88	16	4.8
7529	TP-6 4'	3/31/88	18	6.8
7530	TP-9 4'	3/31/88	12	5.7
7531	TP-9A 4'	3/31/88	19	5.4
7532	TP-1 1'-9"	3/31/88	140	49
7533	TP-5 1'-6"	3/31/88	92	99
7534	TP-6 1'-6"	3/31/88	13	49
7535	TP-9 1'-6"	3/31/88	8.8	120
7536	TP-9A 8"	3/31/88	33	2,000

[a]mg/Kg--Data are expressed as milligrams analyte per kilogram sample, as-received basis.

Please feel welcome to contact us should you have questions regarding procedures or results.

Submitted by:

Kim Hansard
Project Chemist

Approved by:

William G. Rotz
Project Manager

/ml

AQUA RESOURCES, INC
RECEIVED
MAY 11 1988
JOB NO. 87157.03

ANATEC LABORATORIES INC.

435 Tesconi Circle
Santa Rosa, CA 95401
707-526-7200
Fax 707-526-9623

Dewey Burbank
Aqua Resources, Inc.
2030 Addison Street, Ste 500
Berkeley, CA 94704

May 4, 1988
ANATEC Log No: **2744** (1-10)
Series No: 424/017
Client Ref: Proj 87157.3

Subject: Additional Results for Ten Soil Samples Identified as "Livermore Superblock" Received March 31, 1988.

			Results (mg/Kg)[a]	
Lab No.	Descriptor		Arsenic	Lead
7527	TP-1 4'	3/31/88	39	9.3
7528	TP-5 4'	3/31/88	16	4.8
7529	TP-6 4'	3/31/88	18	6.8
7530	TP-9 4'	3/31/88	12	5.7
7531	TP-9A 4'	3/31/88	19	5.4
7532	TP-1 1'-9"	3/31/88	140	49
7533	TP-5 1'-6"	3/31/88	92	99
7534	TP-6 1'-6"	3/31/88	13	49
7535	TP-9 1'-6"	3/31/88	8.8	120
7536	TP-9A 8"	3/31/88	33	2,000

[a]mg/Kg--Data are expressed as milligrams analyte per kilogram sample, as-received basis.

Please feel welcome to contact us should you have questions regarding procedures or results.

Submitted by:

Kim Hansard
Project Chemist

Approved by:

William G. Rotz
Project Manager

/ml

RECEIVED
MAY 1988
JOB NO. 87157.03

CONSTRUCTION MATERIALS TESTING, INC.
5514 DOYLE STREET. OAKLAND, CA 94608. TELEPHONE (415) 654-6706

REPORT No 1

ORDER NO. 734-80187
DATE May 5, 1988

CLIENT: **Aqua Resources Inc.,**
2030 Addison Street
Berkeley, CA 94704

DESCRIPTION: **Asphalt Extraction**

Construction Materials Testing received two (2) asphalt samples for oil extraction testing from Aqua Resources.

Sample # 1 was a mixture comprised mostly of sand with a small amount of aggregate and a near 10% oil content.

This sample was soft and yielding to the touch. Sample # 2 was a mixture comprised of a blended aggregate, approximately 4% oil content and was hard and unyielding typical of asphaltic concrete. Test results are as follows:

Sample #	Percentage of Oil (Bitumn)
1 (Soft)	9.71%
2 (Hard)	3.95%

CONSTRUCTION MATERIALS TESTING

David Carroll
Laboratory Supervisor

RECEIVED
MAY [illegible] 1988
JOB NO. 87157.4
Back-up

DC:ae
cc: 1- Client

CONSTRUCTION MATERIALS TESTING, INC.
5514 DOYLE STREET. OAKLAND, CA 94608. TELEPHONE (415) 654-6706

REPORT No 1

ORDER NO. 734-80187

DATE May 5, 1988

CLIENT: **Aqua Resources Inc.,**
2030 Addison Street
Berkeley, CA 94704

DESCRIPTION: **Asphalt Extraction**

Construction Materials Testing received two (2) asphalt samples for oil extraction testing from Aqua Resources.

Sample # 1 was a mixture comprised mostly of sand with a small amount of aggregate and a near 10% oil content.

This sample was soft and yielding to the touch. Sample # 2 was a mixture comprised of a blended aggregate, approximately 4% oil content and was hard and unyielding typical of asphaltic concrete. Test results are as follows:

Sample #	Percentage of Oil (Bitumn)
1 (Soft)	9.71%
2 (Hard)	3.95%

CONSTRUCTION MATERIALS TESTING

David Carroll
Laboratory Supervisor

RECEIVED
MAY [illegible] 1988

JOB NO. 87157.4
Back-up

DC:ae
cc: 1- Client