

GAZ

July 24, 1987

AC TRANSIT  
1100 SEMINARY  
OAKLAND ALAMEDA  
QUALITY CONTROL BOARD  
JUL 29 1987  
CALIFORNIA REGIONAL WATER

Mr. Gregory S. Zentner  
Water Resources Control Engineer  
California Regional Water Quality Control Board  
San Francisco Bay Region  
1111 Jackson Street, Room 6040  
Oakland, CA 94607

Dear Mr. Zentner:

Subject: AC Transit Facilities Improvement program  
Division 4, Seminary Reconstruction  
Contract D4-5, Maintenance Building  
Report of Subsurface Conditions

This letter is a report of subsurface conditions encountered during the reconstruction efforts at AC Transit's Seminary facility in Oakland.

On June 25, 1987, soils which apparently contained hydrocarbon products were encountered during the demolition of the old maintenance building (circa 1947). The suspect material is an aggregate base located directly beneath the service pits of this building. The material is approximately 2 feet thick and sits on a low-permeability clay (young bay mud). Perched water was present within this suspect material.

Upon discovery, sump pits were dug and dewatering efforts began. The purpose of dewatering was to accomplish the following.

1. ~~Remove free-floating product~~ which was observed in the sump pits.
2. Determine if the water was indeed the result of a perched condition or if it was part of a groundwater aquifer (to be assessed by the rate of recharge in the pits).

Pumped water was discharged into fiberglass holding tanks for analysis (see attached water test SP-1). After one week of pumping, it was evident that the observed water was perched and was not being actively recharged.

Based on this conclusion, the following soils tests were conducted and the results are attached.

1. Samples SP-3 and SP-5 (see attached map) were taken from the aggregate base layer.
2. Samples SP-4 and SP-6 were taken from the underlying clay, 2 to 3 feet beneath the aggregate base.

3. An additional water sample was taken from residual perched water.

The above tests indicated the aggregate base to contain hydrocarbons at less than 1,000 mg/kg. The groundwater and underlying clay were clean.

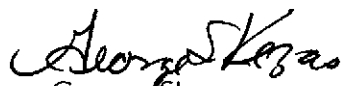
Based on these results, demolition efforts have proceeded with the removal of the remaining concrete for the service pits. This concrete has been steam cleaned and off-hauled by the on-site contractor. The aggregate base layer has been left in place, and fill material has been brought in over the top for the new construction.

Future excavations which are necessary for the new construction effort in or near this area of limited contamination will be handled as follows.

1. Any water emanating from dewatering of pits will be placed in fiberglass storage containers for analysis prior to disposal.
2. Soils which contain less than 1,000 ppm total hydrocarbons will be used for on-site backfill.

AC Transit is proceeding with construction. We will keep your agency apprised of any future developments.

Very truly yours,



George Skezas  
Facilities Administrator

gd  
Attachments

cc: Keith Steckly - AC Transit  
H. M. Nahler - KE  
S. Whitehead - KE  
L. Hanson - KE  
R. A. Shahid - Alameda County

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H. M. Nahler - KE  
S. Whitehead - KE  
L. Hanson - KE  
R. A. Shahid - Alameda County



ANATEC  
LABORATORIES  
INC.

435 Tesconi Circle

Santa Rosa, California 95401

707-526-7200

Mr. Al Arellanes  
A.M. Arellanes & Son Construction  
1100 Seminary Drive  
Oakland, CA 94612

July 24, 1987  
ANATEC Log No: 9825 (1-10)  
Series No: 417/001  
Client Ref: A.C. Transit

Subject: ASAP Priority Analysis of 10 Soil Samples Collected at the A.C. Transit Site, 1100 Seminary Dr., Oakland, CA on July 23, 1987.

Dear Mr. Arellanes:

Collection and analysis of the samples referenced above have been completed. This report is written to confirm results transmitted verbally on July 25, 1987. The samples were collected by an ANATEC field chemist from a soils stockpile located at the A.C. Transit facility, between 12:00 noon and 4:10 pm, July 23, 1987. Collections were made at locations and depths specified by Mr. Al Arellanes of A.M. Arellanes and Son Construction. The samples were collected in brass cores which had previously been thoroughly cleaned with trisodium phosphate solution and deionized water.

Following collection the samples were immediately sealed with plastic endcaps and tape and placed under refrigeration for transport to the laboratory. Collection and delivery to the laboratory were conducted under documented chain-of-custody.

On receipt at the laboratory, sample custody was transferred to ANATEC sample control personnel who subsequently documented receipt and condition of the samples and placed them in secured storage at 4°C until analysis commenced.

