67731

ORGANICS ANALYSIS DATA SHEET SAMPLE #: CB888

LABORATORY: IT/CERR
LABORATORY ID: 35031F10
MATRIX: WATER

CASE #/SAS #: 5215
QC REPORT #: 6962-245
CONTRACT #: 68-01-6962
DATE RECEIVED: 11/14/85

DATA RELEASE AUTHORIZED BY:

SEMIVOLATILE COMPOUNDS (PAGE 1)

LEVEL:	LOW	GPC	Y_ N X
DATE EXT/PREP:	11/18/85	SEP. FUNNEL	Y_ N X
DATE ANALYZED:	12/13/85	CONT. EXT.	Y X N_
SPL-->EXTRACT:	1L: 2ML		
PH:	Not Analysed		
% MOISTURE (NOT DEC.):			
% MOISTURE (DEC.):			
STANDARD ID:	BNAZ453		
SENSITIVITY ID:	SENS858		
UNITS:	UG/L		

PP #	CAS #		CONC
65A	108-95-2	PHENOL	20. U
18B	111-44-4	BIS (2-CHLOROETHYL) ETHER	20. U
24A	95-57-8	2-CHLOROPHENOL	20. U
26B	541-73-1	1,3-DICHLOROBENZENE	20. U
[redacted]	106-46-7	1,4-DICHLOROBENZENE	20. U
[redacted]	100-51-6	BENZYL ALCOHOL	20. U
[redacted]	95-50-1	1,2-DICHLOROBENZENE	20. U
2H	95-48-7	2-METHYLPHENOL	20. U
42B	39638-32-9	BIS (2-CHLOROISOPROPYL) ETHER	20. U
3H	106-44-5	4-METHYLPHENOL	20. U
63B	621-64-7	N-NITROSO-DI-N-PROPLYAMINE	20. U
12B	67-72-1	HEXACHLOROETHANE	20. U
56B	98-95-3	NITROBENZENE	20. U
54B	78-59-1	ISOPHORONE	20. U
57A	88-75-5	2-NITROPHENOL	20. U
34A	105-67-9	2,4-DIMETHYLPHENOL	20. U
1H	65-85-0	BENZOIC ACID	100. U
43B	111-91-1	BIS (2-CHLOROETHOXY) METHANE	20. U
31A	120-33-2	2,4-DICHLOROPHENOL	20. U
8B	120-82-1	1,2,4-TRICHLOROBENZENE	20. U
55B	91-20-3	NAPHTHALENE	20. U
7H	106-47-8	4-CHLOROANILINE	20. U
52B	87-68-3	HEXACHLOROBUTADIENE	20. U
22A	59-50-7	4-CHLORO-3-METHYLPHENOL	20. U
9H	91-57-6	2-METHYLNAPHTHALENE	20. U
53B	77-47-4	HEXACHLOROCYCLOPENTADIENE	20. U
21A	88-06-2	2,4,6-TRICHLOROPHENOL	20. U
4H	95-95-4	2,4,5-TRICHLOROPHENOL	100. U
20B	91-58-7	2-CHLORONAPHTHALENE	20. U
10H	88-74-4	2-NITROANILINE	100. U
[redacted]	131-11-3	DIMETHYLPHTHALATE	20. U
[redacted]	208-96-8	ACENAPHTHALENE	20. U
11H	99-09-2	3-NITROANILINE	100. U
1B	83-32-9	ACENAPHTHENE	20. U
59A	51-28-5	2,4-DINITROPHENOL	100. U

ORIGINAL (Red)

ORGANICS ANALYSIS DATA SHEET SAMPLE #: CB888

LABORATORY: IT/CERR
LABORATORY ID: 35031F10
MATRIX: WATER

CASE #/SAS #: 5215
QC REPORT #: 6962-245
CONTRACT #: 68-01-6962
DATE RECEIVED: 11/14/85

DATA RELEASE AUTHORIZED BY:

SEMIVOLATILE COMPOUNDS (PAGE 2)

LEVEL:	LOW	GPC	Y_ N X
DATE EXT/PREP:	11/18/85	SEP. FUNNEL	Y_ N X
DATE ANALYZED:	12/13/85	CONT. EXT.	Y X N_
SPL-->EXTRACT:	1L: 2ML		
PH:	Not Analyzed		
% MOISTURE (NOT DEC.):			
% MOISTURE (DEC.):			
STANDARD ID:	BNAZ453		
SENSITIVITY ID:	SENS858		
UNITS:	UG/L		

PP #	CAS #		CONC
58A	100-02-7	4-NITROPHENOL	100. U
8H	132-64-9	DIBENZOFURAN	20. U
35B	121-14-2	2,4-DINITROTOLUENE	20. U
36B	606-20-2	2,6-DINITROTOLUENE	20. U
70B	84-66-2	DIETHYLPHTHALATE	20. U
40B	7005-72-3	4-CHLOROPHENYLPHENYL ETHER	20. U
80B	86-73-7	FLUORENE	20. U
12H	100-01-6	4-NITROANILINE	100. U
60A	534-52-1	4,6-DINITRO-O-CRESOL	100. U
62B	86-30-6	N-NITROSODIPHENYLAMINE	20. U
41B	101-55-3	4-BROMOPHENOXYBENZENE	20. U
9B	118-74-1	HEXACHLOROBENZENE	20. U
64A	87-86-5	PENTACHLOROPHENOL	100. U
81B	85-01-8	PHENANTHRENE	20. U
78B	120-12-7	ANTHRACENE	20. U
68B	84-74-2	DI-N-BUTYLPHTHALATE	20. U
39B	206-44-0	FLUORANTHENE	20. U
84B	129-00-0	PYRENE	20. U
67B	85-68-7	BUTYLBENZYLPHTHALATE	20. U
28B	91-94-1	3,3'-DICHLOROBENZIDINE	40. U
72B	56-55-3	BENZO (A) ANTHRACENE	20. U
66B	117-81-7	BIS (2-ETHYLHEXYL) PHTHALATE	20. U
76B	218-01-9	CHRYSENE	20. U
69B	117-84-0	DI-N-OCTYLPHTHALATE	20. U
74B	205-99-2	BENZO (B & K) FLUORANTHENE	20. U
73B	50-32-8	BENZO (A) PYRENE	20. U
83B	193-39-5	INDENO-1,2,3 (C,D) PYRENE	20. U
82B	53-70-3	DIBENZO (A,H) ANTHRACENE	20. U
79B	191-24-2	BENZO (G,H,I) PERYLENE	20. U

ALL RESULTS ARE REPORTED ON A WET WEIGHT BASIS.

ORIGINAL (Red)

Sample #: CB888 (Hg)

Laboratory: IT/Cerritos
Lab ID: 2319-30
Lab ID for Dil: —
Sample Matrix: Water
Data Release Authorized by: D. Pitt

Case #/SAS #: 5215
QC Report #: 6962-245
Contract #: 68-01-6962
Date Rec'd: 11-14-85

Organics Analysis Data Sheet
Pesticide/PCB's

Sample Level: Low
Date Extracted: 11-16-85
Date Analyzed: 12-3 -85
Spl->Extract: 1l->10ml; 5ml->5ml
For Dilution:
pH: Not Analyzed
% Moisture:
% Moisture (Decanted):
Lab Std ID: 2319-4,5

ALL RESULTS ARE REPORTED ON WET WEIGHT BASIS.

Circle Units: ug/Kg, (ug/L)

319-84-6	alpha-BHC	0.05u
319-85-7	beta-BHC	
319-86-8	delta-BHC	
58-89-9	gamma-BHC (Lindane)	
76-44-8	Heptachlor	
309-00-2	Aldrin	
1024-57-3	Heptachlor Epoxide	
959-98-8	Endosulfan I	
60-57-1	Dieldrin	0.1u
72-55-9	4,4'-DDE	
72-20-8	Endrin	
33213-65-9	Endosulfan II	
72-54-8	4,4'-DDD	
1031-07-8	Endosulfan Sulfate	
50-29-3	4,4'-DDT	
72-43-5	Methoxychlor	0.5u
53494-70-5	Endrin Ketone	0.1u
57-74-9	Chlordane	0.5u
8001-35-2	Toxaphene	1u
12674-11-2	Arochlor-1016	0.5u
11104-28-2	Arochlor-1221	
11141-16-5	Arochlor-1232	
53469-21-9	Arochlor-1242	
12672-29-6	Arochlor-1248	
11097-69-1	Arochlor-1254	1u
11096-82-5	Arochlor-1260	

U - Analyzed for but not detected (Reported Value is Detection Limit-DL)
J - Estimated Value (0 < Value < DL)
C - Confirmed by GC/MS-GC Quantitation
B - Compound found in Blank. Sample results are not Blank Corrected.
** - Detected below GC/MS DL-GC Quantitation
N - Not Confirmed by GC/MS-GC/MS DL
NA - Not Analyzed
NR - Not Reported

V_i = Volume of extract injected (ul)
V_s = Volume of water extracted (ml)
W_s = Weight of sample extracted (g)
V_t = Volume of total extract (ul)

V_s 1000 ml or
W_s — g
V_t 10,000 ul
V_i 5 ul

ORIGINAL (Red)

Surrogate Spike Recoveries — Circle Units: ug/Kg, (ug/L)

Lab ID	Fraction	Compound	Conc. Sample	Conc. Spiked	% Recovery
2319-30	Pest.	Dibutyl Chlorendate	0.56	1.0	56

* - Asterisked Values are outside QC Limits. NS - Not Spiked
\# - _____ Recoveries due to Dilution.
s - _____ Recoveries due to Matrix Effects.

Rev 8/85

Sample Number
CC695
699

MA 6 1

Organics Analysis Data Sheet
(Page 1)

Laboratory Name: Radian
Case No: 5215
Lab Sample ID No: 4EU110885V06
QC Report No: 87
Sample Matrix: soil
Contract No: 68-01-6853
Data Release Authorized By: K. Ghelardini
Date Sample Received: 11/14/85

Volatile Compounds

Concentration: (Low) Medium (Circle One)
Date Extracted/Prepared: 11/20/85
Date Analyzed: 11/20/85
Conc/Dil Factor: 1 pH 6.0
Percent Moisture: (Not Decanted) 20%

CAS Number		ug/l or ug/Kg (Circle One)
74-87-3	Chloromethane	10U
74-83-9	Bromomethane	10U
75-01-4	Vinyl Chloride	10U
75-00-3	Chloroethane	10U
75-09-2	Methylene Chloride	5J B
67-64-1	Acetone	54 B
75-15-0	Carbon Disulfide	5U
75-35-4	1, 1-Dichloroethene	5U
75-34-3	1, 1-Dichloroethane	5U
156-60-5	Trans-1, 2-Dichloroethene	5U
67-66-3	Chloroform	5U
107-06-2	1, 2-Dichloroethane	5U
78-93-3	2-Butanone	10J B
71-55-6	1, 1, 1-Trichloroethane	5U
56-23-5	Carbon Tetrachloride	5U
108-05-4	Vinyl Acetate	10U
75-27-4	Bromodichloromethane	5U

CAS Number		ug/l or ug/Kg (Circle One)
78-87-5	1, 2-Dichloropropane	5U
10061-02-6	Trans-1, 3-Dichloropropene	5U
79-01-6	Trichloroethene	5U
124-48-1	Dibromochloromethane	5U
79-00-5	1, 1, 2-Trichloroethane	5U
71-43-2	Benzene	5U
10061-01-5	cis-1, 3-Dichloropropene	5U
110-75-8	2-Chloroethylvinylether	10U
75-25-2	Bromoform	5U
108-10-1	4-Methyl-2-Pentanone	10U
591-78-6	2-Hexanone	10U
127-18-4	Tetrachloroethene	5U
79-34-5	1, 1, 2, 2-Tetrachloroethane	5U
108-88-3	Toluene	5U
108-90-7	Chlorobenzene	5U
100-41-4	Ethylbenzene	5U
100-42-5	Styrene	5U
	Total Xylenes	5U

ORIGINAL (Red)

Data Reporting Qualifiers

For reporting results to EPA, the following results qualifiers are used. Additional flags or footnotes explaining results are encouraged. However, the definition of each flag must be explicit.

Value. If the result is a value greater than or equal to the detection limit, report the value

U Indicates compound was analyzed for but not detected. Report the minimum detection limit for the sample with the U (e.g., 10U) based on necessary concentration/dilution action. (This is not necessarily the instrument detection limit.) The footnote should read U-Compound was analyzed for but not detected. The number is the minimum attainable detection limit for the sample

J Indicates an estimated value. This flag is used either when estimating a concentration for tentatively identified compounds where a 1:1 response is assumed or when the mass spectral data indicated the presence of a compound that meets the identification criteria but the result is less than the specified detection limit but greater than zero (e.g., 10J). If limit of detection is 10 µg/l and a concentration of 3 µg/l is calculated, report as 3J

C This flag applies to pesticide parameters where the identification has been confirmed by GC-MS. Single component pesticides ≥10 ng/ul in the final extract should be confirmed by GC-MS

B This flag is used when the analyte is found in the blank as well as a sample. It indicates possible/probable blank contamination and warns the data user to take appropriate action

Other Other specific flags and footnotes may be required to properly define the results. If used, they must be fully described and such description attached to the data summary report

Laboratory Name: Radian

Case No: 5215

Sample Number: CC-695 690

Organics Analysis Data Sheet
(Page 2)

Semivolatile Compounds

Concentration: (Low) Medium (Circle One)

Date Extracted/Prepared: 11-18-85

Date Analyzed: 11-22-85

Conc/Dil Factor: 29.98g/1ml

Percent Moisture (Decanted): 20

GPC Cleanup ☐Yes ☑No

Separatory Funnel Extraction ☐Yes

Continuous Liquid - Liquid Extraction ☑Yes

CAS Number		ug/l or (ug/Kg) (Circle One)
108-95-2	Phenol	330U
11-44-4	bis(2-Chloroethyl)Ether	330U
5-57-8	2-Chlorophenol	330U
541-73-1	1 3-Dichlorobenzene	330U
06-46-7	1 4-Dichlorobenzene	330U
00-51-6	Benzyl Alcohol	330U
95-50-1	1 2-Dichlorobenzene	330U
95-	2-Methylphenol	330U
2-9	bis(2-chloroisopropyl)Ether	330U
106-44-5	4-Methylphenol	330U
621-64-7	N-Nitroso-Di-n-Propylamine	330U
7-72-1	Hexachloroethane	330U
98-95-3	Nitrobenzene	330U
78-59-1	Isophorone	330U
8-75-5	2-Nitrophenol	330U
105-67-9	2 4-Dimethylphenol	330U
65-85-0	Benzoic Acid	1600U
1-91-1	bis(2-Chloroethoxy)Methane	330U
120-83-2	2 4-Dichlorophenol	330U
120-82-1	1 2 4-Trichlorobenzene	330U
-20-3	Naphthalene	330U
06-47-8	4-Chloroaniline	330U
87-68-3	Hexachlorobutadiene	330U
-50-7	4-Chloro-3-Methylphenol	330U
-57-6	2-Methylnaphthalene	330U
77-47-4	Hexachlorocyclopentadiene	330U
-06-2	2 4 6-Trichlorophenol	330U
-95-4	2 4 5-Trichlorophenol	1600U
91-58-7	2-Chloronaphthalene	330U
-74-4	2-Nitroaniline	1600U
-3	Dimethyl Phthalate	330U
20	Acenaphthylene	330U
9 -09-2	3-Nitroaniline	1600U

CAS Number		ug/l or (ug/Kg) (Circle One)
83-32-9	Acenaphthene	330U
51-28-5	2 4-Dinitrophenol	1600U
100-02-7	4-Nitrophenol	1600U
132-64-9	Dibenzofuran	330U
121-14-2	2 4-Dinitrotoluene	330U
606-20-2	2 6-Dinitrotoluene	330U
84-66-2	Diethylphthalate	330U
7005-72-3	4-Chlorophenyl-phenylether	330U
86-73-7	Fluorene	330U
100-01-6	4-Nitroaniline	1600U
534-52-1	4 6-Dinitro-2-Methylphenol	1600U
86-30-6	N-Nitrosodiphenylamine (1)	330U
101-55-3	4-Bromophenyl-phenylether	330U
118-74-1	Hexachlorobenzene	330U
87-86-5	Pentachlorophenol	1600U
85-01-8	Phenanthrene	330U
120-12-7	Anthracene	330U
84-74-2	Di-n-Butylphthalate	2400B
206-44-0	Fluoranthene	330U
129-00-0	Pyrene	330U
85-68-7	Butylbenzylphthalate	330U
91-94-1	3 3'-Dichlorobenzidine	660U
56-55-3	Benzo(a)Anthracene	330U
117-81-7	bis(2-Ethylhexyl)Phthalate	330 J B
218-01-9	Chrysene	330U
117-84-0	Di-n-Octyl Phthalate	330U
205-99-2	Benzo(b)Fluoranthene	330U
207-08-9	Benzo(k)Fluoranthene	330U
50-32-8	Benzo(a)Pyrene	330U
193-39-5	Indeno(1 2 3-cd)Pyrene	330U
53-70-3	Dibenz(a h)Anthracene	330U
191-24-2	Benzo(g h i)Perylene	330U
122-66-7	1 2-Diphenylhydrazine	330J

(1)-Cannot be separated from diphenylamine

ORIGINAL (Red)

691

Laboratory Name: RADIAN

Case No: 5215

Sample Number
CC695

Organics Analysis Data Sheet
(Page 3)

Pesticide/PCBs

Concentration: (Low) Medium (Circle One)

Date Extracted/Prepared: 11-18-85

Date Analyzed: 11-25-85

Conc/Dil Factor: 29.98g/5.0mL

CAS Number		ug/l or (ug/Kg) (Circle One)
319-84-6	Alpha-BHC	1.6 U
319-85-7	Beta-BHC	1.6 U
319-86-8	Delta-BHC	1.6 U
58-89-9	Gamma-BHC (Lindane)	1.6 U
76-44-8	Heptachlor	1.6 U
309-00-2	Aldrin	1.6 U
1024-57-3	Heptachlor Epoxide	1.6 U
959-98-8	Endosulfan I	1.6 U
60-57-1	Dieldrin	1.6 U
72-55-9	4,4'-DDE	1.6 U
72-20-8	Endrin	1.6 U
33213-65-9	Endosulfan II	4.9 U
72-54-8	4,4'-DDD	1.6 U
7421-93-4	Endrin Aldehyde	3.2 U
1031-07-8	Endosulfan Sulfate	8.0 U
50-29-3	4,4'-DDT	3.2 U
72-43-5	Methoxychlor	8.0 U
53494-70-5	Endrin Ketone	8.0 U
57-74-9	Chlordane	40.0 U
8001-35-2	Toxaphene	80.0 U
12674-11-2	Aroclor-1016	25.0 U
11104-28-2	Aroclor-1221	40.0 U
11141-16-5	Aroclor-1232	40.0 U
53469-21-9	Aroclor-1242	25.0 U
12672-29-6	Aroclor-1248	25.0 U
11097-69-1	Aroclor-1254	40.0 U
11096-82-5	Aroclor-1260	40.0 U

V_i = volume of extract injected (ul)

V_s = Volume of water extracted (ml)

W_s = Weight of sample extracted (g)

V_t = Volume of total extract (ul)

V_s ——— or W_s 29.98 V_t 5000 V_i 2.00

ORIGINAL (red)

Sample Number
CC696

M.d Co 3

Organics Analysis Data Sheet
(Page 1)

[illegible]tory Name: Radian — Case No: 5215 725
Lab Sample ID No: 4EU11085V04 — QC Report No: 87
Sample Matrix: soil — Contract No: 68-01-6853
Data Release Authorized By: K Shilendneu — Date Sample Received: 11-14-85

Volatile Compounds

Concentration: (Low) Medium (Circle One)
Date Extracted/Prepared: 11/19/85
Date Analyzed: 11/19/85
Conc/Dil Factor: 1 pH 6.7
Percent Moisture: (Not Decanted) 19%

CAS Number		ug/l or (ug/Kg) (Circle One)
74-87-3	Chloromethane	10U
74-83-9	Bromomethane	10U
75-01-4	Vinyl Chloride	10U
75-00-3	Chloroethane	10U
75-[illegible]-2	Methylene Chloride	5J B
[illegible]1	Acetone	10J B
75-15-0	Carbon Disulfide	5U
75-35-4	1, 1-Dichloroethene	5U
75-34-3	1, 1-Dichloroethane	5U
156-60-5	Trans-1, 2-Dichloroethene	5U
67-66-3	Chloroform	5U
107-06-2	1, 2-Dichloroethane	5U
78-93-3	2-Butanone	10J B
71-55-6	1, 1, 1-Trichloroethane	5U
56-23-5	Carbon Tetrachloride	5U
08-05-4	Vinyl Acetate	10U
75-27-4	Bromodichloromethane	5U

CAS Number		ug/l or (ug/Kg) (Circle One)
78-87-5	1, 2-Dichloropropane	5U
10061-02-6	Trans-1, 3-Dichloropropene	5U
79-01-6	Trichloroethene	5U
124-48-1	Dibromochloromethane	5U
79-00-5	1, 1, 2-Trichloroethane	5U
71-43-2	Benzene	5U
10061-01-5	cis-1, 3-Dichloropropene	5U
110-75-8	2-Chloroethylvinylether	10U
75-25-2	Bromoform	5U
108-10-1	4-Methyl-2-Pentanone	10U
591-78-6	2-Hexanone	10U
127-18-4	Tetrachloroethene	5U
79-34-5	1, 1, 2, 2-Tetrachloroethane	5U
108-88-3	Toluene	5U
108-90-7	Chlorobenzene	5U
100-41-4	Ethylbenzene	5U
100-42-5	Styrene	5U
	Total Xylenes	5U

ORIGINAL (Red)

Data Reporting Qualifiers

For reporting results to EPA, the following results qualifiers are used. Additional flags or footnotes explaining results are encouraged. However, the definition of each flag must be explicit.

Value If the result is a value greater than or equal to the detection limit, report the value

U Indicates compound was analyzed for but not detected. Report the minimum detection limit for the sample with the U (e.g., 10U) based on necessary concentration/dilution action. (This is not necessarily the instrument detection limit.) The footnote should read: U-Compound was analyzed for but not detected. The number is the minimum attainable detection limit for the sample

[illegible] Indicates an estimated value. This flag is used either when estimating a concentration for tentatively identified compounds where a 1:1 response is assumed or when the mass spectral data indicated the presence of a compound that meets the identification criteria but the result is less than the specified detection limit but greater than zero (e.g., 10J). If limit of detection is 10 μg/l and a concentration of 3 μg/l is calculated, report as 3J

C This flag applies to pesticide parameters where the identification has been confirmed by GC/MS. Single component pesticides ≥10 ng/ul in the final extract should be confirmed by GC/MS

B This flag is used when the analyte is found in the blank as well as a sample. It indicates possible/probable blank contamination and warns the data user to take appropriate action

Other Other specific flags and footnotes may be required to properly define the results. If used, they must be fully described and such description attached to the data summary report

AR100436

Laboratory Name Radian

Case No: 5215

Sample Number CC-696

726

Organics Analysis Data Sheet
(Page 2)

Semivolatile Compounds

Concentration: (Low) Medium (Circle One)

Date Extracted/Prepared: 11-18-85

Date Analyzed: 11-22-85

Conc/Dil Factor: 30.2g/ml

Percent Moisture (Decanted) 19

GPC Cleanup ☐Yes ☒No

Separatory Funnel Extraction ☐Yes

Continuous Liquid - Liquid Extraction ☒Yes

CAS Number		ug/l or (ug/Kg) (Circle One)
108-95-2	Phenol	330 J
111-44-4	bis(-2-Chloroethyl)Ether	330U
95-57-8	2-Chlorophenol	330U
541-73-1	1 3-Dichlorobenzene	330U
106-46-7	1 4-Dichlorobenzene	330U
100-51-6	Benzyl Alcohol	330U
95-50-1	1 2-Dichlorobenzene	330U
95-48-7	2-Methylphenol	330U
9638-32-9	bis(2-chloroisopropyl)Ether	330U
106-44-5	4-Methylpheno	330U
621-64-7	N-Nitroso-Di-n-Propylamine	330U
67-72-1	Hexachloroethane	330U
98-95-3	Nitrobenzene	330U
78-59-1	Isophorone	330U
88-75-5	2-Nitrophenol	330U
105-67-9	2. 4-Dimethylphenol	330U
65-85-0	Benzoic Acid	1600U
111-91-1	bis(-2-Chloroethoxyl)Methane	330U
120-83-2	2, 4-Dichlorophenol	330U
120-82-1	1, 2, 4-Trichlorobenzene	330U
91-20-3	Naphthalene	330U
106-47-8	4-Chloroaniline	330U
87-68-3	Hexachlorobutadiene	330U
59-50-7	4-Chloro-3-Methylphenol	330U
91-57-6	2-Methylnaphthalene	330U
77-47-4	Hexachlorocyclopentadiene	330U
88-06-2	2 4 6-Trichlorophenol	330U
95-95-4	2 4 5-Trichlorophenol	1600U
91-58-7	2-Chloronaphthalene	330U
88-74-4	2-Nitroaniline	1600U
131-11-3	Dimethyl Phthalate	330U
208-96-8	Acenaphthylene	330U
99-09-2	3-Nitroaniline	1600U

CAS Number		ug/l or (ug/Kg) (Circle One)
83-32-9	Acenaphthene	330U
51-28-5	2. 4-Dinitrophenol	1600U
100-02-7	4-Nitrophenol	1600U
132-64-9	Dibenzofuran	330U
121-14-2	2 4-Dinitrotoluene	330U
606-20-2	2 6-Dinitrotoluene	330U
84-66-2	Diethylphthalate	330U
7005-72-3	4-Chlorophenyl-phenylether	330U
86-73-7	Fluorene	330U
100-01-6	4-Nitroaniline	1600U
534-52-1	4 6-Dinitro-2-Methylphenol	1600U
86-30-6	N-Nitrosodiphenylamine (1)	330U
101-55-3	4-Bromophenyl-phenylether	330U
118-74-1	Hexachlorobenzene	330U
87-86-5	Pentachlorophenol	1600U
85-01-8	Phenanthrene	330U
120-12-7	Anthracene	330U
84-74-2	Di-n-Butylphthalate	760 B
206-44-0	Fluoranthene	330U
129-00-0	Pyrene	330U
85-68-7	Butylbenzylphthalate	330U
91-94-1	3. 3'-Dichlorobenzidine	660U
56-55-3	Benzo(a)Anthracene	330U
117-81-7	bis(2-Ethylhexyl)Phthalate	330 J B
218-01-9	Chrysene	330U
117-84-0	Di-n-Octyl Phthalate	330U
205-99-2	Benzo(b)Fluoranthene	330U
207-08-9	Benzo(k)Fluoranthene	330U
50-32-8	Benzo(a)Pyrene	330U
193-39-5	Indeno(1. 2. 3-cd)Pyrene	330U
53-70-3	Dibenz(a. h)Anthracene	330U
191-24-2	Benzo(g. h. i)Perylene	330U
122-66-7	1.2-Diphenylhydrazine	330J

(1)-Cannot be separated from diphenylamine

ORIGINAL (RED)

Laboratory Name: RADIAN

Case No: 5215

727

Sample Number
CC 696

Organics Analysis Data Sheet
(Page 3)

Pesticide/PCBs

Concentration: (Low) Medium (Circle One)

Date Extracted/Prepared: 11-18-85

Date Analyzed: 11-25-85

Conc/Dil Factor: 30.21g/5.0ml

CAS Number		ug/l or (ug/Kg) (Circle One)
319-84-6	Alpha-BHC	1.6 u
319-85-7	Beta-BHC	1.6 u
319-86-8	Delta-BHC	1.6 u
58-89-9	Gamma-BHC (Lindane)	1.6 u
76-44-8	Heptachlor	1.6 u
309-00-2	Aldrin	1.6 u
1024-57-3	Heptachlor Epoxide	1.6 u
959-98-8	Endosulfan I	1.6 u
60-57-1	Dieldrin	1.6 u
72-55-9	4,4'-DDE	1.6 u
72-20-8	Endrin	1.6 u
33213-65-9	Endosulfan II	4.9 u
72-54-8	4,4'-DDD	1.6 u
7421-93-4	Endrin Aldehyde	3.2 u
1031-07-8	Endosulfan Sulfate	9.8 u
50-29-3	4,4'-DDT	3.2 u
72-43-5	Methoxychlor	9.8 u
53494-70-5	Endrin Ketone	9.8 u
57-74-9	Chlordane	48.8 u
8001-35-2	Toxaphene	98.8 u
12674-11-2	Aroclor-1016	25.8 u
11104-28-2	Aroclor-1221	48.8 u
11141-16-5	Aroclor-1232	48.8 u
53469-21-9	Aroclor-1242	25.8 u
12672-29-6	Aroclor-1248	25.8 u
11097-69-1	Aroclor-1254	48.8 u
11096-82-5	Aroclor-1260	48.8 u

V_i = volume of extract injected (ul)

V_s = Volume of water extracted (ml)

W_s = Weight of sample extracted (g)

V_t = Volume of total extract (ul)

V_s ____ or W_s 30.21 V_t 5000 V_i 2.00

ORIGINAL PAGE

Excavated material

Sample Number
CB893

Organics Analysis Data Sheet
(Page 1)

541

Laboratory Name: Radian
Lab Sample ID No: 4EU11085V02
Sample Matrix: soil
Data Release Authorized By: K. Thalderman

Case No: 5215
QC Report No: 87
Contract No: 68-01-6853
Date Sample Received: 11/14/85

Volatile Compounds

Concentration: (Low) Medium (Circle One)
Date Extracted/Prepared: 11/19/85
Date Analyzed: 11/19/85
Conc/Dil Factor: 1 pH 7.0
Percent Moisture: (Not Decanted) 21%

CAS Number		ug/l or ug/Kg (Circle One)
74-87-3	Chloromethane	10U
74-83-9	Bromomethane	10U
75-01-4	Vinyl Chloride	10U
75-00-3	Chloroethane	10U
75-09-2	Methylene Chloride	5 B
67-64-1	Acetone	43 B
75-15-0	Carbon Disulfide	5U
75-35-4	1, 1-Dichloroethene	5U
75-34-3	1, 1-Dichloroethane	5U
156-60-5	Trans-1, 2-Dichloroethene	5U
67-66-3	Chloroform	5U
107-06-2	1, 2-Dichloroethane	5U
78-93-3	2-Butanone	10 B
71-55-6	1, 1, 1-Trichloroethane	5U
56-23-5	Carbon Tetrachloride	5U
108-05-4	Vinyl Acetate	10U
75-27-4	Bromodichloromethane	5U

CAS Number		ug/l or ug/Kg (Circle One)
78-87-5	1, 2-Dichloropropane	5U
10061-02-6	Trans-1, 3-Dichloropropene	5U
79-01-6	Trichloroethene	5U
124-48-1	Dibromochloromethane	5U
79-00-5	1, 1, 2-Trichloroethane	5U
71-43-2	Benzene	5J
10061-01-5	cis-1, 3-Dichloropropene	5U
110-75-8	2-Chloroethylvinylether	10U
75-25-2	Bromoform	5U
108-10-1	4-Methyl-2-Pentanone	10U
591-78-6	2-Hexanone	10U
127-18-4	Tetrachloroethene	5U
79-34-5	1, 1, 2, 2-Tetrachloroethane	5U
108-88-3	Toluene	5J
108-90-7	Chlorobenzene	5U
100-41-4	Ethylbenzene	5U
100-42-5	Styrene	5U
	Total Xylenes	5U

Data Reporting Qualifiers

For reporting results to EPA, the following results qualifiers are used. Additional flags or footnotes explaining results are encouraged However, the definition of each flag must be explicit.

Value If the result is a value greater than or equal to the detection limit, report the value

U Indicates compound was analyzed for but not detected Report the minimum detection limit for the sample with the U (e g . 10U) based on necessary concentration/dilution action (This is not necessarily the instrument detection limit) The footnote should read U- Compound was analyzed for but not detected The number is the minimum attainable detection limit for the sample

J Indicates an estimated value This flag is used either when estimating a concentration for tentatively identified compounds where a 1 1 response is assumed or when the mass spectral data indicated the presence of a compound that meets the identification criteria but the result is less than the specified detection limit but greater than zero (e g . 10J) If limit of detection is 10 µg/l and a concentration of 3 µg/l is calculated, report as 3J

C This flag applies to pesticide parameters where the identification has been confirmed by GC-MS Single component pesticides ≥10 ng ul in the final extract should be confirmed by GC MS

B This flag is used when the analyte is found in the blank as well as a sample It indicates possible probable blank contamination and warns the data user to take appropriate action

Other Other specific flags and footnotes may be required to properly define the results If used, they must be fully described and such description attached to the data summary report

Laboratory Name: Radian

Case No: 5215

Sample Number: CB 893 542

Organics Analysis Data Sheet
(Page 2)

Semivolatile Compounds

Concentration: (Low) Medium (Circle One)

Date Extracted/Prepared: 11-18-85

Date Analyzed: 11-22-85

Conc/Dil Factor: 30.4g/1ml

Percent Moisture (Decanted) 21

GPC Cleanup ☐Yes ☑No

Separatory Funnel Extraction ☐Yes

Continuous Liquid - Liquid Extraction ☑Yes

CAS Number		ug/l or (ug/Kg) (Circle One)
108-95-2	Phenol	330U
11-44-4	bis(-2-Chloroethyl)Ether	330U
5-57-8	2-Chlorophenol	330U
541-73-1	1 3-Dichlorobenzene	330U
06-46-7	1 4-Dichlorobenzene	330U
00-51-6	Benzyl Alcohol	330U
95-50-1	1 2-Dichlorobenzene	330U
	2-Methylphenol	330U
32-9	bis(2-chloroisopropyl)Ether	330U
106-44-5	4-Methylpheno	330U
21-64-7	N-Nitroso-Di-n-Propylamine	330U
7-72-1	Hexachloroethane	330U
98-95-3	Nitrobenzene	330U
3-59-1	Isophorone	330U
3-75-5	2-Nitrophenol	330U
105-67-9	2, 4-Dimethylphenol	330U
5-85-0	Benzoic Acid	1600U
1-91-1	bis(-2-Chloroethoxy)Methane	330U
120-83-2	2, 4-Dichlorophenol	330U
20-82-1	1, 2, 4-Trichlorobenzene	330U
-20-3	Naphthalene	330U
106-47-8	4-Chloroaniline	330U
87-68-3	Hexachlorobutadiene	330U
-50-7	4-Chloro-3-Methylphenol	330U
91-57-6	2-Methylnaphthalene	330U
77-47-4	Hexachlorocyclopentadiene	330U
-06-2	2, 4, 6-Trichlorophenol	330U
95-95-4	2, 4, 5-Trichlorophenol	1600U
91-58-7	2-Chloronaphthalene	330U
-74-4	2-Nitroaniline	1600U
	Dimethyl Phthalate	330U
208	Acenaphthylene	330U
09-2	3-Nitroaniline	1600U

CAS Number		ug/l or (ug/Kg) (Circle One)
83-32-9	Acenaphthene	330U
51-28-5	2, 4-Dinitrophenol	1600U
100-02-7	4-Nitrophenol	1600U
132-64-9	Dibenzofuran	330U
121-14-2	2 4-Dinitrotoluene	330U
606-20-2	2 6-Dinitrotoluene	330U
84-66-2	Diethylphthalate	330U
7005-72-3	4-Chlorophenyl-phenylether	330U
86-73-7	Fluorene	330U
100-01-6	4-Nitroaniline	1600U
534-52-1	4 6-Dinitro-2-Methylphenol	1600U
86-30-6	N-Nitrosodiphenylamine (1)	330U
101-55-3	4-Bromophenyl-phenylether	330U
118-74-1	Hexachlorobenzene	330U
87-86-5	Pentachlorophenol	1600U
85-01-8	Phenanthrene	330 J
120-12-7	Anthracene	330U
84-74-2	Di-n-Butylphthalate	2800 B
206-44-0	Fluoranthene	330 J
129-00-0	Pyrene	330 J
85-68-7	Butylbenzylphthalate	330 J
91-94-1	3, 3'-Dichlorobenzidine	660U
56-55-3	Benzo(a)Anthracene	330U
117-81-7	bis(2-Ethylhexyl)Phthalate	330 J B
218-01-9	Chrysene	330 J
117-84-0	Di-n-Octyl Phtnalate	330U
205-99-2	Benzo(b)Fluoranthene	330U
207-08-9	Benzo(k)Fluoranthene	330U
50-32-8	Benzo(a)Pyrene	330 J
193-39-5	Indeno(1, 2, 3-cd)Pyrene	330U
53-70-3	Dibenz(a, h)Anthracene	330U
191-24-2	Benzo(g, h, i)Perylene	330U
122-66-7	1,2-Diphenylhydrazine	330 J

(1)-Cannot be separated from Diphenylamine

AR100440

Laboratory Name: RADIAN

Case No: 5215

Sample Number
CB893

Organics Analysis Data Sheet
(Page 3)

Pesticide/PCBs

Concentration: (Low) Medium (Circle One)

Date Extracted/Prepared: 11-18-95

Date Analyzed: 11-25-95

Conc/Dil Factor: 30.40g/5.0ml

CAS Number		ug/l or (ug/Kg) (Circle One)
319-84-6	Alpha-BHC	1.6 U
319-85-7	Beta-BHC	1.6 U
319-86-8	Delta-BHC	1.6 U
58-89-9	Gamma-BHC (Lindane)	1.6 U
76-44-8	Heptachlor	1.6 U
309-00-2	Aldrin	1.6 U
1024-57-3	Heptachlor Epoxide	1.6 U
959-98-8	Endosulfan I	1.6 U
60-57-1	Dieldrin	1.6 U
72-55-9	4, 4'-DDE	1.6 U
72-20-8	Endrin	1.6 U
33213-65-9	Endosulfan II	4.9 U
72-54-8	4, 4'-DDD	1.6 U
7421-93-4	Endrin Aldehyde	3.2 U
1031-07-8	Endosulfan Sulfate	8.0 U
50-29-3	4, 4'-DDT	3.2 U
72-43-5	Methoxychlor	8.0 U
53494-70-5	Endrin Ketone	8.0 U
57-74-9	Chlordane	40.0 U
8001-35-2	Toxaphene	80.0 U
12674-11-2	Aroclor-1016	25.0 U
11104-28-2	Aroclor-1221	40.0 U
11141-16-5	Aroclor-1232	40.0 U
53469-21-9	Aroclor-1242	25.0 U
12672-29-6	Aroclor-1248	25.0 U
11097-69-1	Aroclor-1254	40.0 U
11096-82-5	Aroclor-1260	40.0 U

V_i = volume of extract injected (ul)

V_s = Volume of water extracted (ml)

W_s = Weight of sample extracted (g)

V_t = Volume of total extract (ul)

V_s _____ or W_s 30.40 V_t 5000 V_i 2.00

ORIGINAL (red)

Sample Number
CC699

B-1

Organics Analysis Data Sheet
(Page 1)

932

[redacted]tory Name: Radian
Case No: 5215

Lab Sample ID No: 4EU1108SV07
QC Report No: 87

Sample Matrix: soil
Contract No: 68-01-6853

Data Release Authorized By: K. Shendrick
Date Sample Received: 11/14/85

Volatile Compounds

Concentration: (Low) Medium (Circle One)
Date Extracted/Prepared: 11/20/85
Date Analyzed: 11/20/85
Conc/Dil Factor: 1 pH 7.4
Percent Moisture: (Not Decanted) 14%

CAS Number		ug/l or ug/Kg (Circle One)
74-87-3	Chloromethane	10U
74-83-9	Bromomethane	10U
75-01-4	Vinyl Chloride	10U
75-00-3	Chloroethane	10U
75-09-2	Methylene Chloride	5J B
[redacted]1	Acetone	12 B
75-15-0	Carbon Disulfide	5U
75-35-4	1, 1-Dichloroethene	5U
75-34-3	1, 1-Dichloroethane	5U
156-60-5	Trans-1, 2-Dichloroethene	5U
67-66-3	Chloroform	5U
107-06-2	1, 2-Dichloroethane	5U
78-93-3	2-Butanone	10 B
71-55-6	1, 1, 1-Trichloroethane	5U
56-23-5	Carbon Tetrachloride	5U
108-05-4	Vinyl Acetate	10U
75-27-4	Bromodichloromethane	5U

CAS Number		ug/l or ug/Kg (Circle One)
78-87-5	1, 2-Dichloropropane	5U
10061-02-6	Trans-1, 3-Dichloropropene	5U
79-01-6	Trichloroethene	5U
124-48-1	Dibromochloromethane	5U
79-00-5	1, 1, 2-Trichloroethane	5U
71-43-2	Benzene	5J
10061-01-5	cis-1, 3-Dichloropropene	5U
110-75-8	2-Chloroethylvinylether	10U
75-25-2	Bromoform	5U
108-10-1	4-Methyl-2-Pentanone	10U
591-78-6	2-Hexanone	10U
127-18-4	Tetrachloroethene	5U
79-34-5	1, 1, 2, 2-Tetrachloroethane	5U
108-88-3	Toluene	5J
108-90-7	Chlorobenzene	5U
100-41-4	Ethylbenzene	5U
100-42-5	Styrene	5U
	Total Xylenes	5U

ORIGINAL (Red)

Data Reporting Qualifiers

For reporting results to EPA, the following results qualifiers are used. Additional flags or footnotes explaining results are encouraged. However, the definition of each flag must be explicit.

