SCANNED

Response Action Outcome (RAO) Statement
ADDENDUM

Arcade Realty Trust
ATF-Davidson Property
355 Main Street
~~Whitinsville~~ (Northbridge), MA

RTN #2-0111

Prepared by

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October 28, 2002

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RDMS Doc ID 107661

MONITORING WELL INSTALLATION

AND

GROUND WATER AND RIVER BOTTOM SEDIMENT

QUALITY ANALYSES

AFT/DAVIDSON COMPANY

ARCADE FACILITY

WHITTINSVILLE, MASSACHUSETTS

CASWELL, EICHLER & HILL, INC.

PORTSMOUTH, NEW HAMPSHIRE

OCTOBER 1985

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INTRODUCTION

The Massachusetts Department of Environmental Quality Engineering (DEQE) requested that a hydrogeologic site assessment be conducted at the ATF/Davidson Company (ATF/D) Arcade facility in Whitinsville, Massachusetts. In that ATF/D is a subsidiary of White Consolidated Industries (WCI) of Cleveland, Ohio, WCI and ATF/D retained Caswell, Eichler and Hill, Inc. (CEH) to develop and implement a plan that would satisfy DEQE requirements concerning the general hydrogeologic site assessment. This assessment would include the installation of monitoring wells, the collection of soil, river bottom and grounwater samples, the measurement of groundwater elevations, the completion of a vertical and horizontal survey of the monitoring well locations, and completion of selected laboratory analyses for volatile organics (EPA 624), oil and grease, barium, total cyanide and priority pollutant metals.

CEH, a professional firm of geologists, hydrologists and geophysicists, assumed the project's lead role. Environmental Field Services (EFS) and Resource Analysts, Inc. (RAI) of Hampton, New Hampshire performed the ground water sampling and laboratory analyses. New England Boring Contractors, Inc. of Glastonbury, Connecticut performed the drilling, soil sampling and monitoring well construction. Bibeault and Florentz, Inc. of Woonsocket, Rhode Island performed the elevational and location survey to establish horizontal and vertical control on the monitoring wells.

WORK PERFORMED

A. DRILLING AND MONITORING WELL CONSTRUCTION. As whown on the FACILITY MAP AND SHALLOW HORIZONTAL FLOWNET (Figure 1), eight locations (M-1 through M-8) were chosen for the installation of shallow monitoring wells. Where possible, hollow stem augers (3 inch I.D.) were advanced to below the water table, and standard split-spoon sampling was completed to note stratigraphy. Threaded, flush joint, ten-slot PVC screen (1.5 inch I.D.) was set at and below the water table, and solid PVC riser of the same design and dimension was installed to roughly two feet above land surface. Ottawa sand was packed around the screen, and a two foot thick bentonite seal was installed approximately one foot above the top of the screen. Additional sand was added to within two feet of land surface in each boring, and a locking steel protective pipe was cemented in place. All wells were fully developed upon completion, and all augers were thoroughly washed between borings.

B. GROUND WATER, SOIL AND RIVER BOTTOM SAMPLING AND LABORATORY ANALYSES. Each completed monitoring well was either pumped dry six times, or six times its volume was extracted prior to sampling. Standard EPA sampling and sample preservation and analysis techniques were employed by EFS and RAI. Ground water samples that were to be tested for volatile organic compounds were taken with a stainless steel bailer. Samples that were to be tested for metals and inorganics were taken with a peristaltic pump. Dedicated tubing was used in each well, and all samples for metals and inorganics were field filtered. Chain of Custody and Field Data forms were completed for each well and set of samples. Please note that the Temperature (°C) Readings reported on the field data forms correspond to the Conductivity (umhos) when it was read, not when the sample was first extracted from the well.

Each ground water sample was analysed for volatile organic compounds (EPA 624), barium, priority pollutant metals, and total cyanide. Samples from M-3 were also analysed for oil and grease.

During construction of the monitoring wells, standard soil sampling was conducted in each boring. An eighteen inch split-spoon sample was taken at the surface and every five feet thereafter. A final sample was taken, or attempted in the case of hollow stem auger refusal, at the bottom of each boring. The samples were placed in standard soil sample jars and kept for future inspeciton and possible laboratory analysis.

Five benthic cores (B-1 through B-5) were taken from the littoral (near-shore) zone of the Mumford River bottom using a canoe and hand corer. The cores were placed in a standard 1 liter glass sample jar and kept cool prior to delivery to the laboratory. Each sample was analysed for priority pollutant metals and barium.

C. SURVEY FOR HORIZONTAL AND VERTICAL CONTROL. Upon completion of the drilling and monitoring well construction, the locations of the borings and wells were surveyed for horizontal and vertical control. Vertical control was established using a U.S.G.S. benchmark in feet above mean sea level (FT-MSL). Each well top and the immediately adjacent ground surface were surveyed to the nearest hundreth of a foot. Where a well could not be installed, the ground surface at the location of the boring was surveyed. These data, coupled with the subsurface data gathered during the drilling and water level measurement tasks, allowed for the construction of all figures and tables presented herein.

HYDROGEOLOGIC SETTING

The AFT/D Arcade site lies along 3200 feet of the north bank of the Mumford River in Whitinsville, Massachusetts. It is bounded on the east by Sidney Covitch properties, north by Main Street, and west by the Whittinsville Water Company. The Mumford River, which forms the site's southern bondary, flows from west to east.

Nearly the entire site is comprised of foundry fill which is a fine to coarse sand and gravel with some pumice like material, foundry bed glass and ash. This foundry material was continually removed for years from the large foundry at the western end of the Covitch property, and graded out into the river. The resulting land mass presently supports a demolitions debris storage area which abuts the Covitch property, and the ATF/D Arcade facility. The western terminus of the fill consists of an island in the Mumford River, and the aforementioned Whitinsville Water Company parcel.

RESULTS AND CONCLUSIONS

A. SITE HYDROGEOLOGY. All of the monitoring wells encountered foundry fill throughout their entire depth except M-1. Because one boring was required to be drilled to refusal, M-1 encountered river bottom sediments (brown washed fine to coarse sand and gravel with occasional cobbles and small boulders) at approximately elevation 297. Hollow-stem auger and split-spoon refusal was encountered at elevation 294. This refusal elevation probably corresponds to the bedrock surface elevation as an outcrop is clearly visible about 200 feet to the southeast. This outcrop is at the shoreline of a naturally occuring (bedrock supported) island in the Mumford River comprising the study area's southwestern boundary. Foundry fill was advanced out into the river to the island, effectively incorporating it into the new land mass formed by the fill.

The locations where monitoring wells were completed are shown on Figure 1. Further, data from the drilling and water level measurement tasks were used to construct Monitoring Well and Subsurface Data (Table 1), and Cross Sections A-A', B-B' and C-C' (Figures 2, 3 and 4). Examination of these constructs can educate the reader as to the hydrogeologic nature of the site far better than reading numerous descriptive paragraphs. Some time digesting these compilations is, therefore, recommended prior to and while reading the remainder of the report.

Ground water generally flows south beneath the site, discharging to the river. The average velocity of groundwater flow can be computed, for example, by examining Figure 4. A flow line from M-7 to the river is approximately 450 feet in length. Given the grain size characteristics of the fill, we have estimated a hydraulic conductivity (K) of 1×10^{-3} cm/sec (3.28×10^{-5} ft/sec), and a corresponding effective porosity (n_e) of o.20. Using these estimates and a calculated hydraulic gradient (i) of 4.44×10^{-3} (where, $\frac{306' - 304'}{450'}$) it is possible to estimate the seepage velocity ($\bar{v}$).

$$\bar{v} = \frac{Ki}{n_e} = \frac{(3.28 \times 10^{-5}\ \text{ft/sec})(4.44 \times 10^{-3})}{0.20}$$

$$= 7.28 \times 10^{-7}\ \text{ft/sec}$$

$$= 23\ \text{ft/yr}$$

B. GROUND WATER QUALITY. Appendix B contains the groundwater quality data for each well. Additionally, as seen on the field data form, conductivity, temperature (at the time of conductivity reading) and pH were also determined. As the results of the analyses show, no significantly elevated levels of priority pollutant metals were detected. Barium slightly exceeded the Safe Drinking Water Standards in M-5 and M-8. Several of the wells, however, exhibited volatile organic contamination. Samples from M-3 contained 210 ug/l vinyl chloride, 250 ug/l 1,2-trans-dichloroethylene and 10 ug/l trichloroethylene. Samples from M-6 contained 15 mg/l 1,2-trans-dichloroethylene, 30 ug/l trichloroethylene and 950 ug/l tetrachloroethylene. Samples from M-8 contained 260 ug/l vinyl chloride, a trace of 1,1 dichloroethane, 610 ug/l 1,2-trans-dichloroethylene, 30 ug/l trichloroethylene and a trace of tetrachloroethylene.

TABLE 1

MONITORING WELL AND SUBSURFACE ELEVATIONAL DATA
ARCADE SITE

WELL#	LAND SURFACE ELEVATION (FT-MSL)	TOP OF PIPE ELEVATION (FT-MSL)	LENGTH OF RISER (FT)	7-16-85 WATER TABLE ELEVATION (FT-MSL)	7-18-85 WATER TABLE ELEVATION (FT-MSL)	WATER TABLE ELEVATION NOTED DURING DRILLING (FT-MSL)	BOTTOM OF BORING ELEVATION (FT-MSL)	TOP OF SCREEN ELEVATION (FT-MSL)	BOTTOM OF SCREEN ELEVATION (FT-MSL)
M-1	312.12	314.04	1.92	305.73	305.73	303.32	293.82	303.12	298.12
M-2	312.87	314.99	2.12	306.21	306.24	305.57	300.87	305.87	300.87
M-3	310.99	312.65	1.66	305.90	305.75	305.99	299.49	305.99	300.99
M-4	311.19	313.24	2.05	305.60	305.56	305.69	299.69	306.19	301.19
M-5	310.72	312.85	2.13	305.55	305.50	305.22	299.22	305.72	300.72
M-6	310.69	312.99	2.30	305.59	305.52	305.19	299.19	305.69	300.69
M-7	309.87	312.94	3.07	306.23	306.13	305.07	298.87	305.37	300.37
M-8	310.15	312.72	2.57	305.66	305.59	305.15	298.85	305.45	300.45

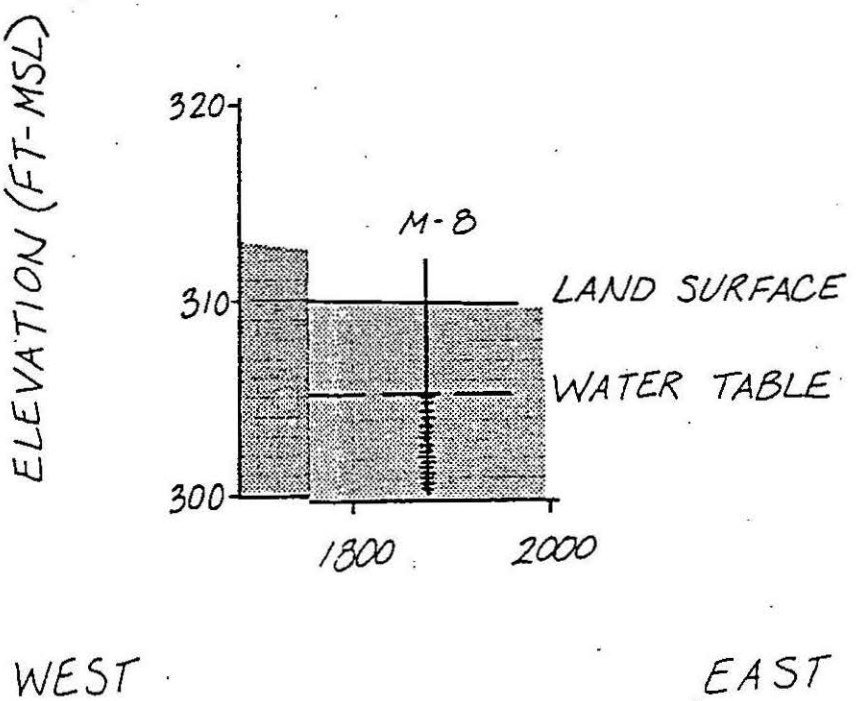

ELEVATION (FT-MSL)
320
310
300
M-8
LAND SURFACE
WATER TABLE
1800
2000
WEST
EAST

FIGURE 3

B - B'

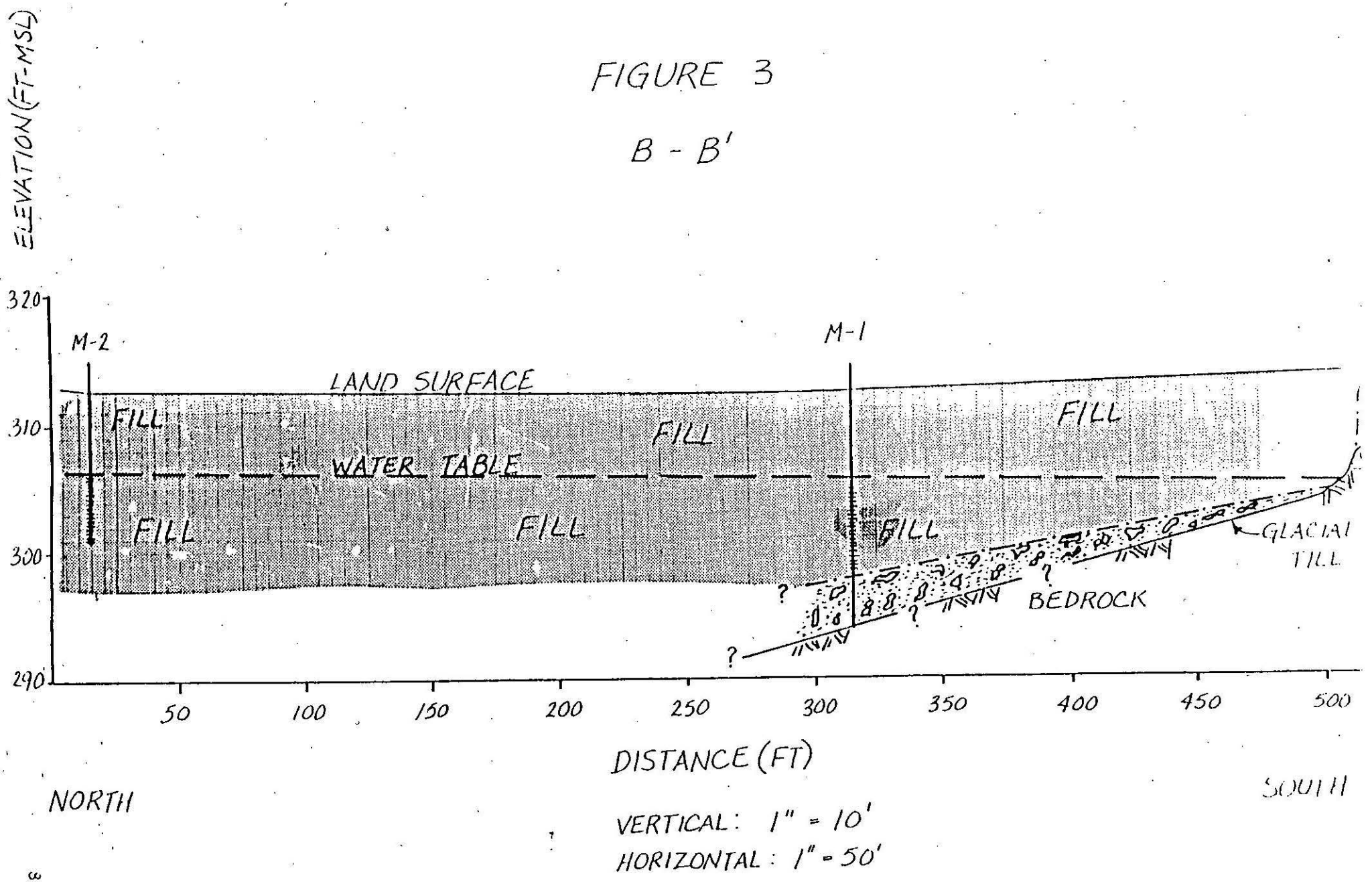
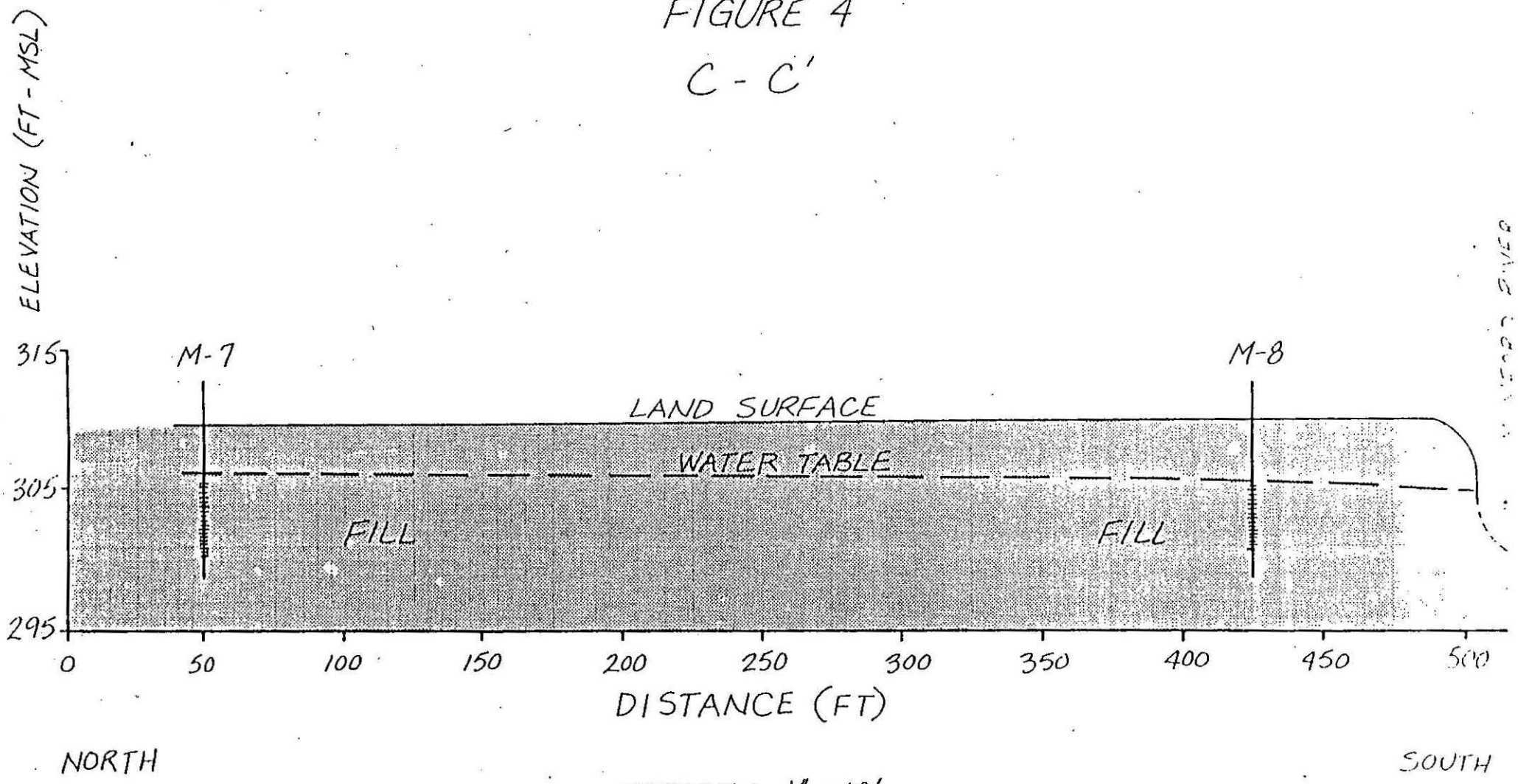

ELEVATION (FT-MSL)
320
310
300
290
M-2
M-1
LAND SURFACE
FILL
FILL
FILL
WATER TABLE
FILL
FILL
FILL
GLACIAL TILL
BEDROCK
?
50
100
150
200
250
300
350
400
450
500
DISTANCE (FT)
NORTH
SOUTH
VERTICAL: 1" = 10'
HORIZONTAL: 1" = 50'

FIGURE 4

C - C'



VERTICAL: 1" = 10'

HORIZONTAL: 1" = 50'

To place the above concentrations of volatile organic compounds in some form of reference, they should be viewed relative to Suggested No Adverse Reaction Limit (SNARL) standards. These standards were developed by EPA to be used as guidelines. Given the present knowledge of these chemical compounds, a SNARL suggests both concentrations and exposure times that an average person may endure without significant adverse reactions occuring. The SNARL's for those compounds found in the groundwater samples are as follows:

VINYL CHLORIDE	NO LIMIT SET
1,2-trans-DICHLOROETHYLENE	1 DAY - 2700 ug/1 10 DAY - 270 ug/1
TRICHLOROETHYLENE	1 DAY - 2000 ug/1 10 DAY - 200 ug/1 LIFETIME - 75 ug/1
TETRACHLOROETHYLENE	1 DAY - 2300 ug/1 10 DAY - 180 ug/1 LIFETIME - 40 ug/1
1,1 DICHLOROETHANE	THE SUM OF ALL TRIHALOMETHANES SHOULD NOT EXCEED 0.01 mg/1 ON A LIFETIME BASIS

Review of these data would suggest that contamination is significant (10 day exposure limit or less) in M-3 (250 ug/1 1,2-trans-dichloroethylene), M-6 (950 ug/1 tetrachloroethylene) and M-8 (610 ug/1 1,2 trans-dichloroethylene).