In accord with instruction received with samples, seven composite samples were created for later analysis by combination of equal-weight portions of designated sets of three to five samples; these sets were designated as "#1, #6, and #7 (Pile 1)", "#2, #4, and #5 (Pile 1)", "#8, #9, #10 and #18 (Piles 2 & 3)", "#11 and #12 (Pile 3)", "#13, #14, #15, #16 and #17 (Mech. pit)", "#19, #20 and #21 (Pile 4)" and "#22, #23, #24 and #25 (Pile 5)" and composite samples prepared from them named "Pile 1-A Composite," "Pile 1-B Composite," "Pile 2&3 Composite," "Pile 3 Composite," "Mech. Pit Composite," "Pile 4 Composite," and "Pile 5 Composite."



Samples were prepared for extractable hydrocarbons measurements by thorough mixing and subsequent extraction with methylene chloride; extraction, aided by sonication, was performed three successive times for each sample. Extracts were then combined, dried over sodium sulfate and concentrated in Kuderna-Danish apparatus.

Extracts were then analyzed by capillary column gas chromatography with flame ionization detection. Preparation and analysis of samples was accompanied by similar treatment of a method blank and a motor oil-fortified sample. Response of the chromatographic system to calibration standards prepared with motor oil was compared with system response to samples for purposes of qualitative and quantitative interpretation.

Details of the analytical methodology are consistent with requirements specified in "Guidelines for Addressing Fuel Leaks," Regional Water Quality Control Board, San Francisco Bay Region, revised 1986; the preparation procedure used is described in detail in "Sonication Extraction," Method 3550 in "Test Methods for Evaluating Solid Waste, Physical/Chemical Methods," U.S. EPA, SW-846, 2nd edition, revised 1984.

Results of analyses are summarized in Table 1. Attached are the sample custody document and site diagram. Please feel welcome to contact us should you have questions regarding procedures or results.

Submitted by:

Approved by:

  
William G. Rotz  
Project Manager

  
Greg Anderson, Director  
Analytical Laboratories

Enc: Custody Document  
Site Diagram



TABLE 1. SUMMARIZED ANALYTICAL RESULTS FOR SOIL SAMPLES COLLECTED AT THE A.C. TRANSITE SITE, 1100 SEMINARY DR., OAKLAND, CA ON JULY 23, 1987

ANATEC Lab No.	Site Identification	Extractable Petroleum Hydrocarbons, as Waste Oil (mg/Kg) <sup>a</sup>
9825-1	Pile 1-A Composite (#1,6,7)	1,200
9825-2	Pile 1-B Composite (#2,4,5)	2,300
9825-3	Pile 2&3 Composite (#8,9,10,18)	1,500
9825-5	Pile 3 Composite (#11,12)	1,200
9825-7	Mech. Pit Composite (#13,14,15,16,17)	15
9825-8	Pile 4 Composite (#19,20,21)	68
9825-9	Pile 5 Composite (#22,23,24,25)	1,400
9825-4	Excavation 1 1220 20N,16E,-3'9" Just above oil level (#3)	10,000
9825-6	Excavation 1 1610 3' from grade, in wall; backfill at Mech. Pit (#27)	4,800
9825-10	Excavation 1 1600 in exposed oil lines (#26)	13,000

<sup>a</sup>mg/Kg--Data are expressed as milligrams analyte per kilogram sample, as-received basis.

Note: Numbers in parentheses "( )" refer to numbered sites on the site diagram.

PROJ. NO.		PROJECT NAME					NO. OF CONTAINERS	REMARKS					
		A.M. Arellanes Const./AC Transit											
SAMPLERS: (Signature)													
STA. NO.	DATE	TIME	COMP.	GRAB	STATION LOCATION								
AC 1	7/23	1200		✓	pile 1		1	X					} composite
AC 6	"	1258		✓	"								
AC 7	"	1301		✓	"								
AC 2	"	1210		✓	pile 1		1	X					} composite
AC 4	"	1246		✓	"								
AC 5	"	1251		✓	"								
AC 8	"	1320		✓	piles 2/3		1	X					} composite
AC 9	"	1327		✓	"								
AC 10	"	1332		✓	"								
AC 18	"	1338		✓	"								
AC 3	"	1220		✓	Excavation 1		1	X					run as discrete sample

Relinquished by: (Signature) <i>Joel Kiff</i>	Date / Time 7/24 0700	Received by: (Signature)	Relinquished by: (Signature)	Date / Time	Received by: (Signature)
Relinquished by: (Signature)	Date / Time	Received by: (Signature)	Relinquished by: (Signature)	Date / Time	Received by: (Signature)
Relinquished by: (Signature)	Date / Time	Received for Laboratory by: (Signature) <i>Judy Redley</i>	Date / Time 7/24 0700	Remarks 9825	

