



UCAR CARBON COMPANY INC. P.O. BOX 513, COLUMBIA, TENNESSEE 38402-0513

November 1, 1991

Mr. Robert J. Mitrey
Associate Sanitary Engineer
New York State Department of Environmental Conservation
600 Delaware Street
Buffalo, New York 14202-1073

Re: Quarterly Report of Groundwater Analysis
Republic Solid Waste Management Facility
Post-Closure Monitoring Program

Dear Mr. Mitrey:

I am enclosing a copy of the fourteenth quarter's groundwater sampling analysis from the closed Republic Solid Waste Management Facility. Bedrock well, BW-4, continues to demonstrate some slight volatile organic contamination in the less than one part per million range.

The following will summarize the positive organic parameters:

<u>Contaminate</u>	<u>14th Qtr.</u> <u>ppb</u>	<u>Mean</u> <u>Conc.</u> <u>ppb</u>	<u>Range</u> <u>ppb</u>
Vinyl Chloride	47.8	94.6	29-300
Chloroform	11.3	7.5	0-11.3
Trichloroethane	476	343.8	30-740
Tetrachloroethene	361	289	72-380
Hexachlorobutadiene	160	53.7	0-160

UCAR Carbon Company continues to maintain the opinion that this contamination at well B4-86 is not related to the closed Republic Solid Waste Management Facility.

I have also enclosed a recent letter from our laboratory explaining a footnote contained in this particular report.

1. DuPont
2. MCM Review
3. POC 33403
logged on nb 11/14/91
file gw boxes
OKAR Regular

Mr. Robert J. Mitrey
November 1, 1991
Page 2

If you have further questions or concerns about this data, please contact me at 615-380-4215.

Very truly yours,

UCAR CARBON COMPANY, INC.

A handwritten signature in black ink that reads "R.A. Bolton". The signature is written in a cursive, slightly slanted style.

R. A. Bolton
Manager HS&EP

RAB/bc

Enclosures

cc: Mr. Jim Devald, Sr. Public Health Engineer
Niagara County Health Department

Mr. Dave O'Tool, New York Department of Environmental Conservation

Mr. A. C. Ogg, UCAR Carbon Company, Niagara



2186 Liberty Drive
P.O. Box 165
Niagara Falls, NY 14304

**QUARTERLY REPUBLIC WASTE MANAGEMENT FACILITY POST CLOSURE
MONITORING PROGRAM**

Report Prepared For

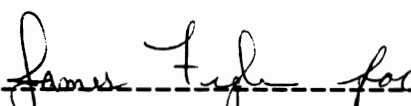
**UCAR CARBON
COMPANY, INC.**

October 10, 1991
Job Number 913000
AES Report CTC

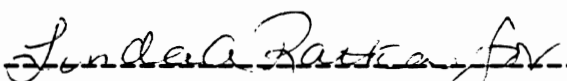
COMMITMENT
TO
HONESTY - QUALITY - SERVICE

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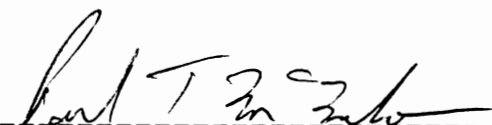
The following report, as well as the supporting data, have been carefully reviewed for accuracy, adherence to the cited methods, and completeness. All data contained in this report was generated in accordance with the AES Laboratory Quality Assurance/Quality Control Program.



Denise R. Tuhovak
Organics Supervisor



Gary L. Amato
Technical Supervisor



Paul T. McMahon
Quality Control Officer

ADVANCED ENVIRONMENTAL SERVICES, INC.

QUARTERLY MONITORING WELL INFORMATION

UCAR Carbon Company
Niagara Falls, New York

AES Code: CTC

Monitoring Well I.D.	Evacuation Date	Top of Inner Casing Elevation (ft.)	Monitoring Well Diameter	Water Level (ft.)	Water Elevation (ft.)	Bottom of Well (ft.)	Volume of Standing Water (gallons)	Volume of Evacuated Water (gallons)	Recharge Rate
BW-1 ✓	9/16/91	610.72	4	20.61	590.11	28.60	5.22	16.0	C
BW-2 ✓	9/16/91	608.43	4	18.53	589.90	26.10	4.94	15.0	C
BW-3 ✓	9/17/91	604.72	4	16.60	588.12	24.70	5.29	16.0	C
BW-4 ✓	9/17/91	607.08	4	16.49	590.59	22.50	3.92	12.0	C
BW-5 ✓	9/16/91	603.33	4	15.87	587.46	25.70	6.42	20.0	C
BW-6	9/17/91	607.04	4	18.60	588.44	24.65	3.95	12.0	R
MW-1 ✓	9/16/91	609.43	2	14.65	594.78	21.10	1.05	1.5 (DRY)	S
MW-2 ✓	9/17/91	607.54	2	18.21	589.33	24.40	1.01	1.5 (DRY)	R
MW-3 ✓	9/16/91	601.61	2	16.20	585.41	16.20	0.00	DRY	N/A
OW-1 SOUTH	9/17/91	608.81	4	81.05	608.81	81.05	0.00	DRY	N/A
OW-2 NORTH	9/17/91	607.06	4	35.90	607.06	35.90	0.00	DRY	N/A

Abbreviations:

VS = Very Slow ----- Recharge Rate longer than 24 hr period.
S = Slow ----- Recharge Rate within 24 hr period.
R = Rapid ----- Recharge Rate within 1 hr period.
C = Continuous ---- Recharge Rate immediate.

Michael Champ
Technician

9-30-91
Date

ADVANCED ENVIRONMENTAL SERVICES, INC.

QUARTERLY MONITORING FIELD INFORMATION

UCAR Carbon Company
Niagara Falls, New York

AES Code: CTC

Monitoring Well I.D.	Date	Sampling Time	Water Level (ft.)	Filter Time	Comments
BW-1	9/16/91	11:52 AM	20.72	4:57 PM	Slightly turbid w/suspended solids, organic odor
BW-2	9/16/91	4:15 PM	18.60	5:00 PM	Turbid black, strong sulfur odor
BW-3	9/17/91	11:05 AM	16.60	5:00 PM	Turbid tan w/suspended solids & strong odor
BW-4	9/17/91	2:30 PM	16.92	4:50 PM	Clear to rust color, oily sheen, sulfur odor
BW-5	9/16/91	3:10 PM	15.90	4:50 PM	Clear w/black suspended solids, sulfur odor
BW-6	9/17/91	3:45 PM	19.84	5:10 PM	Clear to turbid, noticeable sulfur odor.
MW-1	9/17/91	11:30 AM	14.85	5:15 PM	Turbid tan with slight sulfur odor.
MW-2	9/18/91	11:00 AM	23.31	1:30 PM	Turbid w/black particles, strong odor
MW-3 ✓	9/17/91	1:00 PM	DRY	N/A	Well dry, no sample taken
OW-1 SOUTH	N/A	N/A	N/A	N/A	N/A
OW-2 NORTH	N/A	N/A	N/A	N/A	N/A
BLIND DUP	9/17/91	2:30 PM	N/A	4:40 PM	Clear to rust color, oily sheen, sulfur odor

The blind duplicate site was BW-4 and the quality control site was BW-6.

N/A = Not Available

Michael Champ
Technician

9-30-91
Date

CUST SAMPLE ID: BW-1
 COLLECTION DATE: 9/16/91

LABORATORY JOB NO: 912963
 LABORATORY REFERENCE NO: 7525
 INORGANIC ANALYSIS

COLLECTION METHOD: GRAB
 SAMPLE TYPE: GROUNDWATER

Analytical Parameters	Analytical Results	Units	Method Detection Limits	Practical Quantifiable Limit	Method
Iron, Total (on flame)	14.5	mg/l	---	0.30	EPA 236.1
Iron, Soluble (on flame)	0.44	mg/l	---	0.30	EPA 236.1
Potassium, Total (on flame)	4.87	mg/l	---	1.00	EPA 258.1
Potassium, Soluble (on flame)	3.66	mg/l	---	1.00	EPA 258.1
Zinc, Total (on flame)	23.0	mg/l	---	0.05	EPA 289.1
Zinc, Soluble (on flame)	1.14	mg/l	---	0.05	EPA 289.1
Ammonia	0.16	mg/l	---	0.02	EPA 350.1
Nitrite	BQL *	mg/l	---	0.01	EPA 353.2
Total Kjeldahl Nitrogen	0.4	mg/l	---	0.1	EPA 351.2

FOOTNOTES

* Below Quantifiable Limits.

CUST SAMPLE ID: BW-2
COLLECTION DATE: 9/16/91

LABORATORY JOB NO: 912963
LABORATORY REFERENCE NO: 7526
INORGANIC ANALYSIS

COLLECTION METHOD: GRAB
SAMPLE TYPE: GROUNDWATER

Analytical Parameters	Analytical Results	Units	Method Detection Limits	Practical Quantifiable Limit	Method
Iron, Total (on flame)	15.7	mg/l	---	0.30	EPA 236.1
Iron, Soluble (on flame)	2.57	mg/l	---	0.30	EPA 236.1
Potassium, Total (on flame)	12.7	mg/l	---	1.00	EPA 258.1
Potassium, Soluble (on flame)	11.7	mg/l	---	1.00	EPA 258.1
Zinc, Total (on flame)	66.0	mg/l	---	0.05	EPA 289.1
Zinc, Soluble (on flame)	0.73	mg/l	---	0.05	EPA 289.1
Ammonia	0.90	mg/l	---	0.02	EPA 350.1
Nitrite	BQL *	mg/l	---	0.01	EPA 353.2
Total Kjeldahl Nitrogen	1.9	mg/l	---	0.1	EPA 351.2

FOOTNOTES

* Below Quantifiable Limits.