Value If the result is a value greater than or equal to the detection limit, report the value

J Indicates compound was analyzed for but not detected Report the minimum detection limit for the sample with the U (e g , 10U) based on necessary concentration/dilution action (This is not necessarily the instrument detection limit) The footnote should read U: Compound was analyzed for but not detected. The number is the minimum attainable detection limit for the sample

[redacted] Indicates an estimated value This flag is used either when estimating a concentration for tentatively identified compounds where a 1 1 response is assumed or when the mass spectral data indicated the presence of a compound that meets the identification criteria but the result is less than the specified detection limit but greater than zero (e g , 10J) If limit of detection is 10 µg/l and a concentration of 3 µg/l is calculated, report as 3J

C This flag applies to pesticide parameters where the identification has been confirmed by GC MS Single component pesticides ≥10 ng ul in the final extract should be confirmed by GC MS

B This flag is used when the analyte is found in the blank as well as a sample It indicates possible probable blank contamination and warns the data user to take appropriate action

Other Other specific flags and footnotes may be required to properly define the results If used, they must be fully described and such description attached to the data summary report

boratory Name Radian

No: 5215

Sample Number
CC699

933

Organics Analysis Data Sheet
(Page 2)

Semivolatile Compounds

entration: (Low) Medium (Circle One)

ate Extracted/Prepared: 11-18-85

a Analyzed: 11-22-85

o../Dil Factor: 8.14g/5ml

e--ent Moisture (Decanted) 14

GPC Cleanup ☐Yes ☑No

Separatory Funnel Extraction ☐Yes

Continuous Liquid - Liquid Extraction ☑Yes

CAS Number		ug/l or (ug/Kg) (Circle One)
108-95-2	Phenol	7100 u
1 -44-4	bis(-2-Chloroethyl)Ether	7100 u
95-57-8	2-Chlorophenol	7100 u
541-73-1	1 3-Dichlorobenzene	7100 u
1 -46-7	1 4-Dichlorobenzene	7100 u
100-51-6	Benzyl Alcohol	7100 u
95-50-1	1 2-Dichlorobenzene	7100 u
9 48-7	2-Methylphenol	7100 u
3 338-32-9	bis(2-chloroisopropyl)Ether	7100 u
106-44-5	4-Methylpheno	7100 u
6 1-64-7	N-Nitroso-Di-n-Propylamine	7100 u
6 -72-1	Hexachloroethane	7100 u
98-95-3	Nitrobenzene	7100 u
-59-1	Isophorone	7100 u
-75-5	2-Nitrophenol	7100 u
105-67-9	2, 4-Dimethylphenol	7100 u
-85-0	Benzoic Acid	36000 u
1-91-1	bis(-2-Chloroethoxy)Methane	7100 u
120-83-2	2, 4-Dichlorophenol	7100 u
0-82-1	1, 2, 4-Trichlorobenzene	7100 u
-20-3	Naphthalene	7100 u
106-47-8	4-Chloroaniline	7100 u
-68-3	Hexachlorobutadiene	7100 u
-50-7	4-Chloro-3-Methylphenol	7100 u
91-57-6	2-Methylnaphthalene	7100 u
-47-4	Hexachlorocyclopentadiene	7100 u
-06-2	2 4 6-Trichlorophenol	7100 u
95-95-4	2, 4 5-Trichlorophenol	36000 u
-58-7	2-Chloronaphthalene	7100 u
-74-4	2-Nitroaniline	36000 u
131-11-3	Dimethyl Phthalate	7100 u
08-96-8	Acenaphthylene	7100 u
-09-2	3-Nitroaniline	36000 u

CAS Number		ug/l or (ug/Kg) (Circle One)
83-32-9	Acenaphthene	7100 u
51-28-5	2, 4-Dinitrophenol	36000 u
100-02-7	4-Nitrophenol	36000 u
132-64-9	Dibenzofuran	7100 u
121-14-2	2 4-Dinitrotoluene	7100 u
606-20-2	2 6-Dinitrotoluene	7100 u
84-66-2	Diethylphthalate	7100 u
7005-72-3	4-Chlorophenyl-phenylether	7100 u
86-73-7	Fluorene	7100 u
100-01-6	4-Nitroaniline	36000 u
534-52-1	4, 6-Dinitro-2-Methylphenol	36000 u
86-30-6	N-Nitrosodiphenylamine (1)	7100 u
101-55-3	4-Bromophenyl-phenylether	7100 u
118-74-1	Hexachlorobenzene	7100 u
87-86-5	Pentachlorophenol	36000 u
85-01-8	Phenanthrene	7100 u
120-12-7	Anthracene	7100 u
84-74-2	Di-n-Butylphthalate	7100 JB
206-44-0	Fluoranthene	7100 u
129-00-0	Pyrene	7100 u
85-68-7	Butylbenzylphthalate	7100 u
91-94-1	3, 3'-Dichlorobenzidine	14000 u
56-55-3	Benzo(a)Anthracene	7100 u
117-81-7	bis(2-Ethylhexyl)Phthalate	7100 u
218-01-9	Chrysene	7100 u
117-84-0	Di-n-Octyl Phtnalate	7100 u
205-99-2	Benzo(b)Fluoranthene	7100 u
207-08-9	Benzo(k)Fluoranthene	7100 u
50-32-8	Benzo(a)Pyrene	7100 u
193-39-5	Indeno(1, 2, 3-cd)Pyrene	7100 u
53-70-3	Dibenz(a, h)Anthracene	7100 u
191-24-2	Benzo(g, h, i)Perylene	7100 u

(1)-Cannot be separated from diphenylamine

Laboratory Name: RADIAN

Case No: 5215

Sample Number: 934 CC699

Organics Analysis Data Sheet
(Page 3)

Pesticide/PCBs

Concentration: (Low) Medium (Circle One)

Date Extracted/Prepared: 11-18-85

Date Analyzed: 11-25-85

Conc/Dil Factor: 8.14g/5.0ml

CAS Number		ug/l or (ug/Kg) (Circle One)
319-84-6	Alpha-BHC	6.4U
319-85-7	Beta-BHC	6.4U
319-86-8	Delta-BHC	6.4U
58-89-9	Gamma-BHC (Lindane)	6.4U
76-44-8	Heptachlor	6.4U
309-00-2	Aldrin	6.4U
1024-57-3	Heptachlor Epoxide	6.4U
959-98-8	Endosulfan I	6.4U
60-57-1	Dieldrin	6.4U
72-55-9	4,4'-DDE	6.4U
72-20-8	Endrin	6.4U
33213-65-9	Endosulfan II	19 U
72-54-8	4,4'-DDD	6.4U
7421-93-4	Endrin Aldehyde	13 U
1031-07-8	Endosulfan Sulfate	32 U
50-29-3	4,4'-DDT	13 U
72-43-5	Methoxychlor	32 U
53494-70-5	Endrin Ketone	32 U
57-74-9	Chlordane	160 U
8001-35-2	Toxaphene	320 U
12674-11-2	Aroclor-1016	100 U
11104-28-2	Aroclor-1221	160 U
11141-16-5	Aroclor-1232	160 U
53469-21-9	Aroclor-1242	100 U
12672-29-6	Aroclor-1248	100 U
11097-69-1	Aroclor-1254	2200
11096-82-5	Aroclor-1260	160 U

V_i = Volume of extract injected (ul)

V_s = Volume of water extracted (ml)

W_s = Weight of sample extracted (g)

V_t = Volume of total extract (ul)

V_s _____ or W_s 8.14g V_t 5000 V_i 2.00

ORIGINAL (Red)

Sample Number
CC700

B-2 972

Organics Analysis Data Sheet
(Page 1)

Laboratory Name: Radian
Case No: 5215
Lab Sample ID No: 4EW1085V09
QC Report No: 87
Sample Matrix: soil
Contract No: 68-01-6853
Data Release Authorized By: K Whelanson
Date Sample Received:

Volatile Compounds

Concentration: (Low) Medium (Circle One)
Date Extracted/Prepared: 11/20/85
Date Analyzed: 11/20/85
Conc/Dil Factor: 1 pH 6.2
Percent Moisture: (Not Decanted) 18%

CAS Number		ug/l or (ug/Kg) (Circle One)
74-87-3	Chloromethane	10U
74-83-9	Bromomethane	10U
75-01-4	Vinyl Chloride	10U
75-00-3	Chloroethane	10U
75-09-2	Methylene Chloride	5J B
67-64-1	Acetone	10U
75-15-0	Carbon Disulfide	5U
75-35-4	1, 1-Dichloroethene	5U
75-34-3	1, 1-Dichloroethane	5U
156-60-5	Trans-1, 2-Dichloroethene	5U
67-66-3	Chloroform	5U
107-06-2	1, 2-Dichloroethane	5U
78-93-3	2-Butanone	10J B
71-55-6	1, 1, 1-Trichloroethane	5U
56-23-5	Carbon Tetrachloride	5U
108-05-4	Vinyl Acetate	10U
75-27-4	Bromodichloromethane	5U

CAS Number		ug/l or (ug/Kg) (Circle One)
78-87-5	1, 2-Dichloropropane	5U
10061-02-6	Trans-1, 3-Dichloropropene	5U
79-01-6	Trichloroethene	5U
124-48-1	Dibromochloromethane	5U
79-00-5	1, 1, 2-Trichloroethane	5U
71-43-2	Benzene	5J
10061-01-5	cis-1, 3-Dichloropropene	5U
110-75-8	2-Chloroethylvinylether	10U
75-25-2	Bromoform	5U
108-10-1	4-Methyl-2-Pentanone	10U
591-78-6	2-Hexanone	10U
127-18-4	Tetrachloroethene	5U
79-34-5	1, 1, 2, 2-Tetrachloroethane	5U
108-88-3	Toluene	5J
108-90-7	Chlorobenzene	5U
100-41-4	Ethylbenzene	5U
100-42-5	Styrene	5U
	Total Xylenes	5U

Data Reporting Qualifiers

For reporting results to EPA, the following results qualifiers are used. Additional flags or footnotes explaining results are encouraged However, the definition of each flag must be explicit.

Value If the result is a value greater than or equal to the detection limit, report the value

U Indicates compound was analyzed for but not detected Report the minimum detection limit for the sample with the U (e g , 10U) based on necessary concentration/dilution action (This is not necessarily the instrument detection limit) The footnote should read U- Compound was analyzed for but not detected The number is the minimum attainable detection limit for the sample

J Indicates an estimated value . This flag is used either when estimating a concentration for tentatively identified compounds where a 1 1 response is assumed or when the mass spectral data indicated the presence of a compound that meets the identification criteria but the result is less than the specified detection limit but greater than zero (e g , 10J) If limit of detection is 10 µg/l and a concentration of 3 µg/l is calculated, report as 3J

C This flag applies to pesticide parameters where the identification has been confirmed by GC MS Single component pesticides ≥10 ng·ul in the final extract should be confirmed by GC MS

B This flag is used when the analyte is found in the blank as well as a sample It indicates possible probable blank contamination and warns the data user to take appropriate action

Other Other specific flags and footnotes may be required to properly define the results If used, they must be fully described and such description attached to the data summary report

Laboratory Name: Radian

Case No: 5215

Sample Number: CC-700

973

Organics Analysis Data Sheet
(Page 2)

Semivolatile Compounds

Concentration: (Low) Medium (Circle One)

Date Extracted/Prepared: 11/18/85

Date Analyzed: 11/25/85

Conc/Dil Factor: 30.54 gm/ml

Percent Moisture (Decanted): 18%

GPC Cleanup ☐Yes ☒No

Separatory Funnel Extraction ☐Yes

Continuous Liquid - Liquid Extraction ☒Yes

CAS Number		ug/l or (ug/Kg) (Circle One)
108-95-2	Phenol	330U
111-44-4	bis(-2-Chloroethyl)Ether	330U
95-57-8	2-Chlorophenol	330U
541-73-1	1 3-Dichlorobenzene	330U
106-46-7	1 4-Dichlorobenzene	330U
100-51-6	Benzyl Alcohol	330U
95-50-1	1 2-Dichlorobenzene	330U
[redacted]7	2-Methylphenol	330U
[redacted]-32-9	bis(2-chloroisopropyl)Ether	330U
106-44-5	4-Methylpheno	330U
621-64-7	N-Nitroso-Di-n-Propylamine	330U
67-72-1	Hexachloroethane	330U
98-95-3	Nitrobenzene	330U
78-59-1	Isophorone	330U
88-75-5	2-Nitrophenol	330U
105-67-9	2, 4-Dimethylphenol	330U
65-85-0	Benzoic Acid	1600U
111-91-1	bis(-2-Chloroethoxy)Methane	330U
120-83-2	2, 4-Dichlorophenol	330U
120-82-1	1, 2, 4-Trichlorobenzene	330U
91-20-3	Naphthalene	330U
106-47-8	4-Chloroaniline	330U
87-68-3	Hexachlorobutadiene	330U
59-50-7	4-Chloro-3-Methylphenol	330U
91-57-6	2-Methylnaphthalene	330U
77-47-4	Hexachlorocyclopentadiene	330U
88-06-2	2 4 6-Trichlorophenol	330U
95-95-4	2 4 5-Trichlorophenol	1600U
91-58-7	2-Chloronaphthalene	330U
88-74-4	2-Nitroaniline	1600U
[redacted]-3	Dimethyl Phthalate	330U
[redacted]-8	Acenaphthylene	330U
99-09-2	3-Nitroaniline	1600U

CAS Number		ug/l or (ug/Kg) (Circle One)
83-32-9	Acenaphthene	330U
51-28-5	2, 4-Dinitrophenol	1600U
100-02-7	4-Nitrophenol	1600U
132-64-9	Dibenzofuran	330U
121-14-2	2 4-Dinitrotoluene	330U
606-20-2	2 6-Dinitrotoluene	330U
84-66-2	Diethylphthalate	330U
7005-72-3	4-Chlorophenyl-phenylether	330U
86-73-7	Fluorene	330U
100-01-6	4-Nitroaniline	1600U
534-52-1	4 6-Dinitro-2-Methylphenol	1600U
86-30-6	N-Nitrosodiphenylamine (1)	330U
101-55-3	4-Bromophenyl-phenylether	330U
118-74-1	Hexachlorobenzene	330U
87-86-5	Pentachlorophenol	1600U
85-01-8	Phenanthrene	330U
120-12-7	Anthracene	330U
84-74-2	Di-n-Butylphthalate	340 B
206-44-0	Fluoranthene	330U
129-00-0	Pyrene	330U
85-68-7	Butylbenzylphthalate	330U
91-94-1	3, 3'-Dichlorobenzidine	660U
56-55-3	Benzo(a)Anthracene	330U
117-81-7	bis(2-Ethylhexyl)Phthalate	330J B
218-01-9	Chrysene	330U
117-84-0	Di-n-Octyl Phthalate	330U
205-99-2	Benzo(b)Fluoranthene	330U
207-08-9	Benzo(k)Fluoranthene	330U
50-32-8	Benzo(a)Pyrene	330U
193-39-5	Indeno(1, 2, 3-cd)Pyrene	330U
53-70-3	Dibenz(a, h)Anthracene	330U
191-24-2	Benzo(g, h, i)Perylene	330U
122-66-7	1,2 Diphenylhydrazine	330J

(1)-Cannot be separated from diphenylamine

Laboratory Name: RADIAN

Case No: 5215

Sample Number
CC700

Organics Analysis Data Sheet
(Page 3)

Pesticide/PCBs

Concentration: (Low) Medium (Circle One)

Date Extracted/Prepared: 11-18-85

Date Analyzed: 11-25-85

Conc/Dil Factor: 30.54g/5.0ml

CAS Number		ug/l or (ug/Kg) (Circle One)
319-84-6	Alpha-BHC	1.6 u
319-85-7	Beta-BHC	1.6 u
319-86-8	Delta-BHC	1.6 u
58-89-9	Gamma-BHC (Lindane)	1.6 u
76-44-8	Heptachlor	1.6 u
309-00-2	Aldrin	1.6 u
1024-57-3	Heptachlor Epoxide	1.6 u
959-98-8	Endosulfan I	1.6 u
60-57-1	Dieldrin	1.6 u
72-55-9	4,4'-DDE	1.6 u
72-20-8	Endrin	1.6 u
33213-65-9	Endosulfan II	4.9 u
72-54-8	4,4'-DDD	1.6 u
7421-93-4	Endrin Aldehyde	3.2 u
1031-07-8	Endosulfan Sulfate	9.8 u
50-29-3	4,4'-DDT	3.2 u
72-43-5	Methoxychlor	9.8 u
53494-70-5	Endrin Ketone	9.8 u
57-74-9	Chlordane	49.8 u
8001-35-2	Toxaphene	98.8 u
12674-11-2	Aroclor-1016	25.8 u
11104-28-2	Aroclor-1221	49.8 u
11141-16-5	Aroclor-1232	49.8 u
53469-21-9	Aroclor-1242	25.8 u
12672-29-6	Aroclor-1248	25.8 u
11097-69-1	Aroclor-1254	49.8 u
11096-82-5	Aroclor-1260	49.8 u

V_i = volume of extract injected (ul)

V_s = Volume of water extracted (ml)

W_s = Weight of sample extracted (g)

V_t = Volume of total extract (ul)

V_s _____ or W_s 30.54 V_t 5000 V_i 2.00

ORIGINAL (Red)

Sample Number
CC143

Organics Analysis Data Sheet
(Page 1)

B-3 592

Laboratory Name: Radian
Case No: 5215
Lab Sample ID No: 4EU11095V11
QC Report No: 87
Sample Matrix: soil
Contract No: 68-01-6853
Data Release Authorized By: K. Shuldman
Date Sample Received: 11/14/85

Volatile Compounds

Concentration: (Low) Medium (Circle One)
Date Extracted/Prepared: 11/20/85
Date Analyzed: 11/20/85
Conc/Dil Factor: 1 pH 6.8
Percent Moisture: (Not Decanted) 16%

CAS Number		ug/l or ug/Kg (Circle One)
74-87-3	Chloromethane	10U
74-83-9	Bromomethane	10U
75-01-4	Vinyl Chloride	10U
75-00-3	Chloroethane	10U
[redacted]-2	Methylene Chloride	28 B
[redacted]1	Acetone	67 B
75-15-0	Carbon Disulfide	5U
75-35-4	1, 1-Dichloroethene	5U
75-34-3	1, 1-Dichloroethane	5U
156-60-5	Trans-1, 2-Dichloroethene	5U
67-66-3	Chloroform	5U
107-06-2	1, 2-Dichloroethane	5U
78-93-3	2-Butanone	10U B
71-55-6	1, 1, 1-Trichloroethane	5U
56-23-5	Carbon Tetrachloride	5U
108-05-4	Vinyl Acetate	10U
75-27-4	Bromodichloromethane	5U

CAS Number		ug/l or ug/Kg (Circle One)
78-87-5	1, 2-Dichloropropane	5U
10061-02-6	Trans-1, 3-Dichloropropene	5U
79-01-6	Trichloroethene	5U
124-48-1	Dibromochloromethane	5U
79-00-5	1, 1, 2-Trichloroethane	5U
71-43-2	Benzene	5U
10061-01-5	cis-1, 3-Dichloropropene	5U
110-75-8	2-Chloroethylvinylether	10U
75-25-2	Bromoform	5U
108-10-1	4-Methyl-2-Pentanone	10U
591-78-6	2-Hexanone	10U
127-18-4	Tetrachloroethene	5U
79-34-5	1, 1, 2, 2-Tetrachloroethane	5U
108-88-3	Toluene	5U
108-90-7	Chlorobenzene	5U
100-41-4	Ethylbenzene	5U
100-42-5	Styrene	5U
	Total Xylenes	5U

Data Reporting Qualifiers

For reporting results to EPA, the following results qualifiers are used. Additional flags or footnotes explaining results are encouraged. However, the definition of each flag must be explicit.

Value If the result is a value greater than or equal to the detection limit, report the value

U Indicates compound was analyzed for but not detected Report the minimum detection limit for the sample with the U (e g , 10U) based on necessary concentration/dilution action (This is not necessarily the instrument detection limit) The footnote should read U- Compound was analyzed for but not detected The number is the minimum attainable detection limit for the sample

[redacted] Indicates an estimated value This flag is used either when estimating a concentration for tentatively identified compounds where a 1 1 response is assumed or when the mass spectral data indicated the presence of a compound that meets the identification criteria but the result is less than the specified detection limit but greater than zero (e g , 10J) If limit of detection is 10 µg/l and a concentration of 3 µg/l is calculated, report as 3J

C This flag applies to pesticide parameters where the identification has been confirmed by GC/MS Single component pesticides ≥10 ng/ul in the final extract should be confirmed by GC MS

B This flag is used when the analyte is found in the blank as well as a sample It indicates possible/probable blank contamination and warns the data user to take appropriate action

Other Other specific flags and footnotes may be required to properly define the results If used, they must be fully described and such description attached to the data summary report

AR100448

Laboratory Name: Radian

ase No: 5215

Sample Number
CC-143

Organics Analysis Data Sheet
(Page 2)

Semivolatile Compounds

oncentration: (Low) Medium (Circle One)

Date Extracted/Prepared: 11/18/85

ate Analyzed: 11/25/85

onc./Dil Factor: 30.42 gms/ml

ercent Moisture (Decanted) 16%

GPC Cleanup ☐Yes ☒No

Separatory Funnel Extraction ☐Yes

Continuous Liquid - Liquid Extraction ☒Yes

CAS Number		ug/l or (ug/Kg) (Circle One)
108-95-2	Phenol	330U
11-44-4	bis(-2-Chloroethyl)Ether	330U
95-57-8	2-Chlorophenol	330U
541-73-1	1 3-Dichlorobenzene	330U
06-46-7	1 4-Dichlorobenzene	330U
00-51-6	Benzyl Alcohol	330U
95-50-1	1 2-Dichlorobenzene	330U
5-48-7	2-Methylphenol	330U
9638-32-9	bis(2-chloroisopropyl)Ether	330U
106-44-5	4-Methylphenol	330U
21-64-7	N-Nitroso-Di-n-Propylamine	330U
7-72-1	Hexachloroethane	330U
98-95-3	Nitrobenzene	330U
8-59-1	Isophorone	330U
8-75-5	2-Nitrophenol	330U
105-67-9	2. 4-Dimethylphenol	330U
5-85-0	Benzoic Acid	1600U
11-91-1	bis(-2-Chloroethoxy)Methane	330U
120-83-2	2. 4-Dichlorophenol	330U
20-82-1	1. 2. 4-Trichlorobenzene	330U
1-20-3	Naphthalene	330U
106-47-8	4-Chloroaniline	330U
7-68-3	Hexachlorobutadiene	330U
9-50-7	4-Chloro-3-Methylphenol	330U
91-57-6	2-Methylnaphthalene	330U
7-47-4	Hexachlorocyclopentadiene	330U
8-06-2	2 4 6-Trichlorophenol	330U
95-95-4	2 4 5-Trichlorophenol	1600U
91-58-7	2-Chloronaphthalene	330U
8-74-4	2-Nitroaniline	1600U
131-11-3	Dimethyl Phthalate	330U
208-96-8	Acenaphthylene	330U
9-09-2	3-Nitroaniline	1600U

CAS Number		ug/l or (ug/Kg) (Circle One)
83-32-9	Acenaphthene	330U
51-28-5	2. 4-Dinitrophenol	1600U
100-02-7	4-Nitrophenol	1600U
132-64-9	Dibenzofuran	330U
121-14-2	2 4-Dinitrotoluene	330U
606-20-2	2 6-Dinitrotoluene	330U
84-66-2	Diethylphthalate	330U
7005-72-3	4-Chlorophenyl-phenylether	330U
86-73-7	Fluorene	330U
100-01-6	4-Nitroaniline	1600U
534-52-1	4 6-Dinitro-2-Methylphenol	1600U
86-30-6	N-Nitrosodiphenylamine (1)	330U
101-55-3	4-Bromophenyl-phenylether	330U
118-74-1	Hexachlorobenzene	330U
87-86-5	Pentachlorophenol	1600U
85-01-8	Phenanthrene	330U
120-12-7	Anthracene	330U
84-74-2	Di-n-Butylphthalate	1100 B
206-44-0	Fluoranthene	330U
129-00-0	Pyrene	330U
85-68-7	Butylbenzylphthalate	330U
91-94-1	3. 3'-Dichlorobenzidine	660U
56-55-3	Benzo(a)Anthracene	330U
117-81-7	bis(2-Ethylhexyl)Phthalate	330J B
218-01-9	Chrysene	330U
117-84-0	Di-n-Octyl Phthalate	330U
205-99-2	Benzo(b)Fluoranthene	330U
207-08-9	Benzo(k)Fluoranthene	330U
50-32-8	Benzo(a)Pyrene	330U
193-39-5	Indeno(1. 2. 3-cd)Pyrene	330U
53-70-3	Dibenz(a. h)Anthracene	330U
191-24-2	Benzo(g. h. i)Perylene	330U
122-66-7	1,2 Diphenylhydrazine	330J

(1)-Cannot be separated from diphenylamine

AR100449

Laboratory Name: RADIAN

Case No: 5215

Sample Number: CC143

Organics Analysis Data Sheet
(Page 3)

Pesticide/PCBs

Concentration: (Low) Medium (Circle One)

Date Extracted/Prepared: 11-18-85

Date Analyzed: 11-25-85

Conc/Dil Factor: 30.42g/5.0mℓ

CAS Number		ug/l or (ug/Kg) (Circle One)
319-84-6	Alpha-BHC	1.6 U
319-85-7	Beta-BHC	1.6 U
319-86-8	Delta-BHC	1.6 U
58-89-9	Gamma-BHC (Lindane)	1.6 U
76-44-8	Heptachlor	1.6 U
309-00-2	Aldrin	1.6 U
1024-57-3	Heptachlor Epoxide	1.6 U
959-98-8	Endosulfan I	1.6 U
60-57-1	Dieldrin	1.6 U
72-55-9	4,4'-DDE	1.6 U
72-20-8	Endrin	1.6 U
33213-65-9	Endosulfan II	4.9 U
72-54-8	4,4'-DDD	1.6 U
7421-93-4	Endrin Aldehyde	3.2 U
1031-07-8	Endosulfan Sulfate	9.8 U
50-29-3	4,4'-DDT	3.2 U
72-43-5	Methoxychlor	9.8 U
53494-70-5	Endrin Ketone	9.8 U
57-74-9	Chlordane	48.8 U
8001-35-2	Toxaphene	80.8 U
12674-11-2	Aroclor-1016	25.8 U
11104-28-2	Aroclor-1221	48.8 U
11141-16-5	Aroclor-1232	48.8 U
53469-21-9	Aroclor-1242	25.8 U
12672-29-6	Aroclor-1248	25.8 U
11097-69-1	Aroclor-1254	48.8 U
11096-82-5	Aroclor-1260	48.8 U

V_i = volume of extract injected (ul)

V_s = Volume of water extracted (ml)

W_s = Weight of sample extracted (g)

V_t = Volume of total extract (ul)

V_s ——— or W_s 30.42 V_t 5000 V_i 2.00

Sample Number
C7857

B-1A C 18

Organics Analysis Data Sheet
(Page 1)

Laboratory Name: Radian
Case No: 5215
Lab Sample ID No: 4EW110485V10
QC Report No: 87
Sample Matrix: soil
Contract No: 68-01-6853
Data Release Authorized By: K Whitehouse
Date Sample Received: 11/14/85

Volatile Compounds

Concentration: (Low) Medium (Circle One)
Date Extracted/Prepared: 11/20/85
Date Analyzed: 11/20/85
Conc/Dil Factor: 1 pH 7.8
Percent Moisture: (Not Decanted) 15%

CAS Number		ug/l or ug/Kg (Circle One)
74-87-3	Chloromethane	10U
74-83-9	Bromomethane	10U
75-01-4	Vinyl Chloride	10U
75-00-3	Chloroethane	10U
75-09-2	Methylene Chloride	5 B
67-64-1	Acetone	53 B
75-15-0	Carbon Disulfide	5U
75-35-4	1, 1-Dichloroethene	5U
75-34-3	1, 1-Dichloroethane	5U
156-60-5	Trans-1, 2-Dichloroethene	5U
67-66-3	Chloroform	5U
107-06-2	1, 2-Dichloroethane	5U
78-93-3	2-Butanone	12B
71-55-6	1, 1, 1-Trichloroethane	5U
56-23-5	Carbon Tetrachloride	5U
108-05-4	Vinyl Acetate	10U
75-27-4	Bromodichloromethane	5U

CAS Number		ug/l or ug/Kg (Circle One)
78-87-5	1, 2-Dichloropropane	5U
10061-02-6	Trans-1, 3-Dichloropropene	5U
79-01-6	Trichloroethene	5U
124-48-1	Dibromochloromethane	5U
79-00-5	1, 1, 2-Trichloroethane	5U
71-43-2	Benzene	5J
10061-01-5	cis-1, 3-Dichloropropene	5U
110-75-8	2-Chloroethylvinylether	10U
75-25-2	Bromoform	5U
108-10-1	4-Methyl-2-Pentanone	10U
591-78-6	2-Hexanone	10U
127-18-4	Tetrachloroethene	5U
79-34-5	1, 1, 2, 2-Tetrachloroethane	5U
108-88-3	Toluene	5J
108-90-7	Chlorobenzene	5U
100-41-4	Ethylbenzene	5U
100-42-5	Styrene	5U
	Total Xylenes	5U

Data Reporting Qualifiers

For reporting results to EPA, the following results qualifiers are used. Additional flags or footnotes explaining results are encouraged. However, the definition of each flag must be explicit.

Value If the result is a value greater than or equal to the detection limit, report the value.

U Indicates compound was analyzed for but not detected. Report the minimum detection limit for the sample with the U (e.g., 10U) based on necessary concentration/dilution action. (This is not necessarily the instrument detection limit.) The footnote should read "Compound was analyzed for but not detected." The number is the minimum attainable detection limit for the sample.

J Indicates an estimated value. This flag is used either when estimating a concentration for tentatively identified compounds where a 1:1 response is assumed or when the mass spectral data indicated the presence of a compound that meets the identification criteria but the result is less than the specified detection limit but greater than zero (e.g., 10J). If limit of detection is 10 µg/l and a concentration of 3 µg/l is calculated, report as 3J.

C This flag applies to pesticide parameters where the identification has been confirmed by GC/MS. Single component pesticides ≥10 ng/ml in the final extract should be confirmed by GC/MS.

B This flag is used when the analyte is found in the blank as well as a sample. It indicates possible/probable blank contamination and warns the data user to take appropriate action.

Other Other specific flags and footnotes may be required to properly define the results. If used, they must be fully described and such description attached to the data summary report.

Laboratory Name Radian

Case No 5215

Sample Number C7857

Organics Analysis Data Sheet
(Page 2)

01 19

Semivolatile Compounds

Concentration: (Low) Medium (Circle One)

Date Extracted/Prepared 11-13-85

Date Analyzed: 11-25-85

Dilution/Dil Factor: 4.54g : 1ml

Percent Moisture (Decanted) 15%

GPC Cleanup ☐Yes ☒No

Separatory Funnel Extraction ☐Yes

Continuous Liquid - Liquid Extraction ☒Yes

CAS Number		ug/l or (ug/Kg) (Circle One)
108-95-2	Phenol	13000U
111-44-4	bis(2-Chloroethyl)Ether	13000U
95-57-8	2-Chlorophenol	13000U
541-73-1	1 3-Dichlorobenzene	13000U
106-46-7	1 4-Dichlorobenzene	13000U
100-51-6	Benzyl Alcohol	13000U
95-50-1	1 2-Dichlorobenzene	13000U
[redacted]	2-Methylphenol	13000U
[redacted]-9	bis(2-chloroisopropyl)Ether	13000U
106-44-5	4-Methylphenol	13000U
621-64-7	N-Nitroso-Di-n-Propylamine	13000U
67-72-1	Hexachloroethane	13000U
98-95-3	Nitrobenzene	13000U
78-59-1	Isophorone	13000U
88-75-5	2-Nitrophenol	13000U
105-67-9	2. 4-Dimethylphenol	13000U
65-85-0	Benzoic Acid	65000U
111-91-1	bis(2-Chloroethoxy)Methane	13000U
120-83-2	2. 4-Dichlorophenol	13000U
120-82-1	1. 2. 4-Trichlorobenzene	13000U
91-20-3	Naphthalene	13000U
106-47-8	4-Chloroaniline	13000U
87-68-3	Hexachlorobutadiene	13000U
59-50-7	4-Chloro-3-Methylphenol	13000U
91-57-6	2-Methylnaphthalene	13000U
77-47-4	Hexachlorocyclopentadiene	13000U
88-06-2	2 4 6-Trichlorophenol	13000U
95-95-4	2 4 5-Trichlorophenol	65000U
91-58-7	2-Chloronaphthalene	13000U
88-74-4	2-Nitroaniline	65000U
[redacted]	Dimethyl Phthalate	13000U
208-[redacted]	Acenaphthylene	13000U
99-09-2	3-Nitroaniline	65000U

CAS Number		ug/l or (ug/Kg) (Circle One)
83-32-9	Acenaphthene	13000U
51-28-5	2. 4-Dinitrophenol	65000U
100-02-7	4-Nitrophenol	65000U
132-64-9	Dibenzofuran	13000U
121-14-2	2 4-Dinitrotoluene	13000U
606-20-2	2 6-Dinitrotoluene	13000U
84-66-2	Diethylphthalate	13000U
7005-72-3	4-Chlorophenyl-phenylether	13000U
86-73-7	Fluorene	13000U
100-01-6	4-Nitroaniline	65000U
534-52-1	4. 6-Dinitro-2-Methylphenol	65000U
86-30-6	N-Nitrosodiphenylamine (1)	13000U
101-55-3	4-Bromophenyl-phenylether	13000U
118-74-1	Hexachlorobenzene	13000U
87-86-5	Pentachlorophenol	65000U
85-01-8	Phenanthrene	13000U
120-12-7	Anthracene	13000U
84-74-2	Di-n-Butylphthalate	13000J
206-44-0	Fluoranthene	13000U
129-00-0	Pyrene	13000U
85-68-7	Butylbenzylphthalate	13000U
91-94-1	3. 3'-Dichlorobenzidine	26000U
56-55-3	Benzo(a)Anthracene	13000U
117-81-7	bis(2-Ethylhexyl)Phthalate	13000U
218-01-9	Chrysene	13000U
117-84-0	Di-n-Octyl Phthalate	13000U
205-99-2	Benzo(b)Fluoranthene	13000U
207-08-9	Benzo(k)Fluoranthene	13000U
50-32-8	Benzo(a)Pyrene	13000U
193-39-5	Indeno(1. 2. 3-cd)Pyrene	13000U
53-70-3	Dibenz(a. h)Anthracene	13000U
191-24-2	Benzo(g. h. i)Perylene	13000U

(1)-Cannot be separated from diphenylamine

ORIGINAL (Red)

Laboratory Name: RADIAN

Case No: 5215

Sample Number C7857

Organics Analysis Data Sheet
(Page 3)

Pesticide/PCBs

Concentration: (Low) Medium (Circle One)

Date Extracted/Prepared: 11-18-85

Date Analyzed: 11-25-85

Conc/Dil Factor: 4.54g/5.0 mL

CAS Number		ug/l or (ug/Kg) (Circle One)
319-84-6	Alpha-BHC	11 U
319-85-7	Beta-BHC	11 U
319-86-8	Delta-BHC	11 U
58-89-9	Gamma-BHC (Lindane)	11 U
76-44-8	Heptachlor	11 U
309-00-2	Aldrin	11 U
1024-57-3	Heptachlor Epoxide	11 U
959-98-8	Endosulfan I	11 U
60-57-1	Dieldrin	11 U
72-55-9	4,4'-DDE	11 U
72-20-8	Endrin	11 U
33213-65-9	Endosulfan II	34 U
72-54-8	4,4'-DDD	11 U
7421-93-4	Endrin Aldehyde	22 U
1031-07-8	Endosulfan Sulfate	56 U
50-29-3	4,4'-DDT	22 U
72-43-5	Methoxychlor	56 U
53494-70-5	Endrin Ketone	56 U
57-74-9	Chlordane	280 U
8001-35-2	Toxaphene	560 U
12674-11-2	Aroclor-1016	175 U
11104-28-2	Aroclor-1221	280 U
11141-16-5	Aroclor-1232	280 U
53469-21-9	Aroclor-1242	175 U
12672-29-6	Aroclor-1248	175 U
11097-69-1	Aroclor-1254	4600
11096-82-5	Aroclor-1260	280 U

V_i = Volume of extract injected (ul)

V_s = Volume of water extracted (ml)

W_s = Weight of sample extracted (g)

V_t = Volume of total extract (ul)

V_s _____ or W_s 4.54 V_t 5000 V_i 2.00

(Rev.)

Sample Number
CC697

Organics Analysis Data Sheet
(Page 1)

Soil 1

761

Laboratory Name: Radian
Case No: 5215
Lab Sample ID No: 4EU11085V05
QC Report No: 87
Sample Matrix: soil
Contract No: 68-01-6853
Data Release Authorized By: K. Milanducca
Date Sample Received: 11/14/85

Volatile Compounds

Concentration: (Low) Medium (Circle One)
Date Extracted/Prepared: 11/20/85
Date Analyzed: 11/20/85
Conc/Dil Factor: 1 pH 6.5
Percent Moisture: (Not Decanted) 34%

CAS Number		ug/l or (ug/Kg) (Circle One)
74-87-3	Chloromethane	10U
74-83-9	Bromomethane	10U
75-01-4	Vinyl Chloride	10U
75-00-3	Chloroethane	10U
[redacted]-2	Methylene Chloride	6 B
[redacted]-1	Acetone	22 B
75-15-0	Carbon Disulfide	5U
75-35-4	1, 1-Dichloroethene	5U
75-34-3	1, 1-Dichloroethane	5U
156-60-5	Trans-1, 2-Dichloroethene	5U
67-66-3	Chloroform	5U
107-06-2	1, 2-Dichloroethane	5U
78-93-3	2-Butanone	20 B
71-55-6	1, 1, 1-Trichloroethane	5U
56-23-5	Carbon Tetrachloride	5U
108-05-4	Vinyl Acetate	10U
75-27-4	Bromodichloromethane	5U

CAS Number		ug/l or (ug/Kg) (Circle One)
78-87-5	1, 2-Dichloropropane	5U
10061-02-6	Trans-1, 3-Dichloropropene	5U
79-01-6	Trichloroethene	5J
124-48-1	Dibromochloromethane	5U
79-00-5	1, 1, 2-Trichloroethane	5U
71-43-2	Benzene	5J
10061-01-5	cis-1, 3-Dichloropropene	5U
110-75-8	2-Chloroethylvinylether	10U
75-25-2	Bromoform	5U
108-10-1	4-Methyl-2-Pentanone	10U
591-78-6	2-Hexanone	10U
127-18-4	Tetrachloroethene	5U
79-34-5	1, 1, 2, 2-Tetrachloroethane	5U
108-88-3	Toluene	5J
108-90-7	Chlorobenzene	5U
100-41-4	Ethylbenzene	5U
100-42-5	Styrene	5U
	Total Xylenes	5U

Data Reporting Qualifiers

For reporting results to EPA, the following results qualifiers are used. Additional flags or footnotes explaining results are encouraged. However, the definition of each flag must be explicit.

Value If the result is a value greater than or equal to the detection limit, report the value

U Indicates compound was analyzed for but not detected. Report the minimum detection limit for the sample with the U (e.g., 10U) based on necessary concentration/dilution action. (This is not necessarily the instrument detection limit.) The footnote should read U - Compound was analyzed for but not detected. The number is the minimum attainable detection limit for the sample

J Indicates an estimated value. This flag is used either when estimating a concentration for tentatively identified compounds where a 1:1 response is assumed or when the mass spectral data indicated the presence of a compound that meets the identification criteria but the result is less than the specified detection limit but greater than zero (e.g., 10J). If limit of detection is 10 µg/l and a concentration of 3 µg/l is calculated, report as 3J

C This flag applies to pesticide parameters where the identification has been confirmed by GC/MS. Single component pesticides ≥10 ng/ul in the final extract should be confirmed by GC/MS

B This flag is used when the analyte is found in the blank as well as a sample. It indicates possible/probable blank contamination and warns the data user to take appropriate action

Other Other specific flags and footnotes may be required to properly define the results. If used, they must be fully described and such description attached to the data summary report

ORIGINAL (RED)

Laboratory Name Radian

Case No: 5215

Sample Number CC-697

Organics Analysis Data Sheet
(Page 2)

762

Semivolatile Compounds

Concentration: (Low) Medium (Circle One)

Date Extracted/Prepared 11-18-85

Date Analyzed: 11-22-85

Conc/Dil Factor: 30.84g/1ml

Percent Moisture (Decanted) 34

GPC Cleanup ☐Yes ☑No

Separatory Funnel Extraction ☐Yes

Continuous Liquid - Liquid Extraction ☑Yes

CAS Number		ug/l or (ug/Kg) (Circle One)
108-95-2	Phenol	330 J
11-44-4	bis(-2-Chloroethyl)Ether	330U
5-57-8	2-Chlorophenol	330U
541-73-1	1 3-Dichlorobenzene	330U
06-46-7	1 4-Dichlorobenzene	330U
00-51-6	Benzyl Alcohol	330U
95-50-1	1 2-Dichlorobenzene	330U
5-48-7	2-Methylphenol	330U
3638-32-9	bis(2-chloroisopropyl)Ether	330U
106-44-5	4-Methylphenol	330U
21-64-7	N-Nitroso-Di-n-Propylamine	330U
-72-1	Hexachloroethane	330U
98-95-3	Nitrobenzene	330U
78-59-1	Isophorone	330U
-75-5	2-Nitrophenol	330U
105-67-9	2, 4-Dimethylphenol	330U
65-85-0	Benzoic Acid	1600U
1-91-1	bis(-2-Chloroethoxy)Methane	330U
120-83-2	2, 4-Dichlorophenol	330U
120-82-1	1, 2, 4-Trichlorobenzene	330U
-20-3	Naphthalene	330U
106-47-8	4-Chloroaniline	330U
87-68-3	Hexachlorobutadiene	330U
-50-7	4-Chloro-3-Methylphenol	330U
91-57-6	2-Methylnaphthalene	330U
77-47-4	Hexachlorocyclopentadiene	330U
06-2	2 4 6-Trichlorophenol	330U
95-95-4	2 4 5-Trichlorophenol	1600U
91-58-7	2-Chloronaphthalene	330U
74-4	2-Nitroaniline	1600U
-11-3	Dimethyl Phthalate	330U
208-96-8	Acenaphthylene	330U
09-2	3-Nitroaniline	1600U

CAS Number		ug/l or (ug/Kg) (Circle One)
83-32-9	Acenaphthene	330U
51-28-5	2, 4-Dinitrophenol	1600U
100-02-7	4-Nitrophenol	1600U
132-64-9	Dibenzofuran	330U
121-14-2	2 4-Dinitrotoluene	330U
606-20-2	2 6-Dinitrotoluene	330U
84-66-2	Diethylphthalate	330U
7005-72-3	4-Chlorophenyl-phenylether	330U
86-73-7	Fluorene	330U
100-01-6	4-Nitroaniline	1600U
534-52-1	4 6-Dinitro-2-Methylphenol	1600U
86-30-6	N-Nitrosodiphenylamine (1)	330U
101-55-3	4-Bromophenyl-phenylether	330U
118-74-1	Hexachlorobenzene	330U
87-86-5	Pentachlorophenol	1600U
85-01-8	Phenanthrene	330U
120-12-7	Anthracene	330U
84-74-2	Di-n-Butylphthalate	1300B
206-44-0	Fluoranthene	330 J
129-00-0	Pyrene	330 J
85-68-7	Butylbenzylphthalate	330U
91-94-1	3, 3'-Dichlorobenzidine	660U
56-55-3	Benzo(a)Anthracene	330U
117-81-7	bis(2-Ethylhexyl)Phthalate	330 J
218-01-9	Chrysene	330U
117-84-0	Di-n-Octyl Phthalate	330U
205-99-2	Benzo(b)Fluoranthene	330U
207-08-9	Benzo(k)Fluoranthene	330U
50-32-8	Benzo(a)Pyrene	330U
193-39-5	Indeno(1, 2, 3-cd)Pyrene	330U
53-70-3	Dibenz(a, h)Anthracene	330U
191-24-2	Benzo(g, h, i)Perylene	330U

(1)-Cannot be separated from diphenylamine

ORIGINAL (Red)

Laboratory Name: RADIAN

Case No: 5215

Sample Number: ~~763~~ CC697

Organics Analysis Data Sheet
(Page 3)

Pesticide/PCBs

Concentration: (Low) Medium (Circle One)

Date Extracted/Prepared: 11-18-85

Date Analyzed: 11-25-85

Conc/Dil Factor: 30.84g/5.0ml

CAS Number		ug/l or (ug/Kg) (Circle One)
319-84-6	Alpha-BHC	1.6 U
319-85-7	Beta-BHC	1.6 U
319-86-8	Delta-BHC	1.6 U
58-89-9	Gamma-BHC (Lindane)	1.6 U
76-44-8	Heptachlor	1.6 U
309-00-2	Aldrin	1.6 U
1024-57-3	Heptachlor Epoxide	1.6 U
959-98-8	Endosulfan I	1.6 U
60-57-1	Dieldrin	1.6 U
72-55-9	4,4'-DDE	1.6 U
72-20-8	Endrin	1.6 U
33213-65-9	Endosulfan II	4.9 U
72-54-8	4,4'-DDD	1.6 U
7421-93-4	Endrin Aldehyde	3.2 U
1031-07-8	Endosulfan Sulfate	9.8 U
50-29-3	4,4'-DDT	3.2 U
72-43-5	Methoxychlor	9.8 U
53494-70-5	Endrin Ketone	9.8 U
57-74-9	Chlordane	48.8 U
8001-35-2	Toxaphene	98.8 U
12674-11-2	Aroclor-1016	25.8 U
11104-28-2	Aroclor-1221	48.8 U
11141-16-5	Aroclor-1232	48.8 U
53469-21-9	Aroclor-1242	25.8 U
12672-29-6	Aroclor-1248	25.8 U
11097-69-1	Aroclor-1254	48.8 U
11096-82-5	Aroclor-1260	48.8 U

V_i = volume of extract injected (ul)

V_s = Volume of water extracted (ml)

W_s = Weight of sample extracted (g)

V_t = Volume of total extract (ul)

V_s _____ or W_s 30.84g V_t 5000 V_i 2.0

Sample Number
CC698

Organics Analysis Data Sheet
(Page 1)

Filtration - Bad

824

Laboratory Name: Radian

Case No: 5215

Lab Sample ID No: 4ER11685V08

QC Report No: 87

Sample Matrix: soil

Contract No: 68-01-6853

Data Release Authorized By: K. Mulanaux

Date Sample Received: 11/14/85

Volatile Compounds

Concentration: (Low) Medium (Circle One)

Date Extracted/Prepared: 11/20/85

Date Analyzed: 11/20/85

Conc/Dil Factor: 1 pH 8.9

Percent Moisture: (Not Decanted) 23%

CAS Number		ug/l or ug/Kg (Circle One)
74-87-3	Chloromethane	10U
74-83-9	Bromomethane	10U
75-01-4	Vinyl Chloride	10U
75-00-3	Chloroethane	10U
75-09-2	Methylene Chloride	8 B
67-64-1	Acetone	10 J B
75-15-0	Carbon Disulfide	5U
75-35-4	1, 1-Dichloroethene	5U
75-34-3	1, 1-Dichloroethane	5U
156-60-5	Trans-1, 2-Dichloroethene	5J
67-66-3	Chloroform	5U
107-06-2	1, 2-Dichloroethane	5U
78-93-3	2-Butanone	11 B
71-55-6	1, 1, 1-Trichloroethane	5J
56-23-5	Carbon Tetrachloride	5U
108-05-4	Vinyl Acetate	10U
75-27-4	Bromodichloromethane	5U

CAS Number		ug/l or ug/Kg (Circle One)
78-87-5	1, 2-Dicnloropropane	5U
10061-02-6	Trans-1, 3-Dichloropropene	5U
79-01-6	Trichloroethene	12
124-48-1	Dibromochloromethane	5U
79-00-5	1, 1, 2-Trichloroethane	5U
71-43-2	Benzene	5J
10061-01-5	cis-1, 3-Dichloropropene	5U
110-75-8	2-Chloroethylvinylether	10U
75-25-2	Bromoform	5U
108-10-1	4-Methyl-2-Pentanone	10U
591-78-6	2-Hexanone	10U
127-18-4	Tetrachloroethene	8
79-34-5	1, 1, 2, 2-Tetrachloroethane	5U
108-88-3	Toluene	9
108-90-7	Chlorobenzene	5U
100-41-4	Ethylbenzene	5U
100-42-5	Styrene	5U
	Total Xylenes	5J

Data Reporting Qualifiers

For reporting results to EPA, the following results qualifiers are used. Additional flags or footnotes explaining results are encouraged However, the definition of each flag must be explicit.