C. RIVER BOTTOM SEDIMENT QUALITY. Appendix B contains the results of the laboratory analyses for priority pollutant metals in each of the five benthic samples (B-1 through B-5) taken from the river bottom. All of the samples were characterized as dark organic peat and muck. The locations of these samples are shown on Figure 1, with the exception of B-4 and B-5 which are located outside the area depicted. B-4 is located east of the study area, about 100 feet above the large dam in the center of the Covitch property. B-5 is located west of the study area, and toward the western end of the Whitinsville Water Company property. In that the river flows west to east, B-5 is upgradient of the study area, while B-4 is downgradient.

Of the fourteen metals evaluated, only chromium appears to be cause for concern. To provide perspective, some discussion of EP Toxicity and soil samples is warranted. An EP Toxicity test evaluates both the concentration and mobility of materials such as metals in the subsurface. In terms of concentration, the leachable amount of a metal from a soil sample (ug/g) can not exceed 100 times the level set for that metal (mg/1) in the Primary Drinking Water Standards. To relate EP Toxicity in water samples to potential EP Toxicity in soil samples, multiply the Primary Drinking Water Standard for any given constituent by 2000. This conversion factor accounts for the

dilution necessary when preparing a standard soil sample for analysis. In the case of chromium, up to 410 ug/g was found in the benthic samples, and the level at which chromium is potentially EP Toxic in sediment samples is 100 ug/l.

The upgradient to downgradient (in terms of river flow) concentrations of chromium in the benthic samples were as follows:

B-5	65 ug/g
B-1	410 ug/g
B-2	250 ug/g
B-3	400 ug/g
B-4	100 ug/g

As seen, the upgradient concentration is itself moderately high, although not potentially EP Toxic. The remaining four downgradient samples all, however, exceed the criteria for delineating potential EP Toxicity. These elevated chromium concentrations can be coming from one or both of two possible sources, those being the ATF/D Arcade facility, or some unknown upgradient facility. In that ATF/D and WCI officials have stated that they have never used chromium at the Arcade facility, and because ground water samples from M-1 through M-8 showed no chromium, we must conclude that it is coming from an upgradient source.

One possible explanation of the pronounced increase in concentration between B-5 and the remaining samples (B-4 through B-1) concerns changes in the morphology of the river from the Whitinsville Water Company parcel, past the Arcade facility to the dam on the Covitch property. The dam creates a large head pong (Whitin Pond) that extends back up the river past the ATF/D Arcade facility. As chromium laden organic material flows past the channelized portion of the river opposite the Whitinsville Water Company, it can tend to remain in suspension because of adequate flow velocity. As this material enters the head pond, however, decreased flow velocity would tend to facilitate settling. As the organics degrade, the concentration of incorporated metals such as chromium would increase in the sediments. In that both textile and tannery facilities (which normally use chromium in their processes) were reported in operation further up-river (unchecked by CEH), this settling and accretion theory seems to be the most plausible explanation for the levels of contamination noted in the benthic samples.

SUMMARY

The subsurface area of this investigation is generally comprised of less than 15 feet of foundry fill overlying river bottom sediments which overlie bedrock. The site lies along the northern bank of the Mumford River which flows from west to east. Ground water generally flows south beneath the site, discharging to the river at a seepage velocity of approximately 23 feet per year.

Ground water quality beneath the site is generally good with respect to priority pollutant metals, but three monitoring wells (M-3, M-6 and M-8) showed evidence of volatile organic contamination.

The Mumford River bottom sediments are heavily contaminated with chromium in the Whitin Pond area sbove the large dam on the Covitch property. The heaviest contamination appears to range from the dam, up-river past the ATF/D Arcade facility. A source upgradient of ATF/D is most likely responsible for the elevated chromium levels noted in the benthic samples.

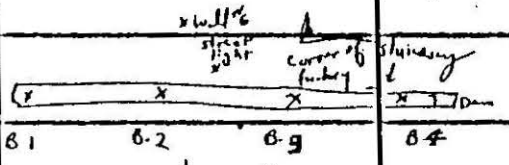
Proj. No.	Project Name					No. of containers	VOA - EPA 624	TCAS - 16	Metals - Hg	pH / Specific Temp.	g-6	Oil - Grease - Nutrients	Static Level (ft)	Total Depth (ft)	Remarks
	ATF Davidson														
Samplers: (Signature)															
Sta. No.	Date	Time	Comp.	Grab	Station Location										
M-1	7/18/85	1415		✓		3	✓	✓	✓		1.5		8.31'	14'	075
M-2		1432		✓			✓	✓	✓		0.9		8.75'	12'	100
M-3		1520		✓			✓	✓	✓		0.8		6.90'	10'	101
M-4		1345		✓			✓	✓	✓		0.6		7.68'	10'	101
M-5		1330		✓			✓	✓	✓		0.7		7.35'	10'	101
M-6		1115		✓			✓	✓	✓		0.7		7.47'	10'	[illegible]
M-7		1110		✓			✓	✓	✓		0.7		6.81'	9.5'	102
M-8		1055		✓			✓	✓	✓		0.7		7.13'	9.8'	1023
M-3		1510		✓								✓	Single bailer to be sampled - Oil & Grease only		

Relinquished by: (Signature)	Date/Time	Received by: (Signature)	Relinquished by: (Signature)	Date/Time	Received by: (Signature)
[signature]	7/18 1955				
Relinquished by: (Signature)	Date/Time	Received by: (Signature)	Relinquished by: (Signature)	Date/Time	Received by: (Signature)
Relinquished by: (Signature)	Date/Time	Received for Laboratory by: (Signature)	Date/Time	Remarks	
		[signature]	7/19/85 2000		

Proj. No.	Project Name
	ATF Davidson, Whitinsville, MA

Samplers: (Signature) [signature]

Sta. No.	Date	Time	Comp.	Grab	Station Location	No. of containers	Heavy Fuel (1) core / 10 Pollutant Metals	Oil & Grease				Remarks
B-1	7/18/85	1610		✓	see map below	1	✓	✓				
2		1625		✓			✓	✓				
3		1640		✓			✓	✓				
4		1650		✓			✓	✓				



Whitin Pond

Relinquished by: (Signature)	Date/Time	Received by: (Signature)	Relinquished by: (Signature)	Date/Time	Received by: (Signature)
[signature]	7/18 1955				
Relinquished by: (Signature)	Date/Time	Received by: (Signature)	Relinquished by: (Signature)	Date/Time	Received by: (Signature)

Relinquished by: (Signature)	Date/Time	Received for Laboratory by: (Signature)	Date/Time	Remarks
		[signature]	7/18/85 2000	

APPENDIX A

DRILLERS LOGS

NEW ENGLAND BORING CONTRACTORS OF CONN. INC.

Glastonbury, CT 06033 — Springfield, MA 01103
203-633-4640 — 413-733-1232

CLIENT: CEH
PROJECT NAME: ATF Davidson
LOCATION: Whitinsville, MA

BORING NUMBER: M-1
SHEET No. 1 of 1

DRILLER: T. Roe
ARCHITECT ENGINEER:
FILE NO.:

INSPECTOR: M. Eichler
DATE START: 7/8/85
DATE FINISH: 7/8/85

	Casing	Sampler	Core Barrel
TYPE	HSA	SS	
SIZE I.D.	3-3/8"	1-3/8"	
HAMMER WT.		140	
HAMMER FALL		30"	

SURFACE ELEV.:
LINE & STATION:
OFFSET:

DEPTH	SAMPLE NO.	DEPTH RANGE	BLOWS PER 6" ON SAMPLER 0-6	6-12	12-18	REC.	COL. A	STRATA CHANGE	FIELD CLASSIFICATION AND REMARKS
	S1	0-1.5	4	12	14	16"			
5'	S2	5.0-6.5	1	2	1	14"			Black Br. Fine Sand, Little Silt, Med.-Crs. Sand, Occasional Cobbles, Bricks
10'	S3	10.0-11.5	1	2	10	10"			
15'	S4	15.0-16.5	13	21	20	18"		14.5	
	S5	18.3	100/0					18.3	Grey Br. Fine-Crs. Sand and Gravel Little Silt, Occasional Cobbles and Boulders
20'									HSA and Spoon Refusal @ 18.3 Water @ 8.8 Installed Monitor Well @ 14.0 Materials: 5.0 - 1½" PVC Screen 11.0 - 1½" PVC Riser 1 - Bag Ottawa Sand 50 - lbs. Bentonite 1 - Bag Sand Mix 1 - Locking Protector Pipe

SAMPLE IDENTIFICATION

S — SPLIT SPOON
T — THIN WALL TUBE
U — UNDISTURBED PISTON
O — OPEN END ROD
W — WASH SAMPLE

PENETRATION RESISTANCE
140 lb. Wt. falling 30" on 2" O.D. Sampler

Cohesionless Density		Cohesive Consistency	
0-4	Very Loose	0-2	Very Soft
5-9	Loose	3-4	Soft
10-29	Med. Dense	5-8	M/Stiff
30-49	Dense	9-15	Stiff
50 +	Very Dense	16-30	V-Stiff

PROPORTIONS USED

trace	0 to 10%
little	10 to 20%
some	20 to 35%
and	35 to 50%

REMARKS:
Developing Time:
M-1 - M-8 2½ Hrs.
Developed Consecutively

COL. A

NEW ENGLAND BORING CONTRACTORS OF CONN. INC.

Glastonbury, CT 06033 — Springfield, MA 01103
203-633-4640 — 413-733-1232

CLIENT: CEH
PROJECT NAME: ATF Davidson
LOCATION: Whitinsville, MA

BORING NUMBER: M-2
SHEET No. 1 of 1

DRILLER: T. Roe
INSPECTOR: M. Eichler
DATE START: 7/8/85
DATE FINISH: 7/8/85

ARCHITECT ENGINEER:

	Casing	Sampler	Core Barrel
TYPE	HSA	SS	
SIZE I.D.	3-3/8"	1-3/8"	
HAMMER WT.		140	
HAMMER FALL		30"	

FILE NO.:
SURFACE ELEV.:
LINE & STATION:
OFFSET:

DEPTH	SAMPLE NO.	SAMPLE DEPTH RANGE	BLOWS PER 6" ON SAMPLER 0-6	6-12	12-18	REC.	COL. A	STRATA CHANGE	FIELD CLASSIFICATION AND REMARKS
	S1	0-1.5	3	8	11	14"			
5'	S2	5.0-6.5	2	4	6	18"			Br. Black Fine Sand, Some Silt, Little Med.-Crs. Sand, Fine Gravel, Occasional Cobbles, Bricks, Foundry Fill
10'	S3	10.0-11.5	1	3	4	10"			
								12.0	
15'									Bottom of Boring 12.0 Water @ 7.3 Installed Monitor Well @ 12.0 Materials: 5.0 - 1½" PVC Screen 9.0 - 1½" PVC Riser ½ - Bag Sand 25 - lbs. Bentonite Pel 1 - Bag Sand Mix 1 - Locking Protector Pipe

SAMPLE IDENTIFICATION
S — SPLIT SPOON
T — THIN WALL TUBE
U — UNDISTURBED PISTON
O — OPEN END ROD
W — WASH SAMPLE
A — AUGER SAMPLE

PENETRATION RESISTANCE
140 lb. Wt. falling 30" on 2" O.D. Sampler

Cohesionless Density		Cohesive Consistency	
0-4	Very Loose	0-2	Very Soft
5-9	Loose	3-4	Soft
10-29	Med. Dense	5-8	M/Stiff
30-49	Dense	9-15	Stiff
50 +	Very Dense	16-30	V-Stiff

PROPORTIONS USED
trace 0 to 10%
little 10 to 20%
some 20 to 35%
and 35 to 50%

REMARKS:

COL. A

NEW ENGLAND BORING CONTRACTORS OF CONN. INC.

Glastonbury, CT 06033 — Springfield, MA 01103
203-633-4640 — 413-733-1232

CLIENT: CEH
PROJECT NAME: ATF Davidson
LOCATION: Whitinsville, MA

BORING NUMBER: M-3
SHEET No. 1 of 1

DRILLER: T. Roe
INSPECTOR: M. Eichler
DATE START: 7/8/85
DATE FINISH: 7/8/85

ARCHITECT ENGINEER:

	Casing	Sampler	Core Barrel
TYPE	HSA	SS	
SIZE I.D.	3-3/8"	1-3/8"	
HAMMER WT.		140	
HAMMER FALL		30"	

FILE NO.:
SURFACE ELEV.:
LINE & STATION:
OFFSET:

DEPTH	SAMPLE NO.	DEPTH RANGE	BLOWS PER 6" ON SAMPLER 0-6	6-12	12-18	REC.	COL. A	STRATA CHANGE	FIELD CLASSIFICATION AND REMARKS
	S1	0-1.5	5	17	11	18"			Br. Black Fine-Crs. Sand, Some Silt, Fine Gravel, Asphalt, Few Cobbles, Boulders
5'	S2	5.0-5.7	1	100/12		8"		7.0	
10'	S3	10.0-11.5	4	5	6	8"		11.5	Dark Br. Black Fine-Crs. Sand, Little Silt, Fine Gravel
15'									Bottom of Boring 11.5 Water @ 5.0 Installed Monitor Well @ 10.0 Materials: 5.0 - 1½" PVC Screen 7.0 - 1½" PVC Riser 1 - Bag Ottawa Sand 25 - lbs. Bentonite Pell 1 - Bag Sand Mix 1 - Locking Protector P

SAMPLE IDENTIFICATION

S — SPLIT SPOON
T — THIN WALL TUBE
U — UNDISTURBED PISTON
O — OPEN END ROD
W — WASH SAMPLE
A — AUGER SAMPLE

PENETRATION RESISTANCE
140 lb. Wt. falling 30" on 2" O.D. Sampler

Cohesionless Density		Cohesive Consistency	
0-4	Very Loose	0-2	Very Soft
5-9	Loose	3-4	Soft
10-29	Med. Dense	5-8	M/Stiff
30-49	Dense	9-15	Stiff
50 +	Very Dense	16-30	V-Stiff

PROPORTIONS USED

trace	0 to 10%
little	10 to 20%
some	20 to 35%
and	35 to 50%

REMARKS:

COL. A

NEW ENGLAND BORING CONTRACTORS OF CONN. INC.

Glastonbury, CT 06033 — Springfield, MA 01103
203-633-4640 — 413-733-1232

CLIENT: CEH
PROJECT NAME: ATF Davidson
LOCATION: Whitinsville, MA

BORING NUMBER: M-4

SHEET No. 1 of 1

DRILLER: T. Roe
ARCHITECT ENGINEER:
FILE NO.:

INSPECTOR: M. Eichler
DATE START: 7/9/85
DATE FINISH: 7/9/85

	Casing	Sampler	Core Barrel
TYPE	HSA	SS	
SIZE I.D.	3-3/8"	1-3/8"	
HAMMER WT.		140	
HAMMER FALL		30"	

SURFACE ELEV.:
LINE & STATION:
OFFSET:

DEPTH	SAMPLE NO.	DEPTH RANGE	BLOWS PER 6" ON SAMPLER 0-6	6-12	12-18	REC.	COL. A	STRATA CHANGE	FIELD CLASSIFICATION AND REMARKS
	S1	0-1.5	3	4	4	6"			
5'	S2	5.0-6.5	2	2	9	10"			Black Br. Fine-Crs. Sand, Some Fine Gravel, Little Silt, Occasional Cobbles, Bricks, Many Cobbles, Boulder
10'	S3	10.0-11.5	2	2	4	4"			
								11.5	
15'									Bottom of Boring 11.5 Water @ 5.5 Installed Monitor Well @ 10.0 Materials: 5.0 - 1½" PVC Screen 7.0 - 1½" PVC Riser 1 - Bag Ottawa Sand 50 - lbs. Bentonite Pell 1 - Bag Sand Mix 1 - Locking Protector P

SAMPLE IDENTIFICATION

S — SPLIT SPOON
T — THIN WALL TUBE
U — UNDISTURBED PISTON
O — OPEN END ROD
W — WASH SAMPLE

PENETRATION RESISTANCE
140 lb. Wt. falling 30" on 2" O.D. Sampler

Cohesionless Density		Cohesive Consistency	
0-4	Very Loose	0-2	Very Soft
5-9	Loose	3-4	Soft
10-29	Med. Dense	5-8	M/Stiff
30-49	Dense	9-15	Stiff
50 -	Very Dense	16-30	V-Stiff

PROPORTIONS USED

trace	0 to 10%
little	10 to 20%
some	20 to 35%
and	35 to 50%

REMARKS:

COL. A

NEW ENGLAND BORING CONTRACTORS OF CONN. INC.

Clastonbury, CT 06033 — Spnngfield, MA 01103
203-633-4640 — 413-733-1232

CLIENT: CEH
PROJECT NAME: ATF Davidson
LOCATION: Whitinsville, MA

BORING NUMBER: M-5
SHEET No. 1 of 1

DRILLER: T. Roe
INSPECTOR: M. Eichler
DATE START: 7/8/85
DATE FINISH: 7/8/85

ARCHITECT ENGINEER:

	Casing	Sampler	Core Barrel
TYPE	HSA	SS	
SIZE I.D.	3-3/8"	1-3/8"	
HAMMER WT.		140	
HAMMER FALL		30"	

FILE NO.:
SURFACE ELEV.:
LINE & STATION:
OFFSET:

DEPTH	SAMPLE NO.	DEPTH RANGE	BLOWS PER 6" ON SAMPLER 0-6	6-12	12-18	REC.	COL. A	STRATA CHANGE	FIELD CLASSIFICATION AND REMARKS
	S1	0-1.5	4	5	8	6"			
5'	S2	5.0-6.5	2	4	1	6"			Black Br. Fine-Crs. Sand, Some Fine Gravel, Little Silt, Occasional Cobbles, Cement, Ash
10'	S3	10.0-11.5	1	2	3	10"			
								11.5	
15'									Bottom of Boring 11.5 Water @ 5.5 Installed Monitor Well @ 10.0 Materials: 5.0 - 1½" PVC Screen 7.0 - 1½" PVC Riser 1 - Bag Ottawa Sand 50 - lbs. Bentonite Pel 1 - Bag Sand Mix 1 - Locking Protector Pipe

SAMPLE IDENTIFICATION
S — SPLIT SPOON
T — THIN WALL TUBE
U — UNDISTURBED PISTON
O — OPEN END ROD
W — WASH SAMPLE

PENETRATION RESISTANCE
140 lb. Wt. falling 30" on 2" O.D. Sampler

Cohesionless Density		Cohesive Consistency	
0-4	Very Loose	0-2	Very Soft
5-9	Loose	3-4	Soft
10-29	Med. Dense	5-8	M/Stiff
30-49	Dense	9-15	Stiff
50 +	Very Dense	16-30	V-Stiff

PROPORTIONS USED

trace	0 to 10%
little	10 to 20%
some	20 to 35%
and	35 to 50%

REMARKS:

1 Hr. Standby Time to Clear Utilities

COL. A

NEW ENGLAND BORING CONTRACTORS OF CONN. INC.

Glastonbury, CT 06033 — Springfield, MA 01103
203-633-4640 — 413-733-1232

CLIENT: CEH
PROJECT NAME: ATF Davidson
LOCATION: Whitinsville, MA

BORING NUMBER: M-6
SHEET No. 1 of 1

DRILLER: T. Roe
INSPECTOR: M. Eichler
DATE START: 7/9/85
DATE FINISH: 7/9/85

ARCHITECT ENGINEER:

	Casing	Sampler	Core Barrel
TYPE	HSA	SS	
SIZE I.D.	3-3/8"	1-3/8"	
HAMMER WT.		140	
HAMMER FALL		30"	

FILE NO.:
SURFACE ELEV.:
LINE & STATION:
OFFSET:

DEPTH	SAMPLE NO.	DEPTH RANGE	BLOWS PER 6" ON SAMPLER 0-6	6-12	12-18	REC.	COL. A	STRATA CHANGE	FIELD CLASSIFICATION AND REMARKS
	S1	0-1.5	6	10	9	12"			
5'	S2	5.0-6.5	6	3	3	12"			Black Br. Fine-Crs. Sand, Some Fine Gravel, Few Cobbles, Boulders, Ash, Little Silt
10'	S3	10.0-11.5	1	1	1	8"			
								11.5	
15'									Bottom of Boring 11.5 Water @ 5.5 Installed Monitor Well @ 10.0 Materials: 5.0 - 1½" PVC Screen 7.0 - 1½" PVC Riser 1 - Bag Ottawa Sand 50 - lbs. Bentonite Pell 1 - Bag Sand Mix 1 - Locking Protector P

SAMPLE IDENTIFICATION
S — SPLIT SPOON
T — THIN WALL TUBE
U — UNDISTURBED PISTON
O — OPEN END ROD
W — WASH SAMPLE
A — AUGER SAMPLE

PENETRATION RESISTANCE
140 lb. Wt. falling 30" on 2" O.D. Sampler

Cohesionless Density		Cohesive Consistency	
0-4	Very Loose	0-2	Very Soft
5-9	Loose	3-4	Soft
10-29	Med. Dense	5-8	M/Stiff
30-49	Dense	9-15	Stiff
50 +	Very Dense	16-30	V-Stiff

PROPORTIONS USED
trace 0 to 10%
little 10 to 20%
some 20 to 35%
and 35 to 50%

REMARKS:

COL. A

NEW ENGLAND BORING CONTRACTORS OF CONN. INC.