PROJ. NO.		PROJECT NAME					NO. OF CONTAINERS	REMARKS
A.M. Anellanes Const / AC Transit								
SAMPLERS: (Signature)							Total Ex. HC. <b>ASAP</b>	
Joel Koff								
STA. NO.	DATE	TIME	COMP.	GRAB	STATION LOCATION			
AC 11	7/23	1338		✓	pile 3	1	} run as composite	
AC 12	"	1348		✓	"	1		
AC 13	"	1354		✓	mech. pit	1	} composite	
AC 14	"	1403		✓	"	1		
AC 15	"	1415		✓	"	1		
AC 16	"	1428		✓	"	1		
AC 17	"	1435		✓	"	1		
AC 19	"	1454		✓	pile 4	1	} composite	
AC 20	"	1500		✓	"	1		
AC 21	"	1507		✓	"	1		

Relinquished by: (Signature) Joel Koff	Date / Time 7/24 0700	Received by: (Signature)	Relinquished by: (Signature)	Date / Time	Received by: (Signature)
Relinquished by: (Signature)	Date / Time	Received by: (Signature)	Relinquished by: (Signature)	Date / Time	Received by: (Signature)
Relinquished by: (Signature)	Date / Time	Received for Laboratory by: (Signature) Judy Redley	Date / Time 7/24 0700	Remarks 9825	



PROJ. NO. PROJECT NAME  
 Am Arellanes Const. / AC transit

SAMPLERS: (Signature)  
 Joel Kiff

OF  
 CON-  
 TAINERS

REMARKS

STA. NO.	DATE	TIME	COMP.	GRAB	STATION LOCATION													
AC 22	7/23	1512		✓	pile 5	/												
AC 23	"	1521		✓	"	/												
AC 24	"	1526		✓	"	/												
AC 25	"	1531		✓	"	/												
AC 26	"	1600		✓	excavation 1	/	X											run as discrete sample
AC 27	"	1610		✓	"	/	X											"