Value If the result is a value greater than or equal to the detection limit, report the value

U Indicates compound was analyzed for but not detected Report the minimum detection limit for the sample with the U (e g , 10U) based on necessary concentration/dilution action (This is not necessarily the instrument detection limit) The footnote should read U- Compound was analyzed for but not detected The number is the minimum attainable detection limit for the sample

J Indicates an estimated value This flag is used either when estimating a concentration for tentatively identified compounds where a 1 1 response is assumed or when the mass spectral data indicated the presence of a compound that meets the identification criteria but the result is less than the specified detection limit but greater than zero (e g , 10J) If limit of detection is 10 µg/l and a concentration of 3 µg/l is calculated, report as 3J

C This flag applies to pesticide parameters where the identification has been confirmed by GC-MS Single component pesticides ≥10 ng ul in the final extract should be confirmed by GC MS

B This flag is used when the analyte is found in the blank as well as a sample It indicates possible/probable blank contamination and warns the data user to take appropriate action

Other Other specific flags and footnotes may be required to properly define the results If used, they must be fully described and such description attached to the data summary report

aboratory Name: Radian

Case No: 5215

Sample Number
CC698

Organics Analysis Data Sheet
(Page 2)

825

Semivolatile Compounds

Concentration: (Low) Medium (Circle One)

GPC Cleanup ☐Yes ☑No

ite Extracted/Prepared: 11-18-85

Separatory Funnel Extraction ☐Yes

Date Analyzed: 11-25-85

Continuous Liquid - Liquid Extraction ☑Yes

onc./Dil Factor: 5.97g / 1ml

Percent Moisture (Decanted) 23%

CAS umber		ug/l or (ug/Kg) (Circle One)
08-95-2	Phenol	2200U
111-44-4	bis(2-Chloroethyl)Ether	2200U
5-57-8	2-Chlorophenol	2200U
41-73-1	1 3-Dichlorobenzene	2200U
106-46-7	1 4-Dichlorobenzene	2200U
00-51-6	Benzyl Alcohol	2200U
5-50-1	1 2-Dichlorobenzene	2200U
95-48-7	2-Methylphenol	2200U
[redacted]2-9	bis(2-chloroisopropyl)Ether	2200U
[redacted]-5	4-Methylphenol	2200U
621-64-7	N-Nitroso-Di-n-Propylamine	2200U
7-72-1	Hexachloroethane	2200U
3-95-3	Nitrobenzene	2200U
78-59-1	Isophorone	2200U
3-75-5	2-Nitrophenol	2200U
05-67-9	2, 4-Dimethylphenol	2200U
65-85-0	Benzoic Acid	11000U
1-91-1	bis(2-Chloroethoxyl)Methane	2200U
0-83-2	2, 4-Dichlorophenol	2200U
120-82-1	1, 2, 4-Trichlorobenzene	2200U
1-20-3	Naphthalene	2200U
6-47-8	4-Chloroaniline	2200U
87-68-3	Hexachlorobutadiene	2200U
59-50-7	4-Chloro-3-Methylphenol	2200U
-57-6	2-Methylnaphthalene	2200U
77-47-4	Hexachlorocyclopentadiene	2200U
88-06-2	2, 4, 6-Trichlorophenol	2200U
95-4	2, 4, 5-Trichlorophenol	11000U
91-58-7	2-Chloronaphthalene	2200U
88-74-4	2-Nitroaniline	11000U
1-11-3	Dimethyl Phthalate	2200U
20[redacted]	Acenaphthylene	2200U
99-[redacted]	3-Nitroaniline	11000U

CAS Number		ug/l or (ug/Kg) (Circle One)
83-32-9	Acenaphthene	2200U
51-28-5	2, 4-Dinitrophenol	11000U
100-02-7	4-Nitrophenol	11000U
132-64-9	Dibenzofuran	2200U
121-14-2	2, 4-Dinitrotoluene	2200U
606-20-2	2, 6-Dinitrotoluene	2200U
84-66-2	Diethylphthalate	2200U
7005-72-3	4-Chlorophenyl-phenylether	2200U
86-73-7	Fluorene	2200U
100-01-6	4-Nitroaniline	11000U
534-52-1	4, 6-Dinitro-2-Methylphenol	11000U
86-30-6	N-Nitrosodiphenylamine (1)	2200U
101-55-3	4-Bromophenyl-phenylether	2200U
118-74-1	Hexachlorobenzene	2200U
87-86-5	Pentachlorophenol	11000U
85-01-8	Phenanthrene	2200J
120-12-7	Anthracene	2200J
84-74-2	Di-n-Butylphthalate	2300B
206-44-0	Fluoranthene	3300
129-00-0	Pyrene	2400
85-68-7	Butylbenzylphthalate	2200U
91-94-1	3, 3'-Dichlorobenzidine	4400U
56-55-3	Benzo(a)Anthracene	2200J
117-81-7	bis(2-Ethylhexyl)Phthalate	2200B
218-01-9	Chrysene	2500
117-84-0	Di-n-Octyl Phthalate	2200U
205-99-2	Benzo(b)Fluoranthene	2500
207-08-9	Benzo(k)Fluoranthene	2500
50-32-8	Benzo(a)Pyrene	2200J
193-39-5	Indeno(1, 2, 3-cd)Pyrene	2200J
53-70-3	Dibenz(a, h)Anthracene	2200U
191-24-2	Benzo(g, h, i)Perylene	2200J

(1)-Cannot be separated from diphenylamine

APPENDIX F

ORIGINAL (Red)

An increase in apparent resistivity was noted directly over the discharge area of the western building. This was in very close agreement with the location of the discharge field. A similar anomaly was not seen over the eastern area. This may have been a result of the survey of the eastern discharge area being limited by obstruction in close proximity to the eastern building and the depth of compacted surficial balast material.

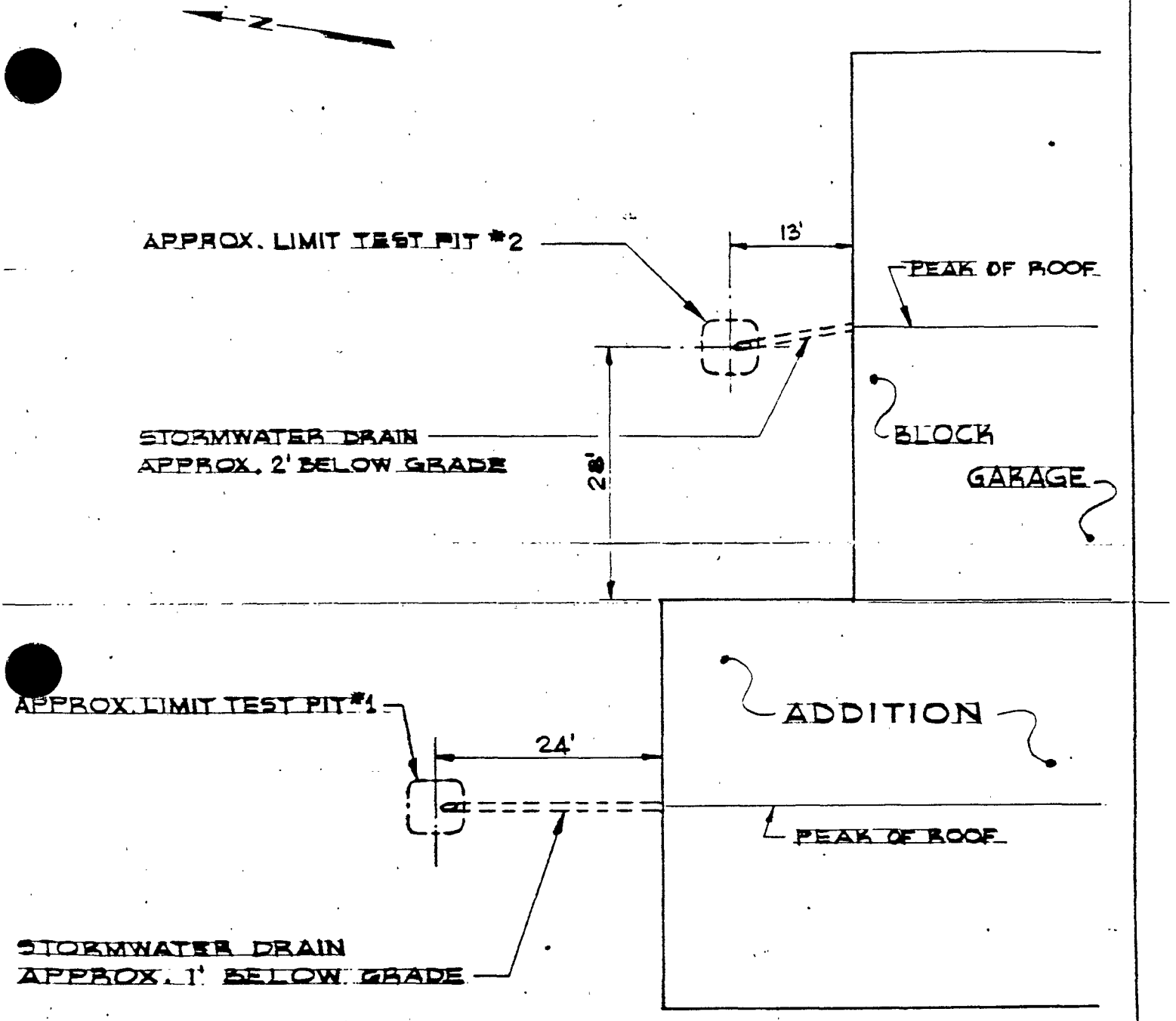
P.M.S. Facility

The remedial investigation of the P.M.S. facility began in August, 1984 with the excavation of the discharge field at the western P.M.S. building (Figure 4). A six (6) inch cast iron drain pipe was exposed and the discharge area was defined. The drain pipe was found to be blocked by a large amount of debris. It was subsequently determined that discharge could not enter the drain field due to the blockage. Samples were taken of the material blocking the pipe (see AGES Analytical Report) to identify any possible contaminants in this material. The area of the discharge field was free of any discoloration and it was apparent no flow had entered for an extended period of time.

The following remedial measures were taken to assure that the discharge system would function properly at the western building:

- Piping was cleared of any debris to permit free flow to the discharge field.
- The discharge field was cleared of any accumulated fine material and replaced with clean stone.

FIGURE 4



TEST PIT LOCATION MAP

C. D. S. INVESTMENTS

AGES Applied Geotechnical and Environmental Service Corp.	SCALE 1/16" = 1'-0"	DRAWN BY J. D. L.	DATE 8/15/84	SHEET NO
	PROJECT NO 43183	APPROVED BY	DRAWING NO. 43183-A-003	

AR100461

To prevent any possible contamination from entering the facility's drainage systems, all floor drains in the east and west buildings were permanently sealed. The drainage systems are now dedicated soley to stormwater discharge from existing roof drains.

ANALYTICAL TEST RESULTS

P.M.S. Facility

Analytical tests indicate that volatile organic compounds have entered the drain systems at the P.M.S. Facility. This undoubtedly was a result of routine equipment maintenance, general building cleanup, and floor washing. The floor drains would receive all runoff from any spills and routine cleanup. It is not possible to estimate the volume of liquids containing volatile organic compounds that may have been discharged through the floor drains. However, based on the analytical results, it does not appear that the fluids were substantially contaminated.

Five volatile organic compounds were identified in the fluid contained in the blocked drain pipe leading from the east building. However, the levels of concentration of the contaminants were relatively low. In addition, neither the sediments from the drain tile field nor the in-place soils beneath the tile field evidenced any contamination. All of the volatile organic compounds identified in the fluid are normal components of gasoline. This suggests that the origin of the contamination is not related to solvents.

At the west building only two (2) volatile organic compounds were identified in the drainage system. Naptha was identified in the debris that was plugging the drain pipe leading from the west building. However, the soil immediately below the pipe invert evidenced only methylene chloride at a very low level of concentration.

The nature and levels of concentration of the volatile organic compounds found in the drainage systems at the P.M.S. Facility is indicative of sporadic contamination as a result of equipment maintenance and minor spills of fuel. There is no indication that contaminant migration has occurred or that groundwater has been impacted in any manner.

Mid-County Mustang

Analytical testing was also conducted with samples obtained from locations at Mid-County Mustang that have been previously described. As presented in the attached analytical data, volatile organic priority pollutants were identified in the floor drain discharge and in the samples taken from the test pit. They include methylene chloride, carbon tetrachloride, trichloroethylene, tetrachloroethylene, and chloroform.

It is interesting to note that chloroform was not found either in the floor drain or in the gravel blanket but was found at the other three (3) sample locations (Figure 1). This would suggest, that at one time chloroform may have been discharged into the floor drain but is in the process of being flushed out of the pit. The other substances were found in the floor drain effluent in substantial concentrations. However, their concentrations decreased with increasing depths and generally were not found at the bottom of the test pit. The initial findings suggest that volatile priority pollutants have been discharged from the floor drains but that this dispersion has been limited to the vicinity of the stone bed, which underlies the effluent pipe.

The current tenant at the facility has reported several accidental spills in the past which were washed into the floor drain. A general practice was also to degrease vehicles in the paved area in front of the building with the subsequent runoff draining to the general area of the well sump. Two (2) former tenants who also ran auto related businesses were also reported to have had poor housekeeping practices.

CONCLUSIONS

The results of The drain field excavations and sampling at the facilities located at the CDS property indicates that volatile organic compounds have entered the drainage systems from the various buildings. Unfortunately the nature of the past and present business enterprises occupying the site facilities made this inevitable if strict attention was not given to proper housekeeping practices. However, the nature of the businesses also indicates that the magnitude of the discharges were not in large concentrated volumes nor continuous in duration.

The resultant effects of some of these past discharges appears to have impacted the on-site well located adjacent to the drain field from the Mid-County Mustang building. The location and construction of the well has compounded and undoubtedly accelerated the well contamination. However, the well has also served to prevent the spread of contamination. The well's daily operation has created a local drawdown effect to the static groundwater level. This has drawn whatever contaminants that have reached groundwater to the well.

The nature of the business operations at the CDS property and the levels of concentration of the various contaminants identified in drain field filter material and underlying in-place soils does not indicate that widespread contamination of groundwater has occurred. Discharges from the PMS facility were surely

AGES

Unnamed Tab doc

Form I

U.S. EPA Contract Laboratory Program
Sample Management Office
P.O. Box 818 - Alexandria, VA 22313
703/557-2490 FTS: 8-557-2490

EPA Sample No.
MCC743

Date 12-17-85

INORGANIC ANALYSIS DATA SHEET

LAB NAME ROCKY MOUNTAIN ANALYTICAL
SOW NO. 784
LAB SAMPLE ID. NO. -

CASE NO. 5215
QC REPORT NO. 55494

Elements Identified and Measured

Concentration: Low X Medium
Matrix: Water Soil X Sludge Other

mg/kg dry weight

1.	ALUMINUM	11400	P	13.	MAGNESIUM	[3020]	P
2.	ANTIMONY	19U	P R	14.	MANGANESE	361	P
3.	ARSENIC	9.8	F	15.	MERCURY	0.076U	CV
4.	BARIUM	[125]	P	16.	NICKEL	[24]	P
5.	BERYLLIUM	0.3U	P	17.	POTASSIUM	1640U	P
6.	CADMIUM	3U	P	18.	SELENIUM	3.8U	F
7.	CALCIUM	4760	P	19.	SILVER	7.7	P
8.	CHROMIUM	36	P	20.	SODIUM	5430	P
9.	COBALT	[20]	P	21.	THALLIUM	1.5U	P
10.	COPPER	19	P	22.	TIN	12U	P
11.	IRON	23900	P X	23.	VANADIUM	[29]	P
12.	LEAD	74	P	24.	ZINC	159	P X
Cyanide		0.76U	AS	Percent Solids (%)		66	

ORIGINAL TYPED

Footnotes: For reporting results to EPA, standard result qualifiers are used as defined on Cover Page. Additional flags or footnotes explaining results are encouraged. Definition of such flags must be explicit and contained on Cover Page, however.

Comments:

AR100467

Lab Manager

Unusual Tails up

Form I

U.S. EPA Contract Laboratory Program
Sample Management Office
P.O. Box 818 - Alexandria, VA 22313
703/557-2490 FTS: 8-557-2490

EPA Sample No.
MCC750

Date 12-17-85

INORGANIC ANALYSIS DATA SHEET

LAB NAME ROCKY MOUNTAIN ANALYTICAL
SOW NO. 784
LAB SAMPLE ID. NO. -

CASE NO. 5215

QC REPORT NO. 55494

Elements Identified and Measured

Concentration: Low X Medium
Matrix: Water Soil X Sludge Other

mg/kg dry weight

1.	ALUMINUM	16200	P	13.	MAGNESIUM	[2600]	P
2.	ANTIMONY	21U	P R	14.	MANGANESE	379	P
3.	ARSENIC	1.7U	F	15.	MERCURY	[0.13]	CV
4.	BARIUM	[115]	P	16.	NICKEL	[25]	P
5.	BERYLLIUM	[0.81]	P	17.	POTASSIUM	1810U	P
6.	CADMIUM	3.3U	P	18.	SELENIUM	1.7U	F R
7.	CALCIUM	[1740]	P	19.	SILVER	[3.5]	P
8.	CHROMIUM	22	P	20.	SODIUM	486U	P
9.	COBALT	[19]	P	21.	THALLIUM	1.7U	F
10.	COPPER	34	P	22.	TIN	13U	P
11.	IRON	29000	P X	23.	VANADIUM	[28]	P
12.	LEAD	51	P	24.	ZINC	105	P X
Cyanide		0.83U	AS	Percent Solids (%)		60	

Footnotes: For reporting results to EPA, standard result qualifiers are used as defined on Cover Page. Additional flags or footnotes explaining results are encouraged. Definition of such flags must be explicit and contained on Cover Page, however.

Comments:

AR100468

Lab Manager

Background Soil

Form I

U.S. EPA Contract Laboratory Program
Sample Management Office
P.O. Box 818 - Alexandria, VA 22313
703/557-2490 FTS: 8-557-2490

EPA Sample No.
MCC761

Date 12-17-85

INORGANIC ANALYSIS DATA SHEET

LAB NAME ROCKY MOUNTAIN ANALYTICAL
SOW NO. 784
LAB SAMPLE ID. NO. -

CASE NO. 5215

QC REPORT NO. 55494

Elements Identified and Measured

Concentration: Low X Medium
Matrix: Water Soil X Sludge Other

mg/kg dry weight

1.	ALUMINUM	11600	P	13.	MAGNESIUM	[2200]	P
2.	ANTIMONY	17U	P R	14.	MANGANESE	603	P
3.	ARSENIC	13	F	15.	MERCURY	[0.14]	CV
4.	BARIUM	[72]	P	16.	NICKEL	[15]	P
5.	BERYLLIUM	[0.56]	P	17.	POTASSIUM	1490U	P
6.	CADMIUM	2.7U	P	18.	SELENIUM	3.4U	F R
7.	CALCIUM	[1480]	P	19.	SILVER	[2.2]	P
8.	CHROMIUM	18	P	20.	SODIUM	[524]	P
9.	COBALT	[13]	P	21.	THALLIUM	1.4U	F
10.	COPPER	28	P	22.	TIN	11U	P
11.	IRON	21900	P X	23.	VANADIUM	[26]	P
12.	LEAD	42	P	24.	ZINC	81	P X
Cyanide		0.68U	AS	Percent Solids (%) 73			

Footnotes: For reporting results to EPA, standard result qualifiers are used as defined on Cover Page. Additional flags or footnotes explaining results are encouraged. Definition of such flags must be explicit and contained on Cover Page, however.

Comments:

AR100469

Lab Manager

Solid Blank

Form I

U.S. EPA Contract Laboratory Program
Sample Management Office
P.O. Box 818 - Alexandria, VA 22313
703/557-2490 FTS: 8-557-2490

EPA Sample No.
MCC759

Date 12-17-85

INORGANIC ANALYSIS DATA SHEET

LAB NAME ROCKY MOUNTAIN ANALYTICAL
SOW NO. 784
LAB SAMPLE ID. NO. -

CASE NO. 5215

QC REPORT NO. 55494

Elements Identified and Measured

Concentration: Low X Medium
Matrix: Water Soil X Sludge Other

mg/kg dry weight

1.	ALUMINUM	12U	P	13.	MAGNESIUM	156U	P
2.	ANTIMONY	12U	P R	14.	MANGANESE	2.5U	P
3.	ARSENIC	1U	F R	15.	MERCURY	0.05U	CV
4.	BARIUM	6.5U	P	16.	NICKEL	3.5U	P
5.	BERYLLIUM	0.2U	P	17.	POTASSIUM	1080U	P
6.	CADMIUM	2U	P	18.	SELENIUM	1U	F R
7.	CALCIUM	104U	P	19.	SILVER	1.5U	P
8.	CHROMIUM	2U	P	20.	SODIUM	[330]	P
9.	COBALT	2.5U	P	21.	THALLIUM	1U	F
10.	COPPER	[2.1]	P	22.	TIN	[9.8]	P
11.	IRON	[27]	P X	23.	VANADIUM	2U	P
12.	LEAD	1U	F	24.	ZINC	[3.9]	P X
Cyanide		0.5U	AS	Percent Solids (%)		(100)	

Footnotes: For reporting results to EPA, standard result qualifiers are used as defined on Cover Page. Additional flags or footnotes explaining results are encouraged. Definition of such flags must be explicit and contained on Cover Page, however.

Comments: SAMPLE IS A WATER BLANK
% solids entered as 100% to allow report writing software work (see narrative)

Lab Manager

AR100470

APPENDIX E

COMMONWEALTH OF PENNSYLVANIA
DEPARTMENT OF ENVIRONMENTAL RESOURCES

Ridley Creek State Park
Sycamore Mills Road
Media, PA 19063
(215) 565-1687

August 12, 1985

Continental Refrigerator Corp.
717 E. Lincoln Highway
Exton, PA 19341

Attention: Mr. Lawrence J. DiAngelus

Re: Illegal transportation and storage of hazardous waste.
Paper Products Mfg. Co. property
Paper Mill Road
Nether Providence Township
Delaware County

Dear Mr. DiAngelus:

This letter is in response to our August 7, 1985 meeting at the Paper Products Mfg. Co. property. The meeting was precipitated by the Department being contacted by Mr. Richard Vishad from the Pennsylvania Department of Transportation. Mr. Vishad had contacted the Department because of 41 full 55 gallon drums of unknown contents were discovered when PennDot took possession of the property.

I was unaware up until the meeting that CRC was responsible for the abandoned drums.

At the time of the meeting you said that you had no knowledge that CRC had made a commitment in writing on April 19, 1984 to properly sample and dispose of the material in the drums. At that time the drums were stored in your facility located at 717 E. Lincoln Highway, Exton, West Whiteland, Chester County, PA. Please find enclosed photocopies of correspondence between CRC and the Department concerning the proper handling of these afore mentioned drums plus other problems that still exist at the Exton facility.

Please respond in writing within 7 days as to your plans and a schedule to properly test and dispose of this material.

ORIGINAL (red)

If you have any questions, I can be reached at 565-1687.

Sincerely,

Frank Holmes
Solid Waste Operations Supervisor

cc: Carol Kurtz-Solid Waste Specialist
Don DiDomenico- PennDot
Regional File

INVESTIGATION OF POSSIBLE SOURCES OF GROUNDWATER CONTAMINATION AT C.D.S. INVESTMENTS PROPERTY

AGES PROJECT NO. 43183
AGES REPORT NO. 43183-1

SEPTEMBER, 1984

AGES

LIST OF FIGURES

	Page No.
Site Location Map	2
Figure 1 - Sample Locations at Mid-County Mustang	8
Figure 2 - Location of Mid-County Mustang Well Sump	10
Figure 3 - Plan of Upgrading Well Protection	11
Figure 4 - Location of P.M.S. Test Pits	13

AGS

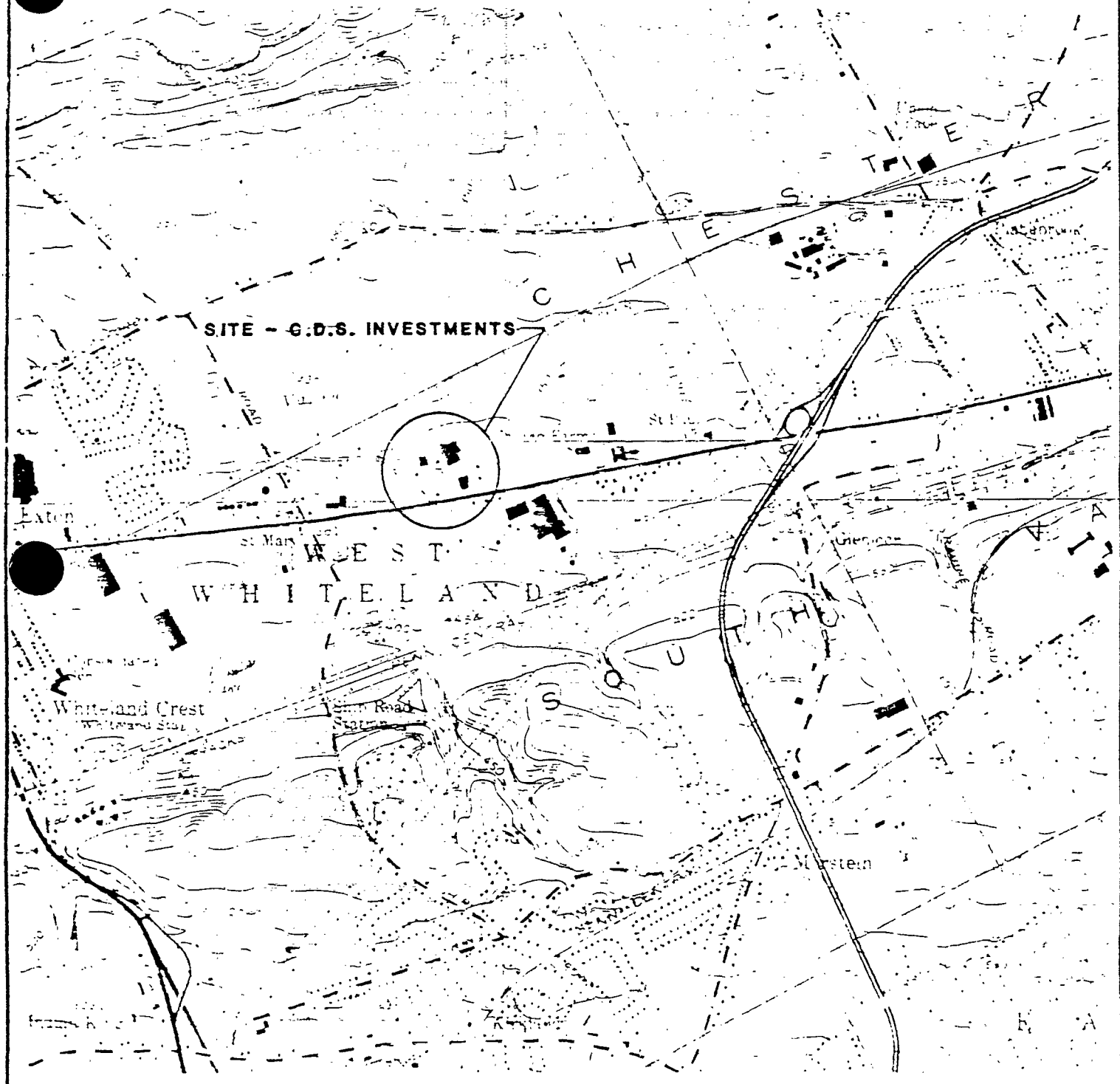
INTRODUCTION

AGES Corporation has been retained by C.D.S. Investments to investigate and propose remediation for any source of groundwater contamination which may originate from the Pipe Maintenance Service Facility (P.M.S.) and the Mid-County Mustang Facility located on CDS property at Lancaster Pike in Exton, Pennsylvania (see Site Location Map).

The Pennsylvania Department of Environmental Resources (PA DER) has previously identified groundwater contamination at facilities adjoining the CDS property and in an on-site well located at CDS.

The AGES investigation included locating and sampling drainage fields that serve the facilities located at the CDS property; and performing remedial activities, where necessary, to alleviate all possible pathways of potential contaminant migration.

AGES



SITE LOCATION MAP C.D.S. INVESTMENTS,

U.S.G.S. 7.5 MIN.QUAD. MALVERN PA.

AGES Applied Geotechnical and Environmental Services Corp	SCALE 1":2000'	DRAWN BY J.D.L.	DATE 8/17/84	DRAWING NO.
	PROJECT NO. 43183	APPROVED BY DE	43183-A-004	

BACKGROUND

In 1982 the Pennsylvania Department of Environmental Resources (PA DER) conducted a groundwater sampling program in the general vicinity of the CDS property. PA DER sampled a number of private wells and determined a pattern of elevated levels of trichloroethylene (TCE) which appeared to be associated with former operations at the A.I.W. Frank (AIWF) property which adjoins CDS. The manufacturing facility which previously operated at the AIWF property was engaged in the production of styrofoam cups and plates.

In the latter part of 1982 a consultant was retained by representatives of the AIWF property to investigate the contribution of the former manufacturing facility to local groundwater contamination. The investigation included on-site monitoring well installations and sampling; soil sampling in areas where chemicals were previously stored; and sampling both on-site and off-site wells in conjunction with PA DER. The study indicated groundwater contamination had occurred at the AIWF property and adjoining areas.

The various sampling events conducted by PA DER and others identified contamination in the on-site well located at the CDS property. The well serves several facilities which occupy the CDS property. The water users at these facilities were subsequently provided with bottled water and water filtration devices which are still being used.

AGES

AGES involvement with the CDS property began in late 1983. The investigation included identifying possible sources of potential groundwater contamination; and the contribution of the facilities, located at the CDS property, to the overall groundwater contamination problem in the general area. The scope of the investigation as initially proposed is attached in the Appendix to this report.

AGES

SITE PHYSICAL SETTING

Conestoga series soils cover the entire site. These soils are predominently deep, well to poorly drained, typically yellow-brown silty clay loams. Mottling is characteristic in the upper soil horizons. Excavation at the site around the drain discharge areas revealed a mix of light brown to orange-brown, tight, clayey native soil with minor mottling and disrupted fill material. Various erratics were observed surrounding the discharge fields showing that these areas are primarily fill material.

The site is underlain by Ordovician and Cambrian age siltstone and dolomite rock units. The major units are the Conestoga Formation, a light to dark grey siltstone and crystalline limestone; and the Ledger Dolomite, a massive, pure, coarse, light grey dolomitic formation which is conformable with the Conestoga. Relief in the site vicinity is low to moderate and the topography reflects the fine grained carbonate lithology which dominates the area.

SCOPE OF THE INVESTIGATION

The AGES study focused on the Pipe Maintenance Service (P.M.S.) and Mid-County Mustang Facilities which are located on C.D.S. property. Specifically the facilities floor and roof drain systems and discharge fields were assessed. The discharge areas were identified and defined; and the tile fields were located, excavated and sampled. The specific materials sampled included the tile field filter material, material which was contained in the discharge piping and soil from possible contaminated areas beneath the drain fields.

The effectiveness of the existing drainage systems was evaluated and appropriate remedial action was taken to assure that the stormwater removal and discharge systems functioned properly. The floor drain systems for both site facilities were sealed to prevent any further internal discharges.

Sources of possible groundwater contamination at the site included internal building drainage to the discharge pipes entering the tile fields. These pipes were found to be blocked or partially clogged and did not actively discharge to the tile fields at the time of the investigation. The contribtuion of contaminated surface runoff resulting from poor housekeeping practices was also assessed; and appropriate remedial action was taken where necessary.

SITE INVESTIGATION/REMEDIAL ACTIVITIES

Mid-County Mustang

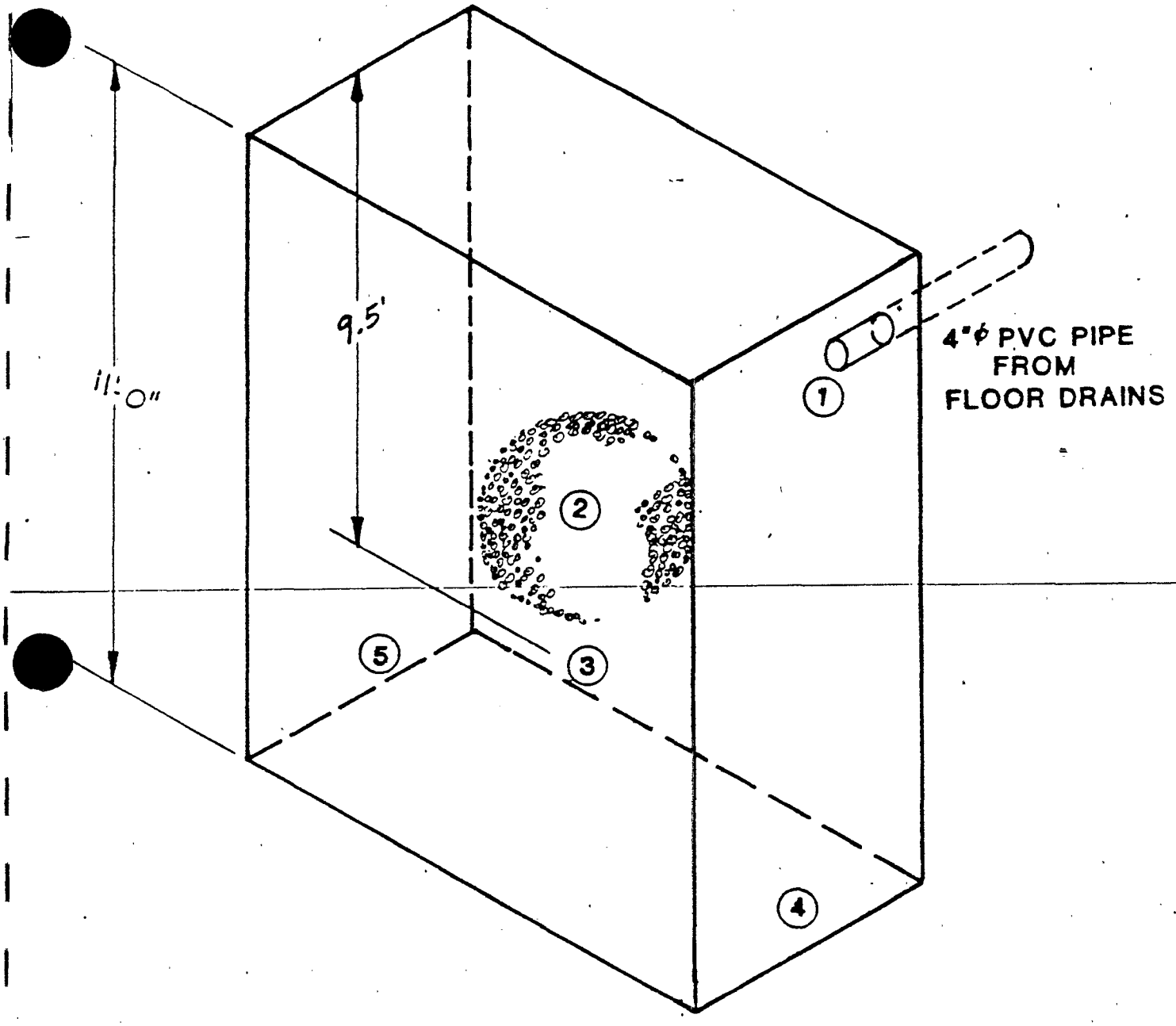
The investigation of the Mid-County Mustang facility began on December 20, 1984. The emphasis of the investigation was directed toward identifying the possible contribution of facility operations to the contamination of the on-site well. The close proximity of the well to the facility's drainage field made this a viable source for possible contamination of the well. The movement of surface runoff from the building's parking area to the general area of the well sump was also a potential vehicle for contamination.

The drainage field was excavated to identify its extent and to secure samples for analytical tests. Samples were obtained from the gravel filter blanket, the natural soil below the drain field and fluid emanating from the drain pipe. The bottom of the gravel filter blanket was approximately 9-1/2 feet below the top of the test pit and the deepest samples, which are identified as the northwall and southwall samples, were approximately 11 feet from the top of the test pit (Figure 1). At the time of the sampling the discharge point of the floor drain was partially clogged. It was subsequently unclogged prior to obtaining samples. As a result, the analysis of the floor drain sample represented existing conditions.

The analytical test results for the samples obtained at Mid-County Mustang are attached in the appendix to this report.

AGES

FIGURE 1



1. PIPE OUTFALL
2. STONE AGGREGATE
3. SOIL DIRECTLY BELOW STONE
4. SOIL-NORTH END OF PIT
5. SOIL-SOUTH END OF PIT

ORIGINAL (RED)

AGES Applied Geotechnical and Environmental Service Corp.	SCALE ~	DRAWN BY J.DiL	DATE 9-26-84	SHEET NO
	PROJECT NO. 43183	APPROVED BY	DRAWING NO. AR100483	

As part of an on-going remedial action, the water well housing at the Mid-County Mustang Facility has been upgraded to prohibit the entry of any surface runoff to the well housing (see Figures 2 & 3). In addition, the floor drain system has been sealed to Prevent any internal discharge from the building from entering the discharge drain field.

The facility is now isolated from any potential contact with area groundwater as a result of spills or routine operations.

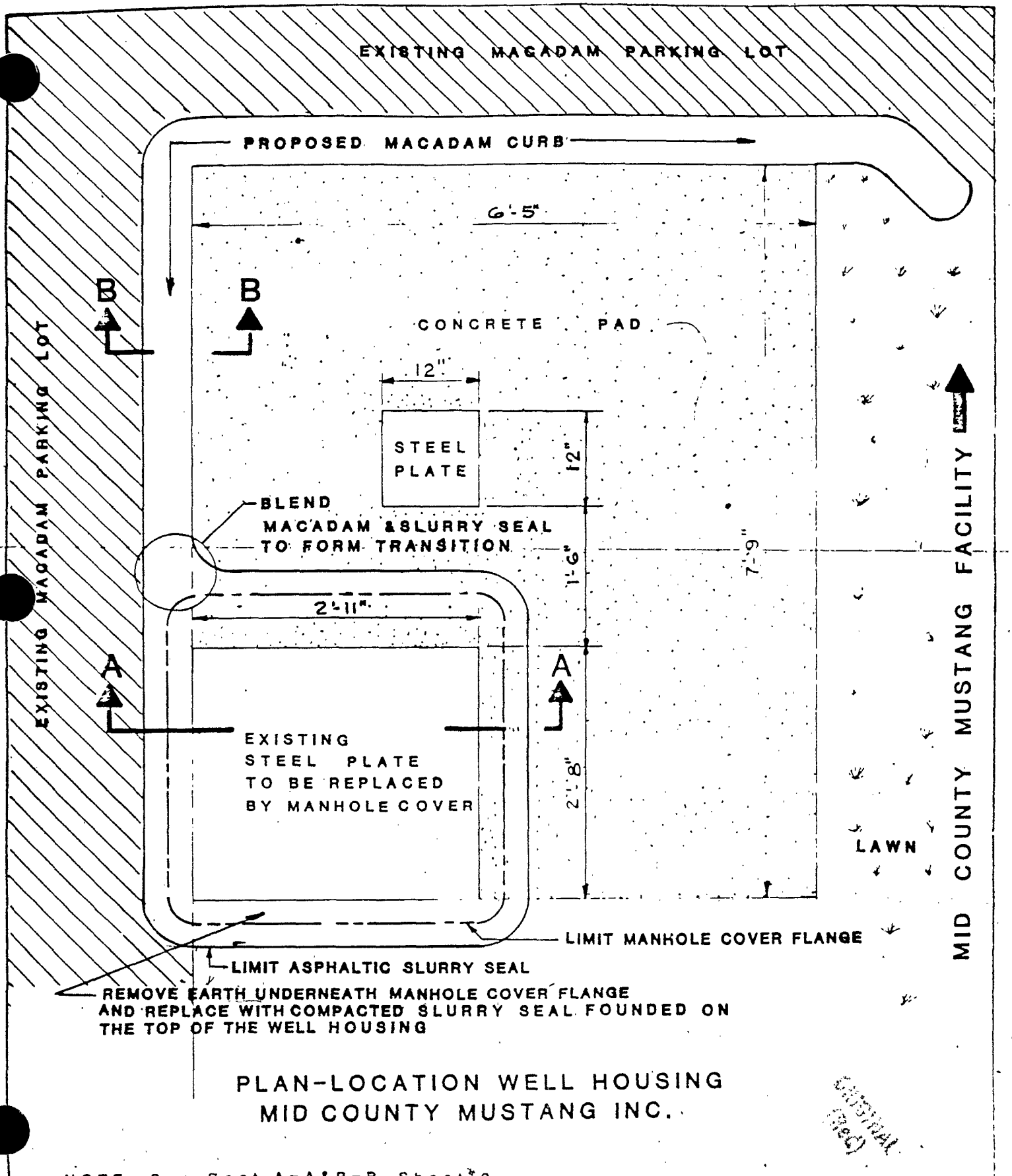
Geophysical Study

AGES Corporation conducted a geophysical survey at the Pipe Maintenance Service Facility in April, 1984. Weather and ground conditions had prevented earlier initiation of this phase of the investigation. The purpose of the geophysical investigation was to identify the extent of any contamination emanating from the PMS facility and the location(s) of the drainage fields serving the building's drain system.

The results of the electrical resistivity study showed that a detectable plume of contamination was not present in the vicinity of the discharge fields. This was confirmed upon excavation of the drainage fields. The piping which transmits stormwater and floor drain discharge from the facility were completely blocked with debris. Although the time period in which the drains had been inoperative could not be determined, the amount and condition of the material blocking the piping suggests that they had been blocked for an extensive period of time.

AGES

FIGURE 2



PLAN-LOCATION WELL HOUSING MID COUNTY MUSTANG INC.

NOTE: See Sect. A-A & B-B Sheet *2

AGES Applied Geotechnical and Environmental Services

3/4" = 1'-0" | J.D.L. | DRAWING No.

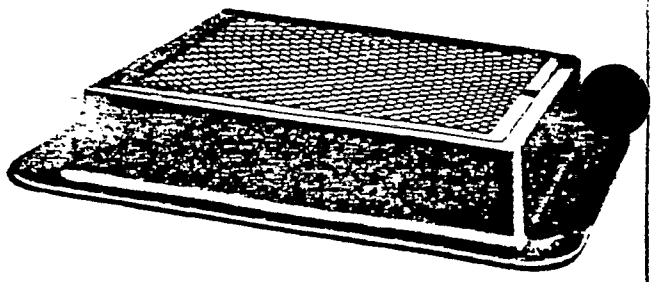
43-83

FIGURE 3

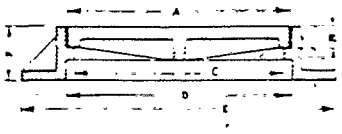
Type "F" Reversible

Catalog No	Dimensions in inches A	B	C	D	E	F	Wt Lbs.
R-1806	13¾ x 13¾	1½	12 x 12	14 x 14	18 x 18	4	125
R-1807	18 x 18	1½	16 x 16	18¼ x 18¼	22 x 22	4	185
R-1808	20 x 20	1½	18 x 18	20¼ x 20¼	24 x 24	4	205
R-1814	21¾ x 21¾	1½	20 x 20	22 x 22	26 x 26	4	245
R-1819	23¾ x 23¾	1½	22 x 22	24 x 24	28 x 28	4	280
R-1821	25¾ x 25¾	1½	24 x 24	26 x 26	30 x 30	4	325
R-1826	27¾ x 27¾	1½	26 x 26	28 x 28	32 x 32	4	380
R-1829	29 x 29	1½	28 x 28	29¾ x 29¾	34 x 34	4	415
R-1842	31¾ x 31¾	1½	30 x 30	32 x 32	36 x 36	4	470
R-1845	37 x 37	1½	36 x 36	37½ x 37½	42 x 42	4	790*

*Lid made in two pieces



Illustrating R-1810 with Square Base Flange

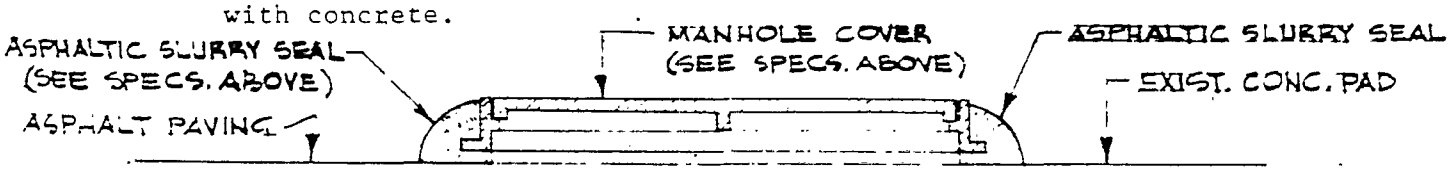


Type F
Furnished standard as shown. May be supplied with flange at top for slab manhole if specified.