Glastonbury, CT 06033 — Springfield, MA 01103
203-633-4640 — 413-733-1232

CLIENT: CEH
PROJECT NAME: ATF Davidson
LOCATION: Whitinsville, MA

BORING NUMBER: M-7
SHEET No. 1 of 1

DRILLER: T. Roe
ARCHITECT ENGINEER:
FILE NO.:

INSPECTOR: M. Eichler
DATE START: 7/9/85
DATE FINISH: 7/9/85

	Casing	Sampler	Core Barrel
TYPE	HSA	SS	
SIZE I.D.	3-3/8"	1-3/8"	
HAMMER WT.		140	
HAMMER FALL		30"	

SURFACE ELEV.:
LINE & STATION:
OFFSET:

DEPTH	SAMPLE NO.	DEPTH RANGE	BLOWS PER 6" ON SAMPLER 0-6	6-12	12-18	REC.	COL. A	STRATA CHANGE	FIELD CLASSIFICATION AND REMARKS
	S1	0-1.5	1	4	8	12"			
5'	S2	5.0-6.5	6	20	13	16"			Br. Black Fine-Crs. Sand, Some Gravel, Little Silt, Many Cobbles, Brick, Ashes
	S3	9.5-11.0	3	2	1	10"			
10'								11.0	
15'									Bottom of Boring 11.0 Water @ 4.8 Installed Monitor Well @ 9.5 Materials: 5.0 - 1½" PVC Screen 6.0 - 1½" PVC Riser 1 - Bag Ottawa Sand 50 - lbs. Bentonite Pelle 1 - Bag Sand Mix 1 - Locking Protector Pi

SAMPLE IDENTIFICATION

S — SPLIT SPOON
T — THIN WALL TUBE
U — UNDISTURBED PISTON
O — OPEN END ROD
W — WASH SAMPLE
A — AUGER SAMPLE

PENETRATION RESISTANCE
140 lb. Wt. falling 30" on 2" O.D. Sampler

Cohesionless Density		Cohesive Consistency	
0-4	Very Loose	0-2	Very Soft
5-9	Loose	3-4	Soft
10-29	Med. Dense	5-8	M/Stiff
30-49	Dense	9-15	Stiff
50 +	Very Dense	16-30	V-Stiff

PROPORTIONS USED

trace	0 to 10%
little	10 to 20%
some	20 to 35%
and	35 to 50%

REMARKS:

COL. A

NEW ENGLAND BORING CONTRACTORS OF CONN. INC.

Glastonbury, CT 06033 — Spnngfield, MA 01103
203-633-4640 — 413-733-1232

CLIENT: CEH
PROJECT NAME: ATF Davidson
LOCATION: Whitinsville, MA

BORING NUMBER: M-8
SHEET No. 1 of 1

DRILLER: T. Roe
ARCHITECT ENGINEER:
FILE NO.:

INSPECTOR: M. Eichler
DATE START: 7/9/85
DATE FINISH: 7/9/85

	Casing	Sampler	Core Barrel
TYPE	HSA	SS	
SIZE I.D.	3-3/8"	1-3/8"	
HAMMER WT.		140	
HAMMER FALL		30"	

SURFACE ELEV.:
LINE & STATION:
OFFSET:

DEPTH	SAMPLE NO.	SAMPLE DEPTH RANGE	BLOWS PER 6" ON SAMPLER 0-6	6-12	12-18	REC.	COL. A	STRATA CHANGE	FIELD CLASSIFICATION AND REMARKS
	S1	0-1.5	5	5	8	12"			
5'	S2	5.0-6.5	2	4	6	8"			Black Br. Fine-Crs. Sand, Some Gravel Little Silt, Bricks, Ashes, Few Cobbl and Boulders
10'	S3	9.8-11.3	16	13	4	14"			
								11.3	
15'									Bottom of Boring 11.3 Water @ 5.0 Installed Monitor Well A 9.7 Materials: 5.0 - 1½" PVC screen 6.5 - 1½" PVC Riser 1 - Bag Ottawa Sand 50 - lbs. Bentonite Pel. 1 - Bag Sand Mix 1 - Locking Protector

SAMPLE IDENTIFICATION
S — SPLIT SPOON
T — THIN WALL TUBE
U — UNDISTURBED PISTON
O — OPEN END ROD
W — WASH SAMPLE
A — AUGER SAMPLE

PENETRATION RESISTANCE
140 lb. Wt. falling 30" on 2" O.D. Sampler

Cohesionless Density		Cohesive Consistency	
0-4	Very Loose	0-2	Very Soft
5-9	Loose	3-4	Soft
10-29	Med. Dense	5-8	M/Stiff
30-49	Dense	9-15	Stiff
50 +	Very Dense	16-30	V-Stiff

PROPORTIONS USED

trace	0 to 10%
little	10 to 20%
some	20 to 35%
and	35 to 50%

REMARKS:

COL. A

APPENDIX B

LABORATORY DATA

LOCATION: ATF Davidson, Whitinsville, MA

ENGINEERS: Caswell, Eichler, and Hill

SAMPLING DATE: 7/18/85

WELL NUMBER	TOTAL DEPTH	DIAMETER	TIME	STATIC LEVEL TO STEEL CASING	COND./TEMP. umhos/cm	°C	pH
M-1	14'	1.5"	0950	8.31'	425	20.0	7.25
M-2	12'	1.5"	1000	8.75'	300	19.5	8.50
M-3	10'	1.5"	1010	6.90'	260	21.5	6.35
M-4	10'	1.5"	1015	7.68'	225	24.0	8.20
M-5	10'	1.5"	1017	7.35'	365	24.0	7.30
M-6	10'	1.5"	1018	7.47'	235	25.0	6.85
M-7	9.5'	1.5"	1020	6.81'	325	24.0	9.80
M-8	9.8'	1.5"	1023	7.13'	165	22.0	7.30

Total depths come from the well plans.

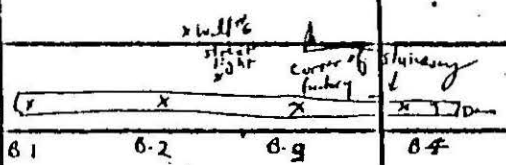
Proj. No.	Project Name	No. of containers	VOP - EPA 624	TCN - 1625	Metals - 1620	pH / Specif. Temp.	gals	Oil - Grease - Nitrogen	Remarks
	A TF Davidson								
Samplers: (Signature)									

Sta. No.	Date	Time	Comp.	Grab	Station Location										
M-1	7/10/85	1415		✓		3	✓	✓	✓	7.25 1.25 2°	1.5	8.31'	14'	035
M-2		1432		✓			✓	✓	✓	7.50 1.25 2°	0.9	8.75'	12'	1000
M-3		1520		✓			✓	✓	✓	7.50 1.25 2°	0.8	6.90'	10'	101
M-4		1345		✓			✓	✓	✓	7.50 1.25 2°	0.6	7.68'	10'	101
M-5		1330		✓			✓	✓	✓	7.50 1.25 2°	0.7	7.35'	10'	101
M-6		1115		✓			✓	✓	✓	7.50 1.25 2°	0.7	7.47'	10'	[illegible]
M-7		1110		✓			✓	✓	✓	7.50 1.25 2°	0.7	6.81'	9.5'	102
M-8		1055		✓			✓	✓	✓	7.50 1.25 2°	0.7	7.13'	9.8'	1023
M-3		1510		✓								✓	Single Lab to be completed - [illegible] Oil & Grease [illegible]	

Relinquished by: (Signature)	Date/Time	Received by: (Signature)	Relinquished by: (Signature)	Date/Time	Received by: (Signature)
[illegible]	7/18 1955				
Relinquished by: (Signature)	Date/Time	Received by: (Signature)	Relinquished by: (Signature)	Date/Time	Received by: (Signature)

Relinquished by: (Signature)	Date/Time	Received for Laboratory by: (Signature)	Date/Time	Remarks
		[illegible]	7/18/85 2000	

Proj. No.	Project Name: ATF Davidson, Whitinsville, MA					No. of containers	Heavy Fuel (1) core 10 Pollutant Metals	Oil & Grease				Remarks
Samplers: (Signature) [signature]												
Sta. No.	Date	Time	Comp.	Grab	Station Location							
B-1	7/18/85	1610		✓	see map below	1	✓	✓				
2		1625		✓			✓	✓				
3		1640		✓			✓	✓				
4		1650		✓			✓	✓				



Whitin Pond

Relinquished by: (Signature)	Date/Time	Received by: (Signature)	Relinquished by: (Signature)	Date/Time	Received by: (Signature)
[signature]	7/18 1955				
Relinquished by: (Signature)	Date/Time	Received by: (Signature)	Relinquished by: (Signature)	Date/Time	Received by: (Signature)
Relinquished by: (Signature)	Date/Time	Received for Laboratory by: (Signature) [signature]	Date/Time 7/18/85 2000	Remarks	

RAI

Resource Analysts, Incorporated
Box 4778 Hampton, NH 03842
(603) 926-7777

TO:

Mr. Matt Eichler
Caswell, Eichler & Hill
P.O. Box 4696
Portsmouth, NH 03801

PO # ATF Davidson

Date Received: 7-19-85 (8:10)

Lab Number: 5008

Date Reported: 8-13-85

Please find attached results for Volatile Organic Compounds, Total Cyanide, Oil and Grease, Barium, and Priority Pollutant Metals.

Russell K. Decker

Technical Director

Date 8/13/85

roj. No.	Project Name
	A TF Davidson

amplers: (Signature) [signature] Matt Eichler

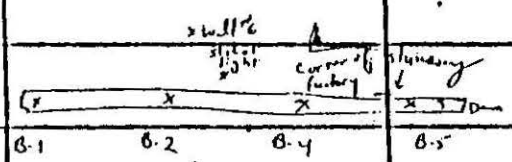
ta. No.	Date	Time	Comp.	Grab	Station Location	No. of containers	VOA EPA 624	TOC	[illegible]	pH	Spec/Temp °C	Oil & Grease - Not [illegible]	Remarks		
M-1	7/18/85	1415		✓		3	✓	✓	✓	[illegible]	1.5	8.31'	14'	0950	
M-2		1432		✓			✓	✓	✓	[illegible]	0.9	8.75'	12'	1000	
M-3		1520		✓			✓	✓	✓	[illegible]	0.8	6.90'	10'	1010	
M-4		1310		✓			✓	✓	✓	[illegible]	0.6	7.68'	10'	1015	
M-5		1330		✓			✓	✓	✓	[illegible]	0.7	7.35'	10'	1017	
M-6		1145		✓			✓	✓	✓	[illegible]	0.7	7.47'	10'	[illegible]	
M-7		1110		✓			✓	✓	✓	[illegible]	0.7	6.81'	9.5'	1020	
M-8		1055		✓			✓	✓	✓	[illegible]	0.7	7.13'	9.8'	1023	
M-3		1510		✓								✓	Sample had to be pumped out - [illegible] Oil & Grease [illegible]		

Relinquished by: (Signature)	Date/Time	Received by: (Signature)	Relinquished by: (Signature)	Date/Time	Received by: (Signature)
[signature]	7/18 1955				
Relinquished by: (Signature)	Date/Time	Received by: (Signature)	Relinquished by: (Signature)	Date/Time	Received by: (Signature)
Relinquished by: (Signature)	Date/Time	Received for Laboratory by: (Signature) [signature]	Date/Time 7/18/85 2000	Remarks	

Proj. No.	Project Name
	ATF Davidson, Whitinsville, MA

Samplers: (Signature) [signature]

Sta. No.	Date	Time	Comp.	Grab	Station Location	No. of containers	(1) con. 10 Pb Metals	Oil & Grease				Remarks
B-1	7/18/85	1610		✓	see map below	1	✓	✓				
2		1625		✓			✓	✓				
3		1640		✓			✓	✓				
4		1650		✓			✓	✓				



Whitin Pond

Relinquished by: (Signature)	Date/Time	Received by: (Signature)	Relinquished by: (Signature)	Date/Time	Received by (Signature)
[signature]	7/18 1955				
Relinquished by: (Signature)	Date/Time	Received by: (Signature)	Relinquished by: (Signature)	Date/Time	Received by (Signature)
Relinquished by: (Signature)	Date/Time	Received for Laboratory by: (Signature)	Date/Time	Remarks	
		[signature]	7/18/85 2000		

Caswell, Eichler, & Hill
Laboratory Number 5008
8-13-85

Field Identification: M-1 Matrix: Liquid

Lab Number	Parameter	Date analyzed	Method	Ref.	Concentration
5008-9	Total Cyanide (mg/L)	8-2-85	335.2	1	<0.01
5008-17	Silver, recoverable (mg/L)	8-9-85	303A	2	<0.005
5008-17	Arsenic, recoverable (mg/L)	7-25-85	304	2	<0.01
5008-17	Barium, recoverable (mg/L)	8-8-85	303A	2	<0.2
5008-17	Beryllium, recoverable (mg/L)	7-25-85	303C	2	<0.002
5008-17	Cadmium, recoverable (mg/L)	8-7-85	303A	2	<0.003
5008-17	Chromium, recoverable (mg/L)	8-9-85	303A	2	<0.005
5008-17	Copper, recoverable (mg/L)	8-7-85	303A	2	<0.005
5008-17	Mercury, recoverable (mg/L)	7-23-85	7641	3	<0.0006
5008-17	Nickel, recoverable (mg/L)	8-9-85	303A	2	<0.02
5008-17	Lead, recoverable (mg/L)	8-7-85	303A	2	<0.03
5008-17	Antimony, recoverable (mg/L)	8-12-85	303A	2	<0.8
5008-17	Selenium, recoverable (mg/L)	7-25-85	304	2	<0.01
5008-17	Thallium, recoverable (mg/L)	8-12-85	303A	2	<0.6
5008-17	Zinc, recoverable (mg/L)	8-7-85	303A	2	0.028

Field Identification: M-2 Matrix: Liquid

Lab Number	Parameter	Date analyzed	Method	Ref.	Concentration
5008-10	Total Cyanide (mg/L)	8-2-85	335.2	1	<0.01
5008-18	Silver, recoverable (mg/L)	8-9-85	303A	2	<0.005
5008-18	Arsenic, recoverable (mg/L)	7-25-85	304	2	<0.01
5008-18	Barium, recoverable (mg/L)	8-8-85	303A	2	<0.2
5008-18	Beryllium, recoverable (mg/L)	7-25-85	303C	2	<0.002
5008-18	Cadmium, recoverable (mg/L)	8-7-85	303A	2	<0.003
5008-18	Chromium, recoverable (mg/L)	8-9-85	303A	2	<0.005
5008-18	Copper, recoverable (mg/L)	8-7-85	303A	2	<0.005
5008-18	Mercury, recoverable (mg/L)	7-23-85	7641	3	<0.0006
5008-18	Nickel, recoverable (mg/L)	8-9-85	303A	2	<0.02
5008-18	Lead, recoverable (mg/L)	8-7-85	303A	2	<0.03
5008-18	Antimony, recoverable (mg/L)	8-12-85	303A	2	<0.8
5008-18	Selenium, recoverable (mg/L)	7-25-85	304	2	<0.01
5008-18	Thallium, recoverable (mg/L)	8-12-85	303A	2	<0.6
5008-18	Zinc, recoverable (mg/L)	8-7-85	303A	2	0.045

Reference:
1. EPA 600/4-79-020
2. Standard Methods, 16th Edition
3. EPA SW 846, 2nd Edition

Resource Analysts, Incorporated

Field Identification: M-3 Matrix: Liquid

Lab Number	Parameter	Date analyzed	Method	Ref.	Concentration
5008-11	Total Cyanide (mg/L)	8-2-85	335.2	1	<0.01
5008-19	Silver, recoverable (mg/L)	8-9-85	303A	2	<0.005
5008-19	Arsenic, recoverable (mg/L)	7-25-85	304	2	<0.01
5008-19	Barium, recoverable (mg/L)	8-8-85	303A	2	0.34
5008-19	Beryllium, recoverable (mg/L)	7-25-85	303C	2	<0.002
5008-19	Cadmium, recoverable (mg/L)	8-7-85	303A	2	<0.003
5008-19	Chromium, recoverable (mg/L)	8-9-85	303A	2	<0.005
5008-19	Copper, recoverable (mg/L)	8-7-85	303A	2	<0.005
5008-19	Mercury, recoverable (mg/L)	7-23-85	7641	3	<0.0006
5008-19	Nickel, recoverable (mg/L)	8-9-85	303A	2	<0.02
5008-19	Lead, recoverable (mg/L)	8-7-85	303A	2	<0.03
5008-19	Antimony, recoverable (mg/L)	8-12-85	303A	2	<0.8
5008-19	Selenium, recoverable (mg/L)	7-25-85	304	2	<0.01
5008-19	Thallium, recoverable (mg/L)	8-12-85	303A	2	<0.6
5008-19	Zinc, recoverable (mg/L)	8-7-85	303A	2	0.022
5008-29	Oil and Grease (mg/L)	7-25-85	413.2	1	<5

Field Identification: M-4 Matrix: Liquid

Lab Number	Parameter	Date analyzed	Method	Ref.	Concentration
5008-12	Total Cyanide (mg/L)	8-2-85	335.2	1	<0.01
5008-20	Silver, recoverable (mg/L)	8-9-85	303A	2	<0.005
5008-20	Arsenic, recoverable (mg/L)	7-25-85	304	2	<0.01
5008-20	Barium, recoverable (mg/L)	8-8-85	303A	2	1.0
5008-20	Beryllium, recoverable (mg/L)	7-25-85	303C	2	<0.002
5008-20	Cadmium, recoverable (mg/L)	8-7-85	303A	2	<0.003
5008-20	Chromium, recoverable (mg/L)	8-9-85	303A	2	<0.005
5008-20	Copper, recoverable (mg/L)	8-7-85	303A	2	<0.005
5008-20	Mercury, recoverable (mg/L)	7-23-85	7641	3	<0.0006
5008-20	Nickel, recoverable (mg/L)	8-9-85	303A	2	<0.02
5008-20	Lead, recoverable (mg/L)	8-7-85	303A	2	<0.03
5008-20	Antimony, recoverable (mg/L)	8-12-85	303A	2	<0.8
5008-20	Selenium, recoverable (mg/L)	7-25-85	304	2	<0.01
5008-20	Thallium, recoverable (mg/L)	8-12-85	303A	2	<0.6
5008-20	Zinc, recoverable (mg/L)	8-7-85	303A	2	0.021

Reference:
1. EPA 600/4-79-020
2. Standard Methods, 16th Edition
3. EPA SW 846, 2nd Edition

Field Identification: M-5 Matrix: Liquid

Lab Number	Parameter	Date analyzed	Method	Ref.	Concentration
5008-13	Total Cyanide (mg/L)	8-2-85	335.2	1	<0.01
5008-21	Silver, recoverable (mg/L)	8-9-85	303A	2	<0.005
5008-21	Arsenic, recoverable (mg/L)	7-25-85	304	2	<0.01
5008-21	Barium, recoverable (mg/L)	8-8-85	303A	2	2.9
5008-21	Beryllium, recoverable (mg/L)	7-25-85	303C	2	<0.002
5008-21	Cadmium, recoverable (mg/L)	8-7-85	303A	2	<0.003
5008-21	Chromium, recoverable (mg/L)	8-9-85	303A	2	<0.005
5008-21	Copper, recoverable (mg/L)	8-7-85	303A	2	<0.005
5008-21	Mercury, recoverable (mg/L)	7-23-85	7641	3	<0.0006
5008-21	Nickel, recoverable (mg/L)	8-9-85	303A	2	<0.02
5008-21	Lead, recoverable (mg/L)	8-7-85	303A	2	<0.03
5008-21	Antimony, recoverable (mg/L)	8-12-85	303A	2	<0.8
5008-21	Selenium, recoverable (mg/L)	7-25-85	304	2	<0.01
5008-21	Thallium, recoverable (mg/L)	8-12-85	303A	2	<0.6
5008-21	Zinc, recoverable (mg/L)	8-7-85	303A	2	0.016

Field Identification: M-6 Matrix: Liquid

Lab Number	Parameter	Date analyzed	Method	Ref.	Concentration
5008-14	Total Cyanide (mg/L)	8-2-85	335.2	1	<0.01
5008-22	Silver, recoverable (mg/L)	8-9-85	303A	2	<0.005
5008-22	Arsenic, recoverable (mg/L)	7-25-85	304	2	<0.01
5008-22	Barium, recoverable (mg/L)	8-8-85	303A	2	0.91
5008-22	Beryllium, recoverable (mg/L)	7-25-85	303C	2	<0.002
5008-22	Cadmium, recoverable (mg/L)	8-7-85	303A	2	<0.003
5008-22	Chromium, recoverable (mg/L)	8-9-85	303A	2	<0.005
5008-22	Copper, recoverable (mg/L)	8-7-85	303A	2	<0.005
5008-22	Mercury, recoverable (mg/L)	7-23-85	7641	3	<0.0006
5008-22	Nickel, recoverable (mg/L)	8-9-85	303A	2	<0.02
5008-22	Lead, recoverable (mg/L)	8-7-85	303A	2	<0.03
5008-22	Antimony, recoverable (mg/L)	8-12-85	303A	2	<0.8
5008-22	Selenium, recoverable (mg/L)	7-25-85	304	2	<0.01
5008-22	Thallium, recoverable (mg/L)	8-12-85	303A	2	<0.6
5008-22	Zinc, recoverable (mg/L)	8-7-85	303A	2	0.020

Reference:
1. EPA 600/4-79-020
2. Standard Methods, 16th Edition
3. EPA SW 846, 2nd Edition