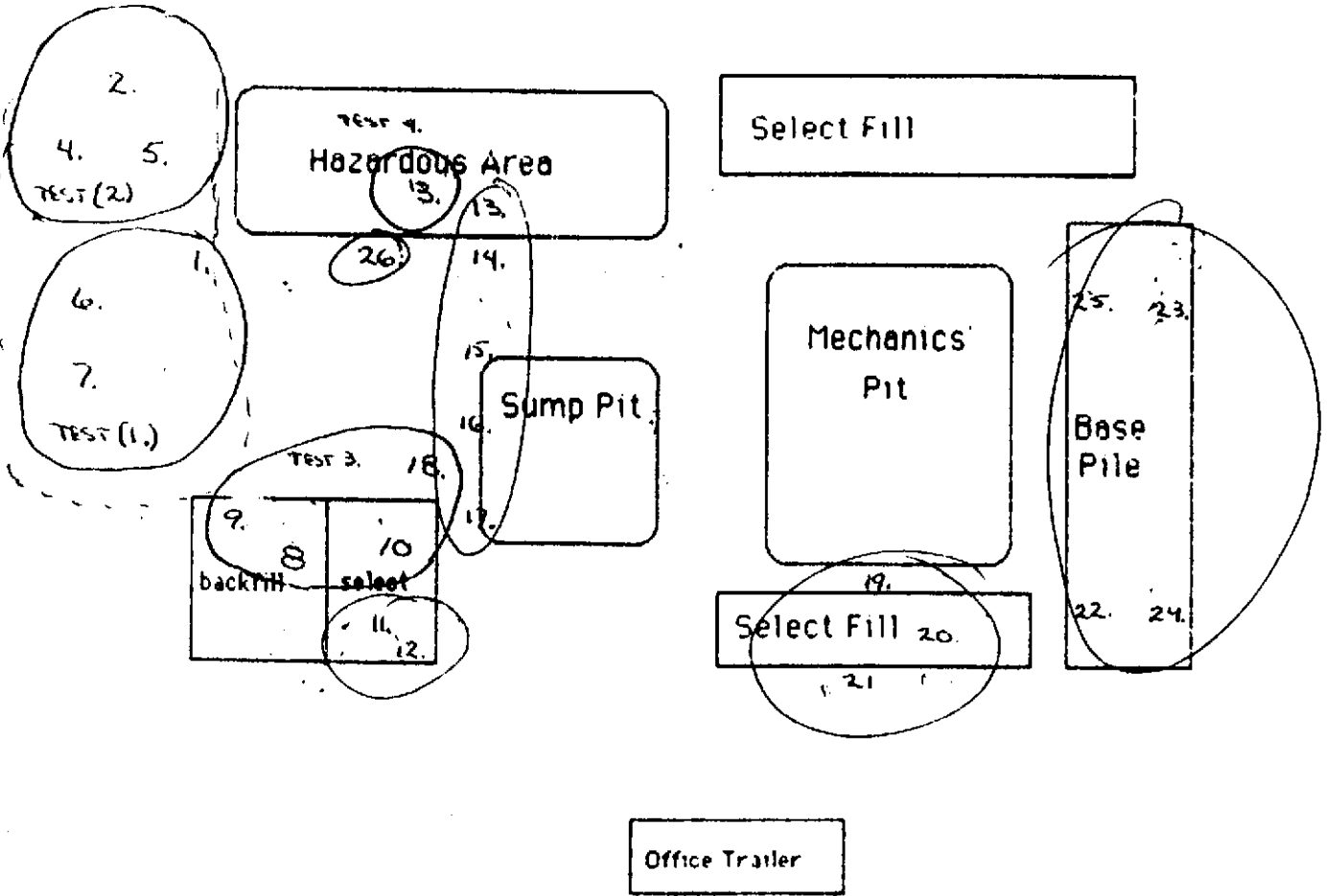
J. E. H. ASAP

} composite

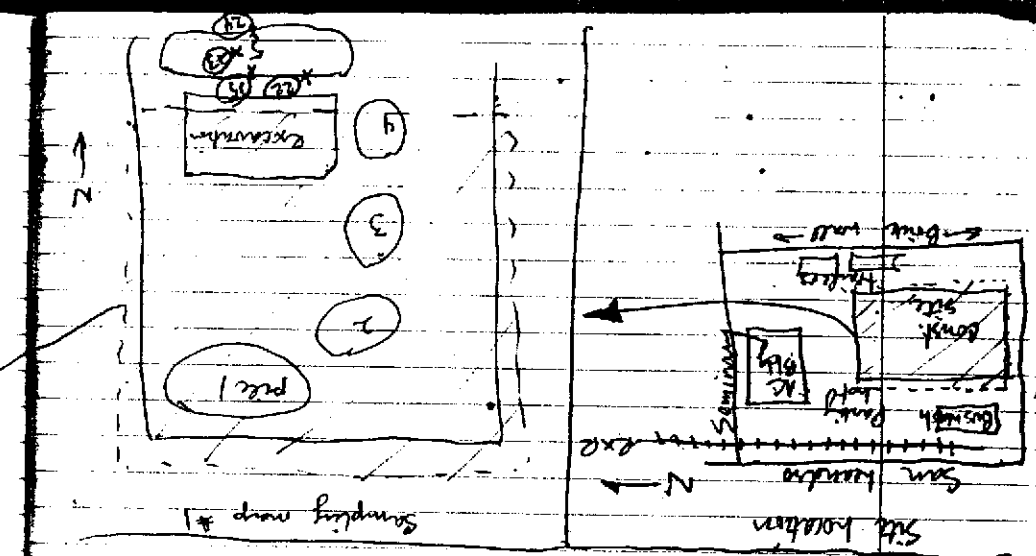
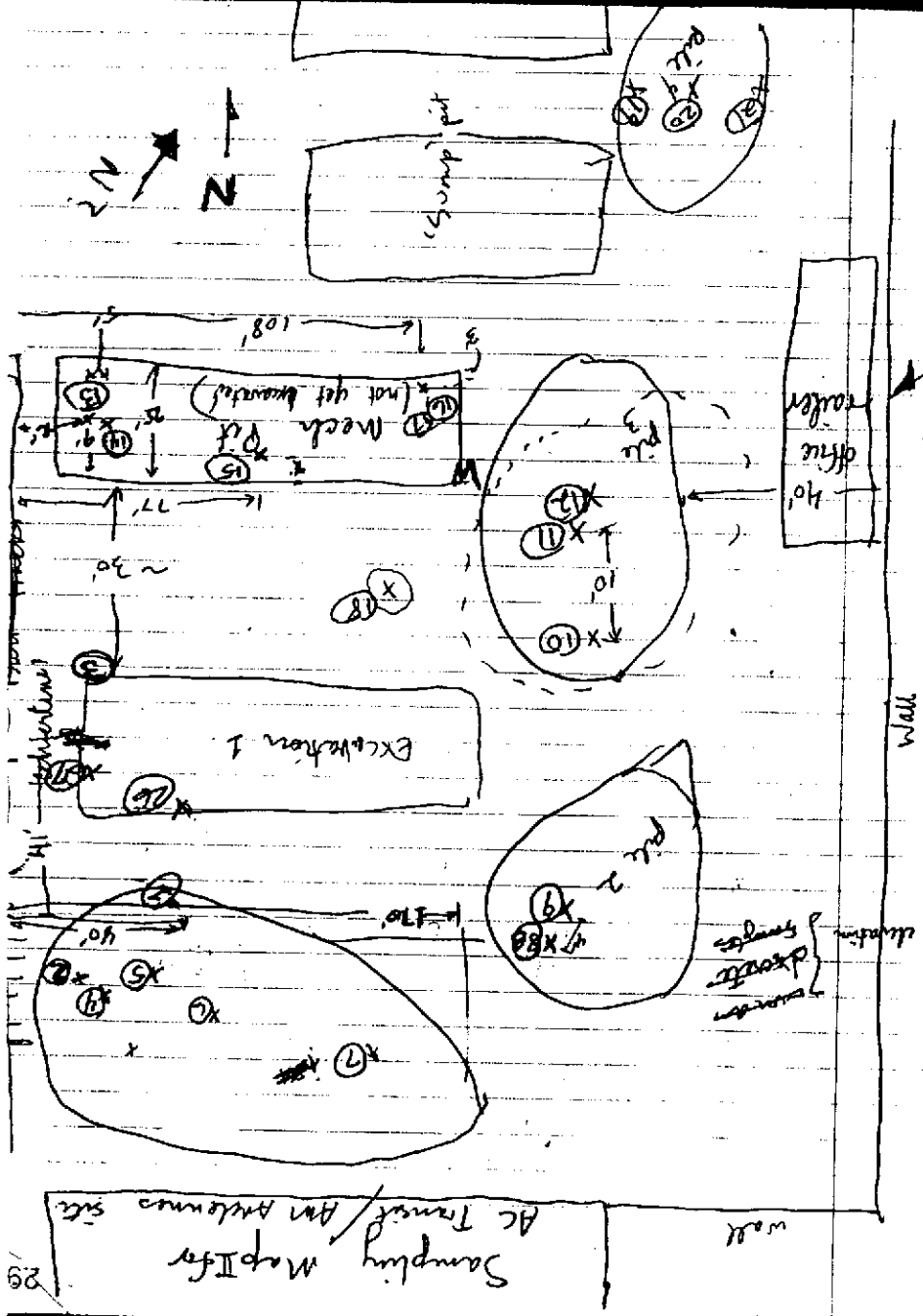
Relinquished by: (Signature) Joel Kiff	Date / Time 7/24 0700	Received by: (Signature)	Relinquished by: (Signature)	Date / Time	Received by: (Signature)
Relinquished by: (Signature)	Date / Time	Received by: (Signature)	Relinquished by: (Signature)	Date / Time	Received by: (Signature)
Relinquished by: (Signature)	Date / Time	Received for Laboratory by: (Signature) Judy Reddy	Date / Time 7/24 0700	Remarks 9825	