NEENAH FOUNDRY COMPANY

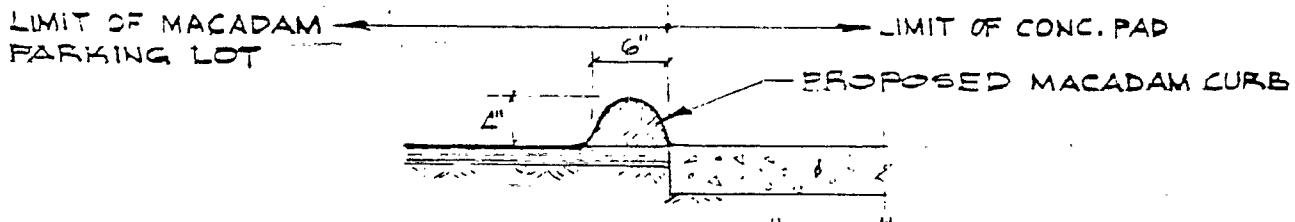
CONSTRUCTION SPECIFICATIONS

1. Replace existing 32" x 36" steel plate with Neenah Foundry Manhole Cover Catalog No. R-1845 or equal.
2. Scarify Concrete Surface prior to placement of the Manhole Cover.
3. The manhole cover shall be leveled and sealed watertight to the concrete pad and Macadam Parking Lot utilizing Asphaltic Slurry Seal as specified in Section 482 Penndot Publication 408. The slurry seal shall blend with the proposed Macadam Curb to form a continuous diversion berm.
4. Remove existing 12" x 12" steel plate and enclose the hole with concrete.



SECTION "A-A"

SCALE : 3/4" = 1'-0"



SECTION "B-B"

SCALE : 3/4" = 1'-0"

MID COUNTY MUSTANG, INC.

AGES Applied Geotechnical and Environmental Service Corp

AR100486

SCALE	DRAWN BY	DATE	DRAWING NO
AS NOTED	WCB	Apr. 12, 84	A-002
PROJECT NO 43183	APPROVED BY DEF	SHEET NO 2 of 2	

Re: Analysis of Soil Samples
Submitted 8/7/84
AGES Lab I.D. #841094

#5 Soil Beneath Field - VOLATILE ORGANICS

The above sample was analyzed for Volatile Organics by the Headspace method. The analysis was performed with a gas chromatograph equipped with a flame ionization detector. Sample components were identified by comparison of peak retention times with the standard compounds listed below. The results of the analysis are:

Methylene Chloride	ND	Trichloroethylene	ND
Acetone	ND	1,1,2 Trichloroethane	ND
		Benzene	ND
1,1 Dichloroethylene	ND	Methyl-isobutyl Ketone	ND
1,1 Dichloroethane	ND	S-Tetrachloroethane	ND
T-1,2 Dichloroethylene	ND	Tetrachloroethylene	ND
Chloroform	ND	Toluene	ND
Methyl-ethyl Ketone	ND	Chloro Benzene	ND
1,2 Dichloroethane	ND	Ethyl Benzene	ND
1,1,1 Trichloroethane	ND	O-Xylene	ND
Carbon Tetrachloride	ND	M-Xylene	ND
1,2 Dichloropropane	ND	P-Xylene	ND

The results are expressed as mg/kg.

ND = None Detected. (less than 1. mg/kg)

ORIGINAL (Red)

AGES

APPENDIX G

826

Laboratory Name: RADIAN

Case No: 5215

Sample Number
CC698

Organics Analysis Data Sheet
(Page 3)

Pesticide/PCBs

Concentration: (Low) Medium (Circle One)

Date Extracted/Prepared: 11-18-85

Date Analyzed: 11-25-85

Conc/Dil Factor: 5.97g/5.0ml

CAS Number		ug/l or (ug/Kg) (Circle One)
319-84-6	Alpha-BHC	8.0 U
319-85-7	Beta-BHC	8.0 U
319-86-8	Delta-BHC	8.0 U
58-89-9	Gamma-BHC (Lindane)	8.0 U
76-44-8	Heptachlor	8.0 U
309-00-2	Aldrin	8.0 U
1024-57-3	Heptachlor Epoxide	8.0 U
959-98-8	Endosulfan I	8.0 U
60-57-1	Dieldrin	8.0 U
72-55-9	4, 4'-DDE	8.0 U
72-20-8	Endrin	8.0 U
33213-65-9	Endosulfan II	24 U
72-54-8	4, 4'-DDD	8.0 U
7421-93-4	Endrin Aldehyde	16 U
1031-07-8	Endosulfan Sulfate	40 U
50-29-3	4, 4'-DDT	16 U
72-43-5	Methoxychlor	40 U
53494-70-5	Endrin Ketone	40 U
57-74-9	Chlordane	200 U
8001-35-2	Toxaphene	400 U
12674-11-2	Aroclor-1016	125 U
11104-28-2	Aroclor-1221	200 U
11141-16-5	Aroclor-1232	200 U
53469-21-9	Aroclor-1242	125 U
12672-29-6	Aroclor-1248	125 U
11097-69-1	Aroclor-1254	2600
11096-82-5	Aroclor-1260	200 U

V_i = Volume of extract injected (ul)

V_s = Volume of water extracted (ml)

W_s = Weight of sample extracted (g)

V_t = Volume of total extract (ul)

V_s _____ or W_s 5.97 V_t 5000 V_i 2.00

AR100489

Sample Number
CC698
(Rerun)
901

Organics Analysis Data Sheet
(Page 1)

Laboratory Name: Radian
Case No: 5215
Lab Sample ID No: 4EU110485V08
QC Report No: 87
Sample Matrix: soil
Contract No: 68-01-6853
Data Release Authorized By: K Whelan
Date Sample Received: 11-14-85

Volatile Compounds

Concentration: (Low) Medium (Circle One)
Date Extracted/Prepared: 11/20/85 * See Narrative
Date Analyzed: 11/20/85
Conc/Dil Factor: 1 pH 8.9
Percent Moisture: (Not Decanted) 23%

CAS Number		ug/l or ug/Kg (Circle One)
74-87-3	Chloromethane	10U
74-83-9	Bromomethane	10U
75-01-4	Vinyl Chloride	10U
75-00-3	Chloroethane	10U
75-09-2	Methylene Chloride	10 B
67-64-1	Acetone	10J B
75-15-0	Carbon Disulfide	5U
75-35-4	1, 1-Dichloroethene	5U
75-34-3	1, 1-Dichloroethane	5U
156-60-5	Trans-1, 2-Dichloroethene	5J
67-66-3	Chloroform	5U
107-06-2	1, 2-Dichloroethane	5U
78-93-3	2-Butanone	13 B
71-55-6	1, 1, 1-Trichloroethane	5J
56-23-5	Carbon Tetrachloride	5U
108-05-4	Vinyl Acetate	10U
75-27-4	Bromodichloromethane	5U

CAS Number		ug/l or ug/Kg (Circle One)
78-87-5	1, 2-Dichloropropane	5U
10061-02-6	Trans-1, 3-Dichloropropene	5U
79-01-6	Trichloroethene	15
124-48-1	Dibromochloromethane	5U
79-00-5	1, 1, 2-Trichloroethane	5U
71-43-2	Benzene	5J
10061-01-5	cis-1, 3-Dichloropropene	5U
110-75-8	2-Chloroethylvinylether	10U
75-25-2	Bromoform	5U
108-10-1	4-Methyl-2-Pentanone	10U
591-78-6	2-Hexanone	10U
127-18-4	Tetrachloroethene	11
79-34-5	1, 1, 2, 2-Tetrachloroethane	5U
108-88-3	Toluene	13
108-90-7	Chlorobenzene	5U
100-41-4	Ethylbenzene	5U
100-42-5	Styrene	5U
	Total Xylenes	6

ORIGINAL (Red)

Data Reporting Qualifiers

For reporting results to EPA, the following results qualifiers are used. Additional flags or footnotes explaining results are encouraged. However, the definition of each flag must be explicit.

Value	If the result is a value greater than or equal to the detection limit, report the value
U	Indicates compound was analyzed for but not detected. Report the minimum detection limit for the sample with the U (e.g., 10U) based on necessary concentration/dilution action. (This is not necessarily the instrument detection limit.) The footnote should read "U - Compound was analyzed for but not detected. The number is the minimum attainable detection limit for the sample."
J	Indicates an estimated value. This flag is used either when estimating a concentration for tentatively identified compounds where a 1:1 response is assumed or when the mass spectral data indicated the presence of a compound that meets the identification criteria but the result is less than the specified detection limit but greater than zero (e.g., 10J). If limit of detection is 10 µg/l and a concentration of 3 µg/l is calculated, report as 3J.
C	This flag applies to pesticide parameters where the identification has been confirmed by GC-MS. Single component pesticides ≥10 ng/ul in the final extract should be confirmed by GC-MS.
B	This flag is used when the analyte is found in the blank as well as a sample. It indicates possible/probable blank contamination and warns the data user to take appropriate action.
Other	Other specific flags and footnotes may be required to properly define the results. If used, they must be fully described and such description attached to the data summary report.

Sample Number
CB870

Drum Soil (169

Organics Analysis Data Sheet
(Page 1)

Laboratory Name: Radian
Case No: 5215
Lab Sample ID No: 4EU11086V03
QC Report No: 87
Sample Matrix: Soil
Contract No: 68-01-6853
Data Release Authorized By: K Mulchahey
Date Sample Received: 11/14/85

Volatile Compounds

Concentration: (Low) Medium (Circle One)
Date Extracted/Prepared: 11/21/85
Date Analyzed: 11/21/85
Conc/Dil Factor: 1 pH 7.3
Percent Moisture: (Not Decanted) 21%

CAS Number		ug/l or ug/Kg (Circle One)
74-87-3	Chloromethane	10U
74-83-9	Bromomethane	10U
75-01-4	Vinyl Chloride	10U
75-00-3	Chloroethane	10U
[illegible]9-2	Methylene Chloride	5 B
[illegible]4-1	Acetone	47 B
75-15-0	Carbon Disulfide	5U
75-35-4	1, 1-Dichloroethene	5U
75-34-3	1, 1-Dichloroethane	5U
156-60-5	Trans-1, 2-Dichloroethene	5U
67-66-3	Chloroform	5U
107-06-2	1, 2-Dichloroethane	5U
78-93-3	2-Butanone	10 B
71-55-6	1, 1, 1-Trichloroethane	5U
56-23-5	Carbon Tetrachloride	5U
108-05-4	Vinyl Acetate	10U
75-27-4	Bromodichloromethane	5U

CAS Number		ug/l or ug/Kg (Circle One)
78-87-5	1, 2-Dichloropropane	5U
10061-02-6	Trans-1, 3-Dichloropropene	5U
79-01-6	Trichloroethene	5U
124-48-1	Dibromochloromethane	5U
79-00-5	1, 1, 2-Trichloroethane	5U
71-43-2	Benzene	5J
10061-01-5	cis-1, 3-Dichloropropene	5U
110-75-8	2-Chloroethylvinylether	10U
75-25-2	Bromoform	5U
108-10-1	4-Methyl-2-Pentanone	10U
591-78-6	2-Hexanone	10U
127-18-4	Tetrachloroethene	5U
79-34-5	1, 1, 2, 2-Tetrachloroethane	5U
108-88-3	Toluene	5J B
108-90-7	Chlorobenzene	5U
100-41-4	Ethylbenzene	5J
100-42-5	Styrene	5U
	Total Xylenes	5U

ORIGINAL (Red)

Data Reporting Qualifiers

For reporting results to EPA, the following results qualifiers are used. Additional flags or footnotes explaining results are encouraged However, the definition of each flag must be explicit.

Value If the result is a value greater than or equal to the detection limit, report the value.

U Indicates compound was analyzed for but not detected Report the minimum detection limit for the sample with the U (e g , 10U) based on necessary concentration/dilution action (This is not necessarily the instrument detection limit) The footnote should read U- Compound was analyzed for but not detected The number is the minimum attainable detection limit for the sample

J Indicates an estimated value This flag is used either when estimating a concentration for tentatively identified compounds where a 1 1 response is assumed or when the mass spectral data indicated the presence of a compound that meets the identification criteria but the result is less than the specified detection limit but greater than zero (e g , 10J) If limit of detection is 10 µg/l and a concentration of 3 µg/l is calculated, report as 3J

C This flag applies to pesticide parameters where the identification has been confirmed by GC-MS Single component pesticides ≥10 ng ul in the final extract should be confirmed by GC MS

B This flag is used when the analyte is found in the blank as well as a sample It indicates possible/probable blank contamination and warns the data user to take appropriate action

Other Other specific flags and footnotes may be required to properly define the results If used, they must be fully described and such description attached to the data summary report

Laboratory Name: Radian

ase No: 5215

Sample Number: CB870

170

Organics Analysis Data Sheet
(Page 2)

Semivolatile Compounds

oncentration: (Low) . Medium (Circle One)

Date Extracted/Prepared: 11/18/85

ate Analyzed: 11/27/85

Conc./Dil Factor: 30.16 gms/ml

ercent Moisture (Decanted) 21%

GPC Cleanup ☐Yes ☒No

Separatory Funnel Extraction ☐Yes

Continuous Liquid - Liquid Extraction ☒Yes

CAS Number		ug/l or (ug/Kg) (Circle One)
108-95-2	Phenol	330U
111-44-4	bis(-2-Chloroethyl)Ether	330U
95-57-8	2-Chlorophenol	330U
541-73-1	1 3-Dichlorobenzene	330U
106-46-7	1 4-Dichlorobenzene	330U
100-51-6	Benzyl Alcohol	330U
95-50-1	1 2-Dichlorobenzene	330U
95-48-7	2-Methylphenol	330U
39638-32-9	bis(2-chloroisopropyl)Ether	330U
106-44-5	4-Methylphenol	330U
621-64-7	N-Nitroso-Di-n-Propylamine	330U
67-72-1	Hexachloroethane	330U
98-95-3	Nitrobenzene	330U
78-59-1	Isophorone	330U
88-75-5	2-Nitrophenol	330U
105-67-9	2. 4-Dimethylphenol	330U
65-85-0	Benzoic Acid	1600U
111-91-1	bis(-2-Chloroethoxy)Methane	330U
120-83-2	2. 4-Dichlorophenol	330U
120-82-1	1. 2. 4-Trichlorobenzene	330U
91-20-3	Naphthalene	330U
106-47-8	4-Chloroaniline	330U
87-68-3	Hexachlorobutadiene	330U
59-50-7	4-Chloro-3-Methylphenol	330U
91-57-6	2-Methylnaphthalene	330U
77-47-4	Hexachlorocyclopentadiene	330U
88-06-2	2 4 6-Trichlorophenol	330U
95-95-4	2 4 5-Trichlorophenol	1600U
91-58-7	2-Chloronaphthalene	330U
88-74-4	2-Nitroaniline	1600U
131-11-3	Dimethyl Phthalate	330U
208-96-8	Acenaphthylene	330U
99-09-2	3-Nitroaniline	1600U

CAS Number		ug/l or (ug/Kg) (Circle One)
83-32-9	Acenaphthene	330U
51-28-5	2. 4-Dinitrophenol	1600U
100-02-7	4-Nitrophenol	1600U
132-64-9	Dibenzofuran	330U
121-14-2	2 4-Dinitrotoluene	330U
606-20-2	2 6-Dinitrotoluene	330U
84-66-2	Diethylphthalate	330U
7005-72-3	4-Chlorophenyl-phenylether	330U
86-73-7	Fluorene	330U
100-01-6	4-Nitroaniline	1600U
534-52-1	4 6-Dinitro-2-Methylphenol	1600U
86-30-6	N-Nitrosodiphenylamine (1)	330U
101-55-3	4-Bromophenyl-phenylether	330U
118-74-1	Hexachlorobenzene	330U
87-86-5	Pentachlorophenol	1600U
85-01-8	Phenanthrene	330U
120-12-7	Anthracene	330U
84-74-2	Di-n-Butylphthalate	470 B
206-44-0	Fluoranthene	330J
129-00-0	Pyrene	330J
85-68-7	Butylbenzylphthalate	330U
91-94-1	3. 3'-Dichlorobenzidine	660U
56-55-3	Benzo(a)Anthracene	330U
117-81-7	bis(2-Ethylhexyl)Phthalate	330J
218-01-9	Chrysene	330U
117-84-0	Di-n-Octyl Phthalate	330U
205-99-2	Benzo(b)Fluoranthene	330U
207-08-9	Benzo(k)Fluoranthene	330U
50-32-8	Benzo(a)Pyrene	330U
193-39-5	Indeno(1. 2. 3-cd)Pyrene	330U
53-70-3	Dibenz(a. h)Anthracene	330U
191-24-2	Benzo(g. h. i)Perylene	330U
122-66-7	1,2-Diphenylhydrazine	330J

(1) Cannot be separated from diphenylamine

Laboratory Name: RADIAN

Case No: 5215

Sample Number: CB870

171

Organics Analysis Data Sheet
(Page 3)

Pesticide/PCBs

Concentration: (Low) Medium (Circle One)

Date Extracted/Prepared: 11-18-85

Date Analyzed: 11-25-85

Conc/Dil Factor: 30.16g/5.0ml

CAS Number		ug/l or (ug/Kg) (Circle One)
319-84-6	Alpha-BHC	1.6 U
319-85-7	Beta-BHC	1.6 U
319-86-8	Delta-BHC	1.6 U
58-89-9	Gamma-BHC (Lindane)	1.6 U
76-44-8	Heptachlor	1.6 U
309-00-2	Aldrin	1.6 U
1024-57-3	Heptachlor Epoxide	1.6 U
959-98-8	Endosulfan I	1.6 U
60-57-1	Dieldrin	1.6 U
72-55-9	4,4'-DDE	1.6 U
72-20-8	Endrin	1.6 U
33213-65-9	Endosulfan II	4.0 U
72-54-8	4,4'-DDD	1.6 U
7421-93-4	Endrin Aldehyde	3.2 U
1031-07-8	Endosulfan Sulfate	8.0 U
50-29-3	4,4'-DDT	3.2 U
72-43-5	Methoxychlor	8.0 U
53494-70-5	Endrin Ketone	8.0 U
57-74-9	Chlordane	40.0 U
8001-35-2	Toxaphene	80.0 U
12674-11-2	Aroclor-1016	25.0 U
11104-28-2	Aroclor-1221	40.0 U
11141-16-5	Aroclor-1232	40.0 U
53469-21-9	Aroclor-1242	25.0 U
12672-29-6	Aroclor-1248	25.0 U
11097-69-1	Aroclor-1254	40.0 U
11096-82-5	Aroclor-1260	40.0 U

V_i = volume of extract injected (ul)

V_s = Volume of water extracted (ml)

W_s = Weight of sample extracted (g)

V_t = Volume of total extract (ul)

V_s _____ or W_s 30.16 V_t 5000 V_i 2.00

ORIGINAL

AR100493

Sample Number 217
CB871

Organics Analysis Data Sheet
(Page 1)

Cockerham #1

aboratory Name: Radian
Lab Sample ID No: 4EU11036V02
Sample Matrix: soil
Data Release Authorized By: K Shladnee

Case No: 5215
QC Report No: 87
Contract No: 68-01-6853
Date Sample Received: 11/14/85

Volatile Compounds

Concentration: (Low) Medium (Circle One)
Date Extracted/Prepared: 11/21/85
Date Analyzed: 11/21/85
Conc/Dil Factor: 1 pH 6.7
Percent Moisture: (Not Decanted) 17%

CAS Number		ug/l or (ug/Kg) (Circle One)
74-87-3	Chloromethane	10U
74-83-9	Bromomethane	10U
75-01-4	Vinyl Chloride	10U
75-00-3	Chloroethane	10U
75-09-2	Methylene Chloride	5JB
67-64-1	Acetone	10 B
75-15-0	Carbon Disulfide	5U
75-35-4	1, 1-Dichloroethene	5U
75-34-3	1, 1-Dichloroethane	5U
156-60-5	Trans-1, 2-Dichloroethene	5U
67-66-3	Chloroform	5U
107-06-2	1, 2-Dichloroethane	5U
78-93-3	2-Butanone	12B
71-55-6	1, 1, 1-Trichloroethane	5U
56-23-5	Carbon Tetrachloride	5U
108-05-4	Vinyl Acetate	10U
75-27-4	Bromodichloromethane	5U

CAS Number		ug/l or (ug/Kg) (Circle One)
78-87-5	1, 2-Dichloropropane	5U
10061-02-6	Trans-1, 3-Dichloropropene	5U
79-01-6	Trichloroethene	5U
124-48-1	Dibromochloromethane	5U
79-00-5	1, 1, 2-Trichloroethane	5U
71-43-2	Benzene	5J
10061-01-5	cis-1, 3-Dichloropropene	5U
110-75-8	2-Chloroethylvinylether	10U
75-25-2	Bromoform	5U
108-10-1	4-Methyl-2-Pentanone	10U
591-78-6	2-Hexanone	10U
127-18-4	Tetrachloroethene	5U
79-34-5	1, 1, 2, 2-Tetrachloroethane	5U
108-88-3	Toluene	5JB
108-90-7	Chlorobenzene	5U
100-41-4	Ethylbenzene	5U
100-42-5	Styrene	5U
	Total Xylenes	5U

Data Reporting Qualifiers

For reporting results to EPA, the following results qualifiers are used. Additional flags or footnotes explaining results are encouraged. However, the definition of each flag must be explicit.

Value If the result is a value greater than or equal to the detection limit, report the value

U Indicates compound was analyzed for but not detected. Report the minimum detection limit for the sample with the U (e.g., 10U) based on necessary concentration/dilution action. (This is not necessarily the instrument detection limit.) The footnote should read U-Compound was analyzed for but not detected. The number is the minimum attainable detection limit for the sample

J Indicates an estimated value. This flag is used either when estimating a concentration for tentatively identified compounds where a 1:1 response is assumed or when the mass spectral data indicated the presence of a compound that meets the identification criteria but the result is less than the specified detection limit but greater than zero (e.g., 10J). If limit of detection is 10 μg/l and a concentration of 3 μg/l is calculated, report as 3J

C This flag applies to pesticide parameters where the identification has been confirmed by GC/MS. Single component pesticides ≥10 ng/ul in the final extract should be confirmed by GC/MS

B This flag is used when the analyte is found in the blank as well as a sample. It indicates possible/probable blank contamination and warns the data user to take appropriate action

Other Other specific flags and footnotes may be required to properly define the results. If used, they must be fully described and such description attached to the data summary report

AR100494

Laboratory Name: Radian

ase No: 5215

Sample Number: CB-871

Organics Analysis Data Sheet
(Page 2)

Semivolatile Compounds

ncentration: (Low) Medium (Circle One)

Date Extracted/Prepared: 11/18/85

ate Analyzed: 11/27/85

onc./Dil Factor: 30.91 gms/ml

Percent Moisture (Decanted) 17%

GPC Cleanup ☐Yes ☒No

Separatory Funnel Extraction ☐Yes

Continuous Liquid - Liquid Extraction ☐Yes

AS Number		ug/l or (ug/Kg) (Circle One)
108-95-2	Phenol	330U
11:44-4	bis(-2-Chloroethyl)Ether	330U
5-57-8	2-Chlorophenol	330U
541-73-1	1 3-Dichlorobenzene	330U
06-46-7	1 4-Dichlorobenzene	330U
00-51-6	Benzyl Alcohol	330U
95-50-1	1 2-Dichlorobenzene	330U
[redacted]	2-Methylphenol	330U
[redacted]32-9	bis(2-chloroisopropyl)Ether	330U
106-44-5	4-Methylpheno	330U
21-64-7	N-Nitroso-Di-n-Propylamine	330U
7-72-1	Hexachloroethane	330U
98-95-3	Nitrobenzene	330U
8-59-1	Isophorone	330U
8-75-5	2-Nitrophenol	330U
105-67-9	2, 4-Dimethylphenol	330U
5-85-0	Benzoic Acid	1600U
11-91-1	bis(-2-Chloroethoxyl)Methane	330U
120-83-2	2, 4-Dichlorophenol	330U
20-82-1	1, 2, 4-Trichlorobenzene	330U
1-20-3	Naphthalene	330U
106-47-8	4-Chloroaniline	330U
87-68-3	Hexachlorobutadiene	330U
9-50-7	4-Chloro-3-Methylphenol	330U
91-57-6	2-Methylnaphthalene	330U
77-47-4	Hexachlorocyclopentadiene	330U
8-06-2	2, 4 6-Trichlorophenol	330U
95-95-4	2 4 5-Trichlorophenol	1600U
91-58-7	2-Chloronaphthalene	330U
8-74-4	2-Nitroaniline	1600U
[redacted]3	Dimethyl Phthalate	330U
20[redacted]8	Acenaphthylene	330U
09-2	3-Nitroaniline	1600U

CAS Number		ug/l or (ug/Kg) (Circle One)
83-32-9	Acenaphthene	330U
51-28-5	2, 4-Dinitrophenol	1600U
100-02-7	4-Nitrophenol	1600U
132-64-9	Dibenzofuran	330U
121-14-2	2 4-Dinitrotoluene	330U
606-20-2	2 6-Dinitrotoluene	330U
84-66-2	Diethylphthalate	330U
7005-72-3	4-Chlorophenyl-phenylether	330U
86-73-7	Fluorene	330U
100-01-6	4-Nitroaniline	1600U
534-52-1	4 6-Dinitro-2-Methylphenol	1600U
86-30-6	N-Nitrosodiphenylamine (1)	330U
101-55-3	4-Bromophenyl-phenylether	330U
118-74-1	Hexachlorobenzene	330U
87-86-5	Pentachlorophenol	1600U
85-01-8	Phenanthrene	330U
120-12-7	Anthracene	330U
84-74-2	Di-n-Butylphthalate	2500B
206-44-0	Fluoranthene	330U
129-00-0	Pyrene	330J
85-68-7	Butylbenzylphthalate	330U
91-94-1	3, 3 -Dichlorobenzidine	660U
56-55-3	Benzo(a)Anthracene	330U
117-81-7	bis(2-Ethylhexyl)Phthalate	330J
218-01-9	Chrysene	330U
117-84-0	Di-n-Octyl Phthalate	330U
205-99-2	Benzo(b)Fluoranthene	330U
207-08-9	Benzo(k)Fluoranthene	330U
50-32-8	Benzo(a)Pyrene	330U
193-39-5	Indeno(1, 2, 3-cd)Pyrene	330U
53-70-3	Dibenz(a, h)Anthracene	330U
191-24-2	Benzo(g, h, i)Perylene	330U
122-66-7	1,2-Diphenylhydrazine	330J

(1)-Cannot be separated from diphenylamine

ORIGINAL COPY

APPENDIX H

762 Lancaster Avenue, Bryn Mawr, Pennsylvania 19010 215/LA5-1400

Richard R. Riegler
Vice President and Chief Engineer

3 June 1985

Mr. Rob Werner
N.U.S. Corp.
992 Old Eagle School Rd.
Suite 916
Wayne, PA 19087

Dear Mr. Werner:

Pursuant to your telephone request today, I am forwarding the Well Log for our Chester Valley Well, located in East Whiteland Township, north of Swedesford Road, adjacent to Church Road.

Very truly yours,

Dick Riegler

Enc.

ORIGINAL

WELL LOG

LEGGETTE, BRASHEARS & GRAHAM
CONSULTING GROUND-WATER GEOLOGISTS
551 FIFTH AVENUE
NEW YORK

DESCRIPTION	THICKNESS (FEET)	DEPTH (FEET)
verburden, silt and clay	90	90
l estone, broken and fissured	66	156
'mestone	41	197

OWNER: Philadelphia Suburban ~~Water Co.~~

LOCATION: Near Frazer, Pa.

WELL NO.: Church Road

DATE COMPLETED: April 1955

DRILLING COMPANY: Thomas G. Keyes

DRILLING METHOD: Cable-tool

SAMPLING METHOD: Baller

SAMPLES EXAMINED BY: Jack B. Graham

REFERENCE POINT: Land surface

ELEVATION OF R. P.: 305'± MSL

CASING*: 0-90', 16"; 0-134', 12"

SCREEN TYPE: Open hole 152'-197'

DIAM.: Open hole, 12" SLOT NO.:

SETTING:

PUMPING TEST: DATE: July 11, 1955

DURATION: 2 3/4 hrs.

STATIC WATER LEVEL: 14.5' DTW

PUMPING WATER LEVEL: 19.2' DTW

YIELD: 350 gpm

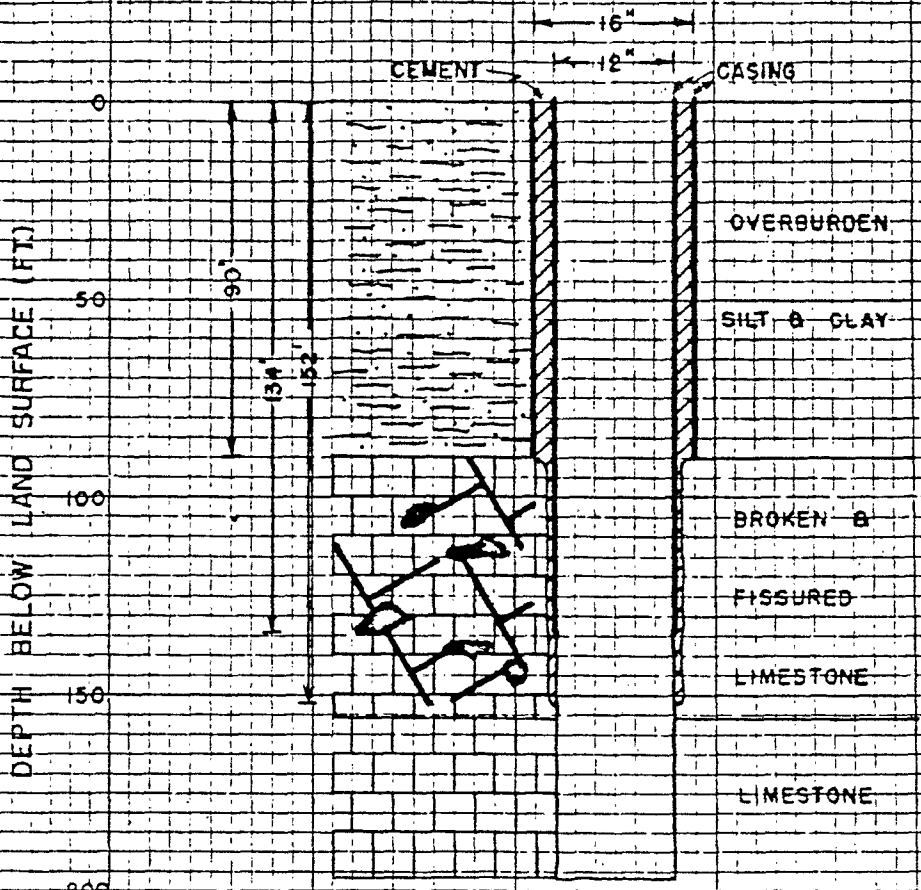
REMARKS:

* Hole pressure grout from bottom of 12" casing (134') to 15

ORIGINAL (Red)

AR100498

PHILADELPHIA SUBURBAN WATER CO.
CHURCH ROAD WELL



ORIGINAL

LEGGETTE, BRASHEARS & GRAHAM

DECEMBER 1960

AR100499

- A geotextile fabric was placed over the field to prevent accumulation of any fine material.
- The discharge field was covered with compacted earth.

A second excavation was made to locate and define the discharge field at the P. M. S. Eastern Building. As with the previous excavation, the discharge pipe to the eastern field was blocked with debris thereby restricting flow from the stormwater discharge system. The piping to this field consisted of a terra cotta material which was damaged in several locations. A series of samples were also taken at this location to identify any contaminants present. The samples included the material in the discharge pipe, sediment from the discharge field and undisturbed soil from beneath the discharge field (see AGES Analytical Report attached in the appendix).

The following remedial measures were taken to assure the discharge system would function properly at the Eastern Building:

- Cleaning and replacement of the terra cotta piping to the discharge field to permit free flow to the field.
- Removal of any discolored stone and accumulated fine material; and replacement with clean stone.
- Placement of a geotextile fabric over the discharge field to prevent accumulation of any fine material.
- Covering the discharge field with compacted earth.

Laboratory Name: RADIAN

Case No: 5215

Sample Number: CB871

Organics Analysis Data Sheet
(Page 3)

Pesticide/PCBs

Concentration: (Low) Medium (Circle One)

Date Extracted/Prepared: 11-18-85

Date Analyzed: 11-25-85

Conc/Dil Factor: 30.91g/5.0ml

CAS Number		ug/l or (ug/Kg) (Circle One)
319-84-6	Alpha-BHC	1.6 U
319-85-7	Beta-BHC	1.6 U
319-86-8	Delta-BHC	1.6 U
58-89-9	Gamma-BHC (Lindane)	1.6 U
76-44-8	Heptachlor	1.6 U
309-00-2	Aldrin	1.6 U
1024-57-3	Heptachlor Epoxide	1.6 U
959-98-8	Endosulfan I	1.6 U
60-57-1	Dieldrin	1.6 U
72-55-9	4,4'-DDE	1.6 U
72-20-8	Endrin	1.6 U
33213-65-9	Endosulfan II	4.9 U
72-54-8	4,4'-DDD	1.6 U
7421-93-4	Endrin Aldehyde	3.2 U
1031-07-8	Endosulfan Sulfate	8.0 U
50-29-3	4,4'-DDT	3.2 U
72-43-5	Methoxychlor	9.0 U
53494-70-5	Endrin Ketone	9.0 U
57-74-9	Chlordane	40.0 U
8001-35-2	Toxaphene	80.0 U
12674-11-2	Aroclor-1016	25.0 U
11104-28-2	Aroclor-1221	40.0 U
11141-16-5	Aroclor-1232	40.0 U
53469-21-9	Aroclor-1242	25.0 U
12672-29-6	Aroclor-1248	25.0 U
11097-69-1	Aroclor-1254	40.0 U
11096-82-5	Aroclor-1260	40.0 U

V_i = volume of extract injected (ul)

V_s = Volume of water extracted (ml)

W_s = Weight of sample extracted (g)

V_t = Volume of total extract (ul)

V_s ——— or W_s 30.91 V_t 5000 V_i 2.00

Sample Number
C7858

61

Cockeham #2

Organics Analysis Data Sheet
(Page 1)

Laboratory Name: Radian
Case No: 5215
Lab Sample ID No: 4EU1086V01
QC Report No: 87
Sample Matrix: Soil
Contract No: 68-01-6853
Data Release Authorized By: K Sheadman
Date Sample Received: 11/14/95

Volatile Compounds

Concentration: (Low) Medium (Circle One)
Date Extracted/Prepared: 11/21/95
Date Analyzed: 11/21/95
Conc/Dil Factor: 1 pH 6.1
Percent Moisture: (Not Decanted) 19%

CAS Number		ug/l or (ug/Kg) (Circle One)
74-87-3	Chloromethane	10U
74-83-9	Bromomethane	10U
75-01-4	Vinyl Chloride	10U
75-00-3	Chloroethane	10U
75-09-2	Methylene Chloride	5 B
67-64-1	Acetone	12 B
[illegible]5-0	Carbon Disulfide	5U
[illegible]5-4	1, 1-Dichloroethene	5U
75-34-3	1, 1-Dichloroethane	5U
156-60-5	Trans-1, 2-Dichloroethene	5U
67-66-3	Chloroform	5U
107-06-2	1, 2-Dichloroethane	5U
78-93-3	2-Butanone	11 B
71-55-6	1, 1, 1-Trichloroethane	5J
56-23-5	Carbon Tetrachloride	5U
108-05-4	Vinyl Acetate	10U
75-27-4	Bromodichloromethane	5U

CAS Number		ug/l or (ug/Kg) (Circle One)
78-87-5	1, 2-Dichloropropane	5U
10061-02-6	Trans-1, 3-Dichloropropene	5U
79-01-6	Trichloroethene	5U
124-48-1	Dibromochloromethane	5U
79-00-5	1, 1, 2-Trichloroethane	5U
71-43-2	Benzene	5J
10061-01-5	cis-1, 3-Dichloropropene	5U
110-75-8	2-Chloroethylvinylether	10U
75-25-2	Bromoform	5U
108-10-1	4-Methyl-2-Pentanone	10U
591-78-6	2-Hexanone	10U
127-18-4	Tetrachloroethene	5U
79-34-5	1, 1, 2, 2-Tetrachloroethane	5U
108-88-3	Toluene	8B
108-90-7	Chlorobenzene	5U
100-41-4	Ethylbenzene	5J
100-42-5	Styrene	5U
	Total Xylenes	11

Data Reporting Qualifiers

For reporting results to EPA, the following results qualifiers are used. Additional flags or footnotes explaining results are encouraged. However, the definition of each flag must be explicit.

alue — If the result is a value greater than or equal to the detection limit, report the value

U — Indicates compound was analyzed for but not detected. Report the minimum detection limit for the sample with the U (e.g., 10U) based on necessary concentration/dilution action. (This is not necessarily the instrument detection limit.) The footnote should read "U - Compound was analyzed for but not detected." The number is the minimum attainable detection limit for the sample

J — Indicates an estimated value. This flag is used either when estimating a concentration for tentatively identified compounds, where a 1:1 response is assumed or when the mass spectral data indicated the presence of a compound that meets the identification criteria but the result is less than the specified detection limit but greater than zero (e.g., 10J). If limit of detection is 10 µg/l and a concentration of 3 µg/l is calculated, report as 3J

C — This flag applies to pesticide parameters where the identification has been confirmed by GC/MS. Single component pesticides ≥10 ng/ul in the final extract should be confirmed by GC/MS

B — This flag is used when the analyte is found in the blank as well as a sample. It indicates possible/probable blank contamination and warns the data user to take appropriate action

Other — Other specific flags and footnotes may be required to properly define the results. If used, they must be fully described and such description attached to the data summary report

AR100502

Laboratory Name: Radian

Case No: 5215

Sample Number: C7858 01

62

Organics Analysis Data Sheet
(Page 2)

Semivolatile Compounds

Concentration: (Low) Medium (Circle One)

Date Extracted/Prepared: 11/18/85

Date Analyzed: 11/27/85

Conc/Dil Factor: 1.13 gms/ml

Percent Moisture (Decanted): 19%

GPC Cleanup ☐Yes ☒No

Separatory Funnel Extraction ☐Yes

Continuous Liquid - Liquid Extraction ☑Yes

CAS Number		ug/l or (ug/Kg) (Circle One)
108-95-2	Phenol	11,000 U
111-44-4	bis(-2-Chloroethyl)Ether	11,000 U
95-57-8	2-Chlorophenol	11,000 U
541-73-1	1 3-Dichlorobenzene	11,000 U
106-46-7	1 4-Dichlorobenzene	11,000 U
100-51-6	Benzyl Alcohol	11,000 U
95-50-1	1 2-Dichlorobenzene	11,000 U
95-48-7	2-Methylphenol	11,000 U
39638-32-9	bis(2-chloroisopropyl)Ether	11,000 U
106-44-5	4-Methylphenol	11,000 U
621-64-7	N-Nitroso-Di-n-Propylamine	11,000 U
67-72-1	Hexachloroethane	11,000 U
98-95-3	Nitrobenzene	11,000 U
78-59-1	Isophorone	11,000 U
88-75-5	2-Nitrophenol	11,000 U
105-67-9	2, 4-Dimethylphenol	11,000 U
65-85-0	Benzoic Acid	55,000 U
111-91-1	bis(-2-Chloroethoxy)Methane	11,000 U
120-83-2	2, 4-Dichlorophenol	11,000 U
120-82-1	1, 2, 4-Trichlorobenzene	11,000 U
91-20-3	Naphthalene	11,000 U
106-47-8	4-Chloroaniline	11,000 U
87-68-3	Hexachlorobutadiene	11,000 U
59-50-7	4-Chloro-3-Methylphenol	11,000 U
91-57-6	2-Methylnaphthalene	11,000 U
77-47-4	Hexachlorocyclopentadiene	11,000 U
88-06-2	2 4 6-Trichlorophenol	11,000 U
95-95-4	2 4 5-Trichlorophenol	55,000 U
91-58-7	2-Chloronaphthalene	11,000 U
88-74-4	2-Nitroaniline	55,000 U
131-11-3	Dimethyl Phthalate	11,000 U
208-96-8	Acenaphthylene	11,000 U
99-09-2	3-Nitroaniline	55,000 U

CAS Number		ug/l or (ug/Kg) (Circle One)
83-32-9	Acenaphthene	11,000 U
51-28-5	2, 4-Dinitrophenol	55,000 U
100-02-7	4-Nitrophenol	55,000 U
132-64-9	Dibenzofuran	11,000 U
121-14-2	2 4-Dinitrotoluene	11,000 U
606-20-2	2, 6-Dinitrotoluene	11,000 U
84-66-2	Diethylphthalate	11,000 U
7005-72-3	4-Chlorophenyl-phenylether	11,000 U
86-73-7	Fluorene	11,000 U
100-01-6	4-Nitroaniline	55,000 U
534-52-1	4, 6-Dinitro-2-Methylphenol	55,000 U
86-30-6	N-Nitrosodiphenylamine (1)	11,000 U
101-55-3	4-Bromophenyl-phenylether	11,000 U
118-74-1	Hexachlorobenzene	11,000 U
87-86-5	Pentachlorophenol	55,000 U
85-01-8	Phenanthrene	11,000 U
120-12-7	Anthracene	11,000 U
84-74-2	Di-n-Butylphthalate	58,000 B
206-44-0	Fluoranthene	11,000 U
129-00-0	Pyrene	11,000 U
85-68-7	Butylbenzylphthalate	11,000 U
91-94-1	3, 3'-Dichlorobenzidine	22,000 U
56-55-3	Benzo(a)Anthracene	11,000 U
117-81-7	bis(2-Ethylhexyl)Phthalate	11,000 J
218-01-9	Chrysene	11,000 U
117-84-0	Di-n-Octyl Phtnalate	11,000 U
205-99-2	Benzo(b)Fluoranthene	11,000 U
207-08-9	Benzo(k)Fluoranthene	11,000 U
50-32-8	Benzo(a)Pyrene	11,000 U
193-39-5	Indeno(1, 2, 3-cd)Pyrene	11,000 U
53-70-3	Dibenzia, h)Anthracene	11,000 U
191-24-2	Benzo(g, h, i)Perylene	11,000 U
122-66-7	1,2-Diphenylhydrazine	11,000 J

(1)-Cannot be separated from diphenylamine

Laboratory Name: RADIAN

Case No: S215

Sample Number
C7858

Organics Analysis Data Sheet
(Page 3)

Pesticide/PCBs

Concentration: (Low) Medium (Circle One)

Date Extracted/Prepared: 11-18-85

Date Analyzed: 11-25-85

Conc/Dil Factor: 1.13g/5.0 ml

CAS Number		ug/l or (ug/Kg) (Circle One)
319-84-6	Alpha-BHC	43 U
319-85-7	Beta-BHC	43 U
319-86-8	Delta-BHC	43 U
58-89-9	Gamma-BHC (Lindane)	43 U
76-44-8	Heptachlor	43 U
309-00-2	Aldrin	43 U
1024-57-3	Heptachlor Epoxide	43 U
959-98-8	Endosulfan I	43 U
60-57-1	Dieldrin	43 U
72-55-9	4,4'-DDE	43 U
72-20-8	Endrin	43 U
33213-65-9	Endosulfan II	130 U
72-54-8	4,4'-DDD	43 U
7421-93-4	Endrin Aldehyde	86 U
1031-07-8	Endosulfan Sulfate	216 U
50-29-3	4,4'-DDT	86 U
72-43-5	Methoxychlor	216 U
53494-70-5	Endrin Ketone	216 U
57-74-9	Chlordane	1080 U
8001-35-2	Toxaphene	2160 U
12674-11-2	Aroclor-1016	675 U
11104-28-2	Aroclor-1221	1080 U
11141-16-5	Aroclor-1232	1080 U
53469-21-9	Aroclor-1242	675 U
12672-29-6	Aroclor-1248	675 U
11097-69-1	Aroclor-1254	1080 U
11096-82-5	Aroclor-1260	1080 U

V_i = Volume of extract injected (ul)

V_s = Volume of water extracted (ml)

W_s = Weight of sample extracted (g)

V_t = Volume of total extract (ul)

V_s ____ or W_s 1.13 V_t 5000 V_i 2.00

ORIGINAL (Red)

Sample Number
CC694

Organics Analysis Data Sheet
(Page 1)

Downstream Mill Co 652

Laboratory Name: Radian
Case No: 5215
Lab Sample ID No: 4EW110816V05
QC Report No: 87
Sample Matrix: soil
Contract No: 68-01-6853
Data Release Authorized By: K. Philadelphia
Date Sample Received: 11/14/85

Volatile Compounds

Concentration: (Low) Medium (Circle One)
Date Extracted/Prepared: 11/21/85
Date Analyzed: 11/21/85
Conc/Dil Factor: 1 pH 7.1
Percent Moisture: (Not Decanted) 29%

CAS Number		ug/l or ug/Kg (Circle One)
74-87-3	Chloromethane	10U
74-83-9	Bromomethane	10U
75-01-4	Vinyl Chloride	10U
75-00-3	Chloroethane	10U
75-09-2	Methylene Chloride	5 B
67-64-1	Acetone	10 J B
75-15-0	Carbon Disulfide	5U
75-35-4	1, 1-Dichloroethene	5U
75-34-3	1, 1-Dichloroethane	5U
156-60-5	Trans-1, 2-Dichloroethene	5U
67-66-3	Chloroform	5U
107-06-2	1, 2-Dichloroethane	5U
78-93-3	2-Butanone	11 B
71-55-6	1, 1, 1-Trichloroethane	5U
56-23-5	Carbon Tetrachloride	5U
108-05-4	Vinyl Acetate	10U
75-27-4	Bromodichloromethane	5U

CAS Number		ug/l or ug/Kg (Circle One)
78-87-5	1, 2-Dichloropropane	5U
10061-02-6	Trans-1, 3-Dichloropropene	5U
79-01-6	Trichloroethene	5U
124-48-1	Dibromochloromethane	5U
79-00-5	1, 1, 2-Trichloroethane	5U
71-43-2	Benzene	5J
10061-01-5	cis-1, 3-Dichloropropene	5U
110-75-8	2-Chloroethylvinylether	10U
75-25-2	Bromoform	5U
108-10-1	4-Methyl-2-Pentanone	10U
591-78-6	2-Hexanone	10U
127-18-4	Tetrachloroethene	5U
79-34-5	1, 1, 2, 2-Tetrachloroethane	5U
108-88-3	Toluene	5J B
108-90-7	Chlorobenzene	5U
100-41-4	Ethylbenzene	5U
100-42-5	Styrene	5U
	Total Xylenes	5U

ORIGINAL (Red)

Data Reporting Qualifiers

For reporting results to EPA, the following results qualifiers are used. Additional flags or footnotes explaining results are encouraged. However, the definition of each flag must be explicit.