Field Identification: M-7 Matrix: Liquid

Lab Number	Parameter	Date analyzed	Method	Ref.	Concentration
5008-15	Total Cyanide (mg/L)	8-2-85	335.2	1	<0.01
5008-23	Silver, recoverable (mg/L)	8-9-85	303A	2	<0.005
5008-23	Arsenic, recoverable (mg/L)	7-25-85	304	2	<0.01
5008-23	Barium, recoverable (mg/L)	8-8-85	303A	2	<0.2
5008-23	Beryllium, recoverable (mg/L)	7-25-85	303C	2	<0.002
5008-23	Cadmium, recoverable (mg/L)	8-7-85	303A	2	<0.003
5008-23	Chromium, recoverable (mg/L)	8-9-85	303A	2	<0.005
5008-23	Copper, recoverable (mg/L)	8-7-85	303A	2	<0.005
5008-23	Mercury, recoverable (mg/L)	7-23-85	7641	3	<0.0006
5008-23	Nickel, recoverable (mg/L)	8-9-85	303A	2	<0.02
5008-23	Lead, recoverable (mg/L)	8-7-85	303A	2	<0.03
5008-23	Antimony, recoverable (mg/L)	8-12-85	303A	2	<0.8
5008-23	Selenium, recoverable (mg/L)	7-25-85	304	2	<0.01
5008-23	Thallium, recoverable (mg/L)	8-12-85	303A	2	<0.6
5008	Zinc, recoverable (mg/L)	8-7-85	303A	2	0.016

Field Identification: M-8 Matrix: Liquid

Lab Number	Parameter	Date analyzed	Method	Ref.	Concentration
5008-16	Total Cyanide (mg/L)	8-2-85	335.2	1	0.03
5008-24	Silver, recoverable (mg/L)	8-9-85	303A	2	<0.005
5008-24	Arsenic, recoverable (mg/L)	7-25-85	304	2	<0.01
5008-24	Barium, recoverable (mg/L)	8-8-85	303A	2	1.2
5008-24	Beryllium, recoverable (mg/L)	7-25-85	303C	2	<0.002
5008-24	Cadmium, recoverable (mg/L)	8-7-85	303A	2	<0.003
5008-24	Chromium, recoverable (mg/L)	8-9-85	303A	2	<0.005
5008-24	Copper, recoverable (mg/L)	8-7-85	303A	2	<0.005
5008-24	Mercury, recoverable (mg/L)	7-23-85	7641	3	<0.0006
5008-24	Nickel, recoverable (mg/L)	8-9-85	303A	2	<0.02
5008-24	Lead, recoverable (mg/L)	8-7-85	303A	2	<0.03
5008-24	Antimony, recoverable (mg/L)	8-12-85	303A	2	<0.8
5008-24	Selenium, recoverable (mg/L)	7-25-85	304	2	<0.01
5008-24	Thallium, recoverable (mg/L)	8-12-85	303A	2	<0.6
5008-24	Zinc, recoverable (mg/L)	8-7-85	303A	2	0.010

Reference:
1. EPA 600/4-79-020
2. Standard Methods, 16th Edition
3. EPA SW 846, 2nd Edition

CHAIN OF CUSTODY DOCUMENTATION

CASWELL EICHLER & HILL

CLIENT ATF DAVIDSON

ADDRESS

JOB NAME/NUMBER

PROJECT CONTACT MATT EICHLER

SAMPLING LOCATION

SAMPLE COLLECTOR MATT EICHLER

FIELD IDENTIFICATION List each container separately	LAB #	SAMPLE MATRIX	CONTAINER TYPE/VOLUME	FILTRATION	FIELD PRESERVATION	REMARKS/ANALYSIS REQUESTED
B-5 (Water Company) Mumford River Benthic Sampler Date 8/14/85 Time 3:30	5153	⊗ Solid ○ Liquid ○ Other	○ P/ mL ○ G/ mL ⊗ G/T/ 1000mL	○ field ○ lab ⊗ none	NONE	PRIORITY POLLUTANT METALS
Date Time		○ Solid ○ Liquid ○ Other	○ P/ mL ○ G/ mL ○ G/T/ mL	○ field ○ lab ○ none		
Date Time		○ Solid ○ Liquid ○ Other	○ P/ mL ○ G/ mL ○ G/T/ mL	○ field ○ lab ○ none		
Date Time		○ Solid ○ Liquid ○ Other	○ P/ mL ○ G/ mL ○ G/T/ mL	○ field ○ lab ○ none		
Date Time		○ Solid ○ Liquid ○ Other	○ P/ mL ○ G/ mL ○ G/T/ mL	○ field ○ lab ○ none		
Date Time		○ Solid ○ Liquid ○ Other	○ P/ mL ○ G/ mL ○ G/T/ mL	○ field ○ lab ○ none		
Date Time		○ Solid ○ Liquid ○ Other	○ P/ mL ○ G/ mL ○ G/T/ mL	○ field ○ lab ○ none		
Date Time		○ Solid ○ Liquid ○ Other	○ P/ mL ○ G/ mL ○ G/T/ mL	○ field ○ lab ○ none		

Relinquished By:	Date	Time	Received By:	Date	Time
Relinquished By: [signature]	Date 8/14/85	Time 1815	Received For Laboratory By: [signature]	Date 8/14/85	Time 1815

Resource Analysts, Incorporated

Caswell, Eichler and Hill
Laboratory Number: 5153
8-27-85

Field Identification: B-5 (Water Company) Mumford River BENTHIC Matrix: Solid
Laboratory Number: 5153-1

Parameter	Date analyzed	Method	Ref.	Concentration
Silver, recoverable (ug/g)	8-22-85	3050/303A	1/2	0.86
Arsenic, recoverable (ug/g)	8-23-85	3050/304	1/2	16
Beryllium, recoverable (ug/g)	8-22-85	3050/303C	1/2	0.57
Cadmium, recoverable (ug/g)	8-19-85	3050/303A	1/2	0.38
Chromium, recoverable (ug/g)	8-19-85	3050/303A	1/2	65
Copper, recoverable (ug/g)	8-19-85	3050/303A	1/2	10
Mercury, recoverable (ug/g)	8-21-85	7471	1	<0.4
Nickel, recoverable (ug/g)	8-22-85	3050/303A	1/2	3.8
Lead, recoverable (ug/g)	8-23-85	3050/303A	1/2	14
Antimony, recoverable (ug/g)	8-23-85	3050/303A	1/2	<5
Selenium, recoverable (ug/g)	8-22-85	3050/304	1/2	<10
Thallium, recoverable (ug/g)	8-23-85	3050/303A	1/2	<5
Zinc, recoverable (ug/g)	8-19-85	3050/303A	1/2	150

Reference: 1. EPA SW 846, 2nd Edition
2. Standard Methods, 16th Edition

Lab Number: 5008-1
Sample Designation: M-1
Date analyzed: 7-24-85

VOLATILE ORGANICS	CONCENTRATION (ug/L)	DETECTION LIMIT (ug/L)
CHLOROMETHANE	BDL	10
VINYL CHLORIDE	BDL	10
CHLOROETHANE	BDL	5
BROMOMETHANE	BDL	10
METHYLENE CHLORIDE	BDL	5
TRICHLOROFLUOROMETHANE	BDL	5
1,1-DICHLOROETHYLENE	BDL	5
1,1-DICHLOROETHANE	BDL	5
1,2-trans-DICHLOROETHYLENE	BDL	5
CHLOROFORM	BDL	5
1,2-DICHLOROETHANE	BDL	5
1,1,1-TRICHLOROETHANE	BDL	5
CARBON TETRACHLORIDE	BDL	5
BROMODICHLOROMETHANE	BDL	5
1,2-DICHLOROPROPANE	BDL	5
1,3-trans-DICHLOROPROPENE	BDL	5
TRICHLOROETHYLENE	BDL	5
BENZENE	BDL	5
1,3-cis-DICHLOROPROPENE	BDL	5
1,1,2-TRICHLOROETHANE	BDL	5
2-CHLOROETHYL VINYL ETHER	BDL	5
DIBROMOCHLOROMETHANE	BDL	5
BROMOFORM	BDL	5
TETRACHLOROETHYLENE	BDL	5
1,1,2,2-TETRACHLOROETHANE	BDL	5
TOLUENE	BDL	5
CHLOROBENZENE	BDL	5
ETHYLBENZENE	BDL	5
ACETONE	BDL	25
CARBON DISULFIDE	BDL	5
THF	BDL	25
MEK	BDL	25
MIBK	BDL	25
STYRENE	BDL	5
XYLENES	BDL	5

BDL = BELOW DETECTION LIMIT
METHOD REFERENCE: EPA 600/4-79-020 METHOD 624

Resource Analysts, Incorporated

Lab Number: 5008-2
Sample Designation: M-2
Date analyzed: 7-24-85

VOLATILE ORGANICS	CONCENTRATION (ug/L)	DETECTION LIMIT (ug/L)
CHLOROMETHANE	BDL	10
VINYL CHLORIDE	BDL	10
CHLOROETHANE	BDL	5
BROMOMETHANE	BDL	10
METHYLENE CHLORIDE	BDL	5
TRICHLOROFLUOROMETHANE	BDL	5
1,1-DICHLOROETHYLENE	BDL	5
1,1-DICHLOROETHANE	BDL	5
1,2-trans-DICHLOROETHYLENE	BDL	5
CHLOROFORM	BDL	5
1,2-DICHLOROETHANE	BDL	5
1,1,1-TRICHLOROETHANE	BDL	5
CARBON TETRACHLORIDE	BDL	5
BROMODICHLOROMETHANE	BDL	5
1,2-DICHLOROPROPANE	BDL	5
1,3-trans-DICHLOROPROPENE	BDL	5
TRICHLOROETHYLENE	BDL	5
BENZENE	BDL	5
1,3-cis-DICHLOROPROPENE	BDL	5
1,1,2-TRICHLOROETHANE	BDL	5
2-CHLOROETHYL VINYL ETHER	BDL	5
DIBROMOCHLOROMETHANE	BDL	5
BROMOFORM	BDL	5
TETRACHLOROETHYLENE	BDL	5
1,1,2,2-TETRACHLOROETHANE	BDL	5
TOLUENE	BDL	5
CHLOROBENZENE	BDL	5
ETHYLBENZENE	BDL	5
ACETONE	BDL	25
CARBON DISULFIDE	BDL	5
THF	BDL	25
MEK	BDL	25
MIBK	BDL	25
STYRENE	BDL	5
XYLENES	BDL	5

BDL = BELOW DETECTION LIMIT
METHOD REFERENCE: EPA 600/4-79-020 METHOD 624

Lab Number: 5008-3
Sample Designation: M-3
Date analyzed: 7-26-85

VOLATILE ORGANICS	CONCENTRATION (ug/L)	DETECTION LIMIT (ug/L)
CHLOROMETHANE	BDL	10
VINYL CHLORIDE	190	10
CHLOROETHANE	BDL	5
BROMOMETHANE	BDL	10
METHYLENE CHLORIDE	BDL	5
TRICHLOROFLUOROMETHANE	BDL	5
1,1-DICHLOROETHYLENE	BDL	5
1,1-DICHLOROETHANE	BDL	5
1,2-trans-DICHLOROETHYLENE	250	5
CHLOROFORM	BDL	5
1,2-DICHLOROETHANE	BDL	5
1,1,1-TRICHLOROETHANE	BDL	5
CARBON TETRACHLORIDE	BDL	5
BROMODICHLOROMETHANE	BDL	5
1,2-DICHLOROPROPANE	BDL	5
1,3-trans-DICHLOROPROPENE	BDL	5
TRICHLOROETHYLENE	10	5
BENZENE	BDL	5
1,3-cis-DICHLOROPROPENE	BDL	5
1,1,2-TRICHLOROETHANE	BDL	5
2-CHLOROETHYL VINYL ETHER	BDL	5
DIBROMOCHLOROMETHANE	BDL	5
BROMOFORM	BDL	5
TETRACHLOROETHYLENE	BDL	5
1,1,2,2-TETRACHLOROETHANE	BDL	5
TOLUENE	BDL	5
CHLOROBENZENE	BDL	5
ETHYLBENZENE	BDL	5
ACETONE	BDL	25
CARBON DISULFIDE	BDL	5
THF	BDL	25
MEK	BDL	25
MIBK	BDL	25
STYRENE	BDL	5
XYLENES	BDL	5

BDL = BELOW DETECTION LIMIT
METHOD REFERENCE: EPA 600/4-79-020 METHOD 624

Lab Number: 5008-3 (Laboratory Duplicate)
Sample Designation: M-3
Date analyzed: 7-26-85

VOLATILE ORGANICS	CONCENTRATION (ug/L)	DETECTION LIMIT (ug/L)
CHLOROMETHANE	BDL	10
VINYL CHLORIDE	210	10
CHLOROETHANE	BDL	5
BROMOMETHANE	BDL	10
METHYLENE CHLORIDE	BDL	5
TRICHLOROFLUOROMETHANE	BDL	5
1,1-DICHLOROETHYLENE	BDL	5
1,1-DICHLOROETHANE	BDL	5
1,2-trans-DICHLOROETHYLENE	250	5
CHLOROFORM	BDL	5
1,2-DICHLOROETHANE	BDL	5
1,1,1-TRICHLOROETHANE	BDL	5
CARBON TETRACHLORIDE	BDL	5
BROMODICHLOROMETHANE	BDL	5
1,2-DICHLOROPROPANE	BDL	5
1,3-trans-DICHLOROPROPENE	BDL	5
TRICHLOROETHYLENE	10	5
BENZENE	BDL	5
1,3-cis-DICHLOROPROPENE	BDL	5
1,1,2-TRICHLOROETHANE	BDL	5
2-CHLOROETHYL VINYL ETHER	BDL	5
DIBROMOCHLOROMETHANE	BDL	5
BROMOFORM	BDL	5
TETRACHLOROETHYLENE	BDL	5
1,1,2,2-TETRACHLOROETHANE	BDL	5
TOLUENE	BDL	5
CHLOROBENZENE	BDL	5
ETHYLBENZENE	BDL	5
ACETONE	BDL	25
CARBON DISULFIDE	BDL	5
THF	BDL	25
MEK	BDL	25
MIBK	BDL	25
STYRENE	BDL	5
XYLENES	BDL	5

BDL = BELOW DETECTION LIMIT
METHOD REFERENCE: EPA 600/4-79-020 METHOD 624

Lab Number: 5008-4
Sample Designation: M-4
Date analyzed: 7-26-85

VOLATILE ORGANICS	CONCENTRATION (ug/L)	DETECTION LIMIT (ug/L)
CHLOROMETHANE	BDL	10
VINYL CHLORIDE	BDL	10
CHLOROETHANE	BDL	5
BROMOMETHANE	BDL	10
METHYLENE CHLORIDE	BDL	5
TRICHLOROFLUOROMETHANE	BDL	5
1,1-DICHLOROETHYLENE	BDL	5
1,1-DICHLOROETHANE	BDL	5
1,2-trans-DICHLOROETHYLENE	BDL	5
CHLOROFORM	BDL	5
1,2-DICHLOROETHANE	BDL	5
1,1,1-TRICHLOROETHANE	BDL	5
CARBON TETRACHLORIDE	BDL	5
BROMODICHLOROMETHANE	BDL	5
1,2-DICHLOROPROPANE	BDL	5
1,3-trans-DICHLOROPROPENE	BDL	5
TRICHLOROETHYLENE	BDL	5
BENZENE	BDL	5
1,3-cis-DICHLOROPROPENE	BDL	5
1,1,2-TRICHLOROETHANE	BDL	5
2-CHLOROETHYL VINYL ETHER	BDL	5
DIBROMOCHLOROMETHANE	BDL	5
BROMOFORM	BDL	5
TETRACHLOROETHYLENE	BDL	5
1,1,2,2-TETRACHLOROETHANE	BDL	5
TOLUENE	BDL	5
CHLOROBENZENE	BDL	5
ETHYLBENZENE	BDL	5
ACETONE	BDL	25
CARBON DISULFIDE	BDL	5
THF	BDL	25
MEK	BDL	25
MIBK	BDL	25
STYRENE	BDL	5
XYLENES	BDL	5

BDL = BELOW DETECTION LIMIT
METHOD REFERENCE: EPA 600/4-79-020 METHOD 624

Resource Analysts, Incorporated

Lab Number: 5008-5
Sample Designation: M-5
Date analyzed: 7-26-85

VOLATILE ORGANICS	CONCENTRATION (ug/L)	DETECTION LIMIT (ug/L)
CHLOROMETHANE	BDL	10
VINYL CHLORIDE	BDL	10
CHLOROETHANE	BDL	5
BROMOMETHANE	BDL	10
METHYLENE CHLORIDE	BDL	5
TRICHLOROFLUOROMETHANE	BDL	5
1,1-DICHLOROETHYLENE	BDL	5
1,1-DICHLOROETHANE	BDL	5
1,2-trans-DICHLOROETHYLENE	BDL	5
CHLOROFORM	BDL	5
1,2-DICHLOROETHANE	BDL	5
1,1,1-TRICHLOROETHANE	BDL	5
CARBON TETRACHLORIDE	BDL	5
BROMODICHLOROMETHANE	BDL	5
1,2-DICHLOROPROPANE	BDL	5
1,3-trans-DICHLOROPROPENE	BDL	5
TRICHLOROETHYLENE	BDL	5
BENZENE	BDL	5
1,3-cis-DICHLOROPROPENE	BDL	5
1,1,2-TRICHLOROETHANE	BDL	5
2-CHLOROETHYL VINYL ETHER	BDL	5
DIBROMOCHLOROMETHANE	BDL	5
BROMOFORM	BDL	5
TETRACHLOROETHYLENE	BDL	5
1,1,2,2-TETRACHLOROETHANE	BDL	5
TOLUENE	BDL	5
CHLOROBENZENE	BDL	5
ETHYLBENZENE	BDL	5
ACETONE	BDL	25
CARBON DISULFIDE	BDL	5
THF	BDL	25
MEK	BDL	25
MIBK	BDL	25
STYRENE	BDL	5
XYLENES	BDL	5

BDL = BELOW DETECTION LIMIT
METHOD REFERENCE: EPA 600/4-79-020 METHOD 624

Lab Number: 5008-6
Sample Designation: M-6
Date analyzed: 7-26-85

VOLATILE ORGANICS	CONCENTRATION (ug/L)	DETECTION LIMIT (ug/L)
CHLOROMETHANE	BDL	24
VINYL CHLORIDE	BDL	24
CHLOROETHANE	BDL	12
BROMOMETHANE	BDL	24
METHYLENE CHLORIDE	BDL	12
TRICHLOROFLUOROMETHANE	BDL	12
1,1-DICHLOROETHYLENE	BDL	12
1,1-DICHLOROETHANE	BDL	12
1,2-trans-DICHLOROETHYLENE	15	12
CHLOROFORM	BDL	12
1,2-DICHLOROETHANE	BDL	12
1,1,1-TRICHLOROETHANE	BDL	12
CARBON TETRACHLORIDE	BDL	12
BROMODICHLOROMETHANE	BDL	12
1,2-DICHLOROPROPANE	BDL	12
1,3-trans-DICHLOROPROPENE	BDL	12
TRICHLOROETHYLENE	30	12
BENZENE	BDL	12
1,3-cis-DICHLOROPROPENE	BDL	12
1,1,2-TRICHLOROETHANE	BDL	12
2-CHLOROETHYL VINYL ETHER	BDL	12
DIBROMOCHLOROMETHANE	BDL	12
BROMOFORM	BDL	12
TETRACHLOROETHYLENE	950	12
1,1,2,2-TETRACHLOROETHANE	BDL	12
TOLUENE	BDL	12
CHLOROBENZENE	BDL	12
ETHYLBENZENE	BDL	12
ACETONE	BDL	60
CARBON DISULFIDE	BDL	12
THF	BDL	60
MEK	BDL	60
MIBK	BDL	60
STYRENE	BDL	12
XYLENES	BDL	12

BDL = BELOW DETECTION LIMIT
METHOD REFERENCE: EPA 600/4-79-020 METHOD 624

Lab Number: 5008-7
Sample Designation: M-7
Date analyzed: 7-26-85

VOLATILE ORGANICS	CONCENTRATION (ug/L)	DETECTION LIMIT (ug/L)
CHLOROMETHANE	BDL	10
VINYL CHLORIDE	BDL	10
CHLOROETHANE	BDL	5
BROMOMETHANE	BDL	10
METHYLENE CHLORIDE	BDL	5
TRICHLOROFLUOROMETHANE	BDL	5
1,1-DICHLOROETHYLENE	BDL	5
1,1-DICHLOROETHANE	BDL	5
1,2-trans-DICHLOROETHYLENE	BDL	5
CHLOROFORM	BDL	5
1,2-DICHLOROETHANE	BDL	5
1,1,1-TRICHLOROETHANE	BDL	5
CARBON TETRACHLORIDE	BDL	5
BROMODICHLOROMETHANE	BDL	5
1,2-DICHLOROPROPANE	BDL	5
1,3-trans-DICHLOROPROPENE	BDL	5
TRICHLOROETHYLENE	BDL	5
BENZENE	BDL	5
1,3-cis-DICHLOROPROPENE	BDL	5
1,1,2-TRICHLOROETHANE	BDL	5
2-CHLOROETHYL VINYL ETHER	BDL	5
DIBROMOCHLOROMETHANE	BDL	5
BROMOFORM	BDL	5
TETRACHLOROETHYLENE	BDL	5
1,1,2,2-TETRACHLOROETHANE	BDL	5
TOLUENE	BDL	5
CHLOROBENZENE	BDL	5
ETHYLBENZENE	BDL	5
ACETONE	BDL	25
CARBON DISULFIDE	BDL	5
THF	BDL	25
MEK	BDL	25
MIBK	BDL	25
STYRENE	BDL	5
XYLENES	BDL	5

BDL = BELOW DETECTION LIMIT
METHOD REFERENCE: EPA 600/4-79-020 METHOD 624

Lab Number: 5008-8
Sample Designation: M-8
Date analyzed: 7-26-85

VOLATILE ORGANICS	CONCENTRATION (ug/L)	DETECTION LIMIT (ug/L)
CHLOROMETHANE	BDL	14
VINYL CHLORIDE	260	14
CHLOROETHANE	BDL	7
BROMOMETHANE	BDL	14
METHYLENE CHLORIDE	BDL	7
TRICHLOROFLUOROMETHANE	BDL	7
1,1-DICHLOROETHYLENE	BDL	7
1,1-DICHLOROETHANE	Trace	7
1,2-trans-DICHLOROETHYLENE	610	7
CHLOROFORM	BDL	7
1,2-DICHLOROETHANE	BDL	7
1,1,1-TRICHLOROETHANE	BDL	7
CARBON TETRACHLORIDE	BDL	7
BROMODICHLOROMETHANE	BDL	7
1,2-DICHLOROPROPANE	BDL	7
1,3-trans-DICHLOROPROPENE	BDL	7
TRICHLOROETHYLENE	30	7
BENZENE	BDL	7
1,3-cis-DICHLOROPROPENE	BDL	7
1,1,2-TRICHLOROETHANE	BDL	7
2-CHLOROETHYL VINYL ETHER	BDL	7
DIBROMOCHLOROMETHANE	BDL	7
BROMOFORM	BDL	7
TETRACHLOROETHYLENE	Trace	7
1,1,2,2-TETRACHLOROETHANE	BDL	7
TOLUENE	BDL	7
CHLOROBENZENE	BDL	7
ETHYLBENZENE	BDL	7
ACETONE	BDL	35
CARBON DISULFIDE	BDL	7
THF	BDL	35
MEK	BDL	35
MIBK	BDL	35
STYRENE	BDL	7
XYLENES	BDL	7

"Trace" denotes probable presence below listed detection limit.