CUST SAMPLE ID: BW-5
COLLECTION DATE: 9/16/91

LABORATORY JOB NO: 912963
LABORATORY REFERENCE NO: 7527
INORGANIC ANALYSIS

COLLECTION METHOD: GRAB
SAMPLE TYPE: GROUNDWATER

Analytical Parameters	Analytical Results	Units	Method Detection Limits	Practical Quantifiable Limit	Method
Iron, Total (on flame)	21.6	mg/l	---	0.30	EPA 236.1
Iron, Soluble (on flame)	0.76	mg/l	---	0.30	EPA 236.1
Potassium, Total (on flame)	4.38	mg/l	---	1.00	EPA 258.1
Potassium, Soluble (on flame)	3.18	mg/l	---	1.00	EPA 258.1
Zinc, Total (on flame)	10.0	mg/l	---	0.05	EPA 289.1
Zinc, Soluble (on flame)	0.10	mg/l	---	0.05	EPA 289.1
Ammonia	0.13	mg/l	---	0.02	EPA 350.1
Nitrite	BQL *	mg/l	---	0.01	EPA 353.2
Total Kjeldahl Nitrogen	0.4	mg/l	---	0.1	EPA 351.2

FOOTNOTES

* Below Quantifiable Limits.

CUST SAMPLE ID: TRIP BLANK
COLLECTION DATE: 9/16/91

LABORATORY JOB NO: 912963
LABORATORY REFERENCE NO: 7528
ORGANIC ANALYSIS

COLLECTION METHOD: GRAB
SAMPLE TYPE: BAKER WATER

Analytical Parameters	Analytical Results	Units	Method Detection Limits	Practical Quantifiable Limit	Method
Chloromethane	BQL *	ug/l, ppb	---	10.0	SW846 8240
Vinyl Chloride	BQL	ug/l, ppb	---	10.0	SW846 8240
Chloroethane	BQL	ug/l, ppb	---	10.0	SW846 8240
Bromomethane	BQL	ug/l, ppb	---	10.0	SW846 8240
Acetone	BQL	ug/l, ppb	---	50.0	SW846 8240
1,1-Dichloroethene	BQL	ug/l, ppb	---	5.00	SW846 8240
Carbon Disulfide	BQL	ug/l, ppb	---	5.00	SW846 8240
Methylene Chloride	BQL	ug/l, ppb	---	10.0	SW846 8240
trans-1,2-Dichloroethene	BQL	ug/l, ppb	---	5.00	SW846 8240
1,1-Dichloroethane	BQL	ug/l, ppb	---	5.00	SW846 8240
Vinyl acetate	BQL	ug/l, ppb	---	10.0	SW846 8240
2-Butanone	BQL	ug/l, ppb	---	50.0	SW846 8240
Chloroform	BQL	ug/l, ppb	---	5.00	SW846 8240
1,1,1-Trichloroethane	BQL	ug/l, ppb	---	5.00	SW846 8240
Carbon Tetrachloride	BQL	ug/l, ppb	---	5.00	SW846 8240
Benzene	BQL	ug/l, ppb	---	5.00	SW846 8240
1,2-Dichloroethane	BQL	ug/l, ppb	---	5.00	SW846 8240
Trichloroethene	BQL	ug/l, ppb	---	5.00	SW846 8240
1,2-Dichloropropane	BQL	ug/l, ppb	---	5.00	SW846 8240
Bromodichloromethane	BQL	ug/l, ppb	---	5.00	SW846 8240
2-Chloroethyl vinyl ether	BQL	ug/l, ppb	---	10.0	SW846 8240
4-Methyl-2-pentanone	BQL	ug/l, ppb	---	50.0	SW846 8240
cis-1,3-Dichloropropene	BQL	ug/l, ppb	---	5.00	SW846 8240
Toluene	BQL	ug/l, ppb	---	5.00	SW846 8240
trans-1,3-Dichloropropene	BQL	ug/l, ppb	---	5.00	SW846 8240

CUST SAMPLE ID: TRIP BLANK
COLLECTION DATE: 9/16/91

LABORATORY JOB NO: 912963
LABORATORY REFERENCE NO: 7528
ORGANIC ANALYSIS

COLLECTION METHOD: GRAB
SAMPLE TYPE: BAKER WATER

Analytical Parameters	Analytical Results	Units	Method Detection Limits	Practical Quantifiable Limit	Method
1,1,2-Trichloroethane	BQL *	ug/l, ppb	---	5.00	SW846 8240
Tetrachloroethene	BQL	ug/l, ppb	---	5.00	SW846 8240
Chlorodibromomethane	BQL	ug/l, ppb	---	5.00	SW846 8240
Chlorobenzene	BQL	ug/l, ppb	---	5.00	SW846 8240
Ethylbenzene	BQL	ug/l, ppb	---	5.00	SW846 8240
Bromoform	BQL	ug/l, ppb	---	5.00	SW846 8240
1,1,2,2-Tetrachloroethane	BQL	ug/l, ppb	---	5.00	SW846 8240
2-Hexanone	BQL	ug/l, ppb	---	50.0	SW846 8240
m/p-Xylene	BQL	ug/l, ppb	---	5.00	SW846 8240
o-Xylene	BQL	ug/l, ppb	---	5.00	SW846 8240
Styrene	BQL	ug/l, ppb	---	5.00	SW846 8240

FOOTNOTES

* Below Quantifiable Limits.

CUST SAMPLE ID: FIELD BLANK
COLLECTION DATE: 9/16/91

LABORATORY JOB NO: 912963
LABORATORY REFERENCE NO: 7529
INORGANIC ANALYSIS

COLLECTION METHOD: GRAB
SAMPLE TYPE: DI WATER

Analytical Parameters	Analytical Results	Units	Method Detection Limits	Practical Quantifiable Limit	Method
Iron, Total (on flame)	BQL *	mg/l	---	0.30	EPA 236.1
Potassium, Total (on flame)	BQL	mg/l	---	1.00	EPA 258.1
Zinc, Total (on flame)	BQL	mg/l	---	0.05	EPA 289.1
Ammonia	0.13	mg/l	---	0.02	EPA 350.1
Nitrite	BQL	mg/l	---	0.01	EPA 353.2
Total Kjeldahl Nitrogen	0.4	mg/l	---	0.1	EPA 351.2

FOOTNOTES

* Below Quantifiable Limits.

CUST SAMPLE ID: FIELD BLANK
COLLECTION DATE: 9/16/91

LABORATORY JOB NO: 912963
LABORATORY REFERENCE NO: 7529
ORGANIC ANALYSIS

COLLECTION METHOD: GRAB
SAMPLE TYPE: DI WATER

Analytical Parameters	Analytical Results	Units	Method Detection Limits	Practical Quantifiable Limit	Method
4-Chloro-3-Methylphenol	BQL *	ug/l,ppb	---	10	SW846 8270
2,4,6-Trichlorophenol	BQL	ug/l,ppb	---	10	SW846 8270
2,4,5-Trichlorophenol	BQL	ug/l,ppb	---	10	SW846 8270
2,4-Dinitrophenol	BQL	ug/l,ppb	---	40	SW846 8270
4-Nitrophenol	BQL	ug/l,ppb	---	40	SW846 8270
4,6-Dinitro-2-methylphenol	BQL	ug/l,ppb	---	40	SW846 8270
Pentachlorophenol	BQL	ug/l,ppb	---	40	SW846 8270
Phenol	BQL	ug/l,ppb	---	10	SW846 8270
2-Methylphenol	BQL	ug/l,ppb	---	10	SW846 8270
4-Methylphenol	BQL	ug/l,ppb	---	10	SW846 8270
2-Nitrophenol	BQL	ug/l,ppb	---	10	SW846 8270
2,4-Dimethylphenol	BQL	ug/l,ppb	---	10	SW846 8270
Benzoic Acid	BQL	ug/l,ppb	---	30	SW846 8270
2,4-Dichlorophenol	BQL	ug/l,ppb	---	10	SW846 8270
2-methylnaphthalene	BQL	ug/l,ppb	---	10	SW846 8270
Hexachlorocyclopentadiene	BQL	ug/l,ppb	---	10	SW846 8270
2-Chloronaphthalene	BQL	ug/l,ppb	---	10	SW846 8270
2-Nitroaniline	BQL	ug/l,ppb	---	40	SW846 8270
Dimethylphthalate	BQL	ug/l,ppb	---	10	SW846 8270
2,6-Dinitrotoluene	BQL	ug/l,ppb	---	10	SW846 8270
Acenaphthylene	BQL	ug/l,ppb	---	10	SW846 8270
3-Nitroaniline	BQL	ug/l,ppb	---	40	SW846 8270
Acenaphthene	BQL	ug/l,ppb	---	10	SW846 8270
Dibenzofuran	BQL	ug/l,ppb	---	10	SW846 8270
2,4-Dinitrotoluene	BQL	ug/l,ppb	---	10	SW846 8270

CUST SAMPLE ID: FIELD BLANK
COLLECTION DATE: 9/16/91

LABORATORY JOB NO: 912963
LABORATORY REFERENCE NO: 7529
ORGANIC ANALYSIS

COLLECTION METHOD: GRAB
SAMPLE TYPE: DI WATER

Analytical Parameters	Analytical Results	Units	Method Detection Limits	Practical Quantifiable Limit	Method
Diethylphthalate	BQL *	ug/l,ppb	---	10	SW846 8270
4-Chlorophenyl-phenylether	BQL	ug/l,ppb	---	10	SW846 8270
Fluorene	BQL	ug/l,ppb	---	10	SW846 8270
4-Nitroaniline	BQL	ug/l,ppb	---	40	SW846 8270
N-Nitrosodiphenylamine	BQL	ug/l,ppb	---	10	SW846 8270
4-Bromophenyl-phenylether	BQL	ug/l,ppb	---	10	SW846 8270
Hexachlorobenzene	BQL	ug/l,ppb	---	10	SW846 8270
Phenanthrene	BQL	ug/l,ppb	---	10	SW846 8270
Anthracene	BQL	ug/l,ppb	---	10	SW846 8270
Di-n-Butylphthalate	BQL	ug/l,ppb	---	10	SW846 8270
Fluoranthene	BQL	ug/l,ppb	---	10	SW846 8270
Benzidine	BQL	ug/l,ppb	---	40	SW846 8270
Pyrene	BQL	ug/l,ppb	---	10	SW846 8270
Butylbenzylphthalate	BQL	ug/l,ppb	---	10	SW846 8270
3,3-Dichlorobenzidine	BQL	ug/l,ppb	---	20	SW846 8270
Benzo (a) Anthracene	BQL	ug/l,ppb	---	10	SW846 8270
bis (2-ethylhexyl)Phthalate	BQL	ug/l,ppb	---	10	SW846 8270
Chrysene	BQL	ug/l,ppb	---	10	SW846 8270
Di-n-octylphthalate	BQL	ug/l,ppb	---	10	SW846 8270
Benzo (b) fluoranthene	BQL	ug/l,ppb	---	10	SW846 8270
Benzo (k) fluoranthene	BQL	ug/l,ppb	---	10	SW846 8270
Benzo (a) pyrene	BQL	ug/l,ppb	---	10	SW846 8270
Indeno (1,2,3-cd)pyrene	BQL	ug/l,ppb	---	10	SW846 8270
Dibenzo (a,h) anthracene	BQL	ug/l,ppb	---	10	SW846 8270
Benzo (g,h,i) perylene	BQL	ug/l,ppb	---	10	SW846 8270

CUST SAMPLE ID: FIELD BLANK
COLLECTION DATE: 9/16/91

LABORATORY JOB NO: 912963
LABORATORY REFERENCE NO: 7529
ORGANIC ANALYSIS

COLLECTION METHOD: GRAB
SAMPLE TYPE: DI WATER

Analytical Parameters	Analytical Results	Units	Method Detection Limits	Practical Quantifiable Limit	Method
N-Nitrosodimethylamine	BQL *	ug/l,ppb	---	10	SW846 8270
Bis (2-chloroethyl) ether	BQL	ug/l,ppb	---	10	SW846 8270
2-Chlorophenol	BQL	ug/l,ppb	---	10	SW846 8270
1,3-Dichlorobenzene	BQL	ug/l,ppb	---	10	SW846 8270
1,4-Dichlorobenzene	BQL	ug/l,ppb	---	10	SW846 8270
1,2-Dichlorobenzene	BQL *	ug/l,ppb	---	10	SW846 8270
Benzyl Alcohol	BQL	ug/l,ppb	---	10	SW846 8270
bis (2-chloroisopropyl) ether	BQL	ug/l,ppb	---	10	SW846 8270
N-Nitrosodipropylamine	BQL	ug/l,ppb	---	10	SW846 8270
Hexachloroethane	BQL	ug/l,ppb	---	10	SW846 8270
Nitrobenzene	BQL	ug/l,ppb	---	10	SW846 8270
Isophorone	BQL	ug/l,ppb	---	10	SW846 8270
Bis (2-chloroethoxy) methane	BQL	ug/l,ppb	---	10	SW846 8270
1,2,4-Trichlorobenzene	BQL	ug/l,ppb	---	10	SW846 8270
Naphthalene	BQL	ug/l,ppb	---	10	SW846 8270
4-Chloroaniline	BQL	ug/l,ppb	---	10	SW846 8270
Hexachlorobutadiene	BQL	ug/l,ppb	---	10	SW846 8270

FOOTNOTES

* Below Quantifiable Limits.

CUST SAMPLE ID: MW-1
COLLECTION DATE: 9/17/91

LABORATORY JOB NO: 912963
LABORATORY REFERENCE NO: 7587
INORGANIC ANALYSIS

COLLECTION METHOD: GRAB
SAMPLE TYPE: GROUNDWATER

Analytical Parameters	Analytical Results	Units	Method Detection Limits	Practical Quantifiable Limit	Method
Ammonia	8.00	mg/l	---	0.02	EPA 350.1
Nitrite	BQL *	mg/l	---	0.01	EPA 353.2
Total Kjeldahl Nitrogen	9.2	mg/l	---	0.1	EPA 351.2

FOOTNOTES

* Below Quantifiable Limits.

CUST SAMPLE ID: BW-3
 COLLECTION DATE: 9/17/91
 COLLECTION METHOD: GRAB
 SAMPLE TYPE: GROUNDWATER

LABORATORY JOB NO: 912963
 LABORATORY REFERENCE NO: 7588
 INORGANIC ANALYSIS

Analytical Parameters	Analytical Results	Units	Method Detection Limits	Practical Quantifiable Limit	Method
Iron, Total (on flame)	15.6	mg/l	---	0.30	EPA 236.1
Iron, Soluble (on flame)	BQL *	mg/l	---	0.30	EPA 236.1
Potassium, Total (on flame)	5.94	mg/l	---	1.00	EPA 258.1
Potassium, Soluble (on flame)	4.13	mg/l	---	1.00	EPA 258.1
Zinc, Total (on flame)	1.90	mg/l	---	0.05	EPA 289.1
Zinc, Soluble (on flame)	0.13	mg/l	---	0.05	EPA 289.1
Ammonia	0.85	mg/l	---	0.02	EPA 350.1
Nitrite	BQL	mg/l	---	0.01	EPA 353.2
Total Kjeldahl Nitrogen	0.9	mg/l	---	0.1	EPA 351.2

FOOTNOTES

* Below Quantifiable Limits.

CUST SAMPLE ID: BW-4
COLLECTION DATE: 9/17/91

LABORATORY JOB NO: 912963
LABORATORY REFERENCE NO: 7589
INORGANIC ANALYSIS

COLLECTION METHOD: GRAB
SAMPLE TYPE: GROUNDWATER

Analytical Parameters	Analytical Results	Units	Method Detection Limits	Practical Quantifiable Limit	Method
Iron, Total (on flame)	163	mg/l	---	0.30	EPA 236.1
Iron, Soluble (on flame)	1.86	mg/l	---	0.30	EPA 236.1
Potassium, Total (on flame)	30.2	mg/l	---	1.00	EPA 258.1
Potassium, Soluble (on flame)	27.4	mg/l	---	1.00	EPA 258.1
Zinc, Total (on flame)	10.0	mg/l	---	0.05	EPA 289.1
Zinc, Soluble (on flame)	BQL *	mg/l	---	0.05	EPA 289.1
Ammonia	6.00	mg/l	---	0.02	EPA 350.1
Nitrite	BQL	mg/l	---	0.01	EPA 353.2
Total Kjeldahl Nitrogen	6.4	mg/l	---	0.1	EPA 351.2

FOOTNOTES

* Below Quantifiable Limits.

CUST SAMPLE ID: BW-4
COLLECTION DATE: 9/17/91

LABORATORY JOB NO: 912963
LABORATORY REFERENCE NO: 7589
ORGANIC ANALYSIS

COLLECTION METHOD: GRAB
SAMPLE TYPE: GROUNDWATER

Analytical Parameters	Analytical Results	Units	Method Detection Limits	Practical Quantifiable Limit	Method
Chloromethane	BQL *	ug/l,ppb	---	10.0	SW846 8240
Vinyl Chloride	47.8	ug/l,ppb	---	10.0	SW846 8240
Chloroethane	BQL	ug/l,ppb	---	10.0	SW846 8240
Bromomethane	BQL	ug/l,ppb	---	10.0	SW846 8240
Acetone	BQL	ug/l,ppb	---	50.0	SW846 8240
1,1-Dichloroethene	BQL	ug/l,ppb	---	5.00	SW846 8240
Carbon Disulfide	BQL	ug/l,ppb	---	5.00	SW846 8240
Methylene Chloride	BQL	ug/l,ppb	---	10.0	SW846 8240
trans-1,2-Dichloroethene	BQL	ug/l,ppb	---	5.00	SW846 8240
1,1-Dichloroethane	BQL	ug/l,ppb	---	5.00	SW846 8240
Vinyl acetate	BQL	ug/l,ppb	---	10.0	SW846 8240
2-Butanone	BQL	ug/l,ppb	---	50.0	SW846 8240
Chloroform	11.3	ug/l,ppb	---	5.00	SW846 8240
1,1,1-Trichloroethane	BQL	ug/l,ppb	---	5.00	SW846 8240
Carbon Tetrachloride	BQL	ug/l,ppb	---	5.00	SW846 8240
Benzene	BQL	ug/l,ppb	---	5.00	SW846 8240
1,2-Dichloroethane	BQL	ug/l,ppb	---	5.00	SW846 8240
Trichloroethene	476	ug/l,ppb	---	5.00	SW846 8240
1,2-Dichloropropane	BQL	ug/l,ppb	---	5.00	SW846 8240
Bromodichloromethane	BQL	ug/l,ppb	---	5.00	SW846 8240
2-Chloroethyl vinyl ether	BQL	ug/l,ppb	---	10.0	SW846 8240
4-Methyl-2-pentanone	BQL	ug/l,ppb	---	50.0	SW846 8240
cis-1,3-Dichloropropene	BQL	ug/l,ppb	---	5.00	SW846 8240
Toluene	BQL	ug/l,ppb	---	5.00	SW846 8240
trans-1,3-Dichloropropene	BQL	ug/l,ppb	---	5.00	SW846 8240

CUST SAMPLE ID: BW-4
 COLLECTION DATE: 9/17/91
 COLLECTION METHOD: GRAB
 SAMPLE TYPE: GROUNDWATER

LABORATORY JOB NO: 912963
 LABORATORY REFERENCE NO: 7589
 ORGANIC ANALYSIS

Analytical Parameters	Analytical Results	Units	Method Detection Limits	Practical Quantifiable Limit	Method
1,1,2-Trichloroethane	BQL *	ug/l, ppb	---	5.00	SW846 8240
Tetrachloroethene	361	ug/l, ppb	---	5.00	SW846 8240
Chlorodibromomethane	BQL	ug/l, ppb	---	5.00	SW846 8240
Chlorobenzene	BQL	ug/l, ppb	---	5.00	SW846 8240
Ethylbenzene	BQL	ug/l, ppb	---	5.00	SW846 8240
Bromoform	BQL	ug/l, ppb	---	5.00	SW846 8240
1,1,2,2-Tetrachloroethane	BQL	ug/l, ppb	---	5.00	SW846 8240
2-Hexanone	BQL	ug/l, ppb	---	50.0	SW846 8240
m/p-Xylene	BQL	ug/l, ppb	---	5.00	SW846 8240
o-Xylene	BQL	ug/l, ppb	---	5.00	SW846 8240
Styrene	BQL	ug/l, ppb	---	5.00	SW846 8240
4-Chloro-3-Methylphenol	<100 **	ug/l, ppb	---	10	SW846 8270
2,4,6-Trichlorophenol	<100 **	ug/l, ppb	---	10	SW846 8270
2,4,5-Trichlorophenol	<100 **	ug/l, ppb	---	10	SW846 8270
2,4-Dinitrophenol	<400 **	ug/l, ppb	---	40	SW846 8270
4-Nitrophenol	<400 **	ug/l, ppb	---	40	SW846 8270
4,6-Dinitro-2-methylphenol	<400 **	ug/l, ppb	---	40	SW846 8270
Pentachlorophenol	<400 **	ug/l, ppb	---	40	SW846 8270
Phenol	360	ug/l, ppb	---	10	SW846 8270
2-Methylphenol	BQL	ug/l, ppb	---	10	SW846 8270
4-Methylphenol	BQL	ug/l, ppb	---	10	SW846 8270
2-Nitrophenol	BQL	ug/l, ppb	---	10	SW846 8270
2,4-Dimethylphenol	BQL	ug/l, ppb	---	10	SW846 8270
Benzoic Acid	BQL	ug/l, ppb	---	30	SW846 8270
2,4-Dichlorophenol	BQL	ug/l, ppb	---	10	SW846 8270