Value If the result is a value greater than or equal to the detection limit, report the value

U Indicates compound was analyzed for but not detected. Report the minimum detection limit for the sample with the U (e.g., 10U) based on necessary concentration/dilution action. (This is not necessarily the instrument detection limit.) The footnote should read "U. Compound was analyzed for but not detected. The number is the minimum attainable detection limit for the sample

J Indicates an estimated value. This flag is used either when estimating a concentration for tentatively identified compounds where a 1:1 response is assumed or when the mass spectral data indicated the presence of a compound that meets the identification criteria but the result is less than the specified detection limit but greater than zero (e.g., 10J). If limit of detection is 10 µg/l and a concentration of 3 µg/l is calculated, report as 3J

C This flag applies to pesticide parameters where the identification has been confirmed by GC/MS. Single component pesticides ≥10 ng/µl in the final extract should be confirmed by GC/MS

B This flag is used when the analyte is found in the blank as well as a sample. It indicates possible/probable blank contamination and warns the data user to take appropriate action

Other Other specific flags and footnotes may be required to properly define the results. If used, they must be fully described and such description attached to the data summary report

AR100505

Laboratory Name: Radian

Case No: 5215

Sample Number: CC694

Organics Analysis Data Sheet
(Page 2)

653

Semivolatile Compounds

Concentration: (Low) Medium (Circle One)

Date Extracted/Prepared: 11/18/85

Date Analyzed: 11/27/85

Conc/Dil Factor: 29.81 gms/ml

Percent Moisture (Decanted): 29%

GPC Cleanup ☐Yes ☒No

Separatory Funnel Extraction ☐Yes

Continuous Liquid - Liquid Extraction ☒Yes

CAS Number		ug/l or (ug/Kg) (Circle One)
108-95-2	Phenol	330U
111-44-4	bis(-2-Chloroethyl)Ether	330U
95-57-8	2-Chlorophenol	330U
541-73-1	1 3-Dichlorobenzene	330U
106-46-7	1 4-Dichlorobenzene	330U
100-51-6	Benzyl Alcohol	330U
95-50-1	1 2-Dichlorobenzene	330U
[redacted]7	2-Methylphenol	330U
[redacted]-32-9	bis(2-chloroisopropyl)Ether	330U
106-44-5	4-Methylphenol	330U
621-64-7	N-Nitroso-Di-n-Propylamine	330U
67-72-1	Hexachloroethane	330U
98-95-3	Nitrobenzene	330U
78-59-1	Isophorone	330U
88-75-5	2-Nitrophenol	330U
105-67-9	2, 4-Dimethylphenol	330U
65-85-0	Benzoic Acid	1600U
111-91-1	bis(-2-Chloroethoxy)Methane	330U
120-83-2	2, 4-Dichlorophenol	330U
120-82-1	1, 2, 4-Trichlorobenzene	330U
91-20-3	Naphthalene	330U
106-47-8	4-Chloroaniline	330U
87-68-3	Hexachlorobutadiene	330U
59-50-7	4-Chloro-3-Methylphenol	330U
91-57-6	2-Methylnaphthalene	330U
77-47-4	Hexachlorocyclopentadiene	330U
88-06-2	2 4 6-Trichlorophenol	330U
95-95-4	2 4 5-Trichlorophenol	1600U
91-58-7	2-Chloronaphthalene	330U
88-74-4	2-Nitroaniline	1600U
13[redacted]-3	Dimethyl Phthalate	330U
2[redacted]8	Acenaphthylene	330U
99-09-2	3-Nitroaniline	1600U

CAS Number		ug/l or (ug/Kg) (Circle One)
83-32-9	Acenaphthene	330U
51-28-5	2, 4-Dinitrophenol	1600U
100-02-7	4-Nitrophenol	1600U
132-64-9	Dibenzofuran	330U
121-14-2	2 4-Dinitrotoluene	330U
606-20-2	2 6-Dinitrotoluene	330U
84-66-2	Diethylphthalate	330U
7005-72-3	4-Chlorophenyl-phenylether	330U
86-73-7	Fluorene	330U
100-01-6	4-Nitroaniline	1600U
534-52-1	4 6-Dinitro-2-Methylphenol	1600U
86-30-6	N-Nitrosodiphenylamine (1)	330U
101-55-3	4-Bromophenyl-phenylether	330U
118-74-1	Hexachlorobenzene	330U
87-86-5	Pentachlorophenol	1600U
85-01-8	Phenanthrene	330U
120-12-7	Anthracene	330U
84-74-2	Di-n-Butylphthalate	490 B
206-44-0	Fluoranthene	330U
129-00-0	Pyrene	330U
85-68-7	Butylbenzylphthalate	330U
91-94-1	3 3'-Dichlorobenzidine	660U
56-55-3	Benzo(a)Anthracene	330U
117-81-7	bis(2-Ethylhexyl)Phthalate	330J
218-01-9	Chrysene	330U
117-84-0	Di-n-Octyl Phthalate	330U
205-99-2	Benzo(b)Fluoranthene	330U
207-08-9	Benzo(k)Fluoranthene	330U
50-32-8	Benzo(a)Pyrene	330U
193-39-5	Indeno(1, 2, 3-cd)Pyrene	330U
53-70-3	Dibenz(a, h)Anthracene	330U
191-24-2	Benzo(g, h, i)Perylene	330U

(1)-Cannot be separated from diphenylamine

AR100506

Laboratory Name: RADIAN

Case No: 5215

Sample Number: CC694

Organics Analysis Data Sheet
(Page 3)

Pesticide/PCBs

Concentration: (Low) Medium (Circle One)

Date Extracted/Prepared: 11-18-85

Date Analyzed: 11-25-85

Conc/Dil Factor: 29.81 g / 5.0 ml

CAS Number		ug/l or (ug/Kg) (Circle One)
319-84-6	Alpha-BHC	1.6 U
319-85-7	Beta-BHC	1.6 U
319-86-8	Delta-BHC	1.6 U
58-89-9	Gamma-BHC (Lindane)	1.6 U
76-44-8	Heptachlor	1.6 U
309-00-2	Aldrin	1.6 U
1024-57-3	Heptachlor Epoxide	1.6 U
959-98-8	Endosulfan I	1.6 U
60-57-1	Dieldrin	1.6 U
72-55-9	4,4'-DDE	1.6 U
72-20-8	Endrin	1.6 U
33213-65-9	Endosulfan II	4.9 U
72-54-8	4,4'-DDD	1.6 U
7421-93-4	Endrin Aldehyde	3.2 U
1031-07-8	Endosulfan Sulfate	9.8 U
50-29-3	4,4'-DDT	3.2 U
72-43-5	Methoxychlor	9.8 U
53494-70-5	Endrin Ketone	9.8 U
57-74-9	Chlordane	48.8 U
8001-35-2	Toxaphene	98.8 U
12674-11-2	Aroclor-1016	25.8 U
11104-28-2	Aroclor-1221	48.8 U
11141-16-5	Aroclor-1232	48.8 U
53469-21-9	Aroclor-1242	25.8 U
12672-29-6	Aroclor-1248	25.8 U
11097-69-1	Aroclor-1254	48.8 U
11096-82-5	Aroclor-1260	48.8 U

V_i = volume of extract injected (ul)

V_s = Volume of water extracted (ml)

W_s = Weight of sample extracted (g)

V_t = Volume of total extract (ul)

V_s _____ or W_s 29.81 V_t 5000

Sample Number
CB867

120

AIW bd

Organics Analysis Data Sheet
(Page 1)

Laboratory Name: Radian
Case No: 5215
Sample ID No: HEU1085V12
QC Report No: 87
Sample Matrix: soil
Contract No: 68-01-6853
Data Release Authorized By: K. Shelandrum
Date Sample Received: 11/14/85

Volatile Compounds

Concentration: (Low) Medium (Circle One)
Date Extracted/Prepared: 11/20/85
Date Analyzed: 11/20/85
Conc/Dil Factor: 1 pH 7.2
Percent Moisture: (Not Decanted) 46%

CAS Number		ug/l or (ug/Kg) (Circle One)
74-87-3	Chloromethane	10U
74-83-9	Bromomethane	10U
75-01-4	Vinyl Chloride	10U
75-00-3	Chloroethane	10U
75-09-2	Methylene Chloride	21B
67-64-1	Acetone	144B
[illegible]-0	Carbon Disulfide	5U
[illegible]5-4	1, 1-Dichloroethene	5U
75-34-3	1, 1-Dichloroethane	5U
156-60-5	Trans-1, 2-Dichloroethene	5U
67-66-3	Chloroform	5U
107-06-2	1, 2-Dichloroethane	5U
78-93-3	2-Butanone	12B
71-55-6	1, 1, 1-Trichloroethane	5U
56-23-5	Carbon Tetrachloride	5U
108-05-4	Vinyl Acetate	10U
75-27-4	Bromodichloromethane	5U

CAS Number		ug/l or (ug/Kg) (Circle One)
78-87-5	1, 2-Dichloropropane	5U
10061-02-6	Trans-1, 3-Dichloropropene	5U
79-01-6	Trichloroethene	5U
124-48-1	Dibromochloromethane	5U
79-00-5	1, 1, 2-Trichloroethane	5U
71-43-2	Benzene	5J
10061-01-5	cis-1, 3-Dichloropropene	5U
110-75-8	2-Chloroethylvinylether	10U
75-25-2	Bromoform	5U
108-10-1	4-Methyl-2-Pentanone	10U
591-78-6	2-Hexanone	10U
127-18-4	Tetrachloroethene	5U
79-34-5	1, 1, 2, 2-Tetrachloroethane	5U
108-88-3	Toluene	5J
108-90-7	Chlorobenzene	5U
100-41-4	Ethylbenzene	5U
100-42-5	Styrene	5U
	Total Xylenes	5U

Data Reporting Qualifiers

For reporting results to EPA, the following results qualifiers are used. Additional flags or footnotes explaining results are encouraged. However, the definition of each flag must be explicit.

- [illegible]alue — If the result is a value greater than or equal to the detection limit, report the value
- U — Indicates compound was analyzed for but not detected. Report the minimum detection limit for the sample with the U (e.g., 10U) based on necessary concentration/dilution action. (This is not necessarily the instrument detection limit.) The footnote should read: U-Compound was analyzed for but not detected. The number is the minimum attainable detection limit for the sample
- J — Indicates an estimated value. This flag is used either when estimating a concentration for tentatively identified compounds where a 1:1 response is assumed or when the mass spectral data indicated the presence of a compound that meets the identification criteria but the result is less than the specified detection limit but greater than zero (e.g., 10J). If limit of detection is 10 µg/l and a concentration of 3 µg/l is calculated, report as 3J
- C — This flag applies to pesticide parameters where the identification has been confirmed by GC-MS. Single component pesticides ≥10 ng/ul in the final extract should be confirmed by GC-MS
- B — This flag is used when the analyte is found in the blank as well as a sample. It indicates possible/probable blank contamination and warns the data user to take appropriate action
- Other — Other specific flags and footnotes may be required to properly define the results. If used, they must be fully described and such description attached to the data summary report

AR100508

Laboratory Name: Radian

Case No: 5215

Sample Number: CB-867

Organics Analysis Data Sheet
(Page 2)

Semivolatile Compounds

Concentration: (Low) Medium (Circle One)

Date Extracted/Prepared: 11/19/85

Date Analyzed: 11/25/85

Conc/Dil Factor: 30.43 gms/ml

Percent Moisture (Decanted): 46%

GPC Cleanup ☐Yes ☒No

Separatory Funnel Extraction ☐Yes

Continuous Liquid - Liquid Extraction ☒Yes

CAS Number		ug/l or (ug/Kg) (Circle One)
108-95-2	Phenol	330U
11-44-4	bis(2-Chloroethyl)Ether	330U
5-57-8	2-Chlorophenol	330U
541-73-1	1 3-Dichlorobenzene	330U
06-46-7	1 4-Dichlorobenzene	330U
00-51-6	Benzyl Alcohol	330U
95-50-1	1 2-Dichlorobenzene	330U
5-48-7	2-Methylphenol	330U
9638-32-9	bis(2-chloroisopropyl)Ether	330U
106-44-5	4-Methylpheno	330U
21-64-7	N-Nitroso-Di-n-Propylamine	330U
7-72-1	Hexachloroethane	330U
98-95-3	Nitrobenzene	330U
78-59-1	Isophorone	330U
8-75-5	2-Nitrophenol	330U
105-67-9	2, 4-Dimethylphenol	330U
65-85-0	Benzoic Acid	1600U
11-91-1	bis(2-Chloroethoxy)Methane	330U
120-83-2	2, 4-Dichlorophenol	330U
120-82-1	1, 2, 4-Trichlorobenzene	330U
1-20-3	Naphthalene	330U
106-47-8	4-Chloroaniline	330U
87-68-3	Hexachlorobutadiene	330U
9-50-7	4-Chloro-3-Methylphenol	330U
91-57-6	2-Methylnaphthalene	330U
77-47-4	Hexachlorocyclopentadiene	330U
8-06-2	2, 4 6-Trichlorophenol	330U
95-95-4	2 4 5-Trichlorophenol	1600U
91-58-7	2-Chloronaphthalene	330U
8-74-4	2-Nitroaniline	1600U
31-11-3	Dimethyl Phthalate	330U
208-96-8	Acenaphthylene	330U
9-09-2	3-Nitroaniline	1600U

CAS Number		ug/l or (ug/Kg) (Circle One)
83-32-9	Acenaphthene	330U
51-28-5	2, 4-Dinitrophenol	1600U
100-02-7	4-Nitrophenol	1600U
132-64-9	Dibenzofuran	330U
121-14-2	2 4-Dinitrotoluene	330U
606-20-2	2 6-Dinitrotoluene	330U
84-66-2	Diethylphthalate	330U
7005-72-3	4-Chlorophenyl-phenylether	330U
86-73-7	Fluorene	330U
100-01-6	4-Nitroaniline	1600U
534-52-1	4 6-Dinitro-2-Methylphenol	1600U
86-30-6	N-Nitrosodiphenylamine (1)	330U
101-55-3	4-Bromophenyl-phenylether	330U
118-74-1	Hexachlorobenzene	330U
87-86-5	Pentachlorophenol	1600U
85-01-8	Phenanthrene	330J
120-12-7	Anthracene	330U
84-74-2	Di-n-Butylphthalate	330J B
206-44-0	Fluoranthene	330J
129-00-0	Pyrene	330J
85-68-7	Butylbenzylphthalate	330U
91-94-1	3, 3'-Dichlorobenzidine	660U
56-55-3	Benzo(a)Anthracene	330J
117-81-7	bis(2-Ethylhexyl)Phthalate	330J B
218-01-9	Chrysene	330J
117-84-0	Di-n-Octyl Phthalate	330U
205-99-2	Benzo(b)Fluoranthene	330U
207-08-9	Benzo(k)Fluoranthene	330U
50-32-8	Benzo(a)Pyrene	330J
193-39-5	Indeno(1, 2, 3-cd)Pyrene	330U
53-70-3	Dibenz(a, h)Anthracene	330U
191-24-2	Benzo(g, h, i)Perylene	330U
122-66-7	1,2-Diphenylhydrazine	330J

(1)-Cannot be separated from diphenylamine

Laboratory Name: RADIAN

Case No: 5215

Sample Number
CB967

Organics Analysis Data Sheet
(Page 3)

Pesticide/PCBs

Concentration: (Low) Medium (Circle One)

Date Extracted/Prepared: 11/19/95

Date Analyzed: 11/25/95

Conc/Dil Factor: 30.43g / 5.0ml

CAS Number		ug/l or (ug/Kg) (Circle One)
319-84-6	Alpha-BHC	1.6 u
319-85-7	Beta-BHC	1.6 u
319-86-8	Delta-BHC	1.6 u
58-89-9	Gamma-BHC (Lindane)	1.6 u
76-44-8	Heptachlor	1.6 u
309-00-2	Aldrin	1.6 u
1024-57-3	Heptachlor Epoxide	1.6 u
959-98-8	Endosulfan I	1.6 u
60-57-1	Dieldrin	1.6 u
72-55-9	4,4'-DDE	1.6 u
72-20-8	Endrin	1.6 u
33213-65-9	Endosulfan II	4.9 u
72-54-8	4,4'-DDD	1.6 u
7421-93-4	Endrin Aldehyde	3.2 u
1031-07-8	Endosulfan Sulfate	8.0 u
50-29-3	4,4'-DDT	3.2 u
72-43-5	Methoxychlor	9.0 u
53494-70-5	Endrin Ketone	9.0 u
57-74-9	Chlordane	40.0 u
8001-35-2	Toxaphene	80.0 u
12674-11-2	Aroclor-1016	25.0 u
11104-28-2	Aroclor-1221	40.0 u
11141-16-5	Aroclor-1232	40.0 u
53469-21-9	Aroclor-1242	25.0 u
12672-29-6	Aroclor-1248	25.0 u
11097-69-1	Aroclor-1254	40.0 u
11096-82-5	Aroclor-1260	40.0 u

V_i = volume of extract injected (ul)

V_s = Volume of water extracted (ml)

W_s = Weight of sample extracted (g)

V_t = Volume of total extract (ul)

V_s — or W_s 30.43 V_t 5000 V_i 2.00

Sample Number
CB890 400

Organics Analysis Data Sheet
(Page 1)

Valley Cr Up

Laboratory Name: Radian
Case No: 5215
Lab Sample ID No: 4EU1085V14
QC Report No: 87
Sample Matrix: Soil
Contract No: 68-01-6853
Data Release Authorized By: K Ghelarducci
Date Sample Received: 11/14/85

Volatile Compounds

Concentration: (Low) Medium (Circle One)
Date Extracted/Prepared: 11/21/85
Date Analyzed: 11/21/85
Conc/Dil Factor: 1 pH 7.4
Percent Moisture: (Not Decanted) 34%

CAS Number		ug/l or ug/Kg (Circle One)
74-87-3	Chloromethane	10U
74-83-9	Bromomethane	10U
75-01-4	Vinyl Chloride	10U
75-00-3	Chloroethane	10U
75-09-2	Methylene Chloride	3 B
67-64-1	Acetone	15 B
75-15-0	Carbon Disulfide	5U
75-35-4	1, 1-Dichloroethene	5U
75-34-3	1, 1-Dichloroethane	5U
156-60-5	Trans-1, 2-Dichloroethene	5U
67-66-3	Chloroform	5U
107-06-2	1, 2-Dichloroethane	5U
78-93-3	2-Butanone	12 B
71-55-6	1, 1, 1-Trichloroethane	5U
56-23-5	Carbon Tetrachloride	5U
108-05-4	Vinyl Acetate	10U
75-27-4	Bromodichloromethane	5U

CAS Number		ug/l or ug/Kg (Circle One)
78-87-5	1, 2-Dichloropropane	5U
10061-02-6	Trans-1, 3-Dichloropropene	5U
79-01-6	Trichloroethene	5U
124-48-1	Dibromochloromethane	5U
79-00-5	1, 1, 2-Trichloroethane	5U
71-43-2	Benzene	5 J
10061-01-5	cis-1, 3-Dichloropropene	5U
110-75-8	2-Chloroethylvinylether	10U
75-25-2	Bromoform	5U
108-10-1	4-Methyl-2-Pentanone	10U
591-78-6	2-Hexanone	10U
127-18-4	Tetrachloroethene	5U
79-34-5	1, 1, 2, 2-Tetrachloroethane	5U
108-88-3	Toluene	5 J B
108-90-7	Chlorobenzene	5U
100-41-4	Ethylbenzene	5U
100-42-5	Styrene	5U
	Total Xylenes	5U

Data Reporting Qualifiers

For reporting results to EPA, the following results qualifiers are used. Additional flags or footnotes explaining results are encouraged. However, the definition of each flag must be explicit.

Value If the result is a value greater than or equal to the detection limit, report the value

U Indicates compound was analyzed for but not detected Report the minimum detection limit for the sample with the U (e g , 10U) based on necessary concentration/dilution action (This is not necessarily the instrument detection limit). The footnote should read U- Compound was analyzed for but not detected The number is the minimum attainable detection limit for the sample

J Indicates an estimated value This flag is used either when estimating a concentration for tentatively identified compounds where a 1 1 response is assumed or when the mass spectral data indicated the presence of a compound that meets the identification criteria but the result is less than the specified detection limit but greater than zero (e g , 10J) If limit of detection is 10 µg/l and a concentration of 3 µg/l is calculated, report as 3J

C This flag applies to pesticide parameters where the identification has been confirmed by GC MS Single component pesticides ≥10 ng ul in the final extract should be confirmed by GC MS

B This flag is used when the analyte is found in the blank as well as a sample It indicates possible probable blank contamination and warns the data user to take appropriate action

Other Other specific flags and footnotes may be required to properly define the results If used, they must be fully described and such description attached to the data summary report

Laboratory Name: Radian

Case No: 5215

Sample Number: CB-890

Organics Analysis Data Sheet
(Page 2)

Semivolatile Compounds

Concentration: (Low) Medium (Circle One)

Date Extracted/Prepared: 11-18-85

Date Analyzed: 11-26-85

Conc/Dil Factor: 30.59g/1ml

Percent Moisture (Decanted): 34

GPC Cleanup ☐Yes ☑No

Separatory Funnel Extraction ☐Yes

Continuous Liquid - Liquid Extraction ☑Yes

CAS Number		ug/l or (ug/Kg) (Circle One)
108-95-2	Phenol	330U
111-44-4	bis(2-Chloroethyl)Ether	330U
95-57-8	2-Chlorophenol	330U
541-73-1	1 3-Dichlorobenzene	330U
106-46-7	1 4-Dichlorobenzene	330U
100-51-6	Benzyl Alcohol	330U
95-50-1	1 2-Dichlorobenzene	330U
[redacted]	2-Methylphenol	330U
[redacted]-32-9	bis(2-chloroisopropyl)Ether	330U
106-44-5	4-Methylphenol	330U
621-64-7	N-Nitroso-Di-n-Propylamine	330U
67-72-1	Hexachloroethane	330U
98-95-3	Nitrobenzene	330U
78-59-1	Isophorone	330U
88-75-5	2-Nitrophenol	330U
105-67-9	2 4-Dimethylphenol	330U
65-85-0	Benzoic Acid	1600U
111-91-1	bis(2-Chloroethoxy)Methane	330U
120-83-2	2 4-Dichlorophenol	330U
120-82-1	1 2 4-Trichlorobenzene	330U
91-20-3	Naphthalene	330 J
106-47-8	4-Chloroaniline	330U
87-68-3	Hexachlorobutadiene	330U
59-50-7	4-Chloro-3-Methylphenol	330U
91-57-6	2-Methylnaphthalene	330J
77-47-4	Hexachlorocyclopentadiene	330U
88-06-2	2 4 6-Trichlorophenol	330U
95-95-4	2 4 5-Trichlorophenol	1600U
91-58-7	2-Chloronaphthalene	330U
88-74-4	2-Nitroaniline	1600U
131-11-3	Dimethyl Phthalate	330U
[redacted]-8	Acenaphthylene	330 J
[redacted]-2	3-Nitroaniline	1600U

CAS Number		ug/l or (ug/Kg) (Circle One)
83-32-9	Acenaphthene	330 J
51-28-5	2 4-Dinitrophenol	1600U
100-02-7	4-Nitrophenol	1600U
132-64-9	Dibenzofuran	330 J
121-14-2	2 4-Dinitrotoluene	330U
606-20-2	2 6-Dinitrotoluene	330U
84-66-2	Diethylphthalate	330U
7005-72-3	4-Chlorophenyl-phenylether	330U
86-73-7	Fluorene	370
100-01-6	4-Nitroaniline	1600U
534-52-1	4 6-Dinitro-2-Methylphenol	1600U
86-30-6	N-Nitrosodiphenylamine (1)	330 J
101-55-3	4-Bromophenyl-phenylether	330U
118-74-1	Hexachlorobenzene	330U
87-86-5	Pentachlorophenol	1600U
85-01-8	Phenanthrene	2600
120-12-7	Anthracene	470
84-74-2	Di-n-Butylphthalate	330 J B
206-44-0	Fluoranthene	2600
129-00-0	Pyrene	2300
85-68-7	Butylbenzylphthalate	330U
91-94-1	3 3-Dichlorobenzidine	660U
56-55-3	Benzo(a)Anthracene	830
117-81-7	bis(2-Ethylhexyl)Phthalate	330 J B
218-01-9	Chrysene	1100
117-84-0	Di-n-Octyl Phthalate	330U
205-99-2	Benzo(b)Fluoranthene	720
207-08-9	Benzo(k)Fluoranthene	520
50-32-8	Benzo(a)Pyrene	740
193-39-5	Indeno(1 2 3-cd)Pyrene	410
53-70-3	Dibenz(a h)Anthracene	330 J
191-24-2	Benzo(g h i)Perylene	330 J
122-66-7	1,2 Diphenylhydrazine	510

(1)-Cannot be separated from diphenylamine

Laboratory Name: RADIAN

Case No: 5215

Sample Number: CB890

Organics Analysis Data Sheet
(Page 3)

Pesticide/PCBs

Concentration: (Low) Medium (Circle One)

Date Extracted/Prepared: 11-18-85

Date Analyzed: 11-25-85

Conc/Dil Factor: 30.59g/5.0ml

CAS Number		ug/l or (ug/Kg) (Circle One)
319-84-6	Alpha-BHC	1.6 U
319-85-7	Beta-BHC	1.6 U
319-86-8	Delta-BHC	1.6 U
58-89-9	Gamma-BHC (Lindane)	1.6 U
76-44-8	Heptachlor	1.6 U
309-00-2	Aldrin	1.6 U
1024-57-3	Heptachlor Epoxide	1.6 U
959-98-8	Endosulfan I	1.6 U
60-57-1	Dieldrin	1.6 U
72-55-9	4,4'-DDE	1.6 U
72-20-8	Endrin	1.6 U
33213-65-9	Endosulfan II	4.0 U
72-54-8	4,4'-DDD	1.6 U
7421-93-4	Endrin Aldehyde	3.2 U
1031-07-8	Endosulfan Sulfate	8.0 U
50-29-3	4,4'-DDT	3.2 U
72-43-5	Methoxychlor	8.0 U
53494-70-5	Endrin Ketone	8.0 U
57-74-9	Chlordane	40.0 U
8001-35-2	Toxaphene	80.0 U
12674-11-2	Aroclor-1016	25.0 U
11104-28-2	Aroclor-1221	40.0 U
11141-16-5	Aroclor-1232	40.0 U
53469-21-9	Aroclor-1242	25.0 U
12672-29-6	Aroclor-1248	25.0 U
11097-69-1	Aroclor-1254	40.0 U
11096-82-5	Aroclor-1260	40.0 U

V_i = Volume of extract injected (ul)

V_s = Volume of water extracted (ml)

W_s = Weight of sample extracted (g)

V_t = Volume of total extract (ul)

V_s ____ or W_s 30.59 V_t 5000 V_i 2.00

Sample Number
CB872 265

UNVAMIL TAB DOWN

Organics Analysis Data Sheet
(Page 1)

[redacted]atory Name: Radian

Case No: 5215

Lab Sample ID No: 4EU1095R03

QC Report No: 87

Sample Matrix: soil

Contract No: 68-01-6853

Data Release Authorized By: [redacted]

Date Sample Received: 11/14/85

Volatile Compounds

Concentration: (Low) Medium (Circle One)

Date Extracted/Prepared: 11/19/85

Date Analyzed: 11/19/85

Conc/Dil Factor: 1 pH 7.0

Percent Moisture: (Not Decanted) 30%

CAS Number		ug/l or ug/Kg (Circle One)
74-87-3	Chloromethane	10U
74-83-9	Bromomethane	10U
75-01-4	Vinyl Chloride	10U
75-00-3	Chloroethane	10U
75-09-2	Methylene Chloride	5J B
[redacted]-1	Acetone	40 B
[redacted]5-0	Carbon Disulfide	5U
75-35-4	1, 1-Dichloroethene	5U
75-34-3	1, 1-Dichloroethane	5U
156-60-5	Trans-1, 2-Dichloroethene	5U
67-66-3	Chloroform	5U
107-06-2	1, 2-Dichloroethane	5U
78-93-3	2-Butanone	10 B
71-55-6	1, 1, 1-Trichloroethane	5U
56-23-5	Carbon Tetrachloride	5U
108-05-4	Vinyl Acetate	10U
75-27-4	Bromodichloromethane	5U

CAS Number		ug/l or ug/Kg (Circle One)
78-87-5	1, 2-Dichloropropane	5U
10061-02-6	Trans-1, 3-Dichloropropene	5U
79-01-6	Trichloroethene	5U
124-48-1	Dibromochloromethane	5U
79-00-5	1, 1, 2-Trichloroethane	5U
71-43-2	Benzene	5J
10061-01-5	cis-1, 3-Dichloropropene	5U
110-75-8	2-Chloroethylvinylether	10U
75-25-2	Bromoform	5U
108-10-1	4-Methyl-2-Pentanone	10U
591-78-6	2-Hexanone	10U
127-18-4	Tetrachloroethene	5U
79-34-5	1, 1, 2, 2-Tetrachloroethane	5U
108-88-3	Toluene	5J
108-90-7	Chlorobenzene	5U
100-41-4	Ethylbenzene	5U
100-42-5	Styrene	5U
	Total Xylenes	5U

Data Reporting Qualifiers

For reporting results to EPA, the following results qualifiers are used. Additional flags or footnotes explaining results are encouraged. However, the definition of each flag must be explicit.

Value — If the result is a value greater than or equal to the detection limit, report the value

U — Indicates compound was analyzed for but not detected. Report the minimum detection limit for the sample with the U (e.g., 10U) based on necessary concentration/dilution action. (This is not necessarily the instrument detection limit.) The footnote should read U - Compound was analyzed for but not detected. The number is the minimum attainable detection limit for the sample

[redacted] — Indicates an estimated value. This flag is used either when estimating a concentration for tentatively identified compounds where a 1:1 response is assumed or when the mass spectral data indicated the presence of a compound that meets the identification criteria but the result is less than the specified detection limit but greater than zero (e.g., 10J). If limit of detection is 10 µg/l and a concentration of 3 µg/l is calculated, report as 3J

C — This flag applies to pesticide parameters where the identification has been confirmed by GC/MS. Single component pesticides ≥ 10 ng/ul in the final extract should be confirmed by GC/MS

B — This flag is used when the analyte is found in the blank as well as a sample. It indicates possible/probable blank contamination and warns the data user to take appropriate action

Other — Other specific flags and footnotes may be required to properly define the results. If used, they must be fully described and such description attached to the data summary report

AR100514

Laboratory Name: Radian

Case No: 5215

Sample Number: CB-872

266

Organics Analysis Data Sheet
(Page 2)

Semivolatile Compounds

Concentration: (Low) Medium (Circle One)

Date Extracted/Prepared: 11-18-85

Date Analyzed: 11-22-85

Conc/Dil Factor: 30.7g/1ml

Percent Moisture (Decanted) 30

GPC Cleanup ☐Yes ☑No

Separatory Funnel Extraction ☐Yes

Continuous Liquid - Liquid Extraction ☑Yes

CAS Number		ug/l or ug/Kg (Circle One)
108-95-2	Phenol	330U
11-44-4	bis(2-Chloroethyl)Ether	330U
5-57-8	2-Chlorophenol	330U
541-73-1	1 3-Dichlorobenzene	330U
106-46-7	1 4-Dichlorobenzene	330U
00-51-6	Benzyl Alcohol	330U
95-50-1	1 2-Dichlorobenzene	330U
95-48-7	2-Methylphenol	330U
9638-32-9	bis(2-chloroisopropyl)Ether	330U
106-44-5	4-Methylphenol	330U
621-64-7	N-Nitroso-Di-n-Propylamine	330U
7-72-1	Hexachloroethane	330U
98-95-3	Nitrobenzene	330U
78-59-1	Isophorone	330U
8-75-5	2-Nitrophenol	330U
105-67-9	2. 4-Dimethylphenol	330U
65-85-0	Benzoic Acid	1600U
11-91-1	bis(2-Chloroethoxy)Methane	330U
120-83-2	2. 4-Dichlorophenol	330U
120-82-1	1. 2. 4-Trichlorobenzene	330U
-20-3	Naphthalene	330J
06-47-8	4-Chloroaniline	330U
87-68-3	Hexachlorobutadiene	330U
-50-7	4-Chloro-3-Methylphenol	330U
-57-6	2-Methylnaphthalene	330J
77-47-4	Hexachlorocyclopentadiene	330U
-06-2	2 4 6-Trichlorophenol	330U
95-4	2 4 5-Trichlorophenol	1600U
91-58-7	2-Chloronaphthalene	330U
-74-4	2-Nitroaniline	1600U
1-11-3	Dimethyl Phthalate	330U
208-96-8	Acenaphthylene	330U
09-2	3-Nitroaniline	1600U

CAS Number		ug/l or ug/Kg (Circle One)
83-32-9	Acenaphthene	330U
51-28-5	2. 4-Dinitrophenol	1600U
100-02-7	4-Nitrophenol	1600U
132-64-9	Dibenzofuran	330J
121-14-2	2 4-Dinitrotoluene	330U
606-20-2	2 6-Dinitrotoluene	330U
84-66-2	Diethylphthalate	330U
7005-72-3	4-Chlorophenyl-phenylether	330U
86-73-7	Fluorene	330U
100-01-6	4-Nitroaniline	1600U
534-52-1	4 6-Dinitro-2-Methylphenol	1600U
86-30-6	N-Nitrosodiphenylamine (1)	330U
101-55-3	4-Bromophenyl-phenylether	330U
118-74-1	Hexachlorobenzene	330U
87-86-5	Pentachlorophenol	1600U
85-01-8	Phenanthrene	330J
120-12-7	Anthracene	330U
84-74-2	Di-n-Butylphthalate	900B
206-44-0	Fluoranthene	330J
129-00-0	Pyrene	330J
85-68-7	Butylbenzylphthalate	330U
91-94-1	3. 3'-Dichlorobenzidine	660U
56-55-3	Benzo(a)Anthracene	330J
117-81-7	bis(2-Ethylhexyl)Phthalate	330JB
218-01-9	Chrysene	330J
117-84-0	Di-n-Octyl Phthalate	330U
205-99-2	Benzo(b)Fluoranthene	330J
207-08-9	Benzo(k)Fluoranthene	330J
50-32-8	Benzo(a)Pyrene	330U
193-39-5	Indeno(1. 2. 3-cd)Pyrene	330U
53-70-3	Dibenz(a. h)Anthracene	330U
191-24-2	Benzo(g. h. i)Perylene	330U
122-66-7	1,2-Diphenylhydrazine	330J

(1)-Cannot be separated from diphenylamine

Laboratory Name: RADIAN

Case No: 5215

Sample Number: CB872

Organics Analysis Data Sheet
(Page 3)

Pesticide/PCBs

Concentration: (Low) Medium (Circle One)

Date Extracted/Prepared: 11-19-85

Date Analyzed: 11-25-85

Conc/Dil Factor: 30.73 g/5.0 ml

CAS Number		ug/l or (ug/Kg) (Circle One)
319-84-6	Alpha-BHC	1.6 U
319-85-7	Beta-BHC	1.6 U
319-86-8	Delta-BHC	1.6 U
58-89-9	Gamma-BHC (Lindane)	1.6 U
76-44-8	Heptachlor	1.6 U
309-00-2	Aldrin	1.6 U
1024-57-3	Heptachlor Epoxide	1.6 U
959-98-8	Endosulfan I	1.6 U
60-57-1	Dieldrin	1.6 U
72-55-9	4,4'-DDE	1.6 U
72-20-8	Endrin	1.6 U
33213-65-9	Endosulfan II	4.9 U
72-54-8	4,4'-DDD	1.6 U
7421-93-4	Endrin Aldehyde	3.2 U
1031-07-8	Endosulfan Sulfate	8.0 U
50-29-3	4,4'-DDT	3.2 U
72-43-5	Methoxychlor	9.0 U
53494-70-5	Endrin Ketone	8.0 U
57-74-9	Chlordane	40.0 U
8001-35-2	Toxaphene	80.0 U
12674-11-2	Aroclor-1016	25.0 U
11104-28-2	Aroclor-1221	40.0 U
11141-16-5	Aroclor-1232	40.0 U
53469-21-9	Aroclor-1242	25.0 U
12672-29-6	Aroclor-1248	25.0 U
11097-69-1	Aroclor-1254	40.0 U
11096-82-5	Aroclor-1260	110

V_i = volume of extract injected (ul)

V_s = Volume of water extracted (ml)

W_s = Weight of sample extracted (g)

V_t = Volume of total extract (ul)

V_s _____ or W_s 30.73 V_t 5000 V_i 2.00

Sample Number
CB878

321

Organics Analysis Data Sheet
(Page 1)

Downhill Trib UP

Laboratory Name: Radian
Case No: 5215
Lab Sample ID No: 4EU11086V04
QC Report No: 97
Sample Matrix: soil
Contract No: 68-01-6853
Data Release Authorized By: K. Milandrea
Date Sample Received: 11/14/85

Volatile Compounds

Concentration: (Low) Medium (Circle One)
Date Extracted/Prepared: 11/21/85
Date Analyzed: 11/21/85
Conc/Dil Factor: 1 pH 6.8
Percent Moisture: (Not Decanted) 36%

CAS Number		ug/l or ug/Kg (Circle One)
74-87-3	Chloromethane	10U
74-83-9	Bromomethane	10U
75-01-4	Vinyl Chloride	10U
75-00-3	Chloroethane	10U
75-09-2	Methylene Chloride	8 B
67-64-1	Acetone	90 B
75-15-0	Carbon Disulfide	5U
75-35-4	1, 1-Dichloroethene	5U
75-34-3	1, 1-Dichloroethane	5U
156-60-5	Trans-1, 2-Dichloroethene	5U
67-66-3	Chloroform	5U
107-06-2	1, 2-Dichloroethane	5U
78-93-3	2-Butanone	11 B
71-55-6	1, 1, 1-Trichloroethane	5U
56-23-5	Carbon Tetrachloride	5U
108-05-4	Vinyl Acetate	10U
75-27-4	Bromodichloromethane	5U

CAS Number		ug/l or ug/Kg (Circle One)
78-87-5	1, 2-Dichloropropane	5U
10061-02-6	Trans-1, 3-Dichloropropene	5U
79-01-6	Trichloroethene	5U
124-48-1	Dibromochloromethane	5U
79-00-5	1, 1, 2-Trichloroethane	5U
71-43-2	Benzene	5J
10061-01-5	cis-1, 3-Dichloropropene	5U
110-75-8	2-Chloroethylvinylether	10U
75-25-2	Bromoform	5U
108-10-1	4-Methyl-2-Pentanone	10U
591-78-6	2-Hexanone	10U
127-18-4	Tetrachloroethene	5U
79-34-5	1, 1, 2, 2-Tetrachloroethane	5U
108-88-3	Toluene	5J B
108-90-7	Chlorobenzene	5U
100-41-4	Ethylbenzene	5U
100-42-5	Styrene	5U
	Total Xylenes	5U

Data Reporting Qualifiers

For reporting results to EPA, the following results qualifiers are used. Additional flags or footnotes explaining results are encouraged However, the definition of each flag must be explicit.