BDL = BELOW DETECTION LIMIT
METHOD REFERENCE: EPA 600/4-79-020 METHOD 624

Lab Number: 5008-30
Sample Designation: Trip Blank
Date analyzed: 7-26-85

VOLATILE ORGANICS	CONCENTRATION (ug/L)	DETECTION LIMIT (ug/L)
CHLOROMETHANE	BDL	10
VINYL CHLORIDE	BDL	10
CHLOROETHANE	BDL	5
BROMOMETHANE	BDL	10
METHYLENE CHLORIDE	BDL	5
TRICHLOROFLUOROMETHANE	BDL	5
1,1-DICHLOROETHYLENE	BDL	5
1,1-DICHLOROETHANE	BDL	5
1,2-trans-DICHLOROETHYLENE	BDL	5
CHLOROFORM	BDL	5
1,2-DICHLOROETHANE	BDL	5
1,1,1-TRICHLOROETHANE	BDL	5
CARBON TETRACHLORIDE	BDL	5
BROMODICHLOROMETHANE	BDL	5
1,2-DICHLOROPROPANE	BDL	5
1,3-trans-DICHLOROPROPENE	BDL	5
TRICHLOROETHYLENE	BDL	5
BENZENE	BDL	5
1,3-cis-DICHLOROPROPENE	BDL	5
1,1,2-TRICHLOROETHANE	BDL	5
2-CHLOROETHYL VINYL ETHER	BDL	5
DIBROMOCHLOROMETHANE	BDL	5
BROMOFORM	BDL	5
TETRACHLOROETHYLENE	BDL	5
1,1,2,2-TETRACHLOROETHANE	BDL	5
TOLUENE	BDL	5
CHLOROBENZENE	BDL	5
ETHYLBENZENE	BDL	5
ACETONE	BDL	25
CARBON DISULFIDE	BDL	5
THF	BDL	25
MEK	BDL	25
MIBK	BDL	25
STYRENE	BDL	5
XYLENES	BDL	5

BDL = BELOW DETECTION LIMIT
METHOD REFERENCE: EPA 600/4-79-020 METHOD 624

Caswell, Eichler and Hill, Inc.
GEOLOGY HYDROLOGY GEOPHYSICS
P.O. Box 4696
Portsmouth, NH 03801
TEL. (603) 431-4899

January 14, 1986

White Consolidated Industries, Inc.
11770 Berea Road
Cleveland, Ohio 44111

Attn: Mr. Dan Marques, P.E.

Re: Our 10-29-85 letter (concerning the 10-24-85 meeting with DEQE - see copy Appendix A)

Dear Dan:

The purpose of this transmittal is to report the laboratory results for items 2, 3, 4 and 5 of the above referenced letter. Each of these items will be addressed below; copies of our 10-29-85 letter and all laboratory data are appended.

#2

No additional organic compounds were found in any of the Arcade or Covitch property samples. See Appendix B for laboratory results.

#3

Concentrations of arsenic, barium and zinc in soil samples taken from MC-7 and MC-10 are characteristic of expected natural background levels. None show evidence of contamination. See Appendix C for laboratory results.

#4

Conductivities generally dropped or remained the same since our 7-18-85 sampling.

No problem levels of arsenic, barium or zinc were detected; M-5 and M-8, however, still exceeded drinking water standards for barium.

Regarding volatile organic compounds, M-3 improved in water quality; M-6 and M-8, however, degraded. In September of 1986, we will graph the results of all quarterly samples to be taken (See 10-29-85 letter for schedule), and analyse water quality trends. We will, however, be transmitting the quarterly results to you as we receive them.

#5

As the laboratory results indicate, (Appendix E), there is a great deal of chromium present in the Mumford River bottom sediments, but virtually none of it appears to be mobile. The greatest concentrations of chromium (2300 ug/g) were found in B-5 and B-7 which are both located well up-river (west) of the ATF/D Arcade facility. The sketch map included with the laboratory data shows the sampling locations and characterizes the nature of the sediments.

Of particular interest, B-5 was noted to exhibit a distinct color change about a foot below the river/sediment interface. The top layer (B-5A) was light brown silty river/bottom sediments, while the lower layer (B-5B) was dark brown silty river bottom sediments. Each layer was sampled separately, and the results show the greatest occurrance of chromium is in the upper portion of the sediments.

The results of the EP Toxicity testing clearly indicates that a retardation agent is affecting the mobility of the chromium. When this much chromium is present, but virtually none of it is extractable, tannery wastes appear to be the likely source. The oils used in the process are repellent to water by nature. This serves to further reduce the mobility of the chromium that is already chealated with the organic tanning wastes. Textile refining and dying wastes can apparently exhibit similar properties. Both types of industries are reported to have been in operation up-river in the past. We have not attempted to verify these reports.

In that ATF/D does not own the river bottom, and because the source of chromium contamination is clearly up-river of the Arcade facility, we recommend that you make the date available to DEQE, and remove yourselves from any further responsibilities in this regard.

This letter and these appended data serve to answer the DEQE's additional questions regarding the Covitch property. The site's soil and ground water appear to be clean, save the Building 9/Raceway area that you are presently rectifying. No further activity on our part is presently anticipated regarding the Covitch property.

The next quarterly sampling of the Arcade wells is scheduled for February 12, 1986. At that time we will be recording pH, conductivity and temperature, and we will be sampling for volatile organic compounds (EPA 624). We recommend that you ask the DEQE to suspend the need for further arsenic, barium and zinc testing. The results to date do not warrent further investigation. Please let us know of their decision.

Should you have any questions concerning this letter or data, please call.

Very truly yours,
CASWELL, EICHLER & HILL, INC.

Matthew F. Eichler III
Principal

APPENDIX A

Resource Analysts, Incorporated
Box 4778 Hampton, NH 03842
(603) 926-7777

TO:

Mr. Matt Eichler
Caswell, Eichler and Hill
P.O. Box 4696
Portsmouth, NH 03801

PO # Verbal

Date Received: 10-30-85 (1115)

Lab Number: 5580

Date Reported: 11-20-85

Please find attached results for Arsenic, Barium, and Zinc.

Date 11/20/85

Technical Director

Field Identification: MC-7 5'-6'6" 1.1.1 S-2 Matrix: Solid
Laboratory Number: 5580-1

Parameter	Date analyzed	Method	Ref.	Concentratic
Arsenic, recoverable (ug/g)	11-14-85	3050/304	1/2	14
Barium, recoverable (ug/g)	11-15-85	3050/303C	1/2	75
Zinc, recoverable (ug/g)	11-8-85	3050/303A	1/2	100

Field Identification: MC-7 10'-11'6" 8.21.31 S-3 Matrix: Solid
Laboratory Number: 5580-2

Parameter	Date analyzed	Method	Ref.	Concentratior
Arsenic, recoverable (ug/g)	11-14-85	3050/304	1/2	6.2
Barium, recoverable (ug/g)	11-15-85	3050/303C	1/2	63
Zinc, recoverable (ug/g)	11-8-85	3050/303A	1/2	76

Field Identification: MC-10 5'-6'6" 5.7.11 S-2 Matrix: Solid
Laboratory Number: 5580-3

Parameter	Date analyzed	Method	Ref.	Concentratio
Arsenic, recoverable (ug/g)	11-14-85	3050/304	1/2	6.4
Barium, recoverable (ug/g)	11-15-85	3050/303C	1/2	54
Zinc, recoverable (ug/g)	11-8-85	3050/303A	1/2	67

Field Identification: MC-10' Sample(wash) S-3 Matrix: Solid
Laboratory Number: 5580-4

Parameter	Date analyzed	Method	Ref.	Concentration
Arsenic, recoverable (ug/g)	11-14-85	3050/304	1/2	7.6
Barium, recoverable (ug/g)	11-15-85	3050/303C	1/2	69
Zinc, recoverable (ug/g)	11-8-85	3050/303A	1/2	74

Reference 1: EPA SW 846, 2nd Edition
Reference 2: Standard Methods, 16th Edition

Resource Analysts, Incorporated

Resource Analysts, Incorporated
Box 4778 Hampton, NH 03842
(603) 926-7777

TO:

Mr. Matt Eichler
Caswell, Eichler, and Hill
P.O. Box 4696
Portsmouth, NH 03801

PO # ATF/Davidson

Date Received: 11-14-85 (1030)

Lab Number: 5665

Date Reported: 11-29-85

Please find attached results for Volatile Organic Compounds, Arsenic, Barium, and Zinc.

Russell Drolet

Technical Director

Date 11.29.85

page ____ of 3

CHAIN OF CUSTODY DOCUMENTATION

CLIENT ____

ADDRESS ____

JOB NAME/NUMBER ____

PROJECT CONTACT ____

SAMPLING LOCATION ____

SAMPLE COLLECTOR ____

FIELD IDENTIFICATION (List each container separately)	LAB #	SAMPLE MATRIX	CONTAINER TYPE/VOLUME	FILTRATION	FIELD PRESERVATION	REMARKS/ANALYSIS REQUESTED
Date ____ Time ____		○ Solid ● Liquid ○ Other	● P/ ___ mL ○ G/ ___ mL ○ G/T/ ___ mL	○ field ○ lab ● none		15
Date ____ Time ____		○ Solid ○ Liquid ○ Other	○ P/ ___ mL ○ G/ ___ mL ○ G/T/ ___ mL	○ field ○ lab ○ none		
Date ____ Time ____		○ Solid ○ Liquid ○ Other	○ P/ ___ mL ○ G/ ___ mL ○ G/T/ ___ mL	○ field ○ lab ○ none		7.4
Date ____ Time ____		○ Solid ○ Liquid ○ Other	○ P/ ___ mL ○ G/ ___ mL ○ G/T/ ___ mL	○ field ○ lab ○ none		
Date ____ Time ____		○ Solid ○ Liquid ○ Other	○ P/ ___ mL ○ G/ ___ mL ○ G/T/ ___ mL	○ field ○ lab ○ none		8
Date ____ Time ____		○ Solid ○ Liquid ○ Other	○ P/ ___ mL ○ G/ ___ mL ○ G/T/ ___ mL	○ field ○ lab ○ none		
Date ____ Time ____		○ Solid ○ Liquid ○ Other	○ P/ ___ mL ○ G/ ___ mL ○ G/T/ ___ mL	○ field ○ lab ○ none		
Date ____ Time ____		○ Solid ○ Liquid ○ Other	○ P/ ___ mL ○ G/ ___ mL ○ G/T/ ___ mL	○ field ○ lab ○ none		

Relinquished By:	Date	Time	Received By:	Date	Time
Relinquished By:	**Date**	**Time**	**Received For Laboratory By:**	**Date**	**Time**
			Maria Clarke	11/14	1050

Resource Analysts, Incorporated

Resource Analysts, Incorporated

page ____ of ____

CHAIN OF CUSTODY DOCUMENTATION

CLIENT ____

ADDRESS ____

JOB NAME/NUMBER ____

PROJECT CONTACT ____

SAMPLING LOCATION ____

SAMPLE COLLECTOR ____

FIELD IDENTIFICATION List each container separately	LAB #	SAMPLE MATRIX	CONTAINER TYPE/VOLUME	FILTRATION	FIELD PRESERVATION	REMARKS/ANALYSIS REQUESTED
Date 11/1 Time 1455		○ Solid ● Liquid ○ Other	○ P/ ml ○ G/ ml ○ G/T/ ml	● field ○ lab ○ none	1/1	
Date Time 1520		○ Solid ○ Liquid ○ Other	○ P/ ml ○ G/ ml ○ G/T/ ml	○ field ○ lab ○ none		
Date Time 1710		○ Solid ○ Liquid ○ Other	○ P/ ml ○ G/ ml ○ G/T/ ml	○ field ○ lab ○ none		
Date Time 1650		○ Solid ○ Liquid ○ Other	○ P/ ml ○ G/ ml ○ G/T/ ml	○ field ○ lab ○ none		
Date Time		○ Solid ○ Liquid ○ Other	○ P/ ml ○ G/ ml ○ G/T/ ml	○ field ○ lab ○ none		
Date Time		○ Solid ○ Liquid ○ Other	○ P/ ml ○ G/ ml ○ G/T/ ml	○ field ○ lab ○ none		
Date Time		○ Solid ○ Liquid ○ Other	○ P/ ml ○ G/ ml ○ G/T/ ml	○ field ○ lab ○ none		
Date Time		○ Solid ○ Liquid ○ Other	○ P/ ml ○ G/ ml ○ G/T/ ml	○ field ○ lab ○ none		

Relinquished By:	Date	Time	Received By:	Date	Time
Relinquished By:	**Date**	**Time**	**Received For Laboratory By:**	**Date**	**Time**
			Laurie Clarke	11/14	1050

Resource Analysts, Incorporated

Resource Analysts, Incorporated

page ____ of ____

CHAIN OF CUSTODY DOCUMENTATION

CLIENT ____

ADDRESS ____

JOB NAME/NUMBER ____

PROJECT CONTACT ____

SAMPLING LOCATION ____

SAMPLE COLLECTOR ____

FIELD IDENTIFICATION (list each container separately)	LAB #	SAMPLE MATRIX	CONTAINER TYPE/VOLUME	FILTRATION	FIELD PRESERVATION	REMARKS/ANALYSIS REQUESTED
Date / M-1 / Time 1455		○ Solid ● Liquid ○ Other	○ P/ mL ○ G/ mL ● G/T/ mL	○ field ○ lab ● none		
Date / M-2 / Time 1520		○ Solid ○ Liquid ○ Other	○ P/ mL ○ G/ mL ○ G/T/ mL	○ field ○ lab ○ none		
Date / M-3 / Time 1710		○ Solid ○ Liquid ○ Other	○ P/ mL ○ G/ mL ○ G/T/ mL	○ field ○ lab ○ none		
Date / M-4 / Time 1650		○ Solid ○ Liquid ○ Other	○ P/ mL ○ G/ mL ○ G/T/ mL	○ field ○ lab ○ none		
Date / M-5 / Time 1540		○ Solid ○ Liquid ○ Other	○ P/ mL ○ G/ mL ○ G/T/ mL	○ field ○ lab ○ none		
Date / M-6 / Time [illegible]		○ Solid ○ Liquid ○ Other	○ P/ mL ○ G/ mL ○ G/T/ mL	○ field ○ lab ○ none		
Date / M-7 / Time [illegible]		○ Solid ○ Liquid ○ Other	○ P/ mL ○ G/ mL ○ G/T/ mL	○ field ○ lab ○ none		
Date / M-8 / Time [illegible]		○ Solid ○ Liquid ○ Other	○ P/ mL ○ G/ mL ○ G/T/ mL	○ field ○ lab ○ none		

Relinquished By:	Date	Time	Received By:	Date	Time
[illegible]	[illegible]				
Relinquished By:	**Date**	**Time**	**Received For Laboratory By:**	**Date**	**Time**
			Laurel Clark	11/11	1050

Resource Analysts, Incorporated

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Field Identification: M-1 Matrix: Water
Laboratory Number: 5665-9

Parameter	Date analyzed	Method	Ref.	Concentration
Arsenic, dissolved (mg/L)	11-15-85	303A	1	<0.01
Barium, dissolved (mg/L)	11-15-85	303C	1	<0.2
Zinc, dissolved (mg/L)	11-20-85	303A	1	<0.005

Field Identification: M-2 Matrix: Water
Laboratory Number: 5665-10

Parameter	Date analyzed	Method	Ref.	Concentration
Arsenic, dissolved (mg/L)	11-15-85	303A	1	<0.01
Barium, dissolved (mg/L)	11-15-85	303C	1	<0.2
Zinc, dissolved (mg/L)	11-20-85	303A	1	<0.005

Field Identification: M-3 Matrix: Water
Laboratory Number: 5665-11

Parameter	Date analyzed	Method	Ref.	Concentration
Arsenic, dissolved (mg/L)	11-15-85	303A	1	<0.01
Barium, dissolved (mg/L)	11-15-85	303C	1	<0.2
Zinc, dissolved (mg/L)	11-20-85	303A	1	0.005

Field Identification: M-4 Matrix: Water
Laboratory Number: 5665-12

Parameter	Date analyzed	Method	Ref.	Concentration
Arsenic, dissolved (mg/L)	11-15-85	303A	1	<0.01
Barium, dissolved (mg/L)	11-15-85	303C	1	0.72
Zinc, dissolved (mg/L)	11-20-85	303A	1	<0.005

Reference 1: Standard Methods, 16th Edition

Field Identification: M-5 Matrix: Water
Laboratory Number: 5665-13

Parameter	Date analyzed	Method	Ref.	Concentration
Arsenic, dissolved (mg/L)	11-15-85	303A	1	<0.01
Barium, dissolved (mg/L)	11-15-85	303C	1	3.1
Zinc, dissolved (mg/L)	11-20-85	303A	1	0.011

Field Identification: M-6 Matrix: Water
Laboratory Number: 5665-14

Parameter	Date analyzed	Method	Ref.	Concentration
Arsenic, dissolved (mg/L)	11-15-85	303A	1	<0.01
Barium, dissolved (mg/L)	11-15-85	303C	1	0.73
Zinc, dissolved (mg/L)	11-20-85	303A	1	<0.005

Field Identification: M-7 Matrix: Water
Laboratory Number: 5665-15

Parameter	Date analyzed	Method	Ref.	Concentration
Arsenic, dissolved (mg/L)	11-15-85	303A	1	<0.01
Barium, dissolved (mg/L)	11-15-85	303C	1	<0.2
Zinc, dissolved (mg/L)	11-20-85	303A	1	<0.005

Field Identification: M-8 Matrix: Water
Laboratory Number: 5665-16

Parameter	Date analyzed	Method	Ref.m	Concentration
Arsenic, dissolved (mg/L)	11-15-85	303A	1	<0.01
Barium, dissolved (mg/L)	11-15-85	303C	1	1.4
Zinc, dissolved (mg/L)	11-20-85	303A	1	<0.005

Reference 1: Standard Methods, 16th Edition

Lab Number: 5665-1
Sample Designation: M-1
Date analyzed: 11-16-85

VOLATILE ORGANICS	CONCENTRATION (ug/L)	DETECTION LIMIT (ug/L)
CHLOROMETHANE	BDL	10
VINYL CHLORIDE	BDL	10
CHLOROETHANE	BDL	5
BROMOMETHANE	BDL	10
METHYLENE CHLORIDE	BDL	5
TRICHLOROFLUOROMETHANE	BDL	5
1,1-DICHLOROETHYLENE	BDL	5
1,1-DICHLOROETHANE	BDL	5
1,2-trans-DICHLOROETHYLENE	BDL	5
CHLOROFORM	BDL	5
1,2-DICHLOROETHANE	BDL	5
1,1,1-TRICHLOROETHANE	BDL	5
CARBON TETRACHLORIDE	BDL	5
BROMODICHLOROMETHANE	BDL	5
1,2-DICHLOROPROPANE	BDL	5
1,3-trans-DICHLOROPROPENE	BDL	5
TRICHLOROETHYLENE	BDL	5
BENZENE	BDL	5
1,3-cis-DICHLOROPROPENE	BDL	5
1,1,2-TRICHLOROETHANE	BDL	5
2-CHLOROETHYL VINYL ETHER	BDL	5
DIBROMOCHLOROMETHANE	BDL	5
BROMOFORM	BDL	5
TETRACHLOROETHYLENE	BDL	5
1,1,2,2-TETRACHLOROETHANE	BDL	5
TOLUENE	BDL	5
CHLOROBENZENE	BDL	5
ETHYLBENZENE	BDL	5
ACETONE	BDL	25
CARBON DISULFIDE	BDL	5
THF	BDL	25
MEK	BDL	25
MIBK	BDL	25
STYRENE	BDL	5
XYLENES	BDL	5