# AC Transit/Seminary Project

A. M. Arellanes and Sons Contracting



AREAS TESTED BY ANATECH.  
 27 SAMPLES 9 COMPOSITE TEST RESULTS.



0825

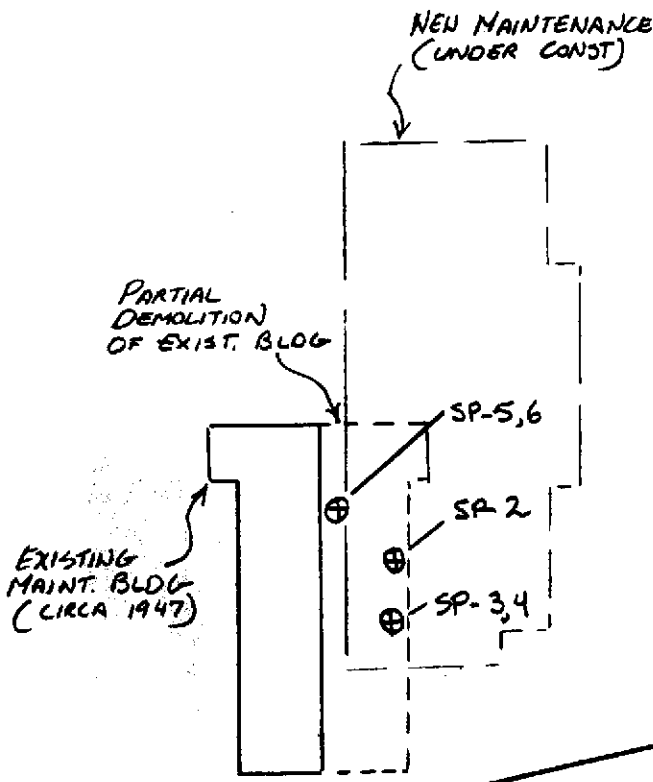
Address : 1100 Seminary Dr. Oakland, CA 94612  
 Am. Ardennes & Son

Sampling site : AC Transit yard on Seminary next to BART tracks  
 Sample #12 : side of pit (~4' from grade) 41'5 40"  
 AC2  
 composite 2, 4, 5  
 11, 12  
 8, 9, 10, 18  
 1, 10, 17, 20  
 26  
 27  
 28  
 29

SAN LEONARDO BLVD.