Value If the result is a value greater than or equal to the detection limit, report the value

U Indicates compound was analyzed for but not detected Report the minimum detection limit for the sample with the U (e g , 10U) based on necessary concentration/dilution action (This is not necessarily the instrument detection limit) The footnote should read U- Compound was analyzed for but not detected The number is the minimum attainable detection limit for the sample

J Indicates an estimated value This flag is used either when estimating a concentration for tentatively identified compounds where a 1 1 response is assumed or when the mass spectral data indicated the presence of a compound that meets the identification criteria but the result is less than the specified detection limit but greater than zero (e g , 10J). If limit of detection is 10 µg/l and a concentration of 3 µg/l is calculated, report as 3J

C This flag applies to pesticide parameters where the identification has been confirmed by GC MS Single component pesticides ≥10 ng µl in the final extract should be confirmed by GC MS

B This flag is used when the analyte is found in the blank as well as a sample It indicates possible probable blank contamination and warns the data user to take appropriate action

Other Other specific flags and footnotes may be required to properly define the results If used, they must be fully described and such description attached to the data summary report

AR100517

Laboratory Name: Radian

Case No: 5215

Sample Number: CB878

325

Organics Analysis Data Sheet
(Page 2)

Semivolatile Compounds

Concentration: (Low) Medium (Circle One)

Date Extracted/Prepared: 11/14/85

Date Analyzed: 11/27/85

Conc/Dil Factor: 30.13gms/ml

Percent Moisture (Decanted) 36%

GPC Cleanup ☐Yes ☑No

Separatory Funnel Extraction ☐Yes

Continuous Liquid - Liquid Extraction ☑Yes

CAS Number		ug/l or (ug/Kg) (Circle One)
108-95-2	Phenol	330U
111-44-4	bis(-2-Chloroethyl)Ether	330U
95-57-8	2-Chlorophenol	330U
541-73-1	1 3-Dichlorobenzene	330U
106-46-7	1 4-Dichlorobenzene	330U
100-51-6	Benzyl Alcohol	330U
95-50-1	1 2-Dichlorobenzene	330U
[illegible]-7	2-Methylphenol	330U
[illegible]8-32-9	bis(2-chloroisopropyl)Ether	330U
106-44-5	4-Methylphenol	330U
621-64-7	N-Nitroso-Di-n-Propylamine	330U
67-72-1	Hexachloroethane	330U
98-95-3	Nitrobenzene	330U
78-59-1	Isophorone	330U
88-75-5	2-Nitrophenol	330U
105-67-9	2, 4-Dimethylphenol	330U
65-85-0	Benzoic Acid	1600U
111-91-1	bis(-2-Chloroethoxyl)Methane	330U
120-83-2	2, 4-Dichlorophenol	330U
120-82-1	1, 2, 4-Trichlorobenzene	330U
91-20-3	Naphthalene	330U
106-47-8	4-Chloroaniline	330U
87-68-3	Hexachlorobutadiene	330U
59-50-7	4-Chloro-3-Methylphenol	330J
91-57-6	2-Methylnaphthalene	330J
77-47-4	Hexachlorocyclopentadiene	330U
88-06-2	2 4 6-Trichlorophenol	330U
95-95-4	2 4 5-Trichlorophenol	1600U
91-58-7	2-Chloronaphthalene	330U
88-74-4	2-Nitroaniline	1600U
[illegible]-3	Dimethyl Phthalate	330U
[illegible]-8	Acenaphthylene	330U
99-09-2	3-Nitroaniline	1600U

CAS Number		ug/l or (ug/Kg) (Circle One)
83-32-9	Acenaphthene	330U
51-28-5	2, 4-Dinitrophenol	1600U
100-02-7	4-Nitrophenol	1600J
132-64-9	Dibenzofuran	330U
121-14-2	2 4-Dinitrotoluene	330U
606-20-2	2 6-Dinitrotoluene	330U
84-66-2	Diethylphthalate	330U
7005-72-3	4-Chlorophenyl-phenylether	330U
86-73-7	Fluorene	330U
100-01-6	4-Nitroaniline	1600U
534-52-1	4, 6-Dinitro-2-Methylphenol	1600U
86-30-6	N-Nitrosodiphenylamine (1)	330U
101-55-3	4-Bromophenyl-phenylether	330U
118-74-1	Hexachlorobenzene	330U
87-86-5	Pentachlorophenol	1600U
85-01-8	Phenanthrene	330J
120-12-7	Anthracene	330U
84-74-2	Di-n-Butylphthalate	810 B
206-44-0	Fluoranthene	330J
129-00-0	Pyrene	460
85-68-7	Butylbenzylphthalate	330U
91-94-1	3, 3'-Dichlorobenzidine	660U
56-55-3	Benzo(a)Anthracene	330J
117-81-7	bis(2-Ethylhexyl)Phthalate	330J
218-01-9	Chrysene	330J
117-84-0	Di-n-Octyl Phthalate	330U
205-99-2	Benzo(b)Fluoranthene	330J
207-08-9	Benzo(k)Fluoranthene	330U
50-32-8	Benzo(a)Pyrene	330U
193-39-5	Indeno(1 2, 3-cd)Pyrene	330U
53-70-3	Dibenz(a, h)Anthracene	330U
191-24-2	Benzo(g, h, i)Perylene	330U
122-66-7	1,2-Diphenylhydrazine	330J

(1)-Cannot be separated from diphenylamine

Laboratory Name: RADIAN

Case No: 5215

Sample Number: CB878

Organics Analysis Data Sheet
(Page 3)

Pesticide/PCBs

Concentration: (Low) Medium (Circle One)

Date Extracted/Prepaced: 11-18-85

Date Analyzed: 11-25-85

Conc/Dil Factor: 30.13g/5.0ml

CAS Number		ug/l or (ug/Kg) (Circle One)
319-84-6	Alpha-BHC	1.6 u
319-85-7	Beta-BHC	1.6 u
319-86-8	Delta-BHC	1.6 u
58-89-9	Gamma-BHC (Lindane)	1.6 u
76-44-8	Heptachlor	1.6 u
309-00-2	Aldrin	1.6 u
1024-57-3	Heptachlor Epoxide	1.6 u
959-98-8	Endosulfan I	1.6 u
60-57-1	Dieldrin	1.6 u
72-55-9	4,4'-DDE	1.6 u
72-20-8	Endrin	1.6 u
33213-65-9	Endosulfan II	4.0 u
72-54-8	4,4'-DDD	1.6 u
7421-93-4	Endrin Aldehyde	3.2 u
1031-07-8	Endosulfan Sulfate	8.0 u
50-29-3	4,4'-DDT	3.2 u
72-43-5	Methoxychlor	8.0 u
53494-70-5	Endrin Ketone	8.0 u
57-74-9	Chlordane	40.0 u
8001-35-2	Toxaphene	80.0 u
12674-11-2	Aroclor-1016	25.0 u
11104-28-2	Aroclor-1221	40.0 u
11141-16-5	Aroclor-1232	40.0 u
53469-21-9	Aroclor-1242	25.0 u
12672-29-6	Aroclor-1248	25.0 u
11097-69-1	Aroclor-1254	40.0 u
11096-82-5	Aroclor-1260	40.0 u

V_i = volume of extract injected (ul)

V_s = Volume of water extracted (ml)

W_s = Weight of sample extracted (g)

V_t = Volume of total extract (ul)

V_s ——— or W_s 30.13 V_t 5000 V_i 2.00

Sample Number
CB891, 485
Background Soil

Organics Analysis Data Sheet
(Page 1)

Laboratory Name: Radian
Case No: 5215
Lab Sample ID No: 4EU1085V13
QC Report No: 87
Sample Matrix: soil
Contract No: 68-01-6853
Data Release Authorized By: K. Whelan
Date Sample Received: 11/14/85

Volatile Compounds

Concentration: (Low) Medium (Circle One)
Date Extracted/Prepared: 11/20/85
Date Analyzed: 11/20/85
Conc/Dil Factor: 1 pH 5.2
Percent Moisture: (Not Decanted) 30%

CAS Number		ug/l or (ug/Kg) (Circle One)
74-87-3	Chloromethane	10U
74-83-9	Bromomethane	10U
75-01-4	Vinyl Chloride	10U
75-00-3	Chloroethane	10U
75-09-2	Methylene Chloride	6 B
[illegible]64-1	Acetone	16 B
[illegible]5-0	Carbon Disulfide	5U
[illegible]-35-4	1, 1-Dichloroethene	5U
75-34-3	1, 1-Dichloroethane	5U
156-60-5	Trans-1, 2-Dichloroethene	5U
67-66-3	Chloroform	5U
107-06-2	1, 2-Dichloroethane	5U
78-93-3	2-Butanone	11 B
71-55-6	1, 1, 1-Trichloroethane	5U
56-23-5	Carbon Tetrachloride	5U
108-05-4	Vinyl Acetate	10U
75-27-4	Bromodichloromethane	5U

CAS Number		ug/l or (ug/Kg) (Circle One)
78-87-5	1, 2-Dichloropropane	5U
10061-02-6	Trans-1, 3-Dichloropropene	5U
79-01-6	Trichloroetnene	5U
124-48-1	Dibromochloromethane	5U
79-00-5	1, 1, 2-Trichloroethane	5U
71-43-2	Benzene	5J
10061-01-5	cis-1, 3-Dichloropropene	5U
110-75-8	2-Chloroethylvinylether	10U
75-25-2	Bromoform	5U
108-10-1	4-Methyl-2-Pentanone	10U
591-78-6	2-Hexanone	10U
127-18-4	Tetrachloroethene	5U
79-34-5	1, 1, 2, 2-Tetrachloroethane	5U
108-88-3	Toluene	5J
108-90-7	Chlorobenzene	5U
100-41-4	Ethylbenzene	5U
100-42-5	Styrene	5U
	Total Xylenes	5U

Data Reporting Qualifiers

For reporting results to EPA, the following results qualifiers are used. Additional flags or footnotes explaining results are encouraged However, the definition of each flag must be explicit.

Value If the result is a value greater than or equal to the detection limit, report the value

U Indicates compound was analyzed for but not detected Report the minimum detection limit for the sample with the U (e g , 10U) based on necessary concentration/dilution action (This is not necessarily the instrument detection limit) The footnote should read U- Compound was analyzed for but not detected The number is the minimum attainable detection limit for the sample

J Indicates an estimated value This flag is used either when estimating a concentration for tentatively identified compounds where a 1 1 response is assumed or when the mass spectral data indicated the presence of a compound that meets the identification criteria but the result is less than the specified detection limit but greater than zero (e g , 10J) If limit of detection is 10 µg/l and a concentration of 3 µg/l is calculated, report as 3J

C This flag applies to pesticide parameters where the identification has been confirmed by GC MS Single component pesticides ≥10 ng ul in the final extract should be confirmed by GC MS

B This flag is used when the analyte is found in the blank as well as a sample It indicates possible probable blank contamination and warns the data user to take appropriate action

Other Other specific flags and footnotes may be required to properly define the results If used, they must be fully described and such description attached to the data summary report

AR100520

Laboratory Name: Radian

Case No: 5215

Sample Number: 186
CB-891

Organics Analysis Data Sheet
(Page 2)

Semivolatile Compounds

Concentration: (Low) Medium (Circle One)

Date Extracted/Prepared 11/19/85

Date Analyzed: 11/25/85

Conc/Dil Factor: 30.72 gms/ml

Percent Moisture (Decanted) 30%

GPC Cleanup ☐Yes ☒No

Separatory Funnel Extraction ☐Yes

Continuous Liquid - Liquid Extraction ☒Yes

CAS Number		ug/l or (ug/Kg) (Circle One)
108-95-2	Phenol	330U
111-44-4	bis(2-Chloroethyl)Ether	330U
95-57-8	2-Chlorophenol	330U
541-73-1	1 3-Dichlorobenzene	330U
106-46-7	1 4-Dichlorobenzene	330U
100-51-6	Benzyl Alcohol	330U
95-50-1	1 2-Dichlorobenzene	330U
95-48-7	2-Methylphenol	330U
39638-32-9	bis(2-chloroisopropyl)Ether	330U
106-44-5	4-Methylphenol	330U
621-64-7	N-Nitroso-Di-n-Propylamine	330U
67-72-1	Hexachloroethane	330U
98-95-3	Nitrobenzene	330U
78-59-1	Isophorone	330U
88-75-5	2-Nitrophenol	330U
105-67-9	2. 4-Dimethylphenol	330U
65-85-0	Benzoic Acid	1600U
111-91-1	bis(2-Chloroethoxyl)Methane	330U
120-83-2	2. 4-Dichlorophenol	330U
120-82-1	1. 2. 4-Trichlorobenzene	330U
91-20-3	Naphthalene	330U
106-47-8	4-Chloroaniline	330U
87-68-3	Hexachlorobutadiene	330U
59-50-7	4-Chloro-3-Methylphenol	330U
91-57-6	2-Methylnaphthalene	330U
77-47-4	Hexachlorocyclopentadiene	330U
88-06-2	2 4 6-Trichlorophenol	330U
95-95-4	2 4 5-Trichlorophenol	1600U
91-58-7	2-Chloronaphthalene	330U
88-74-4	2-Nitroaniline	1600U
131-11-3	Dimethyl Phthalate	330U
208-96-8	Acenaphthylene	330U
99-09-2	3-Nitroaniline	1600U

CAS Number		ug/l or (ug/Kg) (Circle One)
83-32-9	Acenaphthene	330U
51-28-5	2. 4-Dinitrophenol	1600U
100-02-7	4-Nitrophenol	1600U
132-64-9	Dibenzofuran	330U
121-14-2	2 4-Dinitrotoluene	330U
606-20-2	2 6-Dinitrotoluene	330U
84-66-2	Diethylphthalate	330U
7005-72-3	4-Chlorophenyl-phenylether	330U
86-73-7	Fluorene	330U
100-01-6	4-Nitroaniline	1600U
534-52-1	4 6-Dinitro-2-Methylphenol	1600U
86-30-6	N-Nitrosodiphenylamine (1)	330U
101-55-3	4-Bromophenyl-phenylether	330U
118-74-1	Hexachlorobenzene	330U
87-86-5	Pentachlorophenol	1600U
85-01-8	Phenanthrene	330J
120-12-7	Anthracene	330U
84-74-2	Di-n-Butylphthalate	330J B
206-44-0	Fluoranthene	330J
129-00-0	Pyrene	330J
85-68-7	Butylbenzylphthalate	330U
91-94-1	3. 3 -Dichlorobenzidine	660U
56-55-3	Benzo(a)Anthracene	330J
117-81-7	bis(2-Ethylhexyl)Phthalate	330J B
218-01-9	Chrysene	330J
117-84-0	Di-n-Octyl Phthalate	330U
205-99-2	Benzo(b)Fluoranthene	330J
207-08-9	Benzo(k)Fluoranthene	330U
50-32-8	Benzo(a)Pyrene	330J
193-39-5	Indeno(1. 2. 3-cd)Pyrene	330U
53-70-3	Dibenz(a. h)Anthracene	330U
191-24-2	Benzo(g. h. i)Perylene	330U
122-66-7	1,2-Diphenylhydrazine	330J

(1)-Cannot be separated from diphenylamine

Laboratory Name: RADIAN

Case No: 5215

Sample Number: CB891

Organics Analysis Data Sheet
(Page 3)

Pesticide/PCBs

Concentration: (Low) Medium (Circle One)

Date Extracted/Prepared: 11-18-85

Date Analyzed: 11-25-85

Conc/Dil Factor: 30.72g/5.0ml

CAS Number		ug/l or (ug/Kg) (Circle One)
319-84-6	Alpha-BHC	1.6 u
319-85-7	Beta-BHC	1.6 u
319-86-8	Delta-BHC	1.6 u
58-89-9	Gamma-BHC (Lindane)	1.6 u
76-44-8	Heptachlor	1.6 u
309-00-2	Aldrin	1.6 u
1024-57-3	Heptachlor Epoxide	1.6 u
959-98-8	Endosulfan I	1.6 u
60-57-1	Dieldrin	1.6 u
72-55-9	4,4'-DDE	1.6 u
72-20-8	Endrin	1.6 u
33213-65-9	Endosulfan II	4.0 u
72-54-8	4,4'-DDD	1.6 u
7421-93-4	Endrin Aldehyde	3.2 u
1031-07-8	Endosulfan Sulfate	8.0 u
50-29-3	4,4'-DDT	3.2 u
72-43-5	Methoxychlor	8.0 u
53494-70-5	Endrin Ketone	8.0 u
57-74-9	Chlordane	40.0 u
8001-35-2	Toxaphene	80.0 u
12674-11-2	Aroclor-1016	25.0 u
11104-28-2	Aroclor-1221	40.0 u
11141-16-5	Aroclor-1232	40.0 u
53469-21-9	Aroclor-1242	25.0 u
12672-29-6	Aroclor-1248	25.0 u
11097-69-1	Aroclor-1254	40.0 u
11096-82-5	Aroclor-1260	40.0 u

V_i = volume of extract injected (ul)

V_s = Volume of water extracted (ml)

W_s = Weight of sample extracted (g)

V_t = Volume of total extract (ul)

V_s _____ or W_s 30.72 V_t 5000 V_i 2.00

AR100522

Sample Number
CB889

Solid Blank 382

Organics Analysis Data Sheet
(Page 1)

Laboratory Name: Radian
Case No: 5215
Lab Sample ID No: 4ER110S5V01
QC Report No: 87
Sample Matrix: Soil
Contract No: 68-01-6853
Data Release Authorized By: K. Smolenski
Date Sample Received: 11-14-85

Volatile Compounds

Concentration: (Low) Medium (Circle One)
Date Extracted/Prepared: 11-21-85
Date Analyzed: 11-21-85
Conc/Dil Factor: 1:5 pH —
Percent Moisture: (Not Decanted) —

VOA Only

CAS Number		ug/l or (ug/Kg) (Circle One)
74-87-3	Chloromethane	50U
74-83-9	Bromomethane	50U
75-01-4	Vinyl Chloride	50U
75-00-3	Chloroethane	50U
75-09-2	Methylene Chloride	990B
67-64-1	Acetone	160B
75-15-0	Carbon Disulfide	25U
75-35-4	1, 1-Dichloroethene	25U
75-34-3	1, 1-Dichloroethane	25U
156-60-5	Trans-1, 2-Dichloroethene	25U
67-66-3	Chloroform	25U
107-06-2	1, 2-Dichloroethane	25U
78-93-3	2-Butanone	76B
71-55-6	1, 1, 1-Trichloroethane	25U
56-23-5	Carbon Tetrachloride	25U
108-05-4	Vinyl Acetate	50U
75-27-4	Bromodichloromethane	25U

CAS Number		ug/l or (ug/Kg) (Circle One)
78-87-5	1, 2-Dichloropropane	25U
10061-02-6	Trans-1, 3-Dichloropropene	25U
79-01-6	Trichloroethene	25U
124-48-1	Dibromochloromethane	25U
79-00-5	1, 1, 2-Trichloroethane	25U
71-43-2	Benzene	25J
10061-01-5	cis-1, 3-Dichloropropene	25U
110-75-8	2-Chloroethylvinylether	50U
75-25-2	Bromoform	25U
108-10-1	4-Methyl-2-Pentanone	50U
591-78-6	2-Hexanone	50U
127-18-4	Tetrachloroethene	25U
79-34-5	1, 1, 2, 2-Tetrachloroethane	25U
108-88-3	Toluene	25J
108-90-7	Chlorobenzene	25U
100-41-4	Ethylbenzene	25U
100-42-5	Styrene	25U
	Total Xylenes	25U

Data Reporting Qualifiers

For reporting results to EPA, the following results qualifiers are used. Additional flags or footnotes explaining results are encouraged. However, the definition of each flag must be explicit.

Value If the result is a value greater than or equal to the detection limit, report the value

U Indicates compound was analyzed for but not detected. Report the minimum detection limit for the sample with the U (e.g., 10U) based on necessary concentration/dilution action. (This is not necessarily the instrument detection limit.) The footnote should read U-Compound was analyzed for but not detected. The number is the minimum attainable detection limit for the sample

J Indicates an estimated value. This flag is used either when estimating a concentration for tentatively identified compounds where a 1:1 response is assumed or when the mass spectral data indicated the presence of a compound that meets the identification criteria but the result is less than the specified detection limit but greater than zero (e.g., 10J). If limit of detection is 10 µg/l and a concentration of 3 µg/l is calculated, report as 3J

C This flag applies to pesticide parameters where the identification has been confirmed by GC/MS. Single component pesticides ≥10 ng/ul in the final extract should be confirmed by GC/MS

B This flag is used when the analyte is found in the blank as well as a sample. It indicates possible/probable blank contamination and warns the data user to take appropriate action

Other Other specific flags and footnotes may be required to properly define the results. If used, they must be fully described and such description attached to the data summary report

Laboratory Name: Radian

Case No: 5215

Sample Number: CB889

383

Organics Analysis Data Sheet
(Page 2)

Semivolatile Compounds

Concentration: Low Medium (Circle One)

Date Extracted/Prepared: _____

Date Analyzed: _____

Conc/Dil Factor: AIR

Percent Moisture (Decanted) _____

GPC Cleanup ☐Yes ☐No

Separatory Funnel Extraction ☐Yes

Continuous Liquid - Liquid Extraction ☐Yes

CAS Number		ug/l or ug/Kg (Circle One)
108-95-2	Phenol	
111-44-4	bis(-2-Chloroethyl)Ether	
95-57-8	2-Chlorophenol	
541-73-1	1 3-Dichlorobenzene	
106-46-7	1 4-Dichlorobenzene	
100-51-6	Benzyl Alcohol	
95-50-1	1 2-Dichlorobenzene	
95-48-7	2-Methylphenol	
[redacted]-32-9	bis(2-chloroisopropyl)Ether	
[redacted]4-5	4-Methylpheno	
621-64-7	N-Nitroso-Di-n-Propylamine	
67-72-1	Hexachloroethane	
98-95-3	Nitrobenzene	
78-59-1	Isophorone	
88-75-5	2-Nitrophenol	
105-67-9	2, 4-Dimethylphenol	
65-85-0	Benzoic Acid	
111-91-1	bis(-2-Chloroethoxy)Methane	
120-83-2	2, 4-Dichlorophenol	
120-82-1	1, 2, 4-Trichlorobenzene	
91-20-3	Naphthalene	
106-47-8	4-Chloroaniline	
87-68-3	Hexachlorobutadiene	
59-50-7	4-Chloro-3-Methylphenol	
91-57-6	2-Methylnaphthalene	
77-47-4	Hexachlorocyclopentadiene	
88-06-2	2 4, 6-Trichlorophenol	
95-95-4	2, 4 5-Trichlorophenol	
91-58-7	2-Chloronaphthalene	
88-74-4	2-Nitroaniline	
131-11-3	Dimethyl Phthalate	
2[redacted]-8	Acenaphthylene	
[redacted]2	3-Nitroaniline	

CAS Number		ug/l or ug/Kg (Circle One)
83-32-9	Acenaphthene	
51-28-5	2, 4-Dinitrophenol	
100-02-7	4-Nitrophenol	
132-64-9	Dibenzofuran	
121-14-2	2 4-Dinitrotoluene	
606-20-2	2, 6-Dinitrotoluene	
84-66-2	Diethylphthalate	
7005-72-3	4-Chlorophenyl-phenylether	
86-73-7	Fluorene	
100-01-6	4-Nitroaniline	
534-52-1	4, 6-Dinitro-2-Methylphenol	
86-30-6	N-Nitrosodiphenylamine (1)	
101-55-3	4-Bromophenyl-phenylether	
118-74-1	Hexachlorobenzene	
87-86-5	Pentachlorophenol	
85-01-8	Phenanthrene	
120-12-7	Anthracene	
84-74-2	Di-n-Butylphthalate	
206-44-0	Fluoranthene	
129-00-0	Pyrene	
85-68-7	Butylbenzylphthalate	
91-94-1	3, 3'-Dichlorobenzidine	
56-55-3	Benzo(a)Anthracene	
117-81-7	bis(2-Ethylhexyl)Phthalate	
218-01-9	Chrysene	
117-84-0	Di-n-Octyl Phtnalate	
205-99-2	Benzo(b)Fluoranthene	
207-08-9	Benzo(k)Fluoranthene	
50-32-8	Benzo(a)Pyrene	
193-39-5	Indeno(1, 2, 3-cd)Pyrene	
53-70-3	Dibenzia, h)Anthracene	
191-24-2	Benzo(g, h, i)Perylene	

(1)-Cannot be separated from diphenylamine

Laboratory Name Radian

Case No 5215

Sample Number CB889 384

Organics Analysis Data Sheet
(Page 3)

Pesticide/PCBs

Concentration: Low Medium (Circle One)

Date Extracted/Prepared: _____

Date Analyzed: _____ NP

Conc/Dil Factor: _____

Percent Moisture (decanted): _____

GPC Cleanup ☐Yes ☐No

Separatory Funnel Extraction ☐Yes

Continuous Liquid - Liquid Extraction ☐Yes

CAS Number		ug/l or ug/Kg (Circle One)
319-84-6	Alpha-BHC	
319-85-7	Beta-BHC	
319-86-8	Delta-BHC	
58-89-9	Gamma-BHC (Lindane)	
76-44-8	Heptachlor	
309-00-2	Aldrin	
1024-57-3	Heptachlor Epoxide	
959-98-8	Endosulfan I	
60-57-1	Dieldrin	
72-55-9	4 4'-DDE	
72-20-8	Endrin	
33213-65-9	Endosulfan II	
72-54-8	4, 4'-DDD	
1031-07-8	Endosulfan Sulfate	
50-29-3	4 4'-DDT	
72-43-5	Methoxychlor	
53494-70-5	Endrin Ketone	
57-74-9	Chlordane	
8001-35-2	Toxaphene	
12674-11-2	Aroclor-1016	
11104-28-2	Aroclor-1221	
11141-16-5	Aroclor-1232	
53469-21-9	Aroclor-1242	
12672-29-6	Aroclor-1248	
11097-69-1	Aroclor-1254	
11096-82-5	Aroclor-1260	

V_i = Volume of extract injected (ul)

V_s = Volume of water extracted (ml)

W_s = Weight of sample extracted (g)

V_t = Volume of total extract (ul)

V_s _____ or W_s _____ V_t _____ V_i _____

AR100525

Form I

Well 6

U.S. EPA Contract Laboratory Program
Sample Management Office
P.O. Box 818 - Alexandria, VA 22313
703/557-2490 FTS: 8-557-2490

EPA Sample No.
MCC889

Date 12-17-85

INORGANIC ANALYSIS DATA SHEET

LAB NAME ROCKY MOUNTAIN ANALYTICAL
SOW NO. 784
LAB SAMPLE ID. NO. -

CASE NO. 5215

QC REPORT NO. 55492

Elements Identified and Measured

Concentration: Low X Medium
Matrix: Water X Soil Sludge Other

UG/L

1.	ALUMINUM	587	P	13.	MAGNESIUM	37800	P
2.	ANTIMONY	25U	P	14.	MANGANESE	180	P
3.	ARSENIC	10U	F	15.	MERCURY	0.1U	CV
4.	BARIUM	13U	P	16.	NICKEL	7U	P
5.	BERYLLIUM	0.4U	P	17.	POTASSIUM	2170U	P
6.	CADMIUM	4U	P	18.	SELENIUM	5U	F R
7.	CALCIUM	68900	P	19.	SILVER	3U	P
8.	CHROMIUM	[5.2]	P	20.	SODIUM	15900	P
9.	COBALT	5U	P	21.	THALLIUM	10U	F R
10.	COPPER	[8.5]	P	22.	TIN	16U	P
11.	IRON	7520	P	23.	VANADIUM	4U	P
12.	LEAD	5U	F	24.	ZINC	[18]	P
Cyanide		10U	AS	Percent Solids (%)			

Footnotes: For reporting results to EPA, standard result qualifiers are used as defined on Cover Page. Additional flags or footnotes explaining results are encouraged. Definition of such flags must be explicit and contained on Cover Page, however.

Comments:

AR100526

Lab Manager

Form I

Veh3

U.S. EPA Contract Laboratory Program
Sample Management Office
P.O. Box 818 - Alexandria, VA 22313
703/557-2490 FTS: 8-557-2490

EPA Sample No.
MCC845

Date 12-17-85

INORGANIC ANALYSIS DATA SHEET

LAB NAME ROCKY MOUNTAIN ANALYTICAL
SOW NO. 784
LAB SAMPLE ID. NO. -

CASE NO. 5215

QC REPORT NO. 55492

Elements Identified and Measured

Concentration: Low X Medium
Matrix: Water X Soil Sludge Other

UG/L

1.	ALUMINUM	695	P	13.	MAGNESIUM	26400	P
2.	ANTIMONY	25U	P	14.	MANGANESE	161	P
3.	ARSENIC	2U	F	15.	MERCURY	0.1U	CV
4.	BARIUM	[26]	P	16.	NICKEL	7U	P
5.	BERYLLIUM	[0.5]	P	17.	POTASSIUM	[2430]	P
6.	CADMIUM	4U	P	18.	SELENIUM	5U	F R
7.	CALCIUM	58400	P	19.	SILVER	3U	P
8.	CHROMIUM	[6]	P	20.	SODIUM	32500	P
9.	COBALT	[5.3]	P	21.	THALLIUM	10U	F R
10.	COPPER	[19]	P	22.	TIN	16U	P
11.	IRON	6090	P	23.	VANADIUM	85	P
12.	LEAD	8.9	F	24.	ZINC	35	P
Cyanide		10U	AS	Percent Solids (%)			

Footnotes: For reporting results to EPA, standard result qualifiers are used as defined on Cover Page. Additional flags or footnotes explaining results are encouraged. Definition of such flags must be explicit and contained on Cover Page, however.

Comments:

AR100527

Lab Manager JW

Form I

Well 1

U.S. EPA Contract Laboratory Program
Sample Management Office
P.O. Box 818 - Alexandria, VA 22313
703/557-2490 FTS: 8-557-2490

EPA Sample No.
MCC846

Date 12-17-85

INORGANIC ANALYSIS DATA SHEET

LAB NAME ROCKY MOUNTAIN ANALYTICAL
SOW NO. 784
LAB SAMPLE ID. NO. -

CASE NO. 5215

QC REPORT NO. 55492

Elements Identified and Measured

Concentration: Low X Medium
Matrix: Water X Soil Sludge Other

UG/L

1.	ALUMINUM	278	P	13.	MAGNESIUM	42900	P
2.	ANTIMONY	25U	P	14.	MANGANESE	47	P
3.	ARSENIC	10U	F	15.	MERCURY	0.1U	CV
4.	BARIUM	[17]	P	16.	NICKEL	7U	P
5.	BERYLLIUM	0.4U	P	17.	POTASSIUM	2170U	P
6.	CADMIUM	4U	P	18.	SELENIUM	5U	F R
7.	CALCIUM	76500	P	19.	SILVER	3U	P
8.	CHROMIUM	[4.6]	P	20.	SODIUM	8700	P
9.	COBALT	5U	P	21.	THALLIUM	10U	F R
10.	COPPER	[6.3]	P	22.	TIN	16U	P
11.	IRON	5860	P	23.	VANADIUM	4U	P
12.	LEAD	5U	F	24.	ZINC	[19]	P
Cyanide		10U	AS	Percent Solids (%)			

Footnotes: For reporting results to EPA, standard result qualifiers are used as defined on Cover Page. Additional flags or footnotes explaining results are encouraged. Definition of such flags must be explicit and contained on Cover Page, however.

Comments:

AR100528

Lab Manager

Form I

Well 2

U.S. EPA Contract Laboratory Program
Sample Management Office
P.O. Box 818 - Alexandria, VA 22313
703/557-2490 FTS: 8-557-2490

EPA Sample No.
MCC847

Date 12-17-85

INORGANIC ANALYSIS DATA SHEET

LAB NAME ROCKY MOUNTAIN ANALYTICAL
SOW NO. 784
LAB SAMPLE ID. NO. -

CASE NO. 5215

QC REPORT NO. 55492

Elements Identified and Measured

Concentration: Low X Medium
Matrix: Water X Soil Sludge Other

UG/L

1.	ALUMINUM	109000	P	13.	MAGNESIUM	154000	P
2.	ANTIMONY	[104]	P	14.	MANGANESE	23000	P
3.	ARSENIC	320	P	15.	MERCURY	7.40	CV
4.	BARIUM	1200	P	16.	NICKEL	499	P
5.	BERYLLIUM	40	P	17.	POTASSIUM	15100	P
6.	CADMIUM	84	P	18.	SELENIUM	50U	F R
7.	CALCIUM	200000	P	19.	SILVER	47	P
8.	CHROMIUM	154	P	20.	SODIUM	78900	P
9.	COBALT	233	P	21.	THALLIUM	20U	F R
10.	COPPER	678	P	22.	TIN	32U	P
11.	IRON	574000	P	23.	VANADIUM	421	P
12.	LEAD	883	P	24.	ZINC	14200	P
Cyanide		10U	AS	Percent Solids (%)			

Footnotes: For reporting results to EPA, standard result qualifiers are used as defined on Cover Page. Additional flags or footnotes explaining results are encouraged. Definition of such flags must be explicit and contained on Cover Page, however.

Comments: SAMPLE DILUTED AT 2X DUE TO HIGH IRON CONCENTRATIONS FOR ICP ANALYSIS

Hg result reported @ 5X dilution.

AR100529

Lab Manager

Form I

Well 2A

U.S. EPA Contract Laboratory Program
Sample Management Office
P.O. Box 818 - Alexandria, VA 22313
703/557-2490 FTS: 8-557-2490

EPA Sample No.
MCC737

Date 12-17-85

INORGANIC ANALYSIS DATA SHEET

LAB NAME ROCKY MOUNTAIN ANALYTICAL
SOW NO. 784
LAB SAMPLE ID. NO. -

CASE NO. 5215

QC REPORT NO. 55492

Elements Identified and Measured

Concentration: Low X Medium
Matrix: Water X Soil Sludge Other

UG/L

1.	ALUMINUM	63400	P	13.	MAGNESIUM	99600	P
2.	ANTIMONY	[58]	P	14.	MANGANESE	13100	P
3.	ARSENIC	191	P	15.	MERCURY	4.50	CV
4.	BARIUM	759	P	16.	NICKEL	288	P
5.	BERYLLIUM	25	P	17.	POTASSIUM	11900	P
6.	CADMIUM	47	P	18.	SELENIUM	50U	F R
7.	CALCIUM	136000	P	19.	SILVER	25	P
8.	CHROMIUM	88	P	20.	SODIUM	78800	P
9.	COBALT	129	P	21.	THALLIUM	20U	F R
10.	COPPER	386	P	22.	TIN	16U	P
11.	IRON	309000	P	23.	VANADIUM	233	P
12.	LEAD	508	P	24.	ZINC	8590	P
Cyanide		10U	AS	Percent Solids (%)			

Footnotes: For reporting results to EPA, standard result qualifiers are used as defined on Cover Page. Additional flags or footnotes explaining results are encouraged. Definition of such flags must be explicit and contained on Cover Page, however.

Comments: Hg result reported @ 5X dilution

AR100530

Lab Manager

Form I

Well 5

U.S. EPA Contract Laboratory Program
Sample Management Office
P.O. Box 818 - Alexandria, VA 22313
703/557-2490 FTS: 8-557-2490

EPA Sample No.
MCC848

Date 12-17-85

INORGANIC ANALYSIS DATA SHEET

LAB NAME ROCKY MOUNTAIN ANALYTICAL
SOW NO. 784
LAB SAMPLE ID. NO. -

CASE NO. 5215
QC REPORT NO. 55492

Elements Identified and Measured

Concentration: Low X Medium
Matrix: Water X Soil Sludge Other

UG/L

1.	ALUMINUM	[37]	P	13.	MAGNESIUM	27100	P
2.	ANTIMONY	25U	P	14.	MANGANESE	18	P
3.	ARSENIC	2U	F	15.	MERCURY	0.1U	CV
4.	BARIUM	[56]	P	16.	NICKEL	7U	P
5.	BERYLLIUM	0.4U	P	17.	POTASSIUM	[3340]	P
6.	CADMIUM	4U	P	18.	SELENIUM	5U	F R
7.	CALCIUM	114000	P	19.	SILVER	3U	P
8.	CHROMIUM	4U	P	20.	SODIUM	23100	P
9.	COBALT	5U	P	21.	THALLIUM	20U	F R
10.	COPPER	82	P	22.	TIN	16U	P
11.	IRON	566	P	23.	VANADIUM	4U	P
12.	LEAD	5U	F	24.	ZINC	194	P
Cyanide		10U	AS	Percent Solids (%)			

Footnotes: For reporting results to EPA, standard result qualifiers are used as defined on Cover Page. Additional flags or footnotes explaining results are encouraged. Definition of such flags must be explicit and contained on Cover Page, however.

Comments:

AR100531

Lab Manager JM

Well 2 Filtered

Form I

U.S. EPA Contract Laboratory Program
Sample Management Office
P.O. Box 818 - Alexandria, VA 22313
703/557-2490 FTS: 8-557-2490

EPA Sample No.
MCC738

Date 12-17-85

INORGANIC ANALYSIS DATA SHEET

LAB NAME ROCKY MOUNTAIN ANALYTICAL
SOW NO. 784
LAB SAMPLE ID. NO. -

CASE NO. 5215

QC REPORT NO. 55492

Elements Identified and Measured

Concentration: Low X Medium
Matrix: Water X Soil Sludge Other

UG/L

1.	ALUMINUM	[114]	P	13.	MAGNESIUM	32100	P
2.	ANTIMONY	25U	P	14.	MANGANESE	18	P
3.	ARSENIC	2U	F	15.	MERCURY	0.1U	CV
4.	BARIUM	[76]	P	16.	NICKEL	7U	P
5.	BERYLLIUM	0.4U	P	17.	POTASSIUM	[4850]	P
6.	CADMIUM	4U	P	18.	SELENIUM	2U	F R
7.	CALCIUM	50000	P	19.	SILVER	3U	P
8.	CHROMIUM	4U	P	20.	SODIUM	84100	P
9.	COBALT	5U	P	21.	THALLIUM	20U	F R
10.	COPPER	[6.6]	P	22.	TIN	16U	P
11.	IRON	425	P	23.	VANADIUM	4U	P
12.	LEAD	5U	F	24.	ZINC	100	P
Cyanide		10U	AS	Percent Solids (%)			

Footnotes: For reporting results to EPA, standard result qualifiers are used as defined on Cover Page. Additional flags or footnotes explaining results are encouraged. Definition of such flags must be explicit and contained on Cover Page, however.

Comments:

AR100532

Lab Manager

Well 2A -filtered

Form I

U.S. EPA Contract Laboratory Program
Sample Management Office
P.O. Box 818 - Alexandria, VA 22313
703/557-2490 FTS: 8-557-2490

EPA Sample No.
MCC739

Date 12-17-85

INORGANIC ANALYSIS DATA SHEET

LAB NAME ROCKY MOUNTAIN ANALYTICAL
SOW NO. 784
LAB SAMPLE ID. NO. -

CASE NO. 5215

QC REPORT NO. 55492

Elements Identified and Measured

Concentration: Low X Medium
Matrix: Water X Soil Sludge Other

UG/L

1.	ALUMINUM	[53]	P	13.	MAGNESIUM	31600	P
2.	ANTIMONY	25U	P	14.	MANGANESE	[6]	P
3.	ARSENIC	2U	F	15.	MERCURY	0.1U	CV
4.	BARIUM	[72]	P	16.	NICKEL	7U	P
5.	BERYLLIUM	0.4U	P	17.	POTASSIUM	[4820]	P
6.	CADMIUM	4U	P	18.	SELENIUM	2U	F R
7.	CALCIUM	48800	P	19.	SILVER	3U	P
8.	CHROMIUM	4U	P	20.	SODIUM	83400	P
9.	COBALT	5U	P	21.	THALLIUM	20U	F R
10.	COPPER	[4.4]	P	22.	TIN	16U	P
11.	IRON	179	P	23.	VANADIUM	4U	P
12.	LEAD	2U	F	24.	ZINC	54	P
Cyanide		10U	AS	Percent Solids (%)			

Footnotes: For reporting results to EPA, standard result qualifiers are used as defined on Cover Page. Additional flags or footnotes explaining results are encouraged. Definition of such flags must be explicit and contained on Cover Page, however.

Comments:

Lab Manager

Onsite well

Form I

U.S. EPA Contract Laboratory Program
Sample Management Office
P.O. Box 818 - Alexandria, VA 22313
703/557-2490 FTS: 8-557-2490

EPA Sample No.
MCC821

Date 12-17-85

INORGANIC ANALYSIS DATA SHEET

LAB NAME ROCKY MOUNTAIN ANALYTICAL
SOW NO. 784
LAB SAMPLE ID. NO. -

CASE NO. 5215
QC REPORT NO. 55492

Elements Identified and Measured

Concentration: Low X Medium ___
Matrix: Water X Soil ___ Sludge ___ Other ___

UG/L

1.	ALUMINUM	[43]	P	13.	MAGNESIUM	34800	P
2.	ANTIMONY	25U	P	14.	MANGANESE	5U	P
3.	ARSENIC	10u ~~[2]~~ TG	~~4.5~~ TG F	15.	MERCURY	0.1U	CV
4.	BARIUM	[42]	P	16.	NICKEL	7U	P
5.	BERYLLIUM	0.4U	P	17.	POTASSIUM	[2930]	P
6.	CADMIUM	4U	P	18.	SELENIUM	2U	F R
7.	CALCIUM	76600	P	19.	SILVER	3U	P
8.	CHROMIUM	[4.1]	P	20.	SODIUM	33200	P
9.	COBALT	5U	P	21.	THALLIUM	20U	F R
10.	COPPER	[9.4]	P	22.	TIN	16U	P
11.	IRON	[68]	P	23.	VANADIUM	4U	P
12.	LEAD	4.5 ~~[0]~~ TG	F	24.	ZINC	[15]	P
	Cyanide	10U	AS		Percent Solids (%)		

Footnotes: For reporting results to EPA, standard result qualifiers are used as defined on Cover Page. Additional flags or footnotes explaining results are encouraged. Definition of such flags must be explicit and contained on Cover Page, however.

Comments:
~~1~~ TG
~~100~~ TG

Lab Manager [signature]

AR100534

Form I

Autocal

U.S. EPA Contract Laboratory Program
Sample Management Office
P.O. Box 818 - Alexandria, VA 22313
703/557-2490 FTS: 8-557-2490

EPA Sample No.
MCC819

Date 12-17-85

INORGANIC ANALYSIS DATA SHEET

LAB NAME ROCKY MOUNTAIN ANALYTICAL
SOW NO. 784
LAB SAMPLE ID. NO. -

CASE NO. 5215

QC REPORT NO. 55492

Elements Identified and Measured

Concentration: Low X Medium
Matrix: Water X Soil Sludge Other

UG/L

1.	ALUMINUM	[28]	P	13.	MAGNESIUM	7200	P
2.	ANTIMONY	25U	P	14.	MANGANESE	23	P
3.	ARSENIC	2U	F	15.	MERCURY	0.1U	CV
4.	BARIUM	13U	P	16.	NICKEL	7U	P
5.	BERYLLIUM	0.4U	P	17.	POTASSIUM	2170U	P
6.	CADMIUM	4U	P	18.	SELENIUM	5U	F R
7.	CALCIUM	32000	P	19.	SILVER	3U	P
8.	CHROMIUM	4U	P	20.	SODIUM	[2030]	P
9.	COBALT	5U	P	21.	THALLIUM	20U	F R
10.	COPPER	[14]	P	22.	TIN	16U	P
11.	IRON	1950	P	23.	VANADIUM	4U	P
12.	LEAD	[2.1]	F	24.	ZINC	21	P
Cyanide		10U	AS	Percent Solids (%)			

Footnotes: For reporting results to EPA, standard result qualifiers are used as defined on Cover Page. Additional flags or footnotes explaining results are encouraged. Definition of such flags must be explicit and contained on Cover Page, however.

ORIGINAL

Comments:

AR100535

Lab Manager

Hole

DRAINAGE

Form I

U.S. EPA Contract Laboratory Program
Sample Management Office
P.O. Box 818 - Alexandria, VA 22313
703/557-2490 FTS: 8-557-2490

EPA Sample No.
MCC820

Date 12-17-85

INORGANIC ANALYSIS DATA SHEET

LAB NAME ROCKY MOUNTAIN ANALYTICAL
SOW NO. 784
LAB SAMPLE ID. NO. -

CASE NO. 5215

QC REPORT NO. 55492

Elements Identified and Measured

Concentration: Low X Medium
Matrix: Water X Soil Sludge Other

UG/L

1.	ALUMINUM	823	P	13.	MAGNESIUM	43000	P
2.	ANTIMONY	25U	P	14.	MANGANESE	180	P
3.	ARSENIC	10 u ~~22U~~ TG	1 ~~TG 252~~ F	15.	MERCURY	0.1U	CV
4.	BARIUM	305	P	16.	NICKEL	[14]	P
5.	BERYLLIUM	[0.5]	P	17.	POTASSIUM	41800	P
6.	CADMIUM	9.2	P	18.	SELENIUM	~~10U~~ TG 5 u	F R
7.	CALCIUM	32500	P	19.	SILVER	3U	P
8.	CHROMIUM	252	P	20.	SODIUM	46500	P
9.	COBALT	[23]	P	21.	THALLIUM	10 u ~~58~~ TG	F R
10.	COPPER	[21]	P	22.	TIN	16U	P
11.	IRON	4750	P	23.	VANADIUM	[4.3]	P
12.	LEAD	1230 ~~[10]~~ TG	P	24.	ZINC	713	P

Cyanide 53 ~~TG~~ AS Percent Solids (%)

Footnotes: For reporting results to EPA, standard result qualifiers are used as defined on Cover Page. Additional flags or footnotes explaining results are encouraged. Definition of such flags must be explicit and contained on Cover Page, however.

Comments: AR100536

~~I TG~~
~~100 TG~~

Lab Manager

Downstream mid Co

Form I

U.S. EPA Contract Laboratory Program
Sample Management Office
P.O. Box 818 - Alexandria, VA 22313
703/557-2490 FTS: 8-557-2490

EPA Sample No.
MCC822

Date 12-17-85

INORGANIC ANALYSIS DATA SHEET

LAB NAME ROCKY MOUNTAIN ANALYTICAL
SOW NO. 784
LAB SAMPLE ID. NO. -

CASE NO. 5215

QC REPORT NO. 55492

Elements Identified and Measured

Concentration: Low X Medium
Matrix: Water X Soil Sludge Other

UG/L

1.	ALUMINUM	[153]	P	13.	MAGNESIUM	23500	P
2.	ANTIMONY	25U	P	14.	MANGANESE	25	P
3.	ARSENIC	2U	F	15.	MERCURY	0.1U	CV
4.	BARIUM	[26]	P	16.	NICKEL	7U	P
5.	BERYLLIUM	0.4U	P	17.	POTASSIUM	2170U	P
6.	CADMIUM	4U	P	18.	SELENIUM	5U	F R
7.	CALCIUM	54700	P	19.	SILVER	3U	P
8.	CHROMIUM	15	P	20.	SODIUM	26400	P
9.	COBALT	5U	P	21.	THALLIUM	20U	F R
10.	COPPER	[9.2]	P	22.	TIN	16U	P
11.	IRON	283	P	23.	VANADIUM	4U	P
12.	LEAD	5U	F	24.	ZINC	29	P
Cyanide		10U	AS	Percent Solids (%)			

ORIGINAL

Footnotes: For reporting results to EPA, standard result qualifiers are used as defined on Cover Page. Additional flags or footnotes explaining results are encouraged. Definition of such flags must be explicit and contained on Cover Page, however.

Comments:

AR100537

Lab Manager

AIw Ford

Form I

U.S. EPA Contract Laboratory Program
Sample Management Office
P.O. Box 818 - Alexandria, VA 22313
703/557-2490 FTS: 8-557-2490

EPA Sample No.
MCC849

Date 12-17-85

INORGANIC ANALYSIS DATA SHEET

LAB NAME ROCKY MOUNTAIN ANALYTICAL
SOW NO. 784
LAB SAMPLE ID. NO. -

CASE NO. 5215

QC REPORT NO. 55492

Elements Identified and Measured

Concentration: Low X Medium
Matrix: Water X Soil Sludge Other

UG/L

1.	ALUMINUM	[161]	P	13.	MAGNESIUM	24400	P
2.	ANTIMONY	25U	P	14.	MANGANESE	33	P
3.	ARSENIC	2U	F	15.	MERCURY	0.1U	CV
4.	BARIUM	[26]	P	16.	NICKEL	7U	P
5.	BERYLLIUM	0.4U	P	17.	POTASSIUM	2170U	P
6.	CADMIUM	4U	P	18.	SELENIUM	2U	F R
7.	CALCIUM	55900	P	19.	SILVER	[4.8]	P
8.	CHROMIUM	15	P	20.	SODIUM	27000	P
9.	COBALT	5U	P	21.	THALLIUM	20U	F R
10.	COPPER	[5.5]	P	22.	TIN	16U	P
11.	IRON	363	P	23.	VANADIUM	4U	P
12.	LEAD	[2.2]	F	24.	ZINC	44	P
Cyanide		10U	AS	Percent Solids (%)			

Footnotes: For reporting results to EPA, standard result qualifiers are used as defined on Cover Page. Additional flags or footnotes explaining results are encouraged. Definition of such flags must be explicit and contained on Cover Page, however.

Comments:

Lab Manager

(L)

Valley Ck. Up.