BDL = BELOW DETECTION LIMIT
METHOD REFERENCE: EPA 600/4-82-057 METHOD 624

Lab Number: 5665-2
Sample Designation: M-2
Date analyzed: 11-16-85

VOLATILE ORGANICS	CONCENTRATION (ug/L)	DETECTION LIMIT (ug/L)
CHLOROMETHANE	BDL	10
VINYL CHLORIDE	BDL	10
CHLOROETHANE	BDL	5
BROMOMETHANE	BDL	10
METHYLENE CHLORIDE	BDL	5
TRICHLOROFLUOROMETHANE	BDL	5
1,1-DICHLOROETHYLENE	BDL	5
1,1-DICHLOROETHANE	BDL	5
1,2-trans-DICHLOROETHYLENE	BDL	5
CHLOROFORM	BDL	5
1,2-DICHLOROETHANE	BDL	5
1,1,1-TRICHLOROETHANE	BDL	5
CARBON TETRACHLORIDE	BDL	5
BROMODICHLOROMETHANE	BDL	5
1,2-DICHLOROPROPANE	BDL	5
1,3-trans-DICHLOROPROPENE	BDL	5
TRICHLOROETHYLENE	BDL	5
BENZENE	BDL	5
1,3-cis-DICHLOROPROPENE	BDL	5
1,1,2-TRICHLOROETHANE	BDL	5
2-CHLOROETHYL VINYL ETHER	BDL	5
DIBROMOCHLOROMETHANE	BDL	5
BROMOFORM	BDL	5
TETRACHLOROETHYLENE	BDL	5
1,1,2,2-TETRACHLOROETHANE	BDL	5
TOLUENE	BDL	5
CHLOROBENZENE	BDL	5
ETHYLBENZENE	BDL	5
ACETONE	BDL	25
CARBON DISULFIDE	BDL	5
THF	BDL	25
MEK	BDL	25
MIBK	BDL	25
STYRENE	BDL	5
XYLENES	BDL	5

BDL = BELOW DETECTION LIMIT
METHOD REFERENCE: EPA 600/4-82-057 METHOD 624

Lab Number: 5665-2 (Laboratory Duplicate)
Sample Designation: M-2
Date analyzed: 11-16-85

VOLATILE ORGANICS	CONCENTRATION (ug/L)	DETECTION LIMIT (ug/L)
CHLOROMETHANE	BDL	10
VINYL CHLORIDE	BDL	10
CHLOROETHANE	BDL	5
BROMOMETHANE	BDL	10
METHYLENE CHLORIDE	BDL	5
TRICHLOROFLUOROMETHANE	BDL	5
1,1-DICHLOROETHYLENE	BDL	5
1,1-DICHLOROETHANE	BDL	5
1,2-trans-DICHLOROETHYLENE	BDL	5
CHLOROFORM	BDL	5
1,2-DICHLOROETHANE	BDL	5
1,1,1-TRICHLOROETHANE	BDL	5
CARBON TETRACHLORIDE	BDL	5
BROMODICHLOROMETHANE	BDL	5
1,2-DICHLOROPROPANE	BDL	5
1,3-trans-DICHLOROPROPENE	BDL	5
TRICHLOROETHYLENE	BDL	5
BENZENE	BDL	5
1,3-cis-DICHLOROPROPENE	BDL	5
1,1,2-TRICHLOROETHANE	BDL	5
2-CHLOROETHYL VINYL ETHER	BDL	5
DIBROMOCHLOROMETHANE	BDL	5
BROMOFORM	BDL	5
TETRACHLOROETHYLENE	BDL	5
1,1,2,2-TETRACHLOROETHANE	BDL	5
TOLUENE	BDL	5
CHLOROBENZENE	BDL	5
ETHYLBENZENE	BDL	5
ACETONE	BDL	25
CARBON DISULFIDE	BDL	5
THF	BDL	25
MEK	BDL	25
MIBK	BDL	25
STYRENE	BDL	5
XYLENES	BDL	5

BDL = BELOW DETECTION LIMIT
METHOD REFERENCE: EPA 600/4-82-057 METHOD 624

Lab Number: 5665-3
Sample Designation: M-3
Date analyzed: 11-16-85

VOLATILE ORGANICS	CONCENTRATION (ug/L)	DETECTION LIMIT (ug/L)
CHLOROMETHANE	BDL	10
VINYL CHLORIDE	80	10
CHLOROETHANE	BDL	5
BROMOMETHANE	BDL	10
METHYLENE CHLORIDE	BDL	5
TRICHLOROFLUOROMETHANE	BDL	5
1,1-DICHLOROETHYLENE	BDL	5
1,1-DICHLOROETHANE	BDL	5
1,2-trans-DICHLOROETHYLENE	20	5
CHLOROFORM	BDL	5
1,2-DICHLOROETHANE	BDL	5
1,1,1-TRICHLOROETHANE	BDL	5
CARBON TETRACHLORIDE	BDL	5
BROMODICHLOROMETHANE	BDL	5
1,2-DICHLOROPROPANE	BDL	5
1,3-trans-DICHLOROPROPENE	BDL	5
TRICHLOROETHYLENE	BDL	5
BENZENE	BDL	5
1,3-cis-DICHLOROPROPENE	BDL	5
1,1,2-TRICHLOROETHANE	BDL	5
2-CHLOROETHYL VINYL ETHER	BDL	5
DIBROMOCHLOROMETHANE	BDL	5
BROMOFORM	BDL	5
TETRACHLOROETHYLENE	BDL	5
1,1,2,2-TETRACHLOROETHANE	BDL	5
TOLUENE	BDL	5
CHLOROBENZENE	BDL	5
ETHYLBENZENE	BDL	5
ACETONE	BDL	25
CARBON DISULFIDE	BDL	5
THF	BDL	25
MEK	BDL	25
MIBK	BDL	25
STYRENE	BDL	5
XYLENES	BDL	5

BDL = BELOW DETECTION LIMIT
METHOD REFERENCE: EPA 600/4-82-057 METHOD 624

Lab Number: 5665-4
Sample Designation: M-4
Date analyzed: 11-16-85

VOLATILE ORGANICS	CONCENTRATION (ug/L)	DETECTION LIMIT (ug/L)
CHLOROMETHANE	BDL	10
VINYL CHLORIDE	BDL	10
CHLOROETHANE	Trace	5
BROMOMETHANE	BDL	10
METHYLENE CHLORIDE	BDL	5
TRICHLOROFLUOROMETHANE	BDL	5
1,1-DICHLOROETHYLENE	BDL	5
1,1-DICHLOROETHANE	Trace	5
1,2-trans-DICHLOROETHYLENE	BDL	5
CHLOROFORM	BDL	5
1,2-DICHLOROETHANE	BDL	5
1,1,1-TRICHLOROETHANE	BDL	5
CARBON TETRACHLORIDE	BDL	5
BROMODICHLOROMETHANE	BDL	5
1,2-DICHLOROPROPANE	BDL	5
1,3-trans-DICHLOROPROPENE	BDL	5
TRICHLOROETHYLENE	BDL	5
BENZENE	BDL	5
1,3-cis-DICHLOROPROPENE	BDL	5
1,1,2-TRICHLOROETHANE	BDL	5
2-CHLOROETHYL VINYL ETHER	BDL	5
DIBROMOCHLOROMETHANE	BDL	5
BROMOFORM	BDL	5
TETRACHLOROETHYLENE	BDL	5
1,1,2,2-TETRACHLOROETHANE	BDL	5
TOLUENE	BDL	5
CHLOROBENZENE	BDL	5
ETHYLBENZENE	BDL	5
ACETONE	BDL	25
CARBON DISULFIDE	BDL	5
THF	BDL	25
MEK	BDL	25
MIBK	BDL	25
STYRENE	BDL	5
XYLENES	BDL	5

"Trace" denotes probable presence below listed detection limit.

BDL = BELOW DETECTION LIMIT
METHOD REFERENCE: EPA 600/4-82-057 METHOD 624

Lab Number: 5665-5
Sample Designation: M-5
Date analyzed: 11-16-85

VOLATILE ORGANICS	CONCENTRATION (ug/L)	DETECTION LIMIT (ug/L)
CHLOROMETHANE	BDL	10
VINYL CHLORIDE	BDL	10
CHLOROETHANE	BDL	5
BROMOMETHANE	BDL	10
METHYLENE CHLORIDE	BDL	5
TRICHLOROFLUOROMETHANE	BDL	5
1,1-DICHLOROETHYLENE	BDL	5
1,1-DICHLOROETHANE	BDL	5
1,2-trans-DICHLOROETHYLENE	BDL	5
CHLOROFORM	BDL	5
1,2-DICHLOROETHANE	BDL	5
1,1,1-TRICHLOROETHANE	BDL	5
CARBON TETRACHLORIDE	BDL	5
BROMODICHLOROMETHANE	BDL	5
1,2-DICHLOROPROPANE	BDL	5
1,3-trans-DICHLOROPROPENE	BDL	5
TRICHLOROETHYLENE	BDL	5
BENZENE	BDL	5
1,3-cis-DICHLOROPROPENE	BDL	5
1,1,2-TRICHLOROETHANE	BDL	5
2-CHLOROETHYL VINYL ETHER	BDL	5
DIBROMOCHLOROMETHANE	BDL	5
BROMOFORM	BDL	5
TETRACHLOROETHYLENE	BDL	5
1,1,2,2-TETRACHLOROETHANE	BDL	5
TOLUENE	BDL	5
CHLOROBENZENE	BDL	5
ETHYLBENZENE	BDL	5
ACETONE	BDL	25
CARBON DISULFIDE	BDL	5
THF	BDL	25
MEK	BDL	25
MIBK	BDL	25
STYRENE	BDL	5
XYLENES	BDL	5

BDL = BELOW DETECTION LIMIT
METHOD REFERENCE: EPA 600/4-82-057 METHOD 624

Lab Number: 5665-6
Sample Designation: M-6
Date analyzed: 11-19-85

VOLATILE ORGANICS	CONCENTRATION (ug/L)	DETECTION LIMIT (ug/L)
CHLOROMETHANE	BDL	10
VINYL CHLORIDE	180	10
CHLOROETHANE	BDL	5
BROMOMETHANE	BDL	10
METHYLENE CHLORIDE	BDL	5
TRICHLOROFLUOROMETHANE	BDL	5
1,1-DICHLOROETHYLENE	BDL	5
1,1-DICHLOROETHANE	BDL	5
1,2-trans-DICHLOROETHYLENE	330	5
CHLOROFORM	BDL	5
1,2-DICHLOROETHANE	BDL	5
1,1,1-TRICHLOROETHANE	BDL	5
CARBON TETRACHLORIDE	BDL	5
BROMODICHLOROMETHANE	BDL	5
1,2-DICHLOROPROPANE	BDL	5
1,3-trans-DICHLOROPROPENE	BDL	5
TRICHLOROETHYLENE	13	5
BENZENE	BDL	5
1,3-cis-DICHLOROPROPENE	BDL	5
1,1,2-TRICHLOROETHANE	BDL	5
2-CHLOROETHYL VINYL ETHER	BDL	5
DIBROMOCHLOROMETHANE	BDL	5
BROMOFORM	BDL	5
TETRACHLOROETHYLENE	27	5
1,1,2,2-TETRACHLOROETHANE	BDL	5
TOLUENE	BDL	5
CHLOROBENZENE	BDL	5
ETHYLBENZENE	BDL	5
ACETONE	BDL	25
CARBON DISULFIDE	BDL	5
THF	BDL	25
MEK	BDL	25
MIBK	BDL	25
STYRENE	BDL	5
XYLENES	BDL	5

BDL = BELOW DETECTION LIMIT
METHOD REFERENCE: EPA 600/4-82-057 METHOD 624

Lab Number: 5665-7
Sample Designation: M-7
Date analyzed: 11-19-85

VOLATILE ORGANICS	CONCENTRATION (ug/L)	DETECTION LIMIT (ug/L)
CHLOROMETHANE	BDL	10
VINYL CHLORIDE	BDL	10
CHLOROETHANE	BDL	5
BROMOMETHANE	BDL	10
METHYLENE CHLORIDE	BDL	5
TRICHLOROFLUOROMETHANE	BDL	5
1,1-DICHLOROETHYLENE	9	5
1,1-DICHLOROETHANE	BDL	5
1,2-trans-DICHLOROETHYLENE	BDL	5
CHLOROFORM	BDL	5
1,2-DICHLOROETHANE	BDL	5
1,1,1-TRICHLOROETHANE	BDL	5
CARBON TETRACHLORIDE	BDL	5
BROMODICHLOROMETHANE	BDL	5
1,2-DICHLOROPROPANE	BDL	5
1,3-trans-DICHLOROPROPENE	BDL	5
TRICHLOROETHYLENE	Trace	5
BENZENE	Trace	5
1,3-cis-DICHLOROPROPENE	BDL	5
1,1,2-TRICHLOROETHANE	BDL	5
2-CHLOROETHYL VINYL ETHER	BDL	5
DIBROMOCHLOROMETHANE	BDL	5
BROMOFORM	BDL	5
TETRACHLOROETHYLENE	BDL	5
1,1,2,2-TETRACHLOROETHANE	BDL	5
TOLUENE	BDL	5
CHLOROBENZENE	BDL	5
ETHYLBENZENE	BDL	5
ACETONE	BDL	25
CARBON DISULFIDE	BDL	5
THF	BDL	25
MEK	BDL	25
MIBK	BDL	25
STYRENE	BDL	5
XYLENES	BDL	5

"Trace" denotes probable presence below listed detection limit.

BDL = BELOW DETECTION LIMIT
METHOD REFERENCE: EPA 600/4-82-057 METHOD 624

Resource Analysts, Incorporated

Lab Number: 5665-8
Sample Designation: M-8
Date analyzed: 11-19-85

VOLATILE ORGANICS	CONCENTRATION (ug/L)	DETECTION LIMIT (ug/L)
CHLOROMETHANE	BDL	50
VINYL CHLORIDE	380	50
CHLOROETHANE	BDL	25
BROMOMETHANE	BDL	50
METHYLENE CHLORIDE	BDL	25
TRICHLOROFLUOROMETHANE	BDL	25
1,1-DICHLOROETHYLENE	BDL	25
1,1-DICHLOROETHANE	BDL	25
1,2-trans-DICHLOROETHYLENE	1100	25
CHLOROFORM	BDL	25
1,2-DICHLOROETHANE	BDL	25
1,1,1-TRICHLOROETHANE	BDL	25
CARBON TETRACHLORIDE	BDL	25
BROMODICHLOROMETHANE	BDL	25
1,2-DICHLOROPROPANE	BDL	25
1,3-trans-DICHLOROPROPENE	BDL	25
TRICHLOROETHYLENE	Trace	25
BENZENE	BDL	25
1,3-cis-DICHLOROPROPENE	BDL	25
1,1,2-TRICHLOROETHANE	BDL	25
2-CHLOROETHYL VINYL ETHER	BDL	25
DIBROMOCHLOROMETHANE	BDL	25
BROMOFORM	BDL	25
TETRACHLOROETHYLENE	BDL	25
1,1,2,2-TETRACHLOROETHANE	BDL	25
TOLUENE	BDL	25
CHLOROBENZENE	BDL	25
ETHYLBENZENE	BDL	25
ACETONE	BDL	120
CARBON DISULFIDE	BDL	25
THF	BDL	120
MEK	BDL	120
MIBK	BDL	120
STYRENE	BDL	25
XYLENES	BDL	25

"Trace" denotes probable presence below listed detection limit.

BDL = BELOW DETECTION LIMIT
METHOD REFERENCE: EPA 600/4-82-057 METHOD 624

ATF/DAVIDSON ARCADE FACILITY SAMPLING REPORT

Prepared for

ATF/Davidson Company
Whitinsville, Massachusetts

Prepared by

Caswell, Eichler & Hill, Inc.
Portsmouth, New Hampshire

October 1986

CEH Caswell, Eichler and Hill, Inc.
GEOLOGY HYDROLOGY GEOPHYSICS
P.O. Box 4696
Portsmouth, NH 03801
TEL. (603) 431-4899

October 9, 1986

White Consolidated Industries
P.O. Box 182056
Columbus, OH 43218

Attn: Mr. Dan Marques

Re: ATF/Davidson Arcade Facility Sampling Report

Dear Dan:

The purpose of this letter is to transmit the combined results of the quarterly sampling at the Arcade Facility during the period 7-18-85 through 8-6-86.

In general, water quality beneath the site either remained about the same, or improved slightly since the first sampling round was conducted 7-18-85. M-8 remains the well exhibiting the highest level of water quality degradation at the site.

The results of all five sampling rounds are reduced and shown in Appendix A. Water quality results for those wells (M-3, M-4, M-6, M-8) that exhibited a consistent presence of any particular volatile organic compound are graphically displayed in Appendix B. Additionally, complete laboratory reports are contained in Appendix C.

Upon review of these data by yourselves and DEQE, please let us know when you would like to schedule a meeting to discuss the results. Should you have any questions or further needs, please call.

Very truly yours,
Caswell, Eichler & Hill, Inc.

Matthew F. Eichler III
Principal

MFE/amk

APPENDIX A

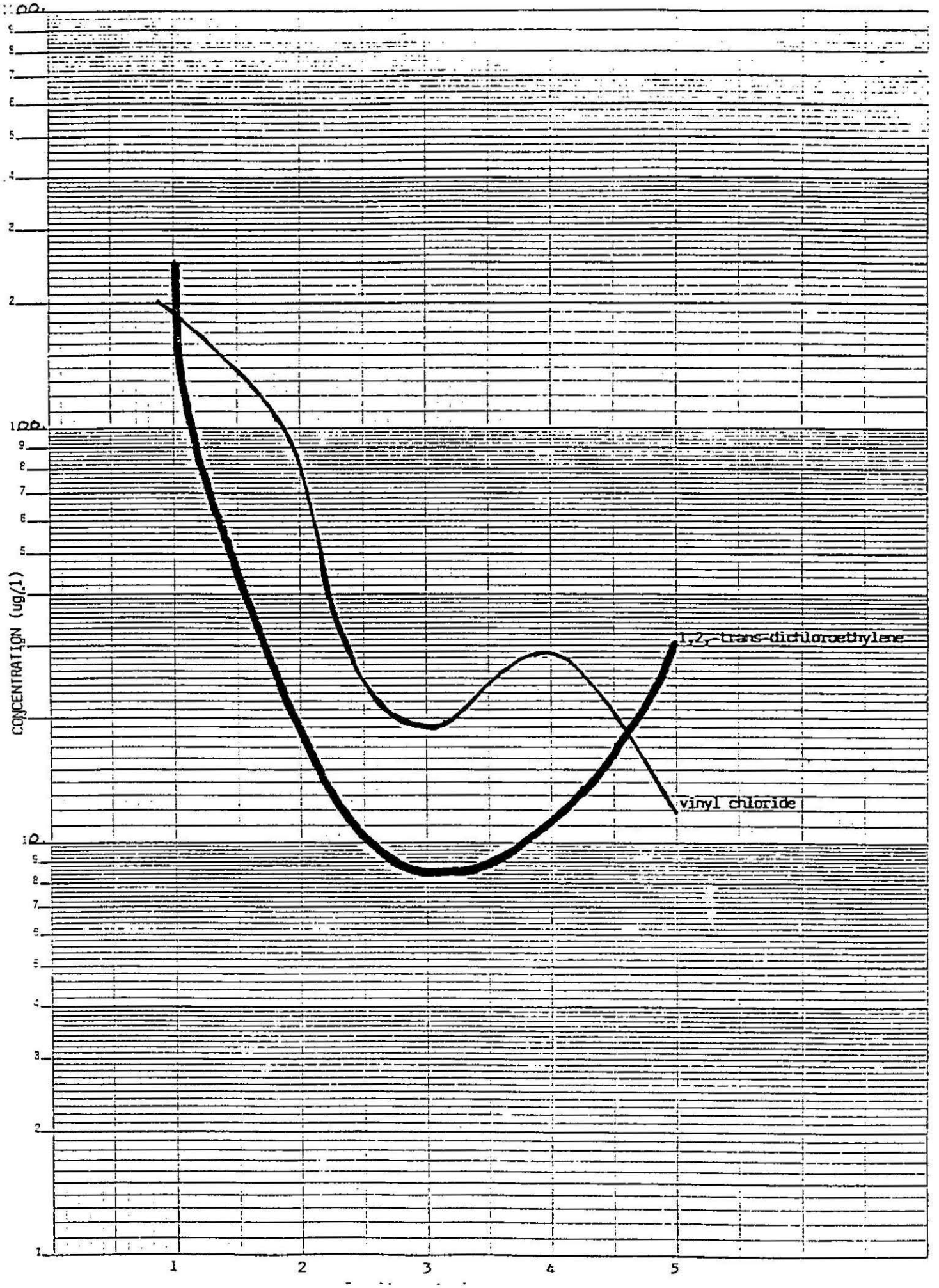
TABULATED DATA

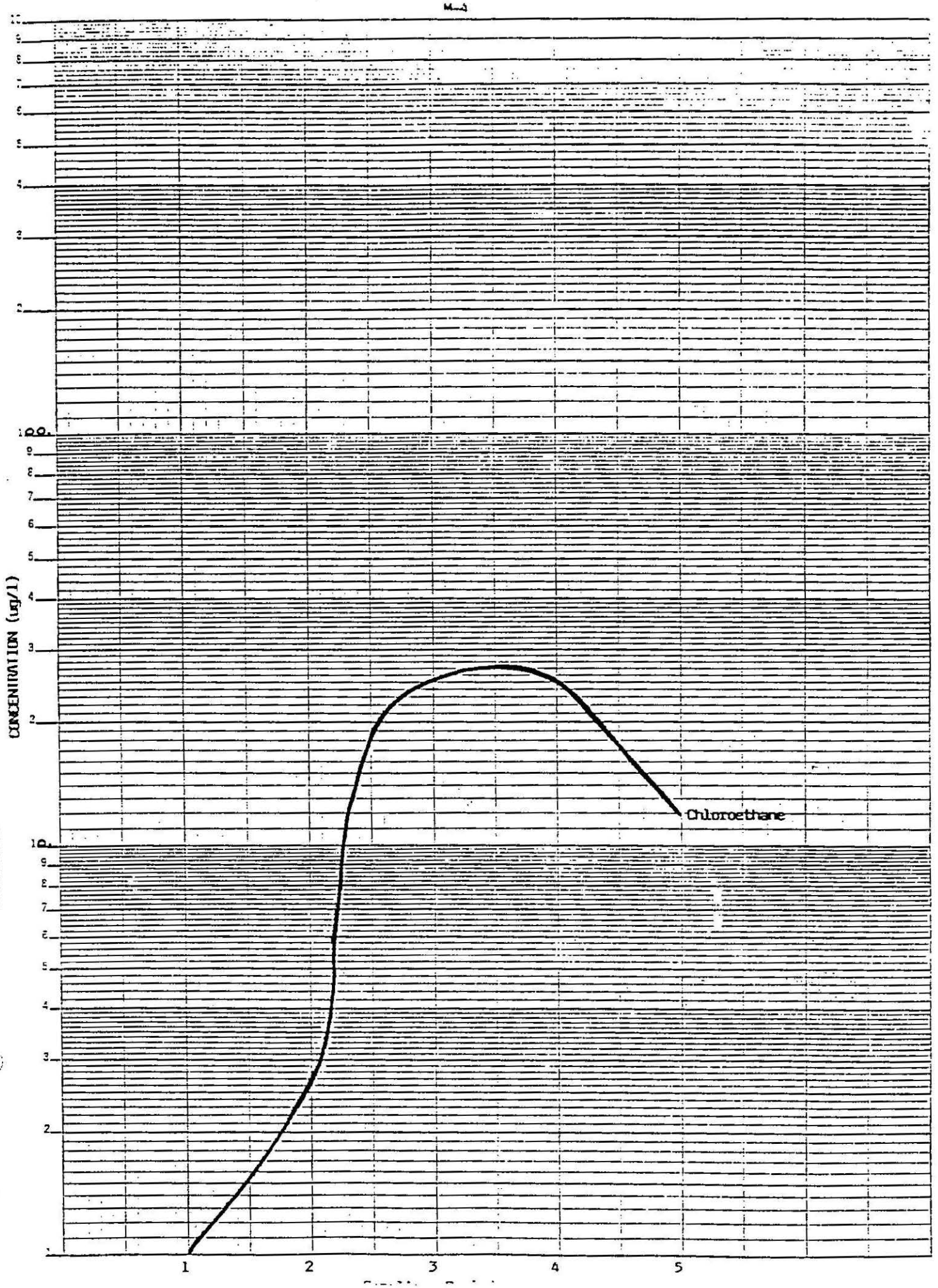
	Benzene	Vinyl Chloride	1,2 - Trans - Dichloroethylene	Trichloroethylene	Tetrachloro-ethylene	1,1,1, Trichloro-ethane	Chloroform	Toluene	Chloroethane	1,1, Dichloro-ethane
M-1										
1. 7-18-85										
2. 11-13-85										
3. 2-10-86	Trace							Trace		
4. 5-13-86	Trace			Trace						
5. 8-6-86										
M-2										
1. "										
2. "										
3. "	Trace									
4. "										
5. "										
M-3										
1. "		190	250	10						
2. "		80	20							
3. "		19	9							
4. "		29	11	Trace						
5. "		12	31			Trace				
M-4										
1. "										
2. "									Trace	Trace
3. "									25	
4. "									25	
5. "									12	