BART  
SP TRACKS

CL<sup>NO</sup> AVE



NOT TO SCALE

AC TRANSIT  
SEMINARY AVENUE  
RECONSTRUCTION



LOG NO: E87-07-023

Received: 02 JUL 87

Reported: 10 JUL 87

Mr. Steve Whitehead  
Raymond Kaiser Engineers Inc.  
1800 Harrison St. P.O. Box 23210  
Oakland, California 94623-2321

REPORT OF ANALYTICAL RESULTS

Page 1

LOG NO	SAMPLE DESCRIPTION, GROUND WATER SAMPLES	DATE SAMPLED
07-023-1	SP-1 East Exist Bldg	01 JUL 87
PARAMETER	07-023-1	
Total Fuel Hydrocarbons, mg/kg	<10	

*D. A. McLean*  
D. A. McLean, Laboratory Director



LOG NO: E87-07-096

Received: 07 JUL 87

Reported: 10 JUL 87

Mr. Steve Whitehead  
Raymond Kaiser Engineers Inc.  
1800 Harrison St. P.O. Box 23210  
Oakland, California 94623-2321

REPORT OF ANALYTICAL RESULTS

Page 1

LOG NO	SAMPLE DESCRIPTION, GROUND WATER SAMPLES	DATE SAMPLED
07-096-1	SP-2, Groundwater	07 JUL 87
PARAMETER	07-096-1	
Benzene, Toluene, Xylene Isomers		
Benzene, mg/L	<0.05	
Toluene, mg/L	<0.05	
Total Xylene Isomers, mg/L	<0.05	
Total Fuel Hydrocarbons, mg/L	<1.0	



LOG NO: E87-07-096

Received: 07 JUL 87

Reported: 10 JUL 87

Mr. Steve Whitehead  
Raymond Kaiser Engineers Inc.  
1800 Harrison St. P.O. Box 23210  
Oakland, California 94623-2321

REPORT OF ANALYTICAL RESULTS

Page 2

LOG NO	SAMPLE DESCRIPTION, SOIL SAMPLES	DATE SAMPLED			
07-096-2	SP-3, AB - East Midpoint	07 JUL 87			
07-096-3	SP-4, Clay - East Midpoint	07 JUL 87			
07-096-4	SP-5, AB - Northwest Corner	07 JUL 87			
07-096-5	SP-6, Clay - Northwest Corner	07 JUL 87			
PARAMETER		07-096-2	07-096-3	07-096-4	07-096-5
Benzene, Toluene, Xylene Isomers					
Benzene, mg/kg		<0.5	<0.5	<0.5	<0.5
Toluene, mg/kg		<0.5	<0.5	<0.5	<0.5
Total Xylene Isomers, mg/kg		<0.5	<0.5	<0.5	<0.5
Total Fuel Hydrocarbons, mg/kg		110	<10	770	<10

D. A. McLean, Laboratory Director



LOG NO: E87-07-165

Received: 09 JUL 87

Reported: 20 JUL 87

Mr. Steve Whitehead  
Kaiser Engineers Inc.  
1600 Franklin Avenue  
Oakland, California 94612

REPORT OF ANALYTICAL RESULTS

Page 1

LOG NO	SAMPLE DESCRIPTION, SOIL SAMPLES	DATE SAMPLED
07-165-1	Composite of AB - Midpt. and N.W. Corner <span style="border: 1px solid black; border-radius: 50%; padding: 2px;">COMPOSIT SP-3+5</span>	07 JUL 87
PARAMETER	07-165-1	
Beryllium, mg/kg	0.3	
Cadmium, mg/kg	1.5	
Chromium, mg/kg	34	
Copper, mg/kg	22	
Lead, mg/kg	44	
Nickel, mg/kg	25	
Silver, mg/kg	<1	
Thallium, mg/kg	8.3	
Zinc, mg/kg	120	
Antimony, mg/kg	<10	
Arsenic, mg/kg	6.1	
Selenium, mg/kg	0.16	
Mercury, mg/kg	0.13	
Cyanide, mg/kg	<0.50	
Phenolics, mg/kg	<0.44	