Form I

U.S. EPA Contract Laboratory Program
Sample Management Office
P.O. Box 818 - Alexandria, VA 22313
703/557-2490 FTS: 8-557-2490

EPA Sample No.
MCC755

Date 12-17-85

INORGANIC ANALYSIS DATA SHEET

LAB NAME ROCKY MOUNTAIN ANALYTICAL
SOW NO. 784
LAB SAMPLE ID. NO. -

CASE NO. 5215

QC REPORT NO. 55492

Elements Identified and Measured

Concentration: Low X Medium
Matrix: Water X Soil Sludge Other

UG/L

1.	ALUMINUM	[48]	P	13.	MAGNESIUM	24600	P
2.	ANTIMONY	25U	P	14.	MANGANESE	[11]	P
3.	ARSENIC	10U	F	15.	MERCURY	0.1U	CV
4.	BARIUM	[27]	P	16.	NICKEL	7U	P
5.	BERYLLIUM	0.4U	P	17.	POTASSIUM	2170U	P
6.	CADMIUM	4U	P	18.	SELENIUM	2U	F R
7.	CALCIUM	58800	P	19.	SILVER	3U	P
8.	CHROMIUM	17	P	20.	SODIUM	26900	P
9.	COBALT	5U	P	21.	THALLIUM	20U	F R
10.	COPPER	[4.4]	P	22.	TIN	16U	P
11.	IRON	124	P	23.	VANADIUM	4U	P
12.	LEAD	[3.3]	F	24.	ZINC	28	P
Cyanide		10U	AS	Percent Solids (%)			

Footnotes: For reporting results to EPA, standard result qualifiers are used as defined on Cover Page. Additional flags or footnotes explaining results are encouraged. Definition of such flags must be explicit and contained on Cover Page, however.

Comments:

Lab Manager

Unwrapped Tab Down

(1)

Form I

U.S. EPA Contract Laboratory Program
Sample Management Office
P.O. Box 818 - Alexandria, VA 22313
703/557-2490 FTS: 8-557-2490

EPA Sample No.
MCC762

Date 12-16-85

INORGANIC ANALYSIS DATA SHEET

LAB NAME ROCKY MOUNTAIN ANALYTICAL
SOW NO. 784
LAB SAMPLE ID. NO. -

CASE NO. 5215

QC REPORT NO. 55493

Elements Identified and Measured

Concentration: Low X Medium
Matrix: Water X Soil Sludge Other

UG/L

1.	ALUMINUM	[85]	P	13.	MAGNESIUM	13100	P
2.	ANTIMONY	25U	P	14.	MANGANESE	18	P
3.	ARSENIC	2U	F	15.	MERCURY	0.1U	CV
4.	BARIUM	[58]	P	16.	NICKEL	7U	P
5.	BERYLLIUM	0.4U	P	17.	POTASSIUM	[2720]	P
6.	CADMIUM	4U	P	18.	SELENIUM	5U	F
7.	CALCIUM	41900	P	19.	SILVER	3U	P
8.	CHROMIUM	4U	P	20.	SODIUM	29700	P
9.	COBALT	5U	P	21.	THALLIUM	20U	F R
10.	COPPER	[12]	P	22.	TIN	16U	F
11.	IRON	222	P	23.	VANADIUM	4U	P
12.	LEAD	5U	F	24.	ZINC	[16]	P
Cyanide		10U	AS	Percent Solids (%)			

Footnotes: For reporting results to EPA, standard result qualifiers are used as defined on Cover Page. Additional flags or footnotes explaining results are encouraged. Definition of such flags must be explicit and contained on Cover Page, however.

Comments:

Lab Manager

ORIGINAL (Red)

Unnamed Trib up

Form I

U.S. EPA Contract Laboratory Program
Sample Management Office
P.O. Box 818 - Alexandria, VA 22313
703/557-2490 FTS: 8-557-2490

EPA Sample No.
MCC747

Date 12-16-85

INORGANIC ANALYSIS DATA SHEET

LAB NAME ROCKY MOUNTAIN ANALYTICAL
SOW NO. 784
LAB SAMPLE ID. NO. -

CASE NO. 5215

QC REPORT NO. 55493

Elements Identified and Measured

Concentration: Low X Medium
Matrix: Water X Soil Sludge Other

UG/L

1.	ALUMINUM	[34]	P	13.	MAGNESIUM	7550	P
2.	ANTIMONY	25U	P	14.	MANGANESE	16	P
3.	ARSENIC	2U	F	15.	MERCURY	0.1U	CV
4.	BARIUM	[32]	P	16.	NICKEL	7U	P
5.	BERYLLIUM	0.4U	P	17.	POTASSIUM	2170U	P
6.	CADMIUM	4U	P	18.	SELENIUM	2U	F
7.	CALCIUM	47400	P	19.	SILVER	3U	P
8.	CHROMIUM	4U	P	20.	SODIUM	[4840]	P
9.	COBALT	5U	P	21.	THALLIUM	10U	F R
10.	COPPER	[9.2]	P	22.	TIN	16U	P
11.	IRON	[66]	P	23.	VANADIUM	4U	P
12.	LEAD	2U	F	24.	ZINC	[6.6]	P
Cyanide		10U	AS	Percent Solids (%)			

Footnotes: For reporting results to EPA, standard result qualifiers are used as defined on Cover Page. Additional flags or footnotes explaining results are encouraged. Definition of such flags must be explicit and contained on Cover Page, however.

Comments:

Lab Manager

ORIGINAL (Red)

AR100541

ORIGINAL

Deveney well

Form I

U.S. EPA Contract Laboratory Program
Sample Management Office
P.O. Box 818 - Alexandria, VA 22313
703/557-2490 FTS: 8-557-2490

EPA Sample No.
MCC823

Date 12-17-85

INORGANIC ANALYSIS DATA SHEET

LAB NAME ROCKY MOUNTAIN ANALYTICAL
SOW NO. 784
LAB SAMPLE ID. NO. -

CASE NO. 5215

QC REPORT NO. 55492

Elements Identified and Measured

Concentration: Low X Medium
Matrix: Water X Soil Sludge Other

UG/L

1.	ALUMINUM	[47]	P	13.	MAGNESIUM	[2470]	P
2.	ANTIMONY	25U	P	14.	MANGANESE	[14]	P
3.	ARSENIC	10U	F	15.	MERCURY	0.1U	CV
4.	BARIUM	[50]	P	16.	NICKEL	7U	P
5.	BERYLLIUM	0.4U	P	17.	POTASSIUM	2170U	P
6.	CADMIUM	4U	P	18.	SELENIUM	5U	F R
7.	CALCIUM	5650	P	19.	SILVER	3U	P
8.	CHROMIUM	4U	P	20.	SODIUM	[2520]	P
9.	COBALT	5U	P	21.	THALLIUM	10U	F R
10.	COPPER	94	P	22.	TIN	16U	P
11.	IRON	[93]	P	23.	VANADIUM	4U	P
12.	LEAD	5U	F	24.	ZINC	374	P
Cyanide		10U	AS	Percent Solids (%)			

Footnotes: For reporting results to EPA, standard result qualifiers are used as defined on Cover Page. Additional flags or footnotes explaining results are encouraged. Definition of such flags must be explicit and contained on Cover Page, however.

ORIGINAL (red)

Comments:

AR100542

Lab Manager

Schneidet

Form I

U.S. EPA Contract Laboratory Program
Sample Management Office
P.O. Box 818 - Alexandria, VA 22313
703/557-2490 FTS: 8-557-2490

EPA Sample No.
MCC824

Date 12-17-85

INORGANIC ANALYSIS DATA SHEET

LAB NAME ROCKY MOUNTAIN ANALYTICAL
SOW NO. 784
LAB SAMPLE ID. NO. -

CASE NO. 5215

QC REPORT NO. 55492

ORIGINAL (Red)

Elements Identified and Measured

Concentration: Low X Medium
Matrix: Water X Soil Sludge Other

UG/L

1.	ALUMINUM	[31]	P	13.	MAGNESIUM	[426]	P
2.	ANTIMONY	25U	P	14.	MANGANESE	[8]	P
3.	ARSENIC	2U	F	15.	MERCURY	0.1U	CV
4.	BARIUM	[100]	P	16.	NICKEL	7U	P
5.	BERYLLIUM	[0.4]	P	17.	POTASSIUM	[3930]	P
6.	CADMIUM	4U	P	18.	SELENIUM	2U	F R
7.	CALCIUM	[494]	P	19.	SILVER	3U	P
8.	CHROMIUM	4U	P	20.	SODIUM	583U	P
9.	COBALT	5U	P	21.	THALLIUM	10U	F R
10.	COPPER	72	P	22.	TIN	16U	P
11.	IRON	136	P	23.	VANADIUM	4U	P
12.	LEAD	[3.2]	F	24.	ZINC	235	P
Cyanide		10U	AS	Percent Solids (%)			

Footnotes: For reporting results to EPA, standard result qualifiers are used as defined on Cover Page. Additional flags or footnotes explaining results are encouraged. Definition of such flags must be explicit and contained on Cover Page, however.

Comments:

AR100543

Lab Manager

Church

Form I

U.S. EPA Contract Laboratory Program
Sample Management Office
P.O. Box 818 - Alexandria, VA 22313
703/557-2490 FTS: 8-557-2490

EPA Sample No.
MCC745

Date 12-17-85

INORGANIC ANALYSIS DATA SHEET

LAB NAME ROCKY MOUNTAIN ANALYTICAL
SOW NO. 784
LAB SAMPLE ID. NO. -

CASE NO. 5215

QC REPORT NO. 55492

Elements Identified and Measured

Concentration: Low X Medium
Matrix: Water X Soil Sludge Other

UG/L

1.	ALUMINUM	[34]	P	13.	MAGNESIUM	312U	P
2.	ANTIMONY	25U	P	14.	MANGANESE	5U	P
3.	ARSENIC	2U	F	15.	MERCURY	0.1U	CV
4.	BARIUM	13U	P	16.	NICKEL	7U	P
5.	BERYLLIUM	0.4U	P	17.	POTASSIUM	2170U	P
6.	CADMIUM	4U	P	18.	SELENIUM	[2.9]	F R
7.	CALCIUM	207U	P	19.	SILVER	3U	P
8.	CHROMIUM	4U	P	20.	SODIUM	131000	P
9.	COBALT	5U	P	21.	THALLIUM	20U	F R
10.	COPPER	[7.3]	P	22.	TIN	16U	P
11.	IRON	[90]	P	23.	VANADIUM	4U	P
12.	LEAD	5U	F	24.	ZINC	37	P
Cyanide		10U	AS	Percent Solids (%)			

Footnotes: For reporting results to EPA, standard result qualifiers are used as defined on Cover Page. Additional flags or footnotes explaining results are encouraged. Definition of such flags must be explicit and contained on Cover Page, however.

Comments:

AR100544

Lab Manager

Filter

ORIGINAL (red)

Form I

U.S. EPA Contract Laboratory Program
Sample Management Office
P.O. Box 818 - Alexandria, VA 22313
703/557-2490 FTS: 8-557-2490

EPA Sample No.
MCC752

Date 12-16-85

INORGANIC ANALYSIS DATA SHEET

LAB NAME ROCKY MOUNTAIN ANALYTICAL
SOW NO. 784
LAB SAMPLE ID. NO. -

CASE NO. 5215

QC REPORT NO. 55493

Elements Identified and Measured

Concentration: Low X Medium
Matrix: Water X Soil Sludge Other

UG/L

1.	ALUMINUM	25U	P	13.	MAGNESIUM	37300	P
2.	ANTIMONY	25U	P	14.	MANGANESE	5U	P
3.	ARSENIC	2U	F	15.	MERCURY	0.1U	CV
4.	BARIUM	[15]	P	16.	NICKEL	7U	P
5.	BERYLLIUM	0.4U	P	17.	POTASSIUM	2170U	P
6.	CADMIUM	4U	P	18.	SELENIUM	2U	F
7.	CALCIUM	59500	P	19.	SILVER	3U	P
8.	CHROMIUM	4U	P	20.	SODIUM	28000	P
9.	COBALT	5U	P	21.	THALLIUM	20U	F R
10.	COPPER	[24]	P	22.	TIN	16U	P
11.	IRON	[38]	P	23.	VANADIUM	4U	P
12.	LEAD	5.4	F	24.	ZINC	33	P
Cyanide		10U	AS	Percent Solids (%)			

Footnotes: For reporting results to EPA, standard result qualifiers are used as defined on Cover Page. Additional flags or footnotes explaining results are encouraged. Definition of such flags must be explicit and contained on Cover Page, however.

Comments:

Lab Manager

Green Valley

Form I

U.S. EPA Contract Laboratory Program
Sample Management Office
P.O. Box 818 - Alexandria, VA 22313
703/557-2490 FTS: 8-557-2490

EPA Sample No.
MCC756

Date 12-16-85

INORGANIC ANALYSIS DATA SHEET

LAB NAME ROCKY MOUNTAIN ANALYTICAL
SOW NO. 784
LAB SAMPLE ID. NO. -

CASE NO. 5215

QC REPORT NO. 55493

Elements Identified and Measured

Concentration: Low X Medium
Matrix: Water X Soil Sludge Other

UG/L

1.	ALUMINUM	[27]	P	13.	MAGNESIUM	52500	P
2.	ANTIMONY	25U	P	14.	MANGANESE	28	P
3.	ARSENIC	2U	F	15.	MERCURY	0.1U	CV
4.	BARIUM	[35]	P	16.	NICKEL	7U	P
5.	BERYLLIUM	0.4U	P	17.	POTASSIUM	6400	P
6.	CADMIUM	4U	P	18.	SELENIUM	2U	F
7.	CALCIUM	85700	P	19.	SILVER	3U	P
8.	CHROMIUM	4U	P	20.	SODIUM	46200	P
9.	COBALT	5U	P	21.	THALLIUM	20U	F R
10.	COPPER	[19]	P	22.	TIN	16U	P
11.	IRON	[35]	P	23.	VANADIUM	4U	P
12.	LEAD	2U	F	24.	ZINC	782	P
Cyanide		10U	AS	Percent Solids (%)			

Footnotes: For reporting results to EPA, standard result qualifiers are used as defined on Cover Page. Additional flags or footnotes explaining results are encouraged. Definition of such flags must be explicit and contained on Cover Page, however.

Comments:

Lab Manager

Fate

Form I

U.S. EPA Contract Laboratory Program
Sample Management Office
P.O. Box 818 - Alexandria, VA 22313
703/557-2490 FTS: 8-557-2490

EPA Sample No.
MCC757

Date 12-16-85

INORGANIC ANALYSIS DATA SHEET

LAB NAME ROCKY MOUNTAIN ANALYTICAL
SOW NO. 784
LAB SAMPLE ID. NO. -

CASE NO. 5215

QC REPORT NO. 55493 ORIGINAL (1134)

Elements Identified and Measured

Concentration: Low X Medium
Matrix: Water X Soil Sludge Other

UG/L

1.	ALUMINUM	[40]	P	13.	MAGNESIUM	26400	P
2.	ANTIMONY	25U	P	14.	MANGANESE	[7.1]	P
3.	ARSENIC	2U	F	15.	MERCURY	0.1U	CV
4.	BARIUM	[24]	P	16.	NICKEL	7U	P
5.	BERYLLIUM	0.4U	P	17.	POTASSIUM	2170U	P
6.	CADMIUM	4U	P	18.	SELENIUM	2U	F
7.	CALCIUM	61300	P	19.	SILVER	3U	P
8.	CHROMIUM	22	P	20.	SODIUM	18000	P
9.	COBALT	5U	P	21.	THALLIUM	20U	F R
10.	COPPER	[12]	P	22.	TIN	16U	P
11.	IRON	133	P	23.	VANADIUM	4U	P
12.	LEAD	5U	F	24.	ZINC	[19]	P
Cyanide		10U	AS	Percent Solids (%)			

Footnotes: For reporting results to EPA, standard result qualifiers are used as defined on Cover Page. Additional flags or footnotes explaining results are encouraged. Definition of such flags must be explicit and contained on Cover Page, however.

Comments:

Lab Manager

Form I

U.S. EPA Contract Laboratory Program
Sample Management Office
P.O. Box 818 - Alexandria, VA 22313
703/557-2490 FTS: 8-557-2490

EPA Sample No. MCC748

Date 12-16-85

INORGANIC ANALYSIS DATA SHEET

LAB NAME ROCKY MOUNTAIN ANALYTICAL
SOW NO. 784
LAB SAMPLE ID. NO. -

CASE NO. 5215

QC REPORT NO. 55493

Elements Identified and Measured

Concentration: Low X Medium
Matrix: Water X Soil Sludge Other

UG/L

1.	ALUMINUM	25U	P	13.	MAGNESIUM	42400	P
2.	ANTIMONY	25U	P	14.	MANGANESE	5U	P
3.	ARSENIC	2U	F	15.	MERCURY	0.1U	CV
4.	BARIUM	[39]	P	16.	NICKEL	7U	P
5.	BERYLLIUM	0.4U	P	17.	POTASSIUM	7100	P
6.	CADMIUM	4U	P	18.	SELENIUM	2U	F
7.	CALCIUM	71400	P	19.	SILVER	3U	P
8.	CHROMIUM	4U	P	20.	SODIUM	35400	P
9.	COBALT	5U	P	21.	THALLIUM	20U	F R
10.	COPPER	27	P	22.	TIN	16U	P
11.	IRON	[26]	P	23.	VANADIUM	4U	P
12.	LEAD	[4.1]	F	24.	ZINC	231	P
Cyanide		10U	AS	Percent Solids (%)			

Footnotes: For reporting results to EPA, standard result qualifiers are used as defined on Cover Page. Additional flags or footnotes explaining results are encouraged. Definition of such flags must be explicit and contained on Cover Page, however.

Comments:

Lab Manager

Diesel Heat

Form I

U.S. EPA Contract Laboratory Program
Sample Management Office
P.O. Box 818 - Alexandria, VA 22313
703/557-2490 FTS: 8-557-2490

EPA Sample No.
MCC749

Date 12-16-85

INORGANIC ANALYSIS DATA SHEET

LAB NAME ROCKY MOUNTAIN ANALYTICAL
SOW NO. 784
LAB SAMPLE ID. NO. -

CASE NO. 5215

QC REPORT NO. 55493

FINAL

Elements Identified and Measured

Concentration: Low X Medium
Matrix: Water X Soil Sludge Other

UG/L

1.	ALUMINUM	25U	P	13.	MAGNESIUM	24600	P
2.	ANTIMONY	25U	P	14.	MANGANESE	5U	P
3.	ARSENIC	2U	F	15.	MERCURY	0.1U	CV
4.	BARIUM	[43]	P	16.	NICKEL	7U	P
5.	BERYLLIUM	[0.4]	P	17.	POTASSIUM	2170U	P
6.	CADMIUM	4U	P	18.	SELENIUM	5U	F
7.	CALCIUM	81000	P	19.	SILVER	3U	P
8.	CHROMIUM	4U	P	20.	SODIUM	8250	P
9.	COBALT	5U	P	21.	THALLIUM	10U	F R
10.	COPPER	32	P	22.	TIN	16U	P
11.	IRON	[26]	P	23.	VANADIUM	4U	P
12.	LEAD	[2.5]	F	24.	ZINC	39	P
	Cyanide	10U	AS		Percent Solids (%)		

Footnotes: For reporting results to EPA, standard result qualifiers are used as defined on Cover Page. Additional flags or footnotes explaining results are encouraged. Definition of such flags must be explicit and contained on Cover Page, however.

Comments:

Lab Manager JK

Check FAA School

Form I

U.S. EPA Contract Laboratory Program
Sample Management Office
P.O. Box 818 - Alexandria, VA 22313
703/557-2490 FTS: 8-557-2490

EPA Sample No.
MCC751

Date 12-16-85

INORGANIC ANALYSIS DATA SHEET

LAB NAME ROCKY MOUNTAIN ANALYTICAL
SOW NO. 784
LAB SAMPLE ID. NO. -

CASE NO. 5215
QC REPORT NO. 55493

Elements Identified and Measured

Concentration: Low X Medium
Matrix: Water X Soil Sludge Other

UG/L

1.	ALUMINUM	25U	P	13.	MAGNESIUM	18200	P
2.	ANTIMONY	25U	P	14.	MANGANESE	5U	P
3.	ARSENIC	2U	F	15.	MERCURY	0.1U	CV
4.	BARIUM	[23]	P	16.	NICKEL	7U	P
5.	BERYLLIUM	0.4U	P	17.	POTASSIUM	2170U	P
6.	CADMIUM	4U	P	18.	SELENIUM	2U	F
7.	CALCIUM	59300	P	19.	SILVER	3U	P
8.	CHROMIUM	[6]	P	20.	SODIUM	223000	P
9.	COBALT	5U	P	21.	THALLIUM	20U	F R
10.	COPPER	[18]	P	22.	TIN	16U	P
11.	IRON	[84]	P	23.	VANADIUM	4U	P
12.	LEAD	2U	F	24.	ZINC	74	P
Cyanide		10U	AS	Percent Solids (%)			

Footnotes: For reporting results to EPA, standard result qualifiers are used as defined on Cover Page. Additional flags or footnotes explaining results are encouraged. Definition of such flags must be explicit and contained on Cover Page, however.

Comments:

Lab Manager JH

PEC

Form I

U.S. EPA Contract Laboratory Program
Sample Management Office
P.O. Box 818 - Alexandria, VA 22313
703/557-2490 FTS: 8-557-2490

EPA Sample No.
MCC753

Date 12-16-85

INORGANIC ANALYSIS DATA SHEET

LAB NAME ROCKY MOUNTAIN ANALYTICAL
SOW NO. 784
LAB SAMPLE ID. NO. -

CASE NO. 5215

QC REPORT NO. 55493 (Reg 1)

Elements Identified and Measured

Concentration: Low X Medium
Matrix: Water X Soil Sludge Other

UG/L

1.	ALUMINUM	25U	P	13.	MAGNESIUM	19100	P
2.	ANTIMONY	25U	P	14.	MANGANESE	5U	P
3.	ARSENIC	2U	F	15.	MERCURY	0.1U	CV
4.	BARIUM	[21]	P	16.	NICKEL	7U	P
5.	BERYLLIUM	0.4U	P	17.	POTASSIUM	2170U	P
6.	CADMIUM	4U	P	18.	SELENIUM	5U	F
7.	CALCIUM	46300	P	19.	SILVER	3U	P
8.	CHROMIUM	4U	P	20.	SODIUM	[4800]	P
9.	COBALT	5U	P	21.	THALLIUM	10U	F R
10.	COPPER	[23]	P	22.	TIN	16U	P
11.	IRON	244	P	23.	VANADIUM	4U	P
12.	LEAD	[3.1]	F	24.	ZINC	25	P
Cyanide		10U	AS	Percent Solids (%)			

Footnotes: For reporting results to EPA, standard result qualifiers are used as defined on Cover Page. Additional flags or footnotes explaining results are encouraged. Definition of such flags must be explicit and contained on Cover Page, however.

Comments:

Lab Manager JM

Check Farm Spikes

Form I

U.S. EPA Contract Laboratory Program
Sample Management Office
P.O. Box 818 - Alexandria, VA 22313
703/557-2490 FTS: 8-557-2490

EPA Sample No.
MCC754

Date 12-16-85

INORGANIC ANALYSIS DATA SHEET

LAB NAME ROCKY MOUNTAIN ANALYTICAL
SOW NO. 784
LAB SAMPLE ID. NO. -

CASE NO. 5215
QC REPORT NO. 55493

Elements Identified and Measured

Concentration: Low X Medium
Matrix: Water X Soil Sludge Other

ORIGINAL (Red)

UG/L

1.	ALUMINUM	[44]	P	13.	MAGNESIUM	[2140]	P
2.	ANTIMONY	25U	P	14.	MANGANESE	[13]	P
3.	ARSENIC	2U	F	15.	MERCURY	0.1U	CV
4.	BARIUM	[51]	P	16.	NICKEL	[7.1]	P
5.	BERYLLIUM	0.4U	P	17.	POTASSIUM	2170U	P
6.	CADMIUM	4U	P	18.	SELENIUM	2U	F
7.	CALCIUM	[1140]	P	19.	SILVER	3U	P
8.	CHROMIUM	4U	P	20.	SODIUM	[2780]	P
9.	COBALT	5U	P	21.	THALLIUM	10U	F R
10.	COPPER	[15]	P	22.	TIN	16U	P
11.	IRON	[26]	P	23.	VANADIUM	4U	P
12.	LEAD	[2.4]	F	24.	ZINC	[6.6]	P
Cyanide		10U	AS	Percent Solids (%)			

Footnotes: For reporting results to EPA, standard result qualifiers are used as defined on Cover Page. Additional flags or footnotes explaining results are encouraged. Definition of such flags must be explicit and contained on Cover Page, however.

Comments:

Lab Manager JW

Cokeham well

Form I

U.S. EPA Contract Laboratory Program
Sample Management Office
P.O. Box 818 - Alexandria, VA 22313
703/557-2490 FTS: 8-557-2490

EPA Sample No.
MCC740

Date 12-16-85

INORGANIC ANALYSIS DATA SHEET

LAB NAME ROCKY MOUNTAIN ANALYTICAL
SOW NO. 784
LAB SAMPLE ID. NO. -

CASE NO. 5215
QC REPORT NO. 55493

Elements Identified and Measured

Concentration: Low X Medium
Matrix: Water X Soil Sludge Other

UG/L

1.	ALUMINUM	[25]	P	13.	MAGNESIUM	17000	P
2.	ANTIMONY	25U	P	14.	MANGANESE	34	P
3.	ARSENIC	2U	F	15.	MERCURY	0.1U	CV
4.	BARIUM	13U	P	16.	NICKEL	7U	P
5.	BERYLLIUM	0.4U	P	17.	POTASSIUM	2170U	P
6.	CADMIUM	4U	P	18.	SELENIUM	5U	F
7.	CALCIUM	105000	P	19.	SILVER	3U	P
8.	CHROMIUM	4U	P	20.	SODIUM	42800	P
9.	COBALT	5U	P	21.	THALLIUM	20U	F R
10.	COPPER	29	P	22.	TIN	16U	P
11.	IRON	[29]	P	23.	VANADIUM	4U	P
12.	LEAD	2U	F	24.	ZINC	[16]	P
Cyanide		10U	AS	Percent Solids (%)			

ORIGINAL (Red)

Footnotes: For reporting results to EPA, standard result qualifiers are used as defined on Cover Page. Additional flags or footnotes explaining results are encouraged. Definition of such flags must be explicit and contained on Cover Page, however.

Comments:

Lab Manager

Form I ORIGINAL (Red)

Blank

U.S. EPA Contract Laboratory Program
Sample Management Office
P.O. Box 818 - Alexandria, VA 22313
703/557-2490 FTS: 8-557-2490

EPA Sample No.
MCC758

Date 12-16-85

INORGANIC ANALYSIS DATA SHEET

LAB NAME ROCKY MOUNTAIN ANALYTICAL
SOW NO. 784
LAB SAMPLE ID. NO. -

CASE NO. 5215

QC REPORT NO. 55493

Elements Identified and Measured

Concentration: Low X Medium
Matrix: Water X Soil Sludge Other

UG/L

1.	ALUMINUM	25U	P	13.	MAGNESIUM	212U	P
2.	ANTIMONY	25U	P	14.	MANGANESE	5U	P
3.	ARSENIC	2U	F	15.	MERCURY	0.1U	CV
4.	BARIUM	13U	P	16.	NICKEL	7U	P
5.	BERYLLIUM	0.4U	P	17.	POTASSIUM	2170U	P
6.	CADMIUM	4U	P	18.	SELENIUM	2U	F
7.	CALCIUM	207U	P	19.	SILVER	3U	P
8.	CHROMIUM	4U	P	20.	SODIUM	583U	P
9.	COBALT	5U	P	21.	THALLIUM	10U	F R
10.	COPPER	[7.3]	P	22.	TIN	16U	P
11.	IRON	[16]	P	23.	VANADIUM	4U	P
12.	LEAD	2U	F	24.	ZINC	[6.8]	P
Cyanide		10U	AS	Percent Solids (%)			

Footnotes: For reporting results to EPA, standard result qualifiers are used as defined on Cover Page. Additional flags or footnotes explaining results are encouraged. Definition of such flags must be explicit and contained on Cover Page, however.

Comments: BLANK

Lab Manager

Mid Col

Form I

U.S. EPA Contract Laboratory Program
Sample Management Office
P.O. Box 818 - Alexandria, VA 22313
703/557-2490 FTS: 8-557-2490

EPA Sample No.
MCD187

Date 12-17-85

INORGANIC ANALYSIS DATA SHEET

LAB NAME ROCKY MOUNTAIN ANALYTICAL
SOW NO. 784
LAB SAMPLE ID. NO. -

CASE NO. 5215

QC REPORT NO. 55494

Elements Identified and Measured

Concentration: Low X Medium
Matrix: Water Soil X Sludge Other

ORIGINAL (Red)

mg/kg dry weight

1.	ALUMINUM	13100	P	13.	MAGNESIUM	[1610]	P
2.	ANTIMONY	16U	P R	14.	MANGANESE	501	P
3.	ARSENIC	18	F	15.	MERCURY	0.063U	CV
4.	BARIUM	[77]	P	16.	NICKEL	[22]	P
5.	BERYLLIUM	[0.8]	P	17.	POTASSIUM	1360U	P
6.	CADMIUM	2.5U	P	18.	SELENIUM	3.1U	F R
7.	CALCIUM	[878]	P	19.	SILVER	[1.9]	P
8.	CHROMIUM	25	P	20.	SODIUM	364U	P
9.	COBALT	[13]	P	21.	THALLIUM	6.3U	F
10.	COPPER	20	P	22.	TIN	10U	P
11.	IRON	29400	P X	23.	VANADIUM	34	P
12.	LEAD	25	F	24.	ZINC	73	P X
Cyanide		0.63U	AS	Percent Solids (%)		80	

Footnotes: For reporting results to EPA, standard result qualifiers are used as defined on Cover Page. Additional flags or footnotes explaining results are encouraged. Definition of such flags must be explicit and contained on Cover Page, however.

Comments:

Lab Manager

m.d 6 8

Form I

U.S. EPA Contract Laboratory Program
Sample Management Office
P.O. Box 818 - Alexandria, VA 22313
703/557-2490 FTS: 8-557-2490

EPA Sample No.
MCD188

Date 12-17-85

INORGANIC ANALYSIS DATA SHEET

LAB NAME ROCKY MOUNTAIN ANALYTICAL
SOW NO. 784
LAB SAMPLE ID. NO. -

CASE NO. 5215

QC REPORT NO. 55494

Elements Identified and Measured

Concentration: Low X Medium
Matrix: Water Soil X Sludge Other

ORIGINAL (Red)

mg/kg dry weight

1.	ALUMINUM	12800	P	13.	MAGNESIUM	[1900]	P
2.	ANTIMONY	15U	P R	14.	MANGANESE	219	P
3.	ARSENIC	22	F	15.	MERCURY	0.06U	CV
4.	BARIUM	[35]	P	16.	NICKEL	[20]	P
5.	BERYLLIUM	[0.4]	P	17.	POTASSIUM	1310U	P
6.	CADMIUM	2.4U	P	18.	SELENIUM	3U	F R
7.	CALCIUM	[851]	P	19.	SILVER	1.8U	P
8.	CHROMIUM	22	P	20.	SODIUM	351U	P
9.	COBALT	[10]	P	21.	THALLIUM	6U	F
10.	COPPER	20	P	22.	TIN	[9.9]	P
11.	IRON	26900	P X	23.	VANADIUM	37	P
12.	LEAD	20	F	24.	ZINC	61	P X
Cyanide		0.6U	AS	Percent Solids (%)		83	

Footnotes: For reporting results to EPA, standard result qualifiers are used as defined on Cover Page. Additional flags or footnotes explaining results are encouraged. Definition of such flags must be explicit and contained on Cover Page, however.

Comments:

AR100556

Lab Manager

Excavated material

Form I

U.S. EPA Contract Laboratory Program
Sample Management Office
P.O. Box 818 - Alexandria, VA 22313
703/557-2490 FTS: 8-557-2490

EPA Sample No.
MCC763

Date 12-17-85

INORGANIC ANALYSIS DATA SHEET

LAB NAME ROCKY MOUNTAIN ANALYTICAL
SOW NO. 784
LAB SAMPLE ID. NO. -

CASE NO. 5215

QC REPORT NO. 55494

Elements Identified and Measured

Concentration: Low X Medium
Matrix: Water Soil X Sludge Other

mg/kg dry weight

1.	ALUMINUM	11700	P	13.	MAGNESIUM	30000	P
2.	ANTIMONY	16U	P R	14.	MANGANESE	899	P
3.	ARSENIC	25	F	15.	MERCURY	[0.1]	CV
4.	BARIUM	[51]	P	16.	NICKEL	33	P
5.	BERYLLIUM	[0.99]	P	17.	POTASSIUM	[1990]	P
6.	CADMIUM	2.5U	P	18.	SELENIUM	3.1U	F R
7.	CALCIUM	53800	P	19.	SILVER	[2.9]	P
8.	CHROMIUM	15	P	20.	SODIUM	[1260]	P
9.	COBALT	[24]	P	21.	THALLIUM	[1.4]	F
10.	COPPER	34	P	22.	TIN	10U	P
11.	IRON	35500	P X	23.	VANADIUM	[24]	P
12.	LEAD	57	P	24.	ZINC	207	P X
Cyanide		0.63U	AS	Percent Solids (%)		80	

Footnotes: For reporting results to EPA, standard result qualifiers are used as defined on Cover Page. Additional flags or footnotes explaining results are encouraged. Definition of such flags must be explicit and contained on Cover Page, however.

Comments:

AR100557

Lab Manager

BH

Form I

U.S. EPA Contract Laboratory Program
Sample Management Office
P.O. Box 818 - Alexandria, VA 22313
703/557-2490 FTS: 8-557-2490

EPA Sample No.
MCC732

Date 12-17-85

INORGANIC ANALYSIS DATA SHEET

LAB NAME ROCKY MOUNTAIN ANALYTICAL
SOW NO. 784
LAB SAMPLE ID. NO. -

CASE NO. 5215

QC REPORT NO. 55494

Elements Identified and Measured

Concentration: Low X Medium
Matrix: Water Soil X Sludge Other

mg/kg dry weight

1.	ALUMINUM	2970	P	13.	MAGNESIUM	57300	P
2.	ANTIMONY	14U	P R	14.	MANGANESE	215	P
3.	ARSENIC	1.1U	F	15.	MERCURY	0.17	CV
4.	BARIUM	[26]	P	16.	NICKEL	[20]	P
5.	BERYLLIUM	0.23U	P	17.	POTASSIUM	1250U	P
6.	CADMIUM	2.3U	P	18.	SELENIUM	2.9U	F R
7.	CALCIUM	119000	P	19.	SILVER	1.7U	P
8.	CHROMIUM	13	P	20.	SODIUM	[1570]	P
9.	COBALT	[5.3]	P	21.	THALLIUM	1.1U	F
10.	COPPER	42	P	22.	TIN	[12]	P
11.	IRON	9730	P X	23.	VANADIUM	33	P
12.	LEAD	66	P	24.	ZINC	190	P X
Cyanide		0.57U	AS	Percent Solids (%)		87	

Footnotes: For reporting results to EPA, standard result qualifiers are used as defined on Cover Page. Additional flags or footnotes explaining results are encouraged. Definition of such flags must be explicit and contained on Cover Page, however.

Comments:

ORIGINAL (Red)

Lab Manager

B2

Form I

U.S. EPA Contract Laboratory Program
Sample Management Office
P.O. Box 818 - Alexandria, VA 22313
703/557-2490 FTS: 8-557-2490

EPA Sample No.
MCC733

Date 12-17-85

INORGANIC ANALYSIS DATA SHEET

LAB NAME ROCKY MOUNTAIN ANALYTICAL
SOW NO. 784
LAB SAMPLE ID. NO. -

CASE NO. 5215

QC REPORT NO. 55494

Elements Identified and Measured

Concentration: Low X Medium
Matrix: Water Soil X Sludge Other

mg/kg dry weight

1.	ALUMINUM	14700	P	13.	MAGNESIUM	[1890]	P
2.	ANTIMONY	15U	P R	14.	MANGANESE	293	P
3.	ARSENIC	13	F	15.	MERCURY	0.15	CV
4.	BARIUM	[46]	P	16.	NICKEL	[16]	P
5.	BERYLLIUM	[0.67]	P	17.	POTASSIUM	1290U	P
6.	CADMIUM	2.4U	P	18.	SELENIUM	3U	F R
7.	CALCIUM	[971]	P	19.	SILVER	[2.5]	P
8.	CHROMIUM	24	P	20.	SODIUM	[408]	P
9.	COBALT	[16]	P	21.	THALLIUM	6U	F
10.	COPPER	29	P	22.	TIN	9.5U	P
11.	IRON	35700	P X	23.	VANADIUM	45	P
12.	LEAD	37	P	24.	ZINC	68	P X
Cyanide		0.6U	AS	Percent Solids (%) 84			

Footnotes: For reporting results to EPA, standard result qualifiers are used as defined on Cover Page. Additional flags or footnotes explaining results are encouraged. Definition of such flags must be explicit and contained on Cover Page, however.

Comments: AR100559

Lab Manager

ORIGINAL (Pad)

B-3

Form I

U.S. EPA Contract Laboratory Program
Sample Management Office
P.O. Box 818 - Alexandria, VA 22313
703/557-2490 FTS: 8-557-2490

EPA Sample No.
MCC734

Date 12-17-85

INORGANIC ANALYSIS DATA SHEET

LAB NAME ROCKY MOUNTAIN ANALYTICAL
SOW NO. 784
LAB SAMPLE ID. NO. -

CASE NO. 5215

QC REPORT NO. 55494

Elements Identified and Measured

Concentration: Low X Medium
Matrix: Water Soil X Sludge Other

mg/kg dry weight

1.	ALUMINUM	12900	P	13.	MAGNESIUM	3220	P
2.	ANTIMONY	15U	P R	14.	MANGANESE	249	P
3.	ARSENIC	24	F	15.	MERCURY	[0.083]	CV
4.	BARIUM	[44]	P	16.	NICKEL	[16]	P
5.	BERYLLIUM	[0.58]	P	17.	POTASSIUM	1290U	P
6.	CADMIUM	2.4U	P	18.	SELENIUM	3U	F R
7.	CALCIUM	3800	P	19.	SILVER	[2.9]	P
8.	CHROMIUM	27	P	20.	SODIUM	[1020]	P
9.	COBALT	[11]	P	21.	THALLIUM	6U	F
10.	COPPER	33	P	22.	TIN	9.5U	P
11.	IRON	29700	P X	23.	VANADIUM	47	P
12.	LEAD	36	P	24.	ZINC	67	P X
Cyanide		0.6U	AS	Percent Solids (%)		84	

Footnotes: For reporting results to EPA, standard result qualifiers are used as defined on Cover Page. Additional flags or footnotes explaining results are encouraged. Definition of such flags must be explicit and contained on Cover Page, however.

Comments:

AR100560

Lab Manager

B-1A

Form I

U.S. EPA Contract Laboratory Program
Sample Management Office
P.O. Box 818 - Alexandria, VA 22313
703/557-2490 FTS: 8-557-2490

EPA Sample No.
MCC735

Date 12-17-85

INORGANIC ANALYSIS DATA SHEET

LAB NAME ROCKY MOUNTAIN ANALYTICAL
SOW NO. 784
LAB SAMPLE ID. NO. -

CASE NO. 5215

QC REPORT NO. 55494

Elements Identified and Measured

Concentration: Low X Medium
Matrix: Water Soil X Sludge Other

mg/kg dry weight

1.	ALUMINUM	4120	P	13.	MAGNESIUM	43300	P
2.	ANTIMONY	14U	P R	14.	MANGANESE	242	P
3.	ARSENIC	[4.8]	F	15.	MERCURY	[0.11]	CV
4.	BARIUM	[52]	P	16.	NICKEL	23	P
5.	BERYLLIUM	0.23U	P	17.	POTASSIUM	1250U	P
6.	CADMIUM	2.3U	P	18.	SELENIUM	2.9U	F R
7.	CALCIUM	93600	P	19.	SILVER	1.7U	P
8.	CHROMIUM	19	P	20.	SODIUM	[1720]	P
9.	COBALT	[7.7]	P	21.	THALLIUM	1.1U	F
10.	COPPER	51	P	22.	TIN	9.2U	P
11.	IRON	10700	P X	23.	VANADIUM	50	P
12.	LEAD	94	P	24.	ZINC	307	P X
Cyanide		0.57U	AS	Percent Solids (%)		87	

Footnotes: For reporting results to EPA, standard result qualifiers are used as defined on Cover Page. Additional flags or footnotes explaining results are encouraged. Definition of such flags must be explicit and contained on Cover Page, however.

Comments:

AR100561

Lab Manager

(Red)

Soil 1

Form I

U.S. EPA Contract Laboratory Program
Sample Management Office
P.O. Box 818 - Alexandria, VA 22313
703/557-2490 FTS: 8-557-2490

EPA Sample No.
MCB630

Date 12-17-85

INORGANIC ANALYSIS DATA SHEET

LAB NAME ROCKY MOUNTAIN ANALYTICAL
SOW NO. 784
LAB SAMPLE ID. NO. -

CASE NO. 5215

QC REPORT NO. 55494

Elements Identified and Measured

Concentration: Low X Medium
Matrix: Water Soil X Sludge Other

mg/kg dry weight

1.	ALUMINUM	9670	P	13.	MAGNESIUM	4850	P
2.	ANTIMONY	17U	P R	14.	MANGANESE	509	P
3.	ARSENIC	12	F	15.	MERCURY	0.17	CV
4.	BARIUM	[68]	P	16.	NICKEL	69	P
5.	BERYLLIUM	0.28U	P	17.	POTASSIUM	1510U	P
6.	CADMIUM	2.8U	P	18.	SELENIUM	3.5U	F R
7.	CALCIUM	[2150]	P	19.	SILVER	[2.5]	P
8.	CHROMIUM	19	P	20.	SODIUM	405U	P
9.	COBALT	[21]	P	21.	THALLIUM	[2.2]	F
10.	COPPER	37	P	22.	TIN	11U	P
11.	IRON	25100	P X	23.	VANADIUM	[24]	P
12.	LEAD	107	P	24.	ZINC	110	P X
Cyanide		0.69U	AS	Percent Solids (%)		72	

Footnotes: For reporting results to EPA, standard result qualifiers are used as defined on Cover Page. Additional flags or footnotes explaining results are encouraged. Definition of such flags must be explicit and contained on Cover Page, however.

Comments:

AR100562

Lab Manager

Filtration Bed

Form I

U.S. EPA Contract Laboratory Program
Sample Management Office
P.O. Box 818 - Alexandria, VA 22313
703/557-2490 FTS: 8-557-2490

EPA Sample No.
MCC731

Date 12-17-85

INORGANIC ANALYSIS DATA SHEET

LAB NAME ROCKY MOUNTAIN ANALYTICAL
SOW NO. 784
LAB SAMPLE ID. NO. -

CASE NO. 5215

QC REPORT NO. 55494

Elements Identified and Measured

Concentration: Low X Medium
Matrix: Water Soil X Sludge Other

mg/kg dry weight

1.	ALUMINUM	4340	P	13.	MAGNESIUM	3500	P
2.	ANTIMONY	15U	P R	14.	MANGANESE	73	P
3.	ARSENIC	[3.3]	F	15.	MERCURY	113	CV
4.	BARIUM	332	P	16.	NICKEL	24	P
5.	BERYLLIUM	0.23U	P	17.	POTASSIUM	1260U	P
6.	CADMIUM	17	P	18.	SELENIUM	1.2U	F R
7.	CALCIUM	[1180]	P	19.	SILVER	15	P
8.	CHROMIUM	105	P	20.	SODIUM	339U	P
9.	COBALT	[4.6]	P	21.	THALLIUM	1.2U	F
10.	COPPER	218	P	22.	TIN	88	P
11.	IRON	16000	P X	23.	VANADIUM	[16]	P
12.	LEAD	176	P	24.	ZINC	254	P X
Cyanide		0.58U	AS	Percent Solids (%)		86	

ORIGINAL

Footnotes: For reporting results to EPA, standard result qualifiers are used as defined on Cover Page. Additional flags or footnotes explaining results are encouraged. Definition of such flags must be explicit and contained on Cover Page, however.

Comments: Hg reported @ 68250 dilution

AR100563

Lab Manager

Per Soil

Form I

U.S. EPA Contract Laboratory Program
Sample Management Office
P.O. Box 818 - Alexandria, VA 22313
703/557-2490 FTS: 8-557-2490

EPA Sample No.
MCC741

Date 12-17-85

INORGANIC ANALYSIS DATA SHEET

LAB NAME ROCKY MOUNTAIN ANALYTICAL
SOW NO. 784
LAB SAMPLE ID. NO. -

CASE NO. 5215
QC REPORT NO. 55494

Elements Identified and Measured

Concentration: Low X Medium
Matrix: Water Soil X Sludge Other

mg/kg dry weight

1.	ALUMINUM	11300	P	13.	MAGNESIUM	4420	P
2.	ANTIMONY	16U	P R	14.	MANGANESE	1970	P
3.	ARSENIC	13	F	15.	MERCURY	0.28	CV
4.	BARIUM	[63]	P	16.	NICKEL	[20]	P
5.	BERYLLIUM	[0.42]	P	17.	POTASSIUM	1370U	P
6.	CADMIUM	2.5U	P	18.	SELENIUM	3.2U	F R
7.	CALCIUM	3170	P	19.	SILVER	[2]	P
8.	CHROMIUM	19	P	20.	SODIUM	369U	P
9.	COBALT	[14]	P	21.	THALLIUM	1.3U	F
10.	COPPER	41	P	22.	TIN	10U	P
11.	IRON	25800	P X	23.	VANADIUM	[22]	P
12.	LEAD	45	P	24.	ZINC	124	P X
Cyanide		1.9	AS	Percent Solids (%)		79	

Footnotes: For reporting results to EPA, standard result qualifiers are used as defined on Cover Page. Additional flags or footnotes explaining results are encouraged. Definition of such flags must be explicit and contained on Cover Page, however.

