828072

ARCS II PROGRAM

Remedial Planning Activities at Selected Uncontrolled Hazardous Substance Disposal Sites Within EPA Region II (NY, NJ, PR, VI)

EPA Contract 68-W8-0110

FOSTER WHEELER

FOSTER WHEELER ENVIRONMENTAL CORPORATION

EPA WORK ASSIGNMENT NUMBER: 076–2JZZ
EPA CONTRACT NUMBER: 68–W8–0110
FOSTER WHEELER ENVIRONMENTAL CORPORATION

ARCS II PROGRAM

FINAL
SCREENING SITE INSPECTION (SSI)
ERDLE PERFORATING SITE
TOWN OF GATES
MONROE COUNTY, NEW YORK
CERCLIS NO: NYD982531865

DECEMBER 1995

VOLUME III OF IV

NOTICE

NYSDEC ASP

1

INORGANIC ANALYSES DATA SHEET

NYSDEC SAMPLE NO.

RB1

Lab Name: RECRA_ENVIRONMENTAL_INC._ Contract: NY95-008__

Lab Code: RECNY_ Case No.: 5205_ SAS No.: _____ SDG No.: S1____

Matrix (soil/water): WATER Lab Sample ID: 2512

Level (low/med): LOW__ Date Received: 12/09/94

% Solids: __0.0

Concentration Units (ug/L or mg/kg dry weight): UG/L_

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum_	90.0	U		P
7440-36-0	Antimony_	40.0	U	N	P
7440-38-2	Arsenic__	3.0	U		P
7440-39-3	Barium___	20.0	U		P
7440-41-7	Beryllium	3.0	U		P
7440-43-9	Cadmium__	5.0	U	*	P
7440-70-2	Calcium__	1000	U	*	P
7440-47-3	Chromium_	~~10.0~~	~~U~~		P
7440-48-4	Cobalt___	10.0	U		P
7440-50-8	Copper___	10.0	U		P
7439-89-6	Iron_____	89.0	B		P
7439-92-1	Lead_____	2.0	U	*	P
7439-95-4	Magnesium	300	U		P
7439-96-5	Manganese	5.0	U	N*	P
7439-97-6	Mercury__	0.20	U		CV
7440-02-0	Nickel___	20.0	U		P
7440-09-7	Potassium	300	U		P
7782-49-2	Selenium_	3.0	U	N	P
7440-22-4	Silver___	~~10.0~~	~~U~~	N	P
7440-23-5	Sodium___	1000	U		P
7440-28-0	Thallium_	5.9	B		P
7440-62-2	Vanadium_	10.0	U		P
7440-66-6	Zinc_____	10.0	U	N	P
	Cyanide__	10.0	U		C

Color Before: COLORLESS Clarity Before: CLEAR_ Texture: _____

Color After: COLORLESS Clarity After: CLEAR_ Artifacts: ___

Comments:
LAB_SAMPLE_ID: A4725002
CLIENT_SAMPLE_ID: RB-1

NYSDEC ASP

'0102

1
INORGANIC ANALYSES DATA SHEET

NYSDEC SAMPLE NO.

SD1

Lab Name: RECRA_ENVIRONMENTAL_INC._ Contract: NY95-008__

Lab Code: RECNY_ Case No.: 5205_ SAS No.: _____ SDG No.: S1____

Matrix (soil/water): SOIL_ Lab Sample ID: 2626

Level (low/med): LOW__ Date Received: 12/09/94

% Solids: _21.7

Concentration Units (ug/L or mg/kg dry weight): MG/KG

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum_	6270_	_		P_
7440-36-0	Antimony_	37.2_	U	N	P_
7440-38-2	Arsenic__	2.8_	U		P_
7440-39-3	Barium___	59.6_	B		P_
7440-41-7	Beryllium	2.8_	U		P_
7440-43-9	Cadmium__	4.7_	U	*	P_
7440-70-2	Calcium__	6220_	_	*	P_
7440-47-3	~~Chromium~~_	~~9.3~~_			P_
7440-48-4	Cobalt___	9.3_	U		P_
7440-50-8	Copper___	14.9_	B		P_
7439-89-6	Iron_____	10700_	_		P_
7439-92-1	Lead_____	40.6_	_	*	P_
7439-95-4	Magnesium	1980_	B		P_
7439-96-5	Manganese	96.8_	_	N*	P_
7439-97-6	Mercury__	0.42_	U		CV
7440-02-0	Nickel___	18.6_	U		P_
7440-09-7	Potassium	665_	B		P_
7782-49-2	Selenium_	2.8_	U	N	P_
7440-22-4	Silver___	~~9.3~~_	~~U~~	N	P_
7440-23-5	Sodium___	931_	U		P_
7440-28-0	Thallium_	3.7_	B		P_
7440-62-2	Vanadium_	11.2_	B		P_
7440-66-6	Zinc_____	198_	_	N	P_
_____	Cyanide__	4.3_	U		C_

Color Before: BLACK____ Clarity Before: _____ Texture: MEDIUM

Color After: YELLOW___ Clarity After: CLEAR_ Artifacts: ___

Comments:
LAB_SAMPLE_ID:_A4724206
CLIENT_SAMPLE_ID:_SD-1

'0103

NYSDEC ASP

1
INORGANIC ANALYSES DATA SHEET

NYSDEC SAMPLE NO.

SD2

Lab Name: RECRA_ENVIRONMENTAL_INC._ Contract: NY95-008__

Lab Code: RECNY_ Case No.: 5205_ SAS No.: _____ SDG No.: S1____

Matrix (soil/water): SOIL_ Lab Sample ID: 2627

Level (low/med): LOW__ Date Received: 12/09/94

% Solids: _61.0

Concentration Units (ug/L or mg/kg dry weight): MG/KG

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	5120			P
7440-36-0	Antimony	13.0	U	N	P
7440-38-2	Arsenic	2.9	B		P
7440-39-3	Barium	44.8	B		P
7440-41-7	Beryllium	0.97	U		P
7440-43-9	Cadmium	1.6		*	P
7440-70-2	Calcium	11900		*	P
7440-47-3	Chromium	35.1			P
7440-48-4	Cobalt	3.2	B		P
7440-50-8	Copper	104			P
7439-89-6	Iron	8100			P
7439-92-1	Lead	71.1		*	P
7439-95-4	Magnesium	5350			P
7439-96-5	Manganese	89.3		N*	P
7439-97-6	Mercury	0.15	U		CV
7440-02-0	Nickel	15.9			P
7440-09-7	Potassium	432	B		P
7782-49-2	Selenium	1.2	B	N	P
7440-22-4	Silver	~~3.2~~	U	~~N~~	P
7440-23-5	Sodium	325	U		P
7440-28-0	Thallium	3.4			P
7440-62-2	Vanadium	10.4	B		P
7440-66-6	Zinc	410		N	P
	Cyanide	1.5	U		C

Color Before: BROWN____ Clarity Before: _____ Texture: MEDIUM

Color After: YELLOW___ Clarity After: CLEAR_ Artifacts: ___

Comments:
LAB_SAMPLE_ID:_A4724207
CLIENT_SAMPLE_ID:_SD-2

NYSDEC ASP

'0104

1
INORGANIC ANALYSES DATA SHEET

NYSDEC SAMPLE NO.

SF1

Lab Name: RECRA_ENVIRONMENTAL_INC._ Contract: NY95-008__

Lab Code: RECNY_ Case No.: 5205_ SAS No.: _____ SDG No.: S1____

Matrix (soil/water): SOIL_ Lab Sample ID: 2619

Level (low/med): LOW__ Date Received: 12/09/94

% Solids: _86.7

Concentration Units (ug/L or mg/kg dry weight): MG/KG

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	9370			P
7440-36-0	Antimony	9.1	U	N	P
7440-38-2	Arsenic	3.2			P
7440-39-3	Barium	97.1			P
7440-41-7	Beryllium	0.69	U		P
7440-43-9	Cadmium	1.1	U	*	P
7440-70-2	Calcium	36300		*	P
7440-47-3	Chromium	14.4			P
7440-48-4	Cobalt	9.1	B		P
7440-50-8	Copper	2.3	U		P
7439-89-6	Iron	20800			P
7439-92-1	Lead	35.6		*	P
7439-95-4	Magnesium	9880			P
7439-96-5	Manganese	444		N*	P
7439-97-6	Mercury	0.11	U		CV
7440-02-0	Nickel	22.2			P
7440-09-7	Potassium	1440			P
7782-49-2	Selenium	0.69	U	N	P
7440-22-4	Silver	2.3	U	N	P
7440-23-5	Sodium	374	B		P
7440-28-0	Thallium	3.5			P
7440-62-2	Vanadium	20.8			P
7440-66-6	Zinc	94.1		N	P
	Cyanide	1.1	U		C

Color Before: BROWN____ Clarity Before: _____ Texture: MEDIUM

Color After: YELLOW___ Clarity After: CLEAR_ Artifacts: ___

Comments:
LAB_SAMPLE_ID:_A4724201
CLIENT_SAMPLE_ID:_SF-1

NYSDEC ASP

'010:

1
INORGANIC ANALYSES DATA SHEET

NYSDEC SAMPLE NO.

SF2

Lab Name: RECRA_ENVIRONMENTAL_INC._ Contract: NY95-008__

Lab Code: RECNY_ Case No.: 5205_ SAS No.: _____ SDG No.: S1____

Matrix (soil/water): SOIL_ Lab Sample ID: 2620

Level (low/med): LOW__ Date Received: 12/09/94

% Solids: _80.6

Concentration Units (ug/L or mg/kg dry weight): MG/KG

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	11100			P
7440-36-0	Antimony	9.8	U	N	P
7440-38-2	Arsenic	4.9			P
7440-39-3	Barium	104			P
7440-41-7	Beryllium	0.74	U		P
7440-43-9	Cadmium	1.2	U	*	P
7440-70-2	Calcium	5690		*	P
7440-47-3	Chromium	16.5			P
7440-48-4	Cobalt	10.8	B		P
7440-50-8	Copper	2.5	U		P
7439-89-6	Iron	23500			P
7439-92-1	Lead	6.7		*	P
7439-95-4	Magnesium	5770			P
7439-96-5	Manganese	330		N*	P
7439-97-6	Mercury	0.12	U		CV
7440-02-0	Nickel	21.9			P
7440-09-7	Potassium	924	B		P
7782-49-2	Selenium	1.1	B	N	P
7440-22-4	Silver	~~2.5~~	~~U~~	N	P
7440-23-5	Sodium	466	B		P
7440-28-0	Thallium	0.86	U		P
7440-62-2	Vanadium	24.8			P
7440-66-6	Zinc	84.8		N	P
	Cyanide	1:2	U		C

Color Before: BROWN____ Clarity Before: _____ Texture: MEDIUM

Color After: YELLOW___ Clarity After: CLEAR_ Artifacts: ___

Comments:
LAB_SAMPLE_ID:_A4724202
CLIENT_SAMPLE_ID:_SF-2

NYSDEC ASP

1
INORGANIC ANALYSES DATA SHEET

NYSDEC SAMPLE NO.

SF2FD

Lab Name: RECRA_ENVIRONMENTAL_INC._ Contract: NY95-008__

Lab Code: RECNY_ Case No.: 5205_ SAS No.: _____ SDG No.: S1____

Matrix (soil/water): SOIL_ Lab Sample ID: 2623

Level (low/med): LOW__ Date Received: 12/09/94

% Solids: _80.6

Concentration Units (ug/L or mg/kg dry weight): MG/KG

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	11700			P
7440-36-0	Antimony	9.9	U	N	P
7440-38-2	Arsenic	8.1			P
7440-39-3	Barium	118			P
7440-41-7	Beryllium	0.74	U		P
7440-43-9	Cadmium	1.2	U	*	P
7440-70-2	Calcium	57000		*	P
7440-47-3	Chromium	17.1			P
7440-48-4	Cobalt	9.4	B		P
7440-50-8	Copper	2.5	U		P
7439-89-6	Iron	24800			P
7439-92-1	Lead	6.3		*	P
7439-95-4	Magnesium	7920			P
7439-96-5	Manganese	645		N*	P
7439-97-6	Mercury	0.11	U		CV
7440-02-0	Nickel	24.8			P
7440-09-7	Potassium	1210	B		P
7782-49-2	Selenium	0.74	U	N	P
7440-22-4	Silver	~~2.5~~	~~U~~	~~N~~	P
7440-23-5	Sodium	533	B		P
7440-28-0	Thallium	1.1	B		P
7440-62-2	Vanadium	27.0			P
7440-66-6	Zinc	66.3		N	P
	Cyanide	1.2	U		C

Color Before: BROWN____ Clarity Before: _____ Texture: MEDIUM

Color After: YELLOW___ Clarity After: CLEAR_ Artifacts: ___

Comments:
LAB_SAMPLE_ID:_A4724202FD
CLIENT_SAMPLE_ID:_SF-2_FD

NYSDEC ASP

1
INORGANIC ANALYSES DATA SHEET

NYSDEC SAMPLE NO.

SF4

Lab Name: RECRA_ENVIRONMENTAL_INC._ Contract: NY95-008__

Lab Code: RECNY_ Case No.: 5205_ SAS No.: _____ SDG No.: S1____

Matrix (soil/water): SOIL_ Lab Sample ID: 2624

Level (low/med): LOW__ Date Received: 12/09/94

% Solids: _85.9

Concentration Units (ug/L or mg/kg dry weight): MG/KG

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	8710			P
7440-36-0	Antimony	9.4	U	N	P
7440-38-2	Arsenic	4.5			P
7440-39-3	Barium	72.7			P
7440-41-7	Beryllium	0.71	U		P
7440-43-9	Cadmium	1.2		*	P
7440-70-2	Calcium	53000		*	P
7440-47-3	Chromium	13.6			P
7440-48-4	Cobalt	9.4	B		P
7440-50-8	Copper	2.4	U		P
7439-89-6	Iron	20400			P
7439-92-1	Lead	5.6		*	P
7439-95-4	Magnesium	12400			P
7439-96-5	Manganese	479		N*	P
7439-97-6	Mercury	0.11	U		CV
7440-02-0	Nickel	21.2			P
7440-09-7	Potassium	1590			P
7782-49-2	Selenium	0.71	U	N	P
7440-22-4	Silver	~~2.4~~	U	N	P
7440-23-5	Sodium	384	B		P
7440-28-0	Thallium	0.82	U		P
7440-62-2	Vanadium	23.0			P
7440-66-6	Zinc	44.9		N	P
	Cyanide	1.1	U		C

Color Before: BROWN____ Clarity Before: _____ Texture: MEDIUM

Color After: YELLOW___ Clarity After: CLEAR_ Artifacts: ___

Comments:
LAB_SAMPLE_ID: A4724204
CLIENT_SAMPLE_ID: SF-4

NYSDEC ASP

0107

1
INORGANIC ANALYSES DATA SHEET

NYSDEC SAMPLE NO.

SF5

Lab Name: RECRA_ENVIRONMENTAL_INC._ Contract: NY95-008__

Lab Code: RECNY_ Case No.: 5205_ SAS No.: _____ SDG No.: S1____

Matrix (soil/water): SOIL_ Lab Sample ID: 2625

Level (low/med): LOW__ Date Received: 12/09/94

% Solids: _80.6

Concentration Units (ug/L or mg/kg dry weight): MG/KG

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	6550			P
7440-36-0	Antimony	9.7	U	N	P
7440-38-2	Arsenic	1.4	B		P
7440-39-3	Barium	59.4			P
7440-41-7	Beryllium	0.73	U		P
7440-43-9	Cadmium	1.2	U	*	P
7440-70-2	Calcium	10100		*	P
7440-47-3	Chromium	7.5			P
7440-48-4	Cobalt	2.4	B		P
7440-50-8	Copper	2.4	U		P
7439-89-6	Iron	7980			P
7439-92-1	Lead	38.2		*	P
7439-95-4	Magnesium	2940			P
7439-96-5	Manganese	148		N*	P
7439-97-6	Mercury	0.11	U		CV
7440-02-0	Nickel	9.2	B		P
7440-09-7	Potassium	510	B		P
7782-49-2	Selenium	0.73	U	N	P
7440-22-4	Silver	~~2.4~~	~~U~~	~~N~~	P
7440-23-5	Sodium	374	B		P
7440-28-0	Thallium	0.85	U		P
7440-62-2	Vanadium	9.0	B		P
7440-66-6	Zinc	101		N	P
	Cyanide	1.2	U		C

Color Before: BROWN____ Clarity Before: _____ Texture: MEDIUM

Color After: YELLOW___ Clarity After: CLEAR_ Artifacts: ___

Comments:
LAB_SAMPLE_ID:_A4724205
CLIENT_SAMPLE_ID:_SF-5

NYSDEC ASP

1
INORGANIC ANALYSES DATA SHEET

NYSDEC SAMPLE NO.

SW2

Lab Name: RECRA_ENVIRONMENTAL_INC._ Contract: NY95-008__

Lab Code: RECNY_ Case No.: 5205_ SAS No.: _____ SDG No.: S1____

Matrix (soil/water): WATER Lab Sample ID: 2513

Level (low/med): LOW__ Date Received: 12/09/94

% Solids: __0.0

Concentration Units (ug/L or mg/kg dry weight): UG/L_

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	7300			P
7440-36-0	Antimony	40.0	U	N	P
7440-38-2	Arsenic	3.7	B		P
7440-39-3	Barium	142	B		P
7440-41-7	Beryllium	3.0	U		P
7440-43-9	Cadmium	5.0	U	*	P
7440-70-2	Calcium	193000		*	P
7440-47-3	Chromium	~~10.0~~	U		P
7440-48-4	Cobalt	10.0	U		P
7440-50-8	Copper	21.0	B		P
7439-89-6	Iron	12900			P
7439-92-1	Lead	22.6		*	P
7439-95-4	Magnesium	35600			P
7439-96-5	Manganese	1360		N*	P
7439-97-6	Mercury	0.20	U		CV
7440-02-0	Nickel	28.0	B		P
7440-09-7	Potassium	5820			P
7782-49-2	Selenium	3.0	U	N	P
7440-22-4	Silver	10.0	U	N	P
7440-23-5	Sodium	29100			P
7440-28-0	Thallium	3.5	U		P
7440-62-2	Vanadium	13.0	B		P
7440-66-6	Zinc	355		N	P
	Cyanide	10.0	U		C

Color Before: COLORLESS Clarity Before: CLEAR_ Texture: _____

Color After: YELLOW___ Clarity After: CLEAR_ Artifacts: ___

Comments:
LAB_SAMPLE_ID:_A4725005
CLIENT_SAMPLE_ID:_SW-2

NYSDEC ASP

1
INORGANIC ANALYSES DATA SHEET

NYSDEC SAMPLE NO.
S1

Lab Name: RECRA_ENVIRONMENTAL_INC._ Contract: NY95-008__

Lab Code: RECNY_ Case No.: 5205_ SAS No.: _____ SDG No.: S1____

Matrix (soil/water): SOIL_ Lab Sample ID: 2628

Level (low/med): LOW__ Date Received: 12/09/94

% Solids: _50.1

Concentration Units (ug/L or mg/kg dry weight): MG/KG

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	5940			P
7440-36-0	Antimony	15.8	U	N	P
7440-38-2	Arsenic	4.0			P
7440-39-3	Barium	77.5	B		P
7440-41-7	Beryllium	1.2	U		P
7440-43-9	Cadmium	5.1		*	P
7440-70-2	Calcium	25200		*	P
7440-47-3	Chromium	37.2			P
7440-48-4	Cobalt	7.5	B		P
7440-50-8	Copper	126			P
7439-89-6	Iron	15300			P
7439-92-1	Lead	192		*	P
7439-95-4	Magnesium	7290			P
7439-96-5	Manganese	428		N*	P
7439-97-6	Mercury	0.20	U		CV
7440-02-0	Nickel	17.8			P
7440-09-7	Potassium	499	B		P
7782-49-2	Selenium	1.2	U	N	P
7440-22-4	Silver	~~4.0~~	~~U~~	N	P
7440-23-5	Sodium	395	U		P
7440-28-0	Thallium	1.4	U		P
7440-62-2	Vanadium	12.3	B		P
7440-66-6	Zinc	1420		N	P
	Cyanide	2.0	U		C

Color Before: BROWN____ Clarity Before: _____ Texture: MEDIUM

Color After: YELLOW___ Clarity After: CLEAR_ Artifacts: ___

Comments:
LAB_SAMPLE_ID: A4724210
CLIENT_SAMPLE_ID: S-1

0110

RADIAN CORPORATION
ERDLE SITE
Wet Chemistry Analysis

Client Sample No.
RB-1

Lab Name: Recra Environmental, Inc. Contract: _____

Lab Code: RECNY Case No.: 5205 SAS No.: _____ SDG No.: S1

Matrix (soil/water): WATER Lab Sample ID: A4725002

% Solids: 0.0 Date Samp/Recv: 12/08/94 12/09/94

Parameter Name	Units of Measure	Result	C	Q	M	Method Number	Analyzed Date
Total Organic Carbon	MG/L	1.0	U			9060	12/30/94

Comments:

RADIAN CORPORATION
ERDLE SITE
Wet Chemistry Analysis

'01

Client Sample No.
RB-2

Lab Name: Recra Environmental, Inc. Contract: _____

Lab Code: RECNY Case No.: 5205 SAS No.: _____ SDG No.: S1

Matrix (soil/water): WATER Lab Sample ID: A4725003

% Solids: 0.0 Date Samp/Recv: 12/08/94 12/09/94

Parameter Name	Units of Measure	Result	C	Q	M	Method Number	Analyzed Date
Total Organic Carbon	MG/L	1.0	U			9060	12/30/94

Comments:

RADIAN CORPORATION
ERDLE SITE
Wet Chemistry Analysis

Client Sample No.
S-1

Lab Name: Recra Environmental, Inc. Contract: _____

Lab Code: RECNY Case No.: 5205 SAS No.: _____ SDG No.: S1

Matrix (soil/water): SOIL Lab Sample ID: A4724210

% Solids: 50.1 Date Samp/Recv: 12/08/94 12/09/94

Parameter Name	Units of Measure	Result	C	Q	M	Method Number	Analyzed Date
Leachable Total Organic Carbon	UG/G	6900				9060	12/14/94

Comments:

RADIAN CORPORATION
ERDLE SITE
Wet Chemistry Analysis

:0113

Client Sample No.
SD-1

Lab Name: Recra Environmental, Inc. Contract: _____

Lab Code: RECNY Case No.: 5205 SAS No.: _____ SDG No.: S1

Matrix (soil/water): SOIL Lab Sample ID: A4724206

% Solids: 21.7 Date Samp/Recv: 12/08/94 12/09/94

Parameter Name	Units of Measure	Result	C	Q	M	Method Number	Analyzed Date
Leachable Total Organic Carbon	UG/G	7390				9060	12/13/94

Comments:

RADIAN CORPORATION
ERDLE SITE
Wet Chemistry Analysis

)0114

Client Sample No.
SD-2

Lab Name: Recra Environmental, Inc. Contract: _____

Lab Code: RECNY Case No.: 5205 SAS No.: _____ SDG No.: S1

Matrix (soil/water): SOIL Lab Sample ID: A4724207

% Solids: 61.0 Date Samp/Recv: 12/08/94 12/09/94

Parameter Name	Units of Measure	Result	C	Q	M	Method Number	Analyzed Date
Leachable Total Organic Carbon	UG/G	8360				9060	12/13/94

Comments:

RADIAN CORPORATION
ERDLE SITE
Wet Chemistry Analysis

Client Sample No.
SD-3

Lab Name: Recra Environmental, Inc. Contract: _____

Lab Code: RECNY Case No.: 5205 SAS No.: _____ SDG No.: S1

Matrix (soil/water): SOIL Lab Sample ID: A4724208

% Solids: 0.0 Date Samp/Recv: 12/08/94 12/09/94

Parameter Name	Units of Measure	Result	C	Q	M	Method Number	Analyzed Date
Leachable Total Organic Carbon	UG/G	8810				9060	12/13/94

Comments:

RECRA
ENVIRONMENTAL
INC.

Chemical and Environmental Analysis Services

May 23, 1995

Ms. Dawn Wendt
Radian Corporation
155 Corporate Woods, Suite 100
Rochester, NY 14623

RE: Revised Analytical Results

Dear Ms. Wendt:

Please find enclosed revised result pages concerning the analyses of the samples recently submitted by your firm. Several samples for Method 9060 have been corrected to adjust for percent solids. These samples were not adjusted in the original data package. Also provided the dry weight logbook used for the Total Organic Carbon analyses. The pertinent information regarding these analyses is listed below:

Quote #:	NY95-008
Project Name:	ERDLE SITE
Case #:	5205
SDG #:	S1
Matrix:	Aqueous/Soil
Samples Received:	12/9/94
Sample Date:	12/8/94

If you have any questions concerning these data, please contact Ms. Candace Steady, Program Manager, at (716) 691-2600 and refer to the I.D. number listed below. We apologize for any inconvenience this may have caused.

Sincerely,

RECRA ENVIRONMENTAL, INC.

Candace L. Steady

Candace L. Steady
Program Manager

Enclosure

I.D. #94-7242. REV
#94-7250
#NY5A5205

Radian Corporation
ERDLE SITE
Wet Chemistry Analysis

2587

Client Sample No
S-1

Name: Recra Environmental, Inc. Contract: _____

Lab Code: RECNY Case No.: 5205 SAS No.: _____ SDG No.: S1

Matrix (soil/water): SOIL Lab Sample ID: A4724210

% Solids: 40.5 Date Samp/Recv: 12/08/94 12 09 94

Parameter Name	Units of Measure	Result	C	Q	M	Method Number	Analyzed Date
Leachable Total Organic Carbon	UG/G	10600				9060	12 14 94

Comments:

Radian Corporation
ERDLE SITE
Wet Chemistry Analysis

'2588

Client Sample No.
SD-1

Lab Name: Recra Environmental, Inc. Contract: _____

Lab Code: RECNY Case No.: 5205 SAS No.: _____ SDG No.: S1

Matrix (soil/water): SOIL Lab Sample ID: A4724206

% Solids: 11.8 Date Samp/Recv: 12/08/94 12/09/94

Parameter Name	Units of Measure	Result	C	Q	M	Method Number	Analyzed Date
Leachable Total Organic Carbon	UG/G	62600				9060	12.13 94

Comments:

Radian Corporation
ERDLE SITE
Wet Chemistry Analysis

2589

Client Sample No
SD-2

b Name: Recra Environmental, Inc. Contract: _____

Lab Code: RECNY Case No.: 5205 SAS No.: _____ SDG No.: S1

Matrix (soil/water): SOIL Lab Sample ID: A4724207

% Solids: 49.6 Date Samp/Recv: 12/08/94 12/09/94

Parameter Name	Units of Measure	Result	C	Q	M	Method Number	Analyzed Date
Leachable Total Organic Carbon	UG/G	16900				9060	12/13/94

Comments:

2590

Radian Corporation
ERDLE SITE
Wet Chemistry Analysis

Client Sample No.
SD-3

Lab Name: Recra Environmental, Inc. Contract: _____

Lab Code: RECNY Case No.: 5205 SAS No.: _____ SDG No.: S1

Matrix (soil/water): SOIL Lab Sample ID: A4724208

% Solids: 71.6 Date Samp/Recv: 12/08/94 12/09/94

Parameter Name	Units of Measure	Result	C	Q	M	Method Number	Analyzed Date
Leachable Total Organic Carbon	UG/G	8810				9060	12/13/94

Comments:

Radian Corporation
ERDLE SITE
Wet Chemistry Analysis

2591

Client Sample No.
SD-4

Name: Recra Environmental, Inc. Contract: _____

Lab Code: RECNY Case No.: 5205 SAS No.: _____ SDG No.: S1

Matrix (soil/water): SOIL Lab Sample ID: A4724209

% Solids: 48.0 Date Samp/Recv: 12/08/94 12/09/94

Parameter Name	Units of Measure	Result	C	Q	M	Method Number	Analyzed Date
Leachable Total Organic Carbon	UG/G	200	U			9060	12 14 94

Comments:

Radian Corporation
ERDLE SITE
Wet Chemistry Analysis

2592

Client Sample No.
SF-1

Lab Name: Recra Environmental, Inc. Contract: _____

Lab Code: RECNY Case No.: 5205 SAS No.: _____ SDG No.: S1

Matrix (soil/water): SOIL Lab Sample ID: A4724201

% Solids: 89.0 Date Samp/Recv: 12/08/94 12/09/94

Parameter Name	Units of Measure	Result	C	Q	M	Method Number	Analyzed Date
Leachable Total Organic Carbon	UG/G	6830				9060	12/13/94

Comments:

Radian Corporation
ERDLE SITE
Wet Chemistry Analysis

2593

Client Sample No
SF-2

Name: Recra Environmental, Inc. Contract: _____

Lab Code: RECNY Case No.: 5205 SAS No.: _____ SDG No.: S1

Matrix (soil/water): SOIL Lab Sample ID: A4724202

% Solids: 79.5 Date Samp/Recv: 12/08/94 12/09/94

Parameter Name	Units of Measure	Result	C	Q	M	Method Number	Analyzed Date
Leachable Total Organic Carbon	UG/G	6540				9060	12/13/94

Comments:

Radian Corporation
ERDLE SITE
Wet Chemistry Analysis

2594

Client Sample No.

SF-2 FD

Lab Name: Recra Environmental, Inc. Contract: _____

Lab Code: RECNY Case No.: 5205 SAS No.: _____ SDG No.: S1

Matrix (soil/water): SOIL Lab Sample ID: A4724202FD

% Solids: 79.5 Date Samp/Recv: 12/08/94 12/09/94

Parameter Name	Units of Measure	Result	C	Q	M	Method Number	Analyzed Date
Leachable Total Organic Carbon	UG/G	7150				9060	12 13 94

Comments:

Radian Corporation
ERDLE SITE
Wet Chemistry Analysis

2595

Client Sample No.

SF-2 MD

Lab Name: Recra Environmental, Inc. Contract: _____

Lab Code: RECNY Case No.: 5205 SAS No.: _____ SDG No.: S1

Matrix (soil/water): SOIL Lab Sample ID: A4724202MD

% Solids: 79.5 Date Samp/Recv: 12/08/94 12/09/94

Parameter Name	Units of Measure	Result	C	Q	M	Method Number	Analyzed Date
Leachable Total Organic Carbon	UG/G	5920				9060	12/13/94

Comments:

Radian Corporation
ERDLE SITE
Wet Chemistry Analysis

2596

Client Sample No.

SF-2 MS

Lab Name: Recra Environmental, Inc. Contract: _____

Lab Code: RECNY Case No.: 5205 SAS No.: _____ SDG No.: S1

Matrix (soil/water): SOIL Lab Sample ID: A4724202MS

% Solids: 79.5 Date Samp/Recv: 12/08/94 12/09/94

Parameter Name	Units of Measure	Result	C	Q	M	Method Number	Analyzed Date
Leachable Total Organic Carbon	UG/G	8730				9060	12 13 94

Comments:

Radian Corporation
ERDLE SITE
Wet Chemistry Analysis

2597

Client Sample No
SF-3

Name: Recra Environmental, Inc. Contract: _____

Lab Code: RECNY Case No.: 5205 SAS No.: _____ SDG No.: S1

Matrix (soil/water): SOIL Lab Sample ID: A4724203

% Solids: 72.5 Date Samp/Recv: 12/08/94 12/09/94

Parameter Name	Units of Measure	Result	C	Q	M	Method Number	Analyzed Date
Leachable Total Organic Carbon	UG/G	6120				9060	12/13/94

Comments:

FORM I - WC

Radian Corporation
ERDLE SITE
Wet Chemistry Analysis

2598

Client Sample No.

SF-3 MD

Lab Name: Recra Environmental, Inc. Contract: _____

Lab Code: RECNY Case No.: 5205 SAS No.: _____ SDG No.: S1

Matrix (soil/water): SOIL Lab Sample ID: A4724203MD

% Solids: 72.5 Date Samp/Recv: 12/08/94 12/09/94

Parameter Name	Units of Measure	Result	C	Q	M	Method Number	Analyzed Date
Leachable Total Organic Carbon	UG/G	6760				9060	12/13/94

Comments:

Radian Corporation
ERDLE SITE
Wet Chemistry Analysis

2599

Client Sample No
SF-3 MS

Name: Recra Environmental, Inc. Contract: _____

Lab Code: RECNY Case No.: 5205 SAS No.: _____ SDG No.: S1

Matrix (soil/water): SOIL Lab Sample ID: A4724203MS

% Solids: 72.5 Date Samp/Recv: 12/08/94 12/09/94

Parameter Name	Units of Measure	Result	C	Q	M	Method Number	Analyzed Date
Leachable Total Organic Carbon	UG/G	8570				9060	12/13/94

Comments:

DRY WEIGHT LOG
NY ENVIRONMENTAL TESTING SERVICES

DATE	ANALYST	JOB #	SAMPLE I.D.	DISH #	EMPTY DISH WT.	WET SAMPLE + DISH WT. (g)	DRY SAMPLE + DISH WT. (g)	WET SAMPLE WT. (g)	DRY SAMPLE WT. (g)	% DRY WT.	COMMENTS
3/12/94	HCF	7248	A4724805	20	1.1257		2.0064	1.1533	0.8812	76.4	
		7253	A4735301	21	1.1468		1.9403	1.1489	0.7995	69.6	
		↓	↓ 01FD	22	1.1382		2.2561	1.6108	1.1179	69.4	
		7225	A4723501	23	1.1489		1.4637	1.2487	0.3148	25.2	
		↓	↓ 02	24	1.1380		1.5305	1.3880	0.3925	30.0	
		7242	A4734201	25	1.1262		3.3122	2.4662	2.186	88.6	
		↓	↓ 03	26	1.1376		2.4550	1.6612	1.3174	79.3	
			03FD	27	1.1341		2.7498.0	2.1066	1.6278	77.3	
			03MD	28	1.1213		2.6346	1.5383	1.5133	98.3	
			03	29	1.1304		2.1310	1.3734	1.0006	72.8	
			03MD	30	1.1419		2.5933	1.8334	1.4514	79.2	
			04	31	1.1125		2.5822	2.0680	1.7657	85.4	
			05	32	1.1193		3.0706	2.2834	1.9514	85.3	
			06	33	1.1441		1.3213	1.5284	0.1772	11.6	
			07	34	1.1285		2.3161	2.3786	1.1876	49.5	
			08	35	1.1175		2.4233	1.8235	1.3058	71.6	
			09	36	1.1203		1.9583	1.7540	0.838	47.8	
		↓	↓ 10	37	1.1369		1.6284	1.2142	0.4915	40.5	
		7277	A4727701	38	1.1376		3.0871	2.3178	1.9492	84.1	

RECRA
ENVIRONMENTAL

REFERENCE # 17
PAGE 323 OF 584

'011

RADIAN CORPORATION
ERDLE SITE
Wet Chemistry Analysis

Client Sample No.
SD-4

Lab Name: Recra Environmental, Inc. Contract: _____

Lab Code: RECNY Case No.: 5205 SAS No.: _____ SDG No.: S1

Matrix (soil/water): SOIL Lab Sample ID: A4724209

% Solids: 47.0 Date Samp/Recv: 12/08/94 12/09/94

Parameter Name	Units of Measure	Result	C	Q	M	Method Number	Analyzed Date
Leachable Total Organic Carbon	UG/G	200	U			9060	12/14/94

Comments:

RADIAN CORPORATION
ERDLE SITE
Wet Chemistry Analysis

)0117

Client Sample No.
SF-1

Lab Name: Recra Environmental, Inc. Contract: _____

Lab Code: RECNY Case No.: 5205 SAS No.: _____ SDG No.: S1

Matrix (soil/water): SOIL Lab Sample ID: A4724201

% Solids: 86.7 Date Samp/Recv: 12/08/94 12/09/94

Parameter Name	Units of Measure	Result	C	Q	M	Method Number	Analyzed Date
Leachable Total Organic Carbon	UG/G	6830				9060	12/13/94

Comments:

RADIAN CORPORATION
ERDLE SITE
Wet Chemistry Analysis

Client Sample No.
SF-2

Lab Name: Recra Environmental, Inc. Contract: _____

Lab Code: RECNY Case No.: 5205 SAS No.: _____ SDG No.: S1

Matrix (soil/water): SOIL Lab Sample ID: A4724202

% Solids: 80.6 Date Samp/Recv: 12/08/94 12/09/94

Parameter Name	Units of Measure	Result	C	Q	M	Method Number	Analyzed Date
Leachable Total Organic Carbon	UG/G	6540				9060	12/13/94

Comments:

00113

RADIAN CORPORATION
ERDLE SITE
Wet Chemistry Analysis

Client Sample No.
SF-2 FD

Lab Name: Recra Environmental, Inc. Contract: _____

Lab Code: RECNY Case No.: 5205 SAS No.: _____ SDG No.: S1

Matrix (soil/water): SOIL Lab Sample ID: A4724202FD

% Solids: 80.6 Date Samp/Recv: 12/08/94 12/09/94

Parameter Name	Units of Measure	Result	C	Q	M	Method Number	Analyzed Date
Leachable Total Organic Carbon	UG/G	7150				9060	12/13/94

Comments:

RADIAN CORPORATION
ERDLE SITE
Wet Chemistry Analysis

)0120

Client Sample No.

SF-3

Lab Name: Recra Environmental, Inc. Contract: _____

Lab Code: RECNY Case No.: 5205 SAS No.: _____ SDG No.: S1

Matrix (soil/water): SOIL Lab Sample ID: A4724203

% Solids: 74.6 Date Samp/Recv: 12/08/94 12/09/94

Parameter Name	Units of Measure	Result	C	Q	M	Method Number	Analyzed Date
Leachable Total Organic Carbon	UG/G	6120				9060	12/13/94

Comments:

RADIAN CORPORATION
ERDLE SITE
Wet Chemistry Analysis

Client Sample No.
SW-2

Lab Name: Recra Environmental, Inc. Contract: _____

Lab Code: RECNY Case No.: 5205 SAS No.: _____ SDG No.: S1

Matrix (soil/water): WATER Lab Sample ID: A4725005

% Solids: 0.0 Date Samp/Recv: 12/08/94 12/09/94

Parameter Name	Units of Measure	Result	C	Q	M	Method Number	Analyzed Date
Total Hardness	MG/L*	595				130.2	12/15/94

Comments:

RADIAN CORPORATION
ERDLE SITE
METHOD 8240 - TCL VOLATILES
WATER SURROGATE RECOVERY

Lab Name: Recra Environmental Contract: _____

Lab Code: RECNY Case No.: 5205 SAS No.: _____ SDG No.: S1

	Client Sample ID	TOL %REC	#	BFB %REC	#	DCE %REC	#						TOT OUT
1	RB-1	91		92		103							0
2	SW-2	88		91		108							0
3	TB-1	96		99		108							0
4	VBLK38	91		95		109							0

			QC LIMITS
TOL	=	Toluene-D8	(88-110)
BFB	=	p-Bromofluorobenzene	(86-115)
DCE	=	1,2-Dichloroethane-D4	(76-114)

Column to be used to flag recovery values
* Values outside of contract required QC limits
D Surrogates diluted out

RADIAN CORPORATION
ERDLE SITE
METHOD 8240 - TCL VOLATILES
SOIL SURROGATE RECOVERY

Lab Name: Recra Environmental Contract: _____

Lab Code: RECNY Case No.: 5205 SAS No.: _____ SDG No.: S1

Level (low/med): LOW

	Client Sample ID	DCE %REC #	TOL %REC #	BFB %REC #						TOT OUT
1	MATRIX SPIKE BLANK 3	93	97	100						0
2	S-1	104	101	93						0
3	SD-1	87	110	83						0
4	SD-2	98	96	92						0
5	SD-4	102	105	97						0
6	SF-1	87	102	86						0
7	SF-1 MS	88	101	87						0
8	SF-1 MSD	89	99	91						0
9	VBLK41	102	99	106						0
10	VBLK43	94	94	105						0

		QC LIMITS
DCE	= 1,2-Dichloroethane-D4	(70-121)
TOL	= Toluene-D8	(84-138)
BFB	= p-Bromofluorobenzene	(59-113)

Column to be used to flag recovery values
* Values outside of contract required QC limits
D Surrogates diluted out

RADIAN CORPORATION
ERDLE SITE
METHOD 8240 - TCL VOLATILES
SOIL SURROGATE RECOVERY

'0124

Lab Name: Recra Environmental Contract: _____

Lab Code: RECNY Case No.: 5205 SAS No.: _____ SDG No.: S1

Level (low/med): MED

	Client Sample ID	DCE %REC	#	TOL %REC	#	BFB %REC	#						TOT OUT
1	MATRIX SPIKE BLANK 1	111		93		93							0
2	SD-2 DL	117		85		106							0
3	SF-2	105		87		99							0
4	SF-2 DL	117		87		110							0
5	SF-2 FD	107		84		102							0
6	SF-2 FDDL	116		84		107							0
7	SF-2 MS	110		88		106							0
8	SF-2 MSD	117		76	*	101							1
9	VBLK38	109		91		95							0

		QC LIMITS
DCE	= 1,2-Dichloroethane-D4	(70-121)
TOL	= Toluene-D8	(84-138)
BFB	= p-Bromofluorobenzene	(59-113)

Column to be used to flag recovery values
* Values outside of contract required QC limits
D Surrogates diluted out

RADIAN CORPORATION
ERDLE SITE
METHOD 8270 - TCL SEMIVOLATILES
WATER SURROGATE RECOVERY

'0125

Lab Name: Recra Environmental Contract: _____

Lab Code: RECNY Case No.: 5205 SAS No.: _____ SDG No.: S1

	Client Sample ID	NBZ %REC	#	FBP %REC	#	TPH %REC	#	PHL %REC	#	2FP %REC	#	TBP %REC	#	2CP %REC	#	DCB %REC	#	TOT OUT
1	RB-1	95		99		118		83		94		104		91		96		0
2	SBLK 68	99		92		105		85		89		110		82		82		0
3	SW-2	86		79		53		79		90		99		90		91		0

			QC LIMITS
NBZ	=	Nitrobenzene-D5	(35-114)
FBP	=	2-Fluorobiphenyl	(43-116)
TPH	=	Terphenyl-D14	(33-141)
PHL	=	Phenol-D5	(10-110)
2FP	=	2-Fluorophenol	(21-110)
TBP	=	2,4,6-Tribromophenol	(10-123)
2CP	=	2-Chlorophenol-d4	(33-110)
DCB	=	1,2-Dichlorobenzene-d4	(16-110)

Column to be used to flag recovery values
* Values outside of contract required QC limits
D Surrogates diluted out

RADIAN CORPORATION
ERDLE SITE
METHOD 8270 - TCL SEMIVOLATILES
SOIL SURROGATE RECOVERY

Lab Name: Recra Environmental Contract: _____

Lab Code: RECNY Case No.: 5205 SAS No.: _____ SDG No.: S1

Level (low/med): LOW

	Client Sample ID	NBZ %REC	#	FBP %REC	#	TPH %REC	#	PHL %REC	#	2FP %REC	#	TBP %REC	#	2CP %REC	#	DCB %REC	#	TOT OUT
1	MATRIX SPIKE BLANK	70		77		102		71		75		92		75		69		0
2	S-1	81		689	*	62		56		56		88		70		66		1
3	S-1 RE	70		73		92		69		97		64		100		58		0
4	SBLK 84	71		71		94		69		74		71		70		67		0
5	SD-1	37		45		96		46		57		26		64		54		0
6	SD-2	44		38		98		61		72		60		68		61		0
7	SD-2 RE	37		66		113		44		49		29		64		63		0
8	SF-1	56		61		90		51		55		74		58		57		0
9	SF-2	64		70		151	*	66		68		84		69		68		1
10	SF-2 FD	50		54		148	*	49		42		69		54		53		1
11	SF-2 MS	62		65		210	*	61		63		81		62		60		1
12	SF-2 MSD	52		49		101		47		60		83		49		46		0
13	SF-3	61		57		187	*	57		56		71		58		58		1
14	SF-3 MS	78		55		78		57		65		67		58		61		0
15	SF-3 MSD	51		71		88		64		74		18	*	70		59		1

			QC LIMITS
NBZ	=	Nitrobenzene-D5	(23-120)
FBP	=	2-Fluorobiphenyl	(30-115)
TPH	=	Terphenyl-D14	(18-137)
PHL	=	Phenol-D5	(24-113)
2FP	=	2-Fluorophenol	(25-121)
TBP	=	2,4,6-Tribromophenol	(19-122)
2CP	=	2-Chlorophenol-d4	(20-130)
DCB	=	1,2-Dichlorobenzene-d4	(20-130)

Column to be used to flag recovery values
* Values outside of contract required QC limits
D Surrogates diluted out

RADIAN CORPORATION
ERDLE SITE
METHOD 8010 - HALOGENATED VOLATILE ORGANICS
WATER SURROGATE RECOVERY

Lab Name: Recra Environmental Contract: _____

Lab Code: RECNY Case No.: 5205 SAS No.: _____ SDG No.: S1

GC Column(1): RTX502.2 ID: 0.53 (mm) GC Column(2): 1% SP1000 ID.: 2.00 (mm)

	Client Sample ID	BCM 1 %REC	#	BCM 2 %REC	#							TOT OUT
1	RB-1	97		127	*							1
2	RB-2	99		125	*							1
3	SW-1	89		113								0
4	SW-3	56		115								0
5	SW-4	104		110								0
6	TB-1	87		102								0
7	VBLK	97		81								0
8	VBLK	92		100								0

QC LIMITS

(BCM) = Bromochloromethane (54-124)

Column to be used to flag recovery values
* Values outside of contract required QC limits
D Surrogates diluted out

RADIAN CORPORATION
ERDLE SITE
METHOD 8010 - HALOGENATED VOLATILE ORGANICS
WATER SURROGATE RECOVERY

0126.6

Lab Name: Recra Environmental Contract: _____

Lab Code: RECNY Case No.: 5205 SAS No.: _____ SDG No.: S1

GC Column(1): RTX502.2 ID: 0.53 (mm)

	Client Sample ID	BCM %REC #								TOT OUT
1	MATRIX SPIKE BLANK	98								0
2	MATRIX SPIKE BLANK	98								0

QC LIMITS

(BCM) = Bromochloromethane (54-124)

Column to be used to flag recovery values
* Values outside of contract required QC limits
D Surrogates diluted out

0127

RADIAN CORPORATION
ERDLE SITE
METHOD 8010 - HALOGENATED VOLATILE ORGANICS
SOIL SURROGATE RECOVERY

Lab Name: Recra Environmental Contract: _____

Lab Code: RECNY Case No.: 5205 SAS No.: _____ SDG No.: S1

GC Column(1): RTX-502.2 ID: 0.53 (mm) GC Column(2): 1% SP 1000 ID.: 2.00 (mm)

Level (low/med): MED

	Client Sample ID	BCM 1 %REC	#	BCM 2 %REC	#							TOT OUT
1	SF-3	93		85								0
2	SF-4	92		95								0
3	SF-5	103		82								0
4	VBLK	90		90								0

QC LIMITS

(BCM) = Bromochloromethane (54-124)

Column to be used to flag recovery values
* Values outside of contract required QC limits
D Surrogates diluted out

RADIAN CORPORATION
ERDLE SITE
METHOD 8020 - AROMATIC VOLATILE ORGANICS
WATER SURROGATE RECOVERY

0128.

Lab Name: Recra Environmental Contract: _____

Lab Code: RECNY Case No.: 5205 SAS No.: _____ SDG No.: S1

GC Column(1): RTX502.2 ID: 0.53 (mm) GC Column(2): 1% SP1000 ID.: 2.00 (mm)

	Client Sample ID	TFT 1 %REC #	TFT 2 %REC #							TOT OUT
1	RB-1	91	93							0
2	TB-1	98	91							0
3	VBLK	100	96							0
4	VBL	93	88							0

QC LIMITS

(TFT) = a,a,a-Trifluorotoluene (58-138)

Column to be used to flag recovery values
* Values outside of contract required QC limits
D Surrogates diluted out

0128

RADIAN CORPORATION
ERDLE SITE
METHOD 8020 - AROMATIC VOLATILE ORGANICS
WATER SURROGATE RECOVERY

Lab Name: Recra Environmental Contract: _____

Lab Code: RECNY Case No.: 5205 SAS No.: _____ SDG No.: S1

GC Column(1): RTX502.2 ID: 0.53 (mm)

	Client Sample ID	TFT %REC #								TOT OUT
1	MATRIX SPIKE BLANK	107								0
2	MATRIX SPIKE BLANK	97								0

QC LIMITS

(TFT) = a,a,a-Trifluorotoluene (58-138)

Column to be used to flag recovery values
* Values outside of contract required QC limits
D Surrogates diluted out

RADIAN CORPORATION
ERDLE SITE
METHOD 8010 - HALOGENATED VOLATILE ORGANICS
SOIL SURROGATE RECOVERY

Lab Name: Recra Environmental Contract: _____

Lab Code: RECNY Case No.: 5205 SAS No.: _____ SDG No.: S1

GC Column(1): RTX-502.2 ID: 0.53 (mm)

Level (low/med): MED

	Client Sample ID	BCM %REC #								TOT OUT
1	MATRIX SPIKE BLANK	115								0
2	SD-3	107								0
3	SF-3 MS	105								0
4	SF-3 MSD	105								0

QC LIMITS

(BCM) = Bromochloromethane (54-124)

Column to be used to flag recovery values
* Values outside of contract required QC limits
D Surrogates diluted out

RADIAN CORPORATION
ERDLE SITE
METHOD 8020 - AROMATIC VOLATILE ORGANICS
SOIL SURROGATE RECOVERY

Lab Name: Recra Environmental Contract: _____

Lab Code: RECNY Case No.: 5205 SAS No.: _____ SDG No.: S1

GC Column(1): RTX-502.2 ID: 0.53 (mm) GC Column(2): 1% SP 1000 ID.: 2.00 (mm)

Level (low/med): MED

	Client Sample ID	TFT 1 %REC	#	TFT 2 %REC	#							TOT OUT
1	SF-3	98		85								0
2	VBLK	101		88								0

QC LIMITS

(TFT) = a,a,a-Trifluorotoluene (54-134)

Column to be used to flag recovery values
* Values outside of contract required QC limits
D Surrogates diluted out

9130

2E
WATER PESTICIDE SURROGATE RECOVERY

ab Name: RECRA ENVIRON Contract: NY95-008

Lab Code: RECNY Case No.: 5205 SAS No.: _____ SDG No.: S1

GC Column(1): DB608 ID: 0.53(mm) GC Column(2): DB1701 ID: 0.53(mm)

	EPA SAMPLE NO.	TCX 1 %REC #	TCX 2 %REC #	DCB 1 %REC #	DCB 2 %REC #	OTHER (1)	OTHER (2)	TOT OUT
01	PBLK12	85	88	70	71			0
02	MSB	66	66	66	65			0
03	MSBD	89	88	98	98			0
04	RB1	70	70	56*	57*			2
05	SW2	80	80	57*	53*			2

	ADVISORY QC LIMITS
TCX = Tetrachloro-m-xylene	(60-150)
DCB = Decachlorobiphenyl	(60-150)

Column to be used to flag recovery values
* Values outside of contract required QC limits
D Surrogate diluted out

2F
SOIL PESTICIDE SURROGATE RECOVERY

'0131

Lab Name: RECRA ENVIRON Contract: NY95-008

Lab Code: RECNY Case No.: 5205 SAS No.: _____ SDG No.: S1

GC Column(1): DB608 ID: 0.53 (mm) GC Column(2): DB1701 ID: 0.53 (mm)

	EPA SAMPLE NO.	TCX 1 %REC #	TCX 2 %REC #	DCB 1 %REC #	DCB 2 %REC #	OTHER (1)	OTHER (2)	TOT OUT
01	PBLK13	54*	52*	58*	60			3
02	MSB01	83	82	90	91			0
03	S1	69	70	98	64			0
04	SD1	102	105	109	114			0
05	SD2	76	77	72	74			0
06	SF1	79	82	88	88			0
07	SF2	98	100	111	114			0
08	SF2FD	74	76	86	88			0
09	SF2MS	72	72	80	86			0
10	SF2MSD	102	104	112	116			0

	ADVISORY QC LIMITS
TCX = Tetrachloro-m-xylene	(60-150)
DCB = Decachlorobiphenyl	(60-150)

Column to be used to flag recovery values
* Values outside of contract required QC limits
D Surrogate diluted out

'013:

RADIAN CORPORATION
ERDLE SITE
METHOD 8240 - TCL VOLATILES
SOIL MATRIX SPIKE BLANK RECOVERY

Lab Name: Recra Environmental, Inc. Contract: _____ Lab Samp ID: A4724215

Lab Code: RECNY Case No.: 5205 SAS No.: _____ SDG No.: S1

Matrix Spike - Client Sample No.: ~~[illegible]~~ MSBLANK1 Level: (low/med) MED

1/19/95

COMPOUND	SPIKE ADDED UG/KG	MSB CONCENTRATION UG/KG	MSB % REC #	QC LIMITS REC.
1,1-Dichloroethene	6200	5800	94	59 - 172
Trichloroethene	6200	6400	103	62 - 137
Benzene	6200	6700	108	66 - 142
Toluene	6200	6100	98	59 - 139
Chlorobenzene	6200	6400	103	60 - 133

Column to be used to flag recovery and RPD values with an asterisk

* Values outside of QC limits

Spike recovery: 0 out of 5 outside limits

Comments: _____

RADIAN CORPORATION
ERDLE SITE
METHOD 8240 - TCL VOLATILES
SOIL MATRIX SPIKE BLANK RECOVERY

Lab Name: Recra Environmental, Inc. Contract: _____ Lab Samp ID: A4B039170

Lab Code: RECNY Case No.: 5205 SAS No.: _____ SDG No.: S1

Matrix Spike - Client Sample No.: ~~VBLK43~~ MSBLANK3 Level: (low/med) LOW

MTA 1/19/95

COMPOUND	SPIKE ADDED UG/KG	MSB CONCENTRATION UG/KG	MSB % REC #	QC LIMITS REC.
1,1-Dichloroethene	50	47	94	59 - 172
Trichloroethene	50	43	86	62 - 137
Benzene	50	44	88	66 - 142
Toluene	50	43	86	59 - 139
Chlorobenzene	50	44	88	60 - 133

Column to be used to flag recovery and RPD values with an asterisk

* Values outside of QC limits

Spike recovery: 0 out of 5 outside limits

Comments: _____

RADIAN CORPORATION
ERDLE SITE
METHOD 8240 - TCL VOLATILES
SOIL MATRIX SPIKE/MATRIX SPIKE DUPLICATE RECOVERY

Name: Recra Environmental, Inc. Contract: _____ Lab Samp ID: A4724201

Lab Code: RECNY Case No.: 5205 SAS No.: _____ SDG No.: S1

Matrix Spike - Client Sample No.: SF-1 Level: (low/med) LOW

COMPOUND	SPIKE ADDED UG/KG	SAMPLE CONCENTRATION UG/KG	MS CONCENTRATION UG/KG	MS % REC #	QC LIMITS REC.
1,1-Dichloroethene	55	0	45	82	59 - 172
Trichloroethene	55	10	52	76	62 - 137
Benzene	55	0	43	78	66 - 142
Toluene	55	0	43	78	59 - 139
Chlorobenzene	55	0	41	74	60 - 133

COMPOUND	SPIKE ADDED UG/KG	MSD CONCENTRATION UG/KG	MSD % REC #	% RPD #	QC LIMITS RPD	QC LIMITS REC.
1,1-Dichloroethene	55	52	94	14	22	59 - 172
Trichloroethene	55	61	93	20	24	62 - 137
Benzene	55	48	87	11	21	66 - 142
Toluene	55	48	87	11	21	59 - 139
Chlorobenzene	55	47	85	14	21	60 - 133

Column to be used to flag recovery and RPD values with an asterisk

* Values outside of QC limits

RPD: 0 out of 5 outside limits
Spike recovery: 0 out of 10 outside limits

Comments: _____

RADIAN CORPORATION
ERDLE SITE
METHOD 8240 - TCL VOLATILES
SOIL MATRIX SPIKE/MATRIX SPIKE DUPLICATE RECOVERY

Lab Name: Recra Environmental, Inc. Contract: _____ Lab Samp ID: A4724202

Lab Code: RECNY Case No.: 5205 SAS No.: _____ SDG No.: S1

Matrix Spike - Client Sample No.: SF-2 Level: (low/med) MED

COMPOUND	SPIKE ADDED UG/KG	SAMPLE CONCENTRATION UG/KG	MS CONCENTRATION UG/KG	MS % REC #	QC LIMITS REC.
1,1-Dichloroethene	7700	0	7600	99	59 - 172
Trichloroethene	7700	2800	10000	94	62 - 137
Benzene	7700	0	7000	91	66 - 142
Toluene	7700	60	6800	88	59 - 139
Chlorobenzene	7700	0	7600	99	60 - 133

COMPOUND	SPIKE ADDED UG/KG	MSD CONCENTRATION UG/KG	MSD % REC #	% RPD #	QC LIMITS RPD	QC LIMITS REC.
1,1-Dichloroethene	7700	7900	102	3	22	59 - 172
Trichloroethene	7700	11000	106	12	24	62 - 137
Benzene	7700	7100	92	1	21	66 - 142
Toluene	7700	6000	77	13	21	59 - 139
Chlorobenzene	7700	7100	92	7	21	60 - 133

Column to be used to flag recovery and RPD values with an asterisk

* Values outside of QC limits

RPD: 0 out of 5 outside limits
Spike recovery: 0 out of 10 outside limits

Comments: _____

RADIAN CORPORATION
ERDLE SITE
METHOD 8270 - TCL SEMIVOLATILES
SOIL MATRIX SPIKE BLANK RECOVERY

Name: Recra Environmental, Inc. Contract: _____ Lab Samp ID: A4B0375T01

Lab Code: RECNY Case No.: 5205 SAS No.: _____ SDG No.: S1

Matrix Spike - Client Sample No.: ~~SBLK 84~~ MS BLANK Level: (low/med) LOW

MTM 11/14/95

COMPOUND	SPIKE ADDED UG/KG	MSB CONCENTRATION UG/KG	MSB % REC #	QC LIMITS REC.
Phenol	2500	1600	64	26 - 90
2-Chlorophenol	2500	2000	80	25 - 102
1,4-Dichlorobenzene	1700	1100	65	28 - 104
N-Nitroso-Di-n-propyl(1)	1700	760	45	41 - 126
1,2,4-Trichlorobenzene	1700	1300	76	38 - 107
4-Chloro-3-methylphenol	2500	2200	88	26 - 103
Acenaphthene	1700	1300	76	31 - 137
4-Nitrophenol	2500	1800	72	11 - 114
2,4-Dinitrotoluene	1700	1300	76	28 - 89
Pentachlorophenol	2500	2000	80	17 - 109
Pyrene	1700	1400	82	35 - 142

(1) N-Nitroso-Di-n-propylamine

olumn to be used to flag recovery and RPD values with an asterisk

* Values outside of QC limits

Spike recovery: 0 out of 11 outside limits

Comments: _____

RADIAN CORPORATION
ERDLE SITE
METHOD 8270 - TCL SEMIVOLATILES
SOIL MATRIX SPIKE/MATRIX SPIKE DUPLICATE RECOVERY

)0137

Lab Name: Recra Environmental, Inc. Contract: _____ Lab Samp ID: A4724202

Lab Code: RECNY Case No.: 5205 SAS No.: _____ SDG No.: S1

Matrix Spike - Client Sample No.: SF-2 Level: (low/med) LOW

COMPOUND	SPIKE ADDED UG/KG	SAMPLE CONCENTRATION UG/KG	MS CONCENTRATION UG/KG	MS % REC #	QC LIMITS REC.
Phenol	3000	0	1800	60	26 - 90
2-Chlorophenol	3000	0	1900	63	25 - 102
1,4-Dichlorobenzene	2000	0	1200	60	28 - 104
N-Nitroso-Di-n-propyl(1)	2000	0	900	45	41 - 126
1,2,4-Trichlorobenzene	2000	0	1500	75	38 - 107
4-Chloro-3-methylphenol	3000	0	2300	77	26 - 103
Acenaphthene	2000	0	1400	70	31 - 137
4-Nitrophenol	3000	0	2000	67	11 - 114
2,4-Dinitrotoluene	2000	0	1100	55	28 - 89
Pentachlorophenol	3000	0	710	24	17 - 109
Pyrene	2000	0	4000	200 *	35 - 142

COMPOUND	SPIKE ADDED UG/KG	MSD CONCENTRATION UG/KG	MSD % REC #	% RPD #	QC LIMITS RPD	QC LIMITS REC.
Phenol	3000	1400	47	24	35	26 - 90
2-Chlorophenol	3000	1500	50	23	50	25 - 102
1,4-Dichlorobenzene	2000	990	50	18	27	28 - 104
N-Nitroso-Di-n-propyl(1)	2000	680	34 *	28	38	41 - 126
1,2,4-Trichlorobenzene	2000	1100	55	31 *	23	38 - 107
4-Chloro-3-methylphenol	3000	1800	60	25	33	26 - 103
Acenaphthene	2000	1100	55	24 *	19	31 - 137
4-Nitrophenol	3000	2500	83	21	50	11 - 114
2,4-Dinitrotoluene	2000	990	50	10	47	28 - 89
Pentachlorophenol	3000	970	32	28	47	17 - 109
Pyrene	2000	1900	95	71 *	36	35 - 142

(1) N-Nitroso-Di-n-propylamine

Column to be used to flag recovery and RPD values with an asterisk

* Values outside of QC limits

RPD: 3 out of 11 outside limits
Spike recovery: 2 out of 22 outside limits

Comments: _____

RADIAN CORPORATION
ERDLE SITE
METHOD 8270 - TCL SEMIVOLATILES
SOIL MATRIX SPIKE/MATRIX SPIKE DUPLICATE RECOVERY

00138

Lab Name: Recra Environmental, Inc. Contract: _____ Lab Samp ID: A4724203

Lab Code: RECNY Case No.: 5205 SAS No.: _____ SDG No.: S1

Matrix Spike - Client Sample No.: SF-3 Level: (low/med) LOW

COMPOUND	SPIKE ADDED UG/KG	SAMPLE CONCENTRATION UG/KG	MS CONCENTRATION UG/KG	MS % REC #	QC LIMITS REC.
Phenol	3300	0	1800	54	26 - 90
2-Chlorophenol	3300	0	1900	58	25 - 102
1,4-Dichlorobenzene	2200	0	1300	59	28 - 104
N-Nitroso-Di-n-propyl(1)	2200	0	950	43	41 - 126
1,2,4-Trichlorobenzene	2200	0	1700	77	38 - 107
4-Chloro-3-methylphenol	3300	0	2800	85	26 - 103
Acenaphthene	2200	0	440	20 *	31 - 137
4-Nitrophenol	3300	0	0	0 *	11 - 114
2,4-Dinitrotoluene	2200	0	0	0 *	28 - 89
Pentachlorophenol	3300	0	690	21	17 - 109
Pyrene	2200	380	2100	78	35 - 142

COMPOUND	SPIKE ADDED UG/KG	MSD CONCENTRATION UG/KG	MSD % REC #	% RPD #	QC LIMITS RPD	QC LIMITS REC.
Phenol	3300	2100	64	17	35	26 - 90
2-Chlorophenol	3300	2600	79	31	50	25 - 102
1,4-Dichlorobenzene	2200	1400	64	8	27	28 - 104
N-Nitroso-Di-n-propyl(1)	2200	750	34 *	23	38	41 - 126
1,2,4-Trichlorobenzene	2200	1200	54	35 *	23	38 - 107
4-Chloro-3-methylphenol	3300	1800	54	45 *	33	26 - 103
Acenaphthene	2200	1700	77	118 *	19	31 - 137
4-Nitrophenol	3300	0	0 *	0	50	11 - 114
2,4-Dinitrotoluene	2200	0	0 *	0	47	28 - 89
Pentachlorophenol	3300	640	19	10	47	17 - 109
Pyrene	2200	1800	64	20	36	35 - 142

(1) N-Nitroso-Di-n-propylamine

Column to be used to flag recovery and RPD values with an asterisk

* Values outside of QC limits

RPD: 3 out of 11 outside limits
Spike recovery: 6 out of 22 outside limits

Comments: _____

RADIAN CORPORATION
ERDLE SITE
METHOD 8010 - HALOGENATED VOLATILE ORGANICS
SOIL MATRIX SPIKE/MATRIX SPIKE DUPLICATE RECOVERY

Lab Name: Recra Environmental, Inc. Contract: _____ Lab Samp ID: A4724203

Lab Code: RECNY Case No.: 5205 SAS No.: _____ SDG No.: S1

Matrix Spike - Client Sample No.: SF-3 Level: (low/med) MED

COMPOUND	SPIKE ADDED UG/KG	SAMPLE CONCENTRATION UG/KG	MS CONCENTRATION UG/KG	MS % REC #	QC LIMITS REC.	+ =
Bromodichloromethane	220	0	270	123	70 - 130	
Bromoform	220	0	250	114	70 - 130	
Bromomethane	220	0	260	118	70 - 130	
Carbon Tetrachloride	220	0	240	109	29 - 173	
Chlorobenzene	440	0	390	89	63 - 135	
Chloroethane	220	0	260	118	70 - 130	
2-Chloroethylvinyl ether	220	0	240	109	70 - 130	
Chloroform	220	0	310	141 *	64 - 140	
Chloromethane	440	0	660	150 *	72 - 120	
Dibromochloromethane	220	0	220	100	70 - 130	
1,2-Dichlorobenzene	440	0	380	86	55 - 121	
1,3-Dichlorobenzene	440	0	410	93	70 - 118	
1,4-Dichlorobenzene	440	0	390	89	50 - 130	
1,1-Dichloroethane	220	0	220	100	47 - 141	
1,2-Dichloroethane	220	0	230	104	70 - 130	
1,1-Dichloroethene	220	0	270	123	57 - 133	
trans-1,2-Dichloroethene	220	0	250	114	51 - 141	
1,2-Dichloropropane	220	0	220	100	70 - 130	
cis-1,3-Dichloropropene	220	0	240	109	70 - 130	
trans-1,3-Dichloropro(1)	220	0	230	104	70 - 130	
Methylene chloride	220	20	260	109	66 - 132	
1,1,2,2-Tetrachloroet(2)	220	0	220	100	48 - 146	
Tetrachloroethene	220	0	230	104	47 - 149	
1,1,1-Trichloroethane	220	0	250	114	58 - 136	
1,1,2-Trichloroethane	220	0	220	100	18 - 158	
Trichloroethene	220	0	250	114	51 - 163	
Vinyl chloride	440	0	660	150 *	72 - 120	
Trichlorofluoromethane	220	0	240	109	70 - 130	

COMPOUND	SPIKE ADDED UG/KG	MSD CONCENTRATION UG/KG	MSD % REC #	% RPD #	QC LIMITS RPD	QC LIMITS REC.	+ =
Bromodichloromethane	220	270	123	0	30	70 - 130	
Bromoform	220	260	118	3	30	70 - 130	
Bromomethane	220	260	118	0	30	70 - 130	
Carbon Tetrachloride	220	250	114	4	30	29 - 173	
Chlorobenzene	440	400	91	2	30	63 - 135	
Chloroethane	220	220	100	16	30	70 - 130	
2-Chloroethylvinyl ether	220	260	118	8	30	70 - 130	
Chloroform	220	320	145 *	3	30	64 - 140	
Chloromethane	440	680	154 *	3	30	72 - 120	
Dibromochloromethane	220	230	104	4	30	70 - 130	

RADIAN CORPORATION
ERDLE SITE
METHOD 8010 - HALOGENATED VOLATILE ORGANICS
WATER MATRIX SPIKE BLANK RECOVERY

0140.A

L Name: Recra Environmental, Inc. Contract: _____ Lab Samp ID: A4725014

L o Code: RECNY Case No.: 5205 SAS No.: _____ SDG No.: S1

Matrix Spike - Client Sample No.: VBLK

OMPOUND	SPIKE ADDED UG/L	MSB CONCENTRATION UG/L	MSB % REC #	QC LIMITS REC.	+
Bromodichloromethane	4.0	4.2	105	75 - 125	
romoform	4.0	4.0	100	75 - 125	
romomethane	4.0	4.6	115	75 - 125	
Carbon Tetrachloride	4.0	3.5	88	75 - 125	
hlorobenzene	8.0	6.0	75	75 - 125	
hloroethane	4.0	3.6	90	75 - 125	
2-Chloroethylvinyl ether	4.0	3.9	98	75 - 125	
Chloroform	4.0	4.4	110	75 - 125	
hloromethane	8.0	7.2	90	75 - 125	
Dibromochloromethane	4.0	3.4	85	75 - 125	
1,2-Dichlorobenzene	8.0	6.7	84	75 - 125	
1,3-Dichlorobenzene	8.0	6.5	81	75 - 125	
1,4-Dichlorobenzene	8.0	6.4	80	75 - 125	
1,1-Dichloroethane	4.0	3.2	80	75 - 125	
2-Dichloroethane	4.0	3.7	92	75 - 125	
1-Dichloroethene	4.0	3.8	95	75 - 125	
cis-1,3-Dichloropropene	4.0	3.7	92	75 - 125	
trans-1,2-Dichloroethene	4.0	3.6	90	75 - 125	
1,2-Dichloropropane	4.0	3.3	82	75 - 125	
trans-1,3-Dichloropro(1)	4.0	3.6	90	75 - 125	
Methylene chloride	4.0	3.9	98	75 - 125	
1,1,2,2-Tetrachloroet(2)	4.0	3.5	88	75 - 125	
Tetrachloroethene	4.0	3.4	85	75 - 125	
1,1,1-Trichloroethane	4.0	3.8	95	75 - 125	
1,1,2-Trichloroethane	4.0	3.3	82	75 - 125	
Trichloroethene	4.0	3.6	90	75 - 125	
Vinyl chloride	8.0	7.2	90	75 - 125	
Trichlorofluoromethane	4.0	3.7	92	75 - 125	

1) trans-1,3-Dichloropropene
(2) 1,1,2,2-Tetrachloroethane

Column to be used to flag recovery and RPD values with an asterisk

* Values outside of QC limits

Spike recovery: 0 out of 28 outside limits

Comments: _____

RADIAN CORPORATION
ERDLE SITE
METHOD 8010 - HALOGENATED VOLATILE ORGANICS
WATER MATRIX SPIKE BLANK RECOVERY

0142.6

Lab Name: Recra Environmental, Inc. Contract: _____ Lab Samp ID: A4725018

L) Code: RECNY Case No.: 5205 SAS No.: _____ SDG No.: S1

M-trix Spike - Client Sample No.: VBLK

COMPOUND	SPIKE ADDED UG/L	MSB CONCENTRATION UG/L	MSB % REC #	QC LIMITS REC.	+
Bromodichloromethane	4.0	4.2	105	75 - 125	
Bromoform	4.0	4.0	100	75 - 125	
Bromomethane	4.0	4.6	115	75 - 125	
Carbon Tetrachloride	4.0	3.5	88	75 - 125	
Chlorobenzene	8.0	6.0	75	75 - 125	
Chloroethane	4.0	3.6	90	75 - 125	
2-Chloroethylvinyl ether	4.0	3.9	98	75 - 125	
Chloroform	4.0	4.4	110	75 - 125	
Chloromethane	8.0	7.2	90	75 - 125	
Dibromochloromethane	4.0	3.4	85	75 - 125	
1,2-Dichlorobenzene	8.0	6.7	84	75 - 125	
1,3-Dichlorobenzene	8.0	6.5	81	75 - 125	
1,4-Dichlorobenzene	8.0	6.4	80	75 - 125	
1,1-Dichloroethane	4.0	3.2	80	75 - 125	
1,2-Dichloroethane	4.0	3.7	92	75 - 125	
1,1-Dichloroethene	4.0	3.8	95	75 - 125	
cis-1,3-Dichloropropene	4.0	3.7	92	75 - 125	
trans-1,2-Dichloroethene	4.0	3.6	90	75 - 125	
1,2-Dichloropropane	4.0	3.3	82	75 - 125	
trans-1,3-Dichloropro(1)	4.0	3.6	90	75 - 125	
Methylene chloride	4.0	3.9	98	75 - 125	
1,1,2,2-Tetrachloroet(2)	4.0	3.5	88	75 - 125	
Tetrachloroethene	4.0	3.4	85	75 - 125	
1,1,1-Trichloroethane	4.0	3.8	95	75 - 125	
1,1,2-Trichloroethane	4.0	3.3	82	75 - 125	
Trichloroethene	4.0	3.6	90	75 - 125	
Vinyl chloride	8.0	7.2	90	75 - 125	
Trichlorofluoromethane	4.0	3.7	92	75 - 125	

(1) trans-1,3-Dichloropropene
(2) 1,1,2,2-Tetrachloroethane

Column to be used to flag recovery and RPD values with an asterisk

* Values outside of QC limits

Spike recovery: 0 out of 28 outside limits

Comments: _____

RADIAN CORPORATION
ERDLE SITE
METHOD 8010 - HALOGENATED VOLATILE ORGANICS
SOIL MATRIX SPIKE/MATRIX SPIKE DUPLICATE RECOVERY

)0140

Lab Name: Recra Environmental, Inc. Contract: _____ Lab Samp ID: A4724203

Lab Code: RECNY Case No.: 5205 SAS No.: _____ SDG No.: S1

Matrix Spike - Client Sample No.: SF-3 Level: (low/med) MED

COMPOUND	SPIKE ADDED UG/KG	MSD CONCENTRATION UG/KG	MSD % REC	#	% RPD	#	QC LIMITS RPD	QC LIMITS REC.	+
1,2-Dichlorobenzene	440	380	86		0		30	55 - 121	
1,3-Dichlorobenzene	440	410	93		0		30	70 - 118	
1,4-Dichlorobenzene	440	390	89		0		30	50 - 130	
1,1-Dichloroethane	220	230	104		4		30	47 - 141	
1,2-Dichloroethane	220	240	109		5		30	70 - 130	
1,1-Dichloroethene	220	290	132		7		30	57 - 133	
trans-1,2-Dichloroethene	220	260	118		3		30	51 - 141	
1,2-Dichloropropane	220	220	100		0		30	70 - 130	
cis-1,3-Dichloropropene	220	240	109		0		30	70 - 130	
trans-1,3-Dichloropro(1)	220	250	114		9		30	70 - 130	
Methylene chloride	220	260	109		0		30	66 - 132	
1,1,2,2-Tetrachloroet(2)	220	240	109		9		30	48 - 146	
Tetrachloroethene	220	240	109		5		30	47 - 149	
1,1,1-Trichloroethane	220	260	118		3		30	58 - 136	
1,2-Trichloroethane	220	230	104		4		30	18 - 158	
ichloroethene	220	290	132		15		30	51 - 163	
Vinyl chloride	440	680	154	*	3		30	72 - 120	
Trichlorofluoromethane	220	260	118		8		30	70 - 130	