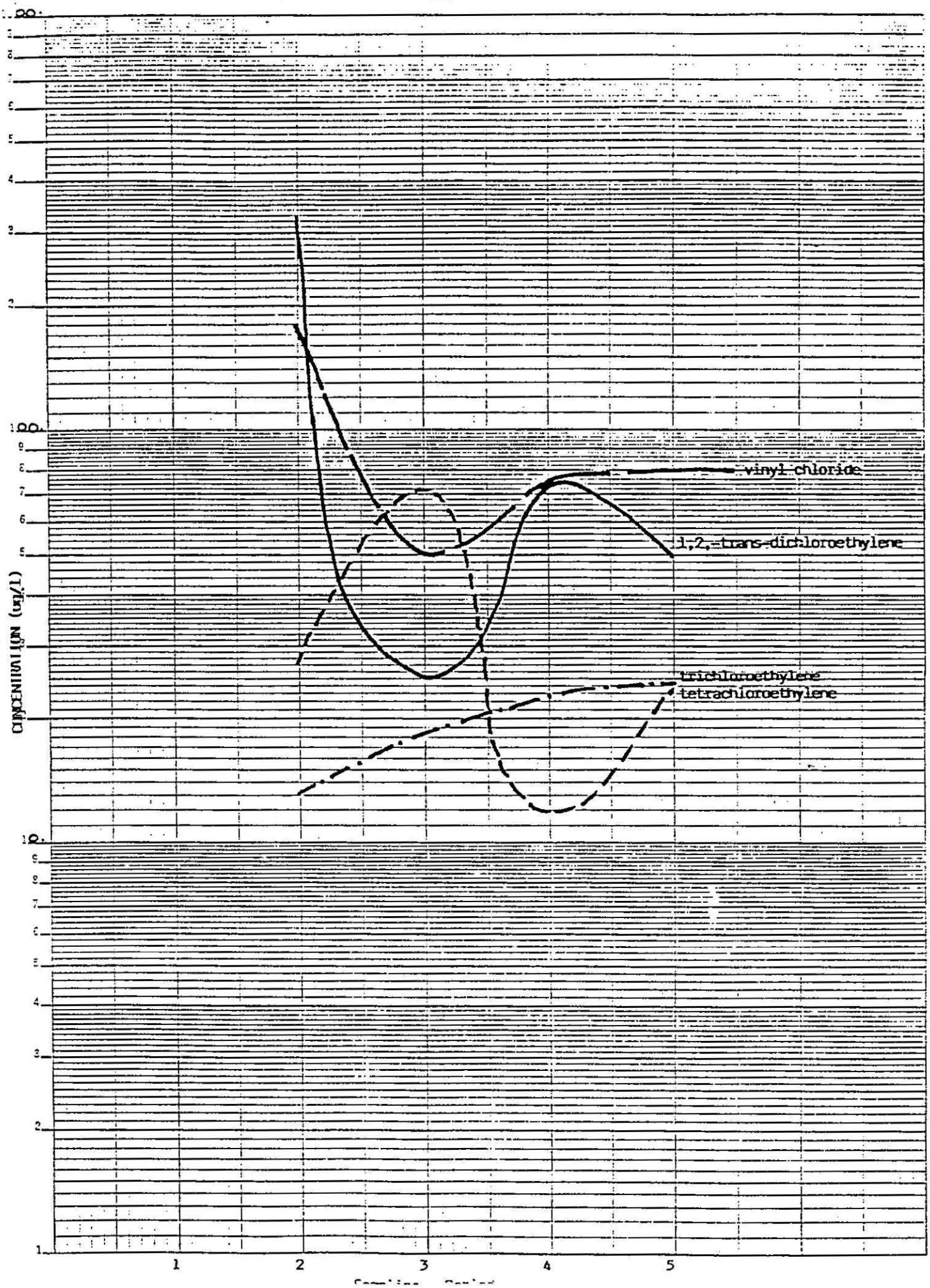
	Benzene	Vinyl Chloride	1,2 - Trans - Dichloroethylene	Trichloroethylene	Tetrachloro-ethylene	1,1,1, Trichloro-ethane	Chloroform	Toluene	Chloroethane	1,1, Dichloro-ethane
M-5										
1. 7-18-85										
2. 11-13-85										
3. 2-10-86										
4. 5-13-86										
5. 8-6-86										
M-6										
1. "			15	30	950					
2. "		180	330	13	27					
3. "		Trace	Trace	Trace	73	Trace				
4. "		76	75		12					
5. "		80	50	Trace	Trace	Trace				
M-7										
1. "										
2. "	Trace			Trace						9
3. "							Trace	6		
4. "										
5. "										
M-8										
1. "		260	610	30	Trace					Trace
2. "		380	1100	Trace						
3. "		Trace	380	Trace	Trace	Trace				
4. "		600	1600	26						
5. "		220	720	15						

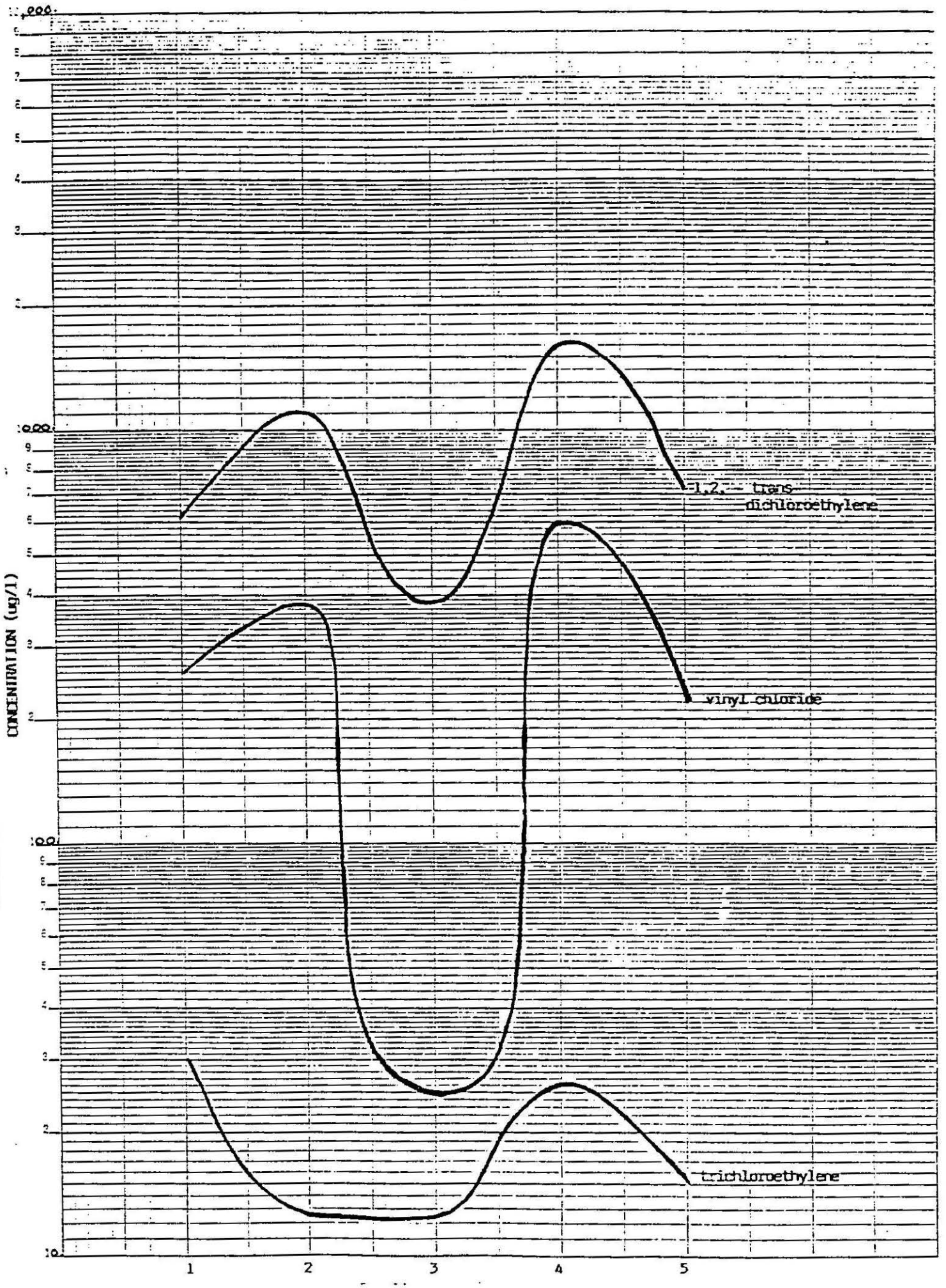
APPENDIX B

GRAPHED DATA


CONCENTRATION (ug/l)
1,2,-trans-dichloroethylene
vinyl chloride
1
2
3
4
5


CONCENTRATION (ug/l)
Chloroethane
1
2
3
4
5


vinyl chloride
1,2,-trans-dichloroethylene
trichloroethylene
tetrachloroethylene
CONCENTRATION (ug/L)
1
2
3
4
5


CONCENTRATION (ug/l)
1,2,-- trans dichloroethylene
vinyl chloride
trichloroethylene
1
2
3
4
5

APPENDIX C

LABORATORY DATA

RAI

Resource Analysts, Incorporated
Box 4778 Hampton, NH 03842
(603) 926-7777

TO:

Mr. Matt Eichler
Caswell, Eichler & Hill
P.O. Box 4696
Portsmouth, NH 03801

PO # ATF Davidson

Date Received: 7-19-85 (8:10)

Lab Number: 5008

Date Reported: 8-13-85

Please find attached results for Volatile Organic Compounds, Total Cyanide, Oil and Grease, Barium, and Priority Pollutant Metals.

Russell K. Scott

Technical Director

Date 8/13/85

LOCATION: ATF Davidson, Whitinsville, MA

ENGINEERS: Caswell, Eichler, and Hill

SAMPLING DATE: 7/18/85

WELL NUMBER	TOTAL DEPTH	DIAMETER	TIME	STATIC LEVEL TO STEEL CASING	COND./TEMP. umhos/cm	°C	pH
M-1	14'	1.5"	0950	8.31'	425	20.0	7.25
M-2	12'	1.5"	1000	8.75'	300	19.5	8.50
M-3	10'	1.5"	1010	6.90'	260	21.5	6.35
M-4	10'	1.5"	1015	7.68'	225	24.0	8.20
M-5	10'	1.5"	1017	7.35'	365	24.0	7.30
M-6	10'	1.5"	1018	7.47'	235	25.0	6.85
M-7	9.5'	1.5"	1020	6.81'	325	24.0	9.80
M-8	9.8'	1.5"	1023	7.13'	165	22.0	7.30

Total depths come from the well plans.

Proj. No.	Project Name																
	ATF Davidson																
Samplers: (Signature)																	
Sta. No.	Date	Time	Comp.	Grab	Station Location	No. of containers	VOA	EPA 624	TCLP	Phenols	pH / Specif. Temp °C	Oil & Grease	Static level (ft)	TD/D Dep (ft)	Remarks		
M-1	7/10/85	1415		✓		3	✓	✓	✓		1.5	8.31'	14'				
M-2		1422		✓			✓	✓	✓		0.9	8.75'	12'				
M-3		1520		✓			✓	✓	✓		2.8	6.90'	10'				
M-4		1340		✓			✓	✓	✓		0.6	7.68'	10'				
M-5		1330		✓			✓	✓	✓		0.7	7.35'	10'				
M-6		1145		✓			✓	✓	✓		0.7	7.47'	10'				
M-7		1110		✓			✓	✓	✓		0.7	6.81'	9.5'				
M-8		1055		✓			✓	✓	✓		0.7	7.13'	9.8'				
M-3		1510		✓								✓ Oil & Grease					

Relinquished by: (Signature)	Date/Time	Received by: (Signature)	Relinquished by: (Signature)	Date/Time	Received by (Signature)
	7/10 1055				
Relinquished by: (Signature)	**Date/Time**	**Received by: (Signature)**	**Relinquished by: (Signature)**	**Date/Time**	**Received by (Signature)**
Relinquished by: (Signature)	**Date/Time**	**Received for Laboratory by: (Signature)**	**Date/Time**	**Remarks**	
			7/10/85 2000		

Caswell, Eichler, & Hill
Laboratory Number 5008
8-13-85

Field Identification: M-1 Matrix: Liquid

Lab Number	Parameter	Date analyzed	Method	Ref.	Concentration
5008-9	Total Cyanide (mg/L)	8-2-85	335.2	1	<0.01
5008-17	Silver, recoverable (mg/L)	8-9-85	303A	2	<0.005
5008-17	Arsenic, recoverable (mg/L)	7-25-85	304	2	<0.01
5008-17	Barium, recoverable (mg/L)	8-8-85	303A	2	<0.2
5008-17	Beryllium, recoverable (mg/L)	7-25-85	303C	2	<0.002
5008-17	Cadmium, recoverable (mg/L)	8-7-85	303A	2	<0.003
5008-17	Chromium, recoverable (mg/L)	8-9-85	303A	2	<0.005
5008-17	Copper, recoverable (mg/L)	8-7-85	303A	2	<0.005
5008-17	Mercury, recoverable (mg/L)	7-23-85	7641	3	<0.0006
5008-17	Nickel, recoverable (mg/L)	8-9-85	303A	2	<0.02
5008-17	Lead, recoverable (mg/L)	8-7-85	303A	2	<0.03
5008-17	Antimony, recoverable (mg/L)	8-12-85	303A	2	<0.8
5008-17	Selenium, recoverable (mg/L)	7-25-85	304	2	<0.01
5008-17	Thallium, recoverable (mg/L)	8-12-85	303A	2	<0.6
5008-17	Zinc, recoverable (mg/L)	8-7-85	303A	2	0.028

Field Identification: M-2 Matrix: Liquid

Lab Number	Parameter	Date analyzed	Method	Ref.	Concentration
5008-10	Total Cyanide (mg/L)	8-2-85	335.2	1	<0.01
5008-18	Silver, recoverable (mg/L)	8-9-85	303A	2	<0.005
5008-18	Arsenic, recoverable (mg/L)	7-25-85	304	2	<0.01
5008-18	Barium, recoverable (mg/L)	8-8-85	303A	2	<0.2
5008-18	Beryllium, recoverable (mg/L)	7-25-85	303C	2	<0.002
5008-18	Cadmium, recoverable (mg/L)	8-7-85	303A	2	<0.003
5008-18	Chromium, recoverable (mg/L)	8-9-85	303A	2	<0.005
5008-18	Copper, recoverable (mg/L)	8-7-85	303A	2	<0.005
5008-18	Mercury, recoverable (mg/L)	7-23-85	7641	3	<0.0006
5008-18	Nickel, recoverable (mg/L)	8-9-85	303A	2	<0.02
5008-18	Lead, recoverable (mg/L)	8-7-85	303A	2	<0.03
5008-18	Antimony, recoverable (mg/L)	8-12-85	303A	2	<0.8
5008-18	Selenium, recoverable (mg/L)	7-25-85	304	2	<0.01
5008-18	Thallium, recoverable (mg/L)	8-12-85	303A	2	<0.6
5008-18	Zinc, recoverable (mg/L)	8-7-85	303A	2	0.045

Reference: 1. EPA 600/4-79-020
2. Standard Methods, 16th Edition
3. EPA SW 846, 2nd Edition

Resource Analysts, Incorporated

Field Identification: M-3 Matrix: Liquid

Lab Number	Parameter	Date analyzed	Method	Ref.	Concentration
5008-11	Total Cyanide (mg/L)	8-2-85	335.2	1	<0.01
5008-19	Silver, recoverable (mg/L)	8-9-85	303A	2	<0.005
5008-19	Arsenic, recoverable (mg/L)	7-25-85	304	2	<0.01
5008-19	Barium, recoverable (mg/L)	8-8-85	303A	2	0.34
5008-19	Beryllium, recoverable (mg/L)	7-25-85	303C	2	<0.002
5008-19	Cadmium, recoverable (mg/L)	8-7-85	303A	2	<0.003
5008-19	Chromium, recoverable (mg/L)	8-9-85	303A	2	<0.005
5008-19	Copper, recoverable (mg/L)	8-7-85	303A	2	<0.005
5008-19	Mercury, recoverable (mg/L)	7-23-85	7641	3	<0.0006
5008-19	Nickel, recoverable (mg/L)	8-9-85	303A	2	<0.02
5008-19	Lead, recoverable (mg/L)	8-7-85	303A	2	<0.03
5008-19	Antimony, recoverable (mg/L)	8-12-85	303A	2	<0.8
5008-19	Selenium, recoverable (mg/L)	7-25-85	304	2	<0.01
5008-19	Thallium, recoverable (mg/L)	8-12-85	303A	2	<0.6
5008-19	Zinc, recoverable (mg/L)	8-7-85	303A	2	0.022
5008-29	Oil and Grease (mg/L)	7-25-85	413.2	1	<5

Field Identification: M-4 Matrix: Liquid

Lab Number	Parameter	Date analyzed	Method	Ref.	Concentration
5008-12	Total Cyanide (mg/L)	8-2-85	335.2	1	<0.01
5008-20	Silver, recoverable (mg/L)	8-9-85	303A	2	<0.005
5008-20	Arsenic, recoverable (mg/L)	7-25-85	304	2	<0.01
5008-20	Barium, recoverable (mg/L)	8-8-85	303A	2	1.0
5008-20	Beryllium, recoverable (mg/L)	7-25-85	303C	2	<0.002
5008-20	Cadmium, recoverable (mg/L)	8-7-85	303A	2	<0.003
5008-20	Chromium, recoverable (mg/L)	8-9-85	303A	2	<0.005
5008-20	Copper, recoverable (mg/L)	8-7-85	303A	2	<0.005
5008-20	Mercury, recoverable (mg/L)	7-23-85	7641	3	<0.0006
5008-20	Nickel, recoverable (mg/L)	8-9-85	303A	2	<0.02
5008-20	Lead, recoverable (mg/L)	8-7-85	303A	2	<0.03
5008-20	Antimony, recoverable (mg/L)	8-12-85	303A	2	<0.8
5008-20	Selenium, recoverable (mg/L)	7-25-85	304	2	<0.01
5008-20	Thallium, recoverable (mg/L)	8-12-85	303A	2	<0.6
5008-20	Zinc, recoverable (mg/L)	8-7-85	303A	2	0.021

Reference:
1. EPA 600/4-79-020
2. Standard Methods, 16th Edition
3. EPA SW 846, 2nd Edition

Field Identification: M-5 Matrix: Liquid

Lab Number	Parameter	Date analyzed	Method	Ref.	Concentration
5008-13	Total Cyanide (mg/L)	8-2-85	335.2	1	<0.01
5008-21	Silver, recoverable (mg/L)	8-9-85	303A	2	<0.005
5008-21	Arsenic, recoverable (mg/L)	7-25-85	304	2	<0.01
5008-21	Barium, recoverable (mg/L)	8-8-85	303A	2	2.9
5008-21	Beryllium, recoverable (mg/L)	7-25-85	303C	2	<0.002
5008-21	Cadmium, recoverable (mg/L)	8-7-85	303A	2	<0.003
5008-21	Chromium, recoverable (mg/L)	8-9-85	303A	2	<0.005
5008-21	Copper, recoverable (mg/L)	8-7-85	303A	2	<0.005
5008-21	Mercury, recoverable (mg/L)	7-23-85	7641	3	<0.0006
5008-21	Nickel, recoverable (mg/L)	8-9-85	303A	2	<0.02
5008-21	Lead, recoverable (mg/L)	8-7-85	303A	2	<0.03
5008-21	Antimony, recoverable (mg/L)	8-12-85	303A	2	<0.8
5008-21	Selenium, recoverable (mg/L)	7-25-85	304	2	<0.01
5008-21	Thallium, recoverable (mg/L)	8-12-85	303A	2	<0.6
5008-21	Zinc, recoverable (mg/L)	8-7-85	303A	2	0.016

Field Identification: M-6 Matrix: Liquid

Lab Number	Parameter	Date analyzed	Method	Ref.	Concentration
5008-14	Total Cyanide (mg/L)	8-2-85	335.2	1	<0.01
5008-22	Silver, recoverable (mg/L)	8-9-85	303A	2	<0.005
5008-22	Arsenic, recoverable (mg/L)	7-25-85	304	2	<0.01
5008-22	Barium, recoverable (mg/L)	8-8-85	303A	2	0.91
5008-22	Beryllium, recoverable (mg/L)	7-25-85	303C	2	<0.002
5008-22	Cadmium, recoverable (mg/L)	8-7-85	303A	2	<0.003
5008-22	Chromium, recoverable (mg/L)	8-9-85	303A	2	<0.005
5008-22	Copper, recoverable (mg/L)	8-7-85	303A	2	<0.005
5008-22	Mercury, recoverable (mg/L)	7-23-85	7641	3	<0.0006
5008-22	Nickel, recoverable (mg/L)	8-9-85	303A	2	<0.02
5008-22	Lead, recoverable (mg/L)	8-7-85	303A	2	<0.03
5008-22	Antimony, recoverable (mg/L)	8-12-85	303A	2	<0.8
5008-22	Selenium, recoverable (mg/L)	7-25-85	304	2	<0.01
5008-22	Thallium, recoverable (mg/L)	8-12-85	303A	2	<0.6
5008-22	Zinc, recoverable (mg/L)	8-7-85	303A	2	0.020

Reference:
1. EPA 600/4-79-020
2. Standard Methods, 16th Edition
3. EPA SW 846, 2nd Edition

Field Identification: M-7 Matrix: Liquid

Lab Number	Parameter	Date analyzed	Method	Ref.	Concentration
5008-15	Total Cyanide (mg/L)	8-2-85	335.2	1	<0.01
5008-23	Silver, recoverable (mg/L)	8-9-85	303A	2	<0.005
5008-23	Arsenic, recoverable (mg/L)	7-25-85	304	2	<0.01
5008-23	Barium, recoverable (mg/L)	8-8-85	303A	2	<0.2
5008-23	Beryllium, recoverable (mg/L)	7-25-85	303C	2	<0.002
5008-23	Cadmium, recoverable (mg/L)	8-7-85	303A	2	<0.003
5008-23	Chromium, recoverable (mg/L)	8-9-85	303A	2	<0.005
5008-23	Copper, recoverable (mg/L)	8-7-85	303A	2	<0.005
5008-23	Mercury, recoverable (mg/L)	7-23-85	7641	3	<0.0006
5008-23	Nickel, recoverable (mg/L)	8-9-85	303A	2	<0.02
5008-23	Lead, recoverable (mg/L)	8-7-85	303A	2	<0.03
5008-23	Antimony, recoverable (mg/L)	8-12-85	303A	2	<0.8
5008-23	Selenium, recoverable (mg/L)	7-25-85	304	2	<0.01
5008-23	Thallium, recoverable (mg/L)	8-12-85	303A	2	<0.6
5008	Zinc, recoverable (mg/L)	8-7-85	303A	2	0.016

Field Identification: M-8 Matrix: Liquid

Lab Number	Parameter	Date analyzed	Method	Ref.	Concentration
5008-16	Total Cyanide (mg/L)	8-2-85	335.2	1	0.03
5008-24	Silver, recoverable (mg/L)	8-9-85	303A	2	<0.005
5008-24	Arsenic, recoverable (mg/L)	7-25-85	304	2	<0.01
5008-24	Barium, recoverable (mg/L)	8-8-85	303A	2	1.2
5008-24	Beryllium, recoverable (mg/L)	7-25-85	303C	2	<0.002
5008-24	Cadmium, recoverable (mg/L)	8-7-85	303A	2	<0.003
5008-24	Chromium, recoverable (mg/L)	8-9-85	303A	2	<0.005
5008-24	Copper, recoverable (mg/L)	8-7-85	303A	2	<0.005
5008-24	Mercury, recoverable (mg/L)	7-23-85	7641	3	<0.0006
5008-24	Nickel, recoverable (mg/L)	8-9-85	303A	2	<0.02
5008-24	Lead, recoverable (mg/L)	8-7-85	303A	2	<0.03
5008-24	Antimony, recoverable (mg/L)	8-12-85	303A	2	<0.8
5008-24	Selenium, recoverable (mg/L)	7-25-85	304	2	<0.01
5008-24	Thallium, recoverable (mg/L)	8-12-85	303A	2	<0.6
5008-24	Zinc, recoverable (mg/L)	8-7-85	303A	2	0.010

Reference:
1. EPA 600/4-79-020
2. Standard Methods, 16th Edition
3. EPA SW 846, 2nd Edition

Lab Number: 5008-1
Sample Designation: M-1
Date analyzed: 7-24-85

VOLATILE ORGANICS	CONCENTRATION (ug/L)	DETECTION LIMIT (ug/L)
CHLOROMETHANE	BDL	10
VINYL CHLORIDE	BDL	10
CHLOROETHANE	BDL	5
BROMOMETHANE	BDL	10
METHYLENE CHLORIDE	BDL	5
TRICHLOROFLUOROMETHANE	BDL	5
1,1-DICHLOROETHYLENE	BDL	5
1,1-DICHLOROETHANE	BDL	5
1,2-trans-DICHLOROETHYLENE	BDL	5
CHLOROFORM	BDL	5
1,2-DICHLOROETHANE	BDL	5
1,1,1-TRICHLOROETHANE	BDL	5
CARBON TETRACHLORIDE	BDL	5
BROMODICHLOROMETHANE	BDL	5
1,2-DICHLOROPROPANE	BDL	5
1,3-trans-DICHLOROPROPENE	BDL	5
TRICHLOROETHYLENE	BDL	5
BENZENE	BDL	5
1,3-cis-DICHLOROPROPENE	BDL	5
1,1,2-TRICHLOROETHANE	BDL	5
2-CHLOROETHYL VINYL ETHER	BDL	5
DIBROMOCHLOROMETHANE	BDL	5
BROMOFORM	BDL	5
TETRACHLOROETHYLENE	BDL	5
1,1,2,2-TETRACHLOROETHANE	BDL	5
TOLUENE	BDL	5
CHLOROBENZENE	BDL	5
ETHYLBENZENE	BDL	5
ACETONE	BDL	25
CARBON DISULFIDE	BDL	5
THF	BDL	25
MEK	BDL	25
MIBK	BDL	25
STYRENE	BDL	5
XYLENES	BDL	5

BDL = BELOW DETECTION LIMIT
METHOD REFERENCE: EPA 600/4-79-020 METHOD 624

Lab Number: 5008-2
Sample Designation: M-2
Date analyzed: 7-24-85

VOLATILE ORGANICS	CONCENTRATION (ug/L)	DETECTION LIMIT (ug/L)
CHLOROMETHANE	BDL	10
VINYL CHLORIDE	BDL	10
CHLOROETHANE	BDL	5
BROMOMETHANE	BDL	10
METHYLENE CHLORIDE	BDL	5
TRICHLOROFLUOROMETHANE	BDL	5
1,1-DICHLOROETHYLENE	BDL	5
1,1-DICHLOROETHANE	BDL	5
1,2-trans-DICHLOROETHYLENE	BDL	5
CHLOROFORM	BDL	5
1,2-DICHLOROETHANE	BDL	5
1,1,1-TRICHLOROETHANE	BDL	5
CARBON TETRACHLORIDE	BDL	5
BROMODICHLOROMETHANE	BDL	5
1,2-DICHLOROPROPANE	BDL	5
1,3-trans-DICHLOROPROPENE	BDL	5
TRICHLOROETHYLENE	BDL	5
BENZENE	BDL	5
1,3-cis-DICHLOROPROPENE	BDL	5
1,1,2-TRICHLOROETHANE	BDL	5
2-CHLOROETHYL VINYL ETHER	BDL	5
DIBROMOCHLOROMETHANE	BDL	5
BROMOFORM	BDL	5
TETRACHLOROETHYLENE	BDL	5
1,1,2,2-TETRACHLOROETHANE	BDL	5
TOLUENE	BDL	5
CHLOROBENZENE	BDL	5
ETHYLBENZENE	BDL	5
ACETONE	BDL	25
CARBON DISULFIDE	BDL	5
THF	BDL	25
MEK	BDL	25
MIBK	BDL	25
STYRENE	BDL	5
XYLENES	BDL	5

BDL = BELOW DETECTION LIMIT
METHOD REFERENCE: EPA 600/4-79-020 METHOD 624

Lab Number: 5008-3
Sample Designation: M-3
Date analyzed: 7-26-85

VOLATILE ORGANICS	CONCENTRATION (ug/L)	DETECTION LIMIT (ug/L)
CHLOROMETHANE	BDL	10
VINYL CHLORIDE	190	10
CHLOROETHANE	BDL	5
BROMOMETHANE	BDL	10
METHYLENE CHLORIDE	BDL	5
TRICHLOROFLUOROMETHANE	BDL	5
1,1-DICHLOROETHYLENE	BDL	5
1,1-DICHLOROETHANE	BDL	5
1,2-trans-DICHLOROETHYLENE	250	5
CHLOROFORM	BDL	5
1,2-DICHLOROETHANE	BDL	5
1,1,1-TRICHLOROETHANE	BDL	5
CARBON TETRACHLORIDE	BDL	5
BROMODICHLOROMETHANE	BDL	5
1,2-DICHLOROPROPANE	BDL	5
1,3-trans-DICHLOROPROPENE	BDL	5
TRICHLOROETHYLENE	10	5
BENZENE	BDL	5
1,3-cis-DICHLOROPROPENE	BDL	5
1,1,2-TRICHLOROETHANE	BDL	5
2-CHLOROETHYL VINYL ETHER	BDL	5
DIBROMOCHLOROMETHANE	BDL	5
BROMOFORM	BDL	5
TETRACHLOROETHYLENE	BDL	5
1,1,2,2-TETRACHLOROETHANE	BDL	5
TOLUENE	BDL	5
CHLOROBENZENE	BDL	5
ETHYLBENZENE	BDL	5
ACETONE	BDL	25
CARBON DISULFIDE	BDL	5
THF	BDL	25
MEK	BDL	25
MIBK	BDL	25
STYRENE	BDL	5
XYLENES	BDL	5

BDL = BELOW DETECTION LIMIT
METHOD REFERENCE: EPA 600/4-79-020 METHOD 624

Lab Number: 5006-3 (Laboratory Duplicate)
Sample Designation: M-3
Date analyzed: 7-26-85

VOLATILE ORGANICS	CONCENTRATION (ug/L)	DETECTION LIMIT (ug/L)
CHLOROMETHANE	BDL	10
VINYL CHLORIDE	210	10
CHLOROETHANE	BDL	5
BROMOMETHANE	BDL	10
METHYLENE CHLORIDE	BDL	5
TRICHLOROFLUOROMETHANE	BDL	5
1,1-DICHLOROETHYLENE	BDL	5
1,1-DICHLOROETHANE	BDL	5
1,2-trans-DICHLOROETHYLENE	250	5
CHLOROFORM	BDL	5
1,2-DICHLOROETHANE	BDL	5
1,1,1-TRICHLOROETHANE	BDL	5
CARBON TETRACHLORIDE	BDL	5
BROMODICHLOROMETHANE	BDL	5
1,2-DICHLOROPROPANE	BDL	5
1,3-trans-DICHLOROPROPENE	BDL	5
TRICHLOROETHYLENE	10	5
BENZENE	BDL	5
1,3-cis-DICHLOROPROPENE	BDL	5
1,1,2-TRICHLOROETHANE	BDL	5
2-CHLOROETHYL VINYL ETHER	BDL	5
DIBROMOCHLOROMETHANE	BDL	5
BROMOFORM	BDL	5
TETRACHLOROETHYLENE	BDL	5
1,1,2,2-TETRACHLOROETHANE	BDL	5
TOLUENE	BDL	5
CHLOROBENZENE	BDL	5
ETHYLBENZENE	BDL	5
ACETONE	BDL	25
CARBON DISULFIDE	BDL	5
THF	BDL	25
MEK	BDL	25
MIBK	BDL	25
STYRENE	BDL	5
XYLENES	BDL	5

BDL = BELOW DETECTION LIMIT
METHOD REFERENCE: EPA 600/4-79-020 METHOD 624

Lab Number: 5008-4
Sample Designation: M-4
Date analyzed: 7-26-85

VOLATILE ORGANICS	CONCENTRATION (ug/L)	DETECTION LIMIT (ug/L)
CHLOROMETHANE	BDL	10
VINYL CHLORIDE	BDL	10
CHLOROETHANE	BDL	5
BROMOMETHANE	BDL	10
METHYLENE CHLORIDE	BDL	5
TRICHLOROFLUOROMETHANE	BDL	5
1,1-DICHLOROETHYLENE	BDL	5
1,1-DICHLOROETHANE	BDL	5
1,2-trans-DICHLOROETHYLENE	BDL	5
CHLOROFORM	BDL	5
1,2-DICHLOROETHANE	BDL	5
1,1,1-TRICHLOROETHANE	BDL	5
CARBON TETRACHLORIDE	BDL	5
BROMODICHLOROMETHANE	BDL	5
1,2-DICHLOROPROPANE	BDL	5
1,3-trans-DICHLOROPROPENE	BDL	5
TRICHLOROETHYLENE	BDL	5
BENZENE	BDL	5
1,3-cis-DICHLOROPROPENE	BDL	5
1,1,2-TRICHLOROETHANE	BDL	5
2-CHLOROETHYL VINYL ETHER	BDL	5
DIBROMOCHLOROMETHANE	BDL	5
BROMOFORM	BDL	5
TETRACHLOROETHYLENE	BDL	5
1,1,2,2-TETRACHLOROETHANE	BDL	5
TOLUENE	BDL	5
CHLOROBENZENE	BDL	5
ETHYLBENZENE	BDL	5
ACETONE	BDL	25
CARBON DISULFIDE	BDL	5
THF	BDL	25
MEK	BDL	25
MIBK	BDL	25
STYRENE	BDL	5
XYLENES	BDL	5

BDL = BELOW DETECTION LIMIT
METHOD REFERENCE: EPA 600/4-79-020 METHOD 624

Resource Analysts, Incorporated

Lab Number: 5008-5
Sample Designation: M-5
Date analyzed: 7-26-85

VOLATILE ORGANICS	CONCENTRATION (ug/L)	DETECTION LIMIT (ug/L)
CHLOROMETHANE	BDL	10
VINYL CHLORIDE	BDL	10
CHLOROETHANE	BDL	5
BROMOMETHANE	BDL	10
METHYLENE CHLORIDE	BDL	5
TRICHLOROFLUOROMETHANE	BDL	5
1,1-DICHLOROETHYLENE	BDL	5
1,1-DICHLOROETHANE	BDL	5
1,2-trans-DICHLOROETHYLENE	BDL	5
CHLOROFORM	BDL	5
1,2-DICHLOROETHANE	BDL	5
1,1,1-TRICHLOROETHANE	BDL	5
CARBON TETRACHLORIDE	BDL	5
BROMODICHLOROMETHANE	BDL	5
1,2-DICHLOROPROPANE	BDL	5
1,3-trans-DICHLOROPROPENE	BDL	5
TRICHLOROETHYLENE	BDL	5
BENZENE	BDL	5
1,3-cis-DICHLOROPROPENE	BDL	5
1,1,2-TRICHLOROETHANE	BDL	5
2-CHLOROETHYL VINYL ETHER	BDL	5
DIBROMOCHLOROMETHANE	BDL	5
BROMOFORM	BDL	5
TETRACHLOROETHYLENE	BDL	5
1,1,2,2-TETRACHLOROETHANE	BDL	5
TOLUENE	BDL	5
CHLOROBENZENE	BDL	5
ETHYLBENZENE	BDL	5
ACETONE	BDL	25
CARBON DISULFIDE	BDL	5
THF	BDL	25
MEK	BDL	25
MIBK	BDL	25
STYRENE	BDL	5
XYLENES	BDL	5

BDL = BELOW DETECTION LIMIT
METHOD REFERENCE: EPA 600/4-79-020 METHOD 624

Lab Number: 5008-6
Sample Designation: M-6
Date analyzed: 7-26-85

VOLATILE ORGANICS	CONCENTRATION (ug/L)	DETECTION LIMIT (ug/L)
CHLOROMETHANE	BDL	24
VINYL CHLORIDE	BDL	24
CHLOROETHANE	BDL	12
BROMOMETHANE	BDL	24
METHYLENE CHLORIDE	BDL	12
TRICHLOROFLUOROMETHANE	BDL	12
1,1-DICHLOROETHYLENE	BDL	12
1,1-DICHLOROETHANE	BDL	12
1,2-trans-DICHLOROETHYLENE	15	12
CHLOROFORM	BDL	12
1,2-DICHLOROETHANE	BDL	12
1,1,1-TRICHLOROETHANE	BDL	12
CARBON TETRACHLORIDE	BDL	12
BROMODICHLOROMETHANE	BDL	12
1,2-DICHLOROPROPANE	BDL	12
1,3-trans-DICHLOROPROPENE	BDL	12
TRICHLOROETHYLENE	30	12
BENZENE	BDL	12
1,3-cis-DICHLOROPROPENE	BDL	12
1,1,2-TRICHLOROETHANE	BDL	12
2-CHLOROETHYL VINYL ETHER	BDL	12
DIBROMOCHLOROMETHANE	BDL	12
BROMOFORM	BDL	12
TETRACHLOROETHYLENE	950	12
1,1,2,2-TETRACHLOROETHANE	BDL	12
TOLUENE	BDL	12
CHLOROBENZENE	BDL	12
ETHYLBENZENE	BDL	12
ACETONE	BDL	60
CARBON DISULFIDE	BDL	12
THF	BDL	60
MEK	BDL	60
MIBK	BDL	60
STYRENE	BDL	12
XYLENES	BDL	12

BDL = BELOW DETECTION LIMIT
METHOD REFERENCE: EPA 600/4-79-020 METHOD 624

Lab Number: 5008-7
Sample Designation: M-7
Date analyzed: 7-26-85

VOLATILE ORGANICS	CONCENTRATION (ug/L)	DETECTION LIMIT (ug/L)
CHLOROMETHANE	BDL	10
VINYL CHLORIDE	BDL	10
CHLOROETHANE	BDL	5
BROMOMETHANE	BDL	10
METHYLENE CHLORIDE	BDL	5
TRICHLOROFLUOROMETHANE	BDL	5
1,1-DICHLOROETHYLENE	BDL	5
1,1-DICHLOROETHANE	BDL	5
1,2-trans-DICHLOROETHYLENE	BDL	5
CHLOROFORM	BDL	5
1,2-DICHLOROETHANE	BDL	5
1,1,1-TRICHLOROETHANE	BDL	5
CARBON TETRACHLORIDE	BDL	5
BROMODICHLOROMETHANE	BDL	5
1,2-DICHLOROPROPANE	BDL	5
1,3-trans-DICHLOROPROPENE	BDL	5
TRICHLOROETHYLENE	BDL	5
BENZENE	BDL	5
1,3-cis-DICHLOROPROPENE	BDL	5
1,1,2-TRICHLOROETHANE	BDL	5
2-CHLOROETHYL VINYL ETHER	BDL	5
DIBROMOCHLOROMETHANE	BDL	5
BROMOFORM	BDL	5
TETRACHLOROETHYLENE	BDL	5
1,1,2,2-TETRACHLOROETHANE	BDL	5
TOLUENE	BDL	5
CHLOROBENZENE	BDL	5
ETHYLBENZENE	BDL	5
ACETONE	BDL	25
CARBON DISULFIDE	BDL	5
THF	BDL	25
MEK	BDL	25
MIBK	BDL	25
STYRENE	BDL	5
XYLENES	BDL	5

BDL = BELOW DETECTION LIMIT
METHOD REFERENCE: EPA 600/4-79-020 METHOD 624

Lab Number: 5008-8
Sample Designation: M-8
Date analyzed: 7-26-85

VOLATILE ORGANICS	CONCENTRATION (ug/L)	DETECTION LIMIT (ug/L)
CHLOROMETHANE	BDL	14
VINYL CHLORIDE	260	14
CHLOROETHANE	BDL	7
BROMOMETHANE	BDL	14
METHYLENE CHLORIDE	BDL	7
TRICHLOROFLUOROMETHANE	BDL	7
1,1-DICHLOROETHYLENE	BDL	7
1,1-DICHLOROETHANE	Trace	7
1,2-trans-DICHLOROETHYLENE	610	7
CHLOROFORM	BDL	7
1,2-DICHLOROETHANE	BDL	7
1,1,1-TRICHLOROETHANE	BDL	7
CARBON TETRACHLORIