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**CERTIFICATE OF ANALYSIS**

Prepared for:

IT Corporation  
4585 Pacheco Blvd.  
Martinez, CA 94553

Date: March 14, 1988

Attn: Dan Friberg

*SAMPLE SUBMITTED TO MIKE FARMER*

*#m216*

*PW1 WAS AIR STRAW*

Date Received: February 11, 1988

P.O. Number 190348  
Fabco

Job Number 44923/1h  
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One (1) soil sample : Composite of "N-1 (Top + Bottom)" and "N-2 (Top + Bottom)"

The sample was analyzed for the inorganic parameter as requested. The results are listed in Table I.

The composited sample was extracted in hexane and analyzed for high boiling fuel hydrocarbons by direct injection into a Varian 3700 gas chromatograph equipped with a flame ionization detector. Motor oil was used as the calibration standard. The results are listed in Table II.

The composited sample was extracted according to modified EPA Method 8080 and the extract was analyzed for organochlorine pesticides and PCB's by direct injection into a Varian 6000A gas chromatograph equipped with an electron capture detector. The results are listed on the following summary sheet

The sample was analyzed for volatile and semi-volatile organic contaminants using combined gas chromatography-mass spectrometry according to modified EPA Methods, 8240 and 8270. Results for compounds on the EPA Hazardous Substances List (HSL) are given on the enclosed summary sheets.

I certify that this report truly represents the finding of work performed by me or under my direct supervision.

*Sharareh Nasser-Moaddeli*  
Sharareh Nasser-Moaddeli  
Group Leader

Reviewed and Approved

*Ken Faust*  
Ken Faust  
Technical Director

Table I

<u>Compound</u>	<u>Method*</u>	<u>Milligrams/kilogram</u>	
		<u>Detection<sup>A</sup></u>	<u>Limit</u>
Antimony	6010	0.06	ND<30
Arsenic	7060	0.01	4.1
Barium	6010	0.2	220
Beryllium	6010	0.005	TR<2.5
Cadmium	6010	0.005	3.4
Calcium	6010	5	10400
Chromium	6010	0.01	360
Cobalt	6010	0.05	TR<25
Copper	6010	0.025	160
Iron	6010	0.1	11100
Lead <sup>B</sup>	6010	0.2	85
Magnesium	6010	5	4360
Manganese	6010	0.015	1140
Mercury	7471	0.0002	0.21
Molybdenum	6010	0.05	80
Nickel	6010	0.04	350
Potassium	7610	5	TR<500
Selenium	7740	0.005	ND<0.5
Silver	6010	0.01	ND<5
Sodium	6010	5	ND<2500
Thallium	6010	0.5	ND<250
Vanadium	6010	0.05	36
Zinc	6010	0.02	160
Cyanide	9010	0.02	ND<1
Phenol	9065	0.05	TR<2.5
Oil & Grease	9070	1	12400

\* SW846, 3rd Edition.

A - Detection limits are based upon concentration in the aqueous extract and are expressed in milligrams per liter. Detection limits may vary due to sample matrix.

B - Lead was blank corrected.

Table II

<u>Sample I.D.</u>	<u>Milligrams per kilogram</u> <u>High Boiling Fuel Hydrocarbons</u>
Composite	20000

Volatile Organic Compounds  
(Micrograms Per Kilogram)

<u>Compound</u>	<u>Detection Limit</u>	<u>Composite</u>
Chloromethane	10	ND
Bromomethane	10	ND
Vinyl chloride	10	ND
Chloroethane	10	ND
Dichloromethane (methylene chloride)	10	ND
Acetone	5	ND
Carbon disulfide	10	ND
1,1-Dichloroethylene	5	7
1,1-Dichloroethane	5	ND
trans-1,2-Dichloroethene	5	ND
Chloroform	5	ND
1,2-Dichloroethane	5	ND
Methyl ethyl Ketone (2-Butanone)	10	ND
1,1,1-Trichloroethane	5	ND
Carbon tetrachloride	5	ND
Vinyl acetate	10	ND
Bromodichloromethane	5	ND
1,2-Dichloropropane	5	ND
trans-1,3-Dichloropropene	5	ND
Trichloroethene	5	ND
Chlorodibromomethane	5	ND
1,1,2-Trichloroethane	5	ND
Benzene	5	ND
cis-1,3-Dichloropropene	5	ND
2-Chloroethyl vinyl ether	10	ND
Tribromomethane, (Bromoform)	5	ND
2-Hexanone	10	ND
4-Methyl-2-pentanone	10	TR
Tetrachloroethene	5	ND
1,1,2,2-Tetrachloroethane	5	ND
Toluene	5	ND
Chlorobenzene	5	ND
Ethyl benzene	5	ND
Styrene	5	ND
Xylene (Total)	20	ND
Acrolein	5	ND
Acrylonitrile	5	ND

ND - This compound was not detected; the limit of detection for this analysis is less than the amount stated in the table above.

TR - Trace, this compound was present, but was below the level at which concentration could be determined.

Semi-Volatile Organic Compounds  
(Milligram/kilogram)

<u>Compound</u>	<u>Detection Limit</u>	<u>Composite</u>
Phenol	20	ND
Bis(2-chloroethyl)ether	20	ND
2-Chlorophenol	20	ND
1,3-Dichlorobenzene	20	ND
1,4-Dichlorobenzene	20	ND
Benzyl alcohol	20	ND
1,2-Dichlorobenzene	20	ND
2-Methylphenol	20	ND
Bis(2-chloroisopropyl) ether	20	ND
4-Methylphenol	20	ND
N-Nitroso-di-n-propylamine	20	ND
Hexachloroethane	20	ND
Nitrobenzene	20	ND
Isophorone	20	ND
2-Nitrophenol	20	ND
2,4-Dimethylphenol	20	ND
Benzoic acid	100	ND
Bis(2-chloroethoxy) methane	20	ND
2,4-Dichlorophenol	20	ND
1,2,4-Trichlorobenzene	20	ND
Naphthalene	20	ND
4-Chloroaniline	20	ND
Hexachlorobutadiene	20	ND
4-Chloro-3-methylphenol	20	ND
2-Methylnaphthalene	20	ND
Hexachlorocyclopentadiene	20	ND
2,4,6-Trichlorophenol	20	ND
2,4,5-Trichlorophenol	20	ND
2-Chloronaphthalene	20	ND
2-Nitroaniline	100	ND
Dimethylphthalate	20	ND
Acenaphthylene	20	ND
3-Nitroaniline	100	ND
Acenaphthene	20	ND
2,4-Dinitrophenol	100	ND
4-Nitrophenol	100	ND
Dibenzofuran	20	ND

ND - This compound was not detected; the limit of detection for this analysis is less than the amount stated in the table above.

Semi-Volatile Organic Compounds (Continued)  
(Milligram/kilogram)

<u>Compound</u>	<u>Detection Limit</u>	<u>Composite</u>
2,4-Dinitrotoluene	20	ND
2,6-Dinitrotoluene	20	ND
Diethylphthalate	20	ND
4-Chlorophenylphenyl ether	20	ND
Fluorene	20	ND
4-Nitroaniline	100	ND
4,6-Dinitro-o-cresol	100	ND
N-Nitrosodiphenylamine	20	ND
4-Bromophenyl-phenyl ether	20	ND
Hexachlorobenzene	20	ND
Pentachlorophenol	100	ND
Phenanthrene	20	ND
Anthracene	20	ND
Di-n-butylphthalate	20	ND
Fluoranthene	20	ND
Pyrene	20	ND
Butylbenzylphthalate	20	ND
3,3'-Dichlorobenzidine	40	ND
Benzo(a)anthracene	20	ND
Bis(2-ethylhexyl)phthalate	20	ND
Chrysene	20	ND
Di-n-octylphthalate	20	ND
Benzo(b)fluoranthene	20	ND
Benzo(k)fluoranthene	20	ND
Benzo(a)pyrene	20	ND
Indeno-(1,2,3-c,d,)pyrene	20	ND
Dibenzo(a,h)anthracene	20	ND
Benzo(g,h,i)perylene	20	ND
N-Nitrosodimethylamine	20	ND
1,2-Diphenylhydrazine	20	ND
Benzidine	20	ND

ND - This compound was not detected; the limit of detection for this analysis is less than the amount stated in the table above.

IT-Martinez  
Dan Friberg

Job# 44923  
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GC PESTICIDE ANALYSIS

SAMPLE IDENTIFICATION: Composite  
DATE ANALYZED: 3-4-88  
UNITS: Mircrograms/kilogram

PESTICIDES-(PP's)

alpha-BHC	ND<500
beta-BHC	ND<500
delta-BHC	ND<500
gamma-BHC (Lindane)	ND<500
Heptachlor	ND<500
Aldrin	ND<500
Heptachlor Epoxide	ND<500
Endosulfan I	ND<500
Dieldrin	ND<1000
4,4'-DDE	ND<1000
Endrin	ND<1000
Endosulfan II	ND<1000
4,4'-DDD	ND<1000
Endrin Aldehyde	ND<1000
Endosulfan Sulfate	ND<1000
4,4'-DDT	ND<1000
Methoxychlor	ND<5000
Endrin Ketone	ND<1000
Chlordane	ND<5000
Toxaphene	ND<1000
PCB-1016	ND<5000
PCB-1221	ND<5000
PCB-1232	ND<5000
PCB-1242	ND<5000
PCB-1248	ND<5000
PCB-1254	ND<10,000
PCB-1260	ND<10,000

ND - This compound was not detected; the limit of detection for this analysis is less than the amount stated in the table above.