CUST SAMPLE ID: BW-4
COLLECTION DATE: 9/17/91

LABORATORY JOB NO: 912963
LABORATORY REFERENCE NO: 7589
ORGANIC ANALYSIS

COLLECTION METHOD: GRAB
SAMPLE TYPE: GROUNDWATER

Analytical Parameters	Analytical Results	Units	Method Detection Limits	Practical Quantifiable Limit	Method
2-Methylnaphthalene	BQL *	ug/l,ppb	---	10	SW846 8270
Hexachlorocyclopentadiene	<100 **	ug/l,ppb	---	10	SW846 8270
2-Chloronaphthalene	<100 **	ug/l,ppb	---	10	SW846 8270
2-Nitroaniline	<400 **	ug/l,ppb	---	40	SW846 8270
Dimethylphthalate	<100 **	ug/l,ppb	---	10	SW846 8270
2,6-Dinitrotoluene	<100 **	ug/l,ppb	---	10	SW846 8270
Acenaphthylene	<100 **	ug/l,ppb	---	10	SW846 8270
3-Nitroaniline	<400 **	ug/l,ppb	---	40	SW846 8270
Acenaphthene	<100 **	ug/l,ppb	---	10	SW846 8270
Dibenzofuran	<100 **	ug/l,ppb	---	10	SW846 8270
2,4-Dinitrotoluene	<100 **	ug/l,ppb	---	10	SW846 8270
Diethylphthalate	<100 **	ug/l,ppb	---	10	SW846 8270
4-Chlorophenyl-phenylether	<100 **	ug/l,ppb	---	10	SW846 8270
Fluorene	<100 **	ug/l,ppb	---	10	SW846 8270
4-Nitroaniline	<400 **	ug/l,ppb	---	40	SW846 8270
N-Nitrosodiphenylamine	<100 **	ug/l,ppb	---	10	SW846 8270
4-Bromophenyl-phenylether	<100 **	ug/l,ppb	---	10	SW846 8270
Hexachlorobenzene	<100 **	ug/l,ppb	---	10	SW846 8270
Phenanthrene	<100 **	ug/l,ppb	---	10	SW846 8270
Anthracene	<100 **	ug/l,ppb	---	10	SW846 8270
Di-n-Butylphthalate	<100 **	ug/l,ppb	---	10	SW846 8270
Fluoranthene	<100 **	ug/l,ppb	---	10	SW846 8270
Benzidine	<400 **	ug/l,ppb	---	40	SW846 8270
Pyrene	<100 **	ug/l,ppb	---	10	SW846 8270
Butylbenzylphthalate	<100 **	ug/l,ppb	---	10	SW846 8270

CUST SAMPLE ID: BW-4
COLLECTION DATE: 9/17/91

LABORATORY JOB NO: 912963
LABORATORY REFERENCE NO: 7589
ORGANIC ANALYSIS

COLLECTION METHOD: GRAB
SAMPLE TYPE: GROUNDWATER

Analytical Parameters	Analytical Results	Units	Method Detection Limits	Practical Quantifiable Limit	Method
3,3-Dichlorobenzidine	<200 **	ug/l,ppb	---	20	SW846 8270
Benzo (a) Anthracene	<100 **	ug/l,ppb	---	10	SW846 8270
bis (2-ethylhexyl) Phthalate	<100 **	ug/l,ppb	---	10	SW846 8270
Chrysene	<100 **	ug/l,ppb	---	10	SW846 8270
Di-n-octylphthalate	<100 **	ug/l,ppb	---	10	SW846 8270
Benzo (b) fluoranthene	<100 **	ug/l,ppb	---	10	SW846 8270
Benzo (k) fluoranthene	<100 **	ug/l,ppb	---	10	SW846 8270
Benzo (a) pyrene	<100 **	ug/l,ppb	---	10	SW846 8270
Indeno (1,2,3-cd) pyrene	<100 **	ug/l,ppb	---	10	SW846 8270
Dibenzo (a,h) anthracene	<100 **	ug/l,ppb	---	10	SW846 8270
Benzo (g,h,i) perylene	<100 **	ug/l,ppb	---	10	SW846 8270
N-Nitrosodimethylamine	BQL *	ug/l,ppb	---	10	SW846 8270
Bis (2-chloroethyl) ether	BQL	ug/l,ppb	---	10	SW846 8270
2-Chlorophenol	BQL	ug/l,ppb	---	10	SW846 8270
1,3-Dichlorobenzene	BQL	ug/l,ppb	---	10	SW846 8270
1,4-Dichlorobenzene	BQL	ug/l,ppb	---	10	SW846 8270
Benzyl Alcohol	BQL	ug/l,ppb	---	10	SW846 8270
1,2-Dichlorobenzene	BQL	ug/l,ppb	---	10	SW846 8270
bis (2-chloroisopropyl) ether	BQL	ug/l,ppb	---	10	SW846 8270
N-Nitrosodipropylamine	BQL	ug/l,ppb	---	10	SW846 8270
Hexachloroethane	BQL	ug/l,ppb	---	10	SW846 8270
Nitrobenzene	BQL	ug/l,ppb	---	10	SW846 8270
Isophorone	BQL	ug/l,ppb	---	10	SW846 8270
Bis (2-chloroethoxy) methane	BQL	ug/l,ppb	---	10	SW846 8270
1,2,4-Trichlorobenzene	BQL	ug/l,ppb	---	10	SW846 8270

CUST SAMPLE ID: BW-4
COLLECTION DATE: 9/17/91

LABORATORY JOB NO: 912963
LABORATORY REFERENCE NO: 7589
ORGANIC ANALYSIS

COLLECTION METHOD: GRAB
SAMPLE TYPE: GROUNDWATER

Analytical Parameters	Analytical Results	Units	Method Detection Limits	Practical Quantifiable Limit	Method
Naphthalene	BQL *	ug/l,ppb	---	10	SW846 8270
4-Chloroaniline	BQL	ug/l,ppb	---	40	SW846 8270
Hexachlorobutadiene	160	ug/l,ppb	---	10	SW846 8270

FOOTNOTES

* Below Quantifiable Limits.

** High Quantifiable Limits due to sample matrix, dilution was necessary.

CUST SAMPLE ID: BW-6
COLLECTION DATE: 9/17/91

LABORATORY JOB NO: 912963
LABORATORY REFERENCE NO: 7590
INORGANIC ANALYSIS

COLLECTION METHOD: GRAB
SAMPLE TYPE: GROUNDWATER

Analytical Parameters	Analytical Results	Units	Method Detection Limits	Practical Quantifiable Limit	Method
Iron, Total (on flame)	62.2	mg/l	---	0.30	EPA 236.1
Iron, Soluble (on flame)	3.04	mg/l	---	0.30	EPA 236.1
Potassium, Total (on flame)	7.02	mg/l	---	1.00	EPA 258.1
Potassium, Soluble (on flame)	1.30	mg/l	---	1.00	EPA 258.1
Zinc, Total (on flame)	0.10	mg/l	---	0.05	EPA 289.1
Zinc, Soluble (on flame)	BQL *	mg/l	---	0.05	EPA 289.1
Ammonia	0.13	mg/l	---	0.02	EPA 350.1
Nitrite	BQL	mg/l	---	0.01	EPA 353.2
Total Kjeldahl Nitrogen	0.9	mg/l	---	0.1	EPA 351.2

FOOTNOTES

* Below Quantifiable Limits.

CUST SAMPLE ID: BW-6
COLLECTION DATE: 9/17/91

LABORATORY JOB NO: 912963
LABORATORY REFERENCE NO: 7590
ORGANIC ANALYSIS

COLLECTION METHOD: GRAB
SAMPLE TYPE: GROUNDWATER

Analytical Parameters	Analytical Results	Units	Method Detection Limits	Practical Quantifiable Limit	Method
Chloromethane	BQL *	ug/l,ppb	---	10.0	SW846 8240
Vinyl Chloride	BQL	ug/l,ppb	---	10.0	SW846 8240
Chloroethane	BQL	ug/l,ppb	---	10.0	SW846 8240
Bromomethane	BQL	ug/l,ppb	---	10.0	SW846 8240
Acetone	BQL	ug/l,ppb	---	50.0	SW846 8240
1,1-Dichloroethene	BQL	ug/l,ppb	---	5.00	SW846 8240
Carbon Disulfide	BQL	ug/l,ppb	---	5.00	SW846 8240
Methylene Chloride	BQL	ug/l,ppb	---	10.0	SW846 8240
trans-1,2-Dichloroethene	BQL	ug/l,ppb	---	5.00	SW846 8240
1,1-Dichloroethane	BQL	ug/l,ppb	---	5.00	SW846 8240
Vinyl acetate	BQL	ug/l,ppb	---	10.0	SW846 8240
2-Butanone	BQL	ug/l,ppb	---	50.0	SW846 8240
Chloroform	BQL	ug/l,ppb	---	5.00	SW846 8240
1,1,1-Trichloroethane	BQL	ug/l,ppb	---	5.00	SW846 8240
Carbon Tetrachloride	BQL	ug/l,ppb	---	5.00	SW846 8240
Benzene	BQL	ug/l,ppb	---	5.00	SW846 8240
1,2-Dichloroethane	BQL	ug/l,ppb	---	5.00	SW846 8240
Trichloroethene	BQL	ug/l,ppb	---	5.00	SW846 8240
1,2-Dichloropropane	BQL	ug/l,ppb	---	5.00	SW846 8240
Bromodichloromethane	BQL	ug/l,ppb	---	5.00	SW846 8240
2-Chloroethyl vinyl ether ✓	BQL	ug/l,ppb	---	10.0	SW846 8240
4-Methyl-2-pentanone	BQL	ug/l,ppb	---	50.0	SW846 8240
cis-1,3-Dichloropropene	BQL	ug/l,ppb	---	5.00	SW846 8240
Toluene	BQL	ug/l,ppb	---	5.00	SW846 8240
trans-1,3-Dichloropropene	BQL	ug/l,ppb	---	5.00	SW846 8240