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REPORT OF ANALYTICAL RESULTS

LOG NO	SAMPLE DESCRIPTION, SOIL SAMPLES	DATE SAMPLED
07-165-1	Composite of AB - Midpt. and N.W. Corner	07 JUL 87
PARAMETER	07-165-1	
Pri. Poll. Pesticides/PCBs		
Date Extracted		07.15.87
Date Analyzed		07.16.87
Aldrin, mg/kg		<0.1
Chlordane, mg/kg		<0.5
Dieldrin, mg/kg		<0.01
Endosulfan I, mg/kg		<0.01
Endosulfan II, mg/kg		<0.01
Endosulfan sulfate, mg/kg		<0.03
Endrin, mg/kg		<0.03
Endrin aldehyde, mg/kg		<0.03
Heptachlor epoxide, mg/kg		<0.1
Heptachlor, mg/kg		<0.1
Aroclor 1016, mg/kg		<0.5
Aroclor 1221, mg/kg		<0.5
Aroclor 1232, mg/kg		<0.5
Aroclor 1242, mg/kg		<0.5
Aroclor 1248, mg/kg		<0.5
Aroclor 1254, mg/kg		<0.05
Aroclor 1260, mg/kg		<0.05
Aroclor 1262, mg/kg		<0.05
Toxaphene, mg/kg		<1.5
BHC, alpha isomer, mg/kg		<0.1
BHC, beta isomer, mg/kg		<0.1
BHC, delta isomer, mg/kg		<0.1



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REPORT OF ANALYTICAL RESULTS

Page 3

LOG NO	SAMPLE DESCRIPTION, SOIL SAMPLES	DATE SAMPLED
07-165-1	Composite of AB - Midpt. and N.W. Corner	07 JUL 87
PARAMETER	07-165-1	
BHC, gamma isomer, mg/kg	<0.1	
p,p'-DDD, mg/kg	<0.01	
p,p'-DDE, mg/kg	<0.01	
p,p'-DDT, mg/kg	<0.03	



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## REPORT OF ANALYTICAL RESULTS

Page 4

LOG NO	SAMPLE DESCRIPTION, SOIL SAMPLES	DATE SAMPLED
07-165-1	Composite of AB - Midpt. and N.W. Corner	07 JUL 87
PARAMETER		07-165-1
B/N,A Ext. Priority Pollutants		
Extraction		07.15.87
Date Analyzed		07.16.87
1,2,4-Trichlorobenzene, mg/kg		<0.1
1,2-Dichlorobenzene, mg/kg		<0.1
1,2-Diphenylhydrazine, mg/kg		<0.1
1,3-Dichlorobenzene, mg/kg		<0.1
1,4-Dichlorobenzene, mg/kg		<0.1
2,4,6-Trichlorophenol, mg/kg		<0.1
2,4-Dichlorophenol, mg/kg		<0.1
2,4-Dimethylphenol, mg/kg		<0.1
2,4-Dinitrotoluene, mg/kg		<0.1
2,4-Dinitrophenol, mg/kg		<1
2,6-Dinitrotoluene, mg/kg		<0.1
2-Chloronaphthalene, mg/kg		<0.1
2-Nitrophenol, mg/kg		<0.1
2-Chlorophenol, mg/kg		<0.1
2-Methyl-4,6-dinitrophenol, mg/kg		<0.1
3,3'-Dichlorobenzidine, mg/kg		<0.1
4-Bromophenylphenylether, mg/kg		<0.1
4-Chloro-3-methylphenol, mg/kg		<0.1
4-Chlorophenylphenylether, mg/kg		<0.1
4-Nitrophenol, mg/kg		<2
Acenaphthene, mg/kg		<0.1
Acenaphthylene, mg/kg		<0.1



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REPORT OF ANALYTICAL RESULTS

Page 5

LOG NO	SAMPLE DESCRIPTION, SOIL SAMPLES	DATE SAMPLED
07-165-1	Composite of AB - Midpt. and N.W. Corner	07 JUL 87
PARAMETER	07-165-1	
Anthracene, mg/kg	<0.1	
Bis(2-ethylhexyl)phthalate, mg/kg	<10	
Benzidine, mg/kg	<4	
Bis(2-chloroethyl)ether, mg/kg	<0.1	
Bis(2-chloroisopropyl)ether, mg/kg	<0.1	
Bis(2-chloroethoxy)methane, mg/kg	<0.1	
Benzo(a)anthracene, mg/kg	<0.1	
Benzo(a)pyrene, mg/kg	<0.1	
Benzo(b)fluoranthene, mg/kg	<0.1	
Benzo(g,h,i)perylene, mg/kg	<0.1	
Benzo(k)fluoranthene, mg/kg	<0.1	
Butylbenzylphthalate, mg/kg	<0.1	
Chrysene, mg/kg	<0.1	
Di-n-octylphthalate, mg/kg	<0.1	
Dibenzo(a,h)anthracene, mg/kg	<0.1	
Dibutylphthalate, mg/kg	<0.1	
Diethylphthalate, mg/kg	<0.1	
Dimethylphthalate, mg/kg	<0.1	
Fluorene, mg/kg	<0.1	
Fluoranthene, mg/kg	<0.1	
Hexachlorobenzene, mg/kg	<0.1	
Hexachlorobutadiene, mg/kg	<0.1	
Hexachlorocyclopentadiene, mg/kg	<0.1	
Hexachloroethane, mg/kg	<0.1	
Indeno(1,2,3-c,d)pyrene, mg/kg	<0.1	



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Page 6

LOG NO	SAMPLE DESCRIPTION, SOIL SAMPLES	DATE SAMPLED
07-165-1	Composite of AB - Midpt. and N.W. Corner	07 JUL 87
PARAMETER	07-165-1	
Isophorone, mg/kg	<0.1	
N-Nitrosodi-n-propylamine, mg/kg	<0.1	
N-Nitrosodimethylamine, mg/kg	<0.1	
N-Nitrosodiphenylamine, mg/kg	<0.1	
Naphthalene, mg/kg	<0.1	
Nitrobenzene, mg/kg	<0.1	
Pentachlorophenol, mg/kg	<0.1	
Phenanthrene, mg/kg	<0.1	
Phenol, mg/kg	<0.1	
Pyrene, mg/kg	<0.1	
Semi-Quantified Results **		
C9-C20 Hydrocarbon Matrix, mg/kg	100	
Molecular Sulfur (S8), mg/kg	1	
Unidentified Matrix, mg/kg	300	

\*\* Quantification based upon comparison of total ion count of the compound with that of the nearest internal standard.



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LOG NO	SAMPLE DESCRIPTION, SOIL SAMPLES	DATE SAMPLED
07-165-1	Composite of AB - Midpt. and N.W. Corner	07 JUL 87
PARAMETER	07-165-1	
Purgeable Priority Pollutants		
Extraction		07.15.87
1,1,1-Trichloroethane, mg/kg		<0.2
1,1,2,2-Tetrachloroethane, mg/kg		<0.2
1,1,2-Trichloroethane, mg/kg		<0.2
1,1-Dichloroethane, mg/kg		<0.2
1,1-Dichloroethylene, mg/kg		<0.2
1,2-Dichloroethane, mg/kg		<0.2
1,2-Dichloropropane, mg/kg		<0.2
1,3-Dichloropropene, mg/kg		<0.2
2-Chloroethylvinylether, mg/kg		<0.2
Acrolein, mg/kg		<2
Acrylonitrile, mg/kg		<2
Bromodichloromethane, mg/kg		<0.2
Bromomethane, mg/kg		<0.2
Benzene, mg/kg		<0.2
Chlorobenzene, mg/kg		<0.2
Carbon Tetrachloride, mg/kg		<0.2
Chloroethane, mg/kg		<0.2
Bromoform, mg/kg		<0.2
Chloroform, mg/kg		<0.2
Chloromethane, mg/kg		<0.2
Dibromochloromethane, mg/kg		<0.2
Ethylbenzene, mg/kg		<0.2
Methylene chloride, mg/kg		0.6



LOG NO: E87-07-165

Received: 09 JUL 87

Reported: 20 JUL 87


Mr. Steve Whitehead  
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REPORT OF ANALYTICAL RESULTS

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LOG NO	SAMPLE DESCRIPTION, SOIL SAMPLES	DATE SAMPLED
07-165-1	Composite of AB - Midpt. and N.W. Corner	07 JUL 87
PARAMETER	07-165-1	
Tetrachloroethylene, mg/kg		<0.2
Trichloroethylene, mg/kg		<0.2
Trichlorofluoromethane, mg/kg		<0.2
Toluene, mg/kg		<0.2
Vinyl chloride, mg/kg		<0.2
trans-1,2-Dichloroethylene, mg/kg		<0.2
trans-1,3-Dichloropropene, mg/kg		<0.2
Semi-Quantified Results **		
C5H12, mg/kg		2
C9H16, mg/kg		1
C9H18, mg/kg		1

\*\* Quantification based upon comparison of total ion count of the compound with that of the nearest internal standard.

  
D. A. McLean, Laboratory Director