Comments:

AR100564

Lab Manager

Calculator #1

Form I

U.S. EPA Contract Laboratory Program
Sample Management Office
P.O. Box 818 - Alexandria, VA 22313
703/557-2490 FTS: 8-557-2490

EPA Sample No.
MCC742

Date 12-17-85

INORGANIC ANALYSIS DATA SHEET

LAB NAME ROCKY MOUNTAIN ANALYTICAL
SOW NO. 784
LAB SAMPLE ID. NO. -

CASE NO. 5215

QC REPORT NO. 55494

Elements Identified and Measured

Concentration: Low X Medium
Matrix: Water Soil X Sludge Other

mg/kg dry weight

1.	ALUMINUM	9970	P	13.	MAGNESIUM	[2560]	P
2.	ANTIMONY	15U	P R	14.	MANGANESE	459	P
3.	ARSENIC	13	F	15.	MERCURY	[0.095]	CV
4.	BARIUM	[51]	P	16.	NICKEL	[15]	P
5.	BERYLLIUM	[0.49]	P	17.	POTASSIUM	1290U	P
6.	CADMIUM	2.4U	P	18.	SELENIUM	3U	F R
7.	CALCIUM	[952]	P	19.	SILVER	[1.9]	P
8.	CHROMIUM	24	P	20.	SODIUM	347U	P
9.	COBALT	[17]	P	21.	THALLIUM	1.2U	F
10.	COPPER	22	P	22.	TIN	9.5U	P
11.	IRON	27800	P X	23.	VANADIUM	[23]	P
12.	LEAD	32	F	24.	ZINC	80	P X
Cyanide		12	AS	Percent Solids (%)		84	

Footnotes: For reporting results to EPA, standard result qualifiers are used as defined on Cover Page. Additional flags or footnotes explaining results are encouraged. Definition of such flags must be explicit and contained on Cover Page, however.

Comments:

AR100565

Lab Manager

Cockerham #2

Form I

U.S. EPA Contract Laboratory Program
Sample Management Office
P.O. Box 818 - Alexandria, VA 22313
703/557-2490 FTS: 8-557-2490

EPA Sample No.
MCC744

Date 12-17-85.

INORGANIC ANALYSIS DATA SHEET

LAB NAME ROCKY MOUNTAIN ANALYTICAL
SOW NO. 784
LAB SAMPLE ID. NO. -

CASE NO. 5215
QC REPORT NO. 55494

Elements Identified and Measured

Concentration: Low X Medium _____
Matrix: Water _____ Soil X Sludge _____ Other _____

mg/kg dry weight

1.	ALUMINUM	12900	P	13.	MAGNESIUM	[2980]	P
2.	ANTIMONY	15U	P R	14.	MANGANESE	339	P
3.	ARSENIC	19	F	15.	MERCURY	[0.099]	CV
4.	BARIUM	[73]	P	16.	NICKEL	[18]	P
5.	BERYLLIUM	[0.5]	P	17.	POTASSIUM	1340U	P
6.	CADMIUM	2.5U	P	18.	SELENIUM	3.1U	F R
7.	CALCIUM	[1380]	P	19.	SILVER	[2.3]	P
8.	CHROMIUM	25	P	20.	SODIUM	[567]	P
9.	COBALT	[13]	P	21.	THALLIUM	1.2U	F
10.	COPPER	33	P	22.	TIN	9.9U	P
11.	IRON	31500	P X	23.	VANADIUM	[29]	P
12.	LEAD	46	P	24.	ZINC	165	P
Cyanide		5.8	AS	Percent Solids (%) 81			

Footnotes: For reporting results to EPA, standard result qualifiers are used as defined on Cover Page. Additional flags or footnotes explaining results are encouraged. Definition of such flags must be explicit and contained on Cover Page, however.

Comments: _____

AR100566

Lab Manager _____

Downstream N.I Co

Form I

U.S. EPA Contract Laboratory Program
Sample Management Office
P.O. Box 818 - Alexandria, VA 22313
703/557-2490 FTS: 8-557-2490

EPA Sample No. MCC825

Date 12-17-85

INORGANIC ANALYSIS DATA SHEET

LAB NAME ROCKY MOUNTAIN ANALYTICAL
SOW NO. 784
LAB SAMPLE ID. NO. -

CASE NO. 5215

QC REPORT NO. 55494

Elements Identified and Measured

Concentration: Low X Medium _____
Matrix: Water _____ Soil X Sludge _____ Other _____

mg/kg dry weight

ORIGINAL (Rec)

1.	ALUMINUM	12300	P	13.	MAGNESIUM	[1870]	P
2.	ANTIMONY	18U	P R	14.	MANGANESE	487	P
3.	ARSENIC	20	F	15.	MERCURY	0.071U	CV
4.	BARIUM	[55]	P	16.	NICKEL	[18]	P
5.	BERYLLIUM	[0.69]	P	17.	POTASSIUM	1550U	P
6.	CADMIUM	2.9U	P	18.	SELENIUM	3.6U	F R
7.	CALCIUM	[1450]	P	19.	SILVER	2.1U	P
8.	CHROMIUM	26	P	20.	SODIUM	416U	P
9.	COBALT	[13]	P	21.	THALLIUM	1.4U	F
10.	COPPER	29	P	22.	TIN	11U	P
11.	IRON	30200	P X	23.	VANADIUM	37	P
12.	LEAD	59	P	24.	ZINC	130	P X

Cyanide 0.71U AS Percent Solids (%) 70

Footnotes: For reporting results to EPA, standard result qualifiers are used as defined on Cover Page. Additional flags or footnotes explaining results are encouraged. Definition of such flags must be explicit and contained on Cover Page, however.

Comments: _____

AR100567

Lab Manager _____

AIW Ford

Form I

U.S. EPA Contract Laboratory Program
Sample Management Office
P.O. Box 818 - Alexandria, VA 22313
703/557-2490 FTS: 8-557-2490

EPA Sample No.
MCC736

Date 12-17-85

INORGANIC ANALYSIS DATA SHEET

LAB NAME ROCKY MOUNTAIN ANALYTICAL
SOW NO. 784
LAB SAMPLE ID. NO. -

CASE NO. 5215

QC REPORT NO. 55494

Elements Identified and Measured

Concentration: Low X Medium
Matrix: Water Soil X Sludge Other

mg/kg dry weight

1.	ALUMINUM	13600	P	13.	MAGNESIUM	4290	P
2.	ANTIMONY	20U	P R	14.	MANGANESE	498	P
3.	ARSENIC	9.8	F	15.	MERCURY	[0.13]	CV
4.	BARIUM	[88]	P	16.	NICKEL	[23]	P
5.	BERYLLIUM	[0.92]	P	17.	POTASSIUM	1780U	P
6.	CADMIUM	3.3U	P	18.	SELENIUM	4.1U	F R
7.	CALCIUM	5060	P	19.	SILVER	2.5U	P
8.	CHROMIUM	28	P	20.	SODIUM	[1270]	P
9.	COBALT	[15]	P	21.	THALLIUM	1.6U	F
10.	COPPER	37	P	22.	TIN	13U	P
11.	IRON	25300	P X	23.	VANADIUM	[31]	P
12.	LEAD	70	P	24.	ZINC	150	P X
Cyanide		0.82U	AS	Percent Solids (%) 61			

Footnotes: For reporting results to EPA, standard result qualifiers are used as defined on Cover Page. Additional flags or footnotes explaining results are encouraged. Definition of such flags must be explicit and contained on Cover Page, however.

Comments:

AR100568

Lab Manager

Valley Ck Up

Form I

U.S. EPA Contract Laboratory Program
Sample Management Office
P.O. Box 818 - Alexandria, VA 22313
703/557-2490 FTS: 8-557-2490

EPA Sample No.
MCC760

Date 12-17-85

INORGANIC ANALYSIS DATA SHEET

LAB NAME ROCKY MOUNTAIN ANALYTICAL
SOW NO. 784
LAB SAMPLE ID. NO. -

CASE NO. 5215

QC REPORT NO. 55494

Elements Identified and Measured

Concentration: Low X Medium
Matrix: Water Soil X Sludge Other

mg/kg dry weight

1.	ALUMINUM	10300	P	13.	MAGNESIUM	[3880]	P
2.	ANTIMONY	20U	P R	14.	MANGANESE	680	P
3.	ARSENIC	12	F	15.	MERCURY	0.2	CV
4.	BARIUM	[68]	P	16.	NICKEL	[21]	P
5.	BERYLLIUM	[0.64]	P	17.	POTASSIUM	1700U	P
6.	CADMIUM	3.1U	P	18.	SELENIUM	3.9U	F R
7.	CALCIUM	6330	P	19.	SILVER	2.3U	P
8.	CHROMIUM	37	P	20.	SODIUM	[1190]	P
9.	COBALT	[15]	P	21.	THALLIUM	1.6U	F
10.	COPPER	35	P	22.	TIN	12U	P
11.	IRON	24700	P X	23.	VANADIUM	[25]	P
12.	LEAD	63	P	24.	ZINC	144	P X
Cyanide		0.78U	AS	Percent Solids (%)		64	

Footnotes: For reporting results to EPA, standard result qualifiers are used as defined on Cover Page. Additional flags or footnotes explaining results are encouraged. Definition of such flags must be explicit and contained on Cover Page, however.

Comments:

AR100569

Lab Manager

ORIGINAL (Red)

Betz-Converse-Murdoch-Inc. BCM

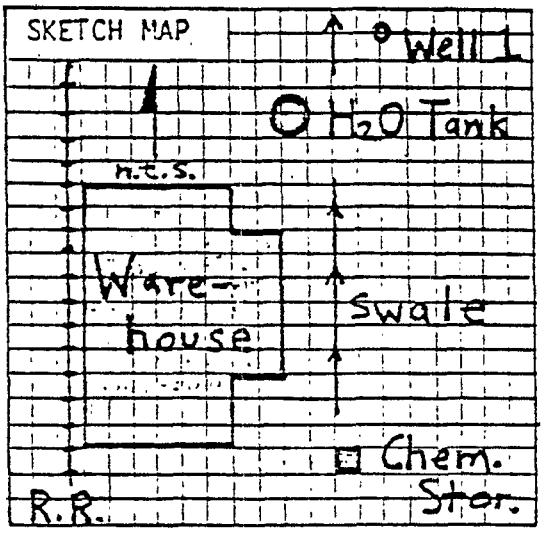
Drilling Log

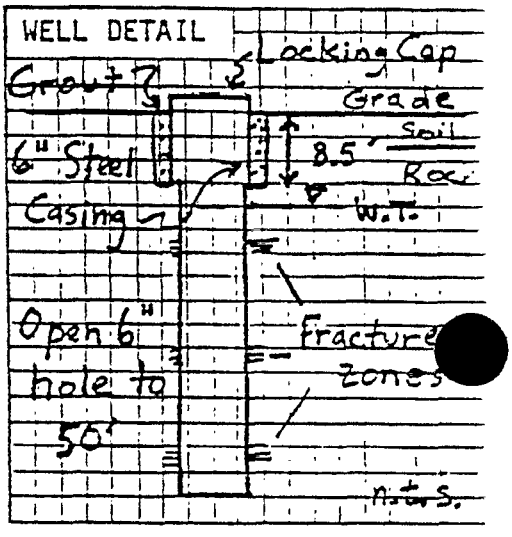
Well Number 1

Client Kittredge, Kaufman, Donley
Project No. 00-5456-01
Well Location In field, north of inactive AIWF plant, W. Whiteland Township, PA
Driller/Company Jack Coover, Thomas G. Keyes, Inc. Frazer, PA
Drilling Method Air hammer Hole Diameter 8"/6" Date(s) Drilled 1-17-83
Sample Type cuttings Sample Interval N/A No. Samples Retained None
Surface Elevation ____ Casing Top Elevation 346.63' Total Well Depth 50 feet
Casing Material and Size steel, 6" ID Cased Interval(s) 0 - 8.5 ft.
Grouting Type Portland cement Grouted Interval 0 - 8.5 ft.
Screening Material and Size N/A Screened Interval(s) N/A
Packing Material and Size N/A Packed Interval N/A
Depth to Static Water 10.75' Date 1-27-83 Approx Well Yield less than 5
Development Method Air Development Time 1.5 hours
Logged by: D. J. Varner

Comments Open hole from 8.5 feet to 50 feet

Locking steel cap installed for security





Depth Scale	Sample	Spoon Blows	Description of Materials
0 - 4'			Rusty clay soil
4 - 50'			Creamy to blue-gray fine crystalline hard limestone
			Fracture zones detected at:
			18.5 - 19.5'
			33.5 - 34'
			43.5 - 44'

AR100570

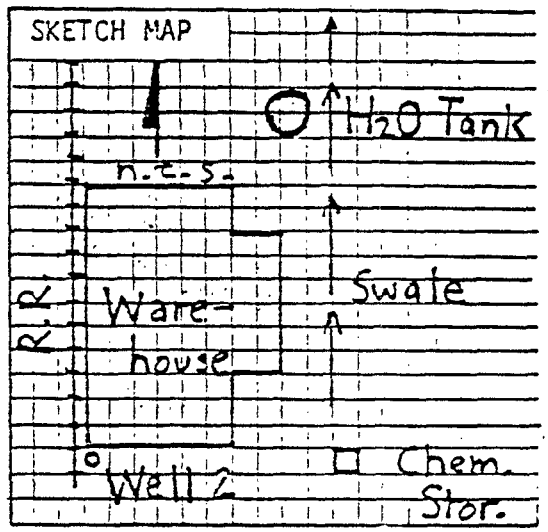
Betz-Converse-Murdoch-Inc. BCM

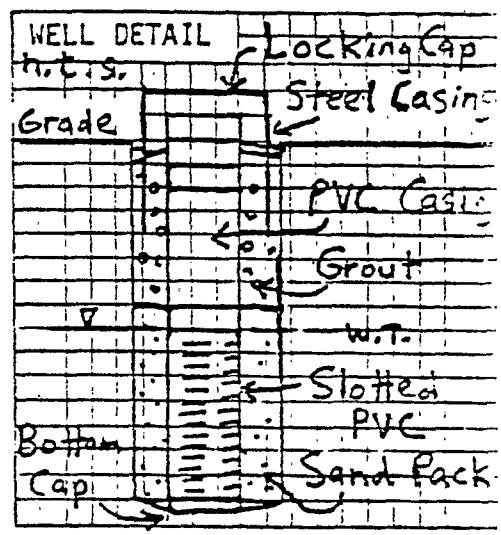
Drilling Log

Well Number 2

Client Kittredge, Kaufman, Donley
Project No. 00-5456-01
Well Location Loading area on west side of inactive AIWF plant, W. Whiteland, Township, PA
Driller/Company Jack Coover, Thomas G. Keyes, Inc. Frazer, PA
Drilling Method Air/H_2O hammer Hole Diameter 8" Date(s) Drilled 1-17 & 18-83
Sample Type cuttings Sample Interval N/A No. Samples Retained None
Surface Elevation Casing Top Elevation 367.44' Total Well Depth 43'
Casing Material and Size PVC, 4" ID 1/6" prot. steel Cased Interval(s) 0 - 23'
Grouting Type Portland cement Grouted Interval 0 - 21'
Screening Material and Size slotted PVC, 4" ID Screened Interval(s) 23 - 43'
Packing Material and Size Silica sand, very coarse Packed Interval 21 - 43'
Depth to Static Water 22.71' Date 1-27-83 Approx Well Yield less than 10 g
Development Method Air Development Time 0.5 hr
Logged by: D.J. Varner

Comments Locking steel casing installed to a depth of 10 feet for security





Depth Scale	Sample	Spoon Blows	Description of Materials
0 - 0.5'			Asphalt
0.5 - 12.5			Bright rust silty Clay with some gravel near surface
12.5 - 44			Dark brown to rust clay

AR100571

Betz-Converse-Murdoch-Inc. BCM

Drilling Log

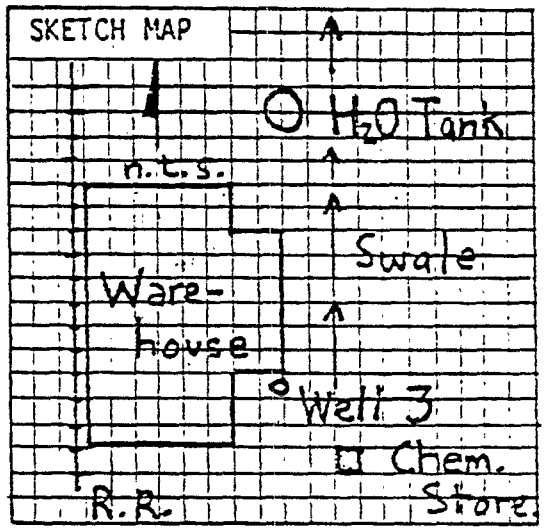
Well Number .3

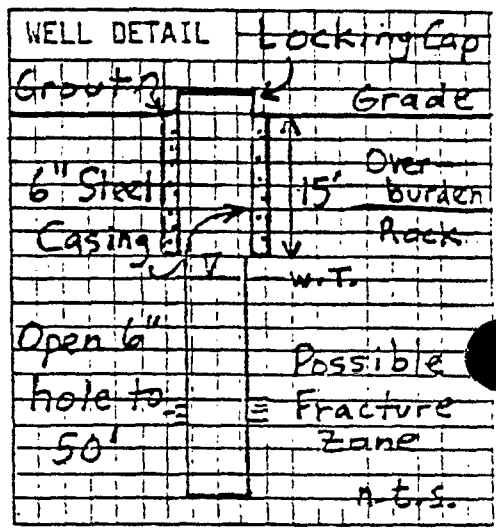
Client Kittredge, Kaufman, Donley
Project No. 00-5456-01
Well Location 100' n.w. of chemical storage area, AIWF plant, W. Whiteland Township, PA
Driller/Company Jack Coover, Thomas G. Keyes, Inc. Frazer, PA
Drilling Method Air hammer Hole Diameter 8" / 6" Date(s) Drilled 1-19-83
Sample Type cuttings Sample Interval N/A No. Samples Retained none
Surface Elevation Casing Top Elevation 369.35' Total Well Depth 50 feet
Casing Material and Size steel, 6" ID Cased Interval(s) 0 - 15 ft.
Grouting Type Portland cement Grouted Interval 0 - 15 ft.
Screening Material and Size N/A Screened Interval(s) N/A
Packing Material and Size N/A Packed Interval N/A
Depth to Static Water 15.98' Date 1-27-83 Approx Well Yield less than 5 gpm
Development Method Air Development Time 0.5 hours
Logged by: D. J. Varner

Comments: Heavy solvent odor detected in well water

Open hole from 15 feet to 50 feet

Locking steel cap installed for security





Depth Scale	Sample	Spoon Blows	Description of Materials
0 - 0.5'			Asphalt
0.5 - 6'			Rust Clay soil
6 - 11.7'			Weathered dark brown-gray limestone
11.7 - 50'			Gray-blue hard fine-crystalline limestone
			Possible fracture zones at:
			13.6 and 35 feet

AR100572

infrequent and had low levels of contamination based on the analytical test data. The frequency and levels of concentration of contaminants emanating from Mid-County Mustang were undoubtedly of greater signficance. However, the impact to the local groundwater system would have been rather minor were it not for the location of the on-site well. The well construction and location has provided the pathway and mechanism for accelerated migration of contaminants.

The remedial actions that have been undertaken to date in conjunction with improved housekeeping practices will result in elimination of further contamination from the facilities at the CDS property.

Groundwater Pollution Sources

An independent study by others has also been conducted at the adjoining facility to the east of the CDS property. The study has identified contamination in on-site monitoring wells; and the direction of groundwater flow from the area. Many of the contaminants in the CDS well are also found in the on-site monitoring wells on the adjoining property. Groundwater reportedly flows in several directions from the property with the on-site monitoring well evidencing the highest level of contamination situated adjacent to the Mid-County Mustang Facility.

The neighboring facility is an acknowledged source of groundwater contamination. Groundwater movement in the bedrock aquifer

AGES

underlying the properties will be controlled by the orientation of bedrock bedding and jointing. Flow from the adjoining property can be expected to move toward the CDS well. The movement will be compounded by the cone of influence (drawdown) created when the well is pumping. In bedrock aquifers this cone is frequently elongated parallel to the strike of bedrock structure which in this case is essentially on-line with the CDS well and the monitoring well on the adjacent property which exhibits the highest contamination. Thus contamination of the CDS well will continue to be a problem even though the on-site sources of contamination at the CDS property have been eliminated.

RECOMMENDATIONS

The plugging of the floor drains at the PMS and Mid-County Mustang facilities has eliminated the original avenues for migration of contaminants to the subsurface via the drainage fields. In addition the upgraded well housing and surface runoff controls at the on-site well will reduce any infiltration of surface contamination. This will be further reinforced by improved housekeeping in the paved area outside the Mid-County Mustang facility.

The remedial measures that have been incorporated to date have corrected the previous sources of the problem at the CDS property. However, some residual contamination undoubtedly remains in the drain field at Mid-County Mustang. The drain field should be re-excavated and the filter blanket and the first three (3') feet of soil below the blanket removed. The existing drain pipe should be permanently plugged and the excavated area backfilled with clean fill material. The excavated filter blanket and soil should be spread in a thin lift at the rear of the CDS property behind the PMS facility. This will allow any minor residual contamination that may remain to volatilize.

Water filtration measures should continue at all locations where water from the on-site well is currently being used. The remedial measures instituted at the CDS property may well reduce the current levels of contamination in the property well.

AGES

However, the continuing source of contamination emanating from the adjoining property will remain a problem. Routine sampling at the facilities of the current users of the CDS well should continue until remedial measures are instituted and the problem is corrected at the adjoining property.

APPENDICIES

APPENDICES

AGES

SCOPE OF WORK

Groundwater Contamination Investigation
C.D.S. Investments, Inc.

1.0 Introduction

C.D.S. Investments, Inc. (CDS) owns the property occupied by Mid-County Mustang, Pipe Maintenance Service, and two (2) residential tenants. This property is located on the north side of U.S. Route 30, in West Whiteland Township, Chester County, and is bounded on the east by the former A.I.W. Frank Industrial facility.

Prior to closure of the West Whiteland facility, A.I.W. Frank was required to perform a groundwater study. The study confirmed the presence of solvent contamination of soils and groundwater, and indicated that past solvent handling practices at AIW Frank were "sloppy", but concluded that elevated TCE concentrations found in the CDS on-site well might indicate that the major source of contamination was located off the AIW Frank property.

Based upon this study, on-going sampling and analysis of the CDS well, and a PA DER investigation of the CDS property, PA DER requested that CDS retain a qualified hydrogeologist and investigate the on-site groundwater contamination.

2.0 Purpose

The purpose of the following scope of work is to address the technical requirements outlined in the August 2, 1983 PA DER letter, and to set forth a phased investigative effort which will evaluate past on-site waste disposal practices and define the relationship between past and present practices and the contaminents identified in the on-site well.

If past or present waste disposal practices have caused or contributed to the on-site contamination, the extent of the contamination, as well as recommended remedial measures will be determined and developed, for review and approval by PA DER.

3.0 Investigative Approach

AGES investigative program will be implemented in three (3) phases so as to allow multiple decision points. The various decision points will enable AGES and PA DER to jointly determine the most cost effective and technically appropriate course of action at the CDS property.

3.1 Phase 1

The initial phase of the program will be to evaluate all the information which is presently available for this site and adjacent sites. This would include inspection reports, laboratory reports, other PA DER and CCHD information, available information concerning the A.I.W. Frank situation, and any information available on groundwater conditions, and geology in the study area.

Topography, soils, geology, and associated pertinent surface characteristics, as well as buildings, wells, and subsurface sewage disposal systems will be identified, located, and mapped during this phase of the program.

Upon completion of the above activites a subsurface investigation will be performed, using a backhoe, in the areas where the existing floor drains are believed to discharge. The subsurface investigation will determine the exact discharge points of the floor drains located in both the Mid-County Mustang and the FMS building.

After identification and excavation of the discharge points sampling and laboratory analysis of selected soil and/or water samples, covering the excavation profile, will be performed.

Upon completion of all Phase 1 activities a report will be prepared and submitted to PA DER for review. The Phase 1 report will synthesize all available information as well as report the results of the subsurface exploration and laboratory testing.

The report will address each applicable requirement, set forth in the August 2, 1983 PA DER letter, and establish the basis for future action, if required.

3.2 Phase II

If required, Phase II would include drilling activities, such as deeper soil borings and/or the installation of monitoring wells, as well as preparation of a groundwater contour map for the site, laboratory analysis of additional soil and/or water samples, and preparation of an isoconcentration map for major contaminents.

3.3 Phase III

If Phase II is required, the results of the Phase II activities as well as final conclusions and recommendations for future actions, including groundwater quality monitoring and a schedule for accomplishing each recommended measure will be reported. If Phase II is not necessary, conclusions and recommendations will be incorporated into the Phase 1 report.

4.0 Project Time Frame

Phase I - The field actvities are projected for completion by December 15, 1983, and the Phase I report is targeted for submission to PA DER by January 15, 1983.

Phase II - If required, this activity will be scheduled after PA DER has reviewed and commented upon the Phase I report.

Phase III - See Phase II above.

Table of Contents

Sample Collection

Chain of Custody

Sample Containers, Preparation and Preservatives

Methods of Analysis

Quality Control/Quality Assurance Measures

Results of Analysis of Samples

ACES

Sample Collection

The samples which were analyzed by AGES Laboratories, and are the subject of this report, were preserved and transported in accordance with U.S. EPA methods and guidelines. Representatives of AGES maintained custody of the samples between the sampling site and AGES Laboratories, see "Chain of Custody Record".

Upon receipt of the samples by AGES Laboratories, the samples were stored and/or prepared in accordance with U.S. EPA Guidelines and methods.

Chain of Custody

Chain of Custody forms are maintained for all samples. These forms are used to attest to the custody of samples and sample integrity prior to receipt at AGES Laboratories. The Chain of Custody forms are presented on the following page.

AGES

C.D.S. INVESTMENTS - MID-COUNTY MUSTANG

SAMPLERS (Signature): David Hamrick

STATION NUMBER	STATION LOCATION	DATE	TIME	SAMPLE TYPE: WATER comp	WATER grab	AIR	SEC. NO.	NO. OF CONTAINERS	ANALYSIS REQUIRED
①	FLOOR DRAIN OUTFALL	12/20/83	9:40		X			1	VOA - CL SPECIES
②	SOIL - BOTTOM OF PIT	12/20/83	9:55		X			1	"
③	SOIL - SOUTH WALL	12/20/83	11:10		X			1	"
④	SOIL - NORTH WALL	12/20/83	11:17		X			1	"
⑤	STONE AGGREGATE	12/20/83	11:20		X			1	"

RELINQUISHED BY: (Signature) David E. Hamrick	RECEIVED BY: (Signature) Jack Thorne	DATE/TIME 12-20-83 4:18
RELINQUISHED BY: (Signature)	RECEIVED BY: (Signature)	DATE/TIME
RELINQUISHED BY: (Signature)	RECEIVED BY: (Signature)	DATE/TIME
DISPATCHED BY: (Signature) DATE/TIME	RECEIVED FOR LABORATORY BY: Jack Thorne	DATE/TIME 12-20-83 4:18

AR100584

AGES

C. INVESTMENTS 43183

SAMPLERS (signature) D. [illegible]

STATION NUMBER	STATION LOCATION	DATE	TIME	SAMPLE TYPE WATER comp	SAMPLE TYPE WATER grab	SAMPLE TYPE AIR	SEC. NO.	NO. OF CONTAINERS	ANALYSIS REQUIRED
(1)	INVERT BUILDING (1)	8-7-94	10:15		X			1	
(2)	PIPE MATERIAL (1)	"	10:25		X			1	HOLD
(3)	PIPE FLUIDS (2)	"	11:00		X			1	HOLD
(4)	TILE FIELD SED. (2)	"	11:15		X			1	REFRIGERATE
(5)	SOIL BENEATH FIELD (2)	"	11:30		X			1	(SEE FIELD PROC.)
~~(6)~~	~~BLANK~~	~~—~~	~~—~~						

RELINQUISHED BY: (signature) D. [illegible]	RECEIVED BY: (signature) [signature]	DATE/TIME 8-7-94 2:00 PM
RELINQUISHED BY: (signature)	RECEIVED BY: (signature)	DATE/TIME
RELINQUISHED BY: (signature)	RECEIVED BY: (signature)	DATE/TIME
DISPATCHED BY: (signature) DATE/TIME	RECEIVED FOR LABORATORY BY: [signature]	DATE/TIME 8-7-94 2:00 PM

JARL 10585

AGE

Sample Containers, Preparation and Preservatives

All sample containers are either new and/or specially cleaned and prepared by AGES Laboratories. Glass containers have teflon lined caps (or teflon septums) and are prepared to be contamination free in the following manner:

Sample containers are first washed with soap (Alkonox) and hot water to remove any bulk residue from the container. Following rinsing with tap water, the containers are filled with chromic acid. Containers which are designated for metals sampling are filled with Nitric Acid. After sitting for at least 15 minutes, the containers are rinsed several times with tap water, then deionized (distilled) water, and allowed to drain. After drainage, the containers are rinsed with reagent grade acetone. The containers are then capped and ready for field use. Forty (40) milliliters vials are used for volatile organic compound analysis. The vials are equipped with a screw cap with a hole in the center. These are detergent washed. The cap is rinsed with tap and distilled water, and dried at 105°C for one hour before use. The teflon-faced silicone septums are detergent washed. The cap is rinsed with tap and distilled water, and dried at 105° C for one hour before use. AGES Laboratories disposes of the vials after their use.

Specific sizes of containers are provided for each sample location to insure the collection of sufficient sample for analysis and Quality Control.

AGES

As sample collection is performed, preservatives are added, if required. Each container is then labeled, stored and cooled to approximately 4°C. Cooling is maintained while the sample is transported to AGES Laboratories for analysis.

All sample containers, preparations and methods of preservation conform to U.S. EPA Guidelines as detailed in the manual entitled "Methods of Chemical Analysis of Water and Wastes" (EPA-600-4/79-020) and/or 40 CFR, Part 136; Series 600 Methods.

AGES

E.P. Toxicity Leaching Procedure

E.P. Toxicity Leachate is prepared according to the procedure outlined in the Federal Register, May 19, 1980 paragraph 261.24 and Appendix II. The leachate is prepared by mixing an aliquot of the sample with 16 times the sample weight of ASTM Class I water and agitating, while maintaining the pH of the mixture at 5.0 ± 0.2 for twenty-four hours. A pH adjustment is made if necessary with 0.5 N Acetic Acid with no more than 4 times the sample weight added to the mixture. The mixture is then adjusted to a final volume of 20 times the sample weight with ASTM Class I water. The amount of 0.5 N Acetic Acid added is included in the final adjustment volume. The mixture is pressure filtered through 0.45 micron filter media at a maximum pressure of 75 psi.

Methods of Analysis

All Methods of Analysis used by AGES Laboratories conform to those approved methods of analysis detailed in one or more of the following:

(1) Standard Methods for the Examination of Water & Wastewater (14th Edition).

(2) The U.S. EPA manual entitled: "Methods of Chemical Analysis of Water & Wastes" (EPA 600-4/79-020).

(3) 40 CFR, Part 136; Vol. 44, No. 233 - Monday, Dec. 3, 1979: Guidelines for Establishing Test Procedures for the analysis of Pollutants. (FRL 1333-D) Methods 600 thru 625.

AGES

Quality Control/Quality Assurance Measures

The AGES Laboratories Quality Control/Quality Assurance program has been approved by the U.S. EPA. The function of the QC/QA program is to:

a) To assure that reported values are accurate and precise within known limits reproducible, and fall within the limits acceptable by the U.S. EPA for comparable analysis. The latter is accomplished through the analysis of unknown performance samples, through the internal quality control/quality assurance program, and through the use of reagent grade chemicals and Class A specification glassware.

b) To assure that reported values are representative of actual sample values ~~and that field~~ samples are representative.

Sampling Procedures

Performed in accordance with U.S. EPA - 600/4-79-020.

Sample Custody

Performed in accordance with U.S. EPA - SW-846.

Calibration Procedures

Frequency - Before each use or daily.

Atomic Absorption

Perkin-Elmer Models 460, 560 and 5000. Instruments are operated in accordance with the manufacturer's operating manual. The linear response is determined for each element lamp. All determinations are made within the linear response range. Calibration standards are made from stock solutions daily. If the response of the standard is ± 10% of the original, the cause of the deviation is defined and corrected.

ORIGINAL (Red)

AR100590

AGES

ta Analysis, Validation and Reporting

Through the use of appropriate statistical methods described above, the validity of the values is verified through the use of statistical charts developed over time for a given analytical procedure. Unknown performance samples are analyzed quarterly to verify the validity of the statistical data.

Values are reported as specified by the analytical procedures; that is, uncorrected or corrected for recovery.

Internal Quality Control Checks

Internal quality control checks will be conducted in AA analyses of each set of samples to assess precision and accuracy of instrument calibration. The checks consist of:
(1) re-analysis of calibration standards to confirm calibration, and (2) analysis of check standards (these are standards of different concentrations from the standards used to calibrate the instrument) with each sample set. Flame AA results should agree with ±5% of the true value. For samples analyzed by graphite furnace containing elements ten times the detection limit, the objective is ±10%, while for samples near the detection limit the objective is 100 to 200%. If the results do not agree within these limits, matrix effects will be checked by spiking samples.

Internal quality control checks for organic analyses will be conducted by inspection of the chromatographic profiles of each standard, solid waste extract, and sample chemical fraction. Any unexpected/unusual chromatographic peaks or features will be noted and interpreted with consideration of instrument malfunction, sample contamination, or true (non-artifactual) occurence. The use of EPA standard materials will be used to verify instrument performance.

Performance and Systems Audit

Laboratory operations, including quality control/quality assurance systems are audited annually by an independent consultant with expertise in analytical chemistry and laboratory management. The results of the audit are reviewed jointly by laboratory and AGES Corporation management.

AGES

Spectrophotometer

A standard curve is prepared by processing a blank plus seven standards within the instrument's linear range. The curve is verified at 10 sample intervals by preparing a standard at or near the midpoint of the standard curve. If the standard is ± 10% of the midpoint value, the cause of the deviation is defined and corrected.

Specific Ion Meter

A standard curve is prepared from processing a blank plus seven standards. The curve is prepared daily or with each set of samples.

GC - Electron Capture, Flame Ionization, Hall Detectors

The linear response is determined for each compound being analyzed. Subsequent injections of samples are diluted volumetrically as necessary to bring the response of the compound being analyzed into the linear range. No quantifications are calculated on responses outside of the linear operating range of the instrument for the compound being analyzed. U.S. EPA performance samples are analyzed quarterly.

GC/MS

Calibration of the GC/MS is performed daily. The system's performance is evaluated each day that it is to be used for analysis of blanks and samples by examining the mass spectrum of DFTPP or BFB or PFTA. If the system's performance criteria are not met, the spectrometer is retuned. Samples and blanks are analyzed with internal standards.

Analytical Procedures

All analytical procedures are performed in accordance with "Test Methods for Evaluating Solid Waste", U.S. EPA - SW-846 and "Methods for the Analysis of Water and Wastewater", U.S. EPA - 600/4-79-020, Federal Register Vol. 44, Dec. 3, 1979, Appendix I, pages 69466-69558.

ACES

Preventative Maintenance

All equipment is routinely inspected and necessary service authorized by the Laboratory Services Manager. A service is in force on the analytical balance. Any major problems anticipated or encountered with laboratory equipment are corrected by manufacturer's service representatives.

Specific Routing Procedures Used to Assess Data Precision, Accuracy and Completeness

Routine procedures used to assess data precision and accuracy are described above. Generally they include "R" charts, percent recovery charts, and unknown and known performance standards obtained from U.S. EPA.

Corrective Action

Corrective action regarding reporting of compliance data is done in accordance with the statutory requirements of the program to which the analyses relate.

Quality Assurance Reports to Management

Quality assurance reports are submitted to the Laboratory Director for review on a quarterly basis. The reports are then discussed with laboratory personnel at periodic staff meetings.

AGES LABORATORIES
1151 S. Trooper Road, Norristown, PA 19403 (215) 666-7404

Engineering Consultants – Analytical Services

ANALYTICAL REPORT

December 22, 1983

CDS Investments
1536 Greenlawn Rd.
Paoli, PA 19301

AGES Project No. 43183

Re: Analysis of Soil Samples
Submitted 12/20/83
AGES Lab I.D. #831730

	Location 1 Floor Drain	Location 3 Bottom Pit	Location 5 South Wall
Methylene Chloride	1446.	12.7	8.5
1,1 Dichloroethylene	ND	ND	ND
1,1 Dichloroethane	ND	ND	ND
T-1,2 Dichloroethylene	ND	ND	ND
Chloroform	ND	ND	354.4
1,2 Dichloroethane	ND	ND	ND
1,1,1 Trichloroethane	ND	ND	ND
Carbon Tetrachloride	1026.2	ND	ND
1,2 Dichloropropane	ND	ND	ND
Trichloroethylene	1423.3	45.8	ND
1,1,2 Trichloroethane	1382.	ND	ND
S-Tetrachloroethane	ND	ND	ND
Tetrachloroethylene	6726.	201.	ND

The results are expressed as ug/kg.

ND = None Detected. (less than 0.1 ug/kg)

ORIG

AR100594

LABORATORY SAMPLES ARE RETAINED BY AGES LABORATORIES FOR 30 DAYS FROM THE DATE OF THIS ANALYTICAL REPORT

Re: Analysis of Soil Samples
Submitted 12/20/83
AGES Lab I.D. #831730

	Location 4 North Wall	Location 2 Stone Aggregate
Methylene Chloride	4.7	6.1
1,1 Dichloroethylene	ND	ND
1,1 Dichloroethane	ND	ND
T-1,2 Dichloroethylene	ND	ND
Chloroform	403.9	295.
1,2 Dichloroethane	ND	ND
1,1,1 Trichloroethane	ND	ND
Carbon Tetrachloride	ND	ND
1,2 Dichloropropane	ND	ND
Trichloroethylene	ND	10.6
1,1,2 Trichloroethane	ND	ND
S-Tetrachloroethane	ND	ND
Tetrachloroethylene	ND	178.4

The results are expressed as ug/kg.

ND = None Detected. (less than 0.1 ug/kg)

ORIGINAL (red)

AGES

AGES LABORATORIES
1151 S. Trooper Road, Norristown, PA 19403 (215) 666-7404

Engineering Consultants – Analytical Services

ANALYTICAL REPORT

August 30, 1984

CDS Investments
1536 Greenlawn Rd.
Paoli, PA 19301

AGES Project No. 43163

Re: Analysis of Soil Samples
Submitted 8/7/84
AGES Lab I.D. #841094

#1 Invert Building - VOLATILE ORGANICS

The above sample was analyzed for Volatile Organics by the Headspace method. The analysis was performed with a gas chromatograph equipped with a flame ionization detector. Sample components were identified by comparison of peak retention times with the standard compounds listed below. The results of the analysis are:

Methylene Chloride	4.86	Trichloroethylene	ND
Acetone	ND	1,1,2 Trichloroethane	ND
		Benzene	ND
1,1 Dichloroethylene	ND	Methyl-isobutyl Ketone	ND
1,1 Dichloroethane	ND	S-Tetrachloroethane	ND
T-1,2 Dichloroethylene	ND	Tetrachloroethylene	ND
Chloroform	ND	Toluene	ND
Methyl-ethyl Ketone	ND	Chloro Benzene	ND
1,2 Dichloroethane	ND	Ethyl Benzene	ND
1,1,1 Trichloroethane	ND	O-xylene	ND
Carbon Tetrachloride	ND	M-Xylene	ND
1,2 Dichloropropane	ND	P-Xylene	ND

ORIGINAL (Red)

The results are expressed as mg/kg.

ND = None Detected. (less than 1. mg/kg)

AR100596

Re: Analysis of Soil Samples
Submitted 8/7/84
AGES Lab I.D. #841094

#2 Pipe Material Building 1 - VOLATILE ORGANICS

The above sample was analyzed for Volatile Organics by the Headspace method. The analysis was performed with a gas chromatograph equipped with a flame ionization detector. Sample components were identified by comparison of peak retention times with the standard compounds listed below. The results of the analysis are:

NAPTHA	348.2 mg/kg

AGES

Re: Analysis of Soil Samples
Submitted 8/7/84
AGES Lab I.D. #841094

#3 Pipe Fluid - VOLATILE ORGANICS

The above sample was analyzed for Volatile Organics by the Purge & Trap method. The analysis was performed with a gas chromatograph equipped with a flame ionization detector. Sample components were identified by comparison of peak retention times with the standard compounds listed below. The results of the analysis are:

Methylene Chloride	ND	Trichloroethylene	ND
Acetone	ND	1,1,2 Trichloroethane	ND
		Benzene	29.4
1,1 Dichloroethylene	ND	Methyl-isobutyl Ketone	ND
1,1 Dichloroethane	ND	S-Tetrachloroethane	ND
T-1,2 Dichloroethylene	ND	Tetrachloroethylene	ND
Chloroform	ND	Toluene	10.7
Methyl-ethyl Ketone	ND	Chloro Benzene	ND
1,2 Dichloroethane	ND	Ethyl Benzene	25.0
1,1,1 Trichloroethane	ND	O-Xylene	68.6
Carbon Tetrachloride	ND	M-Xylene	116.5
1,2 Dichloropropane	ND	P-Xylene	ND

The results are expressed as ppb.

ND = None Detected. (less than 1. ppb)

ORIGINAL
(Red)

AGES

Re: Analysis of Soil Samples
Submitted 8/7/84
AGES Lab I.D. #841094

#4 Tile Field - VOLATILE ORGANICS

The above sample was analyzed for Volatile Organics by the Headspace method. The analysis was performed with a gas chromatograph equipped with a flame ionization detector. Sample components were identified by comparison of peak retention times with the standard compounds listed below. The results of the analysis are:

Methylene Chloride	ND	Trichloroethylene	ND
Acetone	ND	1,1,2 Trichloroethane	ND
		Benzene	ND
1,1 Dichloroethylene	ND	Methyl-isobutyl Ketone	ND
1,1 Dichloroethane	ND	S-Tetrachloroethane	ND
T-1,2 Dichloroethylene	ND	Tetrachloroethylene	ND
Chloroform	ND	Toluene	ND
Methyl-ethyl Ketone	ND	Chloro Benzene	ND
1,2 Dichloroethane	ND	Ethyl Benzene	ND
1,1,1 Trichloroethane	ND	O-Xylene	ND
Carbon Tetrachloride	ND	M-Xylene	ND
1,2 Dichloropropane	ND	P-Xylene	ND

The results are expressed as mg/kg.

ND = None Detected. (less than 1. mg/kg)

ORIG.

AGES

APPENDIX I

W White
Ches Co

AGES

DER-RECEIVED
NORRISTOWN
NOV 29 1984

November 28, 1984

PA Department of Environmental Resources
Bureau of Water Quality Management
1875 New Hope Street
Norristown, PA 19401

Attn: Marilyn Shup

Re: CDS Investments Property
Chester County
AGES Project No. 43183

Dear Marilyn:

Per our recent conversation regarding AGES's recommendations for additional activities at the subject property, we are currently awaiting the availability of a back hoe to perform the removal of the abandoned drain field at Mid-County Mustang. Per your recommendation, we are modifying our original plan for the removal of the abandoned drain field. Rather than spreading the excavated material in a thin lift at the rear of the CDS property, we will place the material on a sheet of plastic at a location slightly downhill from the abandoned drain field at the Mid-County Mustang facility.

The remedial activities that have taken place to date in conjunction with the removal of any minor residual contamination in the abandoned drain field will negate any future impact to groundwater from activities at the CDS property. However, contamination of groundwater from sources on the adjoining property may continue to impact the existing well at the CDS property. The well currently serves several tenants. The property owner is supplying bottled water and water filtration devices to the tenants; and is performing periodic sampling of

ORIGINAL
(Red)

AR100601

the well to monitor the water quality. Continued long term contamination of the well from the adjoining property will require these activities to continue for a substantial period of time.

I will notify you prior to the excavation of the drain field.

Sincerely yours,

AGES CORPORATION

Richard V. Sheehan

RVS/jms

cc: Mr. D'Ambrosio
Mr. McErlane

ORIGINAL (Red)

AGES