CUST SAMPLE ID: BW-6
COLLECTION DATE: 9/17/91

LABORATORY JOB NO: 912963
LABORATORY REFERENCE NO: 7590
ORGANIC ANALYSIS

COLLECTION METHOD: GRAB
SAMPLE TYPE: GROUNDWATER

Analytical Parameters	Analytical Results	Units	Method Detection Limits	Practical Quantifiable Limit	Method
1,1,2-Trichloroethane	BQL *	ug/l,ppb	---	5.00	SW846 8240
Tetrachloroethene	BQL	ug/l,ppb	---	5.00	SW846 8240
Chlorodibromomethane	BQL	ug/l,ppb	---	5.00	SW846 8240
Chlorobenzene	BQL	ug/l,ppb	---	5.00	SW846 8240
Ethylbenzene	BQL	ug/l,ppb	---	5.00	SW846 8240
Bromoform	BQL	ug/l,ppb	---	5.00	SW846 8240
1,1,2,2-Tetrachloroethane	BQL	ug/l,ppb	---	5.00	SW846 8240
2-Hexanone	BQL	ug/l,ppb	---	50.0	SW846 8240
m/p-Xylene	BQL	ug/l,ppb	---	5.00	SW846 8240
o-Xylene	BQL	ug/l,ppb	---	5.00	SW846 8240
Styrene	BQL	ug/l,ppb	---	5.00	SW846 8240
4-Chloro-3-Methylphenol ~	BQL	ug/l,ppb	---	10	SW846 8270
2,4,6-Trichlorophenol -	BQL	ug/l,ppb	---	10	SW846 8270
2,4,5-Trichlorophenol ~	BQL	ug/l,ppb	---	10	SW846 8270
2,4-Dinitrophenol	BQL	ug/l,ppb	---	40	SW846 8270
4-Nitrophenol ~	BQL	ug/l,ppb	---	40	SW846 8270
4,6-Dinitro-2-methylphenol ~	BQL	ug/l,ppb	---	40	SW846 8270
Pentachlorophenol ~	BQL	ug/l,ppb	---	40	SW846 8270
Phenol ~	BQL	ug/l,ppb	---	10	SW846 8270
2-Methylphenol ~	BQL	ug/l,ppb	---	10	SW846 8270
4-Methylphenol -	BQL	ug/l,ppb	---	10	SW846 8270
2-Nitrophenol ~	BQL	ug/l,ppb	---	10	SW846 8270
2,4-Dimethylphenol -	BQL	ug/l,ppb	---	10	SW846 8270
Benzoic Acid ~	BQL	ug/l,ppb	---	30	SW846 8270
2,4-Dichlorophenol	BQL	ug/l,ppb	---	10	SW846 8270

CUST SAMPLE ID: BW-6
COLLECTION DATE: 9/17/91

LABORATORY JOB NO: 912963
LABORATORY REFERENCE NO: 7590
ORGANIC ANALYSIS

COLLECTION METHOD: GRAB
SAMPLE TYPE: GROUNDWATER

Analytical Parameters	Analytical Results	Units	Method Detection Limits	Practical Quantifiable Limit	Method
2-Methylnaphthalene	BQL *	ug/l,ppb	---	10	SW846 8270
Hexachlorocyclopentadiene	BQL	ug/l,ppb	---	10	SW846 8270
2-Chloronaphthalene	BQL	ug/l,ppb	---	10	SW846 8270
2-Nitroaniline	BQL	ug/l,ppb	---	40	SW846 8270
Dimethylphthalate	BQL	ug/l,ppb	---	10	SW846 8270
2,6-Dinitrotoluene	BQL	ug/l,ppb	---	10	SW846 8270
Acenaphthylene	BQL	ug/l,ppb	---	10	SW846 8270
3-Nitroaniline	BQL	ug/l,ppb	---	40	SW846 8270
Acenaphthene	BQL	ug/l,ppb	---	10	SW846 8270
Dibenzofuran	BQL	ug/l,ppb	---	10	SW846 8270
2,4-Dinitrotoluene	BQL	ug/l,ppb	---	10	SW846 8270
Diethylphthalate	BQL	ug/l,ppb	---	10	SW846 8270
4-Chlorophenyl-phenylether	BQL	ug/l,ppb	---	10	SW846 8270
Fluorene	BQL	ug/l,ppb	---	10	SW846 8270
4-Nitroaniline	BQL	ug/l,ppb	---	40	SW846 8270
N-Nitrosodiphenylamine	BQL	ug/l,ppb	---	10	SW846 8270
4-Bromophenyl-phenylether	BQL	ug/l,ppb	---	10	SW846 8270
Hexachlorobenzene	BQL	ug/l,ppb	---	10	SW846 8270
Phenanthrene	BQL	ug/l,ppb	---	10	SW846 8270
Anthracene	BQL	ug/l,ppb	---	10	SW846 8270
Di-n-Butylphthalate	BQL	ug/l,ppb	---	10	SW846 8270
Fluoranthene	BQL	ug/l,ppb	---	10	SW846 8270
Benzidine	BQL	ug/l,ppb	---	40	SW846 8270
Pyrene	BQL	ug/l,ppb	---	10	SW846 8270
Butylbenzylphthalate	BQL	ug/l,ppb	---	10	SW846 8270

CUST SAMPLE ID: BW-6
COLLECTION DATE: 9/17/91

LABORATORY JOB NO: 912963
LABORATORY REFERENCE NO: 7590
ORGANIC ANALYSIS

COLLECTION METHOD: GRAB
SAMPLE TYPE: GROUNDWATER

Analytical Parameters	Analytical Results	Units	Method Detection Limits	Practical Quantifiable Limit	Method
3,3-Dichlorobenzidine	BQL *	ug/l,ppb	---	20	SW846 8270
Benzo (a) Anthracene	BQL	ug/l,ppb	---	10	SW846 8270
bis (2-ethylhexyl) Phthalate	BQL	ug/l,ppb	---	10	SW846 8270
Chrysene	BQL	ug/l,ppb	---	10	SW846 8270
Di-n-octylphthalate	BQL	ug/l,ppb	---	10	SW846 8270
Benzo (b) fluoranthene	BQL	ug/l,ppb	---	10	SW846 8270
Benzo (k) fluoranthene	BQL	ug/l,ppb	---	10	SW846 8270
Benzo (a) pyrene	BQL	ug/l,ppb	---	10	SW846 8270
Indeno (1,2,3-cd) pyrene	BQL	ug/l,ppb	---	10	SW846 8270
Dibenzo (a,h) anthracene	BQL	ug/l,ppb	---	10	SW846 8270
Benzo (g,h,i) perylene	BQL	ug/l,ppb	---	10	SW846 8270
N-Nitrosodimethylamine	BQL	ug/l,ppb	---	10	SW846 8270
Bis (2-chloroethyl) ether	BQL	ug/l,ppb	---	10	SW846 8270
2-Chlorophenol	BQL	ug/l,ppb	---	10	SW846 8270
1,3-Dichlorobenzene	BQL	ug/l,ppb	---	10	SW846 8270
1,4-Dichlorobenzene	BQL	ug/l,ppb	---	10	SW846 8270
Benzyl Alcohol	BQL	ug/l,ppb	---	10	SW846 8270
1,2-Dichlorobenzene	BQL	ug/l,ppb	---	10	SW846 8270
bis (2-Chloroisopropyl) ether	BQL	ug/l,ppb	---	10	SW846 8270
N-Nitrosodipropylamine	BQL	ug/l,ppb	---	10	SW846 8270
Hexachloroethane	BQL	ug/l,ppb	---	10	SW846 8270
Nitrobenzene	BQL	ug/l,ppb	---	10	SW846 8270
Isophorone	BQL	ug/l,ppb	---	10	SW846 8270
Bis (2-chloroethoxy) methane	BQL	ug/l,ppb	---	10	SW846 8270
1,2,4-Trichlorobenzene	BQL	ug/l,ppb	---	10	SW846 8270

CUST SAMPLE ID: BW-6
COLLECTION DATE: 9/17/91

LABORATORY JOB NO: 912963
LABORATORY REFERENCE NO: 7590
ORGANIC ANALYSIS

COLLECTION METHOD: GRAB
SAMPLE TYPE: GROUNDWATER

Analytical Parameters	Analytical Results	Units	Method Detection Limits	Practical Quantifiable Limit	Method
Naphthalene	BQL *	ug/l,ppb	---	10	SW846 8270
4-Chloroaniline	BQL	ug/l,ppb	---	40	SW846 8270
Hexachlorobutadiene	BQL	ug/l,ppb	---	10	SW846 8270

FOOTNOTES

* Below Quantifiable Limits.

CUST SAMPLE ID: BLIND DUPLICATE
COLLECTION DATE: 9/17/91
COLLECTION METHOD: GRAB
SAMPLE TYPE: GROUNDWATER

LABORATORY JOB NO: 912963
LABORATORY REFERENCE NO: 7591
INORGANIC ANALYSIS

Analytical Parameters	Analytical Results	Units	Method Detection Limits	Practical Quantifiable Limit	Method
Iron, Total (on flame)	268	mg/l	---	0.30	EPA 236.1
Iron, Soluble (on flame)	0.98	mg/l	---	0.30	EPA 236.1
Potassium, Total (on flame)	28.6	mg/l	---	1.00	EPA 258.1
Potassium, Soluble (on flame)	24.8	mg/l	---	1.00	EPA 258.1
Zinc, Total (on flame)	16.0	mg/l	---	0.05	EPA 289.1
Zinc, Soluble (on flame)	BQL *	mg/l	---	0.05	EPA 289.1
Ammonia	6.00	mg/l	---	0.02	EPA 350.1
Nitrite	BQL	mg/l	---	0.01	EPA 353.2
Total Kjeldahl Nitrogen	6.4	mg/l	---	0.1	EPA 351.2

FOOTNOTES

* Below Quantifiable Limits.