(1) trans-1,3-Dichloropropene
(2) 1,1,2,2-Tetrachloroethane

Column to be used to flag recovery and RPD values with an asterisk

* Values outside of QC limits

RPD: 0 out of 28 outside limits
Spike recovery: 6 out of 56 outside limits

Comments: _____

RADIAN CORPORATION
ERDLE SITE
METHOD 8010 - HALOGENATED VOLATILE ORGANICS
SOIL MATRIX SPIKE BLANK RECOVERY

00141

Lab Name: Recra Environmental, Inc. Contract: _____ Lab Samp ID: A4724217

Lab Code: RECNY Case No.: 5205 SAS No.: _____ SDG No.: S1

Matrix Spike - Client Sample No.: VBLK Level: (low/med) MED

COMPOUND	SPIKE ADDED UG/KG	MSB CONCENTRATION UG/KG	MSB % REC #	QC LIMITS REC.	+
Bromodichloromethane	200	240	120	75 - 125	
Bromoform	200	220	110	75 - 125	
Bromomethane	200	240	120	75 - 125	
Carbon Tetrachloride	200	230	115	75 - 125	
Chlorobenzene	400	340	85	75 - 125	
Chloroethane	200	250	125	75 - 125	
2-Chloroethylvinyl ether	200	240	120	75 - 125	
Chloroform	200	260	130 *	75 - 125	
Chloromethane	400	450	112	75 - 125	
Dibromochloromethane	200	180	90	75 - 125	
1,2-Dichlorobenzene	400	390	98	75 - 125	
1,3-Dichlorobenzene	400	370	92	75 - 125	
1,4-Dichlorobenzene	400	360	90	75 - 125	
1,1-Dichloroethane	200	210	105	75 - 125	
1,2-Dichloroethane	200	220	110	75 - 125	
1,1-Dichloroethene	200	250	125	75 - 125	
trans-1,2-Dichloroethene	200	230	115	75 - 125	
1,2-Dichloropropane	200	210	105	75 - 125	
cis-1,3-Dichloropropene	200	240	120	75 - 125	
trans-1,3-Dichloropro(1)	200	200	100	75 - 125	
Methylene chloride	200	250	125	75 - 125	
1,1,2,2-Tetrachloroet(2)	200	200	100	75 - 125	
Tetrachloroethene	200	190	95	75 - 125	
1,1,1-Trichloroethane	200	250	125	75 - 125	
1,1,2-Trichloroethane	200	190	95	75 - 125	
Trichloroethene	200	230	115	75 - 125	
Vinyl chloride	400	450	112	75 - 125	
Trichlorofluoromethane	200	240	120	75 - 125	

(1) trans-1,3-Dichloropropene
(2) 1,1,2,2-Tetrachloroethane

Column to be used to flag recovery and RPD values with an asterisk

* Values outside of QC limits

Spike recovery: 1 out of 28 outside limits

Comments: _____

RADIAN CORPORATION
ERDLE SITE
METHOD 8020 - AROMATIC VOLATILE ORGANICS
WATER MATRIX SPIKE BLANK RECOVERY

0142

Lab Name: Recra Environmental, Inc. Contract: _____ Lab Samp ID: A4725014

Lab Code: RECNY Case No.: 5205 SAS No.: _____ SDG No.: S1

Matrix Spike - Client Sample No.: VBLK

COMPOUND	SPIKE ADDED UG/L	MSB CONCENTRATION UG/L	MSB % REC #	QC LIMITS REC.	+ -
Benzene	4.0	4.9	122	75 - 125	
Chlorobenzene	4.0	4.7	118	75 - 125	
1,2-Dichlorobenzene	4.0	4.9	122	75 - 125	
1,3-Dichlorobenzene	4.0	5.0	125	75 - 125	
1,4-Dichlorobenzene	4.0	5.0	125	75 - 125	
Ethyl Benzene	4.0	4.6	115	75 - 125	
m-Xylene	8.0	8.8	110	75 - 125	
o-Xylene	4.0	4.5	112	75 - 125	
p-Xylene	8.0	8.8	110	75 - 125	
Toluene	4.0	4.8	120	75 - 125	

Column to be used to flag recovery and RPD values with an asterisk

Values outside of QC limits

Spike recovery: 0 out of 10 outside limits

Comments: _____

RADIAN CORPORATION
ERDLE SITE
METHOD 8020 - AROMATIC VOLATILE ORGANICS
WATER MATRIX SPIKE BLANK RECOVERY

0142.B

Lab Name: Recra Environmental, Inc. Contract: _____ Lab Samp ID: A4725018

I b Code: RECNY Case No.: 5205 SAS No.: _____ SDG No.: S1

Matrix Spike - Client Sample No.: VBLK

OMPOUND	SPIKE ADDED UG/L	MSB CONCENTRATION UG/L	MSB % REC #	QC LIMITS REC.	+
Benzene	4.0	4.2	105	75 - 125	
hlorobenzene	4.0	4.0	100	75 - 125	
,2-Dichlorobenzene	4.0	4.6	115	75 - 125	
1,3-Dichlorobenzene	4.0	4.3	108	75 - 125	
,4-Dichlorobenzene	4.0	4.2	105	75 - 125	
thyl benzene	4.0	3.8	95	75 - 125	
m-Xylene	8.0	7.5	94	75 - 125	
o-Xylene	4.0	3.6	90	75 - 125	
-Xylene	8.0	7.5	94	75 - 125	
oluene	4.0	4.1	102	75 - 125	

Column to be used to flag recovery and RPD values with an asterisk

Values outside of QC limits

pike recovery: 0 out of 10 outside limits

omments: _____

RADIAN CORPORATION
ERDLE SITE
METHOD 8020 - AROMATIC VOLATILE ORGANICS
SOIL SURROGATE RECOVERY

10142

Lab Name: Recra Environmental Contract: _____

Lab Code: RECNY Case No.: 5205 SAS No.: _____ SDG No.: S1

GC Column(1): RTX-502.2 ID: 0.53 (mm)

Level (low/med): MED

	Client Sample ID	TFT %REC #								TOT OUT
1	MATRIX SPIKE BLANK	107								0
2	SF-3 MS	124								0
3	SF-3 MSD	124								0

QC LIMITS

(TFT) = a,a,a-Trifluorotoluene (54-134)

Column to be used to flag recovery values
* Values outside of contract required QC limits
D Surrogates diluted out

RADIAN CORPORATION
ERDLE SITE
METHOD 8020 - AROMATIC VOLATILE ORGANICS
SOIL MATRIX SPIKE/MATRIX SPIKE DUPLICATE RECOVERY

Lab Name: Recra Environmental, Inc. Contract: _____ Lab Samp ID: A4724203

Lab Code: RECNY Case No.: 5205 SAS No.: _____ SDG No.: S1

Matrix Spike - Client Sample No.: SF-3 Level: (low/med) MED

COMPOUND	SPIKE ADDED UG/KG	SAMPLE CONCENTRATION UG/KG	MS CONCENTRATION UG/KG	MS % REC #	QC LIMITS REC.	+
Benzene	220	16	300	129 *	66 - 124	
Chlorobenzene	440	33	490	104	76 - 136	
1,2-Dichlorobenzene	440	0	650	148 *	55 - 121	
1,3-Dichlorobenzene	440	0	510	116	70 - 118	
1,4-Dichlorobenzene	440	0	640	145 *	50 - 130	
Ethyl benzene	220	43	250	94	63 - 125	
m-Xylene	440	41	480	100	29 - 141	1
o-Xylene	220	73	270	90	44 - 144	
p-Xylene	440	0	480	109	29 - 141	1
Toluene	220	250	500	114	39 - 135	

+ Compounds Coelute: (1)

COMPOUND	SPIKE ADDED UG/KG	MSD CONCENTRATION UG/KG	MSD % REC #	% RPD #	QC LIMITS RPD	QC LIMITS REC.	+
Benzene	220	310	134 *	4	30	66 - 124	
Chlorobenzene	440	490	104	0	30	76 - 136	
1,2-Dichlorobenzene	440	690	157 *	6	30	55 - 121	
1,3-Dichlorobenzene	440	520	118	2	30	70 - 118	
1,4-Dichlorobenzene	440	630	143 *	1	30	50 - 130	
Ethyl benzene	220	250	94	0	30	63 - 125	
m-Xylene	440	460	95	5	30	29 - 141	
o-Xylene	220	270	90	0	30	44 - 144	
p-Xylene	440	460	104	5	30	29 - 141	
Toluene	220	640	177 *	43 *	30	39 - 135	

Column to be used to flag recovery and RPD values with an asterisk

* Values outside of QC limits

RPD: 1 out of 10 outside limits
Spike recovery: 7 out of 20 outside limits

Comments: _____

RADIAN CORPORATION
ERDLE SITE
METHOD 8020 - AROMATIC VOLATILE ORGANICS
SOIL MATRIX SPIKE BLANK RECOVERY

)014

ɔ Name: Recra Environmental, Inc. Contract: _____ Lab Samp ID: A4724217

Lab Code: RECNY Case No.: 5205 SAS No.: _____ SDG No.: S1

Matrix Spike - Client Sample No.: VBLK Level: (low/med) MED

COMPOUND	SPIKE ADDED UG/KG	MSB CONCENTRATION UG/KG	MSB % REC #	QC LIMITS REC.	+
Benzene	200	250	125	75 - 125	
Chlorobenzene	200	240	120	75 - 125	
1,2-Dichlorobenzene	200	250	125	75 - 125	
1,3-Dichlorobenzene	200	250	125	75 - 125	
1,4-Dichlorobenzene	200	250	125	75 - 125	
Ethyl benzene	200	230	115	75 - 125	
m-Xylene	400	440	110	75 - 125	
o-Xylene	200	220	110	75 - 125	
p-Xylene	400	440	110	75 - 125	
Toluene	200	240	120	75 - 125	

Column to be used to flag recovery and RPD values with an asterisk

+ Values outside of QC limits

Spike recovery: 0 out of 10 outside limits

Comments: _____

3K

WATER PCB MSB RECOVERY

Lab Name: RECRA ENVIRONMENTAL Contract: NY95-008

Lab Code: RECNY Case No.: 5205 SAS No: ____ SDG No.: S1

Matrix Spike Blank ID: A4B0377403 Vial #: AW40008180

COMPOUND	SPIKE ADDED (ug/L)	MSB CONCENTRATION (ug/L)	MSB % REC #
AROCLOR 1242	10.0	11.0	110

Comments: _____

FORM III PEST-3

3K

WATER PCB MSBD RECOVERY

Lab Name: RECRA ENVIRONMENTAL Contract: NY95-008

Lab Code: RECNY Case No.: 5205 SAS No: ____ SDG No.: S1

Matrix Spike Blank Duplicate ID: A4B0377402 Vial #: AW40008184

COMPOUND	SPIKE ADDED (ug/L)	MSBD CONCENTRATION (ug/L)	MSBD % REC #
AROCLOR 1242	10.0	13.0	130

Comments: _____

FORM III PEST-3

3L

SOIL PCB MSB RECOVERY

Lab Name: RECRA ENVIRONMENTAL Contract: NY95-008

Lab Code: RECNY Case No.: 5205 SAS No: ____ SDG No.: S1

Matrix Spike Blank ID: A4724212 Vial #: AS40010655

COMPOUND	SPIKE ADDED (ug/Kg)	MSB CONCENTRATION (ug/Kg)	MSB % REC #
AROCLOR 1242	333	370	112

Comments: _____

FORM III PEST-3

3P
SOIL PCB MS & MSD RECOVERY

Lab Name: RECRA ENVIRONMENTAL, INC. Contract No.: NY95-008

Lab Code: RECNY Case No.: 5205 SAS No.: ____ SDG No.: S1

COMPOUND	SPIKE ADDED (UG/KG)	SAMPLE CONC. (UG/KG)	MS CONCENTRATION (UG/KG)	MS % REC #
Aroclor 1242	400	0	380	95

COMPOUND	SPIKE ADDED (UG/KG)	MSD CONCENTRATION (UG/KG)	MSD % REC #	% RPD
Aroclor 1242	410	530	129	30

COMMENTS: _____

FORM III PEST-3

0149

NYSDEC ASP

6
DUPLICATES

NYSDEC SAMPLE NO.

SF2D

Lab Name: RECRA_ENVIRONMENTAL_INC._ Contract: NY95-008__

Lab Code: RECNY_ Case No.: 5205_ SAS No.: _____ SDG No.: S1____

Matrix (soil/water): SOIL_ Level (low/med): LOW__

% Solids for Sample: _80.6 % Solids for Duplicate: _80.6

Concentration Units (ug/L or mg/kg dry weight): MG/KG

Analyte	Control Limit	Sample (S)	C	Duplicate (D)	C	RPD	Q	M
Aluminum		11125.4699		11756.3816		5.5		P
Antimony		9.8273	U	9.8273	U			P
Arsenic	2.5	4.8522		5.9553		20.4		P
Barium	49.1	103.9235		114.2422		9.5		P
Beryllium		0.7370	U	0.7370	U			P
Cadmium	1.2	1.2284	U	1.4741		200.0	*	P
Calcium	1228.4	5686.3130		7571.1864		28.4	*	P
Chromium		16.4607		17.1977		4.4		P
Cobalt		10.8100	B	10.3186	B	4.7		P
Copper		2.4568	U	2.4568	U			P
Iron		23479.3504		23750.8292		1.1		P
Lead		6.7341		8.2918		20.7	*	P
Magnesium	1228.4	5766.4054		6747.4142		15.7		P
Manganese		329.9511		429.9437		26.3	*	P
Mercury		0.1182	U	0.1182	U			CV
Nickel	9.8	21.8657		25.5509		15.5		P
Potassium		923.5192	B	979.0433	B	5.8		P
Selenium	1.2	1.1007	B	1.9360		55.0		P
Silver		2.4568	U	2.4568	U			P
Sodium		465.8133	B	506.3509	B	8.3		P
Thallium		0.8599	U	2.1595	B	200.0		P
Vanadium	12.3	24.8139		24.5682		1.0		P
Zinc		84.7603		90.6567		6.7		P
Cyanide		1.1930	U	1.1930	U			C

NYSDEC ASP

00150

5A
SPIKE SAMPLE RECOVERY

NYSDEC SAMPLE NO.

SF2S

Lab Name: RECRA_ENVIRONMENTAL_INC._ Contract: NY95-008__

Lab Code: RECNY_ Case No.: 5205_ SAS No.: _____ SDG No.: S1____

Matrix (soil/water): SOIL__ Level (low/med): LOW___

% Solids for Sample: _80.6

Concentration Units (ug/L or mg/kg dry weight): MG/KG

Analyte	Control Limit %R	Spiked Sample Result (SSR)	C	Sample Result (SR)	C	Spike Added (SA)	%R	Q	M
Aluminum									NR
Antimony	75-125	35.2357		9.8273	U	124.070	28.4	N	P
Arsenic	75-125	445.9628		4.8522		496.280	88.9		P
Barium	75-125	531.5136		103.9235		496.280	86.2		P
Beryllium	75-125	11.6625		0.7370	U	12.410	94.0		P
Cadmium	75-125	13.1514		1.2284	U	12.410	106.0		P
Calcium									NR
Chromium	75-125	56.5757		16.4607		49.630	80.8		P
Cobalt	75-125	124.0695		10.8100	B	124.070	91.3		P
Copper	75-125	53.8462		2.4568	U	62.030	86.8		P
Iron									NR
Lead	75-125	112.9504		6.7341		124.070	85.6		P
Magnesium									NR
Manganese	75-125	375.1861		329.9511		124.070	36.5	N	P
Mercury	75-125	0.6375		0.1182	U	0.590	108.1		CV
Nickel	75-125	128.7841		21.8657		124.070	86.2		P
Potassium									NR
Selenium	75-125	372.3350		1.1007	B	496.280	74.8	N	P
Silver	75-125	2.4814	U	2.4568	U	12.410	0.0	N	P
Sodium									NR
Thallium	75-125	445.0248		0.8599	U	496.280	89.7		P
Vanadium	75-125	128.7841		24.8139		124.070	83.8		P
Zinc	75-125	287.5931		84.7603		124.070	163.5	N	P
Cyanide	75-125	26.8954		1.1930	U	31.020	86.7		C

Comments:

FORM V (Part 1) - IN

NYSDEC ASP

5B
POST DIGEST SPIKE SAMPLE RECOVERY

NYSDEC SAMPLE NO.

SF2A

Lab Name: RECRA_ENVIRONMENTAL_INC._ Contract: NY95-008__

Lab Code: RECNY_ Case No.: 5205_ SAS No.: _____ SDG No.: S1____

Matrix (soil/water): SOIL_ Level (low/med): LOW__

Concentration Units: ug/L

Analyte	Control Limit %R	Spiked Sample Result (SSR)	C	Sample Result (SR)	C	Spike Added (SA)	%R	Q	M
Aluminum									NR
Antimony		9651.00		40.00	U	10000.0	96.5		P
Arsenic									NR
Barium									NR
Beryllium									NR
Cadmium									NR
Calcium									NR
Chromium									NR
Cobalt									NR
Copper									NR
Iron									NR
Lead									NR
Magnesium									NR
Manganese		10832.00		1343.00		10000.0	94.9		P
Mercury									NR
Nickel									NR
Potassium									NR
Selenium		8628.89		4.48		10000.0	86.2		P
Silver		1763.00		10.00	U	2000.0	88.2		P
Sodium									NR
Thallium									NR
Vanadium									NR
Zinc		9637.00		345.00		10000.0	92.9		P
Cyanide									NR

Comments:

Date: 01/25/95 23:04
Job No: A94-7242

RADIAN CORPORATION
ERDLE SITE
ERDLE SITE
SAMPLE DATE 12/08/94

Report: AN0363

Client Sample ID: SF-2 SF-2 FD
Lab Sample ID: A4724202 A4724202FD

Analyte	Units of Measure	Concentration Sample	Concentration Duplicate	Mean	Relative % Difference
WET CHEMISTRY ANALYSIS					
Leachable Total Organic Carbon	UG/G	6540	7150	6840	8.9

NC = Not Calculated ND = Not Detected

Date: 01/25/95 23:04
Job No: A94-7242

RADIAN CORPORATION
ERDLE SITE
ERDLE SITE
SAMPLE DATE 12/08/94

Rept: AN0363

Client Sample ID: SF-2 SF-2 MD
Lab Sample ID: A4724202 A4724202MD

Analyte	Units of Measure	Concentration Sample	Concentration Duplicate	Mean	Relative % Difference
WET CHEMISTRY ANALYSIS					
Leachable Total Organic Carbon	UG/G	6540	5920	6230	10

NC = Not Calculated ND = Not Detected

Recra Environmental, Inc.

REFERENCE # 17
PAGE 369 OF 584

Date: 01/25/5 3:04
Job No: A94-7242

RADIAN COR .TION
ERDLE SITE
ERDLE SITE
SAMPLE DATE 12/08/94

.: AN0363

Client Sample ID: SF-3 SF-3 MD
Lab Sample ID: A4724203 A4724203MD

Analyte	Units of Measure	Concentration Sample	Concentration Duplicate	Mean	Relative % Difference
WET CHEMISTRY ANALYSIS					
Leachable Total Organic Carbon	UG/G	6120	6760	6440	9.9

NC = Not Calculated ND = Not Detected

Recra Environmental, Inc

REFERENCE # 17
PAGE 370 OF 584

7015

Date : 01/25/95 23:05
Job No: A94-7242

RADIAN CORPORATION
ERDLE SITE
SAMPLE DATE 12/08/94

Rept: AN0364

Client Sample ID: SF-2 SF-2 MS
Lab Sample ID: A4724202 A4724202MS

Analyte	Units of Measure	Concentration Sample	Concentration Matrix Spike	Spike Amount	% Recovery MS	QC LIMITS
WET CHEMISTRY ANALYSIS METHOD 9060 - LEACHABLE TOTAL ORGANIC	UG/G	6540	8730	2470	89	78-127

* Indicates Result is outside QC Limits
NC = Not Calculated ND = Not Calculated

Date : 01/25/95 J5
Job No: A94-7242

RADIAN COR. ION
ERDLE SITE
SAMPLE DATE 12/08/94

t: AN0364

lient Sample ID: SF-3 SF-3 MS
Lab Sample ID: A4724203 A4724203MS

Analyte	Units of Measure	Concentration Sample	Concentration Matrix Spike	Spike Amount	% Recovery MS	QC LIMITS
WET CHEMISTRY ANALYSIS METHOD 9060 - LEACHABLE TOTAL ORGANIC	UG/G	6120	8570	1840	133 *	78-127

Indicates Result is outside QC Limits
= Not Calculated ND = Not Calculated

Recra Environmental, Inc.

REFERENCE # 17
PAGE 372 OF 584

0136

Date : 01/25/95 23:05
Job No: A94-7242

RADIAN CORPORATION
ERDLE SITE
SAMPLE DATE

Rept: AN0364

Client Sample ID: METHOD BLANK — MATRIX SPIKE BLANK — MATRIX SPIKE BL DUP
Lab Sample ID: A480386902 — A480386904 — A480386906

Analyte	Units of Measure	Concentration		Spike Amount		% Recovery			% RPD	QC LIMITS	
		Spike Blank	Spike Blank Dup	SB	SBD	SB	SBD	Avg		RPD	REC.
WET CHEMISTRY ANALYSIS METHOD 9060 - LEACHABLE TOTAL ORGANIC	UG/G	1800	1700	2000	2000	90	85	88	6	20.0	78-127

* Indicates Result is outside QC Limits
NC = Not Calculated ND = Not Calculated

Recra Environmental, Inc.

RADIAN CORPORATION
ERDLE SITE
METHOD 8240 - TCL VOLATILES
METHOD BLANK SUMMARY

'0158
Client No

VBLK41

o Name: Recra Environmental Contract: _____

Lab Code: RECNY Case No.: 5205 SAS No.: _____ SDG No.: S1

Lab File ID: G1735.MSQ Lab Sample ID: A4B0391702

Date Analyzed: 12/10/94 Time Analyzed: 12:29

GC Column: DB-624 ID: 0.53 (mm) Heated Purge: (Y/N) Y

Instrument ID: I50G

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES, MS AND MSD:

	CLIENT SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	TIME ANALYZED
1	S-1	A4724210	G1741.MSQ	15:53
2	SD-2	A4724207	G1743.MSQ	17:01
3	SD-4	A4724209	G1742.MSQ	16:27

Comments: _____

RADIAN CORPORATION
ERDLE SITE
METHOD 8240 - TCL VOLATILES
ANALYSIS DATA SHEET

0159

Client No.

VBLK41

Lab Name: Recra Environmental Contract: _____

Lab Code: RECNY Case No.: 5205 SAS No.: _____ SDG No.: S1

Matrix: (soil/water) SOIL Lab Sample ID: A4B0391702

Sample wt/vol: 5.00 (g/mL) G Lab File ID: G1735.MSO

Level: (low/med) LOW Date Samp/Recv: _____ _____

% Moisture: not dec. _____ Heated Purge: Y Date Analyzed: 12/10/94

GC Column: DB-624 ID: 0.53 (mm) Dilution Factor: 1.00

Soil Extract Volume: _____ (uL) Soil Aliquot Volume: _____ (uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
74-87-3	Chloromethane	10	U
74-83-9	Bromomethane	10	U
75-01-4	Vinyl chloride	10	U
75-00-3	Chloroethane	10	U
75-09-2	Methylene chloride	10	U
67-64-1	Acetone	10	U
75-15-0	Carbon Disulfide	10	U
75-35-4	1,1-Dichloroethene	10	U
75-34-3	1,1-Dichloroethane	10	U
540-59-0	1,2-Dichloroethene (Total)	10	U
67-66-3	Chloroform	10	U
107-06-2	1,2-Dichloroethane	10	U
78-93-3	2-Butanone	10	U
71-55-6	1,1,1-Trichloroethane	10	U
56-23-5	Carbon Tetrachloride	10	U
75-27-4	Bromodichloromethane	10	U
78-87-5	1,2-Dichloropropane	10	U
10061-01-5	cis-1,3-Dichloropropene	10	U
79-01-6	Trichloroethene	10	U
124-48-1	Dibromochloromethane	10	U
79-00-5	1,1,2-Trichloroethane	10	U
71-43-2	Benzene	10	U
10061-02-6	trans-1,3-Dichloropropene	10	U
75-25-2	Bromoform	10	U
108-10-1	4-Methyl-2-pentanone	10	U
591-78-6	2-Hexanone	10	U
127-18-4	Tetrachloroethene	10	U
108-88-3	Toluene	0.9	J
79-34-5	1,1,2,2-Tetrachloroethane	10	U
108-90-7	Chlorobenzene	0.8	J
100-41-4	Ethyl benzene	10	U
100-42-5	Styrene	10	U
1330-20-7	Total Xylenes	10	U

RADIAN CORPORATION
ERDLE SITE
METHOD 8240 - TCL VOLATILES
TENTATIVELY IDENTIFIED COMPOUNDS

Client No

VBLK41

Lab Name: Recra Environmental Contract: _____

Lab Code: RECNY Case No.: 5205 SAS No.: _____ SDG No.: S1

Matrix: (soil/water) SOIL Lab Sample ID: A4B0391702

Sample wt/vol: 5.00 (g/mL) G Lab File ID: G1735.MSO

Level: (low/med) LOW Date Samp/Recv: _____ _____

% Moisture: not dec. _____ Date Analyzed: 12/10/94

GC Column: DB-624 ID: 0.53 (mm) Dilution Factor: 1.00

Soil Extract Volume: _____ (uL) Soil Aliquot Volume: _____ (uL)

Number TICs found: 1 CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG

CAS NO.	Compound Name	RT	Est. Conc.	Q
1.	SILOXANE DERIVATIVE	23.27	13	J

RADIAN CORPORATION
ERDLE SITE
METHOD 8240 - TCL VOLATILES
METHOD BLANK SUMMARY

00161
Client No.

VBLK38

Lab Name: Recra Environmental Contract: _____

Lab Code: RECNY Case No.: 5205 SAS No.: _____ SDG No.: S1

Lab File ID: L3947.RR Lab Sample ID: A4724215

Date Analyzed: 12/12/94 Time Analyzed: 09:22

GC Column: DB-624 ID: 0.53 (mm) Heated Purge: (Y/N) N

Instrument ID: I50L-A

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES, MS AND MSD:

	CLIENT SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	TIME ANALYZED
1	MATRIX SPIKE BLANK 1	A4724214	L3946.RR	08:55
2	SD-2 DL	A4724207DL	L3960.RR	16:00
3	SF-2	A4724202	L3955.RR	13:36
4	SF-2 DL	A4724202DL	L3965.RR	18:04
5	SF-2 FD	A4724202FD	L3956.RR	14:08
6	SF-2 FDDL	A4724202FZ	L3966.RR	18:32
7	SF-2 MS	A4724202MS	L3957.RR	14:38
8	SF-2 MSD	A4724202SD	L3959.RR	15:22

Comments: _____

RADIAN CORPORATION
ERDLE SITE
METHOD 8240 - TCL VOLATILES
ANALYSIS DATA SHEET

0162

Client No.
VBLK38

Lab Name: Recra Environmental Contract: _____

Lab Code: RECNY Case No.: 5205 SAS No.: _____ SDG No.: S1

Matrix: (soil/water) SOIL Lab Sample ID: A4724215

Sample wt/vol: 4.00 (g/mL) G Lab File ID: L3947.RR

Level: (low/med) MED Date Samp/Recv: _____ _____

% Moisture: not dec. _____ Heated Purge: N Date Analyzed: 12/12/94

GC Column: DB-624 ID: 0.53 (mm) Dilution Factor: 1.00

Soil Extract Volume: 10000 (uL) Soil Aliquot Volume: 100.00 (uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
74-87-3	Chloromethane	1200	U
74-83-9	Bromomethane	1200	U
75-01-4	Vinyl chloride	1200	U
75-00-3	Chloroethane	1200	U
75-09-2	Methylene chloride	1200	U
67-64-1	Acetone	1200	U
75-15-0	Carbon Disulfide	1200	U
75-35-4	1,1-Dichloroethene	1200	U
75-34-3	1,1-Dichloroethane	1200	U
540-59-0	1,2-Dichloroethene (Total)	1200	U
67-66-3	Chloroform	1200	U
107-06-2	1,2-Dichloroethane	1200	U
78-93-3	2-Butanone	1200	U
71-55-6	1,1,1-Trichloroethane	1200	U
56-23-5	Carbon Tetrachloride	1200	U
75-27-4	Bromodichloromethane	1200	U
78-87-5	1,2-Dichloropropane	1200	U
10061-01-5	cis-1,3-Dichloropropene	1200	U
79-01-6	Trichloroethene	1200	U
124-48-1	Dibromochloromethane	1200	U
79-00-5	1,1,2-Trichloroethane	1200	U
71-43-2	Benzene	1200	U
10061-02-6	trans-1,3-Dichloropropene	1200	U
75-25-2	Bromoform	1200	U
108-10-1	4-Methyl-2-pentanone	1200	U
591-78-6	2-Hexanone	1200	U
127-18-4	Tetrachloroethene	1200	U
108-88-3	Toluene	1200	U
79-34-5	1,1,2,2-Tetrachloroethane	1200	U
108-90-7	Chlorobenzene	1200	U
100-41-4	Ethyl benzene	1200	U
100-42-5	Styrene	1200	U
1330-20-7	Total Xylenes	39	J

RADIAN CORPORATION
ERDLE SITE
METHOD 8240 - TCL VOLATILES
TENTATIVELY IDENTIFIED COMPOUNDS

00163

Client No.

VBLK38

Lab Name: Recra Environmental Contract: _____

Lab Code: RECNY Case No.: 5205 SAS No.: _____ SDG No.: S1

Matrix: (soil/water) SOIL Lab Sample ID: A4724215

Sample wt/vol: 4.00 (g/mL) G Lab File ID: L3947.RR

Level: (low/med) MED Date Samp/Recv: _____ _____

% Moisture: not dec. _____ Date Analyzed: 12/12/94

GC Column: DB-624 ID: 0.53 (mm) Dilution Factor: 1.00

Soil Extract Volume: 10000 (uL) Soil Aliquot Volume: 100.00 (uL

Number TICs found: 0 CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG

CAS NO.	Compound Name	RT	Est. Conc.	Q

RADIAN CORPORATION
ERDLE SITE
METHOD 8240 - TCL VOLATILES
METHOD BLANK SUMMARY

00164
Client No

VBLK38

Lab Name: Recra Environmental Contract: _____

Lab Code: RECNY Case No.: 5205 SAS No.: _____ SDG No.: S1

Lab File ID: L3947.RR Lab Sample ID: A4725011

Date Analyzed: 12/12/94 Time Analyzed: 09:22

GC Column: DB-624 ID: 0.53 (mm) Heated Purge: (Y/N) N

Instrument ID: I50L-A

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES, MS AND MSD:

	CLIENT SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	TIME ANALYZED
1	RB-1	A4725002	L3951.RR	11:31
2	SW-2	A4725005	L3954.RR	13:09
3	TB-1	A4725001	L3950.RR	11:01

Comments: _____

RADIAN CORPORATION
ERDLE SITE
METHOD 8240 - TCL VOLATILES
ANALYSIS DATA SHEET

)016

Client
VBLK38

Lab Name: Recra Environmental Contract: _____

Lab Code: RECNY Case No.: 5205 SAS No.: _____ SDG No.: S1

Matrix: (soil/water) WATER Lab Sample ID: A4725011

Sample wt/vol: 5.00 (g/mL) ML Lab File ID: L3947.RR

Level: (low/med) LOW Date Samp/Recv: _____ _____

% Moisture: not dec. _____ Heated Purge: N Date Analyzed: 12/12/94

GC Column: DB-624 ID: 0.53 (mm) Dilution Factor: 1.00

Soil Extract Volume: _____ (uL) Soil Aliquot Volume: _____ (uL

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
74-87-3	Chloromethane	10	U
74-83-9	Bromomethane	10	U
75-01-4	Vinyl chloride	10	U
75-00-3	Chloroethane	10	U
75-09-2	Methylene chloride	10	U
67-64-1	Acetone	10	U
75-15-0	Carbon Disulfide	10	U
75-35-4	1,1-Dichloroethene	10	U
75-34-3	1,1-Dichloroethane	10	U
540-59-0	1,2-Dichloroethene (Total)	10	U
67-66-3	Chloroform	10	U
107-06-2	1,2-Dichloroethane	10	U
78-93-3	2-Butanone	10	U
71-55-6	1,1,1-Trichloroethane	10	U
56-23-5	Carbon Tetrachloride	10	U
75-27-4	Bromodichloromethane	10	U
78-87-5	1,2-Dichloropropane	10	U
10061-01-5	cis-1,3-Dichloropropene	10	U
79-01-6	Trichloroethene	10	U
124-48-1	Dibromochloromethane	10	U
79-00-5	1,1,2-Trichloroethane	10	U
71-43-2	Benzene	10	U
10061-02-6	trans-1,3-Dichloropropene	10	U
75-25-2	Bromoform	10	U
108-10-1	4-Methyl-2-pentanone	10	U
591-78-6	2-Hexanone	10	U
127-18-4	Tetrachloroethene	10	U
108-88-3	Toluene	10	U
79-34-5	1,1,2,2-Tetrachloroethane	10	U
108-90-7	Chlorobenzene	10	U
100-41-4	Ethyl benzene	10	U
100-42-5	Styrene	10	U
1330-20-7	Total Xylenes	0.3	J

RADIAN CORPORATION
ERDLE SITE
METHOD 8240 - TCL VOLATILES
TENTATIVELY IDENTIFIED COMPOUNDS

)016

Client No

VBLK38

Lab Name: Recra Environmental Contract: _____

Lab Code: RECNY Case No.: 5205 SAS No.: _____ SDG No.: S1

Matrix: (soil/water) WATER Lab Sample ID: A4725011

Sample wt/vol: 5.00 (g/mL) ML Lab File ID: L3947.RR

Level: (low/med) LOW Date Samp/Recv: _____ _____

% Moisture: not dec. _____ Date Analyzed: 12/12/94

GC Column: DB-624 ID: 0.53 (mm) Dilution Factor: 1.00

Soil Extract Volume: _____ (uL) Soil Aliquot Volume: _____ (uL)

Number TICs found: 0 CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L

CAS NO.	Compound Name	RT	Est. Conc.	Q

RADIAN CORPORATION
ERDLE SITE
METHOD 8240 - TCL VOLATILES
METHOD BLANK SUMMARY

)016
Client N

VBLK43

Lab Name: Recra Environmental Contract: _____

Lab Code: RECNY Case No.: 5205 SAS No.: _____ SDG No.: S1

Lab File ID: G1754.MSQ Lab Sample ID: A4B0391708

Date Analyzed: 12/14/94 Time Analyzed: 01:04

GC Column: DB-624 ID: 0.53 (mm) Heated Purge: (Y/N) Y

Instrument ID: I50G

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES, MS AND MSD:

	CLIENT SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	TIME ANALYZED
1	MATRIX SPIKE BLANK 3	A4B0391706	G1751.MSQ	23:29
2	SD-1	A4724206	G1756.MSQ	02:09
3	SF-1	A4724201	G1757.MSQ	02:42
4	SF-1 MS	A4724201MS	G1758.MSQ	03:15
5	SF-1 MSD	A4724201SD	G1759.MSQ	03:47

Comments: _____

RADIAN CORPORATION
ERDLE SITE
METHOD 8240 - TCL VOLATILES
ANALYSIS DATA SHEET

)01CS

Client No

VBLK43

Lab Name: Recra Environmental Contract: _____

Lab Code: RECNY Case No.: 5205 SAS No.: _____ SDG No.: S1

Matrix: (soil/water) SOIL Lab Sample ID: A4B0391708

Sample wt/vol: 5.00 (g/mL) G Lab File ID: G1754.MSO

Level: (low/med) LOW Date Samp/Recv: _____ _____

% Moisture: not dec. _____ Heated Purge: Y Date Analyzed: 12/14/94

GC Column: DB-624 ID: 0.53 (mm) Dilution Factor: 1.00

Soil Extract Volume: _____ (uL) Soil Aliquot Volume: _____ (uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
74-87-3	Chloromethane	10	U
74-83-9	Bromomethane	10	U
75-01-4	Vinyl chloride	10	U
75-00-3	Chloroethane	10	U
5-09-2	Methylene chloride	10	U
7-64-1	Acetone	10	U
75-15-0	Carbon Disulfide	10	U
75-35-4	1,1-Dichloroethene	10	U
75-34-3	1,1-Dichloroethane	10	U
540-59-0	1,2-Dichloroethene (Total)	10	U
67-66-3	Chloroform	10	U
107-06-2	1,2-Dichloroethane	10	U
78-93-3	2-Butanone	10	U
71-55-6	1,1,1-Trichloroethane	10	U
56-23-5	Carbon Tetrachloride	10	U
75-27-4	Bromodichloromethane	10	U
78-87-5	1,2-Dichloropropane	10	U
10061-01-5	cis-1,3-Dichloropropene	10	U
79-01-6	Trichloroethene	10	U
124-48-1	Dibromochloromethane	10	U
79-00-5	1,1,2-Trichloroethane	10	U
71-43-2	Benzene	10	U
10061-02-6	trans-1,3-Dichloropropene	10	U
75-25-2	Bromoform	10	U
108-10-1	4-Methyl-2-pentanone	10	U
591-78-6	2-Hexanone	10	U
127-18-4	Tetrachloroethene	10	U
108-88-3	Toluene	10	U
79-34-5	1,1,2,2-Tetrachloroethane	10	U
108-90-7	Chlorobenzene	10	U
0-41-4	Ethyl benzene	10	U
100-42-5	Styrene	10	U
1330-20-7	Total Xylenes	10	U

RADIAN CORPORATION
ERDLE SITE
METHOD 8240 - TCL VOLATILES
TENTATIVELY IDENTIFIED COMPOUNDS

Client

VBLK43

Lab Name: Recra Environmental Contract: _____

Lab Code: RECNY Case No.: 5205 SAS No.: _____ SDG No.: S1

Matrix: (soil/water) SOIL Lab Sample ID: A4B0391708

Sample wt/vol: 5.00 (g/mL) G Lab File ID: G1754.MSO

Level: (low/med) LOW Date Samp/Recv: _____ _____

% Moisture: not dec. _____ Date Analyzed: 12/14/94

GC Column: DB-624 ID: 0.53 (mm) Dilution Factor: 1.00

Soil Extract Volume: _____ (uL) Soil Aliquot Volume: _____ (uL

Number TICs found: 1 CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG

CAS NO.	Compound Name	RT	Est. Conc.	Q
1.	SILOXANE DERIVATIVE	23.32	23	J

RADIAN CORPORATION
ERDLE SITE
METHOD 8270 - TCL SEMIVOLATILES
METHOD BLANK SUMMARY

00170

Client No

SBLK 68

Lab Name: Recra Environmental Contract: _____

Lab Code: RECNY Case No.: 5205 SAS No.: _____ SDG No.: S1

Lab File ID: 22032Z.RR Lab Sample ID: A4B0376601

Instrument ID: I50Z-A Date Extracted: 12/13/94

Matrix: (soil/water) WATER Date Analyzed: 12/16/94

Level: (low/med) LOW Time Analyzed: 11:23

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES, MS AND MSD:

	CLIENT SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED
1	RB-1	A4725002	22036Z.RR	12/16/94
2	SW-2	A4725005	22037Z.RR	12/16/94

Comments: _____

RADIAN CORPORATION
ERDLE SITE
METHOD 8270 - TCL SEMIVOLATILES
ANALYSIS DATA SHEET

.0171

Client N.

SBLK 68

Lab Name: Recra Environmental Contract: _____

Lab Code: RECNY Case No.: 5205 SAS No.: _____ SDG No.: S1

Matrix: (soil/water) WATER Lab Sample ID: A4B0376601

Sample wt/vol: 1000.0 (g/mL) ML Lab File ID: 22032Z.RR

Level: (low/med) LOW Date Samp/Recv: _____ _____

% Moisture: _____ decanted: (Y/N) N Date Extracted: 12/13/94

Concentrated Extract Volume: 1000 (uL) Date Analyzed: 12/16/94

Injection Volume: 2.00 (uL) Dilution Factor: 1.00

GPC Cleanup: (Y/N) N pH: 7.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
108-95-2	Phenol	10	U
111-44-4	Bis(2-chloroethyl) ether	10	U
95-57-8	2-Chlorophenol	10	U
541-73-1	1,3-Dichlorobenzene	10	U
106-46-7	1,4-Dichlorobenzene	10	U
95-50-1	1,2-Dichlorobenzene	10	U
95-48-7	2-Methylphenol	10	U
108-60-1	Bis(2-chloroisopropyl) ether	10	U
106-44-5	4-Methylphenol	10	U
621-64-7	N-Nitroso-Di-n-propylamine	10	U
67-72-1	Hexachloroethane	10	U
98-95-3	Nitrobenzene	10	U
78-59-1	Isophorone	10	U
88-75-5	2-Nitrophenol	10	U
105-67-9	2,4-Dimethylphenol	10	U
111-91-1	Bis(2-chloroethoxy) methane	10	U
120-83-2	2,4-Dichlorophenol	10	U
120-82-1	1,2,4-Trichlorobenzene	10	U
91-20-3	Naphthalene	10	U
106-47-8	4-Chloroaniline	10	U
87-68-3	Hexachlorobutadiene	10	U
59-50-7	4-Chloro-3-methylphenol	10	U
91-57-6	2-Methylnaphthalene	10	U
77-47-4	Hexachlorocyclopentadiene	10	U
88-06-2	2,4,6-Trichlorophenol	10	U
95-95-4	2,4,5-Trichlorophenol	10	U
91-58-7	2-Chloronaphthalene	10	U
88-74-4	2-Nitroaniline	25	U
131-11-3	Dimethyl phthalate	10	U
208-96-8	Acenaphthylene	10	U
606-20-2	2,6-Dinitrotoluene	10	U
99-09-2	3-Nitroaniline	25	U

RADIAN CORPORATION
ERDLE SITE
METHOD 8270 - TCL SEMIVOLATILES
ANALYSIS DATA SHEET

00172

Client No.

SBLK 68

Lab Name: Recra Environmental Contract: _____

Lab Code: RECNY Case No.: 5205 SAS No.: _____ SDG No.: S1

Matrix: (soil/water) WATER Lab Sample ID: A4B0376601

Sample wt/vol: 1000.0 (g/mL) ML Lab File ID: 22032Z.RR

Level: (low/med) LOW Date Samp/Recv: _____ _____

% Moisture: _____ decanted: (Y/N) N Date Extracted: 12/13/94

Concentrated Extract Volume: 1000 (uL) Date Analyzed: 12/16/94

Injection Volume: 2.00 (uL) Dilution Factor: 1.00

GPC Cleanup: (Y/N) N pH: 7.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
83-32-9	Acenaphthene	10	U
51-28-5	2,4-Dinitrophenol	25	U
100-02-7	4-Nitrophenol	25	U
132-64-9	Dibenzofuran	10	U
121-14-2	2,4-Dinitrotoluene	10	U
84-66-2	Diethyl phthalate	10	U
7005-72-3	4-Chlorodiphenylether	10	U
86-73-7	Fluorene	10	U
100-01-6	4-Nitroaniline	25	U
534-52-1	4,6-Dinitro-2-methylphenol	25	U
86-30-6	N-nitrosodiphenylamine	10	U
101-55-3	4-Bromophenyl phenyl ether	10	U
118-74-1	Hexachlorobenzene	10	U
87-86-5	Pentachlorophenol	25	U
85-01-8	Phenanthrene	10	U
120-12-7	Anthracene	10	U
84-74-2	Di-n-butyl phthalate	0.4	J
206-44-0	Fluoranthene	10	U
129-00-0	Pyrene	10	U
85-68-7	Butyl benzyl phthalate	10	U
91-94-1	3,3'-Dichlorobenzidine	20	U
56-55-3	Benzo(a)anthracene	10	U
218-01-9	Chrysene	10	U
117-81-7	Bis(2-ethylhexyl) phthalate	10	U
117-84-0	Di-n-octyl phthalate	10	U
205-99-2	Benzo(b)fluoranthene	10	U
207-08-9	Benzo(k)fluoranthene	10	U
50-32-8	Benzo(a)pyrene	10	U
193-39-5	Indeno(1,2,3-cd)pyrene	10	U
53-70-3	Dibenzo(a,h)anthracene	10	U
191-24-2	Benzo(ghi)perylene	10	U
100-51-6	Benzyl alcohol	10	U

RADIAN CORPORATION
ERDLE SITE
METHOD 8270 - TCL SEMIVOLATILES
ANALYSIS DATA SHEET

Client N:
SBLK 68

Lab Name: Recra Environmental Contract: _____

Lab Code: RECNY Case No.: 5205 SAS No.: _____ SDG No.: S1

Matrix: (soil/water) WATER Lab Sample ID: A4B0376601

Sample wt/vol: 1000.0 (g/mL) ML Lab File ID: 22032Z.RR

Level: (low/med) LOW Date Samp/Recv: _____ _____

% Moisture: _____ decanted: (Y/N) N Date Extracted: 12/13/94

Concentrated Extract Volume: 1000(uL) Date Analyzed: 12/16/94

Injection Volume: 2.00(uL) Dilution Factor: 1.00

GPC Cleanup: (Y/N) N pH: 7.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
62-75-9	N-Nitrosodimethylamine	10	U

.017

RADIAN CORPORATION
ERDLE SITE
METHOD 8270 - TCL SEMIVOLATILES
TENTATIVELY IDENTIFIED COMPOUNDS

Client No
SBLK 68

Lab Name: Recra Environmental Contract: _____

Lab Code: RECNY Case No.: 5205 SAS No.: _____ SDG No.: S1

Matrix: (soil/water) WATER Lab Sample ID: A4B0376601

Sample wt/vol: 1000.0 (g/mL) ML Lab File ID: 22032Z.RR

Level: (low/med) LOW Date Samp/Recv: _____ _____

% Moisture: _____ decanted: (Y/N) N Date Extracted: 12/13/94

Concentrated Extract Volume: 1000 (uL) Date Analyzed: 12/16/94

Injection Volume: 2.00 (uL) Dilution Factor: 1.00

GPC Cleanup: (Y/N) N pH: 7.0

Number TICs found: 2

CONCENTRATION UNITS:
(ug/L or ug/Kg) UG/L

CAS NO.	Compound Name	RT	Est. Conc.	Q
1.	SUSPECTED ALDOL COND PRODUCT	2.74	62	AJ
2.	UNKNOWN	3.04	34	J

RADIAN CORPORATION
ERDLE SITE
METHOD 8270 - TCL SEMIVOLATILES
METHOD BLANK SUMMARY

00175

Client N-

SBLK 84

Lab Name: Recra Environmental Contract: _____

Lab Code: RECNY Case No.: 5205 SAS No.: _____ SDG No.: S1

Lab File ID: 22229Z.RR Lab Sample ID: A4B0375701

Instrument ID: I50Z-A Date Extracted: 12/12/94

Matrix: (soil/water) SOIL Date Analyzed: 12/30/94

Level: (low/med) LOW Time Analyzed: 12:57

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES, MS AND MSD:

	CLIENT SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED
1	MATRIX SPIKE BLANK	A4B0375702	22230Z.RR	12/30/94
2	S-1	A4724210	22241Z.RR	12/30/94
3	S-1 RE	A4724210RI	22309Z.RR	01/05/95
4	SD-1	A4724206	22307Z.RR	01/05/95
5	SD-2	A4724207	22240Z.RR	12/30/94
6	SD-2 RE	A4724207RI	22308Z.RR	01/05/95
7	SF-1	A4724201	22231Z.RR	12/30/94
8	SF-2	A4724202	22232Z.RR	12/30/94
9	SF-2 FD	A4724202FD	22233Z.RR	12/30/94
10	SF-2 MS	A4724202MS	22234Z.RR	12/30/94
11	SF-2 MSD	A4724202SD	22235Z.RR	12/30/94
12	SF-3	A4724203	22236Z.RR	12/30/94
13	SF-3 MS	A4724203MS	22237Z.RR	12/30/94
14	SF-3 MSD	A4724203SD	22238Z.RR	12/30/94

Comments: _____

RADIAN CORPORATION
ERDLE SITE
METHOD 8270 - TCL SEMIVOLATILES
ANALYSIS DATA SHEET

)0176

Client No
SBLK 84

Lab Name: Recra Environmental Contract: _____

Lab Code: RECNY Case No.: 5205 SAS No.: _____ SDG No.: S1

Matrix: (soil/water) SOIL Lab Sample ID: A4B0375701

Sample wt/vol: 30.00 (g/mL) G Lab File ID: 22229Z.RR

Level: (low/med) LOW Date Samp/Recv: _____ _____

% Moisture: _____ decanted: (Y/N) N Date Extracted: 12/12/94

Concentrated Extract Volume: 500 (uL) Date Analyzed: 12/30/94

Injection Volume: 2.00 (uL) Dilution Factor: 1.00

GPC Cleanup: (Y/N) Y pH: 7.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
108-95-2	Phenol	330	U
1-44-4	Bis(2-chloroethyl) ether	330	U
-57-8	2-Chlorophenol	330	U
541-73-1	1,3-Dichlorobenzene	330	U
106-46-7	1,4-Dichlorobenzene	330	U
95-50-1	1,2-Dichlorobenzene	330	U
95-48-7	2-Methylphenol	330	U
108-60-1	Bis(2-chloroisopropyl) ether	330	U
106-44-5	4-Methylphenol	330	U
621-64-7	N-Nitroso-Di-n-propylamine	330	U
67-72-1	Hexachloroethane	330	U
98-95-3	Nitrobenzene	330	U
78-59-1	Isophorone	330	U
88-75-5	2-Nitrophenol	330	U
105-67-9	2,4-Dimethylphenol	330	U
111-91-1	Bis(2-chloroethoxy) methane	330	U
120-83-2	2,4-Dichlorophenol	330	U
120-82-1	1,2,4-Trichlorobenzene	330	U
91-20-3	Naphthalene	330	U
106-47-8	4-Chloroaniline	330	U
87-68-3	Hexachlorobutadiene	330	U
59-50-7	4-Chloro-3-methylphenol	330	U
91-57-6	2-Methylnaphthalene	330	U
77-47-4	Hexachlorocyclopentadiene	330	U
88-06-2	2,4,6-Trichlorophenol	330	U
95-95-4	2,4,5-Trichlorophenol	330	U
91-58-7	2-Chloronaphthalene	330	U
-74-4	2-Nitroaniline	800	U
131-11-3	Dimethyl phthalate	330	U
208-96-8	Acenaphthylene	330	U
606-20-2	2,6-Dinitrotoluene	330	U
99-09-2	3-Nitroaniline	800	U

RADIAN CORPORATION
ERDLE SITE
METHOD 8270 - TCL SEMIVOLATILES
ANALYSIS DATA SHEET

Client No.
SBLK 84

Lab Name: Recra Environmental Contract: _____

Lab Code: RECNY Case No.: 5205 SAS No.: _____ SDG No.: S1

Matrix: (soil/water) SOIL Lab Sample ID: A4B0375701

Sample wt/vol: 30.00 (g/mL) G Lab File ID: 22229Z.RR

Level: (low/med) LOW Date Samp/Recv: _____ _____

% Moisture: _____ decanted: (Y/N) N Date Extracted: 12/12/94

Concentrated Extract Volume: 500 (uL) Date Analyzed: 12/30/94

Injection Volume: 2.00 (uL) Dilution Factor: 1.00

GPC Cleanup: (Y/N) Y pH: 7.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
83-32-9	Acenaphthene	330	U
51-28-5	2,4-Dinitrophenol	800	U
100-02-7	4-Nitrophenol	800	U
132-64-9	Dibenzofuran	330	U
121-14-2	2,4-Dinitrotoluene	330	U
84-66-2	Diethyl phthalate	330	U
7005-72-3	4-Chlorodiphenylether	330	U
86-73-7	Fluorene	330	U
100-01-6	4-Nitroaniline	800	U
534-52-1	4,6-Dinitro-2-methylphenol	800	U
86-30-6	N-nitrosodiphenylamine	330	U
101-55-3	4-Bromophenyl phenyl ether	330	U
118-74-1	Hexachlorobenzene	330	U
87-86-5	Pentachlorophenol	800	U
85-01-8	Phenanthrene	330	U
120-12-7	Anthracene	330	U
84-74-2	Di-n-butyl phthalate	330	U
206-44-0	Fluoranthene	330	U
129-00-0	Pyrene	330	U
85-68-7	Butyl benzyl phthalate	330	U
91-94-1	3,3'-Dichlorobenzidine	660	U
56-55-3	Benzo(a)anthracene	330	U
218-01-9	Chrysene	330	U
117-81-7	Bis(2-ethylhexyl) phthalate	330	U
117-84-0	Di-n-octyl phthalate	330	U
205-99-2	Benzo(b)fluoranthene	330	U
207-08-9	Benzo(k)fluoranthene	330	U
50-32-8	Benzo(a)pyrene	330	U
193-39-5	Indeno(1,2,3-cd)pyrene	330	U
53-70-3	Dibenzo(a,h)anthracene	330	U
191-24-2	Benzo(ghi)perylene	330	U
100-51-6	Benzyl alcohol	330	U

RADIAN CORPORATION
ERDLE SITE
METHOD 8270 - TCL SEMIVOLATILES
ANALYSIS DATA SHEET

00178

Client No
SBLK 84

Lab Name: Recra Environmental Contract: _____

Lab Code: RECNY Case No.: 5205 SAS No.: _____ SDG No.: S1

Matrix: (soil/water) SOIL Lab Sample ID: A4B0375701

Sample wt/vol: 30.00 (g/mL) G Lab File ID: 22229Z.RR

Level: (low/med) LOW Date Samp/Recv: _____ _____

% Moisture: _____ decanted: (Y/N) N Date Extracted: 12/12/94

Concentrated Extract Volume: 500(uL) Date Analyzed: 12/30/94

Injection Volume: 2.00(uL) Dilution Factor: 1.00

GPC Cleanup: (Y/N) Y pH: 7.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
62-75-9	N-Nitrosodimethylamine	330	U

FORM I - GC/MS BNA

RADIAN CORPORATION
ERDLE SITE
METHOD 8270 - TCL SEMIVOLATILES
TENTATIVELY IDENTIFIED COMPOUNDS

Client N

SBLK 84

Lab Name: Recra Environmental Contract: _____

Lab Code: RECNY Case No.: 5205 SAS No.: _____ SDG No.: S1

Matrix: (soil/water) SOIL Lab Sample ID: A4B0375701

Sample wt/vol: 30.00 (g/mL) G Lab File ID: 22229Z.RR

Level: (low/med) LOW Date Samp/Recv: _____ _____

% Moisture: _____ decanted: (Y/N) N Date Extracted: 12/12/94

Concentrated Extract Volume: 500 (uL) Date Analyzed: 12/30/94

Injection Volume: 2.00 (uL) Dilution Factor: 1.00

GPC Cleanup: (Y/N) Y pH: 7.0

Number TICs found: 3

CONCENTRATION UNITS:
(ug/L or ug/Kg) UG/KG

CAS NO.	Compound Name	RT	Est. Conc.	Q
1.	UNKNOWN	2.73	570	J
2.	SUSPECTED ALDOL COND PRODUCT	3.37	18000	AJ
3.	UNKNOWN	4.35	260	J

RADIAN CORPORATION
ERDLE SITE
METHOD 8010 - HALOGENATED VOLATILE ORGANICS
METHOD BLANK SUMMARY

0179.A

Client No.

VBLK

I b Name: Recra Environmental Contract: _____

Lab Code: RECNY Case No.: 5205 SAS No.: _____ SDG No.: S1

I b Sample ID: A4725014 Lab File ID: 0B38136.TX0

N trix: (soil/water) WATER

Date Analyzed (1): 12/14/94 Date Analyzed (2): 12/16/94

Time Analyzed (1): 22:46 Time Analyzed (2): 10:01

Instrument ID (1): PE8500-0 Instrument ID (2): PE8500-1

GC Column (1): RTX502.2 Dia: 0.53 (mm) GC Column (2): 1% SP1000 Dia: 2.00 (mm)

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES, MS AND MSD:

	CLIENT SAMPLE NO.	LAB SAMPLE ID	DATE ANALYZED 1	DATE ANALYZED 2
1	MATRIX SPIKE BLANK	A4725016	12/15/94	
2	RB-1	A4725002	12/15/94	12/16/94
3	RB-2	A4725003	12/15/94	12/16/94
4	SW-1	A4725004	12/15/94	12/16/94
5	SW-3	A4725006	12/15/94	12/16/94
6	SW-4	A4725007	12/15/94	12/16/94

Comments: _____

RADIAN CORPORATION
ERDLE SITE
METHOD 8010 - HALOGENATED VOLATILE ORGANICS
ANALYSIS DATA SHEET

0179.E

Client No.

VBLK

Lab Name: Recra Environmental Contract: _____

Lab Code: RECNY Case No.: 5205 SAS No.: _____ SDG No.: S1

Matrix: (soil/water) WATER Lab Sample ID: A4725014

Sample wt/vol: 5.00 (g/mL) ML Lab File ID: 0B38136.TX0

Level: (low/med) Low Date Samp/Recv: _____ _____

Moisture: not dec. _____ Date Analyzed: 12/14/94

GC Column: RTX502.2 Dia: 0.53 (mm) Dilution Factor: 1.00

Soil Extract Volume: _____(uL) Soil Aliquot Volume: _____(uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
75-27-4	Bromodichloromethane	0.20	U
75-25-2	Bromoform	1.0	U
74-83-9	Bromomethane	1.0	U
56-23-5	Carbon Tetrachloride	0.20	U
108-90-7	Chlorobenzene	0.20	U
75-00-3	Chloroethane	1.0	U
110-75-8	2-Chloroethylvinyl ether	1.0	U
67-66-3	Chloroform	0.20	U
74-87-3	Chloromethane	1.0	U
124-48-1	Dibromochloromethane	0.20	U
95-50-1	1,2-Dichlorobenzene	0.40	U
541-73-1	1,3-Dichlorobenzene	0.40	U
106-46-7	1,4-Dichlorobenzene	0.40	U
75-34-3	1,1-Dichloroethane	0.20	U
107-06-2	1,2-Dichloroethane	0.20	U
75-35-4	1,1-Dichloroethene	0.20	U
156-60-5	trans-1,2-Dichloroethene	0.20	U
78-87-5	1,2-Dichloropropane	0.20	U
10061-01-5	cis-1,3-Dichloropropene	0.20	U
10061-02-6	trans-1,3-Dichloropropene	0.20	U
75-09-2	Methylene chloride	0.20	U
79-34-5	1,1,2,2-Tetrachloroethane	0.20	U
127-18-4	Tetrachloroethene	0.20	U
71-55-6	1,1,1-Trichloroethane	0.20	U
79-00-5	1,1,2-Trichloroethane	0.20	U
79-01-6	Trichloroethene	0.20	U
75-69-4	Trichlorofluoromethane	0.20	U
75-01-4	Vinyl chloride	1.0	U

RADIAN CORPORATION
ERDLE SITE
METHOD 8010 - HALOGENATED VOLATILE ORGANICS
METHOD BLANK SUMMARY

0179.C
Client No.

VBLK

I b Name: Recra Environmental Contract: _____

Lab Code: RECNY Case No.: 5205 SAS No.: _____ SDG No.: S1

I b Sample ID: A4725018 Lab File ID: 0B38147.TX0

Matrix: (soil/water) WATER

Date Analyzed (1): 12/15/94 Date Analyzed (2): 12/19/94

Time Analyzed (1): 07:03 Time Analyzed (2): 10:40

Instrument ID (1): PE8500-0 Instrument ID (2): PE8500-1

GC Column (1): RTX502.2 Dia: 0.53(mm) GC Column (2): 1% SP1000 Dia: 2.00(mm)

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES, MS AND MSD:

	CLIENT SAMPLE NO.	LAB SAMPLE ID	DATE ANALYZED 1	DATE ANALYZED 2
1	MATRIX SPIKE BLANK	A4725017	12/15/94	
2	TB-1	A4725001	12/15/94	12/16/94

Comments: _____

RADIAN CORPORATION
ERDLE SITE
METHOD 8010 - HALOGENATED VOLATILE ORGANICS
ANALYSIS DATA SHEET

0179.D

Client No

VBLK

Lab Name: Recra Environmental Contract: _____

Lab Code: RECNY Case No.: 5205 SAS No.: _____ SDG No.: S1

Matrix: (soil/water) WATER Lab Sample ID: A4725018

Sample wt/vol: 5.00 (g/mL) ML Lab File ID: 0B38147.TX0

Level: (low/med) Low Date Samp/Recv: _____ _____

% Moisture: not dec. _____ Date Analyzed: 12/15/94

GC Column: RTX502.2 Dia: 0.53 (mm) Dilution Factor: 1.00

Soil Extract Volume: _____(uL) Soil Aliquot Volume: _____(uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
75-27-4	Bromodichloromethane	0.20	U
75-25-2	Bromoform	1.0	U
74-83-9	Bromomethane	1.0	U
56-23-5	Carbon Tetrachloride	0.20	U
108-90-7	Chlorobenzene	0.20	U
75-00-3	Chloroethane	1.0	U
110-75-8	2-Chloroethylvinyl ether	1.0	U
67-66-3	Chloroform	0.20	U
74-87-3	Chloromethane	1.0	U
124-48-1	Dibromochloromethane	0.20	U
95-50-1	1,2-Dichlorobenzene	0.40	U
541-73-1	1,3-Dichlorobenzene	0.40	U
106-46-7	1,4-Dichlorobenzene	0.40	U
75-34-3	1,1-Dichloroethane	0.20	U
107-06-2	1,2-Dichloroethane	0.20	U
75-35-4	1,1-Dichloroethene	0.20	U
156-60-5	trans-1,2-Dichloroethene	0.20	U
78-87-5	1,2-Dichloropropane	0.20	U
10061-01-5	cis-1,3-Dichloropropene	0.20	U
10061-02-6	trans-1,3-Dichloropropene	0.20	U
75-09-2	Methylene chloride	0.20	U
79-34-5	1,1,2,2-Tetrachloroethane	0.20	U
127-18-4	Tetrachloroethene	0.20	U
71-55-6	1,1,1-Trichloroethane	0.20	U
79-00-5	1,1,2-Trichloroethane	0.20	U
79-01-6	Trichloroethene	0.20	U
75-69-4	Trichlorofluoromethane	0.20	U
75-01-4	Vinyl chloride	1.0	U

RADIAN CORPORATION
ERDLE SITE
METHOD 8010 - HALOGENATED VOLATILE ORGANICS
METHOD BLANK SUMMARY

Client No
VBLK

Lab Name: Recra Environmental Contract: _____

Lab Code: RECNY Case No.: 5205 SAS No.: _____ SDG No.: S1

Lab Sample ID: A4724217 Lab File ID: _____

Matrix: (soil/water) SOIL

Date Analyzed (1): 12/14/94 Date Analyzed (2): 12/19/94

Time Analyzed (1): 11:13 Time Analyzed (2): 10:40

Instrument ID (1): PE8500-0 Instrument ID (2): PE8500-1

GC Column (1): RTX-502.2 Dia: 0.53(mm) GC Column (2): 1% SP 1000 Dia: 2.00(mm)

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES, MS AND MSD:

	CLIENT SAMPLE NO.	LAB SAMPLE ID	DATE ANALYZED 1	DATE ANALYZED 2
1	MATRIX SPIKE BLANK	A4724216	12/14/94	
2	SD-3	A4724208	12/14/94	
3	SF-3	A4724203	12/14/94	12/19/94
4	SF-3 MS	A4724203MS	12/14/94	
5	SF-3 MSD	A4724203SD	12/14/94	
6	SF-4	A4724204	12/14/94	12/13/94
7	SF-5	A4724205	12/14/94	12/13/94

Comments: _____

RADIAN CORPORATION
ERDLE SITE
METHOD 8020 - AROMATIC VOLATILE ORGANICS
METHOD BLANK SUMMARY

0181.P

Client No.

VBLK

Lab Name: Recra Environmental Contract: _____

Lab Code: RECNY Case No.: 5205 SAS No.: _____ SDG No.: S1

Lab Sample ID: A4725014 Lab File ID: 0A38136.TX0

Matrix: (soil/water) WATER

Date Analyzed (1): 12/14/94 Date Analyzed (2): 12/16/94

Time Analyzed (1): 22:46 Time Analyzed (2): 10:01

Instrument ID (1): PE8500-0 Instrument ID (2): PE8500-1

GC Column (1): RTX502.2 Dia: 0.53(mm) GC Column (2): 1% SP1000 Dia: 2.00(mm)

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES, MS AND MSD:

	CLIENT SAMPLE NO.	LAB SAMPLE ID	DATE ANALYZED 1	DATE ANALYZED 2
1	MATRIX SPIKE BLANK	A4725013	12/14/94	
2	RB-1	A4725002	12/15/94	12/16/94

Comments: _____

RADIAN CORPORATION
ERDLE SITE
METHOD 8020 - AROMATIC VOLATILE ORGANICS
ANALYSIS DATA SHEET

0181.6

Client No.

VBLK

Lab Name: Recra Environmental Contract: _____

Lab Code: RECNY Case No.: 5205 SAS No.: _____ SDG No.: S1

Matrix: (soil/water) WATER Lab Sample ID: A4725014

Sample wt/vol: 5.00 (g/mL) ML Lab File ID: 0A38136.TX0

Level: (low/med) Low Date Samp/Recv: _____ _____

% Moisture: not dec. _____ Date Analyzed: 12/14/94

GC Column: RTX502.2 Dia: 0.53 (mm) Dilution Factor: 1.00

Soil Extract Volume: _____(uL) Soil Aliquot Volume: _____(uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
71-43-2	Benzene	0.20	U
108-90-7	Chlorobenzene	0.20	U
95-50-1	1,2-Dichlorobenzene	0.40	U
541-73-1	1,3-Dichlorobenzene	0.40	U
5-46-7	1,4-Dichlorobenzene	0.40	U
100-41-4	Ethyl benzene	0.20	U
108-88-3	Toluene	0.20	U
108-38-3	m-Xylene	0.20	U
95-47-6	o-Xylene	0.20	U
106-42-3	p-Xylene	0.20	U

RADIAN CORPORATION
ERDLE SITE
METHOD 8020 - AROMATIC VOLATILE ORGANICS
METHOD BLANK SUMMARY

0181.2
Client No.

VBLK

I b Name: Recra Environmental Contract: _____

Lab Code: RECNY Case No.: 5205 SAS No.: _____ SDG No.: S1

I .b Sample ID: A4725018 Lab File ID: 0A38147.TX0

Matrix: (soil/water) WATER

I ıte Analyzed (1): 12/15/94 Date Analyzed (2): 12/19/94

Time Analyzed (1): 07:03 Time Analyzed (2): 10:40

ınstrument ID (1): PE8500-0 Instrument ID (2): PE8500-1

: Column (1): RTX502.2 Dia: 0.53 (mm) GC Column (2): 1% SP1000 Dia: 2.00 (mm)

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES, MS AND MSD:

	CLIENT SAMPLE NO.	LAB SAMPLE ID	DATE ANALYZED 1	DATE ANALYZED 2
1	MATRIX SPIKE BLANK	A4725015	12/15/94	
2	TB-1	A4725001	12/15/94	12/16/94

omments: _____

FORM IV - GC VOA

0181.

RADIAN CORPORATION
ERDLE SITE
METHOD 8020 - AROMATIC VOLATILE ORGANICS
ANALYSIS DATA SHEET

Client No.

VBLK

Lab Name: Recra Environmental Contract: _____

Lab Code: RECNY Case No.: 5205 SAS No.: _____ SDG No.: S1

Matrix: (soil/water) WATER Lab Sample ID: A4725018

Sample wt/vol: 5.00 (g/mL) ML Lab File ID: 0A38147.TX0

Level: (low/med) Low Date Samp/Recv: _____ _____

% Moisture: not dec. _____ Date Analyzed: 12/15/94

GC Column: RTX502.2 Dia: 0.53 (mm) Dilution Factor: 1.00

Soil Extract Volume: _____(uL) Soil Aliquot Volume: _____(uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
71-43-2	Benzene	0.20	U
108-90-7	Chlorobenzene	0.20	U
95-50-1	1,2-Dichlorobenzene	0.40	U
541-73-1	1,3-Dichlorobenzene	0.40	U
106-46-7	1,4-Dichlorobenzene	0.40	U
100-41-4	Ethyl benzene	0.20	U
108-88-3	Toluene	0.20	U
108-38-3	m-Xylene	0.20	U
95-47-6	o-Xylene	0.20	U
106-42-3	p-Xylene	0.20	U

RADIAN CORPORATION
ERDLE SITE
METHOD 8010 - HALOGENATED VOLATILE ORGANICS
ANALYSIS DATA SHEET

00181

Client

VBLK

Lab Name: Recra Environmental Contract: _____

Lab Code: RECNY Case No.: 5205 SAS No.: _____ SDG No.: S1

Matrix: (soil/water) SOIL Lab Sample ID: A4724217

Sample wt/vol: 5.00 (g/mL) G Lab File ID: _____

Level: (low/med) Med Date Samp/Recv: _____ _____

% Moisture: not dec. _____ Date Analyzed: 12/14/94

GC Column: RTX-502.2 Dia: 0.53 (mm) Dilution Factor: 1.00

Soil Extract Volume: 5000 (uL) Soil Aliquot Volume: 100.00 (uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
75-27-4	Bromodichloromethane	10	U
75-25-2	Bromoform	50	U
74-83-9	Bromomethane	50	U
56-23-5	Carbon Tetrachloride	10	U
108-90-7	Chlorobenzene	10	U
75-00-3	Chloroethane	50	U
110-75-8	2-Chloroethylvinyl ether	50	U
67-66-3	Chloroform	10	U
74-87-3	Chloromethane	50	U
124-48-1	Dibromochloromethane	10	U
95-50-1	1,2-Dichlorobenzene	20	U
541-73-1	1,3-Dichlorobenzene	20	U
106-46-7	1,4-Dichlorobenzene	20	U
75-34-3	1,1-Dichloroethane	10	U
107-06-2	1,2-Dichloroethane	10	U
75-35-4	1,1-Dichloroethene	10	U
156-60-5	trans-1,2-Dichloroethene	10	U
78-87-5	1,2-Dichloropropane	10	U
10061-01-5	cis-1,3-Dichloropropene	10	U
10061-02-6	trans-1,3-Dichloropropene	10	U
75-09-2	Methylene chloride	10	U
79-34-5	1,1,2,2-Tetrachloroethane	10	U
127-18-4	Tetrachloroethene	10	U
71-55-6	1,1,1-Trichloroethane	10	U
79-00-5	1,1,2-Trichloroethane	10	U
79-01-6	Trichloroethene	10	U
75-69-4	Trichlorofluoromethane	10	U
75-01-4	Vinyl chloride	50	U

RADIAN CORPORATION
ERDLE SITE
METHOD 8020 - AROMATIC VOLATILE ORGANICS
METHOD BLANK SUMMARY

00182
Client No.

VBLK

Lab Name: Recra Environmental Contract: _____

Lab Code: RECNY Case No.: 5205 SAS No.: _____ SDG No.: S1

Lab Sample ID: A4724217 Lab File ID: _____

Matrix: (soil/water) SOIL

Date Analyzed (1): 12/14/94 Date Analyzed (2): 12/19/94

Time Analyzed (1): 11:13 Time Analyzed (2): 10:40

Instrument ID (1): PE8500-0 Instrument ID (2): PE8500-1

GC Column (1): RTX-502.2 Dia: 0.53 (mm) GC Column (2): 1% SP 1000 Dia: 2.00 (mm)

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES, MS AND MSD:

	CLIENT SAMPLE NO.	LAB SAMPLE ID	DATE ANALYZED 1	DATE ANALYZED 2
1	MATRIX SPIKE BLANK	A4724216	12/14/94	
2	SF-3	A4724203	12/14/94	12/19/94
3	SF-3 MS	A4724203MS	12/14/94	
4	SF-3 MSD	A4724203SD	12/14/94	

Comments: _____

RADIAN CORPORATION
ERDLE SITE
METHOD 8020 - AROMATIC VOLATILE ORGANICS
ANALYSIS DATA SHEET

Client N

VBLK

Lab Name: Recra Environmental Contract: _____

Lab Code: RECNY Case No.: 5205 SAS No.: _____ SDG No.: S1

Matrix: (soil/water) SOIL Lab Sample ID: A4724217

Sample wt/vol: 5.00 (g/mL) G Lab File ID: _____

Level: (low/med) Med Date Samp/Recv: _____ _____

% Moisture: not dec. _____ Date Analyzed: 12/14/94

GC Column: RTX-502.2 Dia: 0.53 (mm) Dilution Factor: 1.00

Soil Extract Volume: 5000 (uL) Soil Aliquot Volume: 100.00 (uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
71-43-2	Benzene	10	U
108-90-7	Chlorobenzene	10	U
95-50-1	1,2-Dichlorobenzene	20	U
541-73-1	1,3-Dichlorobenzene	20	U
106-46-7	1,4-Dichlorobenzene	20	U
100-41-4	Ethyl benzene	10	U
108-88-3	Toluene	10	U
108-38-3	m-Xylene	10	U
95-47-6	o-Xylene	10	U
106-42-3	p-Xylene	10	U

4C
PESTICIDE METHOD BLANK SUMMARY

EPA SAMPLE NO.

PBLK12

Lab Name: RECRA ENVIRON Contract: NY95-008

Lab Code: RECNY Case No.: 5205 SAS No.: _____ SDG No.: S1

Lab Sample ID: A4B0377401 Lab File ID: _____

Matrix:(soil/water) WATER Extraction:(SepF/Cont/Sonc) SEPF

Sulfur Cleanup: (Y/N) Y Date Extracted: 12/12/94

Date Analyzed (1): 12/23/94 Date Analyzed (2): 12/23/94

Time Analyzed (1): 1535 Time Analyzed (2): 1535

Instrument ID (1): 5890AS Instrument ID (2): 5890BS

GC Column (1): DB608 ID: 0.53 (mm) GC Column (2): DB1701 ID: 0.53 (mm)

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES, MS AND MSD:

	EPA SAMPLE NO.	LAB SAMPLE ID	DATE ANALYZED 1	DATE ANALYZED 2
01	MSB	A4B0377403	12/23/94	12/23/94
02	MSBD	A4B0377402	12/23/94	12/23/94
03	RB1	A4725002	12/23/94	12/23/94
04	SW2	A4725005	12/23/94	12/23/94

COMMENTS:

1D
PESTICIDE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.
00155
PBLK12

Lab Name: RECRA ENVIRON Contract: NY95-008

Lab Code: RECNY Case No.: 5205 SAS No.: _____ SDG No.: S1

Matrix: (soil/water) WATER Lab Sample ID: A4B0377401

Sample wt/vol: 1000 (g/mL) ML Lab File ID: _____

% Moisture: _____ decanted: (Y/N) ___ Date Received: _____

Extraction: (SepF/Cont/Sonc) SEPF Date Extracted: 12/12/94

Concentrated Extract Volume: 10000 (uL) Date Analyzed: 12/23/94

Injection Volume: 1.00 (uL) Dilution Factor: 1.00

GPC Cleanup: (Y/N) N pH: 7.0 Sulfur Cleanup: (Y/N) Y

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
12674-11-2	Aroclor-1016	1.0	U
11104-28-2	Aroclor-1221	2.0	U
11141-16-5	Aroclor-1232	1.0	U
53469-21-9	Aroclor-1242	1.0	U
12672-29-6	Aroclor-1248	1.0	U
11097-69-1	Aroclor-1254	1.0	U
11096-82-5	Aroclor-1260	1.0	U

4C
PESTICIDE METHOD BLANK SUMMARY

EPA SAMPLE NO.
PBLK13

Lab Name: RECRA ENVIRON Contract: NY95-008

Lab Code: RECNY Case No.: 5205 SAS No.: _____ SDG No.: S1

Lab Sample ID: A4B0375601 Lab File ID: _____

Matrix: (soil/water) SOIL Extraction: (SepF/Cont/Sonc) SONC

Sulfur Cleanup: (Y/N) N Date Extracted: 12/12/94

Date Analyzed (1): 12/23/94 Date Analyzed (2): 12/23/94

Time Analyzed (1): 1914 Time Analyzed (2): 1914

Instrument ID (1): 5890AS Instrument ID (2): 5890BS

GC Column (1): DB608 ID: 0.53 (mm) GC Column (2): DB1701 ID: 0.53 (mm

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES, MS AND MSD:

	EPA SAMPLE NO.	LAB SAMPLE ID	DATE ANALYZED 1	DATE ANALYZED 2
01	MSB01	A4724212	12/23/94	12/23/94
02	S1	A4724210	12/28/94	12/28/94
03	SD1	A4724206	12/24/94	12/24/94
04	SD2	A4724207	12/24/94	12/24/94
05	SF1	A4724201	12/24/94	12/24/94
06	SF2	A4724202	12/23/94	12/23/94
07	SF2FD	A4724202FD	12/23/94	12/23/94
08	SF2MS	A4724202MS	12/23/94	12/23/94
09	SF2MSD	A4724202SD	12/24/94	12/24/94

COMMENTS:

1D
PESTICIDE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.
PBLK13

Lab Name: RECRA ENVIRON Contract: NY95-008

Lab Code: RECNY Case No.: 5205 SAS No.: _____ SDG No.: S1

Matrix: (soil/water) SOIL Lab Sample ID: A4B0375601

Sample wt/vol: 30.0 (g/mL) G Lab File ID: _____

% Moisture: _____ decanted: (Y/N) ___ Date Received: _____

Extraction: (SepF/Cont/Sonc) SONC Date Extracted: 12/12/94

Concentrated Extract Volume: 5000 (uL) Date Analyzed: 12/23/94

Injection Volume: 1.00 (uL) Dilution Factor: 1.00

GPC Cleanup: (Y/N) Y pH: 7.0 Sulfur Cleanup: (Y/N) N

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
12674-11-2	Aroclor-1016	33	U
11104-28-2	Aroclor-1221	67	U
11141-16-5	Aroclor-1232	33	U
53469-21-9	Aroclor-1242	33	U
12672-29-6	Aroclor-1248	33	U
11097-69-1	Aroclor-1254	33	U
11096-82-5	Aroclor-1260	33	U

NYSDEC ASP

3
BLANKS

Lab Name: RECRA_ENVIRONMENTAL_INC._ Contract: NY95-008__

Lab Code: RECNY_ Case No.: 5205_ SAS No.: _____ SDG No.: S1____

Preparation Blank Matrix (soil/water): WATER

Preparation Blank Concentration Units (ug/L or mg/kg): UG/L_

Analyte	Initial Calib. Blank (ug/L)	C	Continuing Calibration Blank (ug/L) 1	C	2	C	3	C	Prepa-ration Blank	C	M
Aluminum	90.0	U	90.0	U	90.0	U	90.0	U	90.000	U	P
Antimony	40.0	U	40.0	U	40.0	U	40.0	U	40.000	U	P
rsenic	3.0	U	3.0	U	3.0	U	3.0	U	3.000	U	P
Barium	20.0	U	20.0	U	20.0	U	20.0	U	20.000	U	P
Beryllium	3.0	U	3.0	U	3.0	U	3.0	U	3.000	U	P
Cadmium	5.0	U	5.0	U	5.0	U	5.0	U	5.000	U	P
Calcium	1000.0	U	1000.0	U	1000.0	U	1000.0	U	1000.000	U	P
Chromium	10.0	U	10.0	U	10.0	U	10.0	U	10.000	U	P
Cobalt	10.0	U	10.0	U	10.0	U	-10.0	B	10.000	U	P
Copper	10.0	U	10.0	U	10.0	U	10.0	U	10.000	U	P
Iron	40.0	U	40.0	U	40.0	U	40.0	U	40.000	U	P
Lead	30.0	U	30.0	U	30.0	U	30.0	U	30.000	U	P
Magnesium	300.0	U	300.0	U	300.0	U	300.0	U	300.000	U	P
Manganese	5.0	U	5.0	U	5.0	U	5.0	U	5.000	U	P
Mercury	0.2	U	0.2	U	0.2	U	0.2	U	0.200	U	CV
Nickel	20.0	U	20.0	U	20.0	U	20.0	U	20.000	U	P
Potassium	300.0	U	300.0	U	300.0	U	300.0	U	300.000	U	P
Selenium	3.0	U	3.0	U	3.0	U	3.0	U	3.000	U	P
Silver	10.0	U	10.0	U	10.0	U	10.0	U	10.000	U	P
Sodium	1000.0	U	1000.0	U	1000.0	U	1000.0	U	1000.000	U	P
Thallium	3.5	U	3.5	U	3.5	U	3.5	U	3.500	U	P
Vanadium	10.0	U	10.0	U	10.0	U	10.0	U	10.000	U	P
Zinc	10.0	U	10.0	U	10.0	U	10.0	U	10.000	U	P
Cyanide	10.0	U	10.0	U	10.0	U	10.0	U			C

NYSDEC ASP

3
BLANKS

00189

Lab Name: RECRA_ENVIRONMENTAL_INC._ Contract: NY95-008__

Lab Code: RECNY_ Case No.: 5205_ SAS No.: _____ SDG No.: S1____

Preparation Blank Matrix (soil/water): SOIL_

Preparation Blank Concentration Units (ug/L or mg/kg): MG/KG

Analyte	Initial Calib. Blank (ug/L)	C	Continuing Calibration Blank (ug/L) 1	C	2	C	3	C	Prepa-ration Blank	C	M
Aluminum			90.0	U	90.0	U	90.0	U	18.000	U	P
Antimony			40.0	U	40.0	U	40.0	U	8.000	U	P
Arsenic			3.0	U	3.0	U	3.0	U	0.600	U	P
Barium			20.0	U	20.0	U	20.0	U	4.000	U	P
Beryllium			3.0	U	3.0	U	3.0	U	0.600	U	P
Cadmium			5.0	U	5.0	U	5.0	U	1.000	U	P
Calcium			1000.0	U	1000.0	U	1000.0	U	200.000	U	P
Chromium			10.0	U	10.0	U	10.0	U	2.000	U	P
Cobalt			10.0	U	10.0	U	10.0	U	2.000	U	P
Copper			10.0	U	10.0	U	10.0	U	2.000	U	P
Iron			40.0	U	40.0	U	40.0	U	8.000	U	P
Lead			30.0	U	30.0	U	30.0	U	0.400	U	P
Magnesium			300.0	U	300.0	U	300.0	U	60.000	U	P
Manganese			5.0	U	5.0	U	5.0	U	1.000	U	P
Mercury			0.2	U					0.100	U	CV
Nickel			20.0	U	20.0	U	20.0	U	4.000	U	P
Potassium			300.0	U	370.0	B	361.0	B	60.000	U	P
Selenium			3.0	U	3.0	U	3.0	U	0.600	U	P
Silver			10.0	U	10.0	U	10.0	U	2.000	U	P
Sodium			1000.0	U	1342.0	B	1000.0	U	200.000	U	P
Thallium			3.5	U	3.5	U	3.5	U	0.700	U	P
Vanadium			10.0	U	10.0	U	10.0	U	2.000	U	P
Zinc			10.0	U	10.0	U	10.0	U	2.000	U	P
Cyanide			10.0	U	10.0	U	10.0	U	1.000	U	C

NYSDEC ASP

)0190

3
BLANKS

Lab Name: RECRA_ENVIRONMENTAL_INC._ Contract: NY95-008__

Lab Code: RECNY_ Case No.: 5205_ SAS No.: _____ SDG No.: S1____

Preparation Blank Matrix (soil/water): _____

Preparation Blank Concentration Units (ug/L or mg/kg): _____

Analyte	Initial Calib. Blank (ug/L)	C	Continuing Calibration Blank (ug/L) 1	C	2	C	3	C	Prepa-ration Blank	C	M
Aluminum			90.0	U	90.0	U					P
Antimony			40.0	U	40.0	U					P
rsenic											NR
Barium			20.0	U	20.0	U					P
Beryllium			3.0	U	3.0	U					P
Cadmium			5.0	U	5.0	U					P
Calcium			1000.0	U	1000.0	U					P
Chromium			10.0	U	10.0	U					P
Cobalt			10.0	U	10.0	U					P
Copper			10.0	U	10.0	U					P
Iron			40.0	U	40.0	U					P
Lead			30.0	U	30.0	U					P
Magnesium			300.0	U	300.0	U					P
Manganese			5.0	U	5.0	U					P
Mercury	0.2	U	0.2	U	0.2	U					CV
Nickel			20.0	U	20.0	U					P
Potassium			300.0	U	300.0	U					P
Selenium											NR
Silver			10.0	U	10.0	U					P
Sodium			1000.0	U	1000.0	U					P
Thallium											NR
Vanadium			10.0	U	10.0	U					P
Zinc			10.0	U	10.0	U					P
Cyanide			10.0	U							C

NYSDEC ASP

00191

3
BLANKS

Lab Name: RECRA_ENVIRONMENTAL_INC._ Contract: NY95-008__

Lab Code: RECNY_ Case No.: 5205_ SAS No.: _____ SDG No.: S1____

Preparation Blank Matrix (soil/water): _____

Preparation Blank Concentration Units (ug/L or mg/kg): _____

Analyte	Initial Calib. Blank (ug/L)	C	Continuing Calibration Blank (ug/L) 1	C	2	C	3	C	Prepa-ration Blank	C	M
Aluminum											NR
Antimony											NR
Arsenic											NR
Barium											NR
Beryllium											NR
Cadmium											NR
Calcium											NR
Chromium											NR
Cobalt											NR
Copper											NR
Iron											NR
Lead	2.0	U	2.0	U	2.0	U	2.0	U			P
Magnesium											NR
Manganese											NR
Mercury											NR
Nickel											NR
Potassium											NR
Selenium											NR
Silver											NR
Sodium											NR
Thallium											NR
Vanadium											NR
Zinc											NR
Cyanide											NR

FORM III - IN

019

NYSDEC ASP

3
BLANKS

Lab Name: RECRA_ENVIRONMENTAL_INC._ Contract: NY95-008__

Lab Code: RECNY_ Case No.: 5205_ SAS No.: _____ SDG No.: S1____

Preparation Blank Matrix (soil/water): _____

Preparation Blank Concentration Units (ug/L or mg/kg): _____

Analyte	Initial Calib. Blank (ug/L)	C	Continuing Calibration Blank (ug/L) 1	C	2	C	3	C	Prepa-ration Blank	C	M
Aluminum											NR
Antimony											NR
Arsenic											NR
Barium											NR
Beryllium											NR
Cadmium											NR
Calcium											NR
Chromium											NR
Cobalt											NR
Copper											NR
Iron											NR
Lead			2.0	U	2.0	U	2.0	U			P
Magnesium											NR
Manganese											NR
Mercury											NR
Nickel											NR
Potassium											NR
Selenium											NR
Silver											NR
Sodium											NR
Thallium											NR
Vanadium											NR
Zinc											NR
Cyanide											NR

FORM III - IN

12.91

RADIAN CORPORATION
ERDLE SITE
WET CHEMISTRY
METHOD BLANK SUMMARY

0012
Client No

METHOD BLANK

Lab Name: Recra Environmental Contract: _____

Lab Code: RECNY Case No.: 5205 SAS No.: _____ SDG No.: S1

Lab Sample ID: A4B0386902 Lab File ID: _____

Matrix: (soil/water) SOIL Instrument ID (1): _____

Date Analyzed (1): 12/13/94 Time Analyzed (1): _____

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES, MS AND MSD:

	CLIENT SAMPLE NO.	LAB SAMPLE ID	DATE ANALYZED 1	TIME ANALYZED
1	MATRIX SPIKE BL DUP	A4B0386906	12/13/94	
2	MATRIX SPIKE BLANK	A4B0386904	12/13/94	
3	SD-1	A4724206	12/13/94	
4	SD-2	A4724207	12/13/94	
5	SD-3	A4724208	12/13/94	
6	SF-1	A4724201	12/13/94	
7	SF-2	A4724202	12/13/94	
8	SF-2 FD	A4724202FD	12/13/94	
9	SF-2 MD	A4724202MD	12/13/94	
10	SF-2 MS	A4724202MS	12/13/94	
11	SF-3	A4724203	12/13/94	
12	SF-3 MD	A4724203MD	12/13/94	
13	SF-3 MS	A4724203MS	12/13/94	

Comments: _____

RADIAN CORPORATION
ERDLE SITE
Wet Chemistry Analysis

Client Sample No.: 00194
METHOD BLANK

Lab Name: Recra Environmental, Inc. Contract: _____

Lab Code: RECNY Case No.: 5205 SAS No.: _____ SDG No.: S1

Matrix (soil/water): SOIL Lab Sample ID: A4B0386902

% Solids: 100.0 Date Samp/Recv: _____ _____

Parameter Name	Units of Measure	Result	C	Q	M	Method Number	Analyzed Date
Leachable Total Organic Carbon	UG/G	200	U			9060	12/13/94

Comments:

RADIAN CORPORATION
ERDLE SITE
WET CHEMISTRY
METHOD BLANK SUMMARY

Client No. 00195

METHOD BLANK

Lab Name: Recra Environmental Contract: _____

Lab Code: RECNY Case No.: 5205 SAS No.: _____ SDG No.: S1

Lab Sample ID: A4B0390302 Lab File ID: _____

Matrix: (soil/water) SOIL Instrument ID (1): _____

Date Analyzed (1): 12/14/94 Time Analyzed (1): _____

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES, MS AND MSD:

	CLIENT SAMPLE NO.	LAB SAMPLE ID	DATE ANALYZED 1	TIME ANALYZED
1	S-1	A4724210	12/14/94	
2	SD-4	A4724209	12/14/94	

Comments: _____

RADIAN CORPORATION
ERDLE SITE
Wet Chemistry Analysis

)019

Client Sample No.
METHOD BLANK

Lab Name: Recra Environmental, Inc. Contract: _____

Lab Code: RECNY Case No.: 5205 SAS No.: _____ SDG No.: S1

Matrix (soil/water): SOIL Lab Sample ID: A4B0390302

% Solids: 100.0 Date Samp/Recv: _____ _____

Parameter Name	Units of Measure	Result	C	Q	M	Method Number	Analyzed Date
Leachable Total Organic Carbon	UG/G	200	U			9060	12/14/94

Comments:

RADIAN CORPORATION
ERDLE SITE
WET CHEMISTRY
METHOD BLANK SUMMARY

)0197

Client No

METHOD BLANK

Lab Name: Recra Environmental Contract: _____

Lab Code: RECNY Case No.: 5205 SAS No.: _____ SDG No.: S1

Lab Sample ID: A4B0393404 Lab File ID: _____

Matrix: (soil/water) WATER Instrument ID (1): _____

Date Analyzed (1): 12/15/94 Time Analyzed (1): _____

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES, MS AND MSD:

	CLIENT SAMPLE NO.	LAB SAMPLE ID	DATE ANALYZED 1	TIME ANALYZED
1	SW-2	A4725005	12/15/94	

Comments: _____

RADIAN CORPORATION
ERDLE SITE
Wet Chemistry Analysis

Client Sample No.
METHOD BLANK

Lab Name: Recra Environmental, Inc. Contract: _____

Lab Code: RECNY Case No.: 5205 SAS No.: _____ SDG No.: S1

Matrix (soil/water): WATER Lab Sample ID: A4B0393404

% Solids: 0.0 Date Samp/Recv: _____ _____

Parameter Name	Units of Measure	Result	C	Q	M	Method Number	Analyzed Date
Total Hardness	MG/L*	1.0	U			130.2	12/15/94

Comments:

RADIAN CORPORATION
ERDLE SITE
WET CHEMISTRY
METHOD BLANK SUMMARY

00199

Client No.

METHOD BLANK

Lab Name: Recra Environmental Contract: _____

Lab Code: RECNY Case No.: 5205 SAS No.: _____ SDG No.: S1

Lab Sample ID: A5B0002401 Lab File ID: _____

Matrix: (soil/water) WATER Instrument ID (1): _____

Date Analyzed (1): 12/30/94 Time Analyzed (1): _____

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES, MS AND MSD:

	CLIENT SAMPLE NO.	LAB SAMPLE ID	DATE ANALYZED 1	TIME ANALYZED
1	RB-1	A4725002	12/30/94	
2	RB-2	A4725003	12/30/94	

Comments: _____

RADIAN CORPORATION
ERDLE SITE
Wet Chemistry Analysis

)020

Client Sample No.
METHOD BLANK

Lab Name: Recra Environmental, Inc. Contract: _____

Lab Code: RECNY Case No.: 5205 SAS No.: _____ SDG No.: S1

Matrix (soil/water): WATER Lab Sample ID: A5B0002401

% Solids: 0.0 Date Samp/Recv: _____ _____

Parameter Name	Units of Measure	Result	C	Q	M	Method Number	Analyzed Date
Total Organic Carbon	MG/L	1.0	U			9060	12/30/94

Comments:

RADIAN CORPORATION
ERDLE SITE
METHOD 8240 - TCL VOLATILES
VOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

00201

Lab Name: Recra Environmental Contract: _____ Labsampid: A4B0391705

Lab Code: RECNY Case No.: 5205 SAS No.: _____ SDG No.: S1

Lab File ID (Standard): G1733.MSQ Date Analyzed: 12/10/94

Instrument ID: I50G Time Analyzed: 10:30

GC Column(1): DB-624 ID: 0.530 (mm) Heated Purge: (Y/N) Y

		IS1 (BCM) AREA #	RT #	IS2 (DFB) AREA #	RT #	IS3 (CBZ) AREA #	RT #
	12 HOUR STD	33886	11.82	89817	13.78	87736	18.58
	UPPER LIMIT	67772	12.32	179634	14.28	175472	19.08
	LOWER LIMIT	16943	11.32	44909	13.28	43868	18.08
	CLIENT SAMPLE						
1	S-1	29505	11.82	73021	13.78	54640	18.58
2	SD-2	20270	11.85	49024	13.82	41425 *	18.63
3	SD-4	30554	11.83	82557	13.82	68225	18.60
4	VBLK41	35940	11.78	92980	13.77	83894	18.57

	AREA UNIT QC LIMITS	RT QC LIMITS
IS1 (BCM) = Bromochloromethane	(50-200)	-0.50 / +0.50 min
IS2 (DFB) = 1,4-Difluorobenzene	(50-200)	-0.50 / +0.50 min
IS3 (CBZ) = Chlorobenzene-D5	(50-200)	-0.50 / +0.50 min

Column to be used to flag recovery values
* Values outside of contract required QC limits

RADIAN CORPORATION
ERDLE SITE
METHOD 8240 - TCL VOLATILES
VOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

)0202

Lab Name: Recra Environmental Contract: _____ Labsampid: A4B0391710

Lab Code: RECNY Case No.: 5205 SAS No.: _____ SDG No.: S1

Lab File ID (Standard): G1750.MSO Date Analyzed: 12/13/94

Instrument ID: I50G Time Analyzed: 22:21

GC Column(1): DB-624 ID: 0.530 (mm) Heated Purge: (Y/N) Y

		IS1 (BCM) AREA	#	RT	#	IS2 (DFB) AREA	#	RT	#	IS3 (CBZ) AREA	#	RT	#
	12 HOUR STD	35538		11.90		118233		13.87		108577		18.65	
	UPPER LIMIT	71076		12.40		236466		14.37		217154		19.15	
	LOWER LIMIT	17769		11.40		59117		13.37		54289		18.15	
	CLIENT SAMPLE												
1	MATRIX SPIKE BLANK 3	24754		11.92		85418		13.90		77819		18.70	
2	SD-1	25957		11.83		79137		13.82		58826		18.63	
3	SF-1	26172		11.87		72923		13.83		55618		18.63	
4	SF-1 MS	29364		11.83		83198		13.82		65278		18.63	
	SF-1 MSD	30976		11.87		91004		13.83		78417		18.65	
	VBLK43	39850		11.92		120162		13.88		112762		18.67	

	AREA UNIT QC LIMITS	RT QC LIMITS
IS1 (BCM) = Bromochloromethane	(50-200)	-0.50 / +0.50 min
IS2 (DFB) = 1,4-Difluorobenzene	(50-200)	-0.50 / +0.50 min
IS3 (CBZ) = Chlorobenzene-D5	(50-200)	-0.50 / +0.50 min

Column to be used to flag recovery values
* Values outside of contract required QC limits

RADIAN CORPORATION
ERDLE SITE
METHOD 8240 - TCL VOLATILES
VOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

0203

Lab Name: Recra Environmental Contract: _____ Labsampid: AML000354C

Lab Code: RECNY Case No.: 5205 SAS No.: _____ SDG No.: S1

Lab File ID (Standard): L3945.RR Date Analyzed: 12/12/94

Instrument ID: I50L-A Time Analyzed: 07:51

GC Column(1): DB-624 ID: 0.530 (mm) Heated Purge: (Y/N) N

		IS1 (BCM) AREA #	RT #	IS2 (DFB) AREA #	RT #	IS3 (CBZ) AREA #	RT #
	12 HOUR STD	641365	10.23	2498361	12.47	2281472	17.40
	UPPER LIMIT	1282730	10.73	4996722	12.97	4562944	17.90
	LOWER LIMIT	320683	9.73	1249181	11.97	1140736	16.90
	CLIENT SAMPLE						
1	RB-1	615647	10.30	2295297	12.52	2209583	17.45
2	SW-2	590213	10.30	2308216	12.52	2305470	17.45
3	TB-1	624021	10.28	2401499	12.50	2173346	17.45
4	VBLK38	601428	10.25	2336183	12.48	2168264	17.43

	AREA UNIT QC LIMITS	RT QC LIMITS
IS1 (BCM) = Bromochloromethane	(50-200)	-0.50 / +0.50 min
IS2 (DFB) = 1,4-Difluorobenzene	(50-200)	-0.50 / +0.50 min
IS3 (CBZ) = Chlorobenzene-D5	(50-200)	-0.50 / +0.50 min

Column to be used to flag recovery values
* Values outside of contract required QC limits

RADIAN CORPORATION
ERDLE SITE
METHOD 8240 - TCL VOLATILES
VOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

00204

Lab Name: Recra Environmental Contract: _____ Labsampid: AML000354C

Lab Code: RECNY Case No.: 5205 SAS No.: _____ SDG No.: S1

Lab File ID (Standard): L3945.RR Date Analyzed: 12/12/94

Instrument ID: I50L-A Time Analyzed: 07:51

GC Column(1): DB-624 ID: 0.530 (mm) Heated Purge: (Y/N) N

		IS1 (BCM) AREA	#	RT	#	IS2 (DFB) AREA	#	RT	#	IS3 (CBZ) AREA	#	RT	#
	12 HOUR STD	641365		10.23		2498361		12.47		2281472		17.40	
	UPPER LIMIT	1282730		10.73		4996722		12.97		4562944		17.90	
	LOWER LIMIT	320683		9.73		1249181		11.97		1140736		16.90	
	CLIENT SAMPLE												
1	MATRIX SPIKE BLANK 1	645260		10.22		2460623		12.43		2245213		17.40	
2	SD-2 DL	562547		10.27		2236327		12.48		2103417		17.43	
3	SF-2	647362		10.28		2489985		12.52		2470156		17.45	
4	SF-2 DL	576771		10.28		2283005		12.50		2026662		17.45	
5	SF-2 FD	656545		10.30		2634280		12.52		2570381		17.47	
	SF-2 FDDL	554932		10.27		2222530		12.48		2097301		17.42	
,	SF-2 MS	593546		10.30		2390470		12.50		2257856		17.45	
8	SF-2 MSD	594598		10.27		2270126		12.48		2375262		17.45	
9	VBLK38	601428		10.25		2336183		12.48		2168264		17.43	

	AREA UNIT QC LIMITS	RT QC LIMITS
IS1 (BCM) = Bromochloromethane	(50-200)	-0.50 / +0.50 min
IS2 (DFB) = 1,4-Difluorobenzene	(50-200)	-0.50 / +0.50 min
IS3 (CBZ) = Chlorobenzene-D5	(50-200)	-0.50 / +0.50 min

Column to be used to flag recovery values
* Values outside of contract required QC limits

RADIAN CORPORATION
ERDLE SITE
METHOD 8270 - TCL SEMIVOLATILES
SEMIVOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

)020

Lab Name: Recra Environmental Contract: _____ Labsampid: AMZ0005120

Lab Code: RECNY Case No.: 5205 SAS No.: _____ SDG No.: S1

Lab File ID (Standard): 22030Z.RR Date Analyzed: 12/16/94

Instrument ID: I50Z-A Time Analyzed: 10:23

		IS1 (DCB) AREA #	RT #	IS2 (NPT) AREA #	RT #	IS3 (ANT) AREA #	RT #
	12 HOUR STD	214160	4.81	859498	6.09	512568	8.55
	UPPER LIMIT	428320	5.31	1718996	6.59	1025136	9.05
	LOWER LIMIT	107080	4.31	429749	5.59	256284	8.05
	CLIENT SAMPLE						
1	RB-1	218618	4.81	814221	6.09	474772	8.53
2	SBLK 68	230342	4.81	892436	6.09	502536	8.53
3	SW-2	194019	4.81	786285	6.09	473689	8.53

	AREA UNIT QC LIMITS	RT QC LIMITS
IS1 (DCB) = 1,4-Dichlorobenzene-D4	(50-200)	-0.50 / +0.50 min
IS2 (NPT) = Naphthalene-D8	(50-200)	-0.50 / +0.50 min
IS3 (ANT) = Acenaphthene-D10	(50-200)	-0.50 / +0.50 min

Column to be used to flag recovery values
* Values outside of contract required QC limits

)0206

RADIAN CORPORATION
ERDLE SITE
METHOD 8270 - TCL SEMIVOLATILES
SEMIVOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: Recra Environmental Contract: _____ Labsampid: AMZ0005120

Lab Code: RECNY Case No.: 5205 SAS No.: _____ SDG No.: S1

Lab File ID (Standard): 22030Z.RR Date Analyzed: 12/16/94

Instrument ID: I50Z-A Time Analyzed: 10:23

		IS4 (PHN) AREA #	RT #	IS5(CRY) AREA #	RT #	IS6 (PRY) AREA #	RT #
	12 HOUR STD	772173	11.20	832637	16.41	452645	19.04
	UPPER LIMIT	1544346	11.70	1665274	16.91	905290	19.54
	LOWER LIMIT	386087	10.70	416319	15.91	226323	18.54
	CLIENT SAMPLE						
1	RB-1	716363	11.19	676979	16.38	611093	19.02
2	SBLK 68	751822	11.19	720774	16.38	691835	19.03
3	SW-2	761205	11.20	507538	16.43	338831	19.06

	AREA UNIT QC LIMITS	RT QC LIMITS
IS4 (PHN) = Phenanthrene-D10	(50-200)	-0.50 / +0.50 min
IS5 (CRY) = Chrysene-D12	(50-200)	-0.50 / +0.50 min
IS6 (PRY) = Perylene-D12	(50-200)	-0.50 / +0.50 min

Column to be used to flag recovery values
* Values outside of contract required QC limits

)020

RADIAN CORPORATION
ERDLE SITE
METHOD 8270 - TCL SEMIVOLATILES
SEMIVOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: Recra Environmental Contract: _____ Labsampid: AMZ0005010

Lab Code: RECNY Case No.: 5205 SAS No.: _____ SDG No.: S1

Lab File ID (Standard): 22223Z.RR Date Analyzed: 12/30/94

Instrument ID: I50Z-A Time Analyzed: 09:46

		IS1 (DCB) AREA	#	RT	#	IS2 (NPT) AREA	#	RT	#	IS3 (ANT) AREA	#	RT	#
	12 HOUR STD	122553		5.05		501494		6.37		331029		8.88	
	UPPER LIMIT	245106		5.55		1002988		6.87		662058		9.38	
	LOWER LIMIT	61277		4.55		250747		5.87		165515		8.38	
	CLIENT SAMPLE												
1	MATRIX SPIKE BLANK	156583		5.06		574396		6.38		408716		8.89	
2	S-1	41836	*	5.07		133073	*	6.39		9550	*	8.91	
3	SBLK 84	149676		5.06		550519		6.37		379403		8.88	
4	SD-2	10638	*	5.07		41894	*	6.39		41566	*	8.91	
5	SF-1	159382		5.06		606831		6.37		446189		8.89	
6	SF-2	164586		5.06		663421		6.38		468851		8.91	
7	SF-2 FD	61585		5.06		282425		6.38		219269		8.91	
8	SF-2 MS	35176	*	5.06		149952	*	6.38		117008	*	8.91	
9	SF-2 MSD	33084	*	5.06		130111	*	6.38		100145	*	8.90	
10	SF-3	40922	*	5.06		169094	*	6.38		142402	*	8.90	
11	SF-3 MS	33589	*	5.07		115833	*	6.39		91968	*	8.91	
12	SF-3 MSD	15918	*	5.07		68649	*	6.39		47708	*	8.91	

	AREA UNIT QC LIMITS	RT QC LIMITS
IS1 (DCB) = 1,4-Dichlorobenzene-D4	(50-200)	-0.50 / +0.50 min
IS2 (NPT) = Naphthalene-D8	(50-200)	-0.50 / +0.50 min
IS3 (ANT) = Acenaphthene-D10	(50-200)	-0.50 / +0.50 min

Column to be used to flag recovery values
* Values outside of contract required QC limits

RADIAN CORPORATION
ERDLE SITE
METHOD 8270 - TCL SEMIVOLATILES
SEMIVOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

00208

Lab Name: Recra Environmental Contract: _____ Labsampid: AMZ0005210

Lab Code: REONY Case No.: 5205 SAS No.: _____ SDG No.: S1

Lab File ID (Standard): 22223Z.RR Date Analyzed: 12/30/94

Instrument ID: I50Z-A Time Analyzed: 09:46

		IS4 (PHN) AREA	#	RT	#	IS5(CRY) AREA	#	RT	#	IS6 (PRY) AREA	#	RT	#
	12 HOUR STD	566704		11.58		726485		16.80		668142		19.43	
	UPPER LIMIT	1133408		12.08		1452970		17.30		1336284		19.93	
	LOWER LIMIT	283352		11.08		363243		16.30		334071		18.93	
	CLIENT SAMPLE												
1	MATRIX SPIKE BLANK	694719		11.59		759424		16.78		632132		19.43	
2	S-1	36892	*	11.78		179833	*	17.34	*	47454	*	19.89	
3	SBLK 84	655317		11.58		709515		16.80		624744		19.44	
4	SD-2	66769	*	11.90		84957	*	17.53	*	138936	*	19.94	*
5	SF-1	705648		11.64		446334		16.99		449648		19.65	
6	SF-2	779625		11.71		361021	*	16.95		341594		19.54	
7	SF-2 FD	423989		11.68		167448	*	16.94		76183	*	19.52	
8	SF-2 MS	246623	*	11.67		99028	*	16.94		55796	*	19.55	
9	SF-2 MSD	170984	*	11.62		121097	*	16.85		80378	*	19.47	
10	SF-3	299862		11.77		99452	*	16.93		56567	*	19.53	
11	SF-3 MS	176313	*	11.95		141483	*	17.11		175999	*	19.64	
12	SF-3 MSD	162441	*	11.85		129060	*	17.04		39699	*	19.60	

	AREA UNIT QC LIMITS	RT QC LIMITS
IS4 (PHN) = Phenanthrene-D10	(50-200)	-0.50 / +0.50 min
IS5 (CRY) = Chrysene-D12	(50-200)	-0.50 / +0.50 min
IS6 (PRY) = Perylene-D12	(50-200)	-0.50 / +0.50 min

Column to be used to flag recovery values
* Values outside of contract required QC limits

RADIAN CORPORATION
ERDLE SITE
METHOD 8270 - TCL SEMIVOLATILES
SEMIVOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

)0209

Lab Name: Recra Environmental Contract: _____ Labsampid: AMZ0005340

Lab Code: RECNY Case No.: 5205 SAS No.: _____ SDG No.: S1

Lab File ID (Standard): 22296Z.RR Date Analyzed: 01/05/95

Instrument ID: I50Z-A Time Analyzed: 09:50

		IS1 (DCB) AREA	#	RT	#	IS2 (NPT) AREA	#	RT	#	IS3 (ANT) AREA	#	RT	#
	12 HOUR STD	90485		4.83		320489		6.12		189331		8.57	
	UPPER LIMIT	180970		5.33		640978		6.62		378662		9.07	
	LOWER LIMIT	45243		4.33		160245		5.62		94666		8.07	
	CLIENT SAMPLE												
1	S-1 RE	67536		4.85		128563	*	6.14		105563		8.59	
2	SD-1	70814		4.84		258231		6.12		281735		8.57	
3	SD-2 RE	65810		4.84		297568		6.13		213654		8.60	

	AREA UNIT QC LIMITS	RT QC LIMITS
IS1 (DCB) = 1,4-Dichlorobenzene-D4	(50-200)	-0.50 / +0.50 min
IS2 (NPT) = Naphthalene-D8	(50-200)	-0.50 / +0.50 min
IS3 (ANT) = Acenaphthene-D10	(50-200)	-0.50 / +0.50 min

Column to be used to flag recovery values
* Values outside of contract required QC limits

00210

RADIAN CORPORATION
ERDLE SITE
METHOD 8270 - TCL SEMIVOLATILES
SEMIVOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: Recra Environmental Contract: _____ Labsampid: AMZ000524C

Lab Code: RECNY Case No.: 5205 SAS No.: _____ SDG No.: S1

Lab File ID (Standard): 22296Z.RR Date Analyzed: 01/05/95

Instrument ID: I50Z-A Time Analyzed: 09:50

		IS4 (PHN) AREA	#	RT	#	IS5 (CRY) AREA	#	RT	#	IS6 (PRY) AREA	#	RT	#
	12 HOUR STD	274583		11.24		383006		16.44		304474		19.08	
	UPPER LIMIT	549166		11.74		766012		16.94		608948		19.58	
	LOWER LIMIT	137292		10.74		191503		15.94		152237		18.58	
	CLIENT SAMPLE												
1	S-1 RE	29256	*	11.32		125357	*	17.08	*	115483	*	19.70	*
2	SD-1	494648		11.26		354631		16.51		246706		19.16	
3	SD-2 RE	208672		11.40		221733		17.25	*	78049	*	19.72	*

		AREA UNIT QC LIMITS	RT QC LIMITS
IS4 (PHN) =	Phenanthrene-D10	(50-200)	-0.50 / +0.50 min
IS5 (CRY) =	Chrysene-D12	(50-200)	-0.50 / +0.50 min
IS6 (PRY) =	Perylene-D12	(50-200)	-0.50 / +0.50 min

Column to be used to flag recovery values
* Values outside of contract required QC limits

RADIAN CORPORATION

Chain of Custody Record

PROJECT: Fridle Perforating RI/FS

SITE:

COLLECTED BY (Signature):

FIELD SAMPLE I.D.	SAMPLE MATRIX	DATE/TIME	TOTAL NO. OF CONTAINERS	ANALYSES: NYSDEC CLP Semi Volatiles	NYSDEC CLP PCBs	NYSDEC CLP Metals	Cn SEC					REMARKS	SAM ID NO (for lab use only)
SF-1	SOIL	Dec 8/94 (10:00)	4	1	1	1	1						
SF-2	SOIL	Dec 8/94 (9:00)	4	1	1	1	1						
SF-2-FP	SOIL	Dec 8/94 (9:00)	4	1	1	1	1						
SF-2-MS	SOIL	Dec 8/94 (9:00)	4	1	1	1	1						
SF-2-MSD	SOIL	Dec 8/94 (9:00)	4	1	1	1	1						
SD-1	SOIL	Dec 8/94 (12:45)	4	1	1	1	1						
SD-2	SOIL	Dec 8/94 (11:45)	3	1	1		1						
S-1	SOIL	Dec 8/94 (13:15)	4	1	1	1	1						
SF-3	SOIL	Dec 8/94 (13:30)	2	1			1						

REMARKS: Analyze per QAPjP for this project, RECRA CONTACT IS Rob Kissel

RELINQUISHED BY:	DATE	TIME
	12/8/94	8:30

RECEIVED BY:	DATE	TIME	RELINQUISHED BY:	DATE	TIME	RECEIVED BY:	DATE	TIME	RELINQUISHED BY:	DATE	TIME
Instant Delivery	12/8/94	8:30									

LAB USE ONLY

RECEIVED FOR LABORATORY BY:	DATE	TIME	AIRBILL NO.	OPENED BY:	DATE	TIME	TEMP°C	SEAL #	CONDITION:
	12/9/94	9:30							

REMARKS: Coolers = °C

4-88-30337

JR219

REFERENCE # 17
PAGE 435 OF 584

RADIAN CORPORATION

Chain of Custody Record

PROJECT: ERDLE PERFORMING RI/FS.

SITE:

COLLECTED BY (Signature): [signature]

FIELD SAMPLE I.D.	SAMPLE MATRIX	DATE/TIME	TOTAL NO. OF CONTAINERS	NYSCLP SEMI-VOLATILES	NYSCLP PCB'S	NYSCLP METALS WHOLE CN	SW-9060					REMARKS	SAM ID NO. (for lab use only)
SF 5	soil	Dec 8/94 (15:00)	1			1							
SF 4	soil	Dec 8/94 (15:00)	1			1							
SD-2	soil	Dec 8/94 (11:45)	1			1							
SD-4	soil	Dec 8/94 (12:30)	1				1						
SD-3	soil	Dec 8/94 (15:45)	1				1						
SF-3-MS	soil	Dec 8/94 (13:30)	2	1			1						
SF-3-MSD	soil	Dec 8/94 (13:30)	2	1			1						

ANALYSES

REMARKS: Analyze as per QAPjP for this project. RECRA contact is Rob Kissel

RELINQUISHED BY:	DATE	TIME
[signature]	12/8/94	8:30

RECEIVED BY:	DATE	TIME	RELINQUISHED BY:	DATE	TIME	RECEIVED BY:	DATE	TIME	RELINQUISHED BY:	DATE	TIME
Instant Delivery	12/8/94	8:30									

LAB USE ONLY

RECEIVED FOR LABORATORY BY:	DATE	TIME	AIRBILL NO.	OPENED BY:	DATE	TIME	TEMP °C	SEAL #	CONDITION:
[signature]	12/8/94	10:00							

REMARKS: Coolers = 2°C

REFERENCE # 17
PAGE 436 OF 584

RADIAN CORPORATION

Chain of Custody Record

PROJECT: Erie Perforating RI/FS

SITE:

COLLECTED BY (Signature):

FIELD SAMPLE I.D.	SAMPLE MATRIX	DATE/TIME	Total NO. OF CONTAINERS	NYSCLP Volatiles	SW 8010	SW 8020						REMARKS	SAM ID NO (for lab use only)
SF-2	Soil	12/8/94 9:00	1	1									
SF-2-MS	Soil	12/8/94 9:00	1	1									
SF-2-MSD	Soil	12/8/94 9:00	1	1									
SF-2-FD	Soil	12/8/94 9:00	1	1									
SF-3	Soil	12/8/94 13:30	2		1	1							
SF-3-MS	Soil	12/8/94 13:30	2		1	1							
SF-3 MSD	Soil	12/8/94 13:30	2		1	1							
SF-1	Soil	12/8/94 10:00	1	1									
SD-3	Soil	12/8/94 15:45	1		1								

REMARKS: Analyze per QAPjP for this project. RECRA contact is Rob Kissel

RELINQUISHED BY	DATE	TIME
	12/9/94	8:30

RECEIVED BY	DATE	TIME	RELINQUISHED BY	DATE	TIME	RECEIVED BY	DATE	TIME	RELINQUISHED BY	DATE	TIME
Inst. Del.	12/9/94	8:30									

LAB USE ONLY

RECEIVED FOR LABORATORY BY	DATE	TIME	AIRBILL NO.	OPENED BY	DATE	TIME	TEMP°C	SEAL #	CONDITION
D	12/9/94								

REMARKS: RECRA - 1°C

REFERENCE # 17
PAGE 437 OF 584

12380337

RADIAN CORPORATION

Chain of Custody Record

PROJECT: Erdle Perforating RI/FS

SITE:

COLLECTED BY (Signature):

FIELD SAMPLE I.D.	SAMPLE MATRIX	DATE/TIME	TOTAL NO. OF CONTAINERS	ANALYSES: NYSCLP Volatiles	SW 8010	SW 8020							REMARKS	SAM ID NO (for lab use only)
SD-1	Soil	12/8/94 / 12:45	1	1										
SF-5	Soil	12/8/94 / 15:00	1		1									
SF-4	Soil	12/8/94 / 15:00	1		1									
SD-2	Soil	12/8/94 / 11:45	1	1										

REMARKS: Analyze per QAPjP for this project, RECRA contact is Rob Kissel

RECEIVED BY:	DATE	TIME	RELINQUISHED BY:	DATE	TIME	RECEIVED BY:	DATE	TIME	RELINQUISHED BY:	DATE	TIME
Inst. Del	12/8/94	8:30									

RELINQUISHED BY: DATE 12/8/94 TIME 8:30

LAB USE ONLY

RECEIVED FOR LABORATORY BY:	DATE	TIME	AIRBILL NO.	OPENED BY:	DATE	TIME	TEMP °C	SEAL #	CONDITION:
	12/9/94								

REMARKS: Cooler = 10°C

REFERENCE # 17
PAGE 438 OF 584

RADIAN CORPORATION

Chain of Custody Record

Page 1 of 1

PROJECT: Eddie Perforating RI/FS

SITE:

COLLECTED BY (Signature):

FIELD SAMPLE I.D.	SAMPLE MATRIX	DATE/TIME	Total NO. OF CONTAINERS	NYSCLP Semi-Volatile	NYSCLP PCBs	NYSCLP Metals & CN	EPA 130.2	Chl 9010	TOC				REMARKS	SAM ID NO (for lab use only)
RB-1	Water	12/8/94/15:15	6	2	1	2		1						
RB-2	Water	12/8/94/15:30	1					1						
SW-2	Water	12/8/94/11:45	6	2	1	2	1							

REMARKS: Analyze per QAPjP for this project. RECRA contact is Rob Kissel

RELINQUISHED BY: DATE 12/8/94 TIME 8:30 AM

RECEIVED BY:	DATE	TIME	RELINQUISHED BY:	DATE	TIME	RECEIVED BY:	DATE	TIME	RELINQUISHED BY:	DATE	TIME
Instant Delivery	12/9/94	8:30 AM									

LAB USE ONLY

RECEIVED FOR LABORATORY BY:	DATE	TIME	AIRBILL NO.	OPENED BY:	DATE	TIME	TEMP°C	SEAL #	CONDITION:
	12/9/94	10							

REMARKS: Coolers 4°C

REFERENCE # 17
PAGE 439 OF 584

00022

RADIAN CORPORATION

Chain of Custody Record

Page 2 of 3

PROJECT: Erdle Perforating RI/FS

SITE:

COLLECTED BY (Signature):

FIELD SAMPLE I.D.	SAMPLE MATRIX	DATE/TIME	TOTAL NO. OF CONTAINERS	NYSCLP Volatiles	SW 8010	SW 8020						REMARKS	SAM ID NO (for lab use only)
TB-1 (Trip Blank)	Water		4	2	1	1						8010/8020 is a combined sample	
RB 1 (Rinsate Blank)	Water	12/8/94/15:15	4	2	1	1						8010/8020 is a combined sample	
RB-2 (Rinsate Blank)	Water	12/8/94/15:30	2		2								
SW-4	Water	12/8/94/12:30	2		2								
SW 3	Water	12/8/94/13:45	2		2								
SW 1	Water	12/8/94/12:45	2		2								
SW 2	Water	12/8/94/11:45	2	2									
S-1	Soil	12/8/94/13:15	1	1									
SD-4	Soil	12/8/94/12:30	1	1									

REMARKS: Analyze per QAPjP for this project. RECRA contact is Rob Rissel

RELINQUISHED BY:	DATE	TIME
	12/9/94	8:30

RECEIVED BY:	DATE	TIME	RELINQUISHED BY:	DATE	TIME	RECEIVED BY:	DATE	TIME	RELINQUISHED BY:	DATE	TIME
Inst Rel	12/9/94	8:30									

LAB USE ONLY

RECEIVED FOR LABORATORY BY:	DATE	TIME	AIRBILL NO.	OPENED BY:	DATE	TIME	TEMP°C	SEAL #	CONDITION:
	12/9/94	1530							

REMARKS: Cooler #10

4-88-30337

302224

REFERENCE # 17
PAGE 440 OF 584

SAMPLE DATA SUMMARY PACKAGE

RECRA
ENVIRONMENTAL
INC.

CASE NARRATIVE

Laboratory Name: Recra Environmental, Inc.

Laboratory Code: RECNY

Case Number: 5205

SDG Number: MW1

Sample Identification:
GW-1
GW-1 MATRIX DUPLICATE
GW-1 MATRIX SPIKE
GW-1 MATRIX SPIKE DUPLICATE
GW-10
GW-2
GW-3
GW-4
GW-4 MATRIX SPIKE
GW-4 MATRIX SPIKE DUPLICATE
GW-5
GW-6
GW-7
GW-8
GW-9
TB-2

METHODOLOGIES

Analyses were performed in accordance with 1991 New York State Analytical Services protocol.

The specific methodologies employed in obtaining the enclosed analytical results are indicated on the specific data table. The method numbers presented refer to the following U.S. Environmental Protection Agency reference.

* 40 CFR Part 136 "Guidelines Establishing Test Procedures for the Analysis of Pollutants Under the Clean Water Act" October 26, 1984 (Federal Register) U.S. Environmental Protection Agency.

* U.S. Environmental Protection Agency "Test Methods for Evaluating Solid Waste-Physical/Chemical Methods." Office of Solid Waste and Emergency Response November 1986, SW-846, Third Edition.

COMMENTS

Comments pertain to data on one or all pages of this report.

The enclosed data has been reported utilizing data qualifiers (Q) as defined on the Organic and Inorganic Data Comment Pages.

VOLATILE DATA

Volatile sample and standard areas are listed on the corresponding data system printouts

Volatile data was processed utilizing Finnigan DataPro Autoquantitation and Recra Environmental's Inc.'s Analytical Information Management Systems (AIMS). All compounds determined to be present by the computer-generated autoquantitation were subjected to a manual ion search for secondary and tertiary ions. Unedited quantitation reports have been submitted with this analytical data package.

Samples GW-1, GW-1MS and GW-1MSD were analyzed at an initial dilution of 1000 due to the high concentration of 1,2-Dichloroethane(Total).

Sample GW-2 was analyzed at an initial dilution of 1000 due to the high concentration of 1,2-Dichloroethane(Total).

Sample GW-7 was analyzed at an initial dilution of 40 due to the high concentration of 1,2-Dichloroethane(Total) and Trichloroethene.

Samples GW-1MS and GW-1MSD exhibit the relative percent difference for 1,1-Dichloroethene, Trichloroethene and Benzene as above QC limits.

SEMIVOLATILE DATA

Semivolatile sample and standard areas are listed on the corresponding data system printouts.

Semivolatile data was processed utilizing Finnigan DataPro Autoquantitation and Recra Environmental's Inc.'s Analytical Information Management Systems (AIMS). All compounds determined to be present by the computer-generated autoquantitation were subjected to a manual ion search for secondary and tertiary ions. Unedited quantitation reports have been submitted with this analytical data package.

The MSBLANK exhibits the spike recovery of 4-Nitrophenol as above QC limits.

Sample GW-1MS exhibited the spike recoveries for 4-Nitrophenol and Pentachlorophenol as outside QC limits. Sample GW-1MSD exhibited the spike recoveries for 4-Chloro-3-methylphenol and Pentachlorophenol as outside QC limits. The relative percent difference for 4-Nitrophenol was above QC limits

Semivolatile Method Blank, SBLK83, exhibits the presence of one (1) Tentatively Identified Compound (TIC).

METHOD 8010 DATA

Chromatographically, Chloromethane and Vinyl Chloride co-elute, and are designated by a 1 in the Qualifier column.

Sample GW-5 required a dilution factor of 25 due to a high concentration of Trichloroethene.

Sample GW-8 required a dilution factor of 100 due to a high concentration of Trichloroethene.

Sample GW-9 required a dilution factor of 20000 due to a high concentration of Trichloroethene.

Sample GW-4 exhibited a second column surrogate recovery for Bromochloromethane that was below quality control limits.

METHOD 8020 DATA

Chromatographically, m-Xylene and p-Xylene co-elute, and are designated by a 1 in the Qualifier column.

PESTICIDE/PCB's DATA

The surrogate recoveries of TCX fell outside QC limits on the DB1701 column in samples GW6, MSB, GW1MS, and GW1MSD. The surrogate recoveries of DCB fell outside QC limits on both columns in samples GW2 and GW1MSD; and on the DB1701 column in sample GW1MS.

Spike sample GW1MS, GW1MSD and MSB were all spiked ten times too high and consequently had to be diluted by a factor of ten.

PIBLK03 was analyzed past the required twelve hours for the sequence and an INDAM and INDBM standards were analyzed after it.

The relative percent differences of methoxychlor fell outside the QC limit on the DB608 column in INDAM08 analyzed 12/22/94 at 01 12 and INDAM09 analyzed 12/23/94 at 08:24.

The retention times fell outside the established windows on the DB608 column for endrin ketone in PEM15 analyzed 01/04/94 at 23:25; methoxychlor in INDAM13 analyzed 01/05/94 at 10:21; and endrin ketone in INDBM13 analyzed 01/05/94 at 11:05.

The retention times fell outside the established windows on the DB1701 column for two peaks of aroclor 1260 analyzed 01/04/94 at 21.57; endrin ketone in PEM15 analyzed 01/04/94 at 23:25; gamma-BHC, heptachlor, and methoxychlor in INDAM13 analyzed 01/05/94 at 10:21, and aldrin, endrin ketone in INDBM13 analyzed 01/05/94 at 11:05.

The retention times of surrogate DCB fell outside the retention time window on the DB608 column in AR124205, AR124805, AR125405, AR166005, PIBLK26, PEM15, GW1MSD, MSB, PIBLK27, INDAM13 and INDBM13.

The retention times of surrogate TCX fell outside the retention time window on the DB1701 column in MSB, PIBLK27, INDAM13 and INDBM13; retention times of surrogate DCB fell outside the retention time window in AR124205, AR124805, AR125405, AR166005, PIBLK26, PEM15, GW1MS, GW1MSD, MSB, PIBLK27, INDAM13 and INDBM13.

METALS DATA

Sample identifications have been abbreviated due to the character limitations of the software.

The Cyanide for sample GW-3, sample date 12/21/94, was received incorrectly preserved. Radian Corporation re-sampled the Cyanide for this sample on 12/22/94 The laboratory has combined all the results for sample GW-3 on one form 1.

WET CHEMISTRY DATA

No deviations from protocol were encountered.

" I certify that this data package is in compliance with the terms and conditions of the contract, both technically and for completeness, for other than the conditions detailed above. Release of the data contained in this hardcopy data package has been authorized by the Laboratory Manager or his designee, as verified by the following signature."

Curt J. Sonf for K.E.K.
Kenneth E. Kasperek
Laboratory Director

2/1/95
Date

RECRA
ENVIRONMENTAL
INC.

NEW YORK STATE
DEPARTMENT OF ENVIRONMENTAL CONSERVATION

SAMPLE IDENTIFICATION
AND
ANALYTICAL REQUEST SUMMARY

LAB NAME: RECRA ENVIRONMENTAL, INC.

CUSTOMER SAMPLE ID	LABORATORY SAMPLE ID	ANALYTICAL REQUIREMENTS					
		VOA GC/MS	BNA GC/MS	VOA GC	PEST PCB	METALS	OTHER*
GW-1	A4753001	ASP91	ASP91	-	ASP91	ASP91	CFR136
GW-10	A4753010	-	-	SW846 3RD	-	-	-
GW-2	A4753002	ASP91	ASP91	-	ASP91	ASP91	CFR136
GW-3	A4753003 A4758801	-	-	SW846 3RD	-	ASP91	-
GW-4	A4753004	-	-	SW846 3RD	-	-	-
GW-5	A4753005	-	-	SW846 3RD	-	-	-
GW-6	A4753006	ASP91	ASP91	-	ASP91	ASP91	CFR136
GW-7	A4753007	ASP91	ASP91	-	ASP91	ASP91	CFR136
GW-8	A4753008	-	-	SW846 3RD	-	-	-
GW-9	A4753009	-	-	SW846 3RD	-	-	-
TB-2	A4753011	ASP91	-	SW846 3RD	-	-	-

* WATER QUALITY

NEW YORK STATE
DEPARTMENT OF ENVIRONMENTAL CONSERVATION

SAMPLE PREPARATION AND ANALYSIS SUMMARY
VOLATILE ANALYSIS

LAB NAME: RECRA ENVIRONMENTAL, INC.

SAMPLE IDENTIFICATION	MATRIX	DATE COLLECTED	DATE RECEIVED AT LAB	DATE EXTRACTED	DATE ANALYZED
GW-1	WATER	12/21/94	12/22/94	-	12/27/94
GW-2	WATER	12/21/94	12/22/94	-	12/27/94
GW-6	WATER	12/21/94	12/22/94	-	12/27/94
GW-7	WATER	12/21/94	12/22/94	-	12/28/94
TB-2	WATER	12/21/94	12/22/94	-	12/23/94

NYSDEC-2

RECRA
ENVIRONMENTAL
INC.

n0009

NEW YORK STATE
DEPARTMENT OF ENVIRONMENTAL CONSERVATION

SAMPLE PREPARATION AND ANALYSIS SUMMARY
B\N-A ANALYSIS

LAB NAME: RECRA ENVIRONMENTAL, INC.

SAMPLE IDENTIFICATION	MATRIX	DATE COLLECTED	DATE RECEIVED AT LAB	DATE EXTRACTED	DATE ANALYZED
GW-1	WATER	12/21/94	12/22/94	12/27/94	12/29/94
GW-2	WATER	12/21/94	12/22/94	12/27/94	12/30/94
GW-6	WATER	12/21/94	12/22/94	12/27/94	12/30/94
GW-7	WATER	12/21/94	12/22/94	12/27/94	12/30/94

NYSDEC-3

RECRA
ENVIRONMENTAL
INC.

NEW YORK STATE
DEPARTMENT OF ENVIRONMENTAL CONSERVATION

SAMPLE PREPARATION AND ANALYSIS SUMMARY
PESTICIDE/PCB ANALYSIS

LAB NAME: RECRA ENVIRONMENTAL, INC.

SAMPLE IDENTIFICATION	MATRIX	DATE COLLECTED	DATE RECEIVED AT LAB	DATE EXTRACTED	DATE ANALYZED
GW-1	WATER	12/21/94	12/22/94	12/27/94	12/29/94
GW-2	WATER	12/21/94	12/22/94	12/27/94	12/29/94
GW-6	WATER	12/21/94	12/22/94	12/27/94	12/29/94
GW-7	WATER	12/21/94	12/22/94	12/27/94	12/29/94

00011

NEW YORK STATE
DEPARTMENT OF ENVIRONMENTAL CONSERVATION

SAMPLE PREPARATION AND ANALYTICAL SUMMARY
INORGANIC ANALYSIS

LAB NAME: RECRA ENVIRONMENTAL, INC.

SAMPLE IDENTIFICATION	MATRIX	METALS REQUESTED	DATE RECEIVED AT LAB	DATE DIGESTED	DATE ANALYZED
GW-1	WATER	HSL +CN	12/22/94	12/28/94 1/3,9,24/95	12/28/94 1/9,17,18,20,25,28,30/95
GW-2	WATER	HSL +CN	12/22/94	12/28/94 1/3,9,24/95	12/28/94 1/9,17,18,20,25,28,30/95
GW-3	WATER	HSL +CN	12/22/94	12/28/94 1/3,9,24/95	12/28/94 1/9,17,18,20,25,28,30/95
GW-6	WATER	HSL +CN	12/22/94	12/28/94 1/3,9,24/95	12/28/94 1/9,17,18,25,26,28,30/95
GW-7	WATER	HSL +CN	12/22/94	12/28/94 1/3,9,24/95	12/28/94 1/9,17,18,25,26,28,30/95

NYSDEC-5

RECRA
ENVIRONMENTAL
INC.

NEW YORK STATE
DEPARTMENT OF ENVIRONMENTAL CONSERVATION

SAMPLE PREPARATION AND ANALYSIS SUMMARY
ORGANIC ANALYSIS

LAB NAME: RECRA ENVIRONMENTAL, INC.

SAMPLE IDENTIFICATION	MATRIX	ANALYTICAL PROTOCOL	EXTRACTION METHOD	AUXILARY CLEAN UP	DIL/CONC FACTOR
GW-1	WATER	ASP91	CONT. SEPF	AS REQUIRED	AS REQUIRED
GW-2	WATER	ASP91	CONT. SEPF	AS REQUIRED	AS REQUIRED
GW-6	WATER	ASP91	CONT. SEPF	AS REQUIRED	AS REQUIRED
GW-7	WATER	ASP91	CONT. SEPF	AS REQUIRED	AS REQUIRED

RECRA
ENVIRONMENTAL
INC.

NEW YORK STATE
DEPARTMENT OF ENVIRONMENTAL CONSERVATION

SAMPLE PREPARATION AND ANALYSIS SUMMARY
INORGANIC ANALYSIS

LAB NAME: RECRA ENVIRONMENTAL, INC.

LABORATORY SAMPLE CODE	MATRIX	ANALYTICAL PROTOCOL	DIGESTION PROCEDURE	MATRIX MODIFIER	DIL/CONC FACTOR
GW-1	WATER	ASP91	ASP91	AS REQUIRED	AS REQUIRED
GW-2	WATER	ASP91	ASP91	AS REQUIRED	AS REQUIRED
GW-3	WATER	ASP91	ASP91	AS REQUIRED	AS REQUIRED
GW-6	WATER	ASP91	ASP91	AS REQUIRED	AS REQUIRED
GW-7	WATER	ASP91	ASP91	AS REQUIRED	AS REQUIRED

ORGANIC DATA COMMENT PAGE

Laboratory Name: Recra Environmental, Inc.

USEPA Defined Organic Data Qualifiers:

U	-	Indicates compound was analyzed for but not detected.
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 indicates the presence of a compound that meets the identification criteria but the result is less than the sample quantitation limit but greater than zero.
C	-	This flag applies to pesticide results where the identification has been confirmed by GC/MS.
B	-	This flag is used when the analyte is found in the associated blank as well as in the sample.
E	-	This flag identifies compounds whose concentrations exceed the calibration range of the GC/MS instrument for that specific analysis.
D	-	This flag identifies all compounds identified in an analysis at a secondary dilution factor.
G	-	The TCLP Matrix Spike recovery was greater than the upper limit of the analytical method.
L	-	The TCLP Matrix Spike recovery was lower than the lower limit of the analytical method.
T	-	This flag is used when the analyte is found in the associated TCLP extraction as well as in the sample.
N	-	Indicates presumptive evidence of a compound. This flag is only used for tentatively identified compounds, where the identification is based on a mass spectral library search. It is applied to all TIC results.
P	-	This flag is used for a pesticide/Aroclor target analyte when there is greater than 25% difference for detected concentrations between the two GC columns. The lower of the two values is reported on the Form I and flagged with a "P".
A	-	This flag indicates that a TIC is a suspected aldol-condensation product.

INORGANIC DATA COMMENT PAGE

Laboratory Name: Recra Environmental, Inc.

USEPA Defined Inorganic Data Qualifiers:

B	-	Indicates a value greater than or equal to the instrument detection limit, but less than the contract required detection limit.
U	-	Indicates element was analyzed for but not detected. Report with the detection limit value (e.g., 100).
E	-	Indicates a value estimated or not reported due to the presence of interference.
S	-	Indicates value determined by Method of Standard Addition.
N	-	Indicates spike sample recovery is not within control limits.
*	-	Indicates duplicate analysis is not within control limits.
+	-	Indicates the correlation coefficient for Method of Standard Addition is less than 0.995.
M	-	Indicates duplicate injection results exceeded control limits.
W	-	Post digestion spike for Furnace AA analysis is out of control limits (85-115%), while sample absorbance is less than 50% of spike absorbance.

RADIAN CORPORATION
ERDLE SITE
METHOD 8240 - TCL VOLATILES
ANALYSIS DATA SHEET

D0016

Client N

GW-1

Lab Name: Recra Environmental Contract: _____

Lab Code: RECNY Case No.: 5205 SAS No.: _____ SDG No.: MW1

Matrix: (soil/water) WATER Lab Sample ID: A4753001

Sample wt/vol: 5.00 (g/mL) ML Lab File ID: K5854.MSO

Level: (low/med) LOW Date Samp/Recv: 12/21/94 12/22/9

% Moisture: not dec. _____ Heated Purge: N Date Analyzed: 12/27/94

GC Column: DB-624 ID: 0.53 (mm) Dilution Factor: 1000.00

Soil Extract Volume: _____ (uL) Soil Aliquot Volume: _____ (uL

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
74-87-3	Chloromethane	10000	U
74-83-9	Bromomethane	10000	U
75-01-4	Vinyl chloride	13000	
75-00-3	Chloroethane	10000	U
75-09-2	Methylene chloride	10000	U
67-64-1	Acetone	10000	U
75-15-0	Carbon Disulfide	10000	U
75-35-4	1,1-Dichloroethene	10000	U
75-34-3	1,1-Dichloroethane	10000	U
540-59-0	1,2-Dichloroethene (Total)	150000	
67-66-3	Chloroform	10000	U
107-06-2	1,2-Dichloroethane	10000	U
78-93-3	2-Butanone	10000	U
71-55-6	1,1,1-Trichloroethane	10000	U
56-23-5	Carbon Tetrachloride	10000	U
75-27-4	Bromodichloromethane	10000	U
78-87-5	1,2-Dichloropropane	10000	U
10061-01-5	cis-1,3-Dichloropropene	10000	U
79-01-6	Trichloroethene	6400	BJ
124-48-1	Dibromochloromethane	10000	U
79-00-5	1,1,2-Trichloroethane	10000	U
71-43-2	Benzene	10000	U
10061-02-6	trans-1,3-Dichloropropene	10000	U
75-25-2	Bromoform	10000	U
108-10-1	4-Methyl-2-pentanone	10000	U
591-78-6	2-Hexanone	10000	U
127-18-4	Tetrachloroethene	10000	U
108-88-3	Toluene	10000	U
79-34-5	1,1,2,2-Tetrachloroethane	10000	U
108-90-7	Chlorobenzene	10000	U
100-41-4	Ethyl benzene	10000	U
100-42-5	Styrene	10000	U
1330-20-7	Total Xylenes	10000	U

RADIAN CORPORATION
ERDLE SITE
METHOD 8240 - TCL VOLATILES
TENTATIVELY IDENTIFIED COMPOUNDS

D0017

Client
GW-1

Lab Name: Recra Environmental Contract: _____

Lab Code: RECNY Case No.: 5205 SAS No.: _____ SDG No.: MW1

Matrix: (soil/water) WATER Lab Sample ID: A4753001

Sample wt/vol: 5.00 (g/mL) ML Lab File ID: K5854.MSQ

Level: (low/med) LOW Date Samp/Recv: 12/21/94 12/22/9

% Moisture: not dec. _____ Date Analyzed: 12/27/94

GC Column: DB-624 ID: 0.53 (mm) Dilution Factor: 1000.00

Soil Extract Volume: _____ (uL) Soil Aliquot Volume: _____ (uL

Number TICs found: 0 CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L

CAS NO.	Compound Name	RT	Est. Conc.	Q

RADIAN CORPORATION
ERDLE SITE
METHOD 8240 - TCL VOLATILES
ANALYSIS DATA SHEET

00018

Client No

GW-2

Lab Name: Recra Environmental Contract: _____

Lab Code: RECNY Case No.: 5205 SAS No.: _____ SDG No.: MW1

Matrix: (soil/water) WATER Lab Sample ID: A4753002

Sample wt/vol: 5.00 (g/mL) ML Lab File ID: K5853.MSO

Level: (low/med) LOW Date Samp/Recv: 12/21/94 12/22/9

% Moisture: not dec. _____ Heated Purge: N Date Analyzed: 12/27/94

GC Column: DB-624 ID: 0.53 (mm) Dilution Factor: 1000.00

Soil Extract Volume: _____ (uL) Soil Aliquot Volume: _____ (uL

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
74-87-3	Chloromethane	10000	U
74-83-9	Bromomethane	10000	U
75-01-4	Vinyl chloride	15000	
75-00-3	Chloroethane	10000	U
75-09-2	Methylene chloride	10000	U
67-64-1	Acetone	10000	U
75-15-0	Carbon Disulfide	10000	U
75-35-4	1,1-Dichloroethene	10000	U
75-34-3	1,1-Dichloroethane	10000	U
540-59-0	1,2-Dichloroethene (Total)	170000	
67-66-3	Chloroform	10000	U
107-06-2	1,2-Dichloroethane	10000	U
78-93-3	2-Butanone	10000	U
71-55-6	1,1,1-Trichloroethane	10000	U
56-23-5	Carbon Tetrachloride	10000	U
75-27-4	Bromodichloromethane	10000	U
78-87-5	1,2-Dichloropropane	10000	U
10061-01-5	cis-1,3-Dichloropropene	10000	U
79-01-6	Trichloroethene	8800	BJ
124-48-1	Dibromochloromethane	10000	U
79-00-5	1,1,2-Trichloroethane	10000	U
71-43-2	Benzene	10000	U
10061-02-6	trans-1,3-Dichloropropene	10000	U
75-25-2	Bromoform	10000	U
108-10-1	4-Methyl-2-pentanone	10000	U
591-78-6	2-Hexanone	10000	U
127-18-4	Tetrachloroethene	10000	U
108-88-3	Toluene	260	BJ
79-34-5	1,1,2,2-Tetrachloroethane	10000	U
108-90-7	Chlorobenzene	10000	U
100-41-4	Ethyl benzene	10000	U
100-42-5	Styrene	10000	U
1330-20-7	Total Xylenes	10000	U

RADIAN CORPORATION
ERDLE SITE
METHOD 8240 - TCL VOLATILES
TENTATIVELY IDENTIFIED COMPOUNDS

00019

Client :

GW-2

Lab Name: Recra Environmental Contract: _____

Lab Code: RECNY Case No.: 5205 SAS No.: _____ SDG No.: MW1

Matrix: (soil/water) WATER Lab Sample ID: A4753002

Sample wt/vol: 5.00 (g/mL) ML Lab File ID: K5853.MSQ

Level: (low/med) LOW Date Samp/Recv: 12/21/94 12/22/94

% Moisture: not dec. _____ Date Analyzed: 12/27/94

GC Column: DB-624 ID: 0.53 (mm) Dilution Factor: 1000.00

Soil Extract Volume: _____ (uL) Soil Aliquot Volume: _____ (uL)

Number TICs found: 0 CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L

CAS NO.	Compound Name	RT	Est. Conc.	Q

RADIAN CORPORATION
ERDLE SITE
METHOD 8240 - TCL VOLATILES
ANALYSIS DATA SHEET

10020
Client No.

GW-6

Lab Name: Recra Environmental Contract: _____

Lab Code: RECNY Case No.: 5205 SAS No.: _____ SDG No.: MW1

Matrix: (soil/water) WATER Lab Sample ID: A4753006

Sample wt/vol: 5.00 (g/mL) ML Lab File ID: K5851.MSQ

Level: (low/med) LOW Date Samp/Recv: 12/21/94 12/22/94

% Moisture: not dec. _____ Heated Purge: N Date Analyzed: 12/27/94

GC Column: DB-624 ID: 0.53 (mm) Dilution Factor: 1.00

Soil Extract Volume: _____ (uL) Soil Aliquot Volume: _____ (uL)

CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L

CAS NO.	COMPOUND	UG/L	Q
74-87-3	Chloromethane	10	U
74-83-9	Bromomethane	10	U
75-01-4	Vinyl chloride	10	U
75-00-3	Chloroethane	10	U
75-09-2	Methylene chloride	10	U
67-64-1	Acetone	10	U
75-15-0	Carbon Disulfide	10	U
75-35-4	1,1-Dichloroethene	10	U
75-34-3	1,1-Dichloroethane	10	U
540-59-0	1,2-Dichloroethene (Total)	10	U
67-66-3	Chloroform	10	U
107-06-2	1,2-Dichloroethane	10	U
78-93-3	2-Butanone	10	U
71-55-6	1,1,1-Trichloroethane	2	J
56-23-5	Carbon Tetrachloride	10	U
75-27-4	Bromodichloromethane	10	U
78-87-5	1,2-Dichloropropane	10	U
10061-01-5	cis-1,3-Dichloropropene	10	U
79-01-6	Trichloroethene	0.8	BJ
124-48-1	Dibromochloromethane	10	U
79-00-5	1,1,2-Trichloroethane	10	U
71-43-2	Benzene	10	U
10061-02-6	trans-1,3-Dichloropropene	10	U
75-25-2	Bromoform	10	U
108-10-1	4-Methyl-2-pentanone	10	U
591-78-6	2-Hexanone	10	U
127-18-4	Tetrachloroethene	10	U
108-88-3	Toluene	2	BJ
79-34-5	1,1,2,2-Tetrachloroethane	10	U
108-90-7	Chlorobenzene	0.4	BJ
100-41-4	Ethyl benzene	10	U
100-42-5	Styrene	10	U
1330-20-7	Total Xylenes	10	U

RADIAN CORPORATION
ERDLE SITE
METHOD 8240 - TCL VOLATILES
TENTATIVELY IDENTIFIED COMPOUNDS

10021

Client N

GW-6

Lab Name: Recra Environmental Contract: _____

Lab Code: RECNY Case No.: 5205 SAS No.: _____ SDG No.: MW1

Matrix: (soil/water) WATER Lab Sample ID: A4753006

Sample wt/vol: 5.00 (g/mL) ML Lab File ID: K5851.MSQ

Level: (low/med) LOW Date Samp/Recv: 12/21/94 12/22/94

% Moisture: not dec. _____ Date Analyzed: 12/27/94

GC Column: DB-624 ID: 0.53 (mm) Dilution Factor: 1.00

Soil Extract Volume: _____ (uL) Soil Aliquot Volume: _____ (uL)

Number TICs found: 0 CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L

CAS NO.	Compound Name	RT	Est. Conc.	Q

RADIAN CORPORATION
ERDLE SITE
METHOD 8240 - TCL VOLATILES
ANALYSIS DATA SHEET

00022
Client No

GW-7

Lab Name: Recra Environmental Contract: _____

Lab Code: RECNY Case No.: 5205 SAS No.: _____ SDG No.: MW1

Matrix: (soil/water) WATER Lab Sample ID: A4753007

Sample wt/vol: 5.00 (g/mL) ML Lab File ID: K5875.MSQ

Level: (low/med) LOW Date Samp/Recv: 12/21/94 12/22/94

% Moisture: not dec. _____ Heated Purge: N Date Analyzed: 12/28/94

GC Column: DB-624 ID: 0.53 (mm) Dilution Factor: 40.00

Soil Extract Volume: _____ (uL) Soil Aliquot Volume: _____ (uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
74-87-3	Chloromethane	400	U
74-83-9	Bromomethane	400	U
75-01-4	Vinyl chloride	400	U
75-00-3	Chloroethane	400	U
75-09-2	Methylene chloride	400	U
67-64-1	Acetone	400	U
75-15-0	Carbon Disulfide	400	U
75-35-4	1,1-Dichloroethene	400	U
75-34-3	1,1-Dichloroethane	400	U
540-59-0	1,2-Dichloroethene (Total)	1300	
67-66-3	Chloroform	400	U
107-06-2	1,2-Dichloroethane	400	U
78-93-3	2-Butanone	400	U
71-55-6	1,1,1-Trichloroethane	400	U
56-23-5	Carbon Tetrachloride	400	U
75-27-4	Bromodichloromethane	400	U
78-87-5	1,2-Dichloropropane	400	U
10061-01-5	cis-1,3-Dichloropropene	400	U
79-01-6	Trichloroethene	6000	B
124-48-1	Dibromochloromethane	400	U
79-00-5	1,1,2-Trichloroethane	400	U
71-43-2	Benzene	400	U
10061-02-6	trans-1,3-Dichloropropene	400	U
75-25-2	Bromoform	400	U
108-10-1	4-Methyl-2-pentanone	400	U
591-78-6	2-Hexanone	400	U
127-18-4	Tetrachloroethene	41	J
108-88-3	Toluene	20	BJ
79-34-5	1,1,2,2-Tetrachloroethane	400	U
108-90-7	Chlorobenzene	400	U
100-41-4	Ethyl benzene	400	U
100-42-5	Styrene	400	U
1330-20-7	Total Xylenes	400	U

RADIAN CORPORATION
ERDLE SITE
METHOD 8240 - TCL VOLATILES
TENTATIVELY IDENTIFIED COMPOUNDS

Client :
GW-7

Lab Name: Recra Environmental Contract: _____

Lab Code: RECNY Case No.: 5205 SAS No.: _____ SDG No.: MW1

Matrix: (soil/water) WATER Lab Sample ID: A4753007

Sample wt/vol: 5.00 (g/mL) ML Lab File ID: K5875.MSQ

Level: (low/med) LOW Date Samp/Recv: 12/21/94 12/22/9

% Moisture: not dec. _____ Date Analyzed: 12/28/94

GC Column: DB-624 ID: 0.53 (mm) Dilution Factor: 40.00

Soil Extract Volume: _____ (uL) Soil Aliquot Volume: _____ (uL

Number TICs found: 0 CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L

CAS NO.	Compound Name	RT	Est. Conc.	Q

RADIAN CORPORATION
ERDLE SITE
METHOD 8240 - TCL VOLATILES
ANALYSIS DATA SHEET

10024

Client No

TB-2

Lab Name: Recra Environmental Contract: _____

Lab Code: RECNY Case No.: 5205 SAS No.: _____ SDG No.: MW1

Matrix: (soil/water) WATER Lab Sample ID: A4753011

Sample wt/vol: 5.00 (g/mL) ML Lab File ID: K5837.MSQ

Level: (low/med) LOW Date Samp/Recv: 12/21/94 12/22/9

% Moisture: not dec. _____ Heated Purge: N Date Analyzed: 12/23/94

GC Column: DB-624 ID: 0.53 (mm) Dilution Factor: 1.00

Soil Extract Volume: _____ (uL) Soil Aliquot Volume: _____ (uL

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
74-87-3	Chloromethane	10	U
74-83-9	Bromomethane	10	U
5-01-4	Vinyl chloride	10	U
,5-00-3	Chloroethane	10	U
75-09-2	Methylene chloride	10	U
67-64-1	Acetone	10	U
75-15-0	Carbon Disulfide	10	U
75-35-4	1,1-Dichloroethene	10	U
75-34-3	1,1-Dichloroethane	10	U
540-59-0	1,2-Dichloroethene (Total)	10	U
67-66-3	Chloroform	10	U
107-06-2	1,2-Dichloroethane	10	U
78-93-3	2-Butanone	10	U
71-55-6	1,1,1-Trichloroethane	10	U
56-23-5	Carbon Tetrachloride	10	U
75-27-4	Bromodichloromethane	10	U
78-87-5	1,2-Dichloropropane	10	U
10061-01-5	cis-1,3-Dichloropropene	10	U
79-01-6	Trichloroethene	10	U
124-48-1	Dibromochloromethane	10	U
79-00-5	1,1,2-Trichloroethane	10	U
71-43-2	Benzene	10	U
10061-02-6	trans-1,3-Dichloropropene	10	U
75-25-2	Bromoform	10	U
108-10-1	4-Methyl-2-pentanone	10	U
591-78-6	2-Hexanone	10	U
127-18-4	Tetrachloroethene	10	U
108-88-3	Toluene	0.6	BJ
9-34-5	1,1,2,2-Tetrachloroethane	10	U
108-90-7	Chlorobenzene	10	U
100-41-4	Ethyl benzene	10	U
100-42-5	Styrene	10	U
1330-20-7	Total Xylenes	10	U

RADIAN CORPORATION
ERDLE SITE
METHOD 8240 - TCL VOLATILES
TENTATIVELY IDENTIFIED COMPOUNDS

10025

Client
TB-2

Lab Name: Recra Environmental Contract: _____

Lab Code: RECNY Case No.: 5205 SAS No.: _____ SDG No.: MW1

Matrix: (soil/water) WATER Lab Sample ID: A4753011

Sample wt/vol: 5.00 (g/mL) ML Lab File ID: K5837.MSQ

Level: (low/med) LOW Date Samp/Recv: 12/21/94 12/22/9

% Moisture: not dec. _____ Date Analyzed: 12/23/94

GC Column: DB-624 ID: 0.53 (mm) Dilution Factor: 1.00

Soil Extract Volume: _____ (uL) Soil Aliquot Volume: _____ (uL)

Number TICs found: 2 CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L

CAS NO.	Compound Name	RT	Est. Conc.	Q
1. 75-69-4	TRICHLOROFLUOROMETHANE	5.15	7	JN
2. 541-73-1	1,3 DICHLOROBENZENE	22.03	6	JN

RADIAN CORPORATION
ERDLE SITE
METHOD 8270 - TCL SEMIVOLATILES
ANALYSIS DATA SHEET

00026

Client No.
GW-1

Lab Name: Recra Environmental Contract: _____

Lab Code: RECNY Case No.: 5205 SAS No.: _____ SDG No.: MW1

Matrix: (soil/water) WATER Lab Sample ID: A4753001

Sample wt/vol: 880.00 (g/mL) ML Lab File ID: 22221Z.RR

Level: (low/med) LOW Date Samp/Recv: 12/21/94 12/22/94

% Moisture: _____ decanted: (Y/N) N Date Extracted: 12/27/94

Concentrated Extract Volume: 1000 (uL) Date Analyzed: 12/29/94

Injection Volume: 2.00 (uL) Dilution Factor: 1.00

GPC Cleanup: (Y/N) N pH: 7.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
108-95-2	Phenol	11	U
111-44-4	Bis(2-chloroethyl) ether	11	U
95-57-8	2-Chlorophenol	11	U
541-73-1	1,3-Dichlorobenzene	11	U
106-46-7	1,4-Dichlorobenzene	11	U
95-50-1	1,2-Dichlorobenzene	11	U
95-48-7	2-Methylphenol	11	U
108-60-1	Bis(2-chloroisopropyl) ether	11	U
106-44-5	4-Methylphenol	10	J
621-64-7	N-Nitroso-Di-n-propylamine	11	U
67-72-1	Hexachloroethane	11	U
98-95-3	Nitrobenzene	11	U
78-59-1	Isophorone	11	U
88-75-5	2-Nitrophenol	11	U
105-67-9	2,4-Dimethylphenol	11	U
111-91-1	Bis(2-chloroethoxy) methane	11	U
120-83-2	2,4-Dichlorophenol	11	U
120-82-1	1,2,4-Trichlorobenzene	11	U
91-20-3	Naphthalene	7	J
106-47-8	4-Chloroaniline	11	U
87-68-3	Hexachlorobutadiene	11	U
59-50-7	4-Chloro-3-methylphenol	11	U
91-57-6	2-Methylnaphthalene	9	J
77-47-4	Hexachlorocyclopentadiene	11	U
88-06-2	2,4,6-Trichlorophenol	11	U
95-95-4	2,4,5-Trichlorophenol	11	U
91-58-7	2-Chloronaphthalene	11	U
88-74-4	2-Nitroaniline	28	U
131-11-3	Dimethyl phthalate	11	U
208-96-8	Acenaphthylene	11	U
606-20-2	2,6-Dinitrotoluene	11	U
99-09-2	3-Nitroaniline	28	U

RADIAN CORPORATION
ERDLE SITE
METHOD 8270 - TCL SEMIVOLATILES
ANALYSIS DATA SHEET

D0027

Client. No.

GW-1

Lab Name: Recra Environmental Contract: _____

Lab Code: RECNY Case No.: 5205 SAS No.: _____ SDG No.: MW1

Matrix: (soil/water) WATER Lab Sample ID: A4753001

Sample wt/vol: 880.00 (g/mL) ML Lab File ID: 22221Z.RR

Level: (low/med) LOW Date Samp/Recv: 12/21/94 12/22/94

% Moisture: _____ decanted: (Y/N) N Date Extracted: 12/27/94

Concentrated Extract Volume: 1000(uL) Date Analyzed: 12/29/94

Injection Volume: 2.00(uL) Dilution Factor: 1.00

GPC Cleanup: (Y/N) N pH: 7.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
83-32-9	Acenaphthene	11	U
51-28-5	2,4-Dinitrophenol	28	U
100-02-7	4-Nitrophenol	28	U
132-64-9	Dibenzofuran	11	U
121-14-2	2,4-Dinitrotoluene	11	U
84-66-2	Diethyl phthalate	11	U
7005-72-3	4-Chlorodiphenylether	11	U
86-73-7	Fluorene	11	U
100-01-6	4-Nitroaniline	28	U
534-52-1	4,6-Dinitro-2-methylphenol	28	U
86-30-6	N-nitrosodiphenylamine	11	U
101-55-3	4-Bromophenyl phenyl ether	11	U
118-74-1	Hexachlorobenzene	11	U
87-86-5	Pentachlorophenol	28	U
85-01-8	Phenanthrene	2	J
120-12-7	Anthracene	11	U
84-74-2	Di-n-butyl phthalate	2	J
206-44-0	Fluoranthene	11	U
129-00-0	Pyrene	11	U
85-68-7	Butyl benzyl phthalate	11	U
91-94-1	3,3'-Dichlorobenzidine	23	U
56-55-3	Benzo(a)anthracene	11	U
218-01-9	Chrysene	11	U
117-81-7	Bis(2-ethylhexyl) phthalate	11	U
117-84-0	Di-n-octyl phthalate	11	U
205-99-2	Benzo(b)fluoranthene	11	U
207-08-9	Benzo(k)fluoranthene	11	U
50-32-8	Benzo(a)pyrene	11	U
193-39-5	Indeno(1,2,3-cd)pyrene	11	U
53-70-3	Dibenzo(a,h)anthracene	11	U
191-24-2	Benzo(ghi)perylene	11	U
100-51-6	Benzyl alcohol	11	U

RADIAN CORPORATION
ERDLE SITE
METHOD 8270 - TCL SEMIVOLATILES
ANALYSIS DATA SHEET

0028

Client No
GW-1

Lab Name: Recra Environmental Contract: _____

Lab Code: RECNY Case No.: 5205 SAS No.: _____ SDG No.: MW1

Matrix: (soil/water) WATER Lab Sample ID: A4753001

Sample wt/vol: 880.00 (g/mL) ML Lab File ID: 22221Z.RR

Level: (low/med) LOW Date Samp/Recv: 12/21/94 12/22/9

% Moisture: _____ decanted: (Y/N) N Date Extracted: 12/27/94

Concentrated Extract Volume: 1000 (uL) Date Analyzed: 12/29/94

Injection Volume: 2.00 (uL) Dilution Factor: 1.00

GPC Cleanup: (Y/N) N pH: 7.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
62-75-9	N-Nitrosodimethylamine	11	U

RADIAN CORPORATION
ERDLE SITE
METHOD 8270 - TCL SEMIVOLATILES
TENTATIVELY IDENTIFIED COMPOUNDS

10029

Client No
GW-1

Lab Name: Recra Environmental Contract: _____

Lab Code: RECNY Case No.: 5205 SAS No.: _____ SDG No.: MW1

Matrix: (soil/water) WATER Lab Sample ID: A4753001

Sample wt/vol: 880.00 (g/mL) ML Lab File ID: 22221Z.RR

Level: (low/med) LOW Date Samp/Recv: 12/21/94 12/22/9

% Moisture: _____ decanted: (Y/N) N Date Extracted: 12/27/94

Concentrated Extract Volume: 1000 (uL) Date Analyzed: 12/29/94

Injection Volume: 2.00 (uL) Dilution Factor: 1.00

GPC Cleanup: (Y/N) N pH: 7.0

Number TICs found: 5

CONCENTRATION UNITS:
(ug/L or ug/Kg) UG/L

CAS NO.	Compound Name	RT	Est. Conc.	Q
1.	SUSPECTED ALDOL COND PRODUCT	3.18	13	ABJ
2.	UNKNOWN	3.89	32	J
3. 65-85-0	BENZOIC ACID	6.21	8	JN
4. 103-82-2	BENZENEACETIC ACID	6.89	22	JN
5.	METHYL NAPHTHALENE ISOMER	7.45	6	J

RADIAN CORPORATION
ERDLE SITE
METHOD 8270 - TCL SEMIVOLATILES
ANALYSIS DATA SHEET

00030

Client No.

GW-2

Lab Name: Recra Environmental Contract: _____

Lab Code: RECNY Case No.: 5205 SAS No.: _____ SDG No.: MW1

Matrix: (soil/water) WATER Lab Sample ID: A4753002

Sample wt/vol: 1000.0 (g/mL) ML Lab File ID: 22227Z.RR

Level: (low/med) LOW Date Samp/Recv: 12/21/94 12/22/94

% Moisture: _____ decanted: (Y/N) N Date Extracted: 12/27/94

Concentrated Extract Volume: 1000 (uL) Date Analyzed: 12/30/94

Injection Volume: 2.00 (uL) Dilution Factor: 1.00

GPC Cleanup: (Y/N) N pH: 7.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
108-95-2	Phenol	10	U
111-44-4	Bis(2-chloroethyl) ether	10	U
95-57-8	2-Chlorophenol	10	U
541-73-1	1,3-Dichlorobenzene	10	U
106-46-7	1,4-Dichlorobenzene	10	U
95-50-1	1,2-Dichlorobenzene	10	U
95-48-7	2-Methylphenol	10	U
108-60-1	Bis(2-chloroisopropyl) ether	10	U
106-44-5	4-Methylphenol	6	J
621-64-7	N-Nitroso-Di-n-propylamine	10	U
67-72-1	Hexachloroethane	10	U
98-95-3	Nitrobenzene	10	U
78-59-1	Isophorone	10	U
88-75-5	2-Nitrophenol	10	U
105-67-9	2,4-Dimethylphenol	10	U
111-91-1	Bis(2-chloroethoxy) methane	10	U
120-83-2	2,4-Dichlorophenol	10	U
120-82-1	1,2,4-Trichlorobenzene	10	U
91-20-3	Naphthalene	6	J
106-47-8	4-Chloroaniline	10	U
87-68-3	Hexachlorobutadiene	10	U
59-50-7	4-Chloro-3-methylphenol	10	U
91-57-6	2-Methylnaphthalene	8	J
77-47-4	Hexachlorocyclopentadiene	10	U
88-06-2	2,4,6-Trichlorophenol	10	U
95-95-4	2,4,5-Trichlorophenol	10	U
91-58-7	2-Chloronaphthalene	10	U
88-74-4	2-Nitroaniline	25	U
131-11-3	Dimethyl phthalate	10	U
208-96-8	Acenaphthylene	10	U
606-20-2	2,6-Dinitrotoluene	10	U
99-09-2	3-Nitroaniline	25	U

RADIAN CORPORATION
ERDLE SITE
METHOD 8270 - TCL SEMIVOLATILES
ANALYSIS DATA SHEET

00031

Client No.
GW-2

Lab Name: Recra Environmental Contract: _____

Lab Code: RECNY Case No.: 5205 SAS No.: _____ SDG No.: MW1

Matrix: (soil/water) WATER Lab Sample ID: A4753002

Sample wt/vol: 1000.0 (g/mL) ML Lab File ID: 22227Z.RR

Level: (low/med) LOW Date Samp/Recv: 12/21/94 12/22/94

% Moisture: _____ decanted: (Y/N) N Date Extracted: 12/27/94

Concentrated Extract Volume: 1000(uL) Date Analyzed: 12/30/94

Injection Volume: 2.00(uL) Dilution Factor: 1.00

GPC Cleanup: (Y/N) N pH: 7.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
83-32-9	Acenaphthene	10	U
51-28-5	2,4-Dinitrophenol	25	U
100-02-7	4-Nitrophenol	25	U
132-64-9	Dibenzofuran	10	U
121-14-2	2,4-Dinitrotoluene	10	U
84-66-2	Diethyl phthalate	10	U
7005-72-3	4-Chlorodiphenylether	10	U
86-73-7	Fluorene	0.8	J
100-01-6	4-Nitroaniline	25	U
534-52-1	4,6-Dinitro-2-methylphenol	25	U
86-30-6	N-nitrosodiphenylamine	10	U
101-55-3	4-Bromophenyl phenyl ether	10	U
118-74-1	Hexachlorobenzene	10	U
87-86-5	Pentachlorophenol	25	U
85-01-8	Phenanthrene	2	J
120-12-7	Anthracene	10	U
84-74-2	Di-n-butyl phthalate	2	J
206-44-0	Fluoranthene	10	U
129-00-0	Pyrene	10	U
85-68-7	Butyl benzyl phthalate	10	U
91-94-1	3,3'-Dichlorobenzidine	20	U
56-55-3	Benzo(a)anthracene	10	U
218-01-9	Chrysene	10	U
117-81-7	Bis(2-ethylhexyl) phthalate	10	U
117-84-0	Di-n-octyl phthalate	10	U
205-99-2	Benzo(b)fluoranthene	10	U
207-08-9	Benzo(k)fluoranthene	10	U
50-32-8	Benzo(a)pyrene	10	U
193-39-5	Indeno(1,2,3-cd)pyrene	10	U
53-70-3	Dibenzo(a,h)anthracene	10	U
191-24-2	Benzo(ghi)perylene	10	U
[illegible]	Benzyl alcohol	10	U

RADIAN CORPORATION
ERDLE SITE
METHOD 8270 - TCL SEMIVOLATILES
ANALYSIS DATA SHEET

10032

Client No

GW-2

Lab Name: Recra Environmental Contract: _____

Lab Code: RECNY Case No.: 5205 SAS No.: _____ SDG No.: MW1

Matrix: (soil/water) WATER Lab Sample ID: A4753002

Sample wt/vol: 1000.0 (g/mL) ML Lab File ID: 22227Z.RR

Level: (low/med) LOW Date Samp/Recv: 12/21/94 12/22/9

% Moisture: _____ decanted: (Y/N) N Date Extracted: 12/27/94

Concentrated Extract Volume: 1000 (uL) Date Analyzed: 12/30/94

Injection Volume: 2.00 (uL) Dilution Factor: 1.00

GPC Cleanup: (Y/N) N pH: 7.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
?-75-9-------	N-Nitrosodimethylamine	10	U

RADIAN CORPORATION
ERDLE SITE
METHOD 8270 - TCL SEMIVOLATILES
TENTATIVELY IDENTIFIED COMPOUNDS

1`0033

Client No
GW-2

Lab Name: Recra Environmental Contract: _____

Lab Code: RECNY Case No.: 5205 SAS No.: _____ SDG No.: MW1

Matrix: (soil/water) WATER Lab Sample ID: A4753002

Sample wt/vol: 1000.0 (g/mL) ML Lab File ID: 22227Z.RR

Level: (low/med) LOW Date Samp/Recv: 12/21/94 12/22/94

% Moisture: _____ decanted: (Y/N) N Date Extracted: 12/27/94

Concentrated Extract Volume: 1000 (uL) Date Analyzed: 12/30/94

Injection Volume: 2.00 (uL) Dilution Factor: 1.00

GPC Cleanup: (Y/N) N pH: 7.0

Number TICs found: 2

CONCENTRATION UNITS:
(ug/L or ug/Kg) UG/L

CAS NO.	Compound Name	RT	Est. Conc.	Q
1. 65-85-0	BENZOIC ACID	6.25	6	JN
2. 103-82-2	BENZENEACETIC ACID	6.86	10	JN

RADIAN CORPORATION
ERDLE SITE
METHOD 8270 - TCL SEMIVOLATILES
ANALYSIS DATA SHEET

0034

Client No
GW-6

Lab Name: Recra Environmental Contract: _____

Lab Code: RECNY Case No.: 5205 SAS No.: _____ SDG No.: MW1

Matrix: (soil/water) WATER Lab Sample ID: A4753006

Sample wt/vol: 1000.0 (g/mL) ML Lab File ID: 22224Z.RR

Level: (low/med) LOW Date Samp/Recv: 12/21/94 12/22/94

% Moisture: _____ decanted: (Y/N) N Date Extracted: 12/27/94

Concentrated Extract Volume: 1000 (uL) Date Analyzed: 12/30/94

Injection Volume: 2.00 (uL) Dilution Factor: 1.00

GPC Cleanup: (Y/N) N pH: 7.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
108-95-2	Phenol	10	U
111-44-4	Bis(2-chloroethyl) ether	10	U
95-57-8	2-Chlorophenol	10	U
541-73-1	1,3-Dichlorobenzene	10	U
106-46-7	1,4-Dichlorobenzene	10	U
95-50-1	1,2-Dichlorobenzene	10	U
95-48-7	2-Methylphenol	10	U
108-60-1	Bis(2-chloroisopropyl) ether	10	U
106-44-5	4-Methylphenol	10	U
621-64-7	N-Nitroso-Di-n-propylamine	10	U
67-72-1	Hexachloroethane	10	U
98-95-3	Nitrobenzene	10	U
78-59-1	Isophorone	10	U
88-75-5	2-Nitrophenol	10	U
105-67-9	2,4-Dimethylphenol	10	U
111-91-1	Bis(2-chloroethoxy) methane	10	U
120-83-2	2,4-Dichlorophenol	10	U
120-82-1	1,2,4-Trichlorobenzene	10	U
91-20-3	Naphthalene	10	U
106-47-8	4-Chloroaniline	10	U
87-68-3	Hexachlorobutadiene	10	U
59-50-7	4-Chloro-3-methylphenol	10	U
91-57-6	2-Methylnaphthalene	10	U
77-47-4	Hexachlorocyclopentadiene	10	U
88-06-2	2,4,6-Trichlorophenol	10	U
95-95-4	2,4,5-Trichlorophenol	10	U
91-58-7	2-Chloronaphthalene	10	U
88-74-4	2-Nitroaniline	25	U
131-11-3	Dimethyl phthalate	10	U
208-96-8	Acenaphthylene	10	U
606-20-2	2,6-Dinitrotoluene	10	U
99-09-2	3-Nitroaniline	25	U

RADIAN CORPORATION
ERDLE SITE
METHOD 8270 - TCL SEMIVOLATILES
ANALYSIS DATA SHEET

00035

Client No
GW-6

Lab Name: Recra Environmental Contract: _____

Lab Code: RECNY Case No.: 5205 SAS No.: _____ SDG No.: MW1

Matrix: (soil/water) WATER Lab Sample ID: A4753006

Sample wt/vol: 1000.0 (g/mL) ML Lab File ID: 22224Z.RR

Level: (low/med) LOW Date Samp/Recv: 12/21/94 12/22/94

% Moisture: _____ decanted: (Y/N) N Date Extracted: 12/27/94

Concentrated Extract Volume: 1000(uL) Date Analyzed: 12/30/94

Injection Volume: 2.00(uL) Dilution Factor: 1.00

GPC Cleanup: (Y/N) N pH: 7.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
83-32-9	Acenaphthene	10	U
51-28-5	2,4-Dinitrophenol	25	U
100-02-7	4-Nitrophenol	25	U
132-64-9	Dibenzofuran	10	U
121-14-2	2,4-Dinitrotoluene	10	U
84-66-2	Diethyl phthalate	10	U
7005-72-3	4-Chlorodiphenylether	10	U
86-73-7	Fluorene	10	U
100-01-6	4-Nitroaniline	25	U
534-52-1	4,6-Dinitro-2-methylphenol	25	U
86-30-6	N-nitrosodiphenylamine	10	U
101-55-3	4-Bromophenyl phenyl ether	10	U
118-74-1	Hexachlorobenzene	10	U
87-86-5	Pentachlorophenol	25	U
85-01-8	Phenanthrene	10	U
120-12-7	Anthracene	10	U
84-74-2	Di-n-butyl phthalate	0.4	J
206-44-0	Fluoranthene	10	U
129-00-0	Pyrene	10	U
85-68-7	Butyl benzyl phthalate	10	U
91-94-1	3,3'-Dichlorobenzidine	20	U
56-55-3	Benzo(a)anthracene	10	U
218-01-9	Chrysene	10	U
117-81-7	Bis(2-ethylhexyl) phthalate	10	U
117-84-0	Di-n-octyl phthalate	10	U
205-99-2	Benzo(b)fluoranthene	10	U
207-08-9	Benzo(k)fluoranthene	10	U
50-32-8	Benzo(a)pyrene	10	U
193-39-5	Indeno(1,2,3-cd)pyrene	10	U
53-70-3	Dibenzo(a,h)anthracene	10	U
191-24-2	Benzo(ghi)perylene	10	U
100-51-6	Benzyl alcohol	10	U

RADIAN CORPORATION
ERDLE SITE
METHOD 8270 - TCL SEMIVOLATILES
ANALYSIS DATA SHEET

0036

Client No

GW-6

Lab Name: Recra Environmental Contract: _____

Lab Code: RECNY Case No.: 5205 SAS No.: _____ SDG No.: MW1

Matrix: (soil/water) WATER Lab Sample ID: A4753006

Sample wt/vol: 1000.0 (g/mL) ML Lab File ID: 22224Z.RR

Level: (low/med) LOW Date Samp/Recv: 12/21/94 12/22/9

% Moisture: _____ decanted: (Y/N) N Date Extracted: 12/27/94

Concentrated Extract Volume: 1000 (uL) Date Analyzed: 12/30/94

Injection Volume: 2.00 (uL) Dilution Factor: 1.00

GPC Cleanup: (Y/N) N pH: 7.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
2-75-9-------	N-Nitrosodimethylamine	10	U

RADIAN CORPORATION
ERDLE SITE
METHOD 8270 - TCL SEMIVOLATILES
TENTATIVELY IDENTIFIED COMPOUNDS

D0037

Client No.

GW-6

Lab Name: Recra Environmental Contract: _____

Lab Code: RECNY Case No.: 5205 SAS No.: _____ SDG No.: MW1

Matrix: (soil/water) WATER Lab Sample ID: A4753006

Sample wt/vol: 1000.0 (g/mL) ML Lab File ID: 22224Z.RR

Level: (low/med) LOW Date Samp/Recv: 12/21/94 12/22/9

% Moisture: _____ decanted: (Y/N) N Date Extracted: 12/27/94

Concentrated Extract Volume: 1000 (uL) Date Analyzed: 12/30/94

Injection Volume: 2.00 (uL) Dilution Factor: 1.00

GPC Cleanup: (Y/N) N pH: 7.0

Number TICs found: 0

CONCENTRATION UNITS:
(ug/L or ug/Kg) UG/L

CAS NO.	Compound Name	RT	Est. Conc.	Q

RADIAN CORPORATION
ERDLE SITE
METHOD 8270 - TCL SEMIVOLATILES
ANALYSIS DATA SHEET

r)0038

Client No

GW-7

Lab Name: Recra Environmental Contract: _____

Lab Code: RECNY Case No.: 5205 SAS No.: _____ SDG No.: MW1

Matrix: (soil/water) WATER Lab Sample ID: A4753007

Sample wt/vol: 1000.0 (g/mL) ML Lab File ID: 22228Z.RR

Level: (low/med) LOW Date Samp/Recv: 12/21/94 12/22/9

% Moisture: _____ decanted: (Y/N) N Date Extracted: 12/27/94

Concentrated Extract Volume: 1000(uL) Date Analyzed: 12/30/94

Injection Volume: 2.00(uL) Dilution Factor: 1.00

GPC Cleanup: (Y/N) N pH: 7.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
108-95-2	Phenol	10	U
111-44-4	Bis(2-chloroethyl) ether	10	U
95-57-8	2-Chlorophenol	10	U
541-73-1	1,3-Dichlorobenzene	10	U
106-46-7	1,4-Dichlorobenzene	10	U
95-50-1	1,2-Dichlorobenzene	10	U
95-48-7	2-Methylphenol	10	U
108-60-1	Bis(2-chloroisopropyl) ether	10	U
106-44-5	4-Methylphenol	10	U
621-64-7	N-Nitroso-Di-n-propylamine	10	U
67-72-1	Hexachloroethane	10	U
98-95-3	Nitrobenzene	10	U
78-59-1	Isophorone	10	U
88-75-5	2-Nitrophenol	10	U
105-67-9	2,4-Dimethylphenol	10	U
111-91-1	Bis(2-chloroethoxy) methane	10	U
120-83-2	2,4-Dichlorophenol	10	U
120-82-1	1,2,4-Trichlorobenzene	10	U
91-20-3	Naphthalene	10	U
106-47-8	4-Chloroaniline	10	U
87-68-3	Hexachlorobutadiene	10	U
59-50-7	4-Chloro-3-methylphenol	10	U
91-57-6	2-Methylnaphthalene	10	U
77-47-4	Hexachlorocyclopentadiene	10	U
88-06-2	2,4,6-Trichlorophenol	10	U
5-95-4	2,4,5-Trichlorophenol	10	U
91-58-7	2-Chloronaphthalene	10	U
88-74-4	2-Nitroaniline	25	U
131-11-3	Dimethyl phthalate	10	U
208-96-8	Acenaphthylene	10	U
606-20-2	2,6-Dinitrotoluene	10	U
99-09-2	3-Nitroaniline	25	U

RADIAN CORPORATION
ERDLE SITE
METHOD 8270 - TCL SEMIVOLATILES
ANALYSIS DATA SHEET

00039

Client No
GW-7

Lab Name: Recra Environmental Contract: _____

Lab Code: RECNY Case No.: 5205 SAS No.: _____ SDG No.: MW1

Matrix: (soil/water) WATER Lab Sample ID: A4753007

Sample wt/vol: 1000.0 (g/mL) ML Lab File ID: 22228Z.RR

Level: (low/med) LOW Date Samp/Recv: 12/21/94 12/22/94

% Moisture: _____ decanted: (Y/N) N Date Extracted: 12/27/94

Concentrated Extract Volume: 1000 (uL) Date Analyzed: 12/30/94

Injection Volume: 2.00 (uL) Dilution Factor: 1.00

GPC Cleanup: (Y/N) N pH: 7.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
83-32-9	Acenaphthene	10	U
51-28-5	2,4-Dinitrophenol	25	U
100-02-7	4-Nitrophenol	25	U
132-64-9	Dibenzofuran	10	U
121-14-2	2,4-Dinitrotoluene	10	U
84-66-2	Diethyl phthalate	10	U
7005-72-3	4-Chlorodiphenylether	10	U
86-73-7	Fluorene	10	U
100-01-6	4-Nitroaniline	25	U
534-52-1	4,6-Dinitro-2-methylphenol	25	U
86-30-6	N-nitrosodiphenylamine	10	U
101-55-3	4-Bromophenyl phenyl ether	10	U
118-74-1	Hexachlorobenzene	10	U
87-86-5	Pentachlorophenol	25	U
85-01-8	Phenanthrene	0.9	J
120-12-7	Anthracene	10	U
84-74-2	Di-n-butyl phthalate	0.7	J
206-44-0	Fluoranthene	10	U
129-00-0	Pyrene	10	U
85-68-7	Butyl benzyl phthalate	10	U
91-94-1	3,3'-Dichlorobenzidine	20	U
56-55-3	Benzo(a)anthracene	10	U
218-01-9	Chrysene	10	U
117-81-7	Bis(2-ethylhexyl) phthalate	10	U
117-84-0	Di-n-octyl phthalate	10	U
205-99-2	Benzo(b)fluoranthene	10	U
207-08-9	Benzo(k)fluoranthene	10	U
50-32-8	Benzo(a)pyrene	10	U
193-39-5	Indeno(1,2,3-cd)pyrene	10	U
53-70-3	Dibenzo(a,h)anthracene	10	U
191-24-2	Benzo(ghi)perylene	10	U
100-51-6	Benzyl alcohol	10	U

00040

RADIAN CORPORATION
ERDLE SITE
METHOD 8270 - TCL SEMIVOLATILES
ANALYSIS DATA SHEET

Client No
GW-7

Lab Name: Recra Environmental Contract: _____

Lab Code: RECNY Case No.: 5205 SAS No.: _____ SDG No.: MW1

Matrix: (soil/water) WATER Lab Sample ID: A4753007

Sample wt/vol: 1000.0 (g/mL) ML Lab File ID: 22228Z.RR

Level: (low/med) LOW Date Samp/Recv: 12/21/94 12/22/94

% Moisture: _____ decanted: (Y/N) N Date Extracted: 12/27/94

Concentrated Extract Volume: 1000(uL) Date Analyzed: 12/30/94

Injection Volume: 2.00(uL) Dilution Factor: 1.00

GPC Cleanup: (Y/N) N pH: 7.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
62-75-9	N-Nitrosodimethylamine	10	U

RADIAN CORPORATION
ERDLE SITE
METHOD 8270 - TCL SEMIVOLATILES
TENTATIVELY IDENTIFIED COMPOUNDS

)0041

Client ..

GW-7

Lab Name: Recra Environmental Contract: _____

Lab Code: RECNY Case No.: 5205 SAS No.: _____ SDG No.: MW1

Matrix: (soil/water) WATER Lab Sample ID: A4753007

Sample wt/vol: 1000.0 (g/mL) ML Lab File ID: 22228Z.RR

Level: (low/med) LOW Date Samp/Recv: 12/21/94 12/22/9

% Moisture: _____ decanted: (Y/N) N Date Extracted: 12/27/94

Concentrated Extract Volume: 1000 (uL) Date Analyzed: 12/30/94

Injection Volume: 2.00 (uL) Dilution Factor: 1.00

GPC Cleanup: (Y/N) N pH: 7.0

Number TICs found: 1

CONCENTRATION UNITS:
(ug/L or ug/Kg) UG/L

CAS NO.	Compound Name	RT	Est. Conc.	Q
1.	SUSPECTED ALDOL COND PRODUCT	3.14	37	ABJ

RADIAN CORPORATION
ERDLE SITE
METHOD 8010 - HALOGENATED VOLATILE ORGANICS
ANALYSIS DATA SHEET

10042

Client No

GW-3

Lab Name: Recra Environmental Contract: _____

Lab Code: RECNY Case No.: 5205 SAS No.: _____ SDG No.: MW1

Matrix: (soil/water) WATER Lab Sample ID: A4753003

Sample wt/vol: 5.00 (g/mL) ML Lab File ID: _____

Level: (low/med) Low Date Samp/Recv: 12/21/94 12/22/9

% Moisture: not dec. _____ Date Analyzed: 12/30/94

GC Column: RTX-502.2 Dia: 0.53 (mm) Dilution Factor: 1.00

Soil Extract Volume: _____(uL) Soil Aliquot Volume: _____(uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
75-27-4	Bromodichloromethane	0.20	U
75-25-2	Bromoform	1.0	U
74-83-9	Bromomethane	1.0	U
56-23-5	Carbon Tetrachloride	0.20	U
108-90-7	Chlorobenzene	0.20	U
75-00-3	Chloroethane	1.0	U
110-75-8	2-Chloroethylvinyl ether	1.0	U
67-66-3	Chloroform	0.20	U
74-87-3	Chloromethane	1.0	U
124-48-1	Dibromochloromethane	0.20	U
95-50-1	1,2-Dichlorobenzene	0.40	U
541-73-1	1,3-Dichlorobenzene	0.40	U
106-46-7	1,4-Dichlorobenzene	0.40	U
75-34-3	1,1-Dichloroethane	0.20	U
107-06-2	1,2-Dichloroethane	0.20	U
75-35-4	1,1-Dichloroethene	0.20	U
156-60-5	trans-1,2-Dichloroethene	0.20	U
78-87-5	1,2-Dichloropropane	0.20	U
10061-01-5	cis-1,3-Dichloropropene	0.20	U
10061-02-6	trans-1,3-Dichloropropene	0.20	U
75-09-2	Methylene chloride	0.32	B
79-34-5	1,1,2,2-Tetrachloroethane	0.20	U
127-18-4	Tetrachloroethene	0.20	U
71-55-6	1,1,1-Trichloroethane	0.20	U
79-00-5	1,1,2-Trichloroethane	0.20	U
79-01-6	Trichloroethene	0.20	U
75-69-4	Trichlorofluoromethane	0.20	U
75-01-4	Vinyl chloride	1.0	U

00043

RADIAN CORPORATION
ERDLE SITE
METHOD 8010 - HALOGENATED VOLATILE ORGANICS
ANALYSIS DATA SHEET

Client No
GW-4

Lab Name: Recra Environmental Contract: _____

Lab Code: RECNY Case No.: 5205 SAS No.: _____ SDG No.: MW1

Matrix: (soil/water) WATER Lab Sample ID: A4753004

Sample wt/vol: 5.00 (g/mL) ML Lab File ID: _____

Level: (low/med) Low Date Samp/Recv: 12/21/94 12/22/94

% Moisture: not dec. _____ Date Analyzed: 12/30/94

GC Column: RTX-502.2 Dia: 0.53 (mm) Dilution Factor: 1.00

Soil Extract Volume: _____(uL) Soil Aliquot Volume: _____(uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
75-27-4	Bromodichloromethane	0.20	U
75-25-2	Bromoform	1.0	U
74-83-9	Bromomethane	1.0	U
56-23-5	Carbon Tetrachloride	0.20	U
108-90-7	Chlorobenzene	0.20	U
75-00-3	Chloroethane	1.0	U
110-75-8	2-Chloroethylvinyl ether	1.0	U
67-66-3	Chloroform	0.20	U
74-87-3	Chloromethane	1.0	U
124-48-1	Dibromochloromethane	0.20	U
95-50-1	1,2-Dichlorobenzene	0.40	U
541-73-1	1,3-Dichlorobenzene	0.40	U
106-46-7	1,4-Dichlorobenzene	0.40	U
75-34-3	1,1-Dichloroethane	0.52	
107-06-2	1,2-Dichloroethane	0.20	U
75-35-4	1,1-Dichloroethene	0.20	U
156-60-5	trans-1,2-Dichloroethene	0.20	U
78-87-5	1,2-Dichloropropane	0.20	U
10061-01-5	cis-1,3-Dichloropropene	0.20	U
10061-02-6	trans-1,3-Dichloropropene	0.20	U
75-09-2	Methylene chloride	0.31	
79-34-5	1,1,2,2-Tetrachloroethane	0.20	U
127-18-4	Tetrachloroethene	0.20	U
71-55-6	1,1,1-Trichloroethane	3.3	
79-00-5	1,1,2-Trichloroethane	0.20	U
79-01-6	Trichloroethene	13	
75-69-4	Trichlorofluoromethane	0.20	U
75-01-4	Vinyl chloride	1.0	U

RADIAN CORPORATION
ERDLE SITE
METHOD 8010 - HALOGENATED VOLATILE ORGANICS
ANALYSIS DATA SHEET

00044

Client No.
GW-5

Lab Name: Recra Environmental Contract: _____

Lab Code: RECNY Case No.: 5205 SAS No.: _____ SDG No.: MW1

Matrix: (soil/water) WATER Lab Sample ID: A4753005

Sample wt/vol: 5.00 (g/mL) ML Lab File ID: _____

Level: (low/med) Low Date Samp/Recv: 12/21/94 12/22/94

% Moisture: not dec. _____ Date Analyzed: 12/30/94

GC Column: RTX-502.2 Dia: 0.53 (mm) Dilution Factor: 25.00

Soil Extract Volume: _____(uL) Soil Aliquot Volume: _____ (uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
75-27-4	Bromodichloromethane	5.0	U
75-25-2	Bromoform	25	U
74-83-9	Bromomethane	25	U
56-23-5	Carbon Tetrachloride	5.0	U
108-90-7	Chlorobenzene	5.0	U
75-00-3	Chloroethane	25	U
110-75-8	2-Chloroethylvinyl ether	25	U
67-66-3	Chloroform	5.0	U
74-87-3	Chloromethane	25	U
124-48-1	Dibromochloromethane	5.0	U
95-50-1	1,2-Dichlorobenzene	10	U
541-73-1	1,3-Dichlorobenzene	10	U
106-46-7	1,4-Dichlorobenzene	10	U
75-34-3	1,1-Dichloroethane	5.0	U
107-06-2	1,2-Dichloroethane	5.0	U
75-35-4	1,1-Dichloroethene	5.0	U
156-60-5	trans-1,2-Dichloroethene	5.0	U
78-87-5	1,2-Dichloropropane	5.0	U
10061-01-5	cis-1,3-Dichloropropene	5.0	U
10061-02-6	trans-1,3-Dichloropropene	5.0	U
75-09-2	Methylene chloride	5.0	U
79-34-5	1,1,2,2-Tetrachloroethane	5.0	U
127-18-4	Tetrachloroethene	5.0	U
71-55-6	1,1,1-Trichloroethane	5.0	U
79-00-5	1,1,2-Trichloroethane	5.0	U
79-01-6	Trichloroethene	380	
75-69-4	Trichlorofluoromethane	5.0	U
5-01-4	Vinyl chloride	25	U

RADIAN CORPORATION
ERDLE SITE
METHOD 8010 - HALOGENATED VOLATILE ORGANICS
ANALYSIS DATA SHEET

D0045

Client No
GW-8

Lab Name: Recra Environmental Contract: _____

Lab Code: RECNY Case No.: 5205 SAS No.: _____ SDG No.: MW1

Matrix: (soil/water) WATER Lab Sample ID: A4753008

Sample wt/vol: 5.00 (g/mL) ML Lab File ID: _____

Level: (low/med) Low Date Samp/Recv: 12/21/94 12/22/9

% Moisture: not dec. _____ Date Analyzed: 01/03/95

GC Column: RTX-502.2 Dia: 0.53 (mm) Dilution Factor: 100.00

Soil Extract Volume: _____(uL) Soil Aliquot Volume: _____ (uL)

CONCENTRATION UNITS:
(ug/L or ug/Kg) UG/L

CAS NO.	COMPOUND	UG/L	Q
75-27-4	Bromodichloromethane	20	U
75-25-2	Bromoform	100	U
74-83-9	Bromomethane	100	U
56-23-5	Carbon Tetrachloride	20	U
108-90-7	Chlorobenzene	20	U
75-00-3	Chloroethane	100	U
110-75-8	2-Chloroethylvinyl ether	100	U
67-66-3	Chloroform	20	U
74-87-3	Chloromethane	100	U
124-48-1	Dibromochloromethane	20	U
95-50-1	1,2-Dichlorobenzene	40	U
541-73-1	1,3-Dichlorobenzene	40	U
106-46-7	1,4-Dichlorobenzene	40	U
75-34-3	1,1-Dichloroethane	20	U
107-06-2	1,2-Dichloroethane	20	U
75-35-4	1,1-Dichloroethene	20	U
156-60-5	trans-1,2-Dichloroethene	20	U
78-87-5	1,2-Dichloropropane	20	U
10061-01-5	cis-1,3-Dichloropropene	20	U
10061-02-6	trans-1,3-Dichloropropene	20	U
75-09-2	Methylene chloride	20	U
79-34-5	1,1,2,2-Tetrachloroethane	20	U
127-18-4	Tetrachloroethene	20	U
71-55-6	1,1,1-Trichloroethane	20	U
79-00-5	1,1,2-Trichloroethane	20	U
79-01-6	Trichloroethene	1600	
75-69-4	Trichlorofluoromethane	20	U
75-01-4	Vinyl chloride	88	

RADIAN CORPORATION
ERDLE SITE
METHOD 8010 - HALOGENATED VOLATILE ORGANICS
ANALYSIS DATA SHEET

)0040

Client No

GW-9

Lab Name: Recra Environmental Contract: _____

Lab Code: RECNY Case No.: 5205 SAS No.: _____ SDG No.: MW1

Matrix: (soil/water) WATER Lab Sample ID: A4753009

Sample wt/vol: 5.00 (g/mL) ML Lab File ID: _____

Level: (low/med) Low Date Samp/Recv: 12/21/94 12/22/9

% Moisture: not dec. _____ Date Analyzed: 01/03/95

GC Column: RTX-502.2 Dia: 0.53 (mm) Dilution Factor: 20000.00

Soil Extract Volume: _____(uL) Soil Aliquot Volume: _____(uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
75-27-4	Bromodichloromethane	4000	U
75-25-2	Bromoform	20000	U
74-83-9	Bromomethane	20000	U
56-23-5	Carbon Tetrachloride	4000	U
108-90-7	Chlorobenzene	4000	U
75-00-3	Chloroethane	20000	U
110-75-8	2-Chloroethylvinyl ether	20000	U
67-66-3	Chloroform	4000	U
74-87-3	Chloromethane	20000	U
124-48-1	Dibromochloromethane	4000	U
95-50-1	1,2-Dichlorobenzene	8000	U
541-73-1	1,3-Dichlorobenzene	8000	U
106-46-7	1,4-Dichlorobenzene	8000	U
75-34-3	1,1-Dichloroethane	4000	U
107-06-2	1,2-Dichloroethane	4000	U
75-35-4	1,1-Dichloroethene	4000	U
156-60-5	trans-1,2-Dichloroethene	4000	U
78-87-5	1,2-Dichloropropane	4000	U
10061-01-5	cis-1,3-Dichloropropene	4000	U
10061-02-6	trans-1,3-Dichloropropene	4000	U
75-09-2	Methylene chloride	4000	U
79-34-5	1,1,2,2-Tetrachloroethane	4000	U
127-18-4	Tetrachloroethene	4000	U
71-55-6	1,1,1-Trichloroethane	4000	U
79-00-5	1,1,2-Trichloroethane	4000	U
79-01-6	Trichloroethene	350000	
75-69-4	Trichlorofluoromethane	4000	U
75-01-4	Vinyl chloride	20000	U

RADIAN CORPORATION
ERDLE SITE
METHOD 8010 - HALOGENATED VOLATILE ORGANICS
ANALYSIS DATA SHEET

00047

Client No

GW-10

Lab Name: Recra Environmental Contract: _____

Lab Code: RECNY Case No.: 5205 SAS No.: _____ SDG No.: MW1

Matrix: (soil/water) WATER Lab Sample ID: A4753010

Sample wt/vol: 5.00 (g/mL) ML Lab File ID: _____

Level: (low/med) Low Date Samp/Recv: 12/21/94 12/22/9

% Moisture: not dec. _____ Date Analyzed: 01/03/95

GC Column: RTX-502.2 Dia: 0.53 (mm) Dilution Factor: 1.00

Soil Extract Volume: _____(uL) Soil Aliquot Volume: _____(uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
75-27-4	Bromodichloromethane	0.31	J
75-25-2	Bromoform	1.0	U
74-83-9	Bromomethane	1.0	U
56-23-5	Carbon Tetrachloride	0.20	U
108-90-7	Chlorobenzene	0.20	U
75-00-3	Chloroethane	1.0	U
110-75-8	2-Chloroethylvinyl ether	1.0	U
67-66-3	Chloroform	3.6	
74-87-3	Chloromethane	1.0	U
124-48-1	Dibromochloromethane	0.20	U
95-50-1	1,2-Dichlorobenzene	0.40	U
541-73-1	1,3-Dichlorobenzene	0.40	U
106-46-7	1,4-Dichlorobenzene	0.40	U
75-34-3	1,1-Dichloroethane	0.20	U
107-06-2	1,2-Dichloroethane	0.20	U
75-35-4	1,1-Dichloroethene	0.20	U
156-60-5	trans-1,2-Dichloroethene	0.20	U
78-87-5	1,2-Dichloropropane	0.20	U
10061-01-5	cis-1,3-Dichloropropene	0.20	U
10061-02-6	trans-1,3-Dichloropropene	0.20	U
75-09-2	Methylene chloride	0.24	
79-34-5	1,1,2,2-Tetrachloroethane	0.20	U
127-18-4	Tetrachloroethene	0.20	U
71-55-6	1,1,1-Trichloroethane	0.20	U
79-00-5	1,1,2-Trichloroethane	0.20	U
79-01-6	Trichloroethene	1.4	
75-69-4	Trichlorofluoromethane	0.20	U
5-01-4	Vinyl chloride	37	1

RADIAN CORPORATION
ERDLE SITE
METHOD 8010 - HALOGENATED VOLATILE ORGANICS
ANALYSIS DATA SHEET

00048

Client No

TB-2

Lab Name: Recra Environmental Contract: _____

Lab Code: RECNY Case No.: 5205 SAS No.: _____ SDG No.: MW1

Matrix: (soil/water) WATER Lab Sample ID: A4753011

Sample wt/vol: 5.00 (g/mL) ML Lab File ID: _____

Level: (low/med) Low Date Samp/Recv: 12/21/94 12/22/9

% Moisture: not dec. _____ Date Analyzed: 12/31/94

GC Column: RTX-502.2 Dia: 0.53 (mm) Dilution Factor: 1.00

Soil Extract Volume: _____(uL) Soil Aliquot Volume: _____(uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
75-27-4	Bromodichloromethane	0.20	U
75-25-2	Bromoform	1.0	U
74-83-9	Bromomethane	1.0	U
56-23-5	Carbon Tetrachloride	0.20	U
108-90-7	Chlorobenzene	0.20	U
75-00-3	Chloroethane	1.0	U
110-75-8	2-Chloroethylvinyl ether	1.0	U
67-66-3	Chloroform	0.20	U
74-87-3	Chloromethane	1.0	U
124-48-1	Dibromochloromethane	0.20	U
95-50-1	1,2-Dichlorobenzene	0.40	U
541-73-1	1,3-Dichlorobenzene	0.40	U
106-46-7	1,4-Dichlorobenzene	0.40	U
75-34-3	1,1-Dichloroethane	0.20	U
107-06-2	1,2-Dichloroethane	0.20	U
75-35-4	1,1-Dichloroethene	0.20	U
156-60-5	trans-1,2-Dichloroethene	[illegible]	U
78-87-5	1,2-Dichloropropane	[illegible]	U
10061-01-5	cis-1,3-Dichloropropene	[illegible]	U
10061-02-6	trans-1,3-Dichloropropene	[illegible]	U
75-09-2	Methylene chloride	1.30	[illegible]
79-34-5	1,1,2,2-Tetrachloroethane	0.20	U
127-18-4	Tetrachloroethene	0.20	U
71-55-6	1,1,1-Trichloroethane	0.20	U
79-00-5	1,1,2-Trichloroethane	0.20	U
79-01-6	Trichloroethene	0.20	U
75-69-4	Trichlorofluoromethane	0.20	U
75-01-4	Vinyl chloride	1.0	U

RADIAN CORPORATION
ERDLE SITE
METHOD 8020 - AROMATIC VOLATILE ORGANICS
ANALYSIS DATA SHEET

0049

Client No
TB-2

Lab Name: Recra Environmental Contract: _____

Lab Code: RECNY Case No.: 5205 SAS No.: _____ SDG No.: MW1

Matrix: (soil/water) WATER Lab Sample ID: A4753011

Sample wt/vol: 5.00 (g/mL) ML Lab File ID: _____

Level: (low/med) Low Date Samp/Recv: 12/21/94 12/22/94

% Moisture: not dec. _____ Date Analyzed: 12/31/94

GC Column: RTX-502.2 Dia: 0.53 (mm) Dilution Factor: 1.00

Soil Extract Volume: _____(uL) Soil Aliquot Volume: _____(uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
71-43-2	Benzene	0.20	U (5)
108-90-7	Chlorobenzene	0.20	U
95-50-1	1,2-Dichlorobenzene	0.40	U
541-73-1	1,3-Dichlorobenzene	0.40	U
106-46-7	1,4-Dichlorobenzene	0.40	U
100-41-4	Ethyl benzene	0.20	U
108-88-3	Toluene	0.35	
108-38-3	m-Xylene	0.20	U
95-47-6	o-Xylene	0.20	U
106-42-3	p-Xylene	0.20	U

1D
PESTICIDE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

GW1

Lab Name: RECRA ENVIRON Contract: NY95-008

Lab Code: RECNY Case No.: 5205 SAS No.: _____ SDG No.: MW1

Matrix: (soil/water) WATER Lab Sample ID: A4753001

Sample wt/vol: 750.0 (g/mL) ML Lab File ID: _____

% Moisture: _____ decanted: (Y/N) ___ Date Received: 12/22/94

Extraction: (SepF/Cont/Sonc) SEPF Date Extracted: 12/27/94

Concentrated Extract Volume: 10000 (uL) Date Analyzed: 12/29/94

Injection Volume: 1.00 (uL) Dilution Factor: 1.00

GPC Cleanup: (Y/N) N pH: 7.0 Sulfur Cleanup: (Y/N) Y

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
12674-11-2	Aroclor-1016	1.3	U
11104-28-2	Aroclor-1221	2.7	U
11141-16-5	Aroclor-1232	1.3	U
53469-21-9	Aroclor-1242	1.3	U
12672-29-6	Aroclor-1248	1.3	U
11097-69-1	Aroclor-1254	1.3	U
11096-82-5	Aroclor-1260	1.3	U

00051

1D
PESTICIDE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

GW2

Lab Name: RECRA ENVIRON Contract: NY95-008

Lab Code: RECNY Case No.: 5205 SAS No.: _____ SDG No.: MW1

Matrix: (soil/water) WATER Lab Sample ID: A4753002

Sample wt/vol: 890.0 (g/mL) ML Lab File ID: _____

% Moisture: _____ decanted: (Y/N) ___ Date Received: 12/22/94

Extraction: (SepF/Cont/Sonc) SEPF Date Extracted: 12/27/94

Concentrated Extract Volume: 10000 (uL) Date Analyzed: 12/29/94

Injection Volume: 1.00 (uL) Dilution Factor: 1.00

GPC Cleanup: (Y/N) N pH: 7.0 Sulfur Cleanup: (Y/N) Y

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
12674-11-2	Aroclor-1016	1.1	U
11104-28-2	Aroclor-1221	2.2	U
11141-16-5	Aroclor-1232	1.1	U
53469-21-9	Aroclor-1242	1.1	U
12672-29-6	Aroclor-1248	1.1	U
11097-69-1	Aroclor-1254	1.1	U
11096-82-5	Aroclor-1260	1.1	U

D0052

1D
PESTICIDE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

GW6

Lab Name: RECRA ENVIRON Contract: NY95-008

Lab Code: RECNY Case No.: 5205 SAS No.: _____ SDG No.: MW1

Matrix: (soil/water) WATER Lab Sample ID: A4753006

Sample wt/vol: 1000 (g/mL) ML Lab File ID: _____

% Moisture: _____ decanted: (Y/N) ___ Date Received: 12/22/94

Extraction: (SepF/Cont/Sonc) SEPF Date Extracted: 12/27/94

Concentrated Extract Volume: 10000 (uL) Date Analyzed: 12/29/94

Injection Volume: 1.00 (uL) Dilution Factor: 1.00

GPC Cleanup: (Y/N) N pH: 7.0 Sulfur Cleanup: (Y/N) Y

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
12674-11-2	Aroclor-1016	1.0	U
11104-28-2	Aroclor-1221	2.0	U
11141-16-5	Aroclor-1232	1.0	U
53469-21-9	Aroclor-1242	1.0	U
12672-29-6	Aroclor-1248	1.0	U
11097-69-1	Aroclor-1254	1.0	U
11096-82-5	Aroclor-1260	1.0	U

1D
PESTICIDE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

GW7

Lab Name: RECRA ENVIRON Contract: NY95-008

Lab Code: RECNY Case No.: 5205 SAS No.: _____ SDG No.: MW1

Matrix: (soil/water) WATER Lab Sample ID: A4753007

Sample wt/vol: 1000 (g/mL) ML Lab File ID: _____

% Moisture: _____ decanted: (Y/N) ___ Date Received: 12/22/94

Extraction: (SepF/Cont/Sonc) SEPF Date Extracted: 12/27/94

Concentrated Extract Volume: 10000 (uL) Date Analyzed: 12/29/94

Injection Volume: 1.00 (uL) Dilution Factor: 1.00

GPC Cleanup: (Y/N) N pH: 7.0 Sulfur Cleanup: (Y/N) Y

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
12674-11-2	Aroclor-1016	1.0	U
11104-28-2	Aroclor-1221	2.0	U
11141-16-5	Aroclor-1232	1.0	U
53469-21-9	Aroclor-1242	1.0	U
12672-29-6	Aroclor-1248	1.0	U
11097-69-1	Aroclor-1254	1.0	U
11096-82-5	Aroclor-1260	1.0	U

NYSDEC - ASP

COVER PAGE - INORGANIC ANALYSES DATA PACKAGE

00053

Lab Name: RECRA_ENVIRONMENTAL_INC._ Contract: NY95-008__

Lab Code: RECNY_ Case No.: 5205_ SAS No.: _____ SDG No.:MW1___

Protocol Version: ASP 91

NYSDEC Sample No.	Lab Sample ID.
_GW-1_____	__2952_____
_GW-1D_____	__2953_____
_GW-1S_____	__2954_____
_GW-2_____	__2955_____
_GW-3_____	__2956_____
_GW-6_____	__2957_____
_GW-7_____	__2958_____

Were ICP interelement corrections applied ? Yes/No YES

Were ICP background corrections applied ? Yes/No YES
If yes - were raw data generated before application of background corrections ? Yes/No NO_

Comments:

I certify that this data package is in compliance with the terms and conditions of the Protocol, both technically and for completeness, for other than the conditions detailed above. Release of the data contained in this hardcopy data package has been authorized by the Laboratory Manager or the Manager's designee, as verified by the following signature.

Signature: Carol J. Graf for K.E.K. Name: Kenneth E. Kasperek____

Date: 2/1/95 Title: Laboratory Director____

COVER PAGE - IN

NYSDEC ASP

00054

1
INORGANIC ANALYSES DATA SHEET

NYSDEC SAMPLE NO.

GW-1

Lab Name: RECRA_ENVIRONMENTAL_INC._ Contract: NY95-008__

Lab Code: RECNY_ Case No.: 5205_ SAS No.: _____ SDG No.: MW1___

Matrix (soil/water): WATER Lab Sample ID: 2952

Level (low/med): LOW__ Date Received: 12/22/94

% Solids: __0.0

Concentration Units (ug/L or mg/kg dry weight): UG/L_

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	2650		N*	P
7440-36-0	~~Antimony~~	7.0	B	~~N~~	P
7440-38-2	Arsenic	5.0	U	N	P
7440-39-3	Barium	78.3	B		P
7440-41-7	Beryllium	0.30	U		P
7440-43-9	Cadmium	0.78	B		P
7440-70-2	Calcium	392000			P
7440-47-3	Chromium	10.0	U		P
7440-48-4	Cobalt	8.4	B		P
7440-50-8	Copper	5.4	B		P
7439-89-6	Iron	16100			P
7439-92-1	Lead	2.0	B	WN	F
7439-95-4	Magnesium	81300			P
7439-96-5	Manganese	4820			P
7439-97-6	Mercury	0.20	U		CV
7440-02-0	Nickel	1.3	U		P
7440-09-7	Potassium	19500			P
7782-49-2	Selenium	5.0	U	N	P
7440-22-4	Silver	10.0	U	N	P
7440-23-5	Sodium	81500			P
7440-28-0	Thallium	5.0	U	N	P
7440-62-2	Vanadium	4.0	B		P
7440-66-6	Zinc	75.1		E	P
	Cyanide	10.0	U		C

Color Before: ORANGE___ Clarity Before: CLOUDY Texture: _____

Color After: COLORLESS Clarity After: CLEAR_ Artifacts: ___

Comments:
LAB_SAMPLE_ID:_A4753001-SG000021
REDIGESTION_NUMBER:_3521

NYSDEC ASP

00055

1

INORGANIC ANALYSES DATA SHEET

NYSDEC SAMPLE NO.

GW-2

Lab Name: RECRA_ENVIRONMENTAL_INC._ Contract: NY95-008__

Lab Code: RECNY_ Case No.: 5205_ SAS No.: _____ SDG No.: MW1___

Matrix (soil/water): WATER Lab Sample ID: 2955

Level (low/med): LOW__ Date Received: 12/22/94

% Solids: __0.0

Concentration Units (ug/L or mg/kg dry weight): UG/L_

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	2550		N*	P
7440-36-0	Antimony	5.0	U	N	P
7440-38-2	Arsenic	5.0	U	N	P
7440-39-3	Barium	73.3	B		P
7440-41-7	Beryllium	0.30	U		P
7440-43-9	Cadmium	0.83	B		P
7440-70-2	Calcium	381000			P
7440-47-3	Chromium	10.0	U		P
7440-48-4	Cobalt	7.1	B		P
7440-50-8	Copper	5.0	B		P
7439-89-6	Iron	17000			P
7439-92-1	Lead	~~3.0~~		N	F
7439-95-4	Magnesium	77800			P
7439-96-5	Manganese	4320			P
7439-97-6	Mercury	0.20	U		CV
7440-02-0	Nickel	1.3	U		P
7440-09-7	Potassium	19000			P
7782-49-2	Selenium	5.0	U	N	P
7440-22-4	Silver	10.0	U	N	P
7440-23-5	Sodium	88500			P
7440-28-0	Thallium	5.0	U	N	P
7440-62-2	Vanadium	3.3	B		P
7440-66-6	Zinc	109		E	P
	Cyanide	10.0	U		C

Color Before: COLORLESS Clarity Before: CLEAR_ Texture: _____

Color After: COLORLESS Clarity After: CLEAR_ Artifacts: ___

Comments:
LAB_SAMPLE_ID:_A4753002-SG000021
REDIGESTION_NUMBER:_3524

NYSDEC ASP

00056

1
INORGANIC ANALYSES DATA SHEET

NYSDEC SAMPLE NO.

GW-3

Lab Name: RECRA_ENVIRONMENTAL_INC._ Contract: NY95-008__

Lab Code: RECNY_ Case No.: 5205_ SAS No.: _____ SDG No.: MW1___

Matrix (soil/water): WATER Lab Sample ID: 2956

Level (low/med): LOW__ Date Received: 12/22/94

% Solids: __0.0

Concentration Units (ug/L or mg/kg dry weight): UG/L_

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum_	111000		N*	P
7440-36-0	Antimony_	5.0	U	N	P
7440-38-2	Arsenic__	5.0	U	N	P
7440-39-3	Barium___	85.8	B		P
7440-41-7	Beryllium	0.50	B		P
7440-43-9	Cadmium__	8.0			P
7440-70-2	Calcium__	421000			P
7440-47-3	Chromium_	10.0	U		P
7440-48-4	Cobalt___	17.3	B		P
7440-50-8	Copper___	46.5			P
7439-89-6	Iron_____	9010			P
7439-92-1	Lead_____	26.0		N	F
7439-95-4	Magnesium	172000			P
7439-96-5	Manganese	1230			P
7439-97-6	Mercury__	0.20	U		CV
7440-02-0	Nickel___	24.7	B		P
7440-09-7	Potassium	9530			P
7782-49-2	Selenium_	5.0	U	N	P
7440-22-4	Silver___	10.0	U	N	P
7440-23-5	Sodium___	78600			P
7440-28-0	Thallium_	5.0	U	N	P
7440-62-2	Vanadium_	19.4	B		P
7440-66-6	Zinc_____	129		E	P
	Cyanide__	10.0	U		C

Color Before: ORANGE___ Clarity Before: CLOUDY Texture: _____

Color After: COLORLESS Clarity After: CLEAR_ Artifacts: ___

Comments:
LAB_SAMPLE_ID:_A4753003-SG000021
REDIGESTION_NUMBER:_3525
CN_SAMPLE_RECEIVED_ON_12/24/94

NYSDEC ASP

00057

1
INORGANIC ANALYSES DATA SHEET

NYSDEC SAMPLE NO.

GW-6

Lab Name: RECRA_ENVIRONMENTAL_INC._ Contract: NY95-008__

Lab Code: RECNY_ Case No.: 5205_ SAS No.: _____ SDG No.: MW1___

Matrix (soil/water): WATER Lab Sample ID: 2957

Level (low/med): LOW__ Date Received: 12/22/94

% Solids: __0.0

Concentration Units (ug/L or mg/kg dry weight): UG/L_

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum_	90.0_	U	N*	P_
7440-36-0	Antimony_	~~37.4~~	~~B~~	~~N~~	~~P~~
7440-38-2	Arsenic__	5.0_	U	N	P_
7440-39-3	Barium___	202_			P_
7440-41-7	Beryllium	0.30_	U		P_
7440-43-9	Cadmium__	0.57_	B		P_
7440-70-2	Calcium__	137000_			P_
7440-47-3	Chromium_	10.0_	U		P_
7440-48-4	Cobalt___	2.8_	B		P_
7440-50-8	Copper___	2.9_	B		P_
7439-89-6	Iron____	191_			P_
7439-92-1	Lead____	2.0_	U	WN	F_
7439-95-4	Magnesium	47400_			P_
7439-96-5	Manganese	204_			P_
7439-97-6	Mercury__	0.20_	U		CV
7440-02-0	Nickel___	1.3_	U		P_
7440-09-7	Potassium	8140_			P_
7782-49-2	Selenium_	5.0_	U	N	P_
7440-22-4	Silver___	114_		N	P_
7440-23-5	Sodium___	512000_			P_
7440-28-0	Thallium_	5.0_	U	N	P_
7440-62-2	Vanadium_	1.3_	U		P_
7440-66-6	Zinc____	154_		E	P_
_____	Cyanide__	10.0_	U		C_

Color Before: COLORLESS Clarity Before: CLEAR_ Texture: _____

Color After: COLORLESS Clarity After: CLEAR_ Artifacts: ___

Comments:
LAB_SAMPLE_ID:_A4753006-SG000021
REDIGESTION_NUMBER:_3526

NYSDEC ASP

00058

1
INORGANIC ANALYSES DATA SHEET

NYSDEC SAMPLE NO.

GW-7

Lab Name: RECRA_ENVIRONMENTAL_INC._ Contract: NY95-008__

Lab Code: RECNY_ Case No.: 5205_ SAS No.: _____ SDG No.: MW1___

Matrix (soil/water): WATER Lab Sample ID: 2958

Level (low/med): LOW__ Date Received: 12/22/94

% Solids: __0.0

Concentration Units (ug/L or mg/kg dry weight): UG/L_

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum_	90.0	U	N*	P
7440-36-0	Antimony_	~~8.2~~	~~B~~	~~N~~	P
7440-38-2	Arsenic__	5.0	U	N	P
7440-39-3	Barium___	192	B		P
7440-41-7	Beryllium	0.30	U		P
7440-43-9	Cadmium__	0.40	U		P
7440-70-2	Calcium__	141000			P
7440-47-3	Chromium_	10.0	U		P
7440-48-4	Cobalt___	1.6	U		P
7440-50-8	Copper___	1.6	U		P
7439-89-6	Iron____	257			P
7439-92-1	Lead____	14.0		N	F
7439-95-4	Magnesium	46400			P
7439-96-5	Manganese	174			P
7439-97-6	Mercury__	0.36			CV
7440-02-0	Nickel___	1.3	U		P
7440-09-7	Potassium	5130			P
7782-49-2	Selenium_	5.0	U	N	P
7440-22-4	Silver___	10.0	U	N	P
7440-23-5	Sodium___	487000			P
7440-28-0	Thallium_	5.0	U	N	P
7440-62-2	Vanadium_	1.3	U		P
7440-66-6	Zinc____	137		E	P
	Cyanide__	10.0	U		C

Color Before: COLORLESS Clarity Before: CLEAR_ Texture: _____

Color After: COLORLESS Clarity After: CLEAR_ Artifacts: ___

Comments:
LAB_SAMPLE_ID:_A4753007-SG000021
REDIGESTION_NUMBER:_3527

RADIAN CORPORATION
ERDLE SITE
Wet Chemistry Analysis

00059
Client Sample No.
GW-1

Lab Name: Recra Environmental, Inc. Contract: _____

Lab Code: RECNY Case No.: 5205 SAS No.: _____ SDG No.: MW1

Matrix (soil/water): WATER Lab Sample ID: A4753001

% Solids: 0.0 Date Samp/Recv: 12/21/94 12/22/94

Parameter Name	Units of Measure	Result	C	Q	M	Method Number	Analyzed Date
Total Hardness	MG/L*	1320				130.2	01/03/95

Comments:

RADIAN CORPORATION
ERDLE SITE
Wet Chemistry Analysis

Client Sample No.
GW-2

Lab Name: Recra Environmental, Inc. Contract: _____

Lab Code: RECNY Case No.: 5205 SAS No.: _____ SDG No.: MW1

Matrix (soil/water): WATER Lab Sample ID: A4753002

% Solids: 0.0 Date Samp/Recv: 12/21/94 12/22/94

Parameter Name	Units of Measure	Result	C	Q	M	Method Number	Analyzed Date
Total Hardness	MG/L*	1120				130.2	01/03/95

Comments:

RADIAN CORPORATION
ERDLE SITE
Wet Chemistry Analysis

Client Sample No.
GW-6

Lab Name: Recra Environmental, Inc. Contract: _____

Lab Code: RECNY Case No.: 5205 SAS No.: _____ SDG No.: MW1

Matrix (soil/water): WATER Lab Sample ID: A4753006

% Solids: 0.0 Date Samp/Recv: 12/21/94 12/22/94

Parameter Name	Units of Measure	Result	C	Q	M	Method Number	Analyzed Date
Total Hardness	MG/L*	607				130.2	01/03/95

Comments:

RADIAN CORPORATION
ERDLE SITE
Wet Chemistry Analysis

)0062

Client Sample No.
GW-7

ab Name: Recra Environmental, Inc. Contract: _____

Lab Code: RECNY Case No.: 5205 SAS No.: _____ SDG No.: MW1

atrix (soil/water): WATER Lab Sample ID: A4753007

Solids: 0.0 Date Samp/Recv: 12/21/94 12/22/94

Parameter Name	Units of Measure	Result	C	Q	M	Method Number	Analyzed Date
Total Hardness	MG/L*	587				130.2	01/03/95

omments:

RADIAN CORPORATION
ERDLE SITE
METHOD 8240 - TCL VOLATILES
WATER SURROGATE RECOVERY

Lab Name: Recra Environmental Contract: _____

Lab Code: RECNY Case No.: 5205 SAS No.: _____ SDG No.: MW1

	Client Sample ID	TOL %REC	#	BFB %REC	#	DCE %REC	#						TOT OUT
1	GW-1	99		97		99							0
2	GW-1 MS	99		96		99							0
3	GW-1 MSD	98		95		99							0
4	GW-2	99		97		101							0
5	GW-6	98		97		102							0
6	GW-7	98		100		96							0
7	MATRIX SPIKE BLANK	100		97		100							0
8	TB-2	96		99		96							0
9	VBLK35	98		99		98							0
10	VBLK36	98		98		100							0
11	VBLK37	98		101		97							0

			QC LIMITS
TOL	=	Toluene-D8	(88-110)
BFB	=	p-Bromofluorobenzene	(86-115)
DCE	=	1,2-Dichloroethane-D4	(76-114)

Column to be used to flag recovery values
* Values outside of contract required QC limits
D Surrogates diluted out

D0064

RADIAN CORPORATION
ERDLE SITE
METHOD 8270 - TCL SEMIVOLATILES
WATER SURROGATE RECOVERY

Lab Name: Recra Environmental Contract: _____

Lab Code: RECNY Case No.: 5205 SAS No.: _____ SDG No.: MW1

	Client Sample ID	NBZ %REC	#	FBP %REC	#	TPH %REC	#	PHL %REC	#	2FP %REC	#	TBP %REC	#	2CP %REC	#	DCB %REC	#	TOT OUT
1	GW-1	83		82		96		71		69		124	*	81		73		1
2	GW-1 MS	87		76		69		73		74		115		83		78		0
3	GW-1 MSD	85		83		50		76		77		120		84		78		0
4	GW-2	82		85		48		73		75		103		81		80		0
5	GW-6	79		81		86		68		67		97		72		71		0
6	GW-7	78		86		105		67		65		101		71		72		0
7	MATRIX SPIKE BLANK	79		86		89		64		60		107		71		71		0
8	SBLK 83	83		86		88		68		69		90		78		74		0

			QC LIMITS
NBZ	=	Nitrobenzene-D5	(35-114)
FBP	=	2-Fluorobiphenyl	(43-116)
TPH	=	Terphenyl-D14	(33-141)
PHL	=	Phenol-D5	(10-110)
2FP	=	2-Fluorophenol	(21-110)
TBP	=	2,4,6-Tribromophenol	(10-123)
2CP	=	2-Chlorophenol-d4	(33-110)
DCB	=	1,2-Dichlorobenzene-d4	(16-110)

Column to be used to flag recovery values
* Values outside of contract required QC limits
D Surrogates diluted out

10065

RADIAN CORPORATION
ERDLE SITE
METHOD 8010 - HALOGENATED VOLATILE ORGANICS
WATER SURROGATE RECOVERY

Lab Name: Recra Environmental Contract: _____

Lab Code: RECNY Case No.: 5205 SAS No.: _____ SDG No.: MW1

GC Column(1): RTX-502.2 ID: 0.53 (mm) GC Column(2): 1% SP 1000 ID.: 2.00 (mm)

	Client Sample ID	BCM 1 %REC	#	BCM 2 %REC	#							TOT OUT
1	GW-10	109		71								0
2	GW-3	91		68								0
3	GW-4	94		65	*							1
4	GW-5	90		66								0
5	GW-8	91		69								0
6	GW-9	97		70								0
7	TB-2	94		75								0
8	VBLK	89		74								0

QC LIMITS

(BCM) = Bromochloromethane (66-132)

Column to be used to flag recovery values
* Values outside of contract required QC limits
D Surrogates diluted out

RADIAN CORPORATION
ERDLE SITE
METHOD 8010 - HALOGENATED VOLATILE ORGANICS
WATER SURROGATE RECOVERY

Lab Name: Recra Environmental Contract: _____

Lab Code: RECNY Case No.: 5205 SAS No.: _____ SDG No.: MW1

GC Column(1): RTX-502.2 ID: 0.53 (mm)

	Client Sample ID	BCM %REC #								TOT OUT
1	GW-4 MS	102								0
2	GW-4 MSD	103								0
3	MATRIX SPIKE BLANK	99								0
4	MATRIX SPIKE BLANK	105								0
5	VBLK	91								0

QC LIMITS

(BCM) = Bromochloromethane (66-132)

Column to be used to flag recovery values
* Values outside of contract required QC limits
D Surrogates diluted out

RADIAN CORPORATION
ERDLE SITE
METHOD 8020 - AROMATIC VOLATILE ORGANICS
WATER SURROGATE RECOVERY

Lab Name: Recra Environmental Contract: _____

Lab Code: RECNY Case No.: 5205 SAS No.: _____ SDG No.: MW1

GC Column(1): RTX-502.2 ID: 0.53 (mm) GC Column(2): 1% SP 1000 ID.: 2.00 (mm)

	Client Sample ID	TFT 1 %REC	#	TFT 2 %REC	#							TOT OUT
1	TB-2	84		77								0
2	VBLK	94		87								0

QC LIMITS

(TFT) = a,a,a-Trifluorotoluene (54-134)

Column to be used to flag recovery values
* Values outside of contract required QC limits
D Surrogates diluted out

RADIAN CORPORATION
ERDLE SITE
METHOD 8020 - AROMATIC VOLATILE ORGANICS
WATER SURROGATE RECOVERY

Lab Name: Recra Environmental Contract: _____

Lab Code: RECNY Case No.: 5205 SAS No.: _____ SDG No.: MW1

GC Column(1): RTX-502.2 ID: 0.53 (mm)

	Client Sample ID	TFT %REC #								TOT OUT
1	MATRIX SPIKE BLANK	96								0

QC LIMITS

(TFT) = a,a,a-Trifluorotoluene (54-134)

Column to be used to flag recovery values
* Values outside of contract required QC limits
D Surrogates diluted out

2E
WATER PESTICIDE SURROGATE RECOVERY

00069

Lab Name: RECRA ENVIRON Contract: NY95-008

Lab Code: RECNY Case No.: 5205 SAS No.: _____ SDG No.: MW1

GC Column(1): DB608 ID: 0.53(mm) GC Column(2): DB1701 ID: 0.53(mm)

	EPA SAMPLE NO.	TCX 1 %REC #	TCX 2 %REC #	DCB 1 %REC #	DCB 2 %REC #	OTHER (1)	OTHER (2)	TOT OUT
01	PBLK14	70	66	72	74			0
02	GW1	88	77	68	69			0
03	GW2	91	79	38*	39*			2
04	GW6	60	58*	74	76			1
05	GW7	84	84	84	85			0
06	MSB	60	54*	65	60			1
07	GW1MS	96	54*	60	54*			2
08	GW1MSD	104	59*	58*	58*			3

	ADVISORY QC LIMITS
TCX = Tetrachloro-m-xylene	(60-150)
DCB = Decachlorobiphenyl	(60-150)

Column to be used to flag recovery values
* Values outside of contract required QC limits
D Surrogate diluted out

RADIAN CORPORATION
ERDLE SITE
METHOD 8240 - TCL VOLATILES
WATER MATRIX SPIKE BLANK RECOVERY

00070

Lab Name: Recra Environmental, Inc. Contract: _____ Lab Samp ID: A4B0423006

Lab Code: RECNY Case No.: 5205 SAS No.: _____ SDG No.: MW1

Matrix Spike - Client Sample No.: ~~VBLK36~~ MS blank

MTA 11/21/95

COMPOUND	SPIKE ADDED UG/L	MSB CONCENTRATION UG/L	MSB % REC #	QC LIMITS REC.
1,1-Dichloroethene	50	47	94	61 - 145
Trichloroethene	50	49	96	71 - 120
Benzene	50	52	102	76 - 127
Toluene	50	51	100	76 - 125
Chlorobenzene	50	50	98	75 - 130

Column to be used to flag recovery and RPD values with an asterisk

* Values outside of QC limits

_ike recovery: 0 out of 5 outside limits

Comments: _____

RADIAN CORPORATION
ERDLE SITE
METHOD 8240 - TCL VOLATILES
WATER MATRIX SPIKE/MATRIX SPIKE DUPLICATE RECOVERY

Lab Name: Recra Environmental, Inc. Contract: _____ Lab Samp ID: A4753001

Lab Code: RECNY Case No.: 5205 SAS No.: _____ SDG No.: MW1

Matrix Spike - Client Sample No.: GW-1

COMPOUND	SPIKE ADDED UG/L	SAMPLE CONCENTRATION UG/L	MS CONCENTRATION UG/L	MS % REC #	QC LIMITS REC.
1,1-Dichloroethene	50000	0	40000	80	61 - 145
Trichloroethene	50000	6400	47000	81	71 - 120
Benzene	50000	0	44000	88	76 - 127
Toluene	50000	0	43000	86	76 - 125
Chlorobenzene	50000	0	43000	86	75 - 130

COMPOUND	SPIKE ADDED UG/L	MSD CONCENTRATION UG/L	MSD % REC #	% RPD #	QC LIMITS RPD	QC LIMITS REC.
1,1-Dichloroethene	50000	50000	100	22 *	14	61 - 145
Trichloroethene	50000	54000	95	16 *	14	71 - 120
Benzene	50000	51000	102	15 *	11	76 - 127
Toluene	50000	49000	98	13	13	76 - 125
Chlorobenzene	50000	48000	96	11	13	75 - 130

Column to be used to flag recovery and RPD values with an asterisk

* Values outside of QC limits

RPD: 3 out of 5 outside limits
Spike recovery: 0 out of 10 outside limits

Comments: _____

RADIAN CORPORATION
ERDLE SITE
METHOD 8270 - TCL SEMIVOLATILES
WATER MATRIX SPIKE BLANK RECOVERY

00072

Lab Name: Recra Environmental, Inc. Contract: _____ Lab Samp ID: A4B041350[illegible]

Lab Code: RECNY Case No.: 5205 SAS No.: _____ SDG No.: MW1

Matrix Spike - Client Sample No.: ~~SPIK-83~~ MSBLANK
MTM 1/20/95

COMPOUND	SPIKE ADDED UG/L	MSB CONCENTRATION UG/L	MSB % REC #	QC LIMITS REC.
Phenol	75	48	64	12 - 110
2-Chlorophenol	75	55	73	27 - 123
1,4-Dichlorobenzene	50	36	72	36 - 97
N-Nitroso-Di-n-propyl(1)	50	24	48	41 - 116
1,2,4-Trichlorobenzene	50	42	84	39 - 98
4-Chloro-3-methylphenol	75	65	87	23 - 97
Acenaphthene	50	45	90	46 - 118
4-Nitrophenol	75	74	99 *	10 - 80
2,4-Dinitrotoluene	50	43	86	24 - 96
Pentachlorophenol	75	71	95	9 - 103
Pyrene	50	41	82	26 - 127

(1) N-Nitroso-Di-n-propylamine

Column to be used to flag recovery and RPD values with an asterisk

* Values outside of QC limits

Spike recovery: 1 out of 11 outside limits

Comments: _____

RADIAN CORPORATION
ERDLE SITE
METHOD 8270 - TCL SEMIVOLATILES
WATER MATRIX SPIKE/MATRIX SPIKE DUPLICATE RECOVERY

10073

Lab Name: Recra Environmental, Inc. Contract: _____ Lab Samp ID: A4753001

Lab Code: RECNY Case No.: 5205 SAS No.: _____ SDG No.: MW1

Matrix Spike - Client Sample No.: GW-1

COMPOUND	SPIKE ADDED UG/L	SAMPLE CONCENTRATION UG/L	MS CONCENTRATION UG/L	MS % REC #	QC LIMITS REC.
Phenol	85	0	63	74	12 - 110
2-Chlorophenol	85	0	73	86	27 - 123
1,4-Dichlorobenzene	57	0	43	75	36 - 97
N-Nitroso-Di-n-propyl(1)	57	0	28	49	41 - 116
1,2,4-Trichlorobenzene	57	0	47	82	39 - 98
4-Chloro-3-methylphenol	85	0	79	93	23 - 97
Acenaphthene	57	0	47	82	46 - 118
4-Nitrophenol	85	0	5	6 *	10 - 80
2,4-Dinitrotoluene	57	0	44	77	24 - 96
Pentachlorophenol	85	0	100	118 *	9 - 103
Pyrene	57	0	40	70	26 - 127

COMPOUND	SPIKE ADDED UG/L	MSD CONCENTRATION UG/L	MSD % REC #	% RPD #	QC LIMITS RPD	QC LIMITS REC.
Phenol	85	68	80	8	42	12 - 110
2-Chlorophenol	85	73	86	0	40	27 - 123
1,4-Dichlorobenzene	57	46	81	8	28	36 - 97
N-Nitroso-Di-n-propyl(1)	57	29	51	4	38	41 - 116
1,2,4-Trichlorobenzene	57	52	91	10	28	39 - 98
4-Chloro-3-methylphenol	85	84	99 *	6	42	23 - 97
Acenaphthene	57	49	86	5	31	46 - 118
4-Nitrophenol	85	57	67	167 *	50	10 - 80
2,4-Dinitrotoluene	57	46	81	5	38	24 - 96
Pentachlorophenol	85	100	118 *	0	50	9 - 103
Pyrene	57	43	75	7	31	26 - 127

(1) N-Nitroso-Di-n-propylamine

Column to be used to flag recovery and RPD values with an asterisk

* Values outside of QC limits

RPD: 1 out of 11 outside limits
Spike recovery: 4 out of 22 outside limits

Comments: _____

RADIAN CORPORATION
ERDLE SITE
METHOD 8010 - HALOGENATED VOLATILE ORGANICS
WATER MATRIX SPIKE BLANK RECOVERY

Lab Name: Recra Environmental, Inc. Contract: _____ Lab Samp ID: A4753017

Lab Code: RECNY Case No.: 5205 SAS No.: _____ SDG No.: MW1

Matrix Spike - Client Sample No.: VBLK

COMPOUND	SPIKE ADDED UG/L	MSB CONCENTRATION UG/L	MSB % REC #	QC LIMITS REC.	+
Bromodichloromethane	4.0	5.0	125	75 - 125	
Bromoform	4.0	4.0	100	75 - 125	
Bromomethane	4.0	4.0	100	75 - 125	
Carbon Tetrachloride	4.0	4.5	112	75 - 125	
Chlorobenzene	8.0	7.5	94	75 - 125	
Chloroethane	4.0	5.0	125	75 - 125	
2-Chloroethylvinyl ether	4.0	4.5	112	75 - 125	
Chloroform	4.0	4.7	118	75 - 125	
Chloromethane	8.0	9.8	122	75 - 125	
Dibromochloromethane	4.0	4.2	105	75 - 125	
1,2-Dichlorobenzene	8.0	7.8	98	75 - 125	
1,3-Dichlorobenzene	8.0	7.2	90	75 - 125	
4-Dichlorobenzene	8.0	7.9	99	75 - 125	
,1-Dichloroethane	4.0	4.0	100	75 - 125	
1,2-Dichloroethane	4.0	4.3	108	75 - 125	
1,1-Dichloroethene	4.0	4.6	115	75 - 125	
cis-1,3-Dichloropropene	4.0	4.3	108	75 - 125	
trans-1,2-Dichloroethene	4.0	3.9	98	75 - 125	
1,2-Dichloropropane	4.0	4.0	100	75 - 125	
trans-1,3-Dichloropro(1)	4.0	3.8	95	75 - 125	
Methylene chloride	4.0	4.9	122	75 - 125	
1,1,2,2-Tetrachloroet(2)	4.0	4.9	122	75 - 125	
Tetrachloroethene	4.0	4.2	105	75 - 125	
1,1,1-Trichloroethane	4.0	4.9	122	75 - 125	
1,1,2-Trichloroethane	4.0	4.3	108	75 - 125	
Trichloroethene	4.0	4.4	110	75 - 125	
Vinyl chloride	8.0	9.8	122	75 - 125	
Trichlorofluoromethane	4.0	4.6	115	75 - 125	

(1) trans-1,3-Dichloropropene
(2) 1,1,2,2-Tetrachloroethane

Column to be used to flag recovery and RPD values with an asterisk

* Values outside of QC limits

Spike recovery: 0 out of 28 outside limits

Comments: _____

RADIAN CORPORATION
ERDLE SITE
METHOD 8010 - HALOGENATED VOLATILE ORGANICS
WATER MATRIX SPIKE BLANK RECOVERY

10075

Lab Name: Recra Environmental, Inc. Contract: _____ Lab Samp ID: A4753013

Lab Code: RECNY Case No.: 5205 SAS No.: _____ SDG No.: MW1

Matrix Spike - Client Sample No.: VBLK

COMPOUND	SPIKE ADDED UG/L	MSB CONCENTRATION UG/L	MSB % REC #	QC LIMITS REC.	+
Bromodichloromethane	4.0	4.3	108	75 - 125	
Bromoform	4.0	3.4	85	75 - 125	
Bromomethane	4.0	4.0	100	75 - 125	
Carbon Tetrachloride	4.0	3.8	95	75 - 125	
Chlorobenzene	4.0	3.3	82	75 - 125	
Chloroethane	4.0	4.3	108	75 - 125	
2-Chloroethylvinyl ether	4.0	3.7	92	75 - 125	
Chloroform	4.0	4.2	105	75 - 125	
Chloromethane	8.0	8.1	101	75 - 125	
Dibromochloromethane	4.0	3.3	82	75 - 125	
1,2-Dichlorobenzene	4.0	3.8	95	75 - 125	
1,3-Dichlorobenzene	4.0	3.5	88	75 - 125	
1,4-Dichlorobenzene	4.0	3.8	95	75 - 125	
1,1-Dichloroethane	4.0	3.6	90	75 - 125	
1,2-Dichloroethane	4.0	4.0	100	75 - 125	
1,1-Dichloroethene	4.0	4.0	100	75 - 125	
cis-1,3-Dichloropropene	4.0	3.7	92	75 - 125	
trans-1,2-Dichloroethene	4.0	3.8	95	75 - 125	
1,2-Dichloropropane	4.0	3.3	82	75 - 125	
trans-1,3-Dichloropro(1)	4.0	3.2	80	75 - 125	
Methylene chloride	4.0	4.5	112	75 - 125	
1,1,2,2-Tetrachloroet(2)	4.0	3.6	90	75 - 125	
Tetrachloroethene	4.0	3.6	90	75 - 125	
1,1,1-Trichloroethane	4.0	4.3	108	75 - 125	
1,1,2-Trichloroethane	4.0	3.4	85	75 - 125	
Trichloroethene	4.0	3.8	95	75 - 125	
Vinyl chloride	8.0	8.1	101	75 - 125	
Trichlorofluoromethane	4.0	4.2	105	75 - 125	

(1) trans-1,3-Dichloropropene
(2) 1,1,2,2-Tetrachloroethane

Column to be used to flag recovery and RPD values with an asterisk

* Values outside of QC limits

Spike recovery: 0 out of 28 outside limits

Comments: _____

RADIAN CORPORATION
ERDLE SITE
METHOD 8010 - HALOGENATED VOLATILE ORGANICS
WATER MATRIX SPIKE/MATRIX SPIKE DUPLICATE RECOVERY

00076

Lab Name: Recra Environmental, Inc. Contract: _____ Lab Samp ID: A4753004

Lab Code: RECNY Case No.: 5205 SAS No.: _____ SDG No.: MW1

Matrix Spike - Client Sample No.: GW-4

COMPOUND	SPIKE ADDED UG/L	SAMPLE CONCENTRATION UG/L	MS CONCENTRATION UG/L	MS % REC #	QC LIMITS REC.
Bromodichloromethane	4.0	0	4.8	120	70 - 130
Bromoform	4.0	0	3.5	88	70 - 130
Bromomethane	4.0	0	4.1	102	70 - 130
Carbon Tetrachloride	4.0	0	4.2	105	29 - 173
Chlorobenzene	8.0	0	6.5	81	70 - 130
Chloroethane	4.0	0	5.0	125	70 - 130
2-Chloroethylvinyl ether	4.0	0	3.1	78	70 - 130
Chloroform	4.0	0	4.7	118	64 - 140
Chloromethane	8.0	0	9.5	119	72 - 120
Dibromochloromethane	4.0	0	3.7	92	70 - 130
1,2-Dichlorobenzene	8.0	0	6.7	84	70 - 130
1,3-Dichlorobenzene	8.0	0	6.2	78	70 - 130
1,4-Dichlorobenzene	8.0	0	6.8	85	70 - 130
1,1-Dichloroethane	4.0	0.52	4.7	104	47 - 141
1,2-Dichloroethane	4.0	0	4.4	110	70 - 130
1,1-Dichloroethene	4.0	0	4.4	110	57 - 133
cis-1,3-Dichloropropene	4.0	0	3.8	95	70 - 130
trans-1,2-Dichloroethene	4.0	0	3.8	95	51 - 141
1,2-Dichloropropane	4.0	0	4.4	110	70 - 130
trans-1,3-Dichloropro(1	4.0	0	3.4	85	70 - 130
Methylene chloride	4.0	0.31	4.6	107	66 - 132
1,1,2,2-Tetrachloroet(2)	4.0	0	4.1	102	70 - 130
Tetrachloroethene	4.0	0	3.9	98	47 - 149
1,1,1-Trichloroethane	4.0	3.3	7.5	105	58 - 136
1,1,2-Trichloroethane	4.0	0	3.8	95	13 - 158
Trichloroethene	4.0	13	17	100	51 - 163
Vinyl chloride	8.0	0	9.5	119	72 - 120
Trichlorofluoromethane	4.0	0	4.9	122	70 - 130

COMPOUND	SPIKE ADDED UG/L	MSD CONCENTRATION UG/L	MSD % REC #	% RPD #	QC LIMITS RPD	QC LIMITS REC.
Bromodichloromethane	4.0	4.3	108	10	22	70 - 130
Bromoform	4.0	3.3	82	7	27	70 - 130
Bromomethane	4.0	4.1	102	0	35	70 - 130
Carbon Tetrachloride	4.0	3.8	95	10	26	29 - 173
Chlorobenzene	8.0	5.8	72	12	30	70 - 130
Chloroethane	4.0	4.4	110	13	22	70 - 130
2-Chloroethylvinyl ether	4.0	3.0	75	4	71	70 - 130
Chloroform	4.0	4.3	108	9	27	64 - 140
Chloromethane	8.0	8.7	109	9	25	72 - 120
Dibromochloromethane	4.0	3.2	80	14	27	70 - 130

RADIAN CORPORATION
ERDLE SITE
METHOD 8010 - HALOGENATED VOLATILE ORGANICS
WATER MATRIX SPIKE/MATRIX SPIKE DUPLICATE RECOVERY

100077

Lab Name: Recra Environmental, Inc. Contract: _____ Lab Samp ID: A4753004

Lab Code: RECNY Case No.: 5205 SAS No.: _____ SDG No.: MW1

Matrix Spike - Client Sample No.: GW-4

COMPOUND	SPIKE ADDED UG/L	MSD CONCENTRATION UG/L	MSD % REC #	% RPD #	QC LIMITS RPD	QC LIMITS REC.
1,2-Dichlorobenzene	8.0	6.2	78	7	30	70 - 130
1,3-Dichlorobenzene	8.0	5.6	70	11	30	70 - 130
1,4-Dichlorobenzene	8.0	6.2	78	8	30	70 - 130
1,1-Dichloroethane	4.0	4.4	97	7	51	47 - 141
1,2-Dichloroethane	4.0	4.1	102	8	32	70 - 130
1,1-Dichloroethene	4.0	4.1	102	8	21	57 - 133
cis-1,3-Dichloropropene	4.0	3.5	88	8	24	70 - 130
trans-1,2-Dichloroethene	4.0	3.7	92	3	30	51 - 141
1,2-Dichloropropane	4.0	4.0	100	10	22	70 - 130
trans-1,3-Dichloropro(1)	4.0	3.0	75	12	27	70 - 130
Methylene chloride	4.0	4.4	102	5	17	66 - 132
1,1,2,2-Tetrachloroet(2)	4.0	3.8	95	7	23	70 - 130
Tetrachloroethene	4.0	3.4	85	14	23	47 - 149
1,1,1-Trichloroethane	4.0	6.9	90	15	26	58 - 136
1,1,2-Trichloroethane	4.0	3.4	85	11	27	18 - 158
Trichloroethene	4.0	16	75	28	36	51 - 163
Vinyl chloride	8.0	8.7	109	9	24	72 - 120
Trichlorofluoromethane	4.0	4.4	110	10	15	70 - 130

(1) trans-1,3-Dichloropropene
(2) 1,1,2,2-Tetrachloroethane

Column to be used to flag recovery and RPD values with an asterisk

* Values outside of QC limits

RPD: 0 out of 28 outside limits
Spike recovery: 0 out of 56 outside limits

Comments: _____

RADIAN CORPORATION
ERDLE SITE
METHOD 8020 - AROMATIC VOLATILE ORGANICS
WATER MATRIX SPIKE BLANK RECOVERY

10078

Lab Name: Recra Environmental, Inc. Contract: _____ Lab Samp ID: A4753017

Lab Code: RECNY Case No.: 5205 SAS No.: _____ SDG No.: MW1

Matrix Spike - Client Sample No.: VBLK

COMPOUND	SPIKE ADDED UG/L	MSB CONCENTRATION UG/L	MSB % REC #	QC LIMITS REC.	+
Benzene	4.0	3.7	92	75 - 125	
Chlorobenzene	4.0	3.2	80	75 - 125	
1,2-Dichlorobenzene	4.0	4.1	102	75 - 125	
1,3-Dichlorobenzene	4.0	3.2	80	75 - 125	
1,4-Dichlorobenzene	4.0	3.0	75	75 - 125	
Ethyl benzene	4.0	3.4	85	75 - 125	
m-Xylene	8.0	6.7	84	75 - 125	
o-Xylene	4.0	3.1	78	75 - 125	
p-Xylene	8.0	6.7	84	75 - 125	
Toluene	4.0	3.6	90	75 - 125	

Column to be used to flag recovery and RPD values with an asterisk

* Values outside of QC limits

Spike recovery: 0 out of 10 outside limits

Comments: _____

3K
WATER PCB MSB RECOVERY

Lab Name: RECRA ENVIRONMENTAL, INC. Contract No.: NY95-008

Lab Code: RECNY Case No.: 5205 SAS No.: ____ SDG No.: MW1

Matrix Spike Blank ID: A4753013

COMPOUND	SPIKE ADDED (UG/L)	MSB CONCENTRATION (UG/L)	MSB % REC #
Aroclor 1242	100	110	110

COMMENTS: SPIKED 10 TIMES TOO HIGH.
RAN MSB AT A DILUTION OF 10.

00080

30
WATER PCB MS & MSD RECOVERY

Lab Name: RECRA ENVIRONMENTAL, INC. Contract No.: NY95-008

Lab Code: RECNY Case No.: 5205 SAS No.: ____ SDG No.: MW1

Matrix Spike ID: GW1

COMPOUND	SPIKE ADDED (UG/L)	SAMPLE CONC. (UG/L)	MS CONCENTRATION (UG/L)	MS % REC #
Aroclor 1242	133	0	140	105

COMPOUND	SPIKE ADDED (UG/L)	MSD CONCENTRATION (UG/L)	MSD % REC #	% RPD
Aroclor 1242	133	150	113	7.6

COMMENTS: SPIKED 10 TIMES TOO HIGH.
RAN MS, MSD AT A DILUTION OF 10.

00081

NYSDEC ASP

6
DUPLICATES

NYSDEC SAMPLE NO.

GW-1D

Lab Name: RECRA_ENVIRONMENTAL_INC._ Contract: NY95-008__

Lab Code: RECNY_ Case No.: 5205_ SAS No.: _____ SDG No.: MW1___

Matrix (soil/water): WATER Level (low/med): LOW__

% Solids for Sample: __0.0 % Solids for Duplicate: __0.0

Concentration Units (ug/L or mg/kg dry weight): UG/L_

Analyte	Control Limit	Sample (S)	C	Duplicate (D)	C	RPD	Q	M
Aluminum		2653.7000		1291.3000		69.1	*	P
Antimony		7.0040	B	5.0000	U	200.0		P
Arsenic		5.0000	U	5.0000	U			P
Barium		78.2900	B	76.9100	B	1.8		P
Beryllium		0.3000	U	0.3000	U			P
Cadmium		0.7800	B	2.7400	B	111.4		P
Calcium		391929.2660		369677.7330		5.8		P
Chromium		10.0000	U	10.0000	U			P
Cobalt		8.3700	B	9.1200	B	8.6		P
Copper		5.3700	B	6.7000	B	22.0		P
Iron		16101.7330		17596.4670		8.9		P
Lead	3.0	2.0000	B	3.0000		40.0		F
Magnesium		81261.5500		80035.0800		1.5		P
Manganese		4824.8100		4726.9200		2.0		P
Mercury		0.2000	U	0.2000	U			CV
Nickel		1.3000	U	1.3000	U			P
Potassium	5000.0	19538.4300		19587.6900		0.3		P
Selenium		5.0000	U	5.0000	U			P
Silver		10.0000	U	10.0000	U			P
Sodium		81457.5330		84679.1330		3.9		P
Thallium		5.0000	U	5.0000	U			P
Vanadium		4.0100	B	4.6800	B	15.4		P
Zinc	20.0	75.0900		77.7900		3.5		P
Cyanide		10.0000	U	10.0000	U			C

00082

NYSDEC ASP

5A
SPIKE SAMPLE RECOVERY

NYSDEC SAMPLE NO.

GW-1S

Lab Name: RECRA_ENVIRONMENTAL_INC._ Contract: NY95-008__

Lab Code: RECNY_ Case No.: 5205_ SAS No.: _____ SDG No.: MW1___

Matrix (soil/water): WATER_ Level (low/med): LOW___

% Solids for Sample: __0.0

Concentration Units (ug/L or mg/kg dry weight): UG/L_

Analyte	Control Limit %R	Spiked Sample Result (SSR)	C	Sample Result (SR)	C	Spike Added (SA)	%R	Q	M
Aluminum	75-125	4078.1000		2653.7000		2000.000	71.2	N	P
Antimony	75-125	909.9040		7.0040	B	500.000	180.6	N	P
Arsenic	75-125	3570.4870		5.0000	U	2000.000	178.5	N	P
Barium	75-125	1996.5300		78.2900	B	2000.000	95.9		P
Beryllium	75-125	45.9400		0.3000	U	50.000	91.9		P
Cadmium	75-125	50.8400		0.7800	B	50.000	100.1		P
Calcium	75-125	479409.8330		391929.2660		100000.000	87.5		P
Chromium	75-125	201.9000		10.0000	U	200.000	101.0		P
Cobalt	75-125	493.2500		8.3700	B	500.000	97.0		P
Copper	75-125	252.3400		5.3700	B	250.000	98.8		P
Iron		20461.0330		16101.7330		1000.000	435.9		P
Lead	75-125	32.0000		2.0000	B	20.000	150.0	N	F
Magnesium	75-125	137148.2200		81261.5500		50000.000	111.8		P
Manganese		5555.4200		4824.8100		500.000	146.1		P
Mercury	75-125	0.9570		0.2000	U	1.000	95.7		CV
Nickel	75-125	485.0000		1.3000	U	500.000	97.0		P
Potassium	75-125	72126.5100		19538.4300		50000.000	105.2		P
Selenium	75-125	3430.0500		5.0000	U	2000.000	171.5	N	P
Silver	75-125	21.5000		10.0000	U	50.000	43.0	N	P
Sodium	75-125	195416.9660		81457.5330		100000.000	114.0		P
Thallium	75-125	3421.9080		5.0000	U	2000.000	171.1	N	P
Vanadium	75-125	478.3100		4.0100	B	500.000	94.9		P
Zinc	75-125	577.0700		75.0900		500.000	100.4		P
Cyanide	75-125	221.7210		10.0000	U	250.000	88.7		C

Comments:

FORM V (Part 1) - IN

NYSDEC ASP

)0083

5B
POST DIGEST SPIKE SAMPLE RECOVERY

NYSDEC SAMPLE NO.

GW-1A

Lab Name: RECRA_ENVIRONMENTAL_INC._ Contract: NY95-008__

Lab Code: RECNY_ Case No.: 5205_ SAS No.: _____ SDG No.: MW1___

Matrix (soil/water): WATER Level (low/med): LOW__

Concentration Units: ug/L

Analyte	Control Limit %R	Spiked Sample Result (SSR)	C	Sample Result (SR)	C	Spike Added (SA)	%R	Q	M
Aluminum		12300.10		2653.70		10000.0	96.5		P
Antimony		9767.89		7.00	B	10000.0	97.6		P
Arsenic		9646.96		5.00	U	10000.0	96.5		P
Barium									NR
Beryllium									NR
Cadmium									NR
Calcium									NR
Chromium									NR
Cobalt									NR
Copper									NR
Iron									NR
Lead									NR
Magnesium									NR
Manganese									NR
Mercury									NR
Nickel									NR
Potassium									NR
Selenium		9261.51		5.00	U	10000.0	92.6		P
Silver		1944.63		10.00	U	2000.0	97.2		P
Sodium									NR
Thallium		8838.93		5.00	U	10000.0	88.4		P
Vanadium									NR
Zinc									NR
Cyanide									NR

Comments:

te : 01/30/95 14:05
b No: A94-7530

RADIAN CORPORATION
ERDLE SITE
SAMPLE DATE

AN0364

ent Sample ID: METHOD BLANK
Lab Sample ID: A580002801

MATRIX SPIKE BLANK
A4753013

MATRIX SPIKE BL DUP
A4753014

Analyte	Units of Measure	Concentration Spike Blank	Concentration Spike Blank Dup	Spike Amount SB	Spike Amount SBD	% Recovery SB	% Recovery SBD	% Recovery Avg	% RPD	QC LIMITS RPD	QC LIMITS REC.
T CHEMISTRY ANALYSIS METHOD 130.2 - TOTAL HARDNESS	MG/L*	90.5	88.5	100	100	90	88	89	2	20.0	82-114

Indicates Result is outside QC Limits
C = Not Calculated ND = Not Calculated

Recra Environmental,

RADIAN CORPORATION
ERDLE SITE
METHOD 8240 - TCL VOLATILES
METHOD BLANK SUMMARY

00085

Client No

VBLK35

Lab Name: Recra Environmental Contract: _____

Lab Code: RECNY Case No.: 5205 SAS No.: _____ SDG No.: MW1

Lab File ID: K5824.MSQ Lab Sample ID: A4B0423003

Date Analyzed: 12/23/94 Time Analyzed: 12:22

GC Column: DB-624 ID: 0.53 (mm) Heated Purge: (Y/N) N

Instrument ID: I50K

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES, MS AND MSD:

	CLIENT SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	TIME ANALYZED
1	TB-2	A4753011	K5837.MSQ	19:50

Comments: _____

RADIAN CORPORATION
ERDLE SITE
METHOD 8240 - TCL VOLATILES
ANALYSIS DATA SHEET

00086

Client No.
VBLK35

Lab Name: Recra Environmental Contract: _____

Lab Code: RECNY Case No.: 5205 SAS No.: _____ SDG No.: MW1

Matrix: (soil/water) WATER Lab Sample ID: A4B0423003

Sample wt/vol: 5.00 (g/mL) ML Lab File ID: K5824.MSQ

Level: (low/med) LOW Date Samp/Recv: _____ _____

% Moisture: not dec. _____ Heated Purge: N Date Analyzed: 12/23/94

GC Column: DB-624 ID: 0.53 (mm) Dilution Factor: 1.00

Soil Extract Volume: _____ (uL) Soil Aliquot Volume: _____ (uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
74-87-3	Chloromethane	10	U
74-83-9	Bromomethane	10	U
75-01-4	Vinyl chloride	10	U
75-00-3	Chloroethane	10	U
75-09-2	Methylene chloride	10	U
67-64-1	Acetone	10	U
75-15-0	Carbon Disulfide	10	U
75-35-4	1,1-Dichloroethene	10	U
75-34-3	1,1-Dichloroethane	10	U
540-59-0	1,2-Dichloroethene (Total)	10	U
67-66-3	Chloroform	10	U
107-06-2	1,2-Dichloroethane	10	U
78-93-3	2-Butanone	10	U
71-55-6	1,1,1-Trichloroethane	10	U
56-23-5	Carbon Tetrachloride	10	U
75-27-4	Bromodichloromethane	10	U
78-87-5	1,2-Dichloropropane	10	U
10061-01-5	cis-1,3-Dichloropropene	10	U
79-01-6	Trichloroethene	10	U
124-48-1	Dibromochloromethane	10	U
79-00-5	1,1,2-Trichloroethane	10	U
71-43-2	Benzene	10	U
10061-02-6	trans-1,3-Dichloropropene	10	U
75-25-2	Bromoform	10	U
108-10-1	4-Methyl-2-pentanone	10	U
591-78-6	2-Hexanone	10	U
127-18-4	Tetrachloroethene	10	U
108-88-3	Toluene	0.6	J
79-34-5	1,1,2,2-Tetrachloroethane	10	U
108-90-7	Chlorobenzene	0.6	J
100-41-4	Ethyl benzene	10	U
100-42-5	Styrene	10	U
1330-20-7	Total Xylenes	10	U

RADIAN CORPORATION
ERDLE SITE
METHOD 8240 - TCL VOLATILES
TENTATIVELY IDENTIFIED COMPOUNDS

D0087

Client

VBLK35

Lab Name: Recra Environmental Contract: _____

Lab Code: RECNY Case No.: 5205 SAS No.: _____ SDG No.: MW1

Matrix: (soil/water) WATER Lab Sample ID: A4B0423003

Sample wt/vol: 5.00 (g/mL) ML Lab File ID: K5824.MSO

Level: (low/med) LOW Date Samp/Recv: _____ _____

% Moisture: not dec. _____ Date Analyzed: 12/23/94

GC Column: DB-624 ID: 0.53 (mm) Dilution Factor: 1.00

Soil Extract Volume: _____ (uL) Soil Aliquot Volume: _____ (uL

Number TICs found: 0 CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L

CAS NO.	Compound Name	RT	Est. Conc.	Q

RADIAN CORPORATION
ERDLE SITE
METHOD 8240 - TCL VOLATILES
METHOD BLANK SUMMARY

)0088
Client N

VBLK36

Lab Name: Recra Environmental Contract: _____

Lab Code: RECNY Case No.: 5205 SAS No.: _____ SDG No.: MW1

Lab File ID: K5850.MSQ Lab Sample ID: A4B0423006

Date Analyzed: 12/27/94 Time Analyzed: 12:44

GC Column: DB-624 ID: 0.53 (mm) Heated Purge: (Y/N) N

Instrument ID: I50K

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES, MS AND MSD:

	CLIENT SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	TIME ANALYZED
1	GW-1	A4753001	K5854.MSQ	14:58
2	GW-1 MS	A4753001MS	K5855.MSQ	15:32
3	GW-1 MSD	A4753001SD	K5856.MSQ	16:05
4	GW-2	A4753002	K5853.MSQ	14:25
5	GW-6	A4753006	K5851.MSQ	13:18
6	MATRIX SPIKE BLANK	A4B0423004	K5848.MSQ	11:38

Comments: _____

RADIAN CORPORATION
ERDLE SITE
METHOD 8240 - TCL VOLATILES
ANALYSIS DATA SHEET

00089

Client No.

VBLK36

Lab Name: Recra Environmental Contract: _____

Lab Code: RECNY Case No.: 5205 SAS No.: _____ SDG No.: MW1

Matrix: (soil/water) WATER Lab Sample ID: A4B0423006

Sample wt/vol: 5.00 (g/mL) ML Lab File ID: K5850.MSQ

Level: (low/med) LOW Date Samp/Recv: _____ _____

% Moisture: not dec. _____ Heated Purge: N Date Analyzed: 12/27/94

GC Column: DB-624 ID: 0.53 (mm) Dilution Factor: 1.00

Soil Extract Volume: _____ (uL) Soil Aliquot Volume: _____ uL

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
74-87-3	Chloromethane	10	U
74-83-9	Bromomethane	10	U
75-01-4	Vinyl chloride	10	U
75-00-3	Chloroethane	10	U
75-09-2	Methylene chloride	10	U
67-64-1	Acetone	10	U
75-15-0	Carbon Disulfide	10	U
75-35-4	1,1-Dichloroethene	10	U
75-34-3	1,1-Dichloroethane	10	U
540-59-0	1,2-Dichloroethene (Total)	10	U
67-66-3	Chloroform	10	U
107-06-2	1,2-Dichloroethane	10	U
78-93-3	2-Butanone	10	U
71-55-6	1,1,1-Trichloroethane	10	U
56-23-5	Carbon Tetrachloride	10	U
75-27-4	Bromodichloromethane	10	U
78-87-5	1,2-Dichloropropane	10	U
10061-01-5	cis-1,3-Dichloropropene	10	U
79-01-6	Trichloroethene	0.9	J
124-48-1	Dibromochloromethane	10	U
79-00-5	1,1,2-Trichloroethane	10	U
71-43-2	Benzene	0.9	J
10061-02-6	trans-1,3-Dichloropropene	10	U
75-25-2	Bromoform	10	U
108-10-1	4-Methyl-2-pentanone	10	U
591-78-6	2-Hexanone	10	U
127-18-4	Tetrachloroethene	10	U
108-88-3	Toluene	0.8	J
79-34-5	1,1,2,2-Tetrachloroethane	10	U
108-90-7	Chlorobenzene	0.9	J
100-41-4	Ethyl benzene	10	U
100-42-5	Styrene	10	U
1330-20-7	Total Xylenes	10	U

RADIAN CORPORATION
ERDLE SITE
METHOD 8240 - TCL VOLATILES
TENTATIVELY IDENTIFIED COMPOUNDS

!)0090

Client No

VBLK36

Lab Name: Recra Environmental Contract: _____

Lab Code: RECNY Case No.: 5205 SAS No.: _____ SDG No.: MW1

Matrix: (soil/water) WATER Lab Sample ID: A4B0423006

Sample wt/vol: 5.00 (g/mL) ML Lab File ID: K5850.MSO

Level: (low/med) LOW Date Samp/Recv: _____ _____

% Moisture: not dec. _____ Date Analyzed: 12/27/94

GC Column: DB-624 ID: 0.53 (mm) Dilution Factor: 1.00

Soil Extract Volume: _____ (uL) Soil Aliquot Volume: _____ (uL

Number TICs found: 0 CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L

CAS NO.	Compound Name	RT	Est. Conc.	Q

RADIAN CORPORATION
ERDLE SITE
METHOD 8240 - TCL VOLATILES
METHOD BLANK SUMMARY

00091

Client N

VBLK37

Lab Name: Recra Environmental Contract: _____

Lab Code: RECNY Case No.: 5205 SAS No.: _____ SDG No.: MW1

Lab File ID: K5874.MSQ Lab Sample ID: A4B0423009

Date Analyzed: 12/28/94 Time Analyzed: 12:20

GC Column: DB-624 ID: 0.53 (mm) Heated Purge: (Y/N) N

Instrument ID: I50K

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES, MS AND MSD:

	CLIENT SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	TIME ANALYZED
1	GW-7	A4753007	K5875.MSQ	12:53

Comments: _____

RADIAN CORPORATION
ERDLE SITE
METHOD 8240 - TCL VOLATILES
ANALYSIS DATA SHEET

00092

Client No.
VBLK37

Lab Name: Recra Environmental Contract: _____

Lab Code: RECNY Case No.: 5205 SAS No.: _____ SDG No.: MW1

Matrix: (soil/water) WATER Lab Sample ID: A4B0423009

Sample wt/vol: 5.00 (g/mL) ML Lab File ID: K5874.MSQ

Level: (low/med) LOW Date Samp/Recv: _____ _____

% Moisture: not dec. _____ Heated Purge: N Date Analyzed: 12/28/94

GC Column: DB-624 ID: 0.53 (mm) Dilution Factor: 1.00

Soil Extract Volume: _____ (uL) Soil Aliquot Volume: _____ (uL

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
74-87-3	Chloromethane	10	U
74-83-9	Bromomethane	10	U
5-01-4	Vinyl chloride	10	U
75-00-3	Chloroethane	10	U
75-09-2	Methylene chloride	10	U
67-64-1	Acetone	10	U
75-15-0	Carbon Disulfide	10	U
75-35-4	1,1-Dichloroethene	10	U
75-34-3	1,1-Dichloroethane	10	U
540-59-0	1,2-Dichloroethene (Total)	10	U
67-66-3	Chloroform	10	U
107-06-2	1,2-Dichloroethane	10	U
78-93-3	2-Butanone	10	U
71-55-6	1,1,1-Trichloroethane	10	U
56-23-5	Carbon Tetrachloride	10	U
75-27-4	Bromodichloromethane	10	U
78-87-5	1,2-Dichloropropane	10	U
10061-01-5	cis-1,3-Dichloropropene	10	U
79-01-6	Trichloroethene	0.9	J
124-48-1	Dibromochloromethane	10	U
79-00-5	1,1,2-Trichloroethane	10	U
71-43-2	Benzene	0.9	J
10061-02-6	trans-1,3-Dichloropropene	10	U
75-25-2	Bromoform	10	U
108-10-1	4-Methyl-2-pentanone	10	U
591-78-6	2-Hexanone	10	U
127-18-4	Tetrachloroethene	10	U
108-88-3	Toluene	0.9	J
9-34-5	1,1,2,2-Tetrachloroethane	10	U
108-90-7	Chlorobenzene	1	J
100-41-4	Ethyl benzene	10	U
100-42-5	Styrene	10	U
1330-20-7	Total Xylenes	10	U

RADIAN CORPORATION
ERDLE SITE
METHOD 8240 - TCL VOLATILES
TENTATIVELY IDENTIFIED COMPOUNDS

D0093

Client
VBLK37

Lab Name: Recra Environmental Contract: _____

Lab Code: RECNY Case No.: 5205 SAS No.: _____ SDG No.: MW1

Matrix: (soil/water) WATER Lab Sample ID: A4B0423009

Sample wt/vol: 5.00 (g/mL) ML Lab File ID: K5874.MSO

Level: (low/med) LOW Date Samp/Recv: _____ _____

% Moisture: not dec. _____ Date Analyzed: 12/28/94

GC Column: DB-624 ID: 0.53 (mm) Dilution Factor: 1.00

Soil Extract Volume: _____ (uL) Soil Aliquot Volume: _____ (uL

Number TICs found: 0 CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L

CAS NO.	Compound Name	RT	Est. Conc.	Q

RADIAN CORPORATION
ERDLE SITE
METHOD 8270 - TCL SEMIVOLATILES
METHOD BLANK SUMMARY

00094
Client No

SBLK 83

Lab Name: Recra Environmental Contract: _____

Lab Code: RECNY Case No.: 5205 SAS No.: _____ SDG No.: MW1

Lab File ID: 22219Z.RR Lab Sample ID: A4B0413501

Instrument ID: I50Z-A Date Extracted: 12/27/94

Matrix: (soil/water) WATER Date Analyzed: 12/29/94

Level: (low/med) LOW Time Analyzed: 18:46

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES, MS AND MSD:

	CLIENT SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED
1	GW-1	A4753001	22221Z.RR	12/29/94
2	GW-1 MS	A4753001MS	22225Z.RR	12/30/94
3	GW-1 MSD	A4753001SD	22226Z.RR	12/30/94
4	GW-2	A4753002	22227Z.RR	12/30/94
5	GW-6	A4753006	22224Z.RR	12/30/94
6	GW-7	A4753007	22228Z.RR	12/30/94
7	MATRIX SPIKE BLANK	A4753013	22220Z.RR	12/29/94

Comments: _____

RADIAN CORPORATION
ERDLE SITE
METHOD 8270 - TCL SEMIVOLATILES
ANALYSIS DATA SHEET

10095

Client No

SBLK 83

Lab Name: Recra Environmental Contract: _____

Lab Code: RECNY Case No.: 5205 SAS No.: _____ SDG No.: MW1

Matrix: (soil/water) WATER Lab Sample ID: A4B0413501

Sample wt/vol: 1000.0 (g/mL) ML Lab File ID: 22219Z.RR

Level: (low/med) LOW Date Samp/Recv: _____ _____

% Moisture: _____ decanted: (Y/N) N Date Extracted: 12/27/94

Concentrated Extract Volume: 1000(uL) Date Analyzed: 12/29/94

Injection Volume: 2.00(uL) Dilution Factor: 1.00

GPC Cleanup: (Y/N) N pH: 7.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
108-95-2	Phenol	10	U
111-44-4	Bis(2-chloroethyl) ether	10	U
95-57-8	2-Chlorophenol	10	U
541-73-1	1,3-Dichlorobenzene	10	U
106-46-7	1,4-Dichlorobenzene	10	U
95-50-1	1,2-Dichlorobenzene	10	U
95-48-7	2-Methylphenol	10	U
108-60-1	Bis(2-chloroisopropyl) ether	10	U
106-44-5	4-Methylphenol	10	U
621-64-7	N-Nitroso-Di-n-propylamine	10	U
67-72-1	Hexachloroethane	10	U
98-95-3	Nitrobenzene	10	U
78-59-1	Isophorone	10	U
88-75-5	2-Nitrophenol	10	U
105-67-9	2,4-Dimethylphenol	10	U
111-91-1	Bis(2-chloroethoxy) methane	10	U
120-83-2	2,4-Dichlorophenol	10	U
120-82-1	1,2,4-Trichlorobenzene	10	U
91-20-3	Naphthalene	10	U
106-47-8	4-Chloroaniline	10	U
87-68-3	Hexachlorobutadiene	10	U
59-50-7	4-Chloro-3-methylphenol	10	U
91-57-6	2-Methylnaphthalene	10	U
77-47-4	Hexachlorocyclopentadiene	10	U
88-06-2	2,4,6-Trichlorophenol	10	U
95-95-4	2,4,5-Trichlorophenol	10	U
91-58-7	2-Chloronaphthalene	10	U
88-74-4	2-Nitroaniline	25	U
131-11-3	Dimethyl phthalate	10	U
208-96-8	Acenaphthylene	10	U
606-20-2	2,6-Dinitrotoluene	10	U
[illegible]	3-Nitroaniline	25	U

)0096

RADIAN CORPORATION
ERDLE SITE
METHOD 8270 - TCL SEMIVOLATILES
ANALYSIS DATA SHEET

Client No

SBLK 83

Lab Name: Recra Environmental Contract: _____

Lab Code: RECNY Case No.: 5205 SAS No.: _____ SDG No.: MW1

Matrix: (soil/water) WATER Lab Sample ID: A4B0413501

Sample wt/vol: 1000.0 (g/mL) ML Lab File ID: 22219Z.RR

Level: (low/med) LOW Date Samp/Recv: _____ _____

% Moisture: _____ decanted: (Y/N) N Date Extracted: 12/27/94

Concentrated Extract Volume: 1000 (uL) Date Analyzed: 12/29/94

Injection Volume: 2.00 (uL) Dilution Factor: 1.00

GPC Cleanup: (Y/N) N pH: 7.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
83-32-9	Acenaphthene	10	U
51-28-5	2,4-Dinitrophenol	25	U
100-02-7	4-Nitrophenol	25	U
132-64-9	Dibenzofuran	10	U
121-14-2	2,4-Dinitrotoluene	10	U
84-66-2	Diethyl phthalate	10	U
7005-72-3	4-Chlorodiphenylether	10	U
86-73-7	Fluorene	10	U
100-01-6	4-Nitroaniline	25	U
534-52-1	4,6-Dinitro-2-methylphenol	25	U
86-30-6	N-nitrosodiphenylamine	10	U
101-55-3	4-Bromophenyl phenyl ether	10	U
118-74-1	Hexachlorobenzene	10	U
87-86-5	Pentachlorophenol	25	U
85-01-8	Phenanthrene	10	U
120-12-7	Anthracene	10	U
84-74-2	Di-n-butyl phthalate	10	U
206-44-0	Fluoranthene	10	U
129-00-0	Pyrene	10	U
85-68-7	Butyl benzyl phthalate	10	U
91-94-1	3,3'-Dichlorobenzidine	20	U
56-55-3	Benzo(a)anthracene	10	U
218-01-9	Chrysene	10	U
117-81-7	Bis(2-ethylhexyl) phthalate	10	U
117-84-0	Di-n-octyl phthalate	10	U
05-99-2	Benzo(b)fluoranthene	10	U
207-08-9	Benzo(k)fluoranthene	10	U
50-32-8	Benzo(a)pyrene	10	U
193-39-5	Indeno(1,2,3-cd)pyrene	10	U
53-70-3	Dibenzo(a,h)anthracene	10	U
191-24-2	Benzo(ghi)perylene	10	U
100-51-6	Benzyl alcohol	10	U

RADIAN CORPORATION
ERDLE SITE
METHOD 8270 - TCL SEMIVOLATILES
ANALYSIS DATA SHEET

00097

Client N

SBLK 83

Lab Name: Recra Environmental Contract: _____

Lab Code: RECNY Case No.: 5205 SAS No.: _____ SDG No.: MW1

Matrix: (soil/water) WATER Lab Sample ID: A4B0413501

Sample wt/vol: 1000.0 (g/mL) ML Lab File ID: 22219Z.RR

Level: (low/med) LOW Date Samp/Recv: _____ _____

% Moisture: _____ decanted: (Y/N) N Date Extracted: 12/27/94

Concentrated Extract Volume: 1000 (uL) Date Analyzed: 12/29/94

Injection Volume: 2.00 (uL) Dilution Factor: 1.00

GPC Cleanup: (Y/N) N pH: 7.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
62-75-9	N-Nitrosodimethylamine	10	U

00098

RADIAN CORPORATION
ERDLE SITE
METHOD 8270 - TCL SEMIVOLATILES
TENTATIVELY IDENTIFIED COMPOUNDS

Client N

SBLK 83

Lab Name: Recra Environmental Contract: _____

Lab Code: RECNY Case No.: 5205 SAS No.: _____ SDG No.: MW1

Matrix: (soil/water) WATER Lab Sample ID: A4B0413501

Sample wt/vol: 1000.0 (g/mL) ML Lab File ID: 22219Z.RR

Level: (low/med) LOW Date Samp/Recv: _____ _____

% Moisture: _____ decanted: (Y/N) N Date Extracted: 12/27/94

Concentrated Extract Volume: 1000 (uL) Date Analyzed: 12/29/94

Injection Volume: 2.00 (uL) Dilution Factor: 1.00

GPC Cleanup: (Y/N) N pH: 7.0

Number TICs found: 1

CONCENTRATION UNITS:
(ug/L or ug/Kg) UG/L

CAS NO.	Compound Name	RT	Est. Conc.	Q
1.	SUSPECTED ALDOL COND PRODUCT	3.12	12	AJ

RADIAN CORPORATION
ERDLE SITE
METHOD 8010 - HALOGENATED VOLATILE ORGANICS
METHOD BLANK SUMMARY

00099

Client N

VBLK

Lab Name: Recra Environmental Contract: _____

Lab Code: RECNY Case No.: 5205 SAS No.: _____ SDG No.: MW1

Lab Sample ID: A4753017 Lab File ID: _____

Matrix: (soil/water) WATER

Date Analyzed (1): 12/30/94 Date Analyzed (2): _____

Time Analyzed (1): 13:19 Time Analyzed (2): _____

Instrument ID (1): PE8500-0 Instrument ID (2): _____

GC Column (1): RTX-502.2 Dia: 0.53 (mm) GC Column (2): _____ Dia: ____ mm

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES, MS AND MSD:

	CLIENT SAMPLE NO.	LAB SAMPLE ID	DATE ANALYZED 1	DATE ANALYZED 2
1	GW-3	A4753003	12/30/94	01/04/95
2	GW-4	A4753004	12/30/94	01/04/95
3	GW-4 MS	A4753004MS	12/30/94	
4	GW-4 MSD	A4753004SD	12/30/94	
5	GW-5	A4753005	12/30/94	01/04/95
6	MATRIX SPIKE BLANK	A4753016	12/30/94	
7	TB-2	A4753011	12/31/94	01/04/95

Comments: _____

RADIAN CORPORATION
ERDLE SITE
METHOD 8010 - HALOGENATED VOLATILE ORGANICS
ANALYSIS DATA SHEET

00100

Client No
VBLK

Lab Name: Recra Environmental Contract: _____

Lab Code: RECNY Case No.: 5205 SAS No.: _____ SDG No.: MW1

Matrix: (soil/water) WATER Lab Sample ID: A4753017

Sample wt/vol: 5.00 (g/mL) ML Lab File ID: _____

Level: (low/med) Low Date Samp/Recv: _____ _____

% Moisture: not dec. _____ Date Analyzed: 12/30/94

GC Column: RTX-502.2 Dia: 0.53 (mm) Dilution Factor: 1.00

Soil Extract Volume: _____(uL) Soil Aliquot Volume: _____(uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
75-27-4	Bromodichloromethane	0.20	U
75-25-2	Bromoform	1.0	U
74-83-9	Bromomethane	1.0	U
56-23-5	Carbon Tetrachloride	0.20	U
108-90-7	Chlorobenzene	0.20	U
75-00-3	Chloroethane	1.0	U
110-75-8	2-Chloroethylvinyl ether	1.0	U
67-66-3	Chloroform	0.20	U
74-87-3	Chloromethane	1.0	U
124-48-1	Dibromochloromethane	0.20	U
95-50-1	1,2-Dichlorobenzene	0.40	U
541-73-1	1,3-Dichlorobenzene	0.40	U
106-46-7	1,4-Dichlorobenzene	0.40	U
75-34-3	1,1-Dichloroethane	0.20	U
107-06-2	1,2-Dichloroethane	0.20	U
75-35-4	1,1-Dichloroethene	0.20	U
156-60-5	trans-1,2-Dichloroethene	0.20	U
78-87-5	1,2-Dichloropropane	0.20	U
10061-01-5	cis-1,3-Dichloropropene	0.20	U
10061-02-6	trans-1,3-Dichloropropene	0.20	U
75-09-2	Methylene chloride	0.20	U
79-34-5	1,1,2,2-Tetrachloroethane	0.20	U
127-18-4	Tetrachloroethene	0.20	U
71-55-6	1,1,1-Trichloroethane	0.20	U
79-00-5	1,1,2-Trichloroethane	0.20	U
79-01-6	Trichloroethene	0.20	U
75-69-4	Trichlorofluoromethane	0.20	U
75-01-4	Vinyl chloride	1.0	U

RADIAN CORPORATION
ERDLE SITE
METHOD 8020 - AROMATIC VOLATILE ORGANICS
METHOD BLANK SUMMARY

)0101

Client No.

VBLK

Lab Name: Recra Environmental Contract: _____

Lab Code: RECNY Case No.: 5205 SAS No.: _____ SDG No.: MW1

Lab Sample ID: A4753017 Lab File ID: _____

Matrix: (soil/water) WATER

Date Analyzed (1): 12/30/94 Date Analyzed (2): 01/04/95

Time Analyzed (1): 13:19 Time Analyzed (2): 10:18

Instrument ID (1): PE8500-0 Instrument ID (2): PE8500-1

GC Column (1): RTX-502.2 Dia: 0.53(mm) GC Column (2): 1% SP 1000 Dia: 2.00(mm

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES, MS AND MSD:

	CLIENT SAMPLE NO.	LAB SAMPLE ID	DATE ANALYZED 1	DATE ANALYZED 2
1	MATRIX SPIKE BLANK	A4753016	12/30/94	
2	TB-2	A4753011	12/31/94	01/04/95

Comments: _____

RADIAN CORPORATION
ERDLE SITE
METHOD 8020 - AROMATIC VOLATILE ORGANICS
ANALYSIS DATA SHEET

00102

Client No

VBLK

Lab Name: Recra Environmental Contract: _____

Lab Code: RECNY Case No.: 5205 SAS No.: _____ SDG No.: MW1

Matrix: (soil/water) WATER Lab Sample ID: A4753017

Sample wt/vol: 5.00 (g/mL) ML Lab File ID: _____

Level: (low/med) Low Date Samp/Recv: _____ _____

% Moisture: not dec. _____ Date Analyzed: 12/30/94

GC Column: RTX-502.2 Dia: 0.53 (mm) Dilution Factor: 1.00

Soil Extract Volume: _____(uL) Soil Aliquot Volume: _____(uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
71-43-2	Benzene	0.20	U
108-90-7	Chlorobenzene	0.20	U
5-50-1	1,2-Dichlorobenzene	0.40	U
541-73-1	1,3-Dichlorobenzene	0.40	U
106-46-7	1,4-Dichlorobenzene	0.40	U
100-41-4	Ethyl benzene	0.20	U
108-88-3	Toluene	0.20	U
108-38-3	m-Xylene	0.20	U
95-47-6	o-Xylene	0.20	U
106-42-3	p-Xylene	0.20	U

RADIAN CORPORATION
ERDLE SITE
METHOD 8010 - HALOGENATED VOLATILE ORGANICS
METHOD BLANK SUMMARY

00103

Client N

VBLK

Lab Name: Recra Environmental Contract: _____

Lab Code: RECNY Case No.: 5205 SAS No.: _____ SDG No.: MW1

Lab Sample ID: A4753019 Lab File ID: _____

Matrix: (soil/water) WATER

Date Analyzed (1): 01/03/95 Date Analyzed (2): 01/04/95

Time Analyzed (1): 09:41 Time Analyzed (2): 10:18

Instrument ID (1): PE8500-0 Instrument ID (2): PE8500-1

GC Column (1): RTX-502.2 Dia: 0.53(mm) GC Column (2): 1% SP 1000 Dia: 2.00(mm

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES, MS AND MSD:

	CLIENT SAMPLE NO.	LAB SAMPLE ID	DATE ANALYZED 1	DATE ANALYZED 2
1	GW-10	A4753010	01/03/95	01/04/95
2	GW-8	A4753008	01/03/95	01/04/95
3	GW-9	A4753009	01/03/95	01/04/95
4	MATRIX SPIKE BLANK	A4753018	01/03/95	

Comments: _____

RADIAN CORPORATION
ERDLE SITE
METHOD 8010 - HALOGENATED VOLATILE ORGANICS
ANALYSIS DATA SHEET

00104

Client No

VBLK

Lab Name: Recra Environmental Contract: _____

Lab Code: RECNY Case No.: 5205 SAS No.: _____ SDG No.: MW1

Matrix: (soil/water) WATER Lab Sample ID: A4753019

Sample wt/vol: 5.00 (g/mL) ML Lab File ID: _____

Level: (low/med) Low Date Samp/Recv: _____ _____

% Moisture: not dec. _____ Date Analyzed: 01/03/95

GC Column: RTX-502.2 Dia: 0.53 (mm) Dilution Factor: 1.00

Soil Extract Volume: _____(uL) Soil Aliquot Volume: _____(uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
75-27-4	Bromodichloromethane	0.20	U
75-25-2	Bromoform	1.0	U
74-83-9	Bromomethane	1.0	U
56-23-5	Carbon Tetrachloride	0.20	U
108-90-7	Chlorobenzene	0.20	U
75-00-3	Chloroethane	1.0	U
110-75-8	2-Chloroethylvinyl ether	1.0	U
67-66-3	Chloroform	0.20	U
74-87-3	Chloromethane	1.0	U
124-48-1	Dibromochloromethane	0.20	U
95-50-1	1,2-Dichlorobenzene	0.40	U
541-73-1	1,3-Dichlorobenzene	0.40	U
106-46-7	1,4-Dichlorobenzene	0.40	U
75-34-3	1,1-Dichloroethane	0.20	U
107-06-2	1,2-Dichloroethane	0.20	U
75-35-4	1,1-Dichloroethene	0.20	U
156-60-5	trans-1,2-Dichloroethene	0.20	U
78-87-5	1,2-Dichloropropane	0.20	U
10061-01-5	cis-1,3-Dichloropropene	0.20	U
10061-02-6	trans-1,3-Dichloropropene	0.20	U
75-09-2	Methylene chloride	0.20	U
79-34-5	1,1,2,2-Tetrachloroethane	0.20	U
127-18-4	Tetrachloroethene	0.20	U
71-55-6	1,1,1-Trichloroethane	0.20	U
79-00-5	1,1,2-Trichloroethane	0.20	U
79-01-6	Trichloroethene	0.20	U
75-69-4	Trichlorofluoromethane	0.20	U
75-01-4	Vinyl chloride	1.0	U

0105

4C
PESTICIDE METHOD BLANK SUMMARY

EPA SAMPLE NO.

PBLK14

Lab Name: RECRA ENVIRON Contract: NY95-008

Lab Code: RECNY Case No.: 5205 SAS No.: _____ SDG No.: MW1

Lab Sample ID: A4B0413201 Lab File ID: _____

Matrix:(soil/water) WATER Extraction:(SepF/Cont/Sonc) SEPF

Sulfur Cleanup: (Y/N) Y Date Extracted: 12/27/94

Date Analyzed (1): 12/28/94 Date Analyzed (2): 12/28/94

Time Analyzed (1): 2326 Time Analyzed (2): 2326

Instrument ID (1): 5890AS Instrument ID (2): 5890BS

GC Column (1): DB608 ID: 0.53 (mm) GC Column (2): DB1701 ID: 0.53 (mm)

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES, MS AND MSD:

	EPA SAMPLE NO.	LAB SAMPLE ID	DATE ANALYZED 1	DATE ANALYZED 2
01	GW1	A4753001	12/29/94	12/29/94
02	GW2	A4753002	12/29/94	12/29/94
03	GW6	A4753006	12/29/94	12/29/94
04	GW7	A4753007	12/29/94	12/29/94
05	MSB	A4753013	01/05/95	01/05/95
06	GW1MS	A4753001MS	01/05/95	01/05/95
07	GW1MSD	A4753001SD	01/05/95	01/05/95

COMMENTS:

1D
PESTICIDE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.
PBLK14

Lab Name: RECRA ENVIRON Contract: NY95-008

Lab Code: RECNY Case No.: 5205 SAS No.: _____ SDG No.: MW1

Matrix: (soil/water) WATER Lab Sample ID: A4B0413201

Sample wt/vol: 1000 (g/mL) ML Lab File ID: _____

% Moisture: _____ decanted: (Y/N) ___ Date Received: _____

Extraction: (SepF/Cont/Sonc) SEPF Date Extracted: 12/27/94

Concentrated Extract Volume: 10000 (uL) Date Analyzed: 12/28/94

Injection Volume: 1.00 (uL) Dilution Factor: 1.00

GPC Cleanup: (Y/N) N pH: 7.0 Sulfur Cleanup: (Y/N) Y

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
12674-11-2	Aroclor-1016	1.0	U
11104-28-2	Aroclor-1221	2.0	U
11141-16-5	Aroclor-1232	1.0	U
53469-21-9	Aroclor-1242	1.0	U
12672-29-6	Aroclor-1248	1.0	U
11097-69-1	Aroclor-1254	1.0	U
11096-82-5	Aroclor-1260	1.0	U

NYSDEC ASP

3
BLANKS

Lab Name: RECRA_ENVIRONMENTAL_INC._ Contract: NY95-008__

Lab Code: RECNY_ Case No.: 5205_ SAS No.: _____ SDG No.: MW1___

Preparation Blank Matrix (soil/water): WATER

Preparation Blank Concentration Units (ug/L or mg/kg): UG/L_

Analyte	Initial Calib. Blank (ug/L)	C	Continuing Calibration Blank (ug/L) 1	C	2	C	3	C	Prepa-ration Blank	C	M
Aluminum	90.0	U	90.0	U	90.0	U	90.0	U	90.000	U	P
Antimony	5.0	U	5.0	U	5.0	U	5.0	U	6.255	B	P
Arsenic	5.0	U	5.0	U	5.0	U	5.0	U	5.000	U	P
Barium	6.1	U	6.1	U	6.1	U	6.1	U	6.100	U	P
Beryllium	0.4	B	0.4	B	0.3	U	0.3	U	0.370	B	P
Cadmium	0.4	U	0.4	U	0.4	U	0.4	U	0.400	U	P
Calcium	1000.0	U	1000.0	U	1000.0	U	1000.0	U	1000.000	U	P
Chromium	10.0	U	10.0	U	10.0	U	10.0	U	10.000	U	P
Cobalt	1.6	U	1.6	U	1.6	U	1.6	U	2.810	B	P
Copper	1.6	U	1.6	U	1.6	U	1.6	U	1.600	U	P
Iron	40.0	U	40.0	U	40.0	U	40.0	U	40.000	U	P
Lead	2.0	U	2.0	U	2.0	U	2.0	U	2.000	U	F
Magnesium	130.0	U	130.0	U	130.0	U	130.0	U	130.000	U	P
Manganese	-4.4	B	-4.3	B	-4.3	B	-4.5	B	-4.300	B	P
Mercury	0.2	U	0.2	U					0.200	U	CV
Nickel	-15.9	B	-15.5	B	-16.4	B	-16.3	B	-15.550	B	P
Potassium	2615.4	B	3339.8	B	1544.3	B	1578.6	B	2552.570	B	P
Selenium	5.0	U	5.0	U	5.0	U	5.0	U	5.000	U	P
Silver	10.0	U	10.0	U	10.0	U	10.0	U	10.000	U	P
Sodium	1000.0	U	1000.0	U	1000.0	U	1000.0	U	1000.000	U	P
Thallium	5.0	U	5.0	U	5.0	U	5.0	U	5.000	U	P
Vanadium	1.3	U	1.4	B	1.3	U	1.3	U	1.830	B	P
Zinc	0.9	U	1.9	B	1.8	B	0.9	U	2.320	B	P
Cyanide	10.0	U	10.0	U	10.0	U	10.0	U	10.000	U	C

NYSDEC ASP

00108

3
BLANKS

Lab Name: RECRA_ENVIRONMENTAL_INC._ Contract: NY95-008__

Lab Code: RECNY_ Case No.: S205_ SAS No.: _____ SDG No.: MW1___

Preparation Blank Matrix (soil/water): _____

Preparation Blank Concentration Units (ug/L or mg/kg): _____

Analyte	Initial Calib. Blank (ug/L)	C	Continuing Calibration Blank (ug/L) 1	C	2	C	3	C	Prepa-ration Blank	C	M
Aluminum			90.0	U	90.0	U	90.0	U			P
Antimony			5.0	U							P
rsenic			5.0	U							P
Barium			6.1	U	6.1	U					P
Beryllium			0.3	U	0.3	U					P
Cadmium			0.4	U	0.4	U					P
Calcium			1000.0	U	1000.0	U	1000.0	U			P
Chromium			10.0	U	10.0	U					P
Cobalt			1.6	U	1.6	U					P
Copper			1.6	U	1.8	B					P
Iron			40.0	U	40.0	U					P
Lead											NR
Magnesium			130.0	U	130.0	U					P
Manganese			-4.5	B	-4.4	B					P
Mercury											NR
Nickel			-17.2	B	-16.6	B					P
Potassium			1510.0	U	1510.0	U					P
Selenium			5.0	U							P
Silver											NR
Sodium			1000.0	U	1000.0	U					P
Thallium			5.0	U							P
Vanadium			1.3	U	1.3	U					P
Zinc			0.9	U	0.9	U					P
Cyanide											NR

NYSDEC ASP

00109

3
BLANKS

Lab Name: RECRA_ENVIRONMENTAL_INC._ Contract: NY95-008__

Lab Code: RECNY_ Case No.: 5205_ SAS No.: _____ SDG No.: MW1___

Preparation Blank Matrix (soil/water): _____

Preparation Blank Concentration Units (ug/L or mg/kg): _____

Analyte	Initial Calib. Blank (ug/L)	C	Continuing Calibration Blank (ug/L) 1	C	2	C	3	C	Prepa-ration Blank	C	M
Aluminum			90.0	U	90.0	U					P
Antimony											NR
Arsenic											NR
Barium	6.1	U	6.1	U	6.1	U	6.1	U			P
Beryllium	0.3	U	0.3	U	0.3	U	0.3	U			P
Cadmium	0.4	U	0.4	U	0.4	U	0.4	U			P
Calcium			1000.0	U	1000.0	U					P
Chromium											NR
Cobalt	1.6	U	1.6	U	1.6	U	1.6	U			P
Copper	1.6	U	1.6	U	1.6	U	1.6	U			P
Iron											NR
Lead											NR
Magnesium	130.0	U	130.0	U	130.0	U	130.0	U			P
Manganese	-2.0	B	-1.8	B	-1.8	B	-1.9	B			P
Mercury											NR
Nickel	-14.2	B	-13.5	B	-14.0	B	-14.7	B			P
Potassium	1510.0	U	2920.3	B	2194.6	B	1510.0	U			P
Selenium											NR
Silver											NR
Sodium											NR
Thallium											NR
Vanadium	1.3	U	1.3	U	1.3	U	1.3	U			P
Zinc	0.9	U	0.9	U	0.9	U	0.9	U			P
Cyanide											NR

NYSDEC ASP

r)0110

3
BLANKS

Lab Name: RECRA_ENVIRONMENTAL_INC._ Contract: NY95-008__

Lab Code: RECNY_ Case No.: 5205_ SAS No.: _____ SDG No.: MW1___

Preparation Blank Matrix (soil/water): _____

Preparation Blank Concentration Units (ug/L or mg/kg): _____

Analyte	Initial Calib. Blank (ug/L)	C	Continuing Calibration Blank (ug/L) 1	C	2	C	3	C	Prepa-ration Blank	C	M
Aluminum											NR
Antimony											NR
Arsenic											NR
Barium			6.1	U	6.1	U	6.1	U			P
Beryllium			0.3	U	0.3	U	0.3	U			P
Cadmium			0.4	U	0.4	U	0.4	U			P
Calcium											NR
Chromium											NR
Cobalt			1.6	U	1.6	U	1.6	U			P
Copper			1.6	U	1.6	U	-2.2	B			P
Iron											NR
Lead											NR
Magnesium			130.0	U	130.0	U	130.0	U			P
Manganese			-1.8	B	-1.8	B	-1.9	B			P
Mercury											NR
Nickel			-14.2	B	-14.0	B	-13.9	B			P
Potassium			1510.0	U	1581.0	B	1518.0	B			P
Selenium											NR
Silver											NR
Sodium											NR
Thallium											NR
Vanadium			1.3	U	1.3	U	1.3	U			P
Zinc			0.9	U	0.9	U	0.9	U			P
Cyanide											NR

FORM III - IN

12/91

RADIAN CORPORATION
ERDLE SITE
WET CHEMISTRY
METHOD BLANK SUMMARY

0111
Client No.

METHOD BLANK

Lab Name: Recra Environmental Contract: _____

Lab Code: RECNY Case No.: 5205 SAS No.: _____ SDG No.: MW1

Lab Sample ID: A5B0002801 Lab File ID: _____

Matrix: (soil/water) WATER Instrument ID (1): _____

Date Analyzed (1): 01/03/95 Time Analyzed (1): _____

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES, MS AND MSD:

	CLIENT SAMPLE NO.	LAB SAMPLE ID	DATE ANALYZED 1	TIME ANALYZED
1	GW-1	A4753001	01/03/95	
2	GW-2	A4753002	01/03/95	
3	GW-6	A4753006	01/03/95	
4	GW-7	A4753007	01/03/95	
5	MATRIX SPIKE BL DUP	A4753014	01/03/95	
6	MATRIX SPIKE BLANK	A4753013	01/03/95	

Comments: _____

RADIAN CORPORATION
ERDLE SITE
Wet Chemistry Analysis

Client Sample No.
METHOD BLANK

Lab Name: Recra Environmental, Inc. Contract: _____

Lab Code: RECNY Case No.: 5205 SAS No.: _____ SDG No.: MW1

Matrix (soil/water): WATER Lab Sample ID: A5B0002801

% Solids: 0.0 Date Samp/Recv: _____ _____

Parameter Name	Units of Measure	Result	C	Q	M	Method Number	Analyzed Date
Total Hardness	MG/L*	1.0	U			130.2	01/03/95

Comments:

RADIAN CORPORATION
ERDLE SITE
METHOD 8240 - TCL VOLATILES
VOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

00113

Lab Name: Recra Environmental Contract: _____ Labsampid: A4B0423011

Lab Code: RECNY Case No.: 5205 SAS No.: _____ SDG No.: MW1

Lab File ID (Standard): K5819.MSQ Date Analyzed: 12/23/94

Instrument ID: I50K Time Analyzed: 09:00

GC Column(1): DB-624 ID: 0.530 (mm) Heated Purge: (Y/N) N

		IS1 (BCM) AREA #	RT #	IS2 (DFB) AREA #	RT #	IS3 (CBZ) AREA #	RT #
	12 HOUR STD	41132	11.50	152904	13.58	155100	18.42
	UPPER LIMIT	82264	12.00	305808	14.08	310200	18.92
	LOWER LIMIT	20566	11.00	76452	13.08	77550	17.92
	CLIENT SAMPLE						
1	TB-2	39475	11.47	140552	13.55	141419	18.40
2	VBLK35	38620	11.48	137062	13.58	136478	18.42

	AREA UNIT QC LIMITS	RT QC LIMITS
IS1 (BCM) = Bromochloromethane	(50-200)	-0.50 / +0.50 min
IS2 (DFB) = 1,4-Difluorobenzene	(50-200)	-0.50 / +0.50 min
IS3 (CBZ) = Chlorobenzene-D5	(50-200)	-0.50 / +0.50 min

Column to be used to flag recovery values
* Values outside of contract required QC limits

RADIAN CORPORATION
ERDLE SITE
METHOD 8240 - TCL VOLATILES
VOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

0114

Lab Name: Recra Environmental Contract: _____ Labsampid: A4B0423012

Lab Code: RECNY Case No.: 5205 SAS No.: _____ SDG No.: MW1

Lab File ID (Standard): K5846.MSQ Date Analyzed: 12/27/94

Instrument ID: I50K Time Analyzed: 10:17

GC Column(1): DB-624 ID: 0.530 (mm) Heated Purge: (Y/N) N

		IS1 (BCM) AREA #	RT #	IS2 (DFB) AREA #	RT #	IS3 (CBZ) AREA #	RT #
	12 HOUR STD	41893	11.50	152103	13.60	156851	18.43
	UPPER LIMIT	83786	12.00	304206	14.10	313702	18.93
	LOWER LIMIT	20947	11.00	76052	13.10	78426	17.93
	CLIENT SAMPLE						
1	GW-1	40439	11.47	143629	13.55	141549	18.40
2	GW-1 MS	41270	11.45	152831	13.55	150692	18.38
3	GW-1 MSD	41739	11.48	152901	13.57	150577	18.42
4	GW-2	40964	11.48	145940	13.57	143639	18.40
	GW-6	40196	11.50	143132	13.58	143288	18.42
6	MATRIX SPIKE BLANK	41176	11.50	151214	13.58	148425	18.43
7	VBLK36	40672	11.47	141631	13.55	141389	18.38

	AREA UNIT QC LIMITS	RT QC LIMITS
IS1 (BCM) = Bromochloromethane	(50-200)	-0.50 / +0.50 min
IS2 (DFB) = 1,4-Difluorobenzene	(50-200)	-0.50 / +0.50 min
IS3 (CBZ) = Chlorobenzene-D5	(50-200)	-0.50 / +0.50 min

Column to be used to flag recovery values
* Values outside of contract required QC limits

RADIAN CORPORATION
ERDLE SITE
METHOD 8240 - TCL VOLATILES
VOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

D0115

Lab Name: Recra Environmental Contract: _____ Labsampid: A4B0423013

Lab Code: RECNY Case No.: 5205 SAS No.: _____ SDG No.: MW1

Lab File ID (Standard): K5870.MSQ Date Analyzed: 12/28/94

Instrument ID: I50K Time Analyzed: 09:31

GC Column(1): DB-624 ID: 0.530 (mm) Heated Purge: (Y/N) N

		IS1 (BCM) AREA #	RT #	IS2 (DFB) AREA #	RT #	IS3 (CBZ) AREA #	RT #
	12 HOUR STD	47615	11.30	179463	13.37	175768	18.15
	UPPER LIMIT	95230	11.80	358926	13.87	351536	18.65
	LOWER LIMIT	23808	10.80	89732	12.87	87884	17.65
	CLIENT SAMPLE						
1	GW-7	46178	11.32	158967	13.38	157535	18.17
2	VBLK37	45271	11.35	162215	13.38	155584	18.18

	AREA UNIT QC LIMITS	RT QC LIMITS
IS1 (BCM) = Bromochloromethane	(50-200)	-0.50 / +0.50 min
IS2 (DFB) = 1,4-Difluorobenzene	(50-200)	-0.50 / +0.50 min
IS3 (CBZ) = Chlorobenzene-D5	(50-200)	-0.50 / +0.50 min

Column to be used to flag recovery values
* Values outside of contract required QC limits

RADIAN CORPORATION
ERDLE SITE
METHOD 8270 - TCL SEMIVOLATILES
SEMIVOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

00116

Lab Name: Recra Environmental Contract: _____ Labsampid: AMZ0005200

Lab Code: RECNY Case No.: 5205 SAS No.: _____ SDG No.: MW1

Lab File ID (Standard): 22203Z.RR Date Analyzed: 12/29/94

Instrument ID: I50Z-A Time Analyzed: 10:15

		IS1 (DCB) AREA	#	RT	#	IS2 (NPT) AREA	#	RT	#	IS3 (ANT) AREA	#	RT	#
	12 HOUR STD	159923		5.08		592777		6.41		388246		8.94	
	UPPER LIMIT	319846		5.58		1185554		6.91		776492		9.44	
	LOWER LIMIT	79962		4.58		296389		5.91		194123		8.44	
	CLIENT SAMPLE												
1	GW-1	169892		5.07		643310		6.40		458090		8.92	
2	MATRIX SPIKE BLANK	158282		5.08		546838		6.40		375823		8.92	
3	SBLK 83	146981		5.07		527477		6.40		345561		8.91	

	AREA UNIT QC LIMITS	RT QC LIMITS
IS1 (DCB) = 1,4-Dichlorobenzene-D4	(50-200)	-0.50 / +0.50 min
IS2 (NPT) = Naphthalene-D8	(50-200)	-0.50 / +0.50 min
IS3 (ANT) = Acenaphthene-D10	(50-200)	-0.50 / +0.50 min

Column to be used to flag recovery values
* Values outside of contract required QC limits

RADIAN CORPORATION
ERDLE SITE
METHOD 8270 - TCL SEMIVOLATILES
SEMIVOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

D0117

Lab Name: Recra Environmental Contract: _____ Labsampid: AMZ0005200

Lab Code: RECNY Case No.: 5205 SAS No.: _____ SDG No.: MW1

Lab File ID (Standard): 22203Z.RR Date Analyzed: 12/29/94

Instrument ID: I50Z-A Time Analyzed: 10:15

		IS4 (PHN) AREA #	RT #	IS5(CRY) AREA #	RT #	IS6 (PRY) AREA #	RT #
	12 HOUR STD	592821	11.64	636356	16.86	611719	19.51
	UPPER LIMIT	1185642	12.14	1272712	17.36	1223438	20.01
	LOWER LIMIT	296411	11.14	318178	16.36	305860	19.01
	CLIENT SAMPLE						
1	GW-1	712300	11.63	463851	16.89	382830	19.54
2	MATRIX SPIKE BLANK	588177	11.61	629879	16.82	545333	19.46
3	SBLK 83	568131	11.61	650904	16.82	577515	19.46

	AREA UNIT QC LIMITS	RT QC LIMITS
IS4 (PHN) = Phenanthrene-D10	(50-200)	-0.50 / +0.50 min
IS5 (CRY) = Chrysene-D12	(50-200)	-0.50 / +0.50 min
IS6 (PRY) = Perylene-D12	(50-200)	-0.50 / +0.50 min

Column to be used to flag recovery values
* Values outside of contract required QC limits

RADIAN CORPORATION
ERDLE SITE
METHOD 8270 - TCL SEMIVOLATILES
SEMIVOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

00118

Lab Name: Recra Environmental Contract: _____ Labsampid: AMZ0005[illegible]

Lab Code: RECNY Case No.: 5205 SAS No.: _____ SDG No.: MW1

Lab File ID (Standard): 22223Z.RR Date Analyzed: 12/30/94

Instrument ID: I50Z-A Time Analyzed: 09:46

		IS1 (DCB) AREA	#	RT	#	IS2 (NPT) AREA	#	RT	#	IS3 (ANT) AREA	#	RT	#
	12 HOUR STD	122553		5.05		501494		6.37		331029		8.88	
	UPPER LIMIT	245106		5.55		1002988		6.87		662058		9.38	
	LOWER LIMIT	61277		4.55		250747		5.87		165515		8.38	
	CLIENT SAMPLE												
1	GW-1 MS	182317		5.05		681471		6.37		466185		8.89	
2	GW-1 MSD	164256		5.06		617218		6.38		431069		8.89	
3	GW-2	174265		5.05		655171		6.38		442855		8.89	
4	GW-6	157902		5.05		576765		6.37		399453		8.88	
5	GW-7	140874		5.05		533742		6.38		363673		8.89	

		AREA UNIT QC LIMITS	RT QC LIMITS
IS1 (DCB) =	1,4-Dichlorobenzene-D4	(50-200)	-0.50 / +0.50 min
IS2 (NPT) =	Naphthalene-D8	(50-200)	-0.50 / +0.50 min
IS3 (ANT) =	Acenaphthene-D10	(50-200)	-0.50 / +0.50 min

Column to be used to flag recovery values
* Values outside of contract required QC limits

RADIAN CORPORATION
ERDLE SITE
METHOD 8270 - TCL SEMIVOLATILES
SEMIVOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: Recra Environmental Contract: _____ Labsampid: AMZ0005210

Lab Code: RECNY Case No.: 5205 SAS No.: _____ SDG No.: MW1

Lab File ID (Standard): 22223Z.RR Date Analyzed: 12/30/94

Instrument ID: I50Z-A Time Analyzed: 09:46

		IS4 (PHN) AREA	#	RT	#	IS5(CRY) AREA	#	RT	#	IS6 (PRY) AREA	#	RT	#
	12 HOUR STD	566704		11.58		726485		16.80		668142		19.43	
	UPPER LIMIT	1133408		12.08		1452970		17.30		1336284		19.93	
	LOWER LIMIT	283352		11.08		363243		16.30		334071		18.93	
	CLIENT SAMPLE												
1	GW-1 MS	704869		11.60		429130		16.84		431035		19.49	
2	GW-1 MSD	658954		11.60		397326		16.84		362585		19.50	
3	GW-2	599064		11.60		414720		16.85		337659		19.51	
4	GW-6	650583		11.56		725513		16.77		691498		19.42	
5	GW-7	620274		11.59		567262		16.81		452756		19.45	

	AREA UNIT QC LIMITS	RT QC LIMITS
IS4 (PHN) = Phenanthrene-D10	(50-200)	-0.50 / +0.50 min
IS5 (CRY) = Chrysene-D12	(50-200)	-0.50 / +0.50 min
IS6 (PRY) = Perylene-D12	(50-200)	-0.50 / +0.50 min

Column to be used to flag recovery values
* Values outside of contract required QC limits

RADIAN CORPORATION

Chain of Custody Record

Page 1 of 1

PROJECT: Erdle Perforating

SITE:

COLLECTED BY (Signature):

FIELD SAMPLE I.D.	SAMPLE MATRIX	DATE/TIME	NO. OF CONTAINERS	CLP-Inorganics	CLP-Cyanide	EPA 130.2						REMARKS	SAM ID NO. (for lab use only)
GW-1-MSD	Water	12/21/94 (1515)	2	1	1								
GW-1-MS	Water	12/21/94 (1515)	2	1	1								
GW-1	Water	12/21/94 (1515)	3	1	1	1							
GW-2	"	12/21/94 (1530)	3	1	1	1							
GW-3	"	12/21/94 (0930)	2	1	1								
GW-6	"	12/21/94 (1115)	3	1	1	1							
GW-7	"	12/21/94 (1415)	3	1	1	1							

REMARKS: Analyze per QAPjP for this Project, RECRA contact is Rob Kissel

RELINQUISHED BY:	DATE	TIME
	12/22/94	900

RECEIVED BY:	DATE	TIME	RELINQUISHED BY:	DATE	TIME	RECEIVED BY:	DATE	TIME	RELINQUISHED BY:	DATE	TIME
Inst. Del	12/22/94	900									

LAB USE ONLY

RECEIVED FOR LABORATORY BY:	DATE	TIME	AIRBILL NO.	OPENED BY:	DATE	TIME	TEMP °C	SEAL #	CONDITION
D Bluu	12/23/94	1130					0		

REMARKS:

REFERENCE # 17
PAGE 561 OF 584

RADIAN CORPORATION

Chain of Custody Record

Page 1 of 1

PROJECT: Erdle Perforating

SITE:

COLLECTED BY (Signature):

FIELD SAMPLE I.D.	SAMPLE MATRIX	DATE/TIME	NO. OF CONTAINERS	NYSCLP-SVOA	NYSCLP-PCBs								REMARKS	SAM ID NO. (for lab use only)
GW-6	Water	12/21/94 (1115)	2	2										
GW-1-MS	"	12/21/94 (1515)	2	2										
GW-1-MSD	"	12/21/94 (1515)	3	2	1									
GW-7	"	12/21/94 (1415)	3	2	1									
GW-1	"	12/21/94 (1515)	1		1									

ANALYSES

REMARKS: Analyze per QAPjP for this project. RECRA contact is Ross Klissal

RELINQUISHED BY:	DATE	TIME
	12/22/94	0900

RECEIVED BY:	DATE	TIME	RELINQUISHED BY:	DATE	TIME	RECEIVED BY:	DATE	TIME	RELINQUISHED BY:	DATE	TIME
Fed. Del.	12/22/94	0900									

LAB USE ONLY

RECEIVED FOR LABORATORY BY:	DATE	TIME	AIRBILL NO.	OPENED BY:	DATE	TIME	TEMPC	SEAL #	CONDITION
D. Fuller	12/22/94	1130					1		

REMARKS:

4-88-30337

REFERENCE # 17
PAGE 562 OF 584

RADIAN CORPORATION

Chain of Custody Record

Page 1 of 2

PROJECT: Erdle Perforating

SITE:

COLLECTED BY (Signature):

FIELD SAMPLE I.D	SAMPLE MATRIX	DATE/TIME	NO. OF CONTAINERS	NYSCLP-VOA	SW8010-VOA	NYSCLP-SVOA	NYSCLP-PCBs					REMARKS	SAM ID NO (for lab use only)
GW-2	Water	12/21/94 (1530)	5	2		2	1						
GW-1-MSD	"	12/21/94 (1515)	2	2									
GW-1-MS	"	12/21/94 (1515)	3	2			1						
GW-4-MS	"	12/21/94 (1315)	2		2								
GW-4	"	12/21/94 (1315)	2		2								
GW-4-MSD	"	12/21/94 (1315)	2		2								
GW-1	"	12/21/94 (1515)	4	2		2							
GW-5	"	12/21/94 (1400)	2		2								
GW-7	"	12/21/94 (1415)	2	2									

REMARKS: Analyze ~~f~~ per QAPjP for this project. RECRA contact is Rob Kissel

RELINQUISHED BY:	DATE	TIME
	12/22/94	0900

RECEIVED BY:	DATE	TIME	RELINQUISHED BY:	DATE	TIME	RECEIVED BY:	DATE	TIME	RELINQUISHED BY:	DATE	TIME
Inst. Del	12/22/94	0900									

LAB USE ONLY

RECEIVED FOR LABORATORY BY:	DATE	TIME	AIRBILL NO.	OPENED BY:	DATE	TIME	TEMP°C	SEAL #	CONDITION:
D. Bilka	12/23/94	1130					1		

REMARKS:

4-88-30337

REFERENCE # 17
PAGE 563 OF 584

0129

RADIAN CORPORATION

Chain of Custody Record

Page 1 of 1

PROJECT: Erdle Perforating

SITE:

COLLECTED BY (Signature):

FIELD SAMPLE I.D.	SAMPLE MATRIX	DATE/TIME	NO. OF CONTAINERS	NYSCLP Cyanide								REMARKS	SAM ID NO. (for lab use only)
GW-3	Water	12/22/92 (1600)	1	1									

ANALYSES

REMARKS: Analyze per QAPjP for this project

RELINQUISHED BY:	DATE	TIME
	12/22/92	1615

RECEIVED BY:	DATE	TIME	RELINQUISHED BY:	DATE	TIME	RECEIVED BY:	DATE	TIME	RELINQUISHED BY:	DATE	TIME
Fed Ex	12/23/92	1615									

LAB USE ONLY

RECEIVED FOR LABORATORY BY:	DATE	TIME	AIRBILL NO.	OPENED BY:	DATE	TIME	TEMP°C	SEAL #	CONDITION:
[illegible]	12/23/92	1610							

REMARKS: Cooler temp = 6°C

REFERENCE # 17
PAGE 564 OF 584

RADIAN CORPORATION

Chain of Custody Record

PROJECT: Erdle Perforating

SITE:

COLLECTED BY (Signature):

FIELD SAMPLE I.D.	SAMPLE MATRIX	DATE/TIME	NO. OF CONTAINERS	NYSCLP - VOA	8010/8020 - VOA	8010 - VOA	NYSCLP - PCBs						REMARKS	SAM ID NO (for lab use only)
TB - 2	Water	12/21/94	4	2	2									
GW - 6	"	12/21/94 (1115)	3	2			1							
GW - 3	"	12/21/94 (0930)	2		2	2								
GW - 10	"	12/21/94 (0945)	2			2								
GW - 9	"	12/21/94 (1015)	2			2								
GW - 8	"	12/21/94 (1000)	2			2								

REMARKS: Analyze per QAPjP for this project, RECRA contact is Rob Kissel

RELINQUISHED BY:	DATE	TIME
	12/22/94	0900

RECEIVED BY:	DATE	TIME	RELINQUISHED BY:	DATE	TIME	RECEIVED BY:	DATE	TIME	RELINQUISHED BY:	DATE	TIME
Inst. Del.	12/22/94	0900									

LAB USE ONLY

RECEIVED FOR LABORATORY BY:	DATE	TIME	AIRBILL NO.	OPENED BY:	DATE	TIME	TEMP °C	SEAL #	CONDITION
	12/23/94	1130							

REMARKS:

4-88-30337

REFERENCE # 17
PAGE 565 OF 584

Appendix I
Air Results Calculations

Erdle Flux Study Emission Rates and Concentrations

6/8/95

Lab Results

Contaminant	A1-A ng	A1-B ng	A1-CS-A ng	A1-CS-B ng
Chloroethane	3	0	0	0
Methylene Chloride	550	0	12000	6300
Acetone	97	0	510	0
Carbon Disulfide	20	0	3	15
1,2-Dichloroethene	18	0	16	0
Chloroform	8	0	8	8
1,2-Dichloroethane	0	0	2	0
2-Butanone	0	0	110	0
1,1,1-Trichloroethane	7	0	8	7
Vinyl Acetate	0	3	0	0
Trichloroethene	16	0	14	0
Chlorobenzene	22	0	0	0
Xylenes	25	0	31	0

Concentration of each contaminant in air flowing from the flux chamber, Yi

Yi = Lab Result (ng)/Total Volume of Air Through Sample (ml)

Total Volume of Air Through Sample
4513.6 ml for A1-A &A1-B
4581.0 ml for A1-CS-A & A1-CS-B

Contaminant	Y(A1-A) ng/ml	Y(A1-B) ng/ml	Y(A1-CS-A) ng/ml	Y(A1-CS-B) ng/ml
Chloroethane	6.65E-04	0.00E+00	0.00E+00	0.00E+00
Methylene Chloride	1.22E-01	0.00E+00	2.62E+00	1.38E+00
Acetone	2.15E-02	0.00E+00	1.11E-01	0.00E+00
Carbon Disulfide	4.43E-03	0.00E+00	6.55E-04	3.27E-03
1,2-Dichloroethene	3.99E-03	0.00E+00	3.49E-03	0.00E+00
Chloroform	1.77E-03	0.00E+00	1.75E-03	1.75E-03
1,2-Dichloroethane	0.00E+00	0.00E+00	4.37E-04	0.00E+00
2-Butanone	0.00E+00	0.00E+00	2.40E-02	0.00E+00
1,1,1-Trichloroethane	1.55E-03	0.00E+00	1.75E-03	1.53E-03
Vinyl Acetate	0.00E+00	6.65E-04	0.00E+00	0.00E+00
Trichloroethene	3.54E-03	0.00E+00	3.06E-03	0.00E+00
Chlorobenzene	4.87E-03	0.00E+00	0.00E+00	0.00E+00
Xylenes	5.54E-03	0.00E+00	6.77E-03	0.00E+00

Totals for A1 and A1-CS

Contaminant	Total A1 ng/ml	Total A1-CS ng/ml
Chloroethane	6.65E-04	0.00E+00
Methylene Chloride	1.22E-01	3.99E+00
Acetone	2.15E-02	1.11E-01
Carbon Disulfide	4.43E-03	3.93E-03
1,2-Dichloroethene	3.99E-03	3.49E-03
Chloroform	1.77E-03	3.49E-03
1,2-Dichloroethane	0.00E+00	4.37E-04
2-Butanone	0.00E+00	2.40E-02
1,1,1-Trichloroethane	1.55E-03	3.27E-03
Vinyl Acetate	6.65E-04	0.00E+00
Trichloroethene	3.54E-03	3.06E-03
Chlorobenzene	4.87E-03	0.00E+00
Xylenes	5.54E-03	6.77E-03

Determine Flux Chamber Emissions, Ei

Ei = Yi * Q/A

Q = Flow rate of air into the chamber = 5 l/min
A= Surface area enclosed by the chamber = 0.130 m^2

Contaminant	Total A1 ng/m^2-min	Total A1 ug/m^2-min	Total A1-CS ng/m^2-min	Total A1-CS ug/m^2-min
Chloroethane	2.56E+01	2.56E-02	0.00E+00	0.00E+00
Methylene Chloride	4.69E+03	4.69E+00	1.54E+05	1.54E+02
Acetone	8.27E+02	8.27E-01	4.28E+03	4.28E+00
Carbon Disulfide	1.70E+02	1.70E-01	1.51E+02	1.51E-01
1,2-Dichloroethene	1.53E+02	1.53E-01	1.34E+02	1.34E-01
Chloroform	6.82E+01	6.82E-02	1.34E+02	1.34E-01
1,2-Dichloroethane	0.00E+00	0.00E+00	1.68E+01	1.68E-02
2-Butanone	0.00E+00	0.00E+00	9.24E+02	9.24E-01
1,1,1-Trichloroethane	5.96E+01	5.96E-02	1.26E+02	1.26E-01
Vinyl Acetate	2.56E+01	2.56E-02	0.00E+00	0.00E+00
Trichloroethene	1.36E+02	1.36E-01	1.18E+02	1.18E-01
Chlorobenzene	1.87E+02	1.87E-01	0.00E+00	0.00E+00
Xylenes	2.13E+02	2.13E-01	2.60E+02	2.60E-01

Determine Emission Rate Potential For Part 212

ERP = 1.33e-07 * Ei * A

A = Site Area = 150 ft^2 = 14 m^2

Contaminant	Total A1 lb/hr	Total A1-CS lb/hr
Chloroethane	4.76E-08	0.00E+00
Methylene Chloride	8.73E-06	2.86E-04
Acetone	1.54E-06	7.97E-06
Carbon Disulfide	3.17E-07	2.81E-07
1,2-Dichloroethene	2.86E-07	2.50E-07
Chloroform	1.27E-07	2.50E-07
1,2-Dichloroethane	0.00E+00	3.13E-08
2-Butanone	0.00E+00	1.72E-06
1,1,1-Trichloroethane	1.11E-07	2.34E-07
Vinyl Acetate	4.76E-08	0.00E+00
Trichloroethene	2.54E-07	2.19E-07
Chlorobenzene	3.49E-07	0.00E+00
Xylenes	3.97E-07	4.85E-07

Calculate concentrations directly over the waste site

Ca = 0.25 Ei

Contaminant	Total A1 ug/m^3	Total A1-CS ug/m^3
Chloroethane	1.41E-11	0.00E+00
Methylene Chloride	2.58E-09	8.45E-08
Acetone	4.55E-10	2.36E-09
Carbon Disulfide	9.37E-11	8.31E-11
1,2-Dichloroethene	8.44E-11	7.39E-11
Chloroform	3.75E-11	7.39E-11
1,2-Dichloroethane	0.00E+00	9.24E-12
2-Butanone	0.00E+00	5.08E-10
1,1,1-Trichloroethane	3.28E-11	6.93E-11
Vinyl Acetate	1.41E-11	0.00E+00
Trichloroethene	7.50E-11	6.46E-11
Chlorobenzene	1.03E-10	0.00E+00
Xylenes	1.17E-10	1.43E-10

NYSDEC Air Guide -1 Area Source Concentration

Maximum Potential Annual Concentration, Cp

Cp = 670600 * Q/S^1.8

S = 30 ft = Side of the area source
Q = Area source emission rate in lb/hr

Maximum impact is predicted to occur just outside the area source at a distance of 0.564S (=16.9 ft) from the center of the source.

Contaminant	Total A1 lb/hr	Total A1 Cp ug/m^3	Total A1-CS lb/hr	Total A1-CS Cp ug/m^3
Chloroethane	2.81E-07	4.14E-04	0.00E+00	0.00E+00
Methylene Chloride	5.16E-05	7.58E-02	1.69E-03	2.49E+00
Acetone	9.09E-06	1.34E-02	4.71E-05	6.93E-02
Carbon Disulfide	1.87E-06	2.76E-03	1.66E-06	2.45E-03
1,2-Dichloroethene	1.69E-06	2.48E-03	1.48E-06	2.17E-03
Chloroform	7.50E-07	1.10E-03	1.48E-06	2.17E-03
1,2-Dichloroethane	0.00E+00	0.00E+00	1.85E-07	2.72E-04
2-Butanone	0.00E+00	0.00E+00	1.02E-05	1.49E-02
1,1,1-Trichloroethane	6.56E-07	9.65E-04	1.39E-06	2.04E-03
Vinyl Acetate	2.81E-07	4.14E-04	0.00E+00	0.00E+00
Trichloroethene	1.50E-06	2.21E-03	1.29E-06	1.90E-03
Chlorobenzene	2.06E-06	3.03E-03	0.00E+00	0.00E+00
Xylenes	2.34E-06	3.45E-03	2.86E-06	4.21E-03

QA/QC SUMMARY AND DATA USABILITY REPORT ERDLE PERFORATING COMPANY RI/FS

Prepared for:

Erdle Perforating Company

Prepared by:

Radian Corporation
155 Corporate Woods
Suite 100
Rochester, NY 14623

June 1995

RADIAN

TABLE OF CONTENTS

Page

1.0 INTRODUCTION 1

2.0 DATA VALIDATION 2

2.1 Volatiles - ASP 91-1 3
2.2 Volatiles - SW8010/8020 4
2.3 Semivolatiles - ASP 91-2 4
2.4 PCBs - ASP 91-3 5
2.5 Inorganics - ASP 5
2.6 Total Organic Carbon - SW9060 7
2.7 Hardness - EPA 130.2 7
2.8 Air Sampling - TO-1 7

3.0 COMPARISON WITH PREVIOUS SITE DATA 9

4.0 RECOMMENDATIONS FOR RESAMPLING 11

APPENDIX A DATA VALIDATION PACKETS

1.0 INTRODUCTION

Phase I of a Remedial Investigation/Feasibility Study (RI/FS) was undertaken at the Erdle Perforating site, Rochester, New York, in late 1994. Ambient air samples were collected on-site in November, 1994, using EPA Method TO-1 methodology (Tenax tube samples via flux chamber sampling) for volatile organics. Groundwater and soil samples were collected in December. Selected groundwaters and soils were analyzed for volatiles, semi-volatiles, and inorganics using methodology found in the New York State Department of Environmental Conservation (NYSDEC) Analytical Services Protocol (ASP). Additional selected water samples were analyzed by methods found in SW-846, Physical Methods for the Analysis of Solids and Wastes, 3rd. ed, and EPA Methods for the Chemical Analysis of Water and Wastes, March 1983, including SW8010 for halogenated volatiles; SW9060 for total organic carbon; and EPA 130.2 for hardness. Selected soils and sediments were analyzed by SW8010 for halogenated volatiles, SW8020 for aromatic volatiles, and SW9060 for total organic carbon.

Numerous quality control samples, including field duplicates, trip blanks, and rinsate blanks were collected with the field samples. Additional quality control samples, such as matrix spikes, matrix spike duplicates, surrogates, and laboratory control samples were analyzed as part of the project protocol.

Recra Environmental, Inc., of Amherst, New York, performed all analysis of groundwater, surface water, and soil samples for the RI/FS. Tenax air samples were analyzed by Ross Analytical, located in Strongsville, Ohio. Results for all analyses were subjected to data validation based on the requirements found in EPA Region II Data Validation SOP, 1/92, revision 8, for organics; and EPA Region II Evaluation of Metals SOW 3/90 for inorganics. Individual validation packets for each Sample Delivery Group (SDG) are found in Appendix A to this document.

Each validation packet contains a narrative detailing problems found in the SDG, a table listing required validation flags, and the checklist for that SDG. Flags have

been applied to the results listed on Form I in the Recra laboratory reports. Flags have also been applied to the table of detected compounds to be presented in the final RI/FS Phase I report. This document summarizes the major issues found in the validation of project data. A comparison of data obtained during the RI/FS with data from previous sampling events is also provided, along with recommendations regarding the need for any additional sampling or re-sampling.

2.0 DATA VALIDATION

Two SDGs were analyzed and reported by Recra: MW-1 contains results for all the groundwater samples, and S-1 contains results for the subsurface soil, surface soil, surface water, and sediment samples. Air results from the Tenax sampling effort were delivered as one SDG.

The laboratory's QC limits, such as spike recovery limits, surrogate recovery limits, and RPD limits, were sometimes different from those in the QAPjP, due in part to the long delay between the development of the QAPjP and the commencement of sampling. In all cases, both sets of limits were met, and no loss of project data accuracy or precision resulted.

Analytical results were flagged according to the guidelines found in the EPA Region II validation SOP and SOW, when specified quality control results fell outside prescribed limits. Results flagged (J) are to be regarded as estimated values due to problems with the associated QC data or hold time exceedances. In some instances detection limits are also flagged as estimated (UJ). Serious deviation from the prescribed QC specifications require rejection of associated data; those results have been flagged (R).

Rejected data are summarized in the table below. General issues and problems noted during the validations are discussed in the sections below, by analysis.

Sample ID	Affected Analyte	Reason for Rejection
GW-1, GW-2, GW-3, GW-6, GW-7	Arsenic, Selenium, Thallium, Antimony	Very high matrix spike recoveries (> 150%)
SD-1, SD-2, S-1, SF-1, SF-2, SF-2 FD, SF-4, SF-5, RB-1, SW-2	Silver	Very low matrix spike recoveries (0%); low recovery for the Contract Required Detection Limit Standard
GW-1, GW-2	Lead	Low recovery for the Contract Required Detection Limit Standard
SD-1, SW-2	Chromium	Low recovery for the Contract Required Detection Limit Standard

Results for S-1, SD-1, and SD-4 were flagged as estimated for several analyses due to the high level of moisture (> 50%) in these soil and sediment samples, as detailed below.

2.1 Volatiles - ASP 91-1

No problems with hold times or preservation were noted. Some trip blank contamination was noted for total 1,2-dichloroethene, trichloroethene, and toluene for SDG S-1. No trip blank contamination was found for SDG MW-1; however, method blank contamination was noted for toluene, trichloroethene, and chlorobenzene, resulting in elevated detection limits for these compounds in two groundwater samples. Continuing calibration results for three volatiles were not within the 25% limit and associated results were flagged as estimated; in particular, vinyl chloride results and detection limits for several S-1 samples, most of which showed no detection, are considered estimated. Several analyte results for SD-2 are considered estimated due to low internal standard areas. All results for SD-1 and SD-4 are flagged as estimated due to the high level of moisture (>50%) in these samples, as required by the EPA Region II SOP. Other problems noted for SDG S-1 and SDG MW-1 were of a bookkeeping nature.

2.2 Volatiles - SW8010/8020

No problems with hold time or preservation were found for SDG S-1. However, the 7-day hold time was exceeded for the groundwaters and trip blank in SDG MW-1. These samples were analyzed within the SW-846 14-day hold time, and were preserved at 4 °C until analysis. They include GW-3, GW-4, GW-5, GW-8, GW-9, GW-10, and TB-2. It is possible that volatile concentrations are biased low, particularly aromatics concentrations. Limited impact is expected for the chlorinated volatiles; however, all 8010 and 8020 results for these samples have been flagged as estimated, per guidelines in the EPA validation SOP.

Trip blank contamination for methylene chloride was noted in both SDGs, and similar concentrations in GW-3, GW-4, and GW-10, SF-3, and SF-4 were flagged as not detected. Toluene was also found in the trip blank for SDG S-1, and the toluene result for sample SF-3 was flagged as undetected.

Other issues noted include the omission of four SW-8010 target compounds from the laboratory compound list (dibromomethane, dichlorodifluoromethane, 1,1,1,2-tetrachloroethane, and 1,2,3-trichloropropane). In addition, several bookkeeping and other minor issues were noted.

2.3 Semivolatiles - ASP 91-2

No hold time or preservation problems were found for either SDG for semivolatiles.

Matrix interference is suggested for the soil and sediment samples in SDG S-1, by the presence of a large baseline hump eluting between 7 and 20 minutes into the chromatogram. Internal standard areas were low for many of these samples. This interference, according to the laboratory, is not uncommon with soil samples; Radian chemists have also noted difficulties in effectively cleaning up similar interferences in soils.

This hump may be due to undifferentiated hydrocarbons, or to some other matrix effect not amenable to sample cleanup techniques. Soil and sediment results for all analytes eluting after the appearance of the interfering peak are flagged as estimated, as listed in the Flagging Requirements table of the validation packet; analytes with poor internal standard areas are also flagged as estimated.

Other issues noted include method blank contamination, poor mass spectral matches, poor MS/MSD recovery for two compounds, and excessive moisture levels. Method blank contamination was noted for di-n-butylphthalate, and similar positive results were flagged as not detected for RB-1 and SW-2. Results for 4-methylphenol in GW-1 and GW-2 were flagged as tentatively identified, due to a poor spectral match for two of the major ions. Nitrophenol and 2,4-dinitrotoluene showed 0% MS/MSD recovery for SF-3. No MS/MSD recovery problems were found for the other MS/MSD sample, and the ND results for these compounds were flagged estimated for SF-3 only. Finally, all results for S-1, S-1 RE and SD-1 are flagged as estimated due to high levels of moisture (> 50%).

2.4 PCBs - ASP 91-3

No problems with sample hold times or preservation were noted for the PCB analyses.

No PCBs were detected in any of the water or soil samples. No biases or other data problems were indicated, other than excessive moisture in two soil samples. The non-detect results for S-1 and SD-1 were flagged as estimated due to the high moisture content.

2.5 Inorganics - ASP

All hold times were met for inorganics analyses of waters and soils. The digestion logs did not list pH values, and incoming sample preservation could not be verified.

The lab stated that if no notations regarding sample pH have been made in the narrative (none were), then preservation can be assumed to have been adequate.

Arsenic, selenium, and thallium were analyzed by ICPES, rather than graphite furnace atomic absorption GFAA, which provides lower detection limits. The ASP allows the use of ICPES for these metals if the detection limits meet ASP quantitation limits, as was the case here. However, considering the fact the these metals were detected at very low levels, the use of GFAA might have been prudent. Very high spike recoveries (> 150%) were found for these metals, and as a result, all of the groundwater data for these metals, as well as for antimony, were rejected (GW-1, GW-2, GW-3, GW-6, and GW-7). Conversely, 0% spike recovery required rejection of silver in all samples in the S-1 SDG (SD-1, SD-2, S-1, SF-1, SF-2, SF-2 FD, SF-4, SF-5, RB-1, SW-2). (These silver results were also rejected due to low CRDL recovery - see below.) High spike recoveries (between 125% and 150%) were found for aluminum, silver, and lead, and results for all five groundwater samples were flagged as estimated. High spike recoveries for zinc, and low recoveries for manganese, antimony and selenium, resulted in all SDG S-1 sample results being flagged as estimated.

In cases where the CRDL (Contract Required Detection Limit) standard gave poor recoveries, and the detection limits could therefore be called into question, several metals results were rejected or flagged estimated, depending on the magnitude of the exceedance. Lead results for GW-1 and GW-2 are rejected due to a low recovery (< 50%) for the CRDL standard. A low CRDL recovery also resulted in the rejection of chromium data for SD-1 and SW-2, and of silver for all the samples in SDG S-1. Cadmium and vanadium results for all the samples in SDG S-1 are flagged estimated due to poor CRDL recoveries.

A number of other groundwater results were flagged as estimated for other QC violations as well. These include sodium in GW-1, GW-2, and GW-3 for a low calibration recovery; potassium in GW-7 for a false positive reading in the ICSAB standard; and zinc in all five groundwater samples for a high serial dilution percent difference. All soil results in SD-1 were flagged estimated due to high moisture levels (> 50%). High field duplicate

variability was seen for calcium, and calcium results for SF-2 and SF-2 FD were flagged as estimated. Finally, several bookkeeping errors are noted in the validation narratives.

2.6 Total Organic Carbon - SW9060

Results could not be verified using the multipoint calibration information provided. The appropriate calibration data was submitted; Recra personnel stated that a two-point calibration curve was run, per instrument specifications, and the multipoint standard set was analyzed to confirm the curve. Incorrect percent solids data was included on the results forms (Form Is), and the laboratory erroneously followed an outdated protocol of not correcting for percent solids content for high moisture (> 50%) samples. The forms were revised with the corrected results, which were then verified.

2.7 Hardness - EPA 130.2

No significant problems were noted for hardness analyses.

2.8 Air Sampling - TO-1

A total of three sets of air samples were collected November 11, 1994, at the Erdle site. Air samples were collected using a combination of TO-1 methodology, which specifies the use of Tenax as the adsorbent material, and flux chamber sampling. A flux chamber similar to that described in "Planning and Interpretation of Flux Box Measurements," August 2, 1991, Bureau of Toxic Air Sampling, Division of Air Resources, NYSDEC was used. VOC-free air certified less than 0.01 ppmv total hydrocarbons was used as the sweep gas, and was connected to the flux chamber with Teflon tubing using stainless steel fittings. The sweep flow rate was set to 5 L/min, and the chamber was allowed to purge 25 minutes. After purging, the sample line was connected to the chamber; two lines teed off this line were directed through collocated Tenax tube sets. Each set consisted of the first tube, which contained Tenax, and the second tube, which contained both Tenax and charcoal and served as a backup sample to capture any breakthrough

volatiles. Air was drawn through the tubes using pre-calibrated SKC pumps at a rate of 50 cc/min. Sampling was set for 90 minutes, based on estimated breakthrough times for trichloroethene, which was the primary compound of concern for this site.

Ross Analytical analyzed the Tenax tube samples per TO-1 methodology. The QAPP hold time of 14 days was exceeded by five days. However, the TO-1 method does not specify a hold time for volatiles, which are considerably more stable on Tenax than in soil or groundwater. No impact on data quality is expected, and no flags were applied to data due to hold time concerns.

The data deliverable was not provided in ASP Category B reporting format. The lab stated this is because the ASP reporting system is not directly compatible with TO-1 data. Enough raw data (except for the missing QC data) was available to attempt to validate the results. The laboratory was contacted concerning the quadratic curve-fit quantitation of results, which could not be duplicated using graphical software. The laboratory stated that, although the raw data indicate the use of a quadratic curve fit, this was not the quantitation method used; instead, the results were derived using a curve fit forced through zero.

The laboratory was contacted, and after researching the problem, discovered an error in the way the calibration was programmed into the GC/MS system. All results originally submitted were incorrect. Revised results were provided after correcting the quantitation program. The revised results differed significantly from the original results. For details regarding the error, the reader is directed to the laboratory narrative dated 6/1/95 which accompanied the revised data package.

Trip blank contamination appears to be extensive. Contamination problems are known to be common with Tenax, and it is probable that the affected compounds are due to sources encountered during the shipping, sample handling, sample preparation or sample analysis process. Several analyte results have been flagged as non-detects, as are listed in the validation packet. Most results for benzene, 2-hexanone, 4-methyl-2-pentanone,

tetrachloroethene, toluene, styrene, and chlorobenzene have been discounted as non-detects due to their presence in the trip blank and/or method blank.

Duplication of results for the collocated samples is generally reasonable, except for methylene chloride and acetone. The other detected analytes were detected near or below the EQL, where increased variability would be expected. Methylene chloride and acetone, on the other hand, were detected at levels considerably above the detection limit. Much higher methylene chloride and acetone concentrations were seen in both tubes in the collocated sample. The results were considerable above concentrations found in the associated blank samples. It should be noted that methylene chloride was not detected significantly above detection limits in the groundwater samples collected near the air sampling site. Therefore, the presence of methylene chloride is most likely due to another source besides site conditions. It is possible that methylene chloride could have been residually present in the flux chamber, which has been used at several other highly contaminated sites. If this was the case, the background samples would have been expected to show high levels of methylene chloride, as well. Unfortunately, this sample was lost during sample analysis by the laboratory, and data comparisons are not possible.

Acetone was detected in a couple of sediment samples. It is not known whether the acetone detected in the air samples is due to contamination or to site conditions.

3.0 COMPARISON WITH PREVIOUS SITE DATA

Four previous sampling efforts were described and summarized in the Final RI/FS workplan (October 1993). Previous samples were analyzed for chlorinated, and occasionally purgeable aromatic, hydrocarbons. These samples were not analyzed for the more extensive RI/FS set of target analytes, including inorganics, semivolatiles, or PCBs, so it is not possible to compare the RI/FS data for the compounds with previous data. Generally, there were few surprises in the detected analytes compared with past results. Vinyl chloride appears more frequently than in previous studies, and acetone is detected in sediments where it had not been detected before.

A comparison of groundwater results shows great similarity in the analytes detected over the years. The compounds detected in highest concentrations, 1,2-dichloroethene and trichloroethene, are those which have been the primary compounds of concern in the past. The level of 1,2-dichloroethene detected during the RI/FS (up to 170,000 μg/L), however, is an order of magnitude higher than that found previously at the well nearest the former UST (MW-1). Trichloroethene was found at MW-1 and MW-2 at comparable levels to those seen in 1992; much higher TCE levels were detected at MW-3 (350,000 μg/L) than in 1992. Vinyl chloride was also found at MW-1 for the first time, in significant concentrations (up to 15,000 ppb).

Surface waters were sampled in 1987 and 1990. Only trace levels of TCE were detected at the three surface water locations sampled in this RI/FS. This compares well with the 1992 surface water TCE results; both the 1994 and 1992 results are much lower at the old outfall (SW-2) than in 1987, when 750 ppb TCE were detected there. 1,2-Dichloroethene was detected at concentrations well above the detection limit (1700 ppb) for the old outfall location; this data corresponds with the detection of 1,2-DCE in 1987, but none was found in 1992. Low levels of other compounds, including vinyl chloride and tetrachloroethene, were detected in the surface water samples. Vinyl chloride also appeared at a relatively low concentration in the sediment sample associated with the old outfall where it hadn't been detected before. Detection of vinyl chloride is not unexpected, as it is a degradation product of trichloroethene. A trace amount of tetrachloroethene was also found at the upgradient surface water location.

Acetone was detected in two sediment samples; this compound has not been detected previously on site. Acetone is a common laboratory contaminant; however, it was not detected in the associated trip blank or rinsate blanks. Acetone was not detected in any other samples, in any other matrix. Both acetone values were flagged as estimated during the validation process due to the high moisture content in the samples.

Soil samples were collected and analyzed in 1987. Again, the highest level detected compounds, 1,2-dichloroethene and trichloroethene, are consistent with the 1987

results, although the concentration of 1,2-DCE at SF-2 (48,000 μg/kg) is far higher than that seen in 1987. Low levels of other compounds, including benzene, ethylbenzene, toluene, xylenes, and methylene chloride were also detected in soil samples. Most of these compounds were not detected in other sample matrices, or in previous study samples. Methylene chloride and toluene may be attributed to other sources of contamination as they were detected in the trip and rinsate blanks. Additionally, two compounds--1,1,1-trichloroethane and 1,1,2,2-tetrachloroethane--were detected in the background sample at low levels.

4.0 RECOMMENDATIONS FOR RESAMPLING

Resampling may be indicated for air samples and for groundwater analyses by SW010, as discussed below. All other data are considered usable, as long as the biases suggested as a result of the data validation efforts are kept under consideration.

Air samples were collected to determine whether concentrations of contaminants of concern - namely, trichloroethene, 1,2-dichloroethene, and other chlorinated solvents - were migrating across site boundaries and impacting breathing zone levels of neighboring sites. The only compounds detected significantly above the detection limits were methylene chloride and acetone. Methylene chloride was not detected in any of the other sample matrices, and acetone was detected in two sediments, but not in water or in subsurface soils. While the source of the methylene chloride cannot be confirmed, particularly since the background samples were lost during analysis, it does not seem likely that the source would be due to site operations. Resampling could be performed to attempt to track down and eliminate outside sources of methylene chloride, and of acetone, by constructing a new flux chamber and collecting a field blank. This would be a fairly expensive option, particularly considering the low levels of the compounds of concern detected in the original samples. Furthermore, none of the compounds detected in the air samples exceeded the NYS ACGs (see RI/FS report).

Seven groundwater samples, including GW-3, GW-4, GW-5, GW-8, GW-9, GW-10, and TB-2, slated for analysis by SW-8010 were analyzed outside the project hold time of 7 days. The laboratory had mistakenly logged them in for the SW-846 14-day hold time, which was met. The samples were kept cool at 4 °C until analysis, and it is unlikely that the chlorinated volatile results were significantly impacted. Aromatic volatiles could be expected to degrade without acid preservation; but only the trip blank was analyzed by SW8020 for purgeable aromatics. Resampling for the groundwaters is probably not necessary.

As noted in Section 2.0, several metals results were rejected. Arsenic, selenium, thallium, and antimony in groundwaters, and silver in soils/sediments, were rejected due to very high and very low matrix spike recoveries. Resampling for these metals is not recommended, as generally little can be done to compensate for sample matrix effects on analytical accuracy.

Lead in two groundwaters, and chromium in one sediment and one surface water, were rejected due to low CRDL recoveries. Chromium was not detected at levels approaching the New York contaminated sediment guideline of 26 ppm in SD-1 ("Technical Guidance for Screening Contaminated Sediments," July 1994), and resampling at this location is not thought to be necessary. Chromium was not detected in the surface water, but the detection limit of 10 μg/L is very near the surface water guidance level of 11 μg/L; resampling at this location might be advisable, to confirm the absence of chromium. Lead in one of the affected samples (GW-1) also showed poor matrix spike results (150% recovery); GW-1 and GW-2 may warrant resampling to confirm the low levels of lead detected in these samples are below the 25 μg/L limit.

REFERENCE 18

EPA WORK ASSIGNMENT NUMBER: 041-2Z00
EPA CONTRACT NUMBER: 68-W8-0110
EBASCO SERVICES INCORPORATED

ARCS II PROGRAM

FINAL
PRELIMINARY ASSESSMENT (PA)
ERDLE PERFORATING COMPANY SITE
MONROE COUNTY, NEW YORK
CERCLIS NO.: NYD982531865

JUNE 1993

SUBMITTED BY:

Valerie Morra/EA

Valerie Morra
Task Leader
Sheladia Associates

APPROVED BY:

for

Ming Kuo, Ph.D., P.E.
ARCS II Technical Support Manager
Ebasco Services Incorporated

REVIEWED BY:

Edgar J. Aguado
Site Manager
Ebasco Services Incorporated

W1013.LYN

1.0 INTRODUCTION

Under the authority of the Comprehensive Environmental Response, Compensation, and Liability Act of 1980 (CERCLA) and the Superfund Amendments and Reauthorization Act of 1986 (SARA), Ebasco, on behalf of the U.S. Environmental Protection Agency (USEPA), Region 2 conducted a Preliminary Assessment (PA) at the Erdle Perforating Company, 100 Pixley Industrial Parkway in the Town of Gates, Monroe County, New York, CERCLIS No.: NYD982531865. The purpose of this investigation was to collect information concerning conditions at the Erdle Perforating site sufficient to assess the threat posed to human health and the environment and to determine the need for additional CERCLA/SARA or appropriate action. The scope of the investigation included review of available file information, a comprehensive target survey, and an off-site reconnaissance conducted on January 27, 1993.

2.0 SITE DESCRIPTION, OPERATIONAL HISTORY, AND WASTE CHARACTERISTICS

2.1 Location

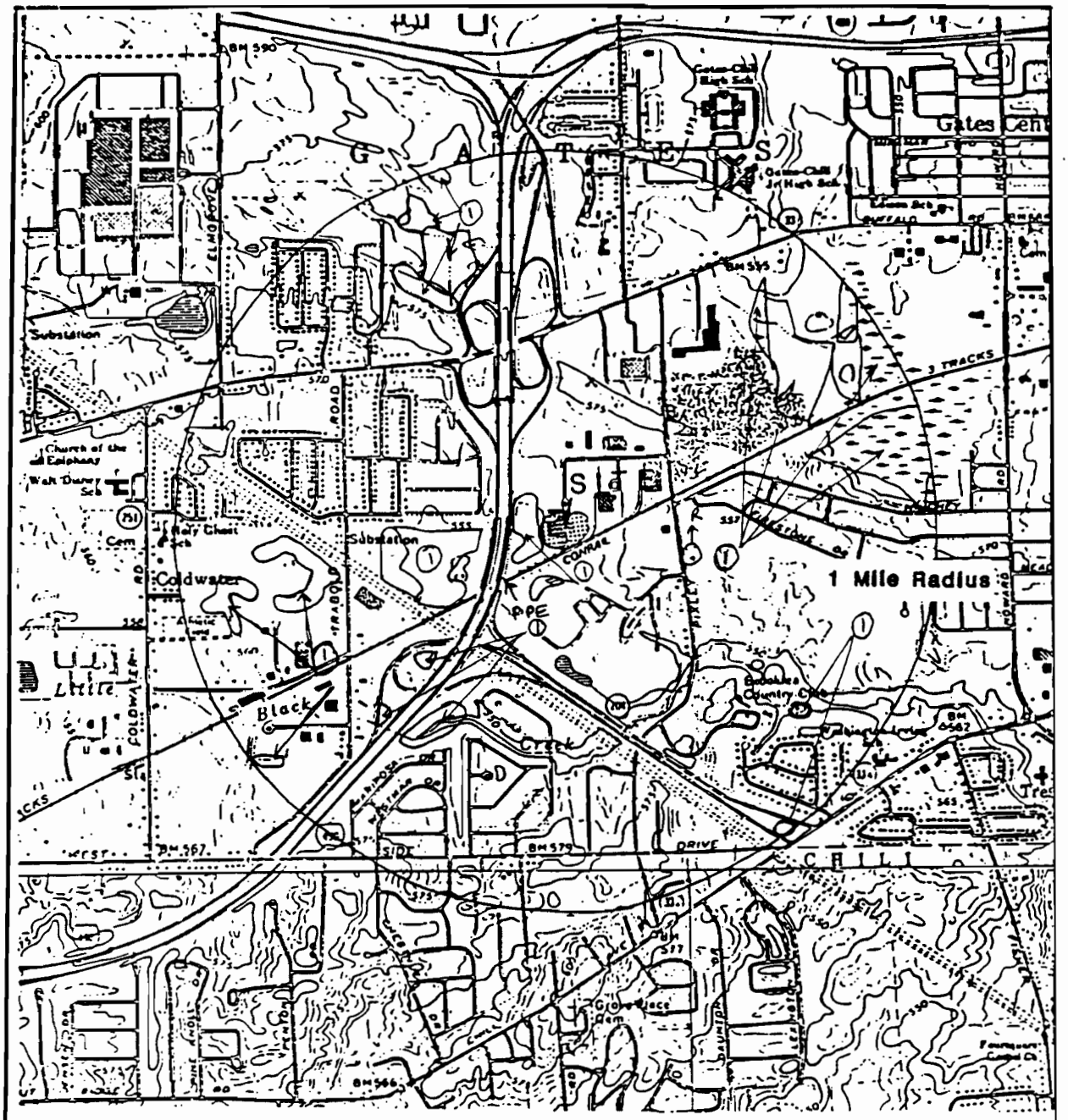
Erdle Perforating Company is located at 100 Pixley Industrial Parkway in the Town of Gates, Monroe County, New York (Figure 1). The site has a latitude of 43°08'20" and a longitude of 77°42'50" (Reference 1, p. 1 of 1; Reference 2, p. 1 of 1). To reach the site coming from downtown Rochester, take Interstate 490, (also known as Western Expressway) to Exit 7, Route 33, East. After traveling for less than a mile, turn north onto Pixley Road, Pixley Industrial Parkway. The site is located at the dead end of Pixley Industrial Parkway.

The climate of Monroe County is humid-continental. Winters are long and severe and summers are warm. In summer, the average daily maximum temperature varies from high 80s to low mid to upper 90s (°F), and in winter the average daily minimum is in the teens. (Reference 3, p. 2 of 7.)

2.2 Site Description

Erdle Perforating Company is located in a small industrial park in the Town of Gates, Monroe County, New York. There is one warehouse type building which is used for office, production and storage. There is a paved parking area in front of the building and grass on the remaining three sides. The site is bounded on the south by a railroad track, on the west by Interstate 490, and on the north and east by other industries. On the western property line a small drainage ditch flows south toward an unnamed stream, which flows under the railroad track and finally discharges into Little Black Creek. A wetland area is located just south of the site (Reference 4, p. 1 of 1).

Three underground storage tanks were removed from the site; one was suspected of leaking. The tank removal area was filled with clean soil and crusher run. During site reconnaissance there was no indication of stressed vegetation in the area of the tank removal. The tank removal area was not completely grass covered; some soil was visible through the grass. (Reference 4, p. 1 of 1.)



Source: USGS Map, Rochester West and West Henrietta Quadrangles, N.Y. 1978

0 1 MILE

0 1000 2000 3000 FEET

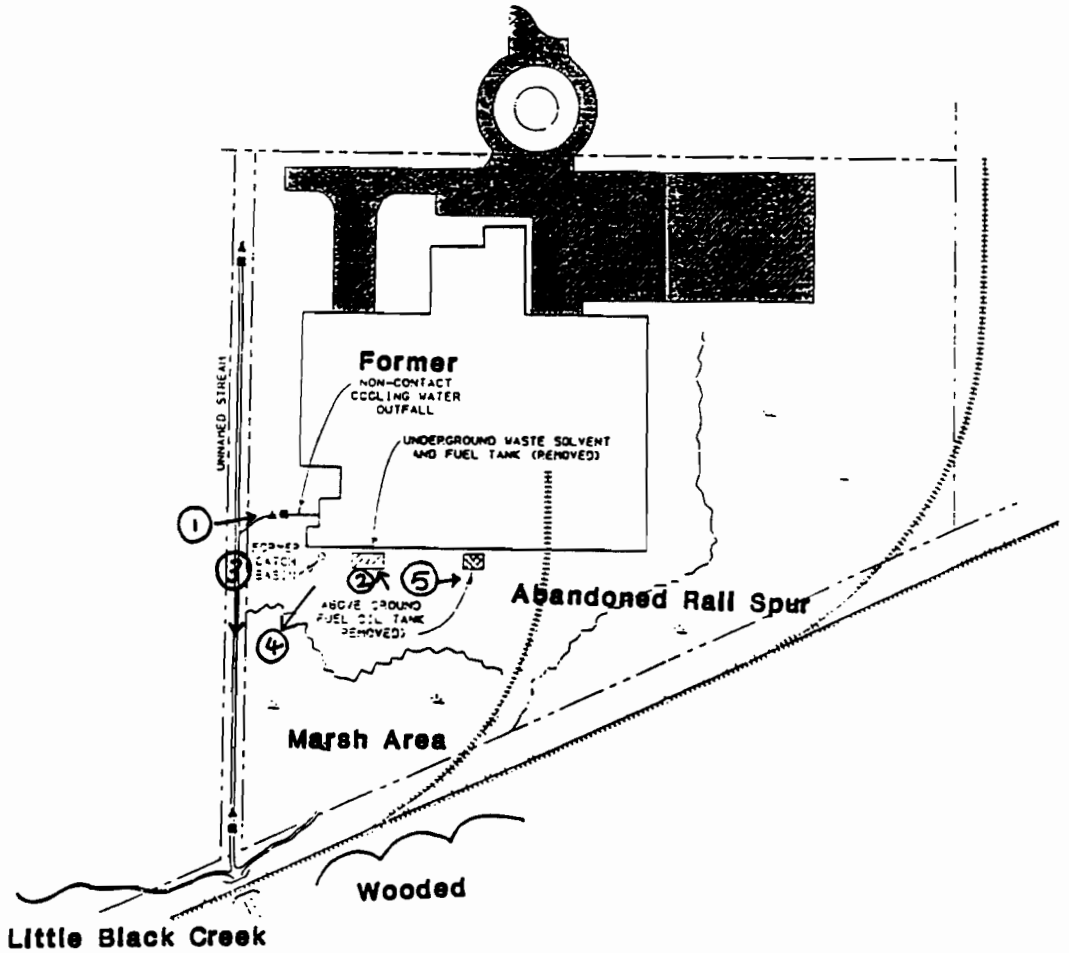
LEGEND:

(1) **Sensitive Environments** (WETLANDS)

(R) NEAREST RESIDENCE

NEW YORK

SITE LOCATION MAP ERDLE PERFORATING SITE ROCHESTER, NEW YORK	EBASCO ENVIRONMENTAL
	FIGURE 1



Photograph number & orientation

NOT TO SCALE

SITE SKETCH ERDLE PERFORATING GATES, NEW YORK	EBASCO ENVIRONMENTAL
	FIGURE 2

2.3 Operational History and Waste Characteristics

Erdle Perforating manufactures various kinds of perforated metal sheets. For perforating purposes lubricating agents are used. To enhance final product quality, trichloroethene (TCE) was formerly used as a degreasing agent in a vapor degreaser. Cooling water discharges from the vapor degreaser were formerly released to a drainage ditch on the west side of the building. The vapor degreaser is no longer in use. Used TCE was stored in a 2,000 gallon underground storage tank located outside the southwestern corner of the building. Adjacent to the TCE tank, there were two additional tanks, a waste cutting oil tank and a fresh oil tank (Reference 5, p. 1 of 21). In January 1987, American Environmental Services, Inc. emptied the TCE storage tank. Upon testing the waste, it was found to contain water. An integrity test conducted on the tank using air pressure, indicated that the tank was not tight, and that a release had most likely occurred (Reference 5, p. 2 of 2).

From January 6 to 9, 1987, Day Engineering conducted a soil and groundwater sampling program. Results indicated the presence of chloromethane, 1,1-dichloroethane, 1,1,1-tricholorethane (TCA), tetrachloroethane, 1,2-dichloroethene and trichloroethene in soil and groundwater samples obtained from hand auger borings near the TCE tank. The levels of contaminants in soil ranged from 14 ppb to 2,000 ppb. No contaminants were detected above the detection limits in a background soil sample. The levels of contaminants in the groundwater ranged from 62 ppb to 64,600 ppb. No contaminants were detected above the detection limits in the background groundwater sample (Reference 5, pp. 7, 8 of 21, 10, 11 of 21 and 18 of 21). The results of the sampling prompted the removal of the three tanks (Reference 5, p. 9 of 21).

In April 1987, American Environmental Services, Inc. removed the 2,000-gallon underground waste TCE tank, the 3,000-gallon underground waste oil tank, and the fresh oil tank. More than 120 cubic yards of soil and debris and 3,000 gallons of hazardous waste liquids were shipped off-site by hazardous waste manifest, with generator ID number NYD002206944 to Frontier Chemical Waste Process, Inc. and SCA Chemicals (Reference 6, pp. 15 to 21 of 21). Surface water and sediment samples were collected as part of the removal action and analyzed for volatile organic contaminants. Background samples of sediment and surface water indicated that no contaminants were present above the detection limit. Samples of the sediment and surface water immediately below the former cooling water discharge location contained TCE levels of 1,740 ppb and 750 ppb, respectively. Other contaminants detected included chloroform, 1,2-dichlorethene, and bromodichloromethane at levels ranging from 120 ppb to 1,390 ppb in sediment, and 1.3 ppb to 32 ppb in surface water (Reference 6, pp. 1 to 14 of 21). Chlorinated solvents were found at levels ranging from 6.3 ppb to 354,000 ppb in soil samples taken from the walls of the waste tank excavation (Reference 6, pp. 3 to 10 of 21).

In January 1988, Erdle Perforating was notified by New York State Department of Environmental Conservation (NYSDEC) that it had been placed on the Registry of Inactive Hazardous Waste Disposal Sites, as a Class 2 site which is defined as, "significant threat to human health or environment - action, required (Reference 7, p. 1-8 of 8)."

NYSDEC negotiated an Order on Consent with Erdle Perforating, in January 1990, to provide all information and reports to NYSDEC which had been obtained or completed to date, and to

begin the process of conducting a Remedial Investigation and Feasibility Study (RI/FS) (Reference 8, p. 1-22 of 22).

An RI/FS work plan was prepared and executed by O'Brien & Gere. The results of the RI/FS submitted by O'Brien & Gere to Erdle Perforating were rejected by Erdle Perforating. As a result Erdle Perforating hired Radian Corporation to develop a work plan for the RI/FS and to assist in the petition to reclassify the site on the NYSDEC Registry of Inactive Hazardous Waste Sites (Reference 9, p. 1 of 1).

3.0 GROUNDWATER PATHWAY

3.1 Hydrogeologic Setting

Geologic features in Monroe County date back to the Ice Age, which began a million years ago. The bedrock formation starting from the oldest to the youngest is as follows: Queenstone Shale, Medina Sandstone, Lockport Dolomite, Black Pittsford Shale, Red Vernon and Green Camillus Shale, Gray Ertie Waterlime and the Onondaga Limestone. Lockport Dolomite and Onondaga Limestone escarpments are good sources of water, but the water is hard. Casad loamy fine sand is most prominent in the area. In some areas this soil is underlain by compact impermeable glacial till. It is suited for commonly cultivated crops, and pasture and woodland (Reference 3, p. 6 of 6, 3 of 6).

A report by FACT Technical Service, Inc., on soil investigations at the Erdle Perforating site indicates that bedrock is approximately 10 to 12 feet deep, with groundwater depths of approximately 5 feet to 8 feet (Reference 10, p. 1-6 of 6). Shallow groundwater at the site was present between 7 inches and 11 inches below the ground surface during sampling in 1987 (Reference 5, p. 21 of 21). Although no site-specific information exists regarding groundwater flow direction, shallow groundwater underneath the site appears to discharge to the unnamed stream and to the wetland area immediately adjacent to the southwestern boundary of the site.

3.2 Groundwater Targets

Groundwater is not a primary source of water in the Rochester area of Monroe County. Within a 4-mile radius of the site, most residents are served by the Monroe County Water Authority, which obtains its water from an intake located in Lake Ontario (Reference 15, p. 1-2 of 2). Only 668 people rely on private wells for their water supply (Reference 14, p. 1-2 of 2; Reference 15, p. 1-2 of 2).

The nearest well is apparently located within the 0 to 0.25 mile radius, serving one person. Within the 0.25 to 0.5 mile radius there is 1 well serving two people. In the 0.5 to 1 mile radius, 16 people use six wells. The exact locations or depths of these wells are not known.

3.3 Groundwater Conclusions

Groundwater contamination by chlorinated solvents has been documented in the area of the former waste TCE tank. Groundwater flow direction appears to be towards the unnamed stream

and the wetland area south of the site. Groundwater supply wells are not expected to be adversely impacted by site related groundwater contamination.

4.0 SURFACE WATER PATHWAY

4.1 Hydrologic Setting

The site is located on relatively flat topography with site elevations ranging from 550 feet to 555 feet NGVD (Reference 16). The nearest surface water is located on site (Figure 2).

A drainage ditch located on the western perimeter of the Erdle Perforating site formerly received discharges of cooling water from the vapor degreaser. The ditch flows into an unnamed stream. The unnamed stream flows approximately 0.5 mile, passes under the railroad track, and joins Little Black Creek. Little Black Creek flows approximately 3.5 miles before it discharges into the Genesee River (Figure 2, Reference 16). The Genesee River flows from south to north and has an average discharge of 76.92 cubic meters per second (Reference 12, page 1 of 2).

4.2 Surface Water Targets

There are no drinking water intakes located within the 15-mile downstream pathway of the site (Reference 18). Most residents are served by drinking water supplied by the Monroe County Water Authority, which draws water from Lake Ontario outside of the 15-mile pathway (Reference 15, p. 1-2 of 2). The nearest wetland is located along the southwestern boundary of the site, in the path of the unnamed stream. Wetlands are located along the entire 15-mile surface water pathway (Reference 16). There are no endangered species listed for Monroe County. One unprotected plant, *Buchnera americana*, is located within one mile of the site and was last observed in 1897 (Reference 13, p. 1-3 of 3).

4.3 Surface Water Conclusions

Chlorinated solvents were detected above background in surface water samples from the drainage ditch on the Erdle Perforating site. Also, contaminated groundwater discharges to the unnamed stream and wetland area is suspected. Due to documented contamination in the drainage ditch and shallow groundwater, the unnamed stream, the wetland area south of the site and the Little Black Creek may be impacted by site related contamination.

5.0 SOIL EXPOSURE AND AIR PATHWAYS

5.1 Physical Conditions

At the time of site reconnaissance there were no signs of stressed vegetation. The tank removal area has been backfilled with clean soil and crusher run and was partially grass covered (Reference 4, p. 1 of 1). Contamination documented at the site is confined primarily to subsurface, i.e., in the walls of the tank removal area and groundwater (Reference 6, pp. 3-10 and 13, 14 of 21).

5.2 Soil and Air Targets

The site is in operation eight hours per day and there are 72 workers on the site (Reference 17, p. 1 of 1). There is no residence, school or daycare facility located on or within 200 ft. of the site. The nearest residence is approximately 2,000 feet west of the site (Reference 16). There are approximately 70 residences within 0.25 mile of the site. The total population within a 4-mile radius is 86,898 (Reference 14, p. 1-2 of 2). The nearest wetland is located near the southwestern property boundary and occupies approximately 6.5 acres (Reference 16).

5.3 Soil Exposure and Air Pathway Conclusions

Since the documented contamination is primarily confined to subsurface soil and groundwater, there is no suspected air release. The tank removal area is not currently used or accessed by the on-site worker population. The potential for exposure through the soil or air pathways is considered to be low.

6.0 SUMMARY AND CONCLUSIONS

The Erdle Perforating Company manufactures perforated metal sheets. TCE was formerly used as a degreasing agent to enhance the final product quality. Used TCE was stored in an underground storage tank which has been removed due to suspected leakage. Groundwater and soil contamination has been documented in the tank removal area. Vapor degreasing cooling water which may have contained TCE was released to a drainage ditch on the west side of the site. Surface water and sediment contamination has been documented in the ditch. Based on the documented presence of TCE in surface water, groundwater, sediment and soil and its possible effect on receptors, additional sampling of surface water and sediments in the unnamed stream and in Little Black Creek is recommended to determine if site related contamination is impacting these areas.

REFERENCES

1. United States Environmental Protection Agency, "Standard Operating Procedure to Determine Site Latitude and Longitude Coordinates", 1993. Calculation worksheet for Erdle Perforating Company.

2. Latitude and Longitude Document Record Form-taken from USGS Quadrangle, Rochester West.

3. United States Department of Agriculture, "Soil Survey of Monroe County, New York", 1973.

4. On-site Reconnaissance, Photodocumentation Log and Photographs, January 27, 1993.

5. Soil and Ground Water Sampling Report", Day Engineering, February 1987.

6. "Underground Tank and Soil Excavation", Day Engineering, July 1987.

7. Notice to site owners of inclusion of Site by NUSDEC in its list of Inactive Hazardous Waste Disposal Sites. January 1988.

8. "Order on Consent," Division of Environmental Enforcement, December 1992.

9. Letter to Valerie Morra, Sheladia Associates, from Michael Rick, Erdle Perforating, regarding current status of site, May 7, 1993.

10. "Boring Logs," Fact Technical Services, October 1969.

11. Letter to Valerie Morra, Sheladia Associates, from Michael Rick regarding site information, December 1992.

12. United States Geological Survey, "Water Resources Data, New York, Part 1", 1974.

13. Natural Heritage Program Database Report.

14. Frost Associates "Population Data", May 1993.

15. New York State Department of Health, Water Supply Maps, Monroe County, 1982.

16. Four Mile Radius Map, USGS Quadrangles Rochester West, West Henrietta, Spenceport, 1981.

17. Record of Phone Conversation between Vineet Bhanot & Michael Rick, January 29, 1983.

18. Figure 3 - 85 Mile Surface Water Pathway Sketch - Erdle Perforating.

REFERENCE 19

FROST ASSOCIATES

P.O.Box 495, Essex, Connecticut 06426
(203) 767-7644 FAX (203) 767-1971

August 11, 1995

To: Ebasco Services Inc.
P.O Box 661
Lyndhurst, New Jersey 07071

Attn: Edgar Aguado

Fr: Frost Associates
P.O. Box 495
Essex, Conn 06426

Tel: (203) 767-7644
Fax: (203) 767-1971

Sub: Erdle Perforating
Gates, NY

CERCLIS: NYD982531865

Job: 40015

Site Longitude: 77-42-50 77.713890
Site Latitude : 43-08-20 43.138889

The CENTRACTS report below identifies the population, households, and private water wells of each Block Group that lies within, or partially within, the 4, 3, 2, 1, .5, and .25, mile "rings" of the latitude and longitude coordinates above. CENTRACTS may have up to ten radii of any length. 1000 block groups, and 15000 block group sides.

CENTRACTS uses the 1990 Block Group population and Block Group house count data found in the Census Bureau's 1990 STF-1A files. The sources of water supply data are from the Bureau's 1990 STF-3A files. The boundary line coordinates of the Block Groups were extracted from the Census Bureau's 1990 TIGER/Line Files.

CENTRACTS reports are created with programs written by Frost Associates, P.O. Box 495, Essex, Conn. The code was written using Microsoft's Quick-Basic Ver. 4.5.

Latitude and Longitude coordinates identifying a site are entered in degrees and decimal degrees. One or more county files holding Block Group boundary lines are selected for use by CENTRACTS by determining whether the site coordinates fall within the minimum and maximum Lat\Lon coordinates of each county in the state.

Each Block Group line segment has Lat\Lon coordinates representing the "From" and "To" ends of that line. All coordinates from the selected county files are read and converted from degrees, decimal degrees to X\Y miles from the site location. Each line segment is then examined whether it lies within or partially within the maximum ring from the site.

The unique Block Group ID numbers of each line segment that lie within the maximum ring are retained. All Block Group boundary lines matching the Block Group numbers are then extracted from the respective county files to obtain all sides of the included Block Groups. Boundary records are then sorted in adjacent side order to determine the shape and area of each Block Group polygon.

A method to solve for the area of a polygon is to take one-half the sum of the pro-

ducts obtained by multiplying each X-coordinate by the difference between the adjacent Y-coordinates. For a polygon with coordinates at adjacent angles A, B, C, D, and E. The formula can be expressed:

Area = 1/2{Xa(Ye-Yb)+ Xb(Ya-Yb)+ Xc(Yb-Yd)+ Xd(Yc-Ye)+ Xe(Yd-Ya)}

For each ring, the selected Block Groups will be inside, outside, or intersected by the ring. When a polygon is intersected, the partial Block Group area within that ring is calculated using the method described below.

When a ring intersects a Block Group, the intersect points are solved and plotted at the points where the ring enters and exits the shape. The chord line, a line within the circle connecting the intersect points is determined. This chord line is used to calculate the segment area, the half moon shape between the chord line and the ring, and the sub-polygon created by the chord line and the Block Group boundaries that lie outside the ring.

The segment area is subtracted from the sub-polygon area to determine the area of the sub-polygon outside the ring. The area outside the ring is then subtracted from the area of the entire polygon to arrive at the inside area. This inside area is then divided by the tract's total area to determine the percentage of area within the ring. This process is repeated for each block group that is intersected by one of the rings. The total area, partial area, and percentage of partial area of those block groups within, or partially within a ring, are held in memory for the report.

On occasion, the algorithm described above is unable to determine the area of the partial area. Within the report program is a "Paint" routine which allows an enclosed shape to be highlighted. Another routine calculates the percentage of highlighted screen pixels to the pixels within the polygon. A manual entry is allowed. Both the "paint" method and manual entry method over ride the calculated method.

CENTRACTS lists, starting on page 4, all Block Groups in State, County, Census Tract, and Block Group ID order that lie within, or partially within, the maximum ring. Each Block Group is identified by a City or Town name and by the Block Group's State, County, Tract and Block Group ID number. Following is the Block Group's 1990 populu tion and house count extracted from the Census Bureau's 1990 STF-1A files.

The next four columns display water source data from the 1990 STF-3A files. The first column is "Units with Public system or private company source of water", followed by "Units with individual well, Drilled, source of water"; "Units with individual well, Dug, source of water" and "Units with Other source of water".

For each ring, CENTRACTS then shows the Block Groups that are within that ring, the Block Group's total area in square miles, the partial area of the Block Group within that ring, and the partial percentage within the ring. The areas of the included Block Group and the partial areas are then totaled.

The last section tallies the demographic data within each ring. The percentage of area for each Block Group is multiplied times the census data for that Block Group and totaled for all Block Group's within the ring. Ring totals are then determined by subtracting the three mile data from the four mile, the two mile from the three mile, one from the two, etc... Population on private wells is calculated using the formula: ((Drilled + Dug Wells) / Households) * Population

No.	City	Block Group ID	Blk Grp People	House Holds	Public Water	Drilled Wells	Dug Wells	Other
1	Rochester	36055 0018 4	9	4	4	0	0	0
2	Rochester	36055 0018 5	349	149	132	0	0	0
3	Rochester	36055 0024 3	795	308	299	0	0	0
4	Rochester	36055 0024 4	841	338	333	0	0	0
5	Rochester	36055 0024 5	684	335	345	0	0	0
6	Rochester	36055 0040 1	1216	458	460	0	0	0
7	Rochester	36055 0040 2	463	170	176	0	0	0
8	Rochester	36055 0062 1	1085	419	434	0	0	0
9	Rochester	36055 0062 2	1342	558	552	0	0	0
10	Rochester	36055 0062 3	785	358	349	0	0	0
11	Rochester	36055 0063 1	680	264	289	0	0	0
12	Rochester	36055 0063 2	1169	459	435	0	0	0
13	Rochester	36055 0063 3	632	211	206	0	0	0
14	Rochester	36055 0063 4	1020	332	336	0	0	0
15	Rochester	36055 0064 4	1308	542	562	0	0	0
16	Rochester	36055 0066 1	826	331	345	0	0	0
17	Rochester	36055 0066 2	1284	511	520	0	0	0
18	Rochester	36055 0067 1	999	364	364	0	0	0
19	Rochester	36055 0067 2	1171	438	437	0	0	0
20	Rochester	36055 0067 3	675	305	335	0	0	0
21	Rochester	36055 0067 4	506	168	139	0	0	0
22	Rochester	36055 0068 1	1527	654	661	0	0	0
23	Rochester	36055 0068 2	702	301	298	0	0	0
24	Rochester	36055 0068 3	589	261	257	0	0	0
25	Rochester	36055 0069 1	1145	579	546	0	0	0
26	Rochester	36055 0070 1	1445	544	539	0	0	9
27	Rochester	36055 0070 2	1057	454	446	0	0	0
28	Rochester	36055 0070 3	376	217	235	0	0	0
29	Rochester	36055 0070 4	339	151	138	0	0	0
30	Rochester	36055 0071 1	779	297	296	0	0	0
31	Rochester	36055 0071 2	731	276	291	0	0	0
32	Rochester	36055 0071 3	480	191	168	0	0	0
33	Rochester	36055 0071 4	738	288	261	0	0	0
34	Rochester	36055 0071 5	652	257	293	0	0	0
35	Rochester	36055 0075 1	653	385	379	0	0	0
36	Rochester	36055 0075 2	793	357	373	0	0	0
37	Rochester	36055 0075 3	1260	462	472	0	0	0
38	Rochester	36055 0075 4	451	179	159	0	0	0
39	Rochester	36055 0088 1	1142	511	501	0	0	0
40	Rochester	36055 0088 2	1168	544	560	0	13	0
41	Rochester	36055 0088 3	0	0	0	0	0	0
42	Rochester	36055 0089 9	0	0	0	0	0	0
43	Gates	36055 0144 1	1086	495	530	0	0	0
44	Gates	36055 0144 2	493	202	191	0	0	0
45	Gates	36055 0144 3	1022	471	457	0	0	0
46	Gates	36055 0144 4	1055	355	348	0	5	0
47	Gates	36055 0144 5	1047	447	439	0	0	0
48	Chili	36055 0146 1	554	191	185	0	0	0
49	Chili	36055 0146 2	251	85	86	0	0	0
50	Chili	36055 0146 9	3941	1389	1232	24	146	7
51	Rochester	36055 0038015	0	0	0	0	0	0
52	Rochester	36055 0087011	793	338	329	0	0	0
53	Rochester	36055 0087012	476	205	202	0	0	0
54	Rochester	36055 0087013	85	37	38	0	0	0
55	Rochester	36055 0087016	1174	492	482	0	0	0

56	Rochester	36055	0087017	880	427	449	0	0	0
57	Rochester	36055	0087018	89	41	35	0	0	0
58	Rochester	36055	0087023	180	76	80	0	0	0
59	Rochester	36055	0087024	771	242	230	0	0	0
60	Rochester	36055	0087025	594	283	277	0	0	0
61	Rochester	36055	0096013	534	259	281	0	0	0
62	Rochester	36055	0096014	535	238	246	0	0	0
63	Rochester	36055	0096021	916	393	386	0	0	0
64	Rochester	36055	0096022	383	160	148	0	0	0
65	Rochester	36055	0096023	880	380	369	0	0	0
66	Rochester	36055	0096031	447	186	171	0	0	0
67	Rochester	36055	0096032	594	241	243	0	0	0
68	Rochester	36055	0096033	564	233	249	0	0	0
69	Rochester	36055	0096034	421	174	180	0	0	0
70	Rochester	36055	0096035	627	275	270	0	0	0
71	Rochester	36055	0096041	966	392	389	0	0	0
72	Brighton	36055	0130011	2045	788	756	0	10	0
73	Henrietta	36055	0131039	5051	760	760	0	0	0
74	Greece	36055	0141022	3384	1137	1143	0	0	0
75	Greece	36055	0141043	378	165	163	0	0	0
76	Greece	36055	0141049	2929	948	953	5	13	0
77	Gates	36055	0142021	1043	340	321	0	0	0
78	Gates	36055	0142029	5100	1940	1950	0	9	0
79	Gates	36055	0142031	294	108	96	0	0	0
80	Gates	36055	0142032	445	152	134	0	0	0
81	Gates	36055	0142033	1830	627	604	0	8	0
82	Gates	36055	0142034	1955	801	778	0	0	0
83	Gates	36055	0142035	2092	914	982	0	0	0
84	Gates	36055	0142049	2742	926	926	0	0	0
85	Gates	36055	0143011	2876	1355	1400	0	0	0
86	Gates	36055	0143022	3268	1150	1103	0	0	0
87	Gates	36055	0143023	2235	849	851	0	0	0
88	Chili	36055	0145021	2293	850	845	0	6	0
89	Chili	36055	0145022	4268	1471	1496	0	0	0
90	Chili	36055	0145023	2160	615	589	0	0	0
91	Chili	36055	0145031	1366	503	517	0	7	0
92	Chili	36055	0145032	1699	619	594	0	24	0
93	Chili	36055	0145033	709	250	224	0	6	0
94	Chili	36055	0145041	245	130	170	0	0	0
95	Chili	36055	0145042	10	8	5	0	0	0
96	Chili	36055	0145043	211	73	77	0	0	0
97	Chili	36055	0145044	1113	383	377	0	0	0
98	Chili	36055	0145045	1214	419	405	0	6	0
99	Chili	36055	0145046	2920	915	888	0	0	0
100	Ogden	36055	0149041	1050	354	347	0	18	0
101	Ogden	36055	0149042	1060	371	363	0	0	0
102	Ogden	36055	0149043	5437	1917	1772	15	131	0
	Totals:			118646	44475	44036	44	402	16

City	Census Tract ID	Tract People	House Count	Public Water	Drilled Wells	Dug Wells	Other Sources
Brighton	36055 0130011	2045	788	756	0	10	0
	Sub Totals:	2045	788	756	0	10	0
Chili	36055 0145022	4268	1471	1496	0	0	0
Chili	36055 0145023	2160	615	589	0	0	0
Chili	36055 0145032	1699	619	594	0	24	0
Chili	36055 0145033	709	250	224	0	6	0
Chili	36055 0145041	245	130	170	0	0	0
Chili	36055 0145042	10	8	5	0	0	0
Chili	36055 0145043	211	73	77	0	0	0
Chili	36055 0145031	1366	503	517	0	7	0
Chili	36055 0145045	1214	419	405	0	6	0
Chili	36055 0146 1	554	191	185	0	0	0
Chili	36055 0145021	2293	850	845	0	6	0
Chili	36055 0146 9	3941	1389	1232	24	146	7
Chili	36055 0146 2	251	85	86	0	0	0
Chili	36055 0145044	1113	383	377	0	0	0
Chili	36055 0145046	2920	915	888	0	0	0
	Sub Totals:	22954	7901	7690	24	195	7
Gates	36055 0142029	5100	1940	1950	0	9	0
Gates	36055 0142033	1830	627	604	0	8	0
Gates	36055 0142031	294	108	96	0	0	0
Gates	36055 0142049	2742	926	926	0	0	0
Gates	36055 0143011	2876	1355	1400	0	0	0
Gates	36055 0142032	445	152	134	0	0	0
Gates	36055 0143023	2235	849	851	0	0	0
Gates	36055 0142034	1955	801	778	0	0	0
Gates	36055 0142035	2092	914	982	0	0	0
Gates	36055 0144 1	1086	495	530	0	0	0
Gates	36055 0144 2	493	202	191	0	0	0
Gates	36055 0143022	3268	1150	1103	0	0	0
Gates	36055 0144 4	1055	355	348	0	5	0
Gates	36055 0144 5	1047	447	439	0	0	0
Gates	36055 0142021	1043	340	321	0	0	0
Gates	36055 0144 3	1022	471	457	0	0	0
	Sub Totals:	28583	11132	11110	0	22	0
Greece	36055 0141022	3384	1137	1143	0	0	0
Greece	36055 0141049	2929	948	953	5	13	0
Greece	36055 0141043	378	165	163	0	0	0
	Sub Totals:	6691	2250	2259	5	13	0
Henrietta	36055 0131039	5051	760	760	0	0	0
	Sub Totals:	5051	760	760	0	0	0
Ogden	36055 0149042	1060	371	363	0	0	0
Ogden	36055 0149041	1050	354	347	0	18	0
Ogden	36055 0149043	5437	1917	1772	15	131	0
	Sub Totals:	7547	2642	2482	15	149	0

Rochester	36055 0024 3	795	308	299	0	0	0
Rochester	36055 0064 4	1308	542	562	0	0	0
Rochester	36055 0024 5	684	335	345	0	0	0
Rochester	36055 0040 1	1216	458	460	0	0	0
Rochester	36055 0024 4	841	338	333	0	0	0
Rochester	36055 0062 1	1085	419	434	0	0	0
Rochester	36055 0062 2	1342	558	552	0	0	0
Rochester	36055 0066 1	826	331	345	0	0	0
Rochester	36055 0066 2	1284	511	520	0	0	0
Rochester	36055 0067 1	999	364	364	0	0	0
Rochester	36055 0040 2	463	170	176	0	0	0
Rochester	36055 0018 5	349	149	132	0	0	0
Rochester	36055 0087011	793	338	329	0	0	0
Rochester	36055 0087012	476	205	202	0	0	0
Rochester	36055 0087013	85	37	38	0	0	0
Rochester	36055 0087016	1174	492	482	0	0	0
Rochester	36055 0087017	880	427	449	0	0	0
Rochester	36055 0087018	89	41	35	0	0	0
Rochester	36055 0087023	180	76	80	0	0	0
Rochester	36055 0062 3	785	358	349	0	0	0
Rochester	36055 0063 1	680	264	289	0	0	0
Rochester	36055 0063 2	1169	459	435	0	0	0
Rochester	36055 0063 3	632	211	206	0	0	0
Rochester	36055 0063 4	1020	332	336	0	0	0
Rochester	36055 0096022	383	160	148	0	0	0
Rochester	36055 0096023	880	380	369	0	0	0
Rochester	36055 0096031	447	186	171	0	0	0
Rochester	36055 0096032	594	241	243	0	0	0
Rochester	36055 0096033	564	233	249	0	0	0
Rochester	36055 0067 2	1171	438	437	0	0	0
Rochester	36055 0067 3	675	305	335	0	0	0
Rochester	36055 0087024	771	242	230	0	0	0
Rochester	36055 0087025	594	283	277	0	0	0
Rochester	36055 0096013	534	259	281	0	0	0
Rochester	36055 0096014	535	238	246	0	0	0
Rochester	36055 0096021	916	393	386	0	0	0
Rochester	36055 0018 4	9	4	4	0	0	0
Rochester	36055 0070 1	1445	544	539	0	0	9
Rochester	36055 0070 2	1057	454	446	0	0	0
Rochester	36055 0070 3	376	217	235	0	0	0
Rochester	36055 0070 4	339	151	138	0	0	0
Rochester	36055 0071 1	779	297	296	0	0	0
Rochester	36055 0071 2	731	276	291	0	0	0
Rochester	36055 0071 3	480	191	168	0	0	0
Rochester	36055 0071 4	738	288	261	0	0	0
Rochester	36055 0071 5	652	257	293	0	0	0
Rochester	36055 0075 1	653	385	379	0	0	0
Rochester	36055 0075 2	793	357	373	0	0	0
Rochester	36055 0075 3	1260	462	472	0	0	0
Rochester	36055 0075 4	451	179	159	0	0	0
Rochester	36055 0088 1	1142	511	501	0	0	0
Rochester	36055 0088 2	1168	544	560	0	13	0
Rochester	36055 0088 3	0	0	0	0	0	0
Rochester	36055 0089 9	0	0	0	0	0	0
Rochester	36055 0096034	421	174	180	0	0	0
Rochester	36055 0096035	627	275	270	0	0	0
Rochester	36055 0096041	966	392	389	0	0	0
Rochester	36055 0067 4	506	168	139	0	0	0
Rochester	36055 0068 1	1527	654	661	0	0	0
Rochester	36055 0068 2	702	301	298	0	0	0
Rochester	36055 0068 3	589	261	257	0	0	0

Rochester	36055	0069	1	1145	579	546	0	0	0
Rochester	36055	0038015		0	0	0	0	0	0
	Sub Totals:			45775	19002	18979	0	13	9

For Radius of 4 Mi., Circle Area = 50.265482

No.	City	Block Group ID	Total Area	Partial Area	% Within Radius
1	Rochester	36055 184	0.484324	0.142415	29.41
2	Rochester	36055 185	0.208098	0.054157	26.02
3	Rochester	36055 243	0.065307	0.036151	55.36
4	Rochester	36055 244	0.058507	0.001407	2.41
5	Rochester	36055 245	0.085114	0.000001	0.00
6	Rochester	36055 401	0.075109	0.026918	35.84
7	Rochester	36055 402	0.061783	0.061783	100.00
8	Rochester	36055 621	0.082851	0.082851	100.00
9	Rochester	36055 622	0.111749	0.111749	100.00
10	Rochester	36055 623	0.066112	0.066112	100.00
11	Rochester	36055 631	0.068768	0.068768	100.00
12	Rochester	36055 632	0.072048	0.072048	100.00
13	Rochester	36055 633	0.051119	0.051119	100.00
14	Rochester	36055 634	0.074290	0.074290	100.00
15	Rochester	36055 644	0.094380	0.064217	68.04
16	Rochester	36055 661	0.067193	0.021231	31.60
17	Rochester	36055 662	0.094118	0.032830	34.88
18	Rochester	36055 671	0.091616	0.091616	100.00
19	Rochester	36055 672	0.086213	0.086213	100.00
20	Rochester	36055 673	0.054659	0.054659	100.00
21	Rochester	36055 674	0.048293	0.048293	100.00
22	Rochester	36055 681	0.119377	0.119377	100.00
23	Rochester	36055 682	0.091440	0.091440	100.00
24	Rochester	36055 683	0.152686	0.152686	100.00
25	Rochester	36055 691	0.154331	0.036473	23.63
26	Rochester	36055 701	0.109465	0.109465	100.00
27	Rochester	36055 702	0.084084	0.084084	100.00
28	Rochester	36055 703	0.084455	0.060144	71.21
29	Rochester	36055 704	0.160016	0.152184	95.11
30	Rochester	36055 711	0.059988	0.059988	100.00
31	Rochester	36055 712	0.055562	0.055562	100.00
32	Rochester	36055 713	0.039196	0.039196	100.00
33	Rochester	36055 714	0.071759	0.071759	100.00
34	Rochester	36055 715	0.045071	0.045071	100.00
35	Rochester	36055 751	0.067234	0.067234	100.00
36	Rochester	36055 752	0.064330	0.064330	100.00
37	Rochester	36055 753	0.083013	0.083013	100.00
38	Rochester	36055 754	0.106941	0.106941	100.00
39	Rochester	36055 881	0.154984	0.127241	82.10
40	Rochester	36055 882	0.379595	0.353707	93.18
41	Rochester	36055 883	0.246486	0.246486	100.00
42	Rochester	36055 899	1.248448	1.248448	100.00
43	Gates	36055 1441	0.907463	0.907463	100.00
44	Gates	36055 1442	0.599591	0.599591	100.00
45	Gates	36055 1443	0.409856	0.409856	100.00
46	Gates	36055 1444	0.466268	0.466268	100.00
47	Gates	36055 1445	1.034514	1.034514	100.00
48	Chili	36055 1461	0.375456	0.375456	100.00
49	Chili	36055 1462	1.738034	0.167128	9.62
50	Chili	36055 1469	18.984875	6.627711	34.91
51	Rochester	36055 38015	1.126794	0.958850	85.10
52	Rochester	36055 87011	0.114017	0.114017	100.00
53	Rochester	36055 87012	0.103728	0.103728	100.00

54	Rochester	36055 87013	0.008314	0.008314	100.00
55	Rochester	36055 87016	0.256276	0.256276	100.00
56	Rochester	36055 87017	0.153806	0.153806	100.00
57	Rochester	36055 87018	0.747633	0.747633	100.00
58	Rochester	36055 87023	0.093554	0.093554	100.00
59	Rochester	36055 87024	0.365621	0.365621	100.00
60	Rochester	36055 87025	0.477738	0.477738	100.00
61	Rochester	36055 96013	0.054823	0.027377	49.94
62	Rochester	36055 96014	0.058660	0.001847	3.15
63	Rochester	36055 96021	0.133608	0.085458	63.96
64	Rochester	36055 96022	0.073413	0.073413	100.00
65	Rochester	36055 96023	0.084258	0.041096	48.77
66	Rochester	36055 96031	0.034671	0.002128	6.14
67	Rochester	36055 96032	0.041475	0.036974	89.15
68	Rochester	36055 96033	0.049089	0.049089	100.00
69	Rochester	36055 96034	0.128929	0.119211	92.46
70	Rochester	36055 96035	0.058756	0.058756	100.00
71	Rochester	36055 96041	0.078728	0.033537	42.60
72	Brighton	36055 130011	2.175531	1.152775	52.99
73	Henrietta	36055 131039	2.304259	0.289876	12.58
74	Greece	36055 141022	1.190783	0.319417	26.82
75	Greece	36055 141043	1.446896	1.226529	84.77
76	Greece	36055 141049	4.549695	2.824254	62.08
77	Gates	36055 142021	0.252915	0.252915	100.00
78	Ogden	36055 149043	7.630281	5.343772	70.03
79	Gates	36055 142031	0.043903	0.043903	100.00
80	Gates	36055 142032	0.076007	0.076007	100.00
81	Gates	36055 142033	0.453381	0.453381	100.00
82	Gates	36055 142034	0.365728	0.365728	100.00
83	Gates	36055 142035	0.618298	0.618298	100.00
84	Gates	36055 142049	1.368080	1.368080	100.00
85	Gates	36055 143011	1.063295	1.063295	100.00
86	Gates	36055 143022	1.100088	1.100088	100.00
87	Gates	36055 143023	0.847961	0.847961	100.00
88	Chili	36055 145021	0.883315	0.883315	100.00
89	Chili	36055 145022	2.536774	1.753032	69.10
90	Chili	36055 145023	1.097996	0.005544	0.50
91	Chili	36055 145031	0.310507	0.310507	100.00
92	Chili	36055 145032	0.716038	0.716038	100.00
93	Chili	36055 145033	0.271099	0.271099	100.00
94	Chili	36055 145041	0.416820	0.416820	100.00
95	Chili	36055 145042	0.412740	0.412740	100.00
96	Chili	36055 145043	0.392603	0.392603	100.00
97	Chili	36055 145044	0.488035	0.488035	100.00
98	Chili	36055 145045	0.333940	0.333940	100.00
99	Chili	36055 145046	1.457651	1.457651	100.00
100	Ogden	36055 149041	1.800126	0.019332	1.07
101	Ogden	36055 149042	2.495590	1.297591	52.00
102	Gates	36055 142029	5.278855	5.278855	100.00
	Totals:		78.819237	50.403442	

For Radius of 3 Mi., Circle Area = 28.274334

No.	City	Block Group ID	Total Area	Partial Area	% Within Radius
9	Rochester	36055 622	0.111749	0.057016	51.02
10	Rochester	36055 623	0.066112	0.066029	99.87

22	Rochester	36055 681	0.119377	0.072589	60.81
23	Rochester	36055 682	0.091440	0.016400	17.94
24	Rochester	36055 683	0.152686	0.152048	99.58
37	Rochester	36055 753	0.083013	0.014843	17.88
38	Rochester	36055 754	0.106941	0.008657	8.10
41	Rochester	36055 883	0.246486	0.033180	13.46
42	Rochester	36055 899	1.248448	1.130732	90.57
43	Gates	36055 1441	0.907463	0.907463	100.00
44	Gates	36055 1442	0.599591	0.574454	95.81
45	Gates	36055 1443	0.409856	0.409856	100.00
46	Gates	36055 1444	0.466268	0.466268	100.00
47	Gates	36055 1445	1.034514	1.034514	100.00
50	Chili	36055 1469	18.984875	2.275311	11.98
55	Rochester	36055 87016	0.256276	0.001007	0.39
56	Rochester	36055 87017	0.153806	0.052915	34.40
57	Rochester	36055 87018	0.747633	0.528664	70.71
59	Rochester	36055 87024	0.365621	0.355094	97.12
60	Rochester	36055 87025	0.477738	0.412217	86.29
72	Brighton	36055 130011	2.175531	0.020286	0.93
75	Greece	36055 141043	1.446896	0.056382	3.90
76	Greece	36055 141049	4.549695	0.305917	6.72
77	Gates	36055 142021	0.252915	0.149544	59.13
78	Ogden	36055 149043	7.630281	2.327059	30.50
79	Gates	36055 142031	0.043903	0.043903	100.00
80	Gates	36055 142032	0.076007	0.076007	100.00
81	Gates	36055 142033	0.453381	0.453381	100.00
82	Gates	36055 142034	0.365728	0.365728	100.00
83	Gates	36055 142035	0.618298	0.618298	100.00
84	Gates	36055 142049	1.368080	1.368080	100.00
85	Gates	36055 143011	1.063295	1.032245	97.08
86	Gates	36055 143022	1.100088	1.100088	100.00
87	Gates	36055 143023	0.847961	0.847961	100.00
88	Chili	36055 145021	0.883315	0.782986	88.64
89	Chili	36055 145022	2.536774	0.413363	16.29
91	Chili	36055 145031	0.310507	0.310507	100.00
92	Chili	36055 145032	0.716038	0.716038	100.00
93	Chili	36055 145033	0.271099	0.271099	100.00
94	Chili	36055 145041	0.416820	0.103346	24.79
95	Chili	36055 145042	0.412740	0.409928	99.32
96	Chili	36055 145043	0.392603	0.392603	100.00
97	Chili	36055 145044	0.488035	0.488035	100.00
98	Chili	36055 145045	0.333940	0.333940	100.00
99	Chili	36055 145046	1.457651	1.457651	100.00
101	Ogden	36055 149042	2.495590	0.064589	2.59
102	Gates	36055 142029	5.278855	5.196115	98.43
	Totals:		64.615913	28.274334	

For Radius of 2 Mi., Circle Area = 12.566371

No.	City	Block Group ID	Total Area	Partial Area	% Within Radius
43	Gates	36055 1441	0.907463	0.679653	74.90
44	Gates	36055 1442	0.599591	0.184840	30.83
45	Gates	36055 1443	0.409856	0.394263	96.20
46	Gates	36055 1444	0.466268	0.466268	100.00
47	Gates	36055 1445	1.034514	1.034514	100.00
82	Gates	36055 142034	0.365728	0.127859	34.96

83	Gates	36055 142035	0.618298	0.171597	27.75
84	Gates	36055 142049	1.368080	1.368080	100.00
85	Gates	36055 143011	1.063295	0.028690	2.70
86	Gates	36055 143022	1.100088	0.615790	55.98
87	Gates	36055 143023	0.847961	0.846211	99.79
88	Chili	36055 145021	0.883315	0.032591	3.69
91	Chili	36055 145031	0.310507	0.310507	100.00
92	Chili	36055 145032	0.716038	0.664467	92.80
93	Chili	36055 145033	0.271099	0.055778	20.57
96	Chili	36055 145043	0.392603	0.281490	71.70
97	Chili	36055 145044	0.488035	0.335724	68.79
98	Chili	36055 145045	0.333940	0.054045	16.18
99	Chili	36055 145046	1.457651	1.081227	74.18
102	Gates	36055 142029	5.278855	3.832778	72.61
	Totals:		18.913185	12.566371	

For Radius of 1 Mi., Circle Area = 3.141593

No.	City	Block Group ID	Total Area	Partial Area	% Within Radius
46	Gates	36055 1444	0.466268	0.245638	52.68
47	Gates	36055 1445	1.034514	0.764937	73.94
84	Gates	36055 142049	1.368080	0.443244	32.40
87	Gates	36055 143023	0.847961	0.139579	16.46
91	Chili	36055 145031	0.310507	0.062965	20.28
102	Gates	36055 142029	5.278855	1.485231	28.14
	Totals:		9.306185	3.141593	

For Radius of .5 Mi., Circle Area = 0.785398

No.	City	Block Group ID	Total Area	Partial Area	% Within Radius
46	Gates	36055 1444	0.466268	0.000195	0.04
47	Gates	36055 1445	1.034514	0.145927	14.11
84	Gates	36055 142049	1.368080	0.000218	0.02
102	Gates	36055 142029	5.278855	0.639059	12.11
	Totals:		8.147717	0.785398	

For Radius of .25 Mi., Circle Area = 0.196350

No.	City	Block Group ID	Total Area	Partial Area	% Within Radius
102	Gates	36055 142029	5.278855	0.196350	3.72
	Totals:		5.278855	0.196350	

========== Site Data ==========

Population:	91544.25
Households:	35355.87
Drilled Wells:	21.99
Dug Wells:	239.39
Other Water Sources:	11.44

========== Partial (RING) data ==========

---- Within Ring: 4 Mile(s) and 3 Mile(s) ----

Population:	44149.66
Households:	17299.75
Drilled Wells:	14.20
Dug Wells:	110.79
Other Water Sources:	10.60

** Population On Private Wells: 318.99

---- Within Ring: 3 Mile(s) and 2 Mile(s) ----

Population:	25045.39
Households:	9749.69
Drilled Wells:	7.79
Dug Wells:	85.36
Other Water Sources:	0.84

** Population On Private Wells: 239.28

---- Within Ring: 2 Mile(s) and 1 Mile(s) ----

Population:	18051.06
Households:	6701.30
Drilled Wells:	0.00
Dug Wells:	36.65
Other Water Sources:	0.00

** Population On Private Wells: 98.72

---- Within Ring: 1 Mile(s) and .5 Mile(s) ----

Population:	3532.17
Households:	1306.92
Drilled Wells:	0.00
Dug Wells:	5.49
Other Water Sources:	0.00

** Population On Private Wells: 14.85

---- Within Ring: .5 Mile(s) and .25 Mile(s) ----

Population:	576.28
Households:	226.05
Drilled Wells:	0.00
Dug Wells:	0.76
Other Water Sources:	0.00

** Population On Private Wells: 1.93

---- Within Ring: .25 Mile(s) and 0 Mile(s) ----

Population:	189.70
Households:	72.16
Drilled Wells:	0.00
Dug Wells:	0.33
Other Water Sources:	0.00

** Population On Private Wells: 0.88

** Total Population On Private Wells: 674.65

REFERENCE 20

MEMORANDUM

TO: File DATE: September 14, 1995

FROM: Katherine Galanti

RE: Water Use in the Town of Gates

The CENTRACTS report prepared by Frost Associates shows private groundwater wells being used in the Towns of Brighton, Chili, Gates, Greece, and Ogden. Based on discussions with Louise Hartschorn of the Monroe County Environmental Management Council and information obtained from the draft Remedial Investigation report for the Erdle site prepared by Radian Corp. and the public water service map from Monroe County Clean Waters, there are no private drinking water wells in use within the Town of Gates. This data contradicts the CENTRACTS report (Frost Associates), but represents the current status of the area. Therefore, the following calculations have been prepared to determine the actual number of people using groundwater within four miles of the Erdle site.

Based on the CENTRACTS report, households in three block groups have wells as follows:

Block Group	Households with Wells	Population/# Houses	Popul.
36055-0144-4 (#46)	5	1055/355	15
36055-0142033(#81)	8	1830/627	23
36055-0142029 (#102)	9	5100/1940	24

The Block Groups are divided among the following radii:

Block Group	0-0.25 mi.	0.25-0.5 mi.	0.5-1 mi.	1-2 mi.	2-3 mi.	3-4 mi.
#46	--	0.04%	52.64%	47.32%	--	--
#81	--	--	--	--	100%	
#102	3.72%	8.39%	16.03%	44.47%	25.82%	1.57%

By multiplying the total population for each block group by the percentage of the block group in each radius ring, we can obtain the number of people from the Town of Gates in each radius ring. As a result, the following adjustments should be made to the populations within each radius ring.

	0-0.25 mi.	0.25-0.5 mi.	0.5-1 mi.	1-2 mi.	2-3 mi.	3-4 mi.
CENTRACTS Population	0.88	1.93	14.85	98.72	239.28	318.99
- Town of Gates Population	0.88	1.93	11.74	17.77	29.20	0.38
Actual Popul. on Groundwater	0	0	3.11	80.95	210.08	318.61

Once we subtract the number of people living in the Town of Gates, the total population using groundwater within a four-mile radius of the site is 612.75, rounded to 613 people.

REFERENCE 21

REFERENCE # 21

PAGE 1 OF 1

WE

Record of Telephone Call

Grand Island Regional Office

Project No. 5 5 9 4 0 0 1

Date 9/12/95 Time 1:00 pm

Page 1 of 1

Project Erdle Corporation SSI Client CBASCO

Subject Sampling of Residential Wells

Call (to) (from) Monroe Co. Dept of Health (Company) Telephone No. (716) 274-6904

Discussion between Joseph Albert (of Company) and Kathy Falanto (of Wehran)

Details of Call Called Joe Albert at Monroe Co. DOH to get copies of sampling results from residential wells in the vicinity of Erdle Perforating as per his May 1995 letter to Eastman Corp. He said that the sampling referred to in his letter was for bacteria only, not volatile organics. In addition, this was sampling conducted historically at the request of the homeowners. Since public water is available to the area, many of the wells may be out of service. The public water is provided from Monroe Co. and is obtained from intakes in Lake Ontario.

Therefore there has been no sampling of private wells by DOH for VOCs or other parameters as a result of the Erdle site. Additionally, DOH does not maintain records on the depths of private wells. There is no information available describing from which "aquifer" the wells obtain water.

Action Required

Copies to (1) file (2) (3) (4)

Circulation to (1) (2) (3) (4) (5) (6) (7) (8) File

REFERENCE 22

REFERENCE # 22
PAGE 1 OF 1

WE

Record of Telephone Call
Grand Island Regional Office

Project No. 5 5 9 4 0 0 1
Date 9/13/95 Time 10:50am
Page 1 of 1

Project Cridle Perforating SS1 Client CBASCO/USEPA
Subject Groundwater use
Call (to) (from) Monroe Co. Env. Mgmt. Council (Company) Telephone No. (716) 274-8317
Discussion between Louise Hartschorn (of Company) and Kathy Galanti (of Wehran)

Details of Call Asked L.H. if she had any information on groundwater use in the area around Cridle Perforating. She said that the Town of Gates is now completely on public water. There still is the use of private wells in the Towns of Chili and Ogden. No sampling was ever conducted with regard to VOCs in relation to the Cridle site.

There is no well-head protection area in Monroe County.

Groundwater is not used as a resource in the area.

Action Required

Copies to (1) file
(2)
(3)
(4)

Circulation to (1) (5)
(2) (6)
(3) (7)
(4) (8) File

REFERENCE 23

New York State Atlas of Community Water System Sources 1982

NEW YORK STATE DEPARTMENT OF HEALTH
DIVISION OF ENVIRONMENTAL PROTECTION
BUREAU OF PUBLIC WATER SUPPLY PROTECTION

GENESEE COUNTY

ID NO	COMMUNITY WATER SYSTEM	POPULATION	SOURCE
	Municipal Community		
1	Batavia City	16703.	Tonawanda Creek, Wells
2	Bergen Village	1040.	Wells
3	Corfu Village	760.	Wells
4	Elba Village	805.	Wells
5	Leroy Village (See also No 7 Wyoming Co, Page 10)	100.	Lake Leroy
6	Oaks Subdivision	70.	Wells
7	Pavilion Water District #1	560.	Wells
8	South Alabama	50.	Wells
	Non Municipal Community		
9	Antones Trailer Park	56.	Wells
10	Apple Grove Trailer Park	98.	Wells
11	Boulder Trailer Park	24.	Wells
12	Broadway Acres	40.	Wells
13	Chapells Trailer Park	60.	Wells
14	Del-Mar Trailer Park	NA.	Wells
15	Elmwood Trailer Park	21.	Wells
16	Godfreys Pond	40.	Wells
17	Golden Mobile Home Park	54.	Wells
18	Happy Hollow Trailer Court	15.	Wells
19	Harris Apartments	30.	Wells
20	Hei-Ken Apartments	NA.	Wells
21	Huskey's Trailer Court	20.	Wells
22	Schoolhouse Apartments	18.	Wells
23	Valley View Trailer Park	52.	Wells
24	Weaver Trailer Park	NA.	Wells
25	Willard Apartments	30.	Wells

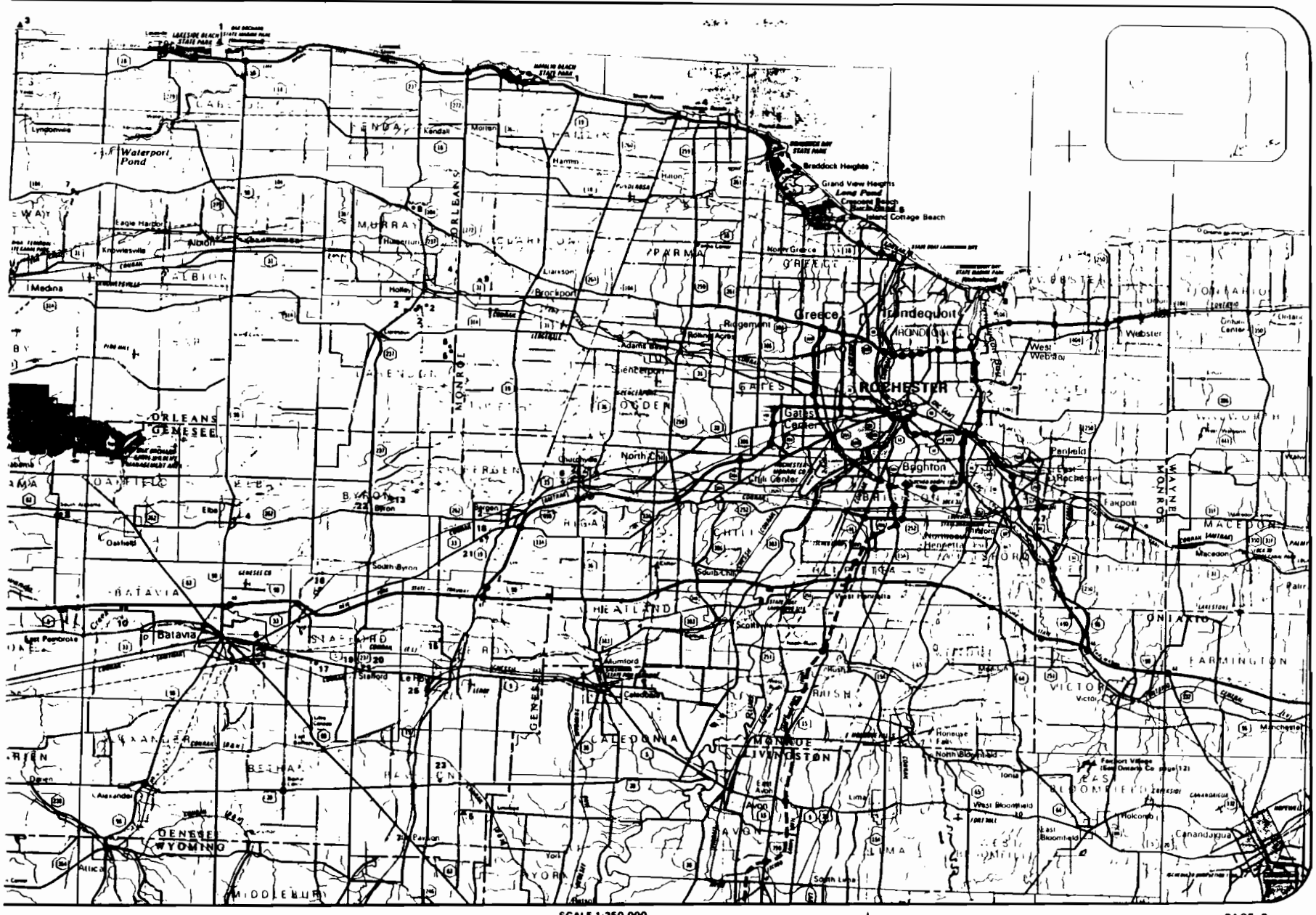
MONROE COUNTY

ID NO	COMMUNITY WATER SYSTEM	POPULATION	SOURCE
	Municipal Community		
1	Brockport Village	10000.	Lake Ontario
2	Churchville Village	1500.	Wells
3	East Rochester Village	8000.	Wells
	Fairport Village (See No 4 Ontario Co, Page 12)	8800	
4	Hilton Village	5000.	Lake Ontario
5	Monroe County Water Authority	150000.	Lake Ontario
6	Park Road Extension	10.	Wells
7	Pittsford Village	3500.	Wells
	Rochester City (See No 11 Livingston Co, Page 10 and No 13 Ontario Co, Page 12)	225000	
8	Webster Village	35000.	Wells
	Non Municipal Community		
9	John B. Martin & Sons Trailer Park	250.	Wells

ORLEANS COUNTY

ID NO	COMMUNITY WATER SYSTEM	POPULATION	SOURCE
	Municipal Community		
1	Albion Village	5800	Lake Ontario
2	Holley Village	2100.	Wells
3	Lyndonville Village	1100.	Lake Ontario
	Non Municipal Community		
4	County Line Mobile Home Park	NA.	Wells
5	Hovey's Trailer Court	30.	Wells
6	Maples Trailer Park	20.	Wells
7	Oak Orchard Mobile Homes	35.	Wells
8	Ridge Mobile Estates, Inc.	120.	Wells

REFERENCE # 23
PAGE 2 OF 2



REFERENCE # 23
PAGE 3 OF 7

LIVINGSTON COUNTY

ID NO	COMMUNITY WATER SYSTEM	POPULATION	SOURCE
Municipal Community			
1	Avon Village	3357	Conesus Lake
2	Caledonia Village	2400	Wells
3	Canaseraga Village (See also No 8 Allegany Co, Page 14)		Wells (Springs)
4	Dansville Village (See also No 9 Steuben Co, Page 16)	5500	Reservoirs
5	Eagle Point Water Supply	40	Conesus Lake
6	Geneseo Village	6000	Conesus Lake, Reservoirs
7	Groveland Station Water Company	300	Wells
8	Lakeville Water District	2400	Conesus Lake
9	Lima Village	2000	Wells
	Mount Morris Village (See No 8, Wyoming Co)	3400	
10	Nunda Village	1300	Newville Creek Reservoir
11	Rochester City (Monroe Co, Page 8)		Hemlock Lake
12	Springwater Water District	285	Wells
Non Municipal Community			
13	Alpine Manor Home for Adults	36	Wells
14	Barefoot Mobile Home Park	81	Wells
15	Caledonia Mobile Home Park	300	Wells
16	Country Corners Court	81	Wells
17	Craig Development Center	1700	Keshequa Creek, Wells
18	Creekside Park	198	Wells
19	Culver Manor Mobile Home Park	34	Wells
20	Dansville Trailer Center	30	Wells
21	Meadowlark Mobile Manor	174	Wells
22	Parkway Mobile Home Park	111	Wells
23	Pine Tree Mobile Home Park	39	Wells
24	Stone Hill Mobile Home Park	10	Wells
25	Sunny Shores Campground	138	Wells
26	Valley View Mobile Home Park	66	Wells

WYOMING COUNTY

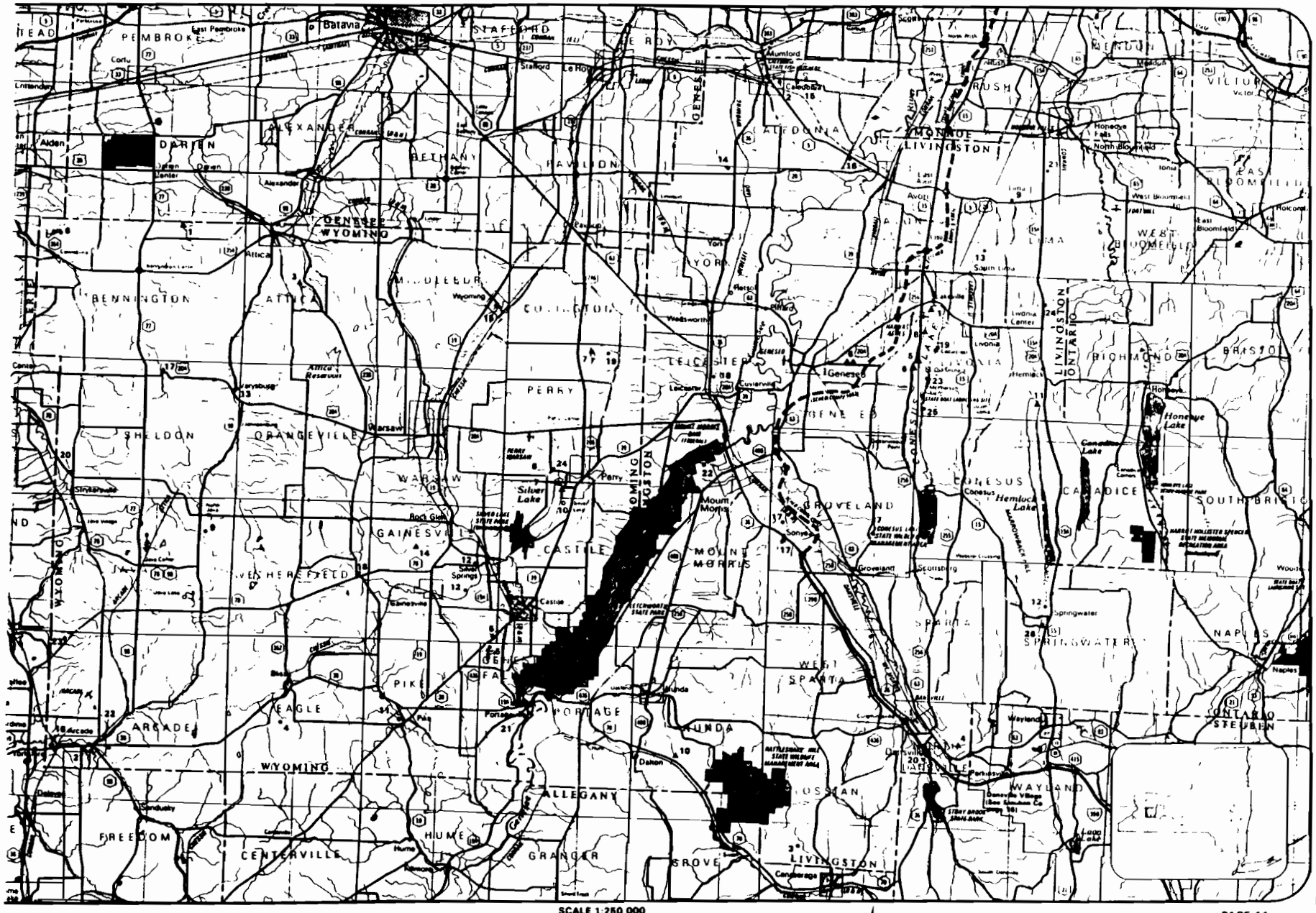
ID NO	COMMUNITY WATER SYSTEM	POPULATION	SOURCE
Municipal Community			
1	Akron Village (See Erie Co, Pg. 6)		Akron Reservoir
2	Arcade Village (See also No 2 Cattaraugus Co, Page 4)	2052	Wells
3	Attica Village	2643	Crow Creek Reservoir
4	Bliss Water Supply	364	Wells
5	Castile Village	1135	Wells
6	Highland Glens	91	Wells
7	LeRoy Village (Genesee County Pg. 8)		Lake LaGrange, Silver Lake
8	Mt. Morris Village (Livingston Co, Pg 10)		Silver Lake
9	North Java Water District	295	Wells
10	Perry Village	3501	Silver Lake
11	Pike Village Water Supply	367	Wells
12	Silver Springs Village	801	Wells
13	Varysburg Water District #1	310	Wells
14	Warsaw Village	3594	Oatka Creek
15	Wyoming Public Water Supply	507	Wells
Non Municipal Community			
16	Birchwood Court	80	Wells
17	Buffalo Hill Trailer Park	65	Wells
18	Hermitage Meadows Mobile Home Park	48	Wells
19	Hilltop Acres Inc	42	Wells
20	Hogan's Apartments	40	Wells
21	Letchworth Court Mobile Home	42	Wells
22	Open Gate Trailer Court	51	Wells
23	Triton Valley Estates	231	Wells
24	West Lake Apartments	35	Wells

REFERENCE # 23
PAGE 4 OF 7

NEW YORK STATE DEPARTMENT OF HEALTH
DIVISION OF ENVIRONMENTAL PROTECTION
BUREAU OF PUBLIC WATER SUPPLY PROTECTION

N OF COMMUNITY WATER SYSTEM SOURCES-1982

LIVINGSTON and WYOMING COUNTIES



SCALE 1:250,000

5 0 5 MILES

NORTH

PAGE 11

REFERENCE # 23
PAGE 5 OF 7

ONTARIO COUNTY

ID NO	COMMUNITY WATER SYSTEM	POPULATION	SOURCE
Municipal Community			
1	Canandaigua City	11000	Canandaigua Lake
2	Clifton Springs Village	2175	Wells (Springs)
3	East Bloomfield Village	625	Wells
4	Fairport Village (Monroe Co, Page 8)		Sucker and Great Brook Reservoirs
	Geneva City (See No 1 Seneca Co, Page 24)	15000	
5	Gorham Town Water District	3600	Canandaigua Lake
6	Holcomb Village	951	Wells (Springs)
7	Honeoye Water District #1	NA	Wells
8	Manchester Village	1640	Wells (Springs)
9	Naples Village (See also No 15 Steuben Co, Page 16)	1448	Wells (Spring-fed Eelpot and Blodgett Reservoirs)
10	Newark Village (Wayne Co, Page 26)		Canandaigua Lake, Wells
11	Palmyra Village (Wayne Co, Page 26)		Canandaigua Lake
12	Phelps Village	2200	Wells (Springs)
13	Rochester City (Monroe Co, Page 8)		Canadice Lake
14	Rushville Village	600	Canandaigua Lake
15	Shortsville Village	1700	Wells
16	Victor Village	2500	Wells (Springs)
17	West Lake Road (Geneva Water District #2)	2600	Wells
Non Municipal Community			
18	Bristol Harbour Village	375	Canandaigua Lake
19	Bristol Valley Mobile Park	79	Wells
20	Clifton Springs Hospital & Clinic	540	Wells
21	Cornelius Mobile Home Park	NA	Wells
22	Country Colony Estates	NA	Wells
23	Country Manor Trailer Park	52	Wells
24	Country Side Park	22	Wells
25	Fort Hill Development Corporstion	60	Wells
26	Hessney Trailer Park	52	Wells
27	Honeoye Valley Mobile Home Park Inc	150	Wells
28	Idlewood Manor Mobile Home Park	100	Wells
29	L.W. Bennett & Sons Mobile Home Park	NA	Wells
30	Oak Grove Mobile Home Park	80	Wells
31	Outlet Road Mobile Home Park	80	Wells
32	Picture Book Park	217	Wells
33	Ridley Road Trailer Park	23	Wells
34	Riverside Park Section #1	50	Wells
35	Riverside Park #2	45	Wells
36	Rock Haven Mobile Manor	150	Wells
37	Taylor Apartments	NA	Wells
38	Willow Creek Estates	102	Wells
39	Woodworth Mobile Home Court	70	Wells

YATES COUNTY

ID NO	COMMUNITY WATER SYSTEM	POPULATION	SOURCE
Municipal Community			
1	Dundee Village	1151	Wells
2	Himrod Water District	90	Wells (Springs)
3	Keuka Park Water District	1000	Keuka Lake
4	Penn Yan Village	5700	Keuka Lake
Non Municipal Community			
5	Acorn Valley, Ltd. Mobile Home Park	72	Wells
6	Brunskill Mobile Home Park	60	Wells
7	Castle Point Mobile Home Park	NA	Wells
8	Freedom Village	25	Wells (Spring)
9	Long Bow Mobile Home Park	43	Wells

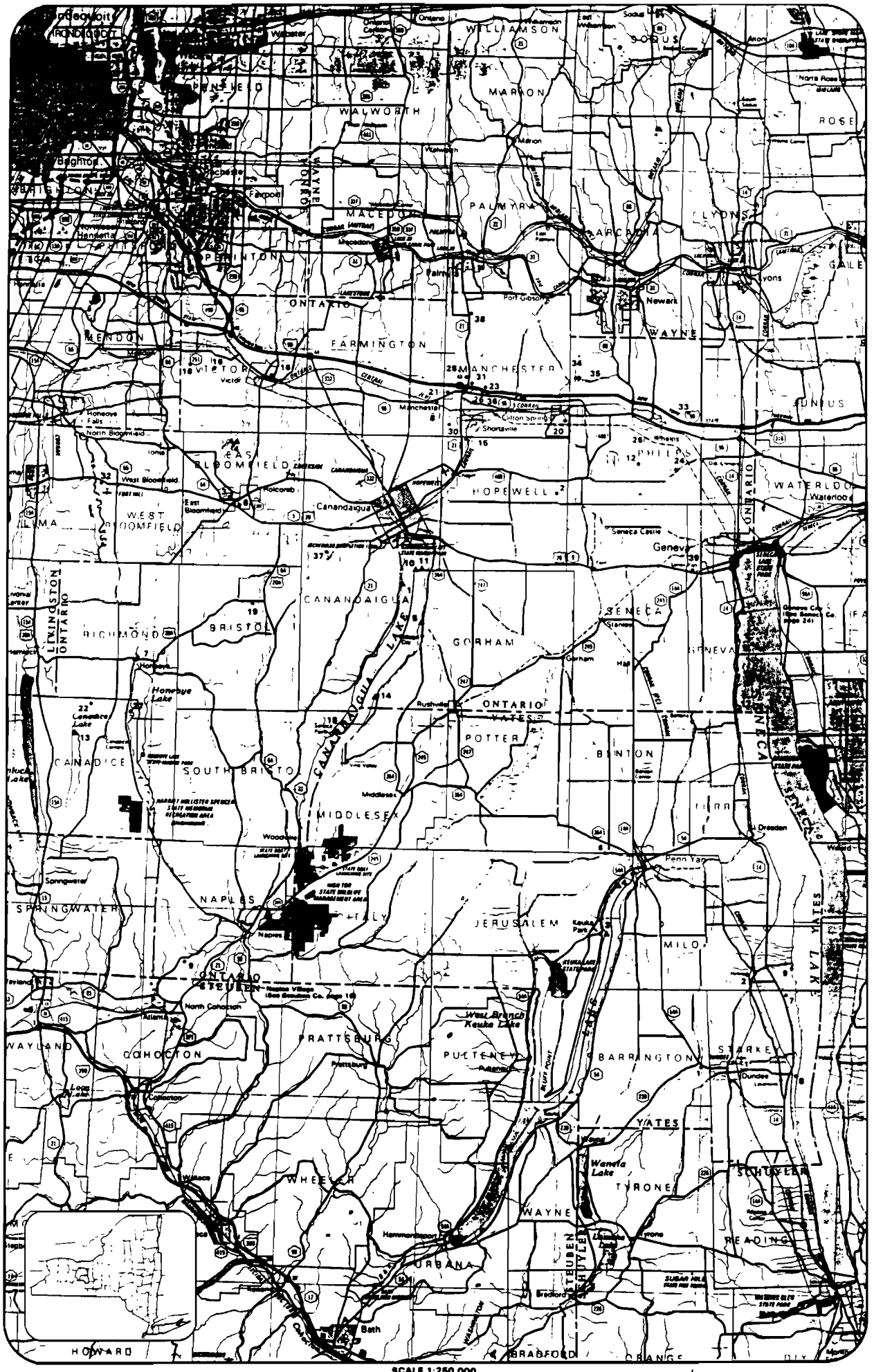
REFERENCE # 2

PAGE 7 OF

LOCATION OF COMMUNITY WATER SYSTEM SOURCES-1982

NEW YORK STATE DEPARTMENT OF HEALTH
DIVISION OF ENVIRONMENTAL PROTECTION
BUREAU OF PUBLIC WATER SUPPLY PROTECTION

ONTARIO and YATES COUNTIES



REFERENCE 24

To determine if flood insurance is available in this community, contact your insurance agent or call the National Flood Insurance Program at (800) 638-6620

APPROXIMATE SCALE

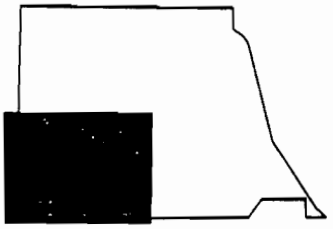
400 0 400 FEET

NATIONAL FLOOD INSURANCE PROGRAM

FIRM
FLOOD INSURANCE RATE MAP

TOWN OF
GATES,
NEW YORK
MONROE COUNTY

PANEL 3 OF 4
(SEE MAP INDEX FOR PANELS NOT PRINTED)



PANEL LOCATION

COMMUNITY-PANEL NUMBER
360416 0003 B

MAP REVISED:
AUGUST 2, 1993

Federal Emergency Management Agency

LEGEND

SPECIAL FLOOD HAZARD AREAS INUNDATED BY 100-YEAR FLOOD

ZONE A No base flood elevations determined.

ZONE AE Base flood elevations determined.

ZONE AH Flood depths of 1 to 3 feet (usually areas of ponding); base flood elevations determined.

ZONE AO Flood depths of 1 to 3 feet (usually sheet flow on sloping terrain); average depths determined. For areas of alluvial fan flooding; velocities also determined.

ZONE A99 To be protected from 100-year flood by Federal flood protection system under construction; no base flood elevations determined.

ZONE V Coastal flood with velocity hazard (wave action); no base flood elevations determined.

ZONE VE Coastal flood with velocity hazard (wave action); base flood elevations determined.

FLOODWAY AREAS IN ZONE AE

OTHER FLOOD AREAS

ZONE X Areas of 500-year flood; areas of 100-year flood with average depths of less than 1 foot or with drainage areas less than 1 square mile; and areas protected by levees from 100-year flood.

OTHER AREAS

ZONE X Areas determined to be outside 500-year floodplain.

ZONE D Areas in which flood hazards are undetermined.

UNDEVELOPED COASTAL BARRIERS†

Identified 1983 | Identified 1990 | Otherwise Protected Areas

†Coastal barrier areas are normally located within or adjacent to special flood hazard areas.

Floodplain Boundary

Floodway Boundary

Zone D Boundary

Boundary Dividing Special Flood Hazard Zones, and Boundary Dividing Areas of Different Coastal Base Flood Elevations Within Special Flood Hazard Zones.

513 — Base Flood Elevation Line; Elevation in Feet*

D — D — Cross Section Line

(EL 987) — Base Flood Elevation in Feet Where Uniform Within Zone*

RM 7x — Elevation Reference Mark

•M1.5 — River Mile

*Referenced to the National Geodetic Vertical Datum of 1929

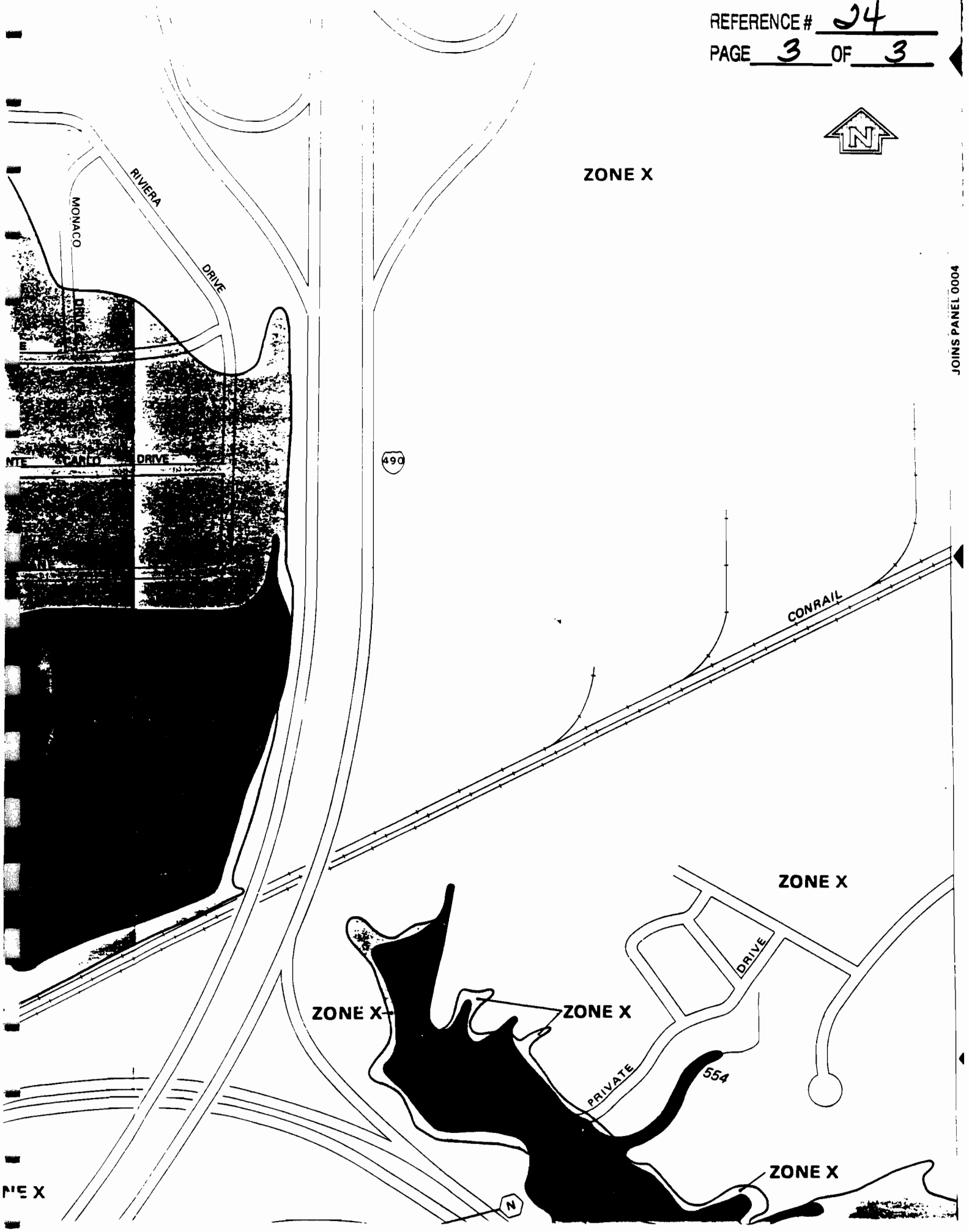
NOTES

This map is for use in administering the National Flood Insurance Program; it does not necessarily identify all areas subject to flooding, particularly from local drainage sources of small size, or all planimetric features outside Special Flood Hazard Areas. The community map repository should be consulted for possible updated flood hazard information prior to use of this map for property purchase or construction purposes.

Coastal base flood elevations apply only landward of 0.0 NGVD, and include the effects of wave action; these elevations may also differ significantly from those developed by the National Weather Service for hurricane evacuation planning.

Areas of special flood hazard (100-year flood) include Zones A, AE, AH, AO, A99, V, and VE.

Certain areas not in Special Flood Hazard Areas may be protected by flood



JOINS PANEL 0004

REFERENCE 25

U.S. DEPARTMENT OF COMMERCE
LUTHER H. HODGES, Secretary

WEATHER BUREAU
F. W. REICHELDERFER, Chief

TECHNICAL PAPER NO. 40

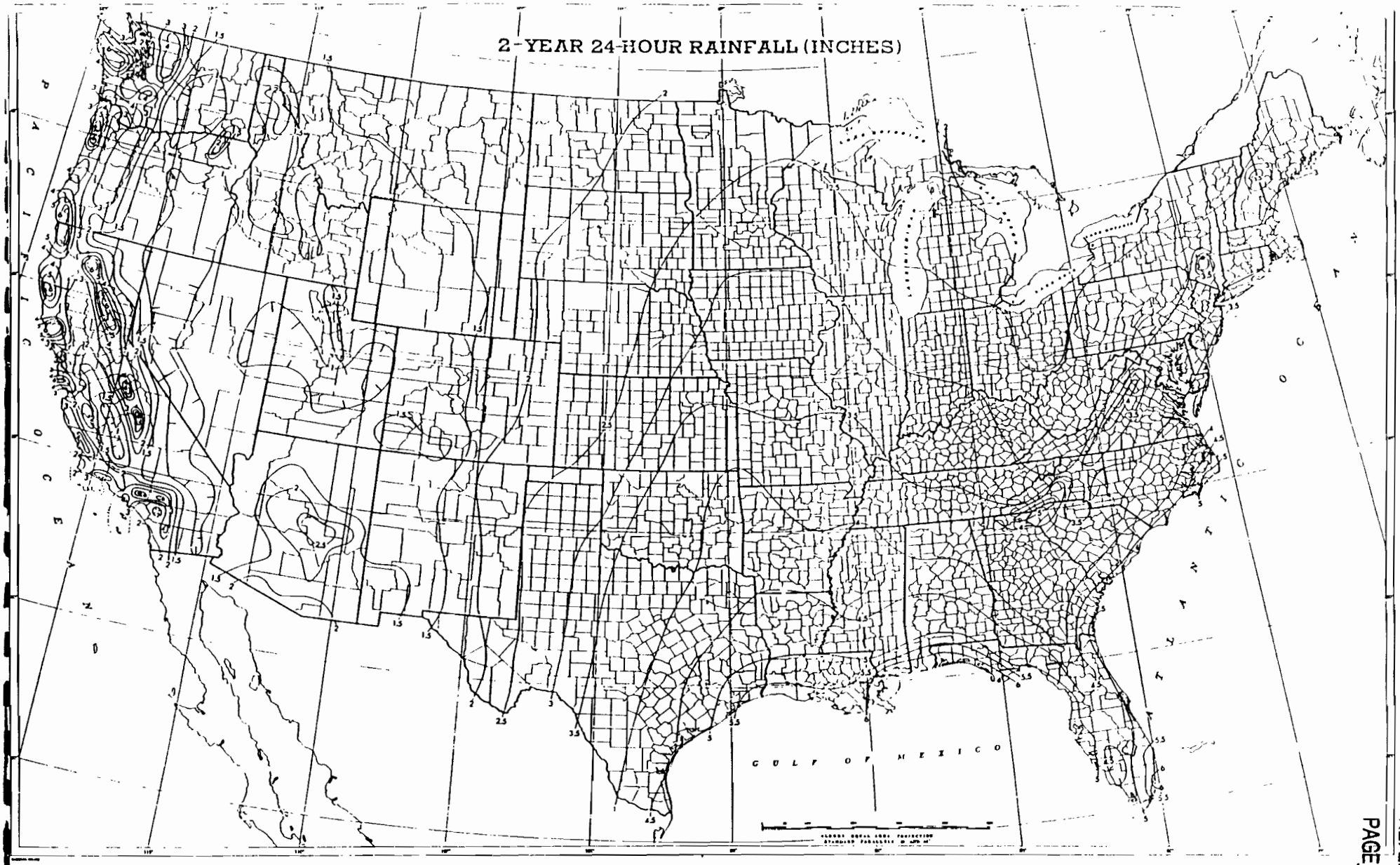
RAINFALL FREQUENCY ATLAS OF THE UNITED STATES

for Durations from 30 Minutes to 24 Hours and Return Periods from 1 to 100 Years

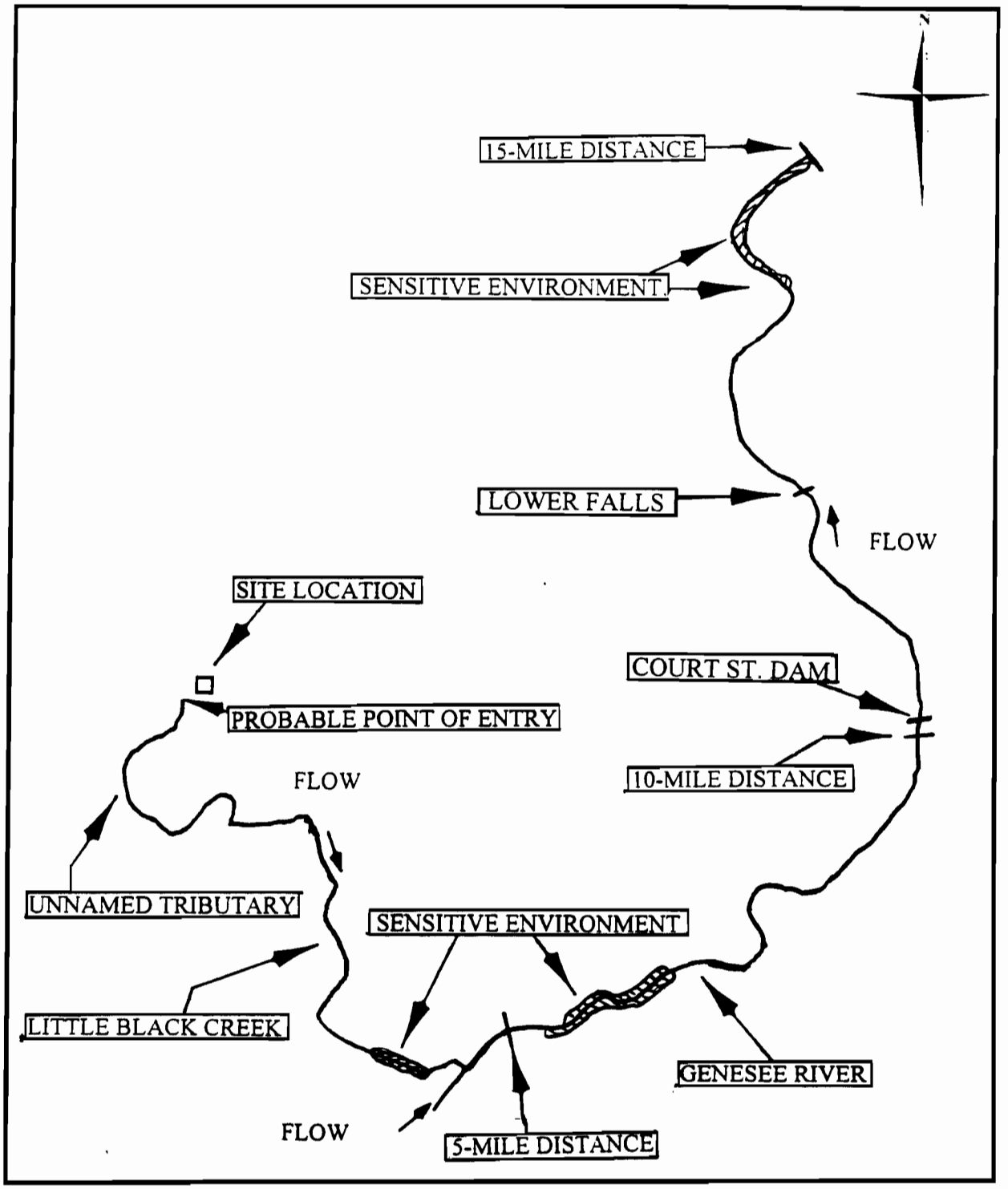
Prepared by
DAVID M. HERSHFIELD
Cooperative Studies Section, Hydrologic Services Division
for
Engineering Division, Soil Conservation Service
U.S. Department of Agriculture

WASHINGTON, D.C.
May 1961
Repaginated and Reprinted January 1963

For sale by the Superintendent of Documents, U.S. Government Printing Office, Washington 25, D.C. Price $1.25


2-YEAR 24-HOUR RAINFALL (INCHES)
GULF OF MEXICO

REFERENCE 26



15-MILE SURFACE WATER PATHWAY SKETCH

EBASCO ENVIRONMENTAL

ERDLE PERFORATING
100 PIXLEY INDUSTRIAL PARKWAY
MONROE COUNTY
GATES, NEW YORK

NOT TO SCALE

REFERENCE 27

STATE OF NEW YORK

OFFICIAL COMPILATION

OF

CODES, RULES AND REGULATIONS

MARIO M. CUOMO
Governor

GAIL S. SHAFFER
Secretary of State

Published by
DEPARTMENT OF STATE
162 Washington Avenue
Albany, New York 12231

1/83

ARTICLE 5

Genesee River Drainage Basin Series

PART

820 Lower Genesee River Drainage Basin
821 Upper Genesee River Drainage Basin

PART 820

LOWER GENESEE RIVER DRAINAGE BASIN

(Statutory authority: Environmental Conservation Law, § 17-0301)

Sec.		Sec.	
820.1	Adopting order	820.4	Table I
820.2	Definitions and conditions	820.5	Map 1
820.3	Assigned classifications and standards of quality and purity	820.6	Map 2

Historical Note

Part (§§ 820.1-820.6) amd. filed June 9, 1989 eff. 30 days after filing. Amended statutory authority.

Section 820.1 Adopting order. Pursuant to the authority contained in article 12 of the Public Health Law, the Water Pollution Control Board, having made proper studies and having held a public hearing on due notice with reference thereto, hereby adopts and assigns the following classifications and standards of quality and purity to the various waters as specifically designated and described below and subject to the definitions and conditions as stated.

820.2 Definitions and conditions. The several terms, words or phrases hereinafter mentioned shall be construed as follows:

(a) *Item no.* In table I an item number is assigned consecutively to each specifically designated waters.

(b) *Waters index number* as appearing in table I shall mean that number which has been applied to any specifically designated waters which appear on map 2, section 820.6, *infra*.

(c) *Name* as appearing in table I shall mean the name, if any, by which the specifically designated waters are generally known and which name, if any appears on the reference map. In cases of specifically designated waters which have no name, the name tributary to which the unnamed waters are tributary is indicated so far as possible.

(d) *Description* as appearing in table I shall mean a brief indication as to location of the specifically designated waters so that by referring to the reference map such waters may be located without reference to their waters index numbers. Entries under column headed "Description" also include designations of a section of a stream to which a particular assignment of a class and standards shall apply.

(e) *Class* as appearing in table I, and denoted by the letters B or C, opposite each specifically designated waters, shall mean class B or C, as the case may be, as set forth in Parts 701 and 702, *supra*.

(f) *Standards* as appearing in table I, as the letters B or C, opposite each specifically designated waters, shall mean the standards of quality and purity established for class B or C, as the case may be, as set forth in Parts 701 and 702, *supra*.

(g) *Tributary* or *tributaries* shall mean any stream, pond, or other body of surface water which flows into any other stream, pond, or other body of surface water. In the table under column headed "Waters Index Number" where no tributaries are mentioned, the specifically designated waters shall include only the stream, pond, or other body of water designated by such waters index number; where tributaries are mentioned after the waters index number the specifically designated waters shall include the stream, pond, or other body of water designated by such waters index number and all tributaries and subtributaries, thereof, which are shown on the reference maps, unless exceptions are expressly stated.

(h) *Map ref. No.* Map 2, section 820.6, *infra*, is a composite of four adjacent New York topographical quadrangles; namely, Rochester, West, Rochester East Genesee Junction, and Mendon Ponds. These are of the 7½ minute series having scales of 1:24,000, published by the U.S. Geological Survey, 1935 editions.

(i) All streams or other bodies of water which appear as lines, to indicate natural waters, on the reference maps herein, and which are not specifically designated in table I, shall be assigned the same classes and standards of quality and purity as the specifically designated waters to which they are directly tributary.

(j) All streams or other bodies of water which are not shown on the reference maps herein shall be assigned to class D, as set forth in Part 701, *supra*, except that any continuous flowing natural stream which is not shown on the reference maps shall have the same classification and assigned standards as the waters to which it is directly tributary.

(k) The Lower Genesee River drainage basin shall be deemed to include the following: the Genesee River between its junction with Lake Ontario and the south bank of the Barge Canal and all land and water areas, the natural surface water drainage from which [it] is directly or indirectly tributary to the Genesee River in this section, and including that portion of the Barge Canal within the Genesee River drainage area.

(l) The term *trout* as used in this Part means any fish in the following genera: "Coregonus", "Oncorhyncus", "Prosopium", "Salmo", "Salvelinus" and "Thymallus".

Historical Note

Sec. amd. filed June 9, 1989 eff. 30 days after filing. Amended (e)-(f), (i)-(j), added (l).

820.3 Assigned classifications and standards of quality and purity. The classifications and standards of quality and purity which are hereby assigned to all surface waters within the Lower Genesee River drainage basin are as set forth in table I.

820.4 Table I.

TABLE I

Classification and Standards of Quality and Purity Assigned to Fresh Surface Waters within the Lower Genesee River Drainage Basin in Monroe County, New York

Item No.	Waters Index Number	Name	Description	Map Ref. No.	Class	Standards
1	Ont.117 portion as described	Genesee River	From natural mouth at its junction with Lake Ontario to Barge Canal Dam at Court Street, Rochester.		B	B
2	Ont. 117 portion as described	Genesee River	Barge Canal Dam to south limits of Barge Canal, where Barge Canal crosses Genesee River in City of Rochester.		B	B
3	Ont. 117-1 and tribs., including P 1a, P 1b	Tributary of Genesee River	Enters Genesee River from east approximately 0.7 mile above mouth. Ponds are located just west of St. Paul Boulevard.	2	C	C
4	Ont. 117-2 including P 1	Tributary of Genesee River	Enters west side of Genesee River opposite Rattlesnake Point. Pond is located just west of New York Central Railroad.	2	C	C
5	Ont. 117-P 2a, P 2b	Tributaries of Genesee River	Ponds located in Riverside Cemetery and Holy Sepulcher Cemetery, respectively.	2	C	C
6	Ont. 117-P 2c	Tributary of Genesee River	Pond located on grounds of St. Bernards Seminary.	2	C	C
7	Ont. 117-P 2d	Tributary of Genesee River	Pond located 0.2 mile west of Genesee River and 0.3 mile northwest of Veterans Memorial Bridge.	2	B	B
8	Ont. 117-3 and trib. including P 1c	Tributary of Genesee River	Enters Genesee River from east 0.2 mile south of Rattlesnake Point. P 1c is at source of trib.	2	C	C

TABLE I (cont'd.)

Item No.	Waters Index Number	Name	Description	Map Ref. No.	Class	Standards
9	Ont. 117-4 including P 2	Tributary of Genesee River	Enters from southeast opposite Riverside Cemetery. Pond is at source of stream.	2	B	B
10	Ont. 117-5 portion as described	Tributary of Genesee River	From Truesdale Street to source. (Stream enters sewer at Truesdale Street.)	2	C	C
11	Ont. 117-6	Tributary of Genesee River	Enters from southeast 0.2 mile south of Veterans Memorial Bridge.	2	C	C
13	Ont. 117-7 portion as described	Tributary of Genesee River	From Mount Read Boulevard to source.(Stream enters sewer at Mount Read Boulevard 0.3 mile north of Lyell Avenue.)	2	C	C
15	Ont. 117-P 8a	Tributary of Genesee River	Isolated pond located west of South Avenue just opposite Highland Hospital.	2	B	B
16	Ont. 117-P 8b	Tributary of Genesee River	Isolated pond located in Mt. Hope Cemetery.	2	C	C
18	Barge Canal portion as described	Barge Canal	From 0.3 mile west of East Henrietta Road Bridge to 0.2 mile west of Lee Road Bridge.	2	B	B

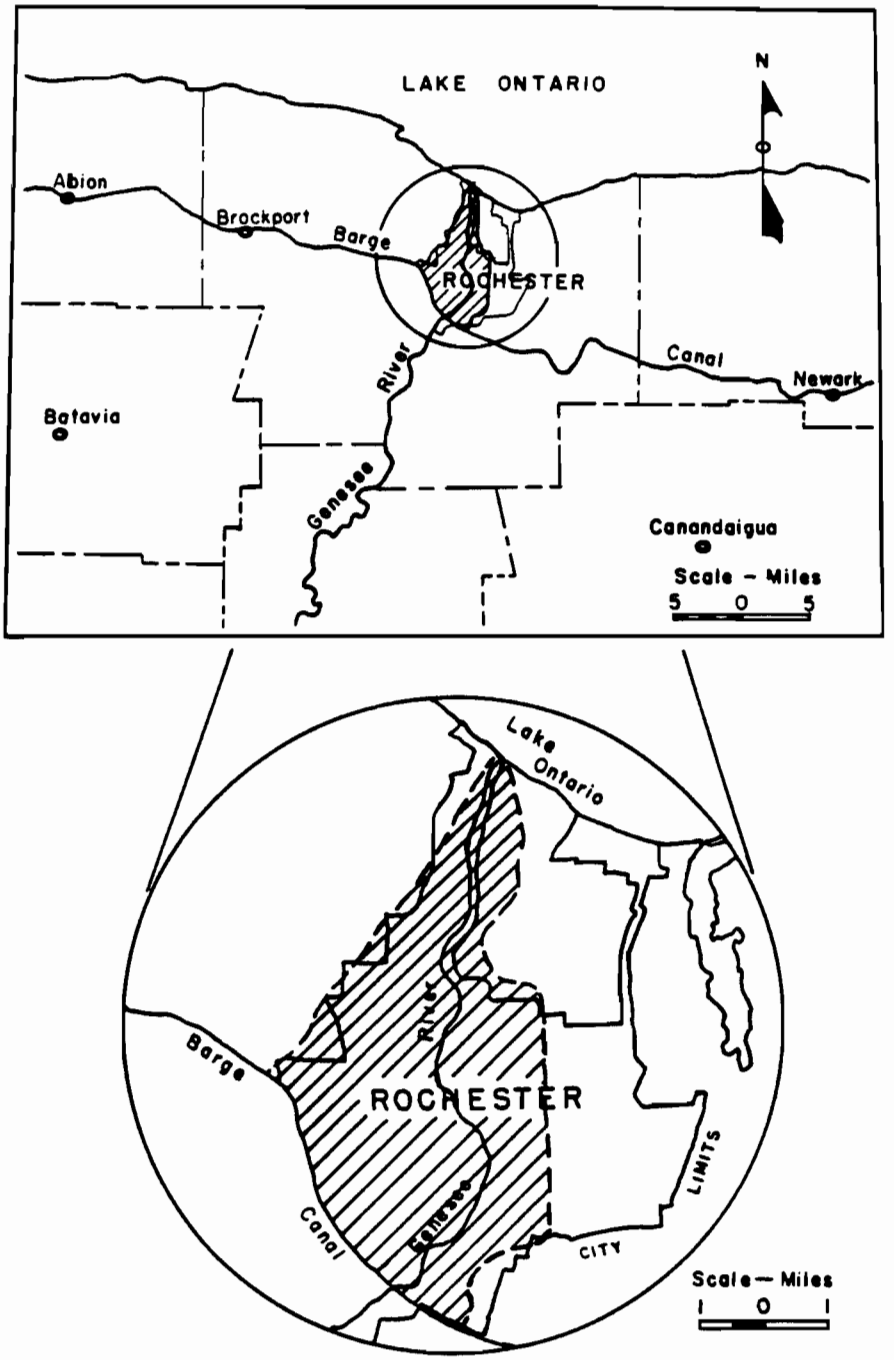
Historical Note

Item No. 1: amds. filed: June 19, 1967; June 9, 1989 eff. 30 days after filing.

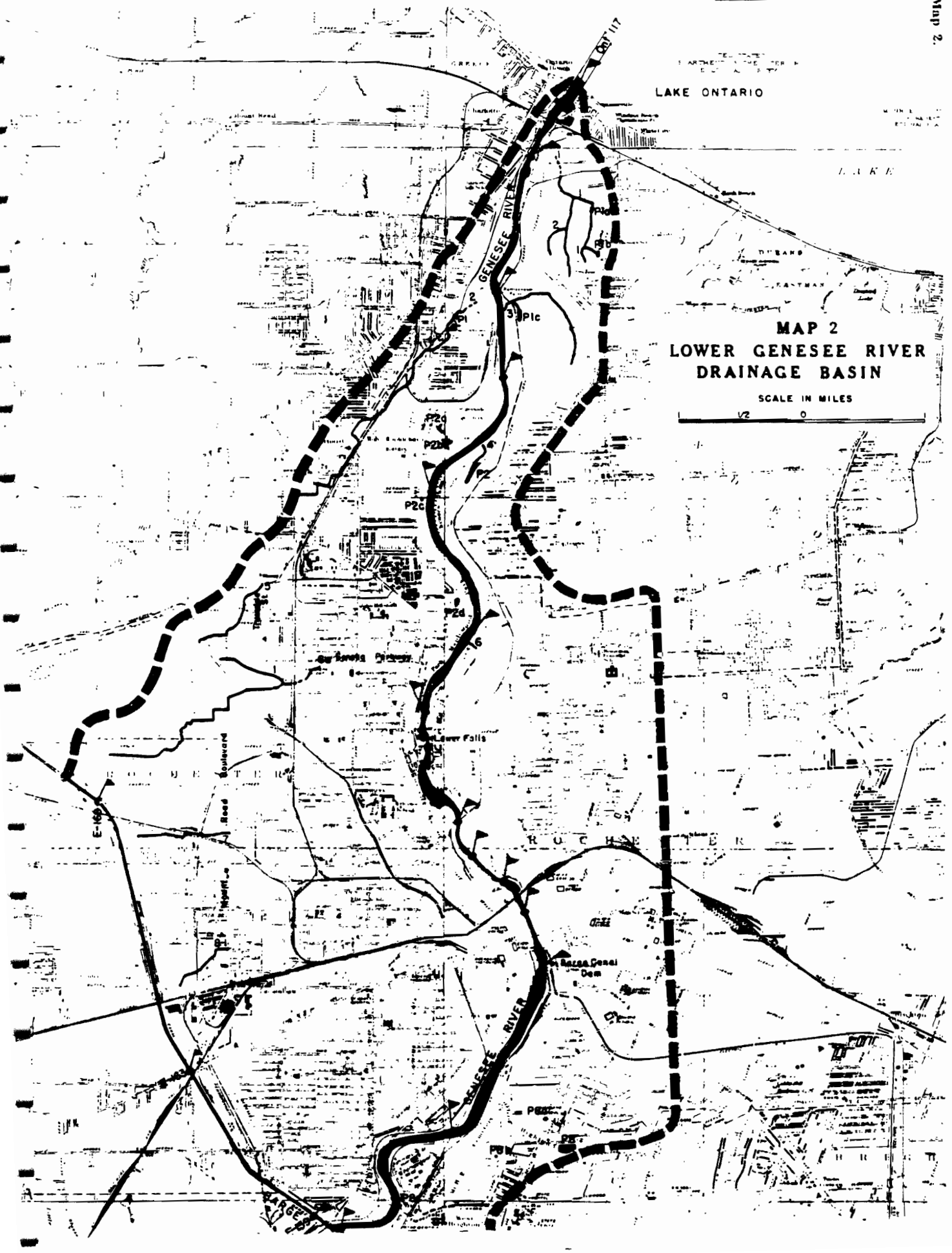
820.5 Map 1.

MAP I.

LOWER GENESEE DRAINAGE BASIN



820.6 Map 2.



TITLE 6

PART 821

UPPER GENESEE RIVER DRAINAGE BASIN

(Statutory authority: Environmental Conservation Law, § 17-0301)

Sec.		Sec.	
821.1	Adopting order	821.6	Table I
821.2	Designated waters	821.7	Map 1
821.3	Definitions	821.8	Map 2
821.4	Special conditions	821.9	Quadrangle maps
821.5	Assigned classifications and standards of quality and purity		

Historical Note

Part (§§ 821.1-821.9) amd. filed June 9, 1989 eff. 30 days after filing. Amended statutory authority.

821.1 Adopting order. (a) Pursuant to article 12 of the Public Health Law, the Water Resources Commission, after proper study and following a public hearing held on due notice, hereby adopts and assigns the following classifications and standards of quality and purity to all surface waters within the Upper Genesee River drainage basin, as hereinafter defined. Said drainage basin includes all land and surface water areas of the Upper Genesee River drainage basin within New York State.

(b) This adoption and assignment of standards of quality and purity to the above designated waters shall be effective December 30, 1963.

821.2 Designated waters. The designated waters are located in the Upper Genesee River drainage basin, a portion of the Genesee River drainage basin, as outlined on map 1, section 821.7, *infra*, and as contained within the topographical limit line shown on the reproduced topographical reference maps in section 821.9, *infra*.

821.3 Definitions. The several terms, words, or phrases hereinafter mentioned shall be construed as follows:

(a) *Item no.* In table I an item number is assigned consecutively to each specifically designated waters.

(b) *Waters index number* as appearing in table I shall mean that number assigned to any designated waters for the purpose of identification.

(1) The numbering or index system used to identify specific waters of New York was adapted from that used by the New York State Conservation Department in its stocking lists. The primary waters of a drainage basin, a stream or large lake, is referred to by name or abbreviation. Ponds and lakes are numbered consecutively as they are encountered, such number being preceded by the letter P. This system also involves the consecutive numbering or tributaries as they enter a stream, progressing upstream from the mouth. Tributaries of lakes or ponds are numbered consecutively as they enter, progressing clockwise around the lake or pond from its outlet or mouth. Isolated lakes and ponds are referenced by a waters index number merely for convenience of their identification and location within a subdrainage basin, and it is not necessarily indicative of their being tributary to any waters to which no surface connection is shown on the reference maps.

(2) This system was applied to the basin under consideration by the Conservation Department in its "Revised Stocking List of the Genesee River System—March 1952" and has been closely followed in connection with the identification of the waters with the following exceptions: Some of the stream numbers do not run consecutively due to the omission of streams originally shown on older maps employed by the Conservation Department at the time of the list's publication but not shown on newer maps reproduced herein. Conversely, a few streams not shown on the older maps but appearing on the newer maps are designated by the letters a, b, c, etc.

(3) The system as applied to the identification of waters in the Upper Genesee River drainage basin may be illustrated as follows:

Waters index number	*Name*	*Explanation*
Ont.	Lake Ontario	Primary waters.
Ont. 117	Genesee River	A primary drainage basin of the State numbering clockwise from the St. Lawrence River.
Ont. 117-27	Honeoye Creek	The 27th tributary of the Genesee River numbering from the mouth upstream.
Ont. 117-27-34	Hemlock Outlet	The 34th tributary of Honeoye Creek numbering from the mouth upstream.
Ont. 117-27-34-P44	Hemlock Lake	The 44th pond encountered in the Genesee River drainage basin.
Ont. 117-27-34-P44-7	Springwater Creek	The 7th tributary of Hemlock Lake numbering clockwise from the mouth.

(c) The abbreviations *trib* and *tribs* indicating tributary and tributaries, and the terms *subtributary* and *subtributaries* shall mean any stream, pond, or other body of surface water which flows into any other stream, pond, or other body of surface water; where no tributary, tributaries, subtributary or subtributaries are mentioned, the specifically designated water shall include only the stream, pond, or other body of water referenced by such waters index number; where tributary, tributaries, subtributary or subtributaries are mentioned after the waters index number, the specifically designated waters shall include the stream, pond, or other body of water referenced by such waters index number and all tributaries and subtributaries thereof, which are shown on the reference maps, excluding numbered ponds, unless exceptions are expressly stated.

(d) *Name* as appearing in table I shall mean the name by which the specifically designated waters are known and which name may appear on the reference maps. In cases of specifically designated waters which have no name, the named waters to which the unnamed waters are tributary are identified as far as possible.

(e) *Description.* The column headed "Description" contains designations of segments or sections of waters under consideration to which a particular assignment of a class or standards shall apply. Also, included in this column is any useful information pertinent to the classification or standards.

(f) *Map ref. no.*, as appearing in table I, means map reference number and indicates one or more of the following numbered maps reproduced herein completely, or in part, on which maps the specifically designated waters and their index numbers are shown within the topographical limit line of the described drainage basin.

(1) The following maps were produced from original maps which may be procured through the Washington Distribution Section, Geological Survey, Silver Spring, Maryland.

Map ref. no.	*Quadrangle name*	*Published by*	*Edition*
H-7ne	Holley	U.S. Geological Survey	1950
H-7sw	Batavia North	U.S. Geological Survey	1951
H-7se	Byron	U.S. Geological Survey	1952
H-8nw	Brockport	U.S. Geological Survey	1952
H-8ne	Spencerport	U.S. Geological Survey	1952
H-8sw	Churchville	U.S. Geological Survey	1950
H-8se	Clifton	U.S. Geological Survey	1950
H-9nw	Rochester West	U.S. Geological Survey	1952
H-9sw	Genesee Junction	U.S. Geological Survey	1952
H-9se	Mendon Ponds	U.S. Geological Survey	1935
J-7nw	Batavia South	U.S. Geological Survey	1950
J-7ne	Stafford	U.S. Geological Survey	1950
J-7sw	Dale	U.S. Geological Survey	1951
J-7se	Wyoming	U.S. Geological Survey	1951
J-8nw	Le Roy	U.S. Geological Survey	1950
J-8ne	Caledonia	U.S. Geological Survey	1950
J-8sw	Leicester	U.S. Geological Survey	1951
J-8se	Geneseo	U.S. Geological Survey	1950
J-9nw	Rush	U.S. Geological Survey	1951
J-9ne	Honeoye Falls	U.S. Geological Survey	1951
J-9sw	Livonia	U.S. Geological Survey	1951
J-9se	Honeoye	U.S. Geological Survey	1951
J-10nw	Victor	U.S. Geological Survey	1951
J-10sw	Bristol Center	U.S. Geological Survey	1951
K-6	Arcade	U.S. Geological Survey	1925
K-7nw	Warsaw	Corps of Engineers, U.S. Army	1944
K-7ne	Castile	Corps of Engineers, U.S. Army	1944
K-7sw	Pike	Corps of Engineers, U.S. Army	1944
K-7se	Portageville	Corps of Engineers, U.S. Army	1944
K-8nw	Mount Morris	Corps of Engineers, U.S. Army	1944
K-8ne	Sonyea	Corps of Engineers, U.S. Army	1944
K-8sw	Nunda	Corps of Engineers, U.S. Army	1944
K-8se	Ossian	Corps of Engineers, U.S. Army	1944
K-9nw	Conesus	Corps of Engineers, U.S. Army	1942
K-9ne	Springwater	Corps of Engineers, U.S. Army	1942
K-9sw	Dansville	Corps of Engineers, U.S. Army	1942
K-9se	Wayland	U.S. Geological Survey	1942
K-10nw	Bristol Springs	U.S. Geological Survey	1943
L-6	Franklinville	U.S. Geological Survey	1924
L-7	Angelica	U.S. Geological Survey	1906
L-8	Canaseraga	U.S. Geological Survey	1916
L-9	Hornell	U.S. Geological Survey	1918
M-6	Olean	U.S. Geological Survey	1938
M-7	Belmont	U.S. Geological Survey	1925
M-8	Wellsville	U.S. Geological Survey	1924
M-9	Greenwood	U.S. Geological Survey	1926

(g) *Class*, as appearing in table I, and denoted by the letters AA, A, B, C or D opposite each specifically designated waters shall mean class AA, A, B, C or D as the case may be, as set forth in Part 701, *supra*.

(h) *Standards*, as appearing in table I, and denoted by the letters AA, A, B, C, or D opposite each specifically designated waters, shall mean the standards of quality and purity established for class AA, A, B, C or D, as the case may be, as set forth in Part 701, *supra*. The symbol (T) appearing after any standard designation shall mean that the designated waters are trout waters and that the dissolved oxygen specification for trout waters shall apply thereto. The symbol (TS) after any standard designation shall mean that the designated waters are suitable for trout spawning and that the dissolved oxygen specifications for trout spawning waters shall apply hereto.

Historical Note

Sec. amd. filed June 9, 1989 eff. 30 days after filing. Amended (b), (e), (g)-(h).

821.4 Special conditions. (a) All streams or other bodies of water which appear as lines, to indicate natural waters, on the reference maps herein, and which are not specifically designated in table I, shall be assigned the same classes and standards of quality and purity as the specifically designated waters to which they are directly tributary.

(b) All streams or other bodies of water which are not shown on the reference maps herein shall be assigned to class D, as set forth in Part 701, *supra*, except that any continuous flowing natural stream which is not shown on the reference maps shall have the same classification and assigned standards as the waters to which it is directly tributary.

Historical Note

Sec. repealed, new filed June 9, 1989 eff. 30 days after filing.

821.5 Assigned classifications and standards of quality and purity. The classifications and standards of quality and purity assigned to the surface waters specifically designated and described herein are set forth in table I, subject to the definitions and conditions as stated above.

§ 821.6 Table I.

TABLE I

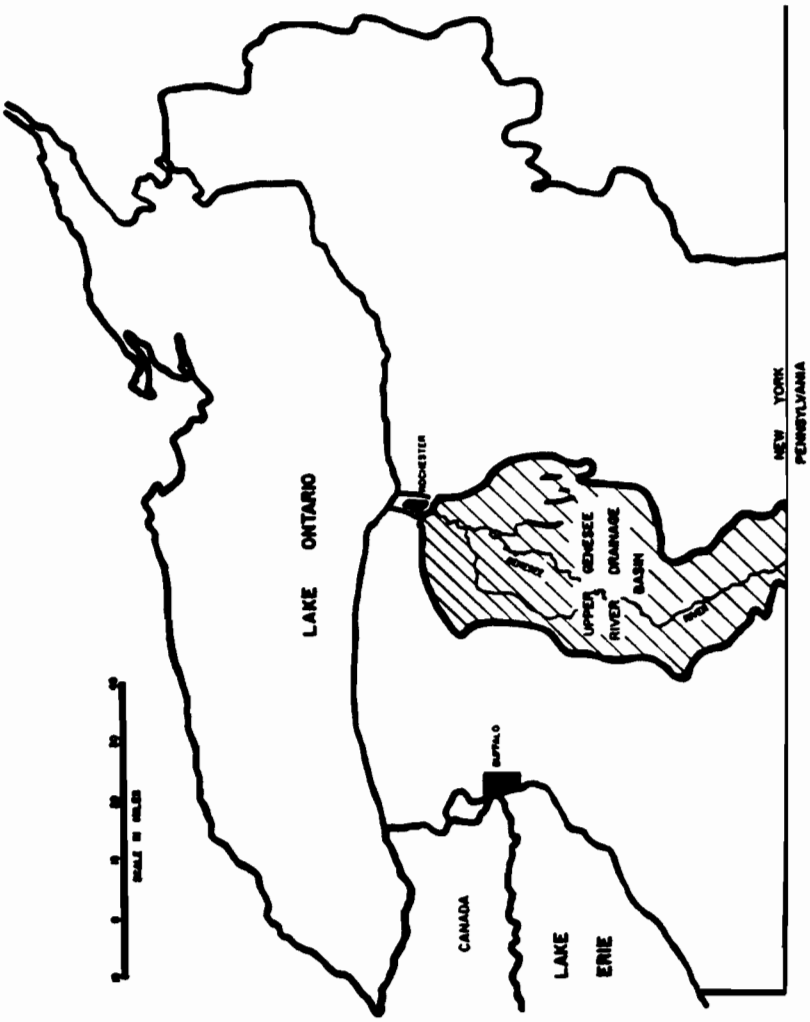
Classification and Standards of Quality and Purity Assigned to Fresh Surface Waters within the Upper Genesee River Drainage Basin, Allegany, Cattaraugus, Genesee, Livingston, Monroe, Ontario, Orleans, Steuben and Wyoming Counties, New York

Item No.	Waters Index Number	Name	Description	Map Ref. No.	Class	Standards
1	Ont. 117 portion	Genesee River	From south limits of barge canal to trib. 25.	H-9sw	B	B
2	Ont. 117 portion	Genesee River	From trib. 25 to NYS Route 36 bridge at Mt. Morris.	H-9sw J-9nw J-8ne J-8se K-8ne K-8nw	C	C
3	Ont. 117 portion	Genesee River	From NYS Route 36 bridge at Mt. Morris to Mt. Morris Dam.	K-8nw	A	A
3.1	Ont. 117 portion	Genesee River	From Mt. Morris dam to NYS Route 245 bridge at Portageville.	K-8nw K-8sw K-7se	B	B
4	Ont. 117 portion	Genesee River	From NYS Route 245 bridge at Portageville to dam at Belmont.	K-7se L-7 M-7	C	C
5	Ont. 117 portion	Genesee River	From dam at Belmont to the mouth of Dyke Creek (trib. 184 of the Genesee River).	M-7 M-8	C	C(T)
6	Ont. 117 portion	Genesee River	From mouth of Dyke Creek (trib. 184) to Stannard Road bridge.	M-8	A	A(T)

TABLE I (*cont'd*)

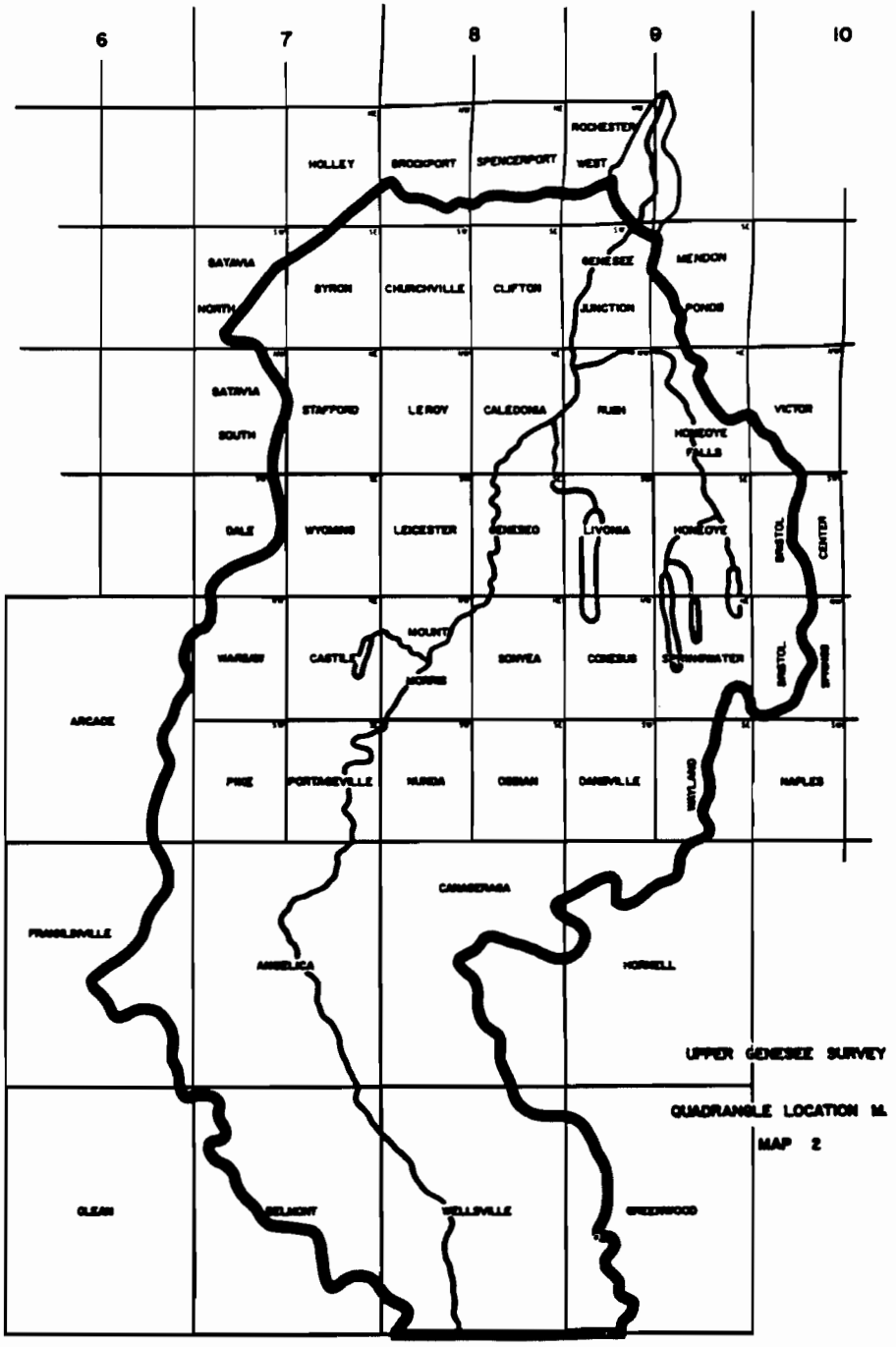
Item No.	Waters Index Number	Name	Description	Map Ref. No.	Class	Standards
7	Ont. 117 portion	Genesee River	From Stannard Road bridge to New York - Pennsylvania boundary.	M-8	C	C(T)
8	Ont. 117-14 portion	Red Creek	From mouth to Crittenden Road bridge.	H-9sw	B	B
9	Ont. 117-14 portion	Red Creek	From Crittenden Road bridge to source.	H-9sw	C	C
10	Ont. 117-14-a, 1 and tribs., 1a, 1b, 1c, 2 and tribs., 4 and tribs., 5 and trib., 6, 6a 6b and trib., 7	Tribs. of Red Creek		H-9sw H-9se	C	C
11	Ont. 117-15a and tribs., 15b, 16	Tribs. of Genesee River		H-9sw H-9nw	C	C
12	Ont. 117-18 portion	Little Black Creek	From mouth to point 1000 ft. above Chili Ave. bridge.	H-9sw H-9nw	C	C
13	Ont. 117-18 portion	Little Black Creek	From point 1000 ft. above Chili Ave. bridge to Pixley Road Bridge.	H-9nw	B	B
14	Ont. 117-18 portion	Little Black Creek	From Pixley Road bridge to source.	H-9nw H-8ne	C	C
15	Ont. 117-118-a	Trib. of Little Black Creek		H-9nw	B	B
16	Ont. 117-18-1 and tribs. including P8b, 5c, 2 and trib., 2aa, 2a and trib., 3, 5, 5a and trib., 5b and tribs., 5c, 6c and tribs., 6d, 6f and tribs.	Tribs. of Little Black Creek		H-9sw H-9nw H-8ne	C	C

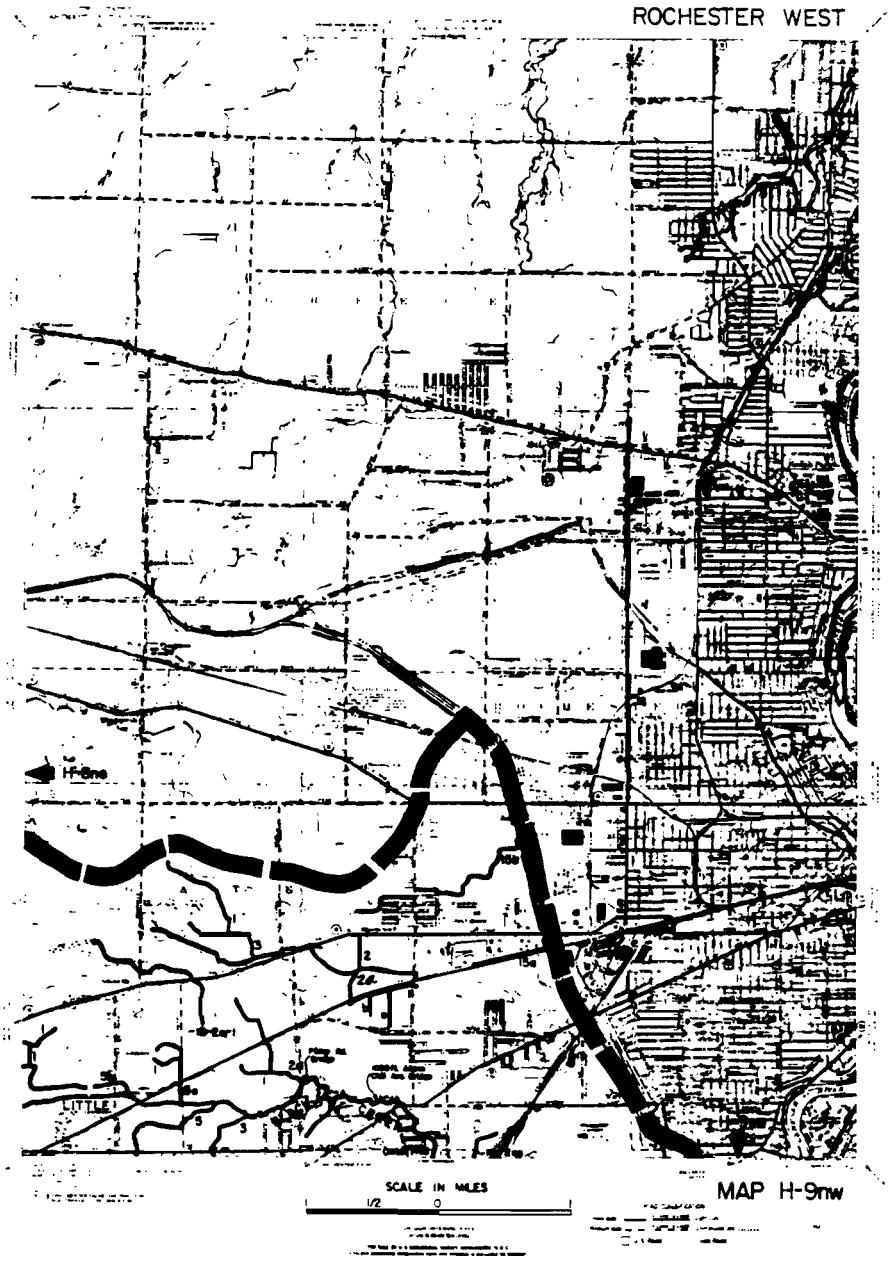
821.7 Map 1.

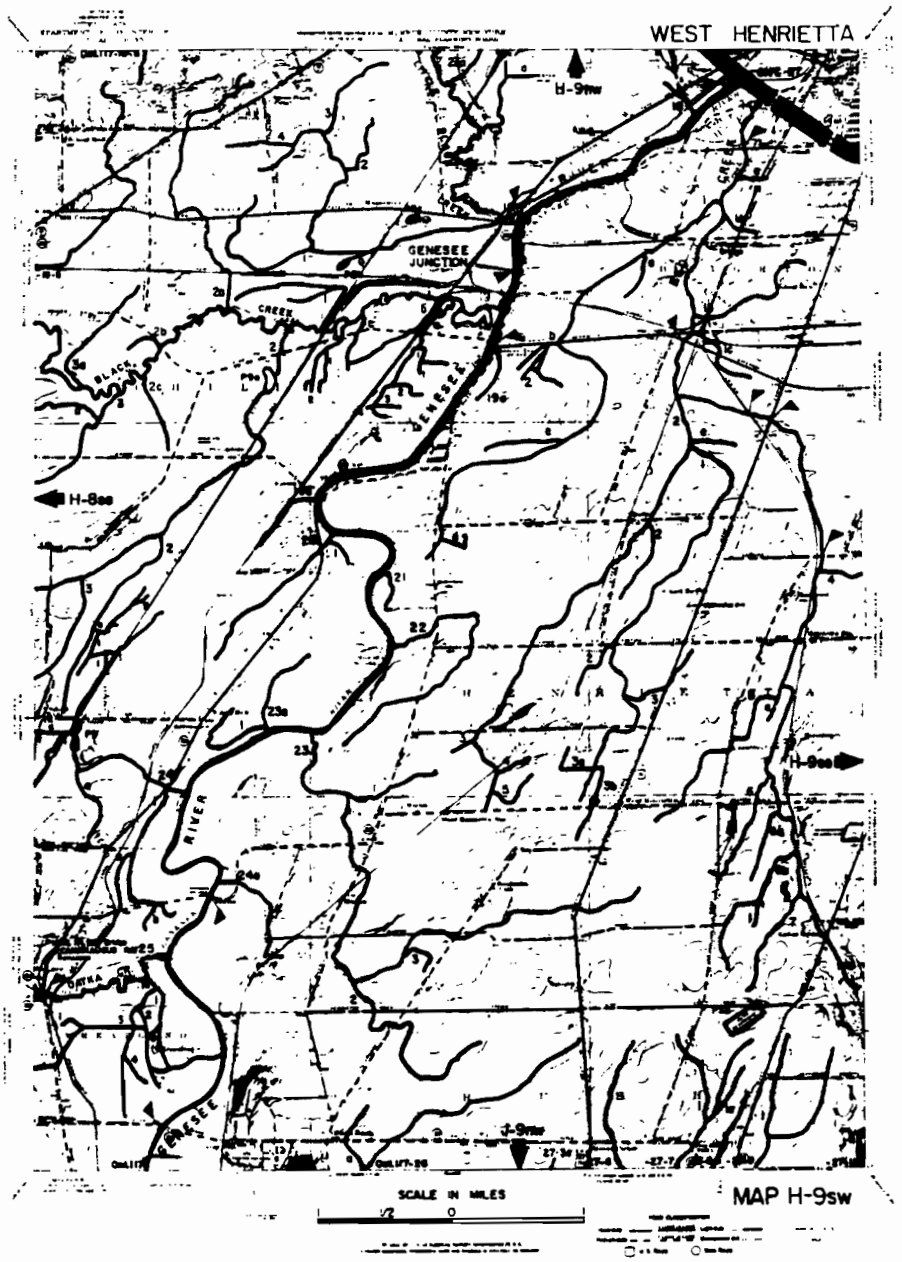


MAP 1
UPPER GENESEE RIVER DRAINAGE BASIN
LOCATION MAP

821.8 Map 2.


6
7
8
9
10
H
J
K
L
M
HOLLEY
BROCKPORT
SPENCERPORT
ROCHESTER WEST
BATAVIA NORTH
SYRACUSE
CHURCHVILLE
CLIFTON
GENESEE JUNCTION
MENDON PONDS
BATAVIA SOUTH
STAFFORD
LEROY
CALEDONIA
RUSH
HONEOYE FALLS
VICTOR
DALE
WYOMING
LEICESTER
GENESEO
LIVONIA
HONEOYE
BRISTOL CENTER
WARSAW
CASTILE
MOUNT MORRIS
SONYEA
CONESUS
SCHUYLERVILLE
BRISTOL SPRINGS
ARCADE
PIKE
PORTAGEVILLE
NUNDA
OSSIAN
DANSVILLE
WAYLAND
NAPLES
FRANKLINVILLE
ANGELICA
CANASERAGA
HORNELL
UPPER GENESEE SURVEY
QUADRANGLE LOCATION M.
MAP 2
GLEAN
BELMONT
WELLSVILLE
GREENWOOD


ROCHESTER WEST
H-8nw
SCALE IN MILES
1/2
0
MAP H-9nw


WEST HENRIETTA
H-9nw
GENESEE JUNCTION
CREEK
BLACK
GENESEE
H-8se
RIVER
H-9se
H-9sw
GENESEE
SCALE IN MILES
MAP H-9sw

REFERENCE 28

WATER QUALITY REGULATIONS

SURFACE WATER AND GROUNDWATER CLASSIFICATIONS AND STANDARDS

New York State
Codes, Rules and Regulations
Title 6, Chapter X
Parts 700-705

New York State Department of Environmental Conservation

PART 701

CLASSIFICATIONS—SURFACE WATERS AND GROUNDWATERS

(Statutory authority: Environmental Conservation Law, §§ 3-0301[2][m], 15-0313, 17-0301, 17-0303, 17-0809)

Sec.		Sec.	
701.1	General conditions applying to all water classifications		SALINE SURFACE WATERS
	FRESH SURFACE WATERS	701.10	Class SA saline surface waters
701.2	Class N fresh surface waters	701.11	Class SB saline surface waters
701.3	Class AA-Special (AA-S) fresh surface waters	701.12	Class SC saline surface waters
701.4	Class A-Special (A-S) fresh surface waters	701.13	Class I saline surface waters
701.5	Class AA fresh surface waters	701.14	Class SD saline surface waters
701.6	Class A fresh surface waters		GROUNDWATERS
701.7	Class B fresh surface waters	701.15	Class GA fresh groundwaters
701.8	Class C fresh surface waters	701.16	Class GSA saline groundwaters
701.9	Class D fresh surface waters	701.17	Class GSB saline groundwaters
		701.18	Assignment of groundwater classifications
		701.19	Severability

Historical Note

Part repealed, new filed: April 28, 1972; Feb. 25, 1974; repealed new (§§ 701.1-701.19) filed Aug. 2, 1991 eff. 30 days after filing.

Section 701.1 General conditions applying to all water classifications. The discharge of sewage, industrial waste or other wastes shall not cause impairment of the best usages of the receiving water as specified by the water classifications at the location of discharge and at other locations that may be affected by such discharge.

Historical Note

Sec. repealed, new filed April 28, 1972; amds. filed: Nov. 5, 1984; July 3, 1985; repealed, new filed Aug. 2, 1991 eff. 30 days after filing.

FRESH SURFACE WATERS

701.2 Class N fresh surface waters. (a) The best usages of Class N waters are the enjoyment of water in its natural condition and, where compatible, as a source of water for drinking or culinary purposes, bathing, fishing, fish propagation, and recreation.

(b) There shall be no discharge of sewage, industrial wastes, or other wastes, waste effluents or any sewage effluents not having had filtration resulting from at least 200 feet of lateral travel through unconsolidated earth. A greater distance may be required if inspection shows that, due to peculiar geologic conditions, this distance is inadequate to protect the water from pollution.

(c) These waters shall contain no deleterious substances, hydrocarbons or substances that would contribute to eutrophication, nor shall they receive surface runoff containing any such substance.

Historical Note

Sec. repealed, new filed: April 28, 1972; Feb. 25, 1974; amd. filed July 3, 1985; repealed, new filed Aug. 2, 1991 eff. 30 days after filing.

701.3 Class AA-Special (AA-S) fresh surface waters. (a) The best usages of Class AA-S waters are: a source of water supply for drinking, culinary or food processing purposes; primary and secondary contact recreation; and fishing. The waters shall be suitable for fish propagation and survival.

(b) These waters shall contain no floating solids, settleable solids, oil, sludge deposits, toxic wastes, deleterious substances, colored or other wastes or heated liquids attributable to sewage, industrial wastes or other wastes.

(c) There shall be no discharge or disposal of sewage, industrial wastes or other wastes into these waters.

(d) These waters shall contain no phosphorus and nitrogen in amounts that will result in growths of algae, weeds and slimes that will impair the waters for their best usages.

Historical Note

Sec. amd. filed May 26, 1967; repealed, new filed: April 28, 1972; Feb. 25, 1974; renum. 701.18, new filed July 3 1985; repealed, new filed Aug. 2, 1991 eff. 30 days after filing.

701.4 Class A-Special (A-S) fresh surface waters. (a) The best usages of Class A-S waters are: a source of water supply for drinking, culinary or food processing purposes; primary and secondary contact recreation; and fishing. The waters shall be suitable for fish propagation and survival.

(b) This classification may be given to those international boundary waters that, if subjected to approved treatment, equal to coagulation, sedimentation, filtration and disinfection with additional treatment, if necessary, to reduce naturally present impurities, meet or will meet New York State Department of Health drinking water standards and are or will be considered safe and satisfactory for drinking water purposes.

Historical Note

Sec. repealed, new filed: April 28, 1972; Feb. 25, 1974; amd. filed Sept. 20, 1974; renum. 701.19, new filed July 3, 1985; repealed, new filed Aug. 2, 1991 eff. 30 days after filing.

701.5 Class AA fresh surface waters. (a) The best usages of Class AA waters are: a source of water supply for drinking, culinary or food processing purposes; primary and secondary contact recreation; and fishing. The waters shall be suitable for fish propagation and survival.

(b) This classification may be given to those waters that, if subjected to approved disinfection treatment, with additional treatment if necessary to remove naturally present impurities, meet or will meet New York State Department of Health drinking water standards and are or will be considered safe and satisfactory for drinking water purposes.

Historical Note

Sec. repealed, filed March 20, 1967; new filed Feb. 25, 1974; amd. filed Sept. 20, 1974; renum. 701.20, new filed July 3, 1985; repealed, new filed Aug. 2, 1991 eff. 30 days after filing.

701.6 Class A fresh surface waters. (a) The best usages of Class A waters are: a source of water supply for drinking, culinary or food processing purposes; primary and secondary contact recreation; and fishing. The waters shall be suitable for fish propagation and survival.

(b) This classification may be given to those waters that, if subjected to approved treatment equal to coagulation, sedimentation, filtration and disinfection, with additional treatment if necessary to reduce naturally present impurities, meet or will meet New York State Department of Health drinking water standards and are or will be considered safe and satisfactory for drinking water purposes.

Historical Note

Sec. filed July 3, 1985; repealed, new filed Aug. 2, 1991 eff. 30 days after filing.

701.7 Class B fresh surface waters. The best usages of Class B waters are primary and secondary contact recreation and fishing. These waters shall be suitable for fish propagation and survival.

Historical Note

Sec. filed July 3, 1985; repealed, new filed Aug. 2, 1991 eff. 30 days after filing.

701.8 Class C fresh surface waters. The best usage of Class C waters is fishing. These waters shall be suitable for fish propagation and survival. The water quality shall be suitable for primary and secondary contact recreation, although other factors may limit the use for these purposes.

Historical Note

Sec. filed July 3, 1985; repealed, new filed Aug. 2, 1991 eff. 30 days after filing.

701.9 Class D fresh surface waters. The best usage of Class D waters is fishing. Due to such natural conditions as intermittency of flow, water conditions not conducive to propagation of game fishery, or stream bed conditions, the waters will not support fish propagation. These waters shall be suitable for fish survival. The water quality shall be suitable for primary and secondary contact recreation, although other factors may limit the use for these purposes.

Historical Note

Sec. filed July 3, 1985; repealed, new filed Aug. 2, 1991 eff. 30 days after filing.

SALINE SURFACE WATERS

701.10 Class SA saline surface waters. The best usages of Class SA waters are shellfishing for market purposes, primary and secondary contact recreation and fishing. These waters shall be suitable for fish propagation and survival.

Historical Note

Sec. filed July 3, 1985; repealed, new filed Aug. 2, 1991 eff. 30 days after filing.

701.11 Class SB saline surface waters. The best usages of Class SB waters are primary and secondary contact recreation and fishing. These waters shall be suitable for fish propagation and survival.

Historical Note

Sec. filed July 3, 1985; repealed, new filed Aug. 2, 1991 eff. 30 days after filing.

701.12 Class SC saline surface waters. The best usage of Class SC waters is fishing. These waters shall be suitable for fish propagation and survival. The water quality shall be suitable for primary and secondary contact recreation, although other factors may limit the use for these purposes.

Historical Note

Sec. filed July 3, 1985; repealed, new filed Aug. 2, 1991 eff. 30 days after filing.

701.13 Class I saline surface waters. The best usages of Class I waters are secondary contact recreation and fishing. These waters shall be suitable for fish propagation and survival.

Historical Note

Sec. filed July 3, 1985; repealed, new filed Aug. 2, 1991 eff. 30 days after filing.

701.14 Class SD saline surface waters. The best usage of Class SD waters is fishing. These waters shall be suitable for fish survival. This classification may be given to those waters that, because of natural or man-made conditions, cannot meet the requirements for primary and secondary contact recreation and fish propagation.

Historical Note

Sec. filed July 3, 1985; repealed, new filed Aug. 2, 1991 eff. 30 days after filing.

GROUNDWATERS

701.15 Class GA fresh groundwaters. The best usage of Class GA waters is as a source of potable water supply. Class GA waters are fresh groundwaters.

Historical Note

Sec. filed July 3, 1985; repealed, new filed Aug. 2, 1991 eff. 30 days after filing.

701.16 Class GSA saline groundwaters. The best usages of Class GSA waters are as a source of potable mineral waters, for conversion to fresh potable waters, or as raw material for the manufacture of sodium chloride or its derivatives or similar products. Class GSA waters are saline groundwaters.

Historical Note

Sec. filed July 3, 1985; repealed, new filed Aug. 2, 1991 eff. 30 days after filing.

701.17 Class GSB saline groundwaters. The best usage of Class GSB waters is as a receiving water for disposal of wastes. Class GSB waters are saline groundwaters that have a chloride concentration in excess of 1,000 milligrams per liter or a total dissolved solids concentration in excess of 2,000 milligrams per liter.

Historical Note

Sec. filed July 3, 1985; repealed, new filed Aug. 2, 1991 eff. 30 days after filing.

701.18 Assignment of groundwater classifications. (a) The groundwater classifications defined in sections 701.15 through 701.16 of this Part are assigned to all the groundwaters of New York State.

(b) The Class GSB shall not be assigned to any groundwaters of the State, unless the commissioner finds that adjacent and tributary groundwaters and the best usages thereof will not be impaired by such classification.

Historical Note

Sec. added by renum. 701.3, filed July 3, 1985; repealed, new filed Aug. 2, 1991 eff. 30 days after filing.

701.19 Severability. If any provision of this Part or its application to any person or circumstance is held to be invalid, the remainder of this Part and the application of that provision to other persons or circumstances will not be affected.

Historical Note

Sec. added by renum. and amd. 701.4, filed July 3, 1985; amd. filed Sept. 20, 1985; repealed, new filed Aug. 2, 1991 eff. 30 days after filing.

701.20

Historical Note

Sec. added by renum. 701.5, filed July 3, 1985; amd. filed Sept. 20, 1985; repealed, filed Aug. 2, 1991 eff. 30 days after filing.

REFERENCE 29

LOW-FLOW DATA AND FREQUENCY ANALYSIS OF STREAMS IN NEW YORK EXCLUDING NEW YORK CITY AND LONG ISLAND

By

Benjamin B. Eissler

Prepared by

UNITED STATES DEPARTMENT OF INTERIOR
GEOLOGICAL SURVEY

in cooperation with

NEW YORK STATE DEPARTMENT OF
ENVIRONMENTAL CONSERVATION

Albany, New York
1978

CONTENTS

Page

Conversion factors and abbreviations..... iv
Glossary..... v
Abstract..... 1
Introduction..... 3
    Purpose and scope..... 3
Methods of analysis..... 4
    Gaging stations..... 4
    Low-flow partial-record stations..... 5
    Miscellaneous sites..... 7
Summary..... 7
Selected references..... 12

ILLUSTRATIONS

Figures 1-2. Computer printouts showing:

1. Low-flow discharge/frequency relationships, Hudson River near Newcomb (01312000)..... 8

2. Relation of base-flow measurements of Batavia Kill at Kelly Corners (01413100) to concurrent daily flows of Schoharie Creek at Prattsville (01350000)..... 10

PLATES
(in pocket)

Plates 1-3. Maps of New York showing:

1. Location of gaging stations

2. Location of low-flow partial-record stations

3. Locations of low-flow miscellaneous-measurement sites

TABLES

Page

Table 1. Location and low-flow characteristics for gaging stations and low-flow partial-record sites in New York.... 13

2. Location of miscellaneous low-flow sites in New York and measured discharges..... 32

3. Tabulation of standard error of low-flow frequency at gaging stations..... 6

FACTORS FOR CONVERTING INCH-POUND UNITS

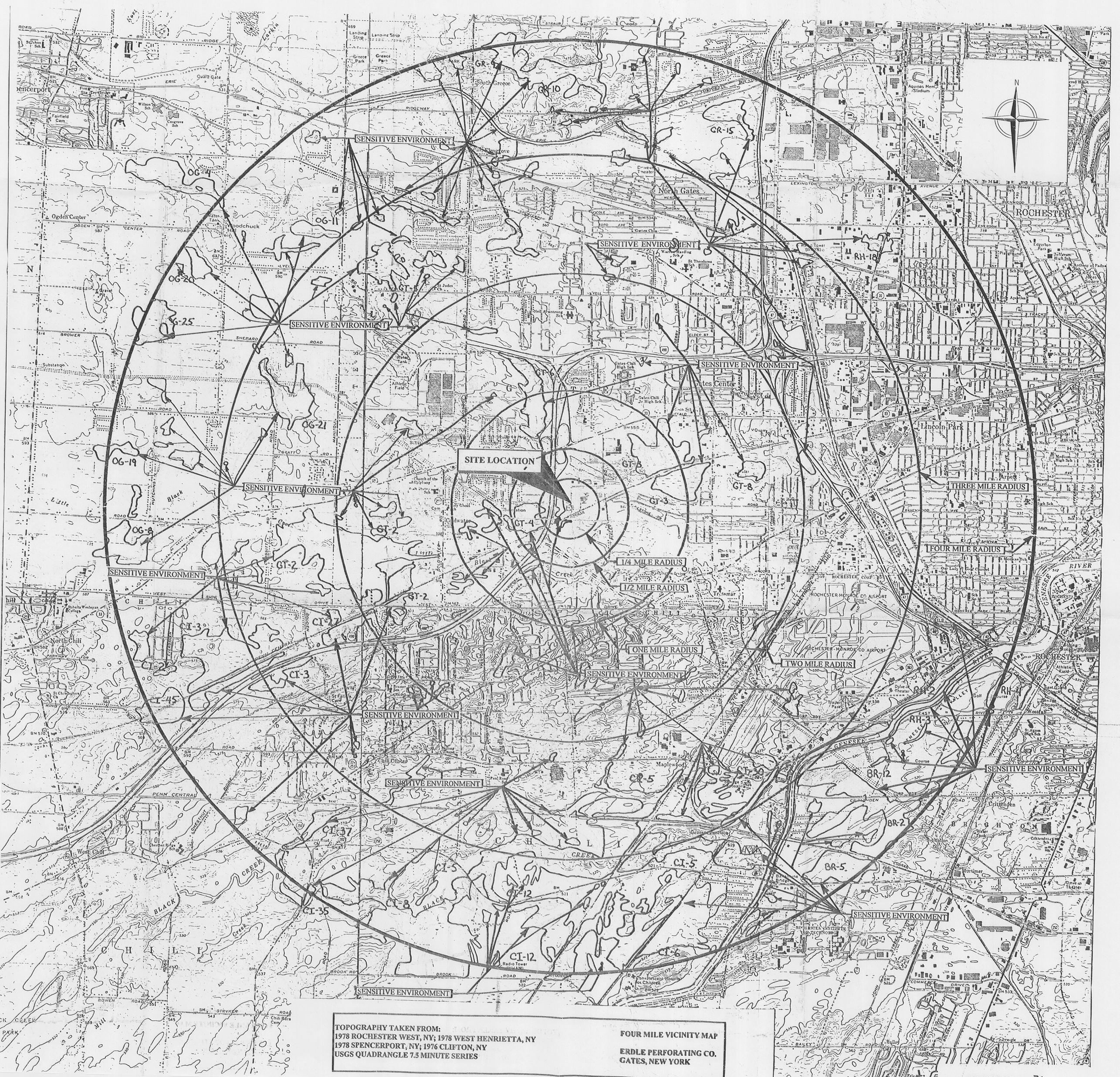
TO INTERNATIONAL SYSTEM (SI) UNITS

The following factors may be used to convert the inch-pound units used in this report to the International System of Units (SI).

Inch-pound units	Multiply by	To obtain SI units
	Area	
square mile (mi^2)	2.590	square kilometer (km^2)
	Flow	
cubic foot per second (ft^3/s)	28.32	liter per second (L/s)
	.02832	cubic meter per second (m^3/s)

04227900	Christie Creek near Canawaugus.....	42 54 40	77 47 19	051	14.5	1964-65 1970-71	.4	.2	P
	Conesus Creek:								
04228000	Conesus Creek near Lakeville.....	42 51 20	77 43 00	051	72	1920-34	3.6	.77	GR
04228370	Little Conesus Creek near South Lima.....	42 53 14	77 40 03	051	7.39	1975-76	.3	.2	P
04228380	Little Conesus Creek near East Avon.....	42 53 34	77 41 05	051	8.05	1975-76	.3	.2	P
04228500	Genesee River at Avon.....	42 55 04	77 45 27	051	1667	1956-75	146	96	GR
04228520	White Creek at Canawaugus.....	42 55 53	77 46 51	051	5.69	1964-65 1970-72	1.6	1.1	P
04228550	Dugan Creek at Maxwell.....	42 58 25	77 46 22	051	3.63	1964-65 1970-72	1.4	.9	P
	Hemlock Lake:								
04228900	Springwater Creek at Springwater.....	42 38 37	77 36 12	051	10.1	1964-68‡ 1969	1.0	.6	P
	Hemlock Lake Outlet:								
04229330	Bebee Creek at Idaho.....	42 51 38	77 32 18	051	19.5	1964-65	.05	.02	P
04229500	Honeoye Creek at Honeoye Falls.....	42 57 24	77 35 21	055	195	1946-70	.9	.2	GR
04230050	Honeoye Creek tributary near Rush.....	42 59 09	77 39 54	055	15.3	1964-65 1970-72	.8	.4	P
	Oatka Creek:								
04230310	Warner Creek at Rock Glen.....	42 41 04	78 06 05	121	7.14	1964-65 1970-72	.3	.2	P
04230320	Oatka Creek at Rock Glen.....	42 41 39	78 07 15	121	16.0	1975-77	1.7	1.2	P
04230380	Oatka Creek at Warsaw.....	42 44 39	78 08 16	121	41.9	1964-75	2.6	1.6	G
04230410	Pearl Creek at Pearl Creek.....	42 50 55	78 02 36	121	10.9	1970-72 1975-77	.2	.1	P
04230423	Oatka Creek at Pavilion Center.....	42 55 43	78 02 20	037	111	1974-77	6.9	4.6	P
04230470	Mad Creek near LeRoy.....	42 58 47	77 57 00	037	10.1	1975-77	0	0	P
04230490	Spring Creek at Mumford.....	42 59 13	77 51 42	051	3.91	1964-65 1970-72	13	9.2	P
04230500	Oatka Creek at Garbutt.....	43 00 36	77 47 30	055	204	1946-75	24	17	G
	Black Creek:								
04230700	Bigelow Creek near South Byron.....	43 02 56	78 05 43	037	7.43	1964-65	.8	.6	P
04230800	Spring Creek at Pumpkin Hill.....	43 05 37	78 04 00	037	21.6	1964-65 1970-72	2.8	1.9	P
04231000	Black Creek at Churchville.....	43 06 02	77 52 57	055	123	1953-75	3.4	.97	G
04231100	Mill Creek near West Chili.....	43 04 31	77 46 56	055	14.0	1964-65 1970-72	2.6	2.1	P
	Erie (Barge Canal):								
04231400	Red Creek near Rochester.....	43 05 32	77 39 08	055	16.2	1964-66 1974 1976	.07	.03	P
04232000	Genesee River at (Driving Park Avenue) Rochester.....	43 10 50	77 37 40	055	2457	1920-75	663	368	GR
04232050	Allen Creek near Rochester.....	43 07 49	77 31 08	055	30.1	1960-75	6.2	2.8	GR
04232060	Salmon Creek at Pultneyville.....	43 16 33	77 11 05	117	18.1	1955 1961 1964-66 1968 1970-72	.2	.1	P
04232070	Salmon Creek near Sodus.....	43 15 53	77 01 32	117	44.7	1961-66 1968-69 1971	.4	.1	P
04232100	Sterling Creek at Sterling.....	43 19 31	76 38 51	011	44.4	1958-75	1.6	.77	G

REFERENCE 30



TOPOGRAPHY TAKEN FROM:
1978 ROCHESTER WEST, NY; 1978 WEST HENRIETTA, NY
1978 SPENCERPORT, NY; 1976 CLIFTON, NY
USGS QUADRANGLE 7.5 MINUTE SERIES

FOUR MILE VICINITY MAP

ERDLE PERFORATING CO.
GATES, NEW YORK

REFERENCE # 30

REFERENCE 31

NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION
Wildlife Resources Center
700 Troy-Schenectady Road
Latham, NY 12110-2400
(518) 783-3932

July 24, 1995

RECEIVED JUL 2 6 1995

Dennis J. Hoyt
EMCON - Wehran-New York, Inc.
1775 Baseline Road, Suite 220
Grand Island, New York 14072-1601

Dear Mr. Hoyt:

We have reviewed the New York Natural Heritage Program files with respect to your recent request for biological information concerning Two EPA Investigation Sites in Monroe County, sites as indicated on your enclosed maps, the Clarkson Landfille site located in the Town of Clarkson; and the Erdle Perforating Site located in the Town of Gates, New York State.

Enclosed is a computer printout covering the area you requested to be reviewed by our staff. The information contained in this report is considered sensitive and may not be released to the public without permission from the New York Natural Heritage Program.

Your project location is adjacent to, a designated Significant Coastal Fish and Wildlife Habitat. This habitat is part of New York State's Coastal Management Program (CMP), which is administered by the NYS Department of State (DOS). Projects which may impact the habitat are reviewed by DOS for consistency with the CMP. For more information regarding this designated habitat and applicable consistency review requirements, please contact:

Greg Capobianco or Steven C. Resler - (518) 474-6000
NYS Department of State
Division of Coastal Resources and Waterfront Revitalization
162 Washington Avenue, Albany, NY 12231

Our files are continually growing as new habitats and occurrences of rare species and communities are discovered. In most cases, site-specific or comprehensive surveys for plant and animal occurrences have not been conducted. For these reasons, we can only provide data which have been assembled from our files. We cannot provide a definitive statement on the presence or absence of species, habitats or natural communities. This information should not be substituted for on-site surveys that may be required for environmental assessment.

NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION
Wildlife Resources Center
700 Troy-Schenectady Road
Latham, NY 12110-2400

This response applies only to known occurrences of rare animals, plants and natural communities and/or significant0 wildlife habitats. You should contact our regional office, Division of Regulatory Affairs, at the address enclosed for information regarding any regulated areas or permits that may be required (e.g., regulated wetlands) under State Law.

If this proposed project is still active one year from now we recommend that you contact us again so that we can update this response.

Sincerely,
Information Services
New York Natural Heritage Program

Encs.
cc: Reg. 8, Wildlife Mgr.
Reg. 8, Fisheries Mgr.
Peter Nye, ESU, Delmar

BIOLOGICAL AND CONSERVATION DATA SYSTEM - ELEMENT OCCURRENCE REPORT, 21 JUL 1995
Prepared by N.Y.S.D.E.C. Natural Heritage Program, Latham New York

(This report contains sensitive information which should be treated in a sensitive manner. Refer to the users guide for explanation of codes and ranks.)

* COUNTY & TOWN	USGS TOPO MAP/ LAT. & LONG.	PRECISION	LAST SEEN	EO RANK	SCIENTIFIC AND COMMON NAME	ELEMENT TYPE	NY STATUS	US STATUS	HERITAGE RANKS	OFFICE USE	OFFICE USE
* MONROE											
CHILI	WEST HENRIETTA 430551 774156	S	1992	AB	SILVER MAPLE-ASH SWAMP SILVER MAPLE-ASH SWAMP	COMMUNITY	U		G3G4 S2S3		4307716 4
CHILI HENRIETTA	WEST HENRIETTA 430544 774139	M		F	CACALIA SUAVEOLENS SWEET-SCENTED INDIAN-PLANTAIN	VASCULAR PLANT	R		G3 S1		4307716 1
CHILI	WEST HENRIETTA 430549 774102	S	1988	CD	CAREX LUPULIFORMIS FALSE HOP SEDGE	VASCULAR PLANT	R		G3? S3		4307716 3
CHILI	WEST HENRIETTA 430551 774156	S	1992	BC	CARYA LACINIOSA BIG SHELLBARK HICKORY	VASCULAR PLANT	U		G5 S1		4307716 4
CITY OF ROCHESTER	ROCHESTER EAST 431128 773724	S	1991	BC	CYPERUS ERYTHRORHIZOS RED-ROOTED FLATSEDGE	VASCULAR PLANT	R		G5 S2		4307725 20
CITY OF ROCHESTER	ROCHESTER WEST 431226 773745	M		H	BUCHNERA AMERICANA BLUE-HEARTS	VASCULAR PLANT	U		G5? SH		4307726 1
CITY OF ROCHESTER	ROCHESTER WEST 431104 773738	M	1905	H	HEDYOTIS PURPUREA VAR PURPUREA PURPLE BLUETS	VASCULAR PLANT	U		G5T5 SH		4307726 4
CITY OF ROCHESTER	ROCHESTER WEST 431046 773743	M	1841	H	PINGUICULA VULGARIS BUTTERWORT	VASCULAR PLANT	R		G5 S2		4307726 2
CITY OF ROCHESTER	ROCHESTER WEST 431104 773738	M	1903	H	SOLIDAGO PTARMICOIDES UPLAND GOLDENROD	VASCULAR PLANT	U		G5 S3		4307726 4
GATES	ROCHESTER WEST 430917 774207	M	1867	H	ASTER BOREALIS RUSH ASTER	VASCULAR PLANT	U		G5 S2		4307726 3
GATES	ROCHESTER WEST 430917 774207	M		H	PHYSALIS VIRGINIANA VIRGINIA GROUND-CHERRY	VASCULAR PLANT	U		G5 SH		4307726 3

BIOLOGICAL AND CONSERVATION DATA SYSTEM - ELEMENT OCCURRENCE REPORT, 21 JUL 1995
Prepared by N.Y.S.D.E.C. Natural Heritage Program, Latham New York

(This report contains sensitive information which should be treated in a sensitive manner. Refer to the users guide for explanation of codes and ranks.)

* COUNTY & TOWN	USGS TOPO MAP/ LAT. & LONG.	PRECISION	LAST SEEN	EO RANK	SCIENTIFIC AND COMMON NAME	ELEMENT TYPE	NY STATUS	US STATUS	HERITAGE RANKS	OFFICE USE	OFFICE USE
GREECE	BRADDOCK HEIGHTS 431819 774451	S	1994	B	GREAT LAKES AQUATIC BED GREAT LAKES AQUATIC BED	COMMUNITY	U		G4 S3		4307736 3
GREECE PARMA	BRADDOCK HEIGHTS 431819 774451	S	1989	BC	CHLIDONIAS NIGER BLACK TERN	BIRD	P SC	C2	G4 S2	ESU	4307736 3
GREECE	BRADDOCK HEIGHTS 431820 774413	M	1981	E	CISTOTHORUS PLATENSIS SEDGE WREN	BIRD	P SC		G5 S2	ESU	4307736 2
GREECE CITY OF ROCHESTER	ROCHESTER EAST 431312 773708	M		H	JUNIPERUS HORIZONTALIS PROSTRATE JUNIPER	VASCULAR PLANT	E		G5 S1		4307725 6
HAMLIN KENDALL MURRAY	HAMLIN 432047 775343	S	1985	E	WARM WATER FISH CONCENTRATION AREA WARM WATER FISH CONCENTRATION AREA	OTHER	U		S?		4307738 3
IRONDEQUOIT	ROCHESTER EAST 431225 773727	M	1921	H	CAREX FORMOSA HANDSOME SEDGE	VASCULAR PLANT	R	C2	G4 S2S3		4307725 1 *
SWEDEN	BROCKPORT 431222 775739	M		H	GALIUM CONCINNUM SHINING BEDSTRAW	VASCULAR PLANT	U		G5 SH		4307728 1

Records Processed

* Located along surface water pathway 13.5 miles from the PPE

greater than 4 mile radius & not along surface water pathway

REFERENCE # 31
PAGE 4 OF 6

USERS GUIDE TO NATURAL HERITAGE DATA

DATA SENSITIVITY: The data provided in these reports is sensitive and should be treated in a sensitive manner. The data is for your in-house use and may not be released to the general public or incorporated in any public document without prior permission from the Natural Heritage Program.

BIOLOGICAL AND CONSERVATION DATA SYSTEM (BCD) ELEMENT OCCURRENCE REPORTS:

COUNTY NAME: County where the element occurrence is located.
TOWN NAME: Town where the element occurrence is located.
USGS 7 1/2' TOPOGRAPHIC MAP: Name of 7.5 minute US Geological Survey (USGS) quadrangle map (scale 1:24,000).
LAT: Centrum latitude coordinates of the location of the occurrence. Important: latitude and longitude must be used with PRECISION (see below). For example, the location of an occurrence with M (minute) precision is not precisely known at this time and is thought to occur somewhere within a 1.5 mile radius of the given latitude/longitude coordinates.
LONG: Centrum longitude coordinates of the location of the occurrence. See also LAT above.
PRECISION: S - seconds: Location known precisely. (within a 300' or 1-second radius of the latitude and longitude given.
M - minutes: Location known only to within a 1.5 mile (1 minute) radius of the latitude and longitude given.
SIZE (acres): Approximate acres occupied by the element at this location.
SCIENTIFIC NAME: Scientific name of the element occurrence.
COMMON NAME: Common name of the element occurrence.
ELEMENT TYPE: Type of element (i.e. plant, community, other, etc.)
LAST SEEN: Year element occurrence last observed extant at this location.
EO RANK: Comparative evaluation summarizing the quality, condition, viability and defensibility of this occurrence. Use in combination with LAST SEEN and PRECISION.

- A-E = Extant: A=excellent, B=good, C=marginal, D=poor, E=extant but with insufficiently data to assign a rank of A - D.
- F = Failed to find. Did not locate species, but habitat is still there and further field work is justified.
- H = Historic. Historic occurrence without any recent field information.
- X = Extirpated. Field/other data indicates element/habitat is destroyed and the element no longer exists at this location.

NYS STATUS - animals: Categories of Endangered and Threatened species are defined in New York State Environmental Conservation Law section 11-0535. Endangered, Threatened, and Special Concern species are listed in regulation 6NYCRR 182.5.

- E = Endangered Species: any species which meet one of the following criteria:
  1) Any native species in imminent danger of extirpation or extinction in New York.
  2) Any species listed as endangered by the United States Department of the Interior, as enumerated in the Code of Federal Regulations 50 CFR 17.11.
- T = Threatened Species: any species which meet one of the following criteria:
  1) Any native species likely to become an endangered species within the foreseeable future in NY.
  2) Any species listed as threatened by the U.S. Department of the Interior, as enumerated in the Code of the Federal Regulations 50 CFR 17.11.
- SC = Special Concern Species: those species which are not yet recognized as endangered or threatened, but for which documented concern exists for their continued welfare in New York. Unlike the first two categories, species of special concern receive no additional legal protection under Environmental Conservation Law section 11-0535 (Endangered and Threatened Species).
- P = Protected Wildlife (defined in Environmental Conservation Law section 11-0103): wild game, protected wild birds, and endangered species of wildlife.
- U = Unprotected (defined in Environmental Conservation Law section 11-0103): the species may be taken at any time without limit; however a license to take may be required.
- G = Game (defined in Environmental Conservation Law section 11-0103): any of a variety of big game or small game species as stated in the Environmental Conservation Law; many normally have an open season for at least part of the year, and are protected at other times.

NYS STATUS - plants: The following categories are defined in regulation 6NYCRR part 193.3 and apply to New York State Environmental Conservation Law section 9-1503.

- (blank) = no state status
- E = Endangered Species: listed species are those with:
  1) 5 or fewer extant sites, or
  2) fewer than 1,000 individuals, or
  3) restricted to fewer than 4 U.S.G.S. 7 1/2 minute topographical maps, or
  4) species listed as endangered by U.S. Department of Interior, as enumerated in Code of Federal Regulations 50 CFR 17.11.
- T = Threatened: listed species are those with:
  1) 6 to fewer than 20 extant sites, or
  2) 1,000 to fewer than 3,000 individuals, or
  3) restricted to not less than 4 or more than 7 U.S.G.S. 7 and 1/2 minute topographical maps, or
  4) listed as threatened by U.S. Department of Interior, as enumerated in Code of Federal Regulations 50 CFR 17.11.
- R = Rare: listed species have:
  1) 20 to 35 extant sites, or
  2) 3,000 to 5,000 individuals statewide.
- U = Unprotected
- V = Exploitably vulnerable: listed species are likely to become threatened in the near future throughout all or a significant portion of their range within the state if causal factors continue unchecked.

NYS STATUS - communities: At this time there are no categories defined for communities.

continued on next page

FEDERAL STATUS (plants and animals): The categories of federal status are defined by the United States Department of the Interior as part of the 1974 Endangered Species Act (see Code of Federal Regulations 50 CFR 17). The species listed under this law are enumerated in the Federal Register vol. 50, no. 188, pp. 39526 - 39527.

(blank) = No Federal Endangered Species Act status.
LE = The taxon is formally listed as endangered.
LT = The taxon is formally listed as threatened.
LELT = The taxon is formally listed as endangered in part of its range and threatened in other parts.
PE = The taxon is proposed as endangered.
PT = The taxon is proposed as threatened.
C1 = Candidate, category 1 - There is sufficient information to list the taxon as endangered or threatened.
C2 = Candidate, category 2 - The taxon may be appropriate for listing but more data are needed.
3A = The taxon considered extinct by the U. S. Fish and Wildlife Service.
3B = The taxon is no longer considered taxonomically distinct by the U.S. Fish and Wildlife Service & thus not appropriat for listing.
3C = The taxon has been shown to be more abundant, widespread, or better protected than previously thought and therefore no in need of official listing.
* = The taxon is possibly extinct.
** = The taxon is thought to be extinct in the wild but extant in cultivation.

Additional codes:
(C2NL) = Heritage code indicating that the taxon is a candidate in some areas, not listed in other areas.
(E/SA) = Heritage code indicating that the taxon is endangered because of similarity of appearance to other endangered specie or subspecies.

FEDERAL STATUS (communities): At this time there are no categories defined for communities.

GLOBAL AND STATE RANKS (animals, plants, communities and others): Each element has a global and state rank as determined by th NY Natural Heritage Program. These ranks carry no legal weight. The global rank reflects the rarity of the element throughout the world and the state rank reflects the rarity within New York State. Infraspecific taxa are also assigned a taxon rank t reflect the infraspecific taxon's rank throughout the world.

GLOBAL RANK:
G1 = Critically imperiled globally because of extreme rarity (5 or fewer occurrences), or very few remaining acres, or miles of stream) or especially vulnerable to extinction because of some factor of its biology.
G2 = Imperiled globally because of rarity (6 - 20 occurrences, or few remaining acres, or miles of stream) or very vulnerable to extinction throughout its range because of other factors.
G3 = Either rare and local throughout its range (21 to 100 occurrences), or found locally (even abundantly at some of its locations) in a restricted range (e.g. a physiographic region), or vulnerable to extinction throughout its range because of other factors.
G4 = Apparently secure globally, though it may be quite rare in parts of its range, especially at the periphery.
G5 = Demonstrably secure globally, though it may be quite rare in parts of its range, especially at the periphery.
GH = Historically known, with the expectation that it might be rediscovered.
GX = Species believed to be extinct.
GU = Status unknown.

STATE RANK:
S1 = Typically 5 or fewer occurrences, very few remaining individuals, acres, or miles of stream, or some factor of its biology making it especially vulnerable in New York State.
S2 = Typically 6 to 20 occurrences, few remaining individuals, acres, or miles of stream, or factors demonstrably making it very vulnerable in New York State.
S3 = Typically 21 to 100 occurrences, limited acreage, or miles of stream in New York State.
S4 = Apparently secure in New York State.
S5 = Demonstrably secure in New York State.
SH = Historically known from New York State, but not seen in the past 15 years.
SX = Apparently extirpated from New York State.
SA = Accidental or casual in the state.
SE = Exotic, not native to New York State.
SP = Element potentially occurs in the state but there are no occurrences reported.
SR = Reported in the state but without persuasive documentation.
SU = Status unknown.

TAXON (T) RANK: The T-ranks (T1 - T5) are defined the same way the Global ranks (G1 - G5) are but the T-rank only refers to the rarity of the subspecific taxon of the species as a whole.
T1 through T5 = See Global Rank definitions above.
Q = Indicates a question exists whether or not the taxon is a good taxonomic entity.
? = Indicates a question exists about the rank.

OFFICE USE: Information for use by the Natural Heritage Program.

SIGNIFICANT HABITAT REPORTS:
REPORT ID: Significant habitat file code.
NAME OF AREA: Site name where the significant habitat is located.
TYPE OF AREA: Type of significant habitat.
COUNTY/TOWN OR CITY: County and town where the significant habitat is located.
QUADRANGLE: Name of the USGS 7.5 minute topographic map where the significant habitat is located.
LATITUDE: Latitude coordinates (degrees, minutes, seconds) for the location of the significant habitat.
LONGITUDE: Longitude coordinates for the location of the significant habitat.

REFERENCE 32

United States Department of the Interior

FISH AND WILDLIFE SERVICE
3817 Luker Road
Cortland, New York 13045

RECEIVED AUG 2 1 1995

August 16, 1995

Ms. Katherine B. Galanti
Staff Scientist
Wehran-New York, Inc.
1775 Baseline Road, Suite 220
Grand Island, NY 14072-1601

Dear Ms. Galanti:

This responds to your letter of July 7, 1995, requesting information on the presence of endangered or threatened species in the vicinity of the following projects:

1. Clarkson Landfill, Redman Road, Town of Clarkson, Monroe County, New York. EPA Site ID - NYD980762793.

2. Erdle Perforating, 100 Pixley Industrial Parkway, Town of Gates, Monroe County, New York. EPA Site ID - NYD982531865.

Except for occasional transient individuals, no Federally listed or proposed endangered or threatened species under our jurisdiction are known to exist in the respective project impact areas. Therefore, no Biological Assessment or further Section 7 consultation under the Endangered Species Act (87 Stat. 884, as amended; 16 U.S.C. 1531 et seq.) is required with the U.S. Fish and Wildlife Service (Service). Should project plans change, or if additional information on listed or proposed species becomes available, this determination may be reconsidered. A compilation of Federally listed and proposed endangered and threatened species in New York is enclosed for your information.

The above comments pertaining to endangered species under our jurisdiction are provided pursuant to the Endangered Species Act. This response does not preclude additional Service comments under the Fish and Wildlife Coordination Act or other legislation.

For additional information on fish and wildlife resources or State-listed species, we suggest you contact:

New York State Department of
Environmental Conservation
Region 8
6274 East Avon-Lima Road
Avon, NY 14414
(716) 226-2466

New York State Department of
Environmental Conservation
Wildlife Resources Center - Information Serv.
New York Natural Heritage Program
700 Troy-Schenectady Road
Latham, NY 12110-2400
(518) 783-3932

The National Wetlands Inventory (NWI) maps of the Hamlin and Rochester West Quadrangles indicate that there may be wetlands in the project vicinity. However, while the NWI maps are reasonably accurate, they should not be used in lieu of field surveys for determining the presence of wetlands or delineating wetland boundaries for Federal regulatory purposes.

Work in certain waters and wetlands of the United States may require a permit from the U.S. Army Corps of Engineers (Corps). If a permit is required, in reviewing the application pursuant to the Fish and Wildlife Coordination Act, the Service may concur, with or without stipulations, or recommend denial of the permit depending upon the potential adverse impacts on fish and wildlife resources associated with project implementation. The need for a Corps permit may be determined by contacting Mr. Paul Leuchner, Chief, Regulatory Branch, U.S. Army Corps of Engineers, 1776 Niagara Street, Buffalo, NY 14207 (telephone: [716] 879-4321).

If you have any questions regarding this letter, contact Tom McCartney at (607) 753-9334.

Sincerely,

Sherry W. Morgan

Sherry W. Morgan
Field Supervisor

Enclosure

cc: NYSDEC, Avon, NY (Regulatory Services)
NYSDEC, Latham, NY
COE, Buffalo, NY
EPA, Chief, Marine & Wetlands Protection Branch, New York, NY

FEDERALLY LISTED AND PROPOSED ENDANGERED AND THREATENED SPECIES IN NEW YORK

Common Name	Scientific Name	Status	Distribution
FISHES			
Sturgeon, shortnose*	*Acipenser brevirostrum*	E	Hudson River & other Atlantic coastal rivers
REPTILES			
Turtle, green*	*Chelonia mydas*	T	Oceanic summer visitor coastal waters
Turtle, hawksbill*	*Eretmochelys imbricata*	E	Oceanic summer visitor coastal waters
Turtle, leatherback*	*Dermochelys coriacea*	E	Oceanic summer resident coastal waters
Turtle, loggerhead*	*Caretta caretta*	T	Oceanic summer resident coastal waters
Turtle, Atlantic ridley*	*Lepidochelys kempii*	E	Oceanic summer resident coastal waters
BIRDS			
Eagle, bald	*Haliaeetus leucocephalus*	T	Entire state
Falcon, peregrine	*Falco peregrinus*	E	Entire state - re-establishment to former breeding range in progress
Plover, piping	*Charadrius melodus*	E T	Great Lakes Watershed Remainder of coastal New York
Tern, roseate	*Sterna dougallii dougallii*	E	Southeastern coastal portions of state
MAMMALS			
Bat, Indiana	*Myotis sodalis*	E	Entire state
Cougar, eastern	*Felis concolor couguar*	E	Entire state - probably extinct
Whale, blue*	*Balaenoptera musculus*	E	Oceanic
Whale, finback*	*Balaenoptera physalus*	E	Oceanic
Whale, humpback*	*Megaptera novaeangliae*	E	Oceanic
Whale, right*	*Eubalaena glacialis*	E	Oceanic
Whale, sei*	*Balaenoptera borealis*	E	Oceanic
Whale, sperm*	*Physeter catodon*	E	Oceanic
MOLLUSKS			
Snail, Chittenango ovate amber	*Succinea chittenangoensis*	T	Madison County
Mussel, dwarf wedge	*Alasmidonta heterodon*	E	Orange County - lower Neversink River

* Except for sea turtle nesting habitat, principal responsibility for these species is vested with the National Marine Fisheries Service.

Region 5 - 08/11/95 - 2 pp.

FEDERALLY LISTED AND PROPOSED ENDANGERED AND THREATENED SPECIES IN NEW YORK (Cont'd)

Common Name	Scientific Name	Status	Distribution
BUTTERFLIES			
Butterfly, Karner blue	*Lycaeides melissa samuelis*	E	Albany, Saratoga, Warren, and Schenectady Counties
PLANTS			
Monkshood, northern wild	*Aconitum noveboracense*	T	Ulster, Sullivan, and Delaware Counties
Pogonia, small whorled	*Isotria medeoloides*	T	Entire state
Swamp pink	*Helonias bullata*	T	Staten Island - presumed extirpated
Gerardia, sandplain	*Agalinis acuta*	E	Nassau and Suffolk Counties
Fern, American hart's-tongue	*Phyllitis scolopendrium* var. *americana*	T	Onondaga and Madison Counties
Orchid, eastern prairie fringed	*Platanthera leucophea*	T	Not relocated in New York
Bulrush, northeastern	*Scirpus ancistrochaetus*	E	Not relocated in New York
Roseroot, Leedy's	*Sedum integrifolium* ssp. *Leedyi*	T	West shore of Seneca Lake
Amaranth, seabeach	*Amaranthus pumilus*	T	Atlantic coastal plain beaches
Goldenrod, Houghton's	*Solidago houghtonii*	T	Genesee County

E=endangered T=threatened P=proposed

Region 5 - 08/11/95 - 2 pp.

REFERENCE 33

REFERENCE # 33

PAGE 1 OF 1

WE

Record of Telephone Call

Grand Island Regional Office

Project No. 5 5 9 4 0 0 1

Date 9/18/95 Time 9:25 am

Page 1 of 1

Project Erdle Perforating SS1 Client CBASCO/USEPA

Subject Fishing in Genesee River

Call (to) (from) NYSDEC Reg 8 (Company) Telephone No. (716) 226-2466

Discussion between Gene Lane (of Company) and Kathy Galante (of Wehran)

Details of Call Spoke with Gene Lane, Fisheries Biologist for DEC/8, regarding fishing in the Genesee River. He said that there is no commercial fishing in the River. Recreational fishing occurs in the River from Mt. Morris to the Court St dam in Rochester for species such as northern pike, small-mouth bass, walleye, and channel catfish (resident warmwater species). From the Court St dam through the lower falls in Rochester, the river is a gorge & is inaccessible to the public. Below the lower falls to the mouth of the river, fishing is greatly influenced by Lake Ontario. The main species for recreational fishermen are trout and salmon.

The DEC has no numbers on fish consumption.

Action Required

Copies to (1) file (2) (3) (4)

Circulation to (1) (2) (3) (4) (5) (6) (7) (8) File

REFERENCE 34

REFERENCE 34

REFERENCE # 34
PAGE 1 OF 1

EMCON

By FDG Date 11-9-95
Chkd. by _____ Date _____
Subject Wetland Acreage from 4-mile Radius Map

Job No. 85594-001.000
Sheet No. 1 of 1

0 - 1/4 mile

66648
33560
484916
277692
406396 sq ft = 9.33 ac

1/4 - 1/2 mile

1365662
50360
1316022 sq. ft = 30.21 ac

1/2 - 1 mile

1601509
2533463
1398735
41332
25230
90431
316539
85194
41685
245459
751506
144580
7275663 sq ft = 167.00 ac

1 - 2 miles

6166270
1130755
148977
784691
42761
747922
643522
1219525
601854
2759037
2268875
14075139 sq ft = 323.12 ac

2 - 3 miles

5238011
884717
3491864
1077989
3224144
5349056
6758554
3314807
11544892
40,884,034 sq ft = 940 ac

3 - 4 miles

14909640
18796900
18001230
21019530
13588832
1048502
87,364,634 sq ft = 2005.6 ac

Form DR001

REFERENCE 35

MEMORANDUM

TO: File

DATE: September 13, 1995

FROM: K. Galanti

RE: Meeting with NYSDEC Region 8

Today I met with David Pratt of the New York State Department of Environmental Conservation (NYSDEC) Region 8 office. Mr. Pratt is the NYSDEC Project Manager for the Erdle Perforating site. Currently, phase 1 of a remedial investigation (RI) has been completed by Radian Corporation for the Erdle site and a draft report submitted to the NYSDEC. The NYSDEC has commented and is waiting to receive Radian Corp.'s response to those comments. Mr. Pratt said that the NYSDEC is requiring a second phase of remedial investigation to further characterize the site. The second phase of work will require additional well installations (deeper bedrock zones) and further groundwater sampling.

Mr. Pratt provided me with a copy of the draft RI report to assist with our report and scoring of the site.