CUST SAMPLE ID: BLIND
 COLLECTION DATE: 9/17/91
 COLLECTION METHOD: GRAB
 SAMPLE TYPE: GROUNDWATER

DUPLICATE

LABORATORY JOB NO: 912963
 LABORATORY REFERENCE NO: 7591
 ORGANIC ANALYSIS

Analytical Parameters	Analytical Results	Units	Method Detection Limits	Practical Quantifiable Limit	Method
Chloromethane	BQL *	ug/l,ppb	---	10.0	SW846 8240
Vinyl Chloride	53.8	ug/l,ppb	---	10.0	SW846 8240
Chloroethane	BQL	ug/l,ppb	---	10.0	SW846 8240
Bromomethane	BQL	ug/l,ppb	---	10.0	SW846 8240
Acetone	BQL	ug/l,ppb	---	50.0	SW846 8274
1,1-Dichloroethene	BQL	ug/l,ppb	---	5.00	SW846 8240
Carbon Disulfide	BQL	ug/l,ppb	---	5.00	SW846 8240
Methylene Chloride	BQL	ug/l,ppb	---	10.0	SW846 8240
trans-1,2-Dichloroethene	BQL	ug/l,ppb	---	5.00	SW846 8240
1,1-Dichloroethane	BQL	ug/l,ppb	---	5.00	SW846 8240
Vinyl acetate	BQL	ug/l,ppb	---	10.0	SW846 8240
2-Butanone	BQL	ug/l,ppb	---	50.0	SW846 8240
Chloroform	11.0	ug/l,ppb	---	5.00	SW846 8240
1,1,1-Trichloroethane	BQL	ug/l,ppb	---	5.00	SW846 8240
Carbon Tetrachloride	BQL	ug/l,ppb	---	5.00	SW846 8240
Benzene	BQL	ug/l,ppb	---	5.00	SW846 8240
1,2-Dichloroethane	BQL	ug/l,ppb	---	5.00	SW846 8240
Trichloroethene	403	ug/l,ppb	---	5.00	SW846 8240
1,2-Dichloropropane	BQL	ug/l,ppb	---	5.00	SW846 8240
Bromodichloromethane	BQL	ug/l,ppb	---	5.00	SW846 8240
2-Chloroethyl vinyl ether	BQL	ug/l,ppb	---	10.0	SW846 8240
4-Methyl-2-pentanone	BQL	ug/l,ppb	---	50.0	SW846 8240
cis-1,3-Dichloropropene	BQL	ug/l,ppb	---	5.00	SW846 8240
Toluene	BQL	ug/l,ppb	---	5.00	SW846 8240
trans-1,3-Dichloropropene	BQL	ug/l,ppb	---	5.00	SW846 8240

CUST SAMPLE ID: BLIND DUPLICATE
 COLLECTION DATE: 9/17/91
 COLLECTION METHOD: GRAB
 SAMPLE TYPE: GROUNDWATER

LABORATORY JOB NO: 912963
 LABORATORY REFERENCE NO: 7591
 ORGANIC ANALYSIS

Analytical Parameters	Analytical Results	Units	Method Detection Limits	Practical Quantifiable Limit	Method
1,1,2-Trichloroethane	BQL *	ug/l,ppb	---	5.00	SW846 8240
Tetrachloroethene	346	ug/l,ppb	---	5.00	SW846 8240
Chlorodibromomethane	BQL	ug/l,ppb	---	5.00	SW846 8240
Chlorobenzene	BQL	ug/l,ppb	---	5.00	SW846 8240
Ethylbenzene	BQL	ug/l,ppb	---	5.00	SW846 8240
Bromoform	BQL	ug/l,ppb	---	5.00	SW846 8240
1,1,2,2-Tetrachloroethane	BQL	ug/l,ppb	---	5.00	SW846 8240
2-Hexanone	BQL	ug/l,ppb	---	50.0	SW846 8240
m/p-Xylene	BQL	ug/l,ppb	---	5.00	SW846 8240
o-Xylene	BQL	ug/l,ppb	---	5.00	SW846 8240
Styrene	BQL	ug/l,ppb	---	5.00	SW846 8240
4-Chloro-3-Methylphenol	<100 **	ug/l,ppb	---	10	SW846 8270
2,4,6-Trichlorophenol	<100 **	ug/l,ppb	---	10	SW846 8270
2,4,5-Trichlorophenol	<100 **	ug/l,ppb	---	10	SW846 8270
2,4-Dinitrophenol	<400 **	ug/l,ppb	---	40	SW846 8270
4-Nitrophenol	<400 **	ug/l,ppb	---	40	SW846 8270
4,6-Dinitro-2-methylphenol	<400 **	ug/l,ppb	---	40	SW846 8270
Pentachlorophenol	<400 **	ug/l,ppb	---	40	SW846 8270
Phenol	43	ug/l,ppb	---	10	SW846 8270
2-Methylphenol	BQL	ug/l,ppb	---	10	SW846 8270
4-Methylphenol	BQL	ug/l,ppb	---	10	SW846 8270
2-Nitrophenol	BQL	ug/l,ppb	---	10	SW846 8270
2,4-Dimethylphenol	BQL	ug/l,ppb	---	10	SW846 8270
Benzoic Acid	BQL	ug/l,ppb	---	30	SW846 8270
2,4-Dichlorophenol	BQL	ug/l,ppb	---	10	SW846 8270

CUST SAMPLE ID: BLIND
 COLLECTION DATE: 9/17/91
 COLLECTION METHOD: GRAB
 SAMPLE TYPE: GROUNDWATER

DUPLICATE

LABORATORY JOB NO: 912963
 LABORATORY REFERENCE NO: 7591
 ORGANIC ANALYSIS

Analytical Parameters	Analytical Results	Units	Method Detection Limits	Practical Quantifiable Limit	Method
2-Methylnaphthalene	BQL *	ug/l, ppb	---	10	SW846 8270
Hexachlorocyclopentadiene	<100 **	ug/l, ppb	---	10	SW846 8270
2-Chloronaphthalene	<100 **	ug/l, ppb	---	10	SW846 8270
2-Nitroaniline	<400 **	ug/l, ppb	---	40	SW846 8270
Dimethylphthalate	<100 **	ug/l, ppb	---	10	SW846 8270
2,6-Dinitrotoluene	<100 **	ug/l, ppb	---	10	SW846 8270
Acenaphthylene	<100 **	ug/l, ppb	---	10	SW846 8270
3-Nitroaniline	<400 **	ug/l, ppb	---	40	SW846 8270
Acenaphthene	<100 **	ug/l, ppb	---	10	SW846 8270
Dibenzofuran	<100 **	ug/l, ppb	---	10	SW846 8270
2,4-Dinitrotoluene	<100 **	ug/l, ppb	---	10	SW846 8270
Diethylphthalate	<100 **	ug/l, ppb	---	10	SW846 8270
4-Chlorophenol-phenylether	<100 **	ug/l, ppb	---	10	SW846 8270
Fluorene	<100 **	ug/l, ppb	---	10	SW846 8270
4-Nitroaniline	<400 **	ug/l, ppb	---	40	SW846 8270
N-Nitrosodiphenylamine	<100 **	ug/l, ppb	---	10	SW846 8270
4-Bromophenyl-phenylether	<100 **	ug/l, ppb	---	10	SW846 8270
Hexachlorobenzene	<100 **	ug/l, ppb	---	10	SW846 8270
Phenanthrene	<100 **	ug/l, ppb	---	10	SW846 8270
Anthracene	<100 **	ug/l, ppb	---	10	SW846 8270
Di-n-Butylphthalate	<100 **	ug/l, ppb	---	10	SW846 8270
Fluoranthene	<100 **	ug/l, ppb	---	10	SW846 8270
Benzidine	<400 **	ug/l, ppb	---	40	SW846 8270
Pyrene	<100 **	ug/l, ppb	---	10	SW846 8270
Butylbenzylphthalate	<100 **	ug/l, ppb	---	10	SW846 8270

CUST SAMPLE ID: BLIND DUPLICATE
 COLLECTION DATE: 9/17/91
 COLLECTION METHOD: GRAB
 SAMPLE TYPE: GROUNDWATER

LABORATORY JOB NO: 912963
 LABORATORY REFERENCE NO: 7591
 ORGANIC ANALYSIS

Analytical Parameters	Analytical Results	Units	Method Detection Limits	Practical Quantifiable Limit	Method
3,3-Dichlorobenzidine	<200 **	ug/l,ppb	---	20	SW846 8270
Benzo (a) Anthracene	<100 **	ug/l,ppb	---	10	SW846 8270
bis (2-ethylhexyl) Phthalate	<100 **	ug/l,ppb	---	10	SW846 8270
Chrysene	<100 **	ug/l,ppb	---	10	SW846 8270
Di-n-octylphthalate	<100 **	ug/l,ppb	---	10	SW846 8270
Benzo (b) fluoranthene	<100 **	ug/l,ppb	---	10	SW846 8270
Benzo (k) fluoranthene	<100 **	ug/l,ppb	---	10	SW846 8270
Benzo (a) pyrene	<100 **	ug/l,ppb	---	10	SW846 8270
Indeno (1,2,3-cd) pyrene	<100 **	ug/l,ppb	---	10	SW846 8270
Dibenzo (a,h) anthracene	<100 **	ug/l,ppb	---	10	SW846 8270
Benzo (g,h,i) perylene	<100 **	ug/l,ppb	---	10	SW846 8270
N-Nitrosodimethylamine	BQL *	ug/l,ppb	---	10	SW846 8270
Bis (2-chloroethyl) ether	BQL	ug/l,ppb	---	10	SW846 8270
2-Chlorophenol	BQL	ug/l,ppb	---	10	SW846 8270
1,3-Dichlorobenzene	BQL	ug/l,ppb	---	10	SW846 8270
1,4-Dichlorobenzene	BQL	ug/l,ppb	---	10	SW846 8270
Benzyl Alcohol	BQL	ug/l,ppb	---	10	SW846 8270
1,2-Dichlorobenzene	BQL	ug/l,ppb	---	10	SW846 8270
bis (2-Chloroisopropyl) ether	BQL	ug/l,ppb	---	10	SW846 8270
N-Nitrosodipropylamine	BQL	ug/l,ppb	---	10	SW846 8270
Hexachloroethane	BQL	ug/l,ppb	---	10	SW846 8270
Nitrobenzene	BQL	ug/l,ppb	---	10	SW846 8270
Isophorone	BQL	ug/l,ppb	---	10	SW846 8270
Bis (2-chloroethoxy) methane	BQL	ug/l,ppb	---	10	SW846 8270
1,2,4-Trichlorobenzene	BQL	ug/l,ppb	---	10	SW846 8270

CUST SAMPLE ID: BLIND DUPLICATE
COLLECTION DATE: 9/17/91

COLLECTION METHOD: GRAB
SAMPLE TYPE: GROUNDWATER

LABORATORY JOB NO: 912963
LABORATORY REFERENCE NO: 7591
ORGANIC ANALYSIS

Analytical Parameters	Analytical Results	Units	Method Detection Limits	Practical Quantifiable Limit	Method
Naphthalene	BQL *	ug/l,ppb	---	10	SW846 8270
4-Chloroaniline	BQL	ug/l,ppb	---	40	SW846 8270
Hexachlorobutadiene	210	ug/l,ppb	---	10	SW846 8270

FOOTNOTES

* Below Quantifiable Limits.

** High Quantifiable Limits due to sample matrix, dilution was necessary.

CUST SAMPLE ID: MW-1
COLLECTION DATE: 9/18/91

LABORATORY JOB NO: 912963
LABORATORY REFERENCE NO: 7623
INORGANIC ANALYSIS

COLLECTION METHOD: GRAB
SAMPLE TYPE: GROUNDWATER

Analytical Parameters	Analytical Results	Units	Method Detection Limits	Practical Quantifiable Limit	Method
Iron, Total (on flame)	2.86	mg/l	---	0.30	EPA 236.1
Iron, Soluble (on flame)	BQL *	mg/l	---	0.30	EPA 236.1
Potassium, Total (on flame)	46.9	mg/l	---	1.00	EPA 258.1
Potassium, Soluble (on flame)	45.5	mg/l	---	1.00	EPA 258.1
Zinc, Total (on flame)	BQL	mg/l	---	0.05	EPA 289.1
Zinc, Soluble (on flame)	BQL	mg/l	---	0.05	EPA 289.1

FOOTNOTES

* Below Quantifiable Limits.

CUST SAMPLE ID: MW-2
 COLLECTION DATE: 9/18/91
 COLLECTION METHOD: GRAB
 SAMPLE TYPE: GROUNDWATER

LABORATORY JOB NO: 912963
 LABORATORY REFERENCE NO: 7624
 INORGANIC ANALYSIS

Analytical Parameters	Analytical Results	Units	Method Detection Limits	Practical Quantifiable Limit	Method
Iron, Total (on flame)	86.5	mg/l	---	0.30	EPA 236.1
Iron, Soluble (on flame)	1.24	mg/l	---	0.30	EPA 236.1
Potassium, Total (on flame)	8.95	mg/l	---	1.00	EPA 258.1
Potassium, Soluble (on flame)	9.00	mg/l	---	1.00	EPA 258.1
Zinc, Total (on flame)	0.60	mg/l	---	0.05	EPA 289.1
Zinc, Soluble (on flame)	BQL *	mg/l	---	0.05	EPA 289.1
				-	
Ammonia	2.20	mg/l	---	0.02	EPA 350.1
Nitrite	BQL	mg/l	---	0.01	EPA 353.2
Total Kjeldahl Nitrogen	2.3	mg/l	---	0.1	EPA 351.2

FOOTNOTES

* Below Quantifiable Limits.

ADVANCED ENVIRONMENTAL SERVICES, INC.
 LABORATORY REPORT
 QUALITY CONTROL - PRECISION
 =====

JOB# 912963

PAGE 1

Type of Analysis: Duplicate Analysis
 Client: UCAR CARBON COMPANY INC.

A.E.S. Job Code: CTC
 Units: Micrograms/Liter or ppb

Analytical Parameters	Sample No.	Original Concentration	Duplicate Concentration	Average Concentration	Range	Relative % Difference
All 8270 Analytes	7590	BQL **	BQL	BQL	NA ***	NA
All 8240 Analytes	7590	BQL	BQL	BQL	NA	NA

* Relative Percent Difference = (Range/Average) X 100

FOOTNOTES

** Below Quantifiable Limits.

*** Not Available.

ADVANCED ENVIRONMENTAL SERVICES, INC.
LABORATORY REPORT
QUALITY CONTROL - PRECISION
=====

JOB# 912963

PAGE 2

Type of Analysis: Duplicate Analysis
Client: UCAR CARBON COMPANY INC.

A.E.S. Job Code: CTC
Units: Milligrams/Liter

Analytical Parameters	Sample No.	Original Concentration	Duplicate Concentration	Average Concentration	Range	Relative % Difference
Zinc, Total	7590	0.10	0.10	0.10	0	0
Zinc, Soluble	7590	BQL **	BQL	BQL	NA ***	NA
Potassium, Total	7590	7.04	6.99	7.02	0.05	0.7
Potassium, Soluble	7590	1.28	1.33	1.30	0.05	3.9
Iron, Total	7590	62.5	62.0	62.2	0.5	0.8
Iron, Soluble	7590	3.07	3.01	3.04	0.06	2.0
Ammonia	7590	0.13	0.13	0.13	0	0
Total Kjeldahl Nitrogen	7590	0.9	0.9	0.9	0	0
Nitrite	7590	BQL	BQL	BQL	NA	NA

* Relative Percent Difference = (Range/Average) X 100

FOOTNOTES

** Below Quantifiable Limits.

*** Not Available.

ADVANCED ENVIRONMENTAL SERVICES, INC.
LABORATORY CONTROL
QUALITY CONTROL - ACCURACY
=====

JOB# 912963

PAGE 1

Type of Analysis: Matrix Spikes and E.P.A. Standards
Client: UCAR CARBON COMPANY INC.

A.E.S. Job Code: CTC
Units: mg/l

Analytical Parameters	Sample No.	Type	Observed Concentration	Original Concentration	Added Concentration	Percent Recovery*
Zinc, Total	7590	SPK	0.54	0.10	0.50	1080 ?
Zinc, Soluble	7590	SPK	0.49	BQL ***	0.50	****
IND (Zn) Std.	Spex-1	STD	0.50	0.50	NONE	100
Potassium, Total	7590	SPK	25.4	7.02	20.0	18 ? 92%
Potassium, Soluble	7590	SPK	20.8	1.30	20.0	80
EPA (K) Std.	686	EPA	10.1	10.0	NONE	101
Iron, Total	7590	SPK **	6.06	1.24	5.00	98
Iron, Soluble	7590	SPK	6.52	3.04	4.00	54 ? 87%
IND (Fe) Std.	Spex-2	STD	3.99	4.00	NONE	100

* % Recovery = 100 x ((Observed Concentration - "background" Original Concentration) / "Spike" Added Concentration)

* If Added=NONE: % Recovery = 100 x (Observed Concentration / "background" Original Concentration)

FOOTNOTES

** Spike performed on a sample dilution.

*** Below Quantifiable Limits.

$$100 \left(\frac{6.52 - 3.04}{4.00} \right) = 100 (3.48) = 348$$

$$100 \left(\frac{25.4 - 7.02}{20.0} \right) = 100 (1.838) = 183.8$$

$$\frac{4 \sqrt{348}}{28} = 87$$

$$= 91.90$$

ADVANCED ENVIRONMENTAL SERVICES, INC.
LABORATORY CONTROL
QUALITY CONTROL - ACCURACY
=====

JOB# 912963

PAGE 2

Type of Analysis: Matrix Spikes and E.P.A. Standards
Client: UCAR CARBON COMPANY INC.

A.E.S. Job Code: CTC
Units: mg/l

Analytical Parameters	Sample No.	Type	Observed Concentration	Original Concentration	Added Concentration	Percent Recovery*
Ammonia	---	IND STD	53	50	NONE	106
Ammonia	7590	SPK	0.60	0.13	0.50	94
Total Kjeldahl Nitrogen	7590	SPK	5.8	0.9	5.0	98
Total Kjeldahl Nitrogen	---	EPA	5.3	5.0	NONE	106
Nitrite	7590	SPK	0.24	BQL **	0.25	96

1

* % Recovery = 100 x ((Observed Concentration - "background" Original Concentration) / "Spike" Added Concentration)

* If Added=NONE: % Recovery = 100 x (Observed Concentration / "background" Original Concentration)

FOOTNOTES

** Below Quantifiable Limits.

ADVANCED ENVIRONMENTAL SERVICES, INC.
 LABORATORY CONTROL
 QUALITY CONTROL - ACCURACY
 =====

JOB# 912963

PAGE 3

Type of Analysis: Matrix Spikes and E.P.A. Standards
 Client: UCAR CARBON COMPANY INC.

A.E.S. Job Code: CTC
 Units: ug/l or ppb

Analytical Parameters	Sample No.	Type	Observed Concentration	Original Concentration	Added Concentration	Percent Recovery*
2-Chlorophenol	7590	SPK	58.4	BQL **	80.0	73
1,4-Dichlorobenzene	7590	SPK	29.7	BQL	40.0	74
N-Nitrosodipropylamine	7590	SPK	38.0	BQL	40.0	95
1,2,4-Trichlorobenzene	7590	SPK	28.6	BQL	40.0	72
4-Chloro-3-methylphenol	7590	SPK	65.0	BQL	80.0	81
Acenaphthene	7590	SPK	25.6	BQL	40.0	64
4-Nitrophenol	7590	SPK	14.4	BQL	80.0	18
2,4-Dinitrotoluene	7590	SPK	44.7	BQL	40.0	112
Pyrene	7590	SPK	38.4	BQL	40.0	96

* % Recovery = 100 x ((Observed Concentration - "background" Original Concentration) / "Spike" Added Concentration)

* If Added=NONE: % Recovery = 100 x (Observed Concentration / "background" Original Concentration)

FOOTNOTES

** Below Quantifiable Limits.

ADVANCED ENVIRONMENTAL SERVICES, INC.
LABORATORY CONTROL
QUALITY CONTROL - ACCURACY
=====

JOB# 912963

PAGE 4

Type of Analysis: Matrix Spikes and E.P.A. Standards
Client: UCAR CARBON COMPANY INC.

A.E.S. Job Code: CTC
Units: ug/l or ppb

Analytical Parameters	Sample No.	Type	Observed Concentration	Original Concentration	Added Concentration	Percent Recovery*
1,1-Dichloroethene	7590	SPK	23.9	BQL **	20.0	120
Methylene Chloride	7590	SPK	23.9	BQL	20.0	120
Chloroform	7590	SPK	22.8	BQL	20.0	114
Benzene	7590	SPK	22.4	BQL	20.0	112
Trichloroethene	7590	SPK	23.1	BQL	20.0	116
Chlorobenzene	7590	SPK	23.1	BQL	20.0	116
Ethylbenzene	7590	SPK	22.8	BQL	20.0	114
Bromoform	7590	SPK	19.1	BQL	20.0	96

* % Recovery = 100 x ((Observed Concentration - "background" Original Concentration) / "Spike" Added Concentration)

* If Added=NONE: % Recovery = 100 x (Observed Concentration / "background" Original Concentration)

FOOTNOTES

** Below Quantifiable Limits.

AES Inorganics Department Traceability

Job Code: UTC

Technician
Signature

AES
Sample #

Method

Date of Analysis

James J. McDougall
James J. McDougall
James J. McDougall

7525-27, 7529, T/S
7588-91, 7623-24

289.1

9-26-91

12

258.1

9.28-91

14

236.1

10-1-97

AES Inorganics Department Traceability

Job Code: CTC

Technician
Signature

AES
Sample #

Method

Date of Analysis

T. Brown

7525-27,29

350.1

9-17-91

7. Ak

7624 7587-91

350.1

9-23-9

Bahat dupes
Bahat dupes

7587-91
7624, 7525-27, 29

351.2

9/25/91

7587-91
7624, 7525-27, 29

353.2

9/26/81

AES Organics Department Traceability

Job Code: CTC

Technician
Signature

AES
Sample #

Method

Date of Analysis

Jim Figh
Kelly Russell

$$\begin{array}{r} 7589 - 7591 \\ \hline 7589 - 91 \end{array}$$
$$\begin{array}{r} 8270 \\ \hline 8240 \end{array}$$

9/24/91
9/27 + 9/30/91

ADVANCED ENVIRONMENTAL SERVICES, Inc.
EXTRACTION TRACEABILITY REPORT
INORGANICS REPORT

A.E.S. Job Code: CTC

A.E.S. Job Number: 912985

TECHNICIAN	ANALYTICAL METHOD	SAMPLE CODE(S)	DATE OF EXTRACTION
------------	-------------------	----------------	--------------------

Lynn Hargak	8270	7589-7591	9-19-91
-------------	------	-----------	---------

A.E.S. Job Number: 9129103

Lynn Staszak 8270 7529 9-17-91

AES Organics Department TraceabilityJob Code: CTCTechnician
SignatureAES
Sample #MethodDate of
AnalysisJim Figh
Kelly Russell7529
75288270
82409/18/91
9/29/91



CHAIN OF CUSTODY RECORD

PROJECT NAME:

SAMPLER'S SIGNATURE:

CONTAINER CLASSIFICATION

JOB CODE: CTS

IDENTIFICATION OF
BLIND FIELD DUPLICATE SITE:

[illegible]

TOTAL NUMBER OF CONTAINERS	13
-----------------------------------	-----------

NOTE: Please indicate required analysis, and whom we may contact with questions, if you have not yet done so through your customer service representative.

1. RELINQUISHED BY: 	DATE 9/16/91	TIME 5 ¹⁰ pm	RECEIVED BY: 
2. RELINQUISHED BY: _____	DATE _____	TIME _____	RECEIVED BY: _____
3. RELINQUISHED BY: _____	DATE _____	TIME _____	RECEIVED BY: _____

10476



CHAIN OF CUSTODY RECORD

PROJECT NAME: VCAR Carbon

SAMPLER'S SIGNATURE: Milze Chang,

CONTAINER CLASSIFICATION

JOB CODE: CTC

IDENTIFICATION OF
BLIND FIELD DUPLICATE SITE: BW-4

[illegible]

TOTAL NUMBER OF CONTAINERS 29

NOTE: Please indicate required analysis, and whom we may contact with questions, if you have not yet done so through your customer service representative.

Ree'd cold.

1. RELINQUISHED BY: <u>Mike Champ</u>	DATE <u>9-17-91</u>	TIME <u>5¹⁵pm</u>	RECEIVED BY: <u>Marcia Sewley</u>
2. RELINQUISHED BY: _____	DATE _____	TIME _____	RECEIVED BY: _____
3. RELINQUISHED BY: _____	DATE _____	TIME _____	RECEIVED BY: _____

#1492



68.08



P.O. Box 165
2186 Liberty Drive
Niagara Falls, NY 14304
(716) 283-3120

October 28, 1991

Mr. Rick Bolton
Environmental Manager
UCAR Carbon Company Inc.
PO Box 513
Columbia, Tennessee 38402-0513

Re: Quarterly Monitoring Report - Job Number 913000

Dear Mr. Bolton:

As per your request, a comment which pertains to the footnote found in the above described report regarding high quantifiable limits. Sample # 7589 (Well BW-4) and sample # 7591 (Blind Duplicate site which is Well BW-4), required a 10:1 dilution. This dilution was necessary to determine the middle to late eluting compounds. An unknown component in the sample matrix caused a gross overload of the system thus making quantification of all compounds that fall in the unknown overload region impossible. In addition, enclosed please find the sample chromatograph which will illustrate the situation described above.

Please feel free to call me should you have any additional questions.

Sincerely,

ADVANCED ENVIRONMENTAL SERVICES, INC.

Maura S. Cattarin
Customer Service Representative

enc.

TIC of 9240201002.D

Abundance

Name Info: std 7865

Misc Info:

Date: Tue Sep 24 91 04:17:59 PM

1.20e+07

1.00e+07

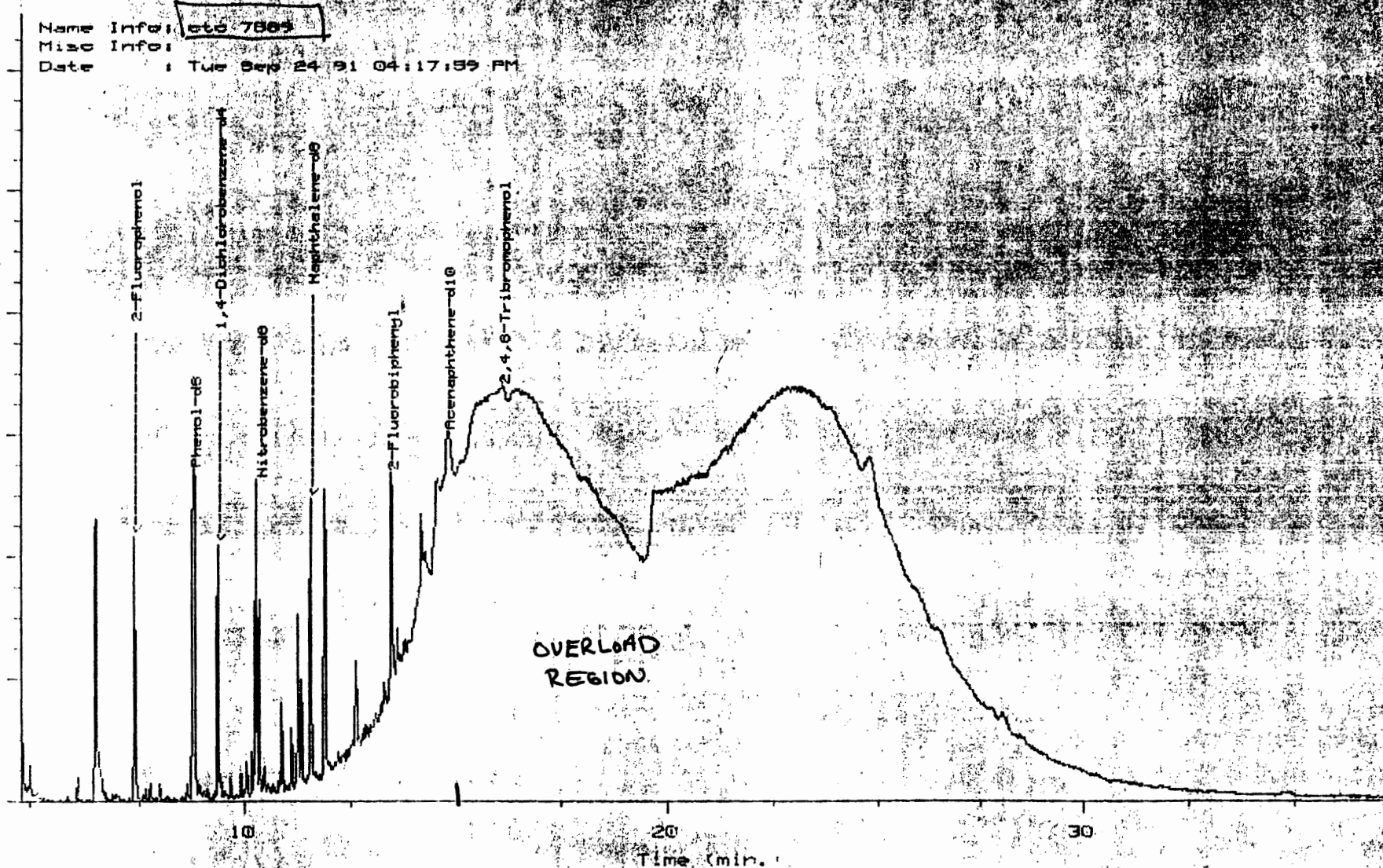
8.00e+06

6.00e+06

4.00e+06

2.00e+06

0.00e+00



TIC: 0000000004.d

Abundance

Name Info: cto-7591

Misc Info:

Date: Tue Sep 24 91 08:14:09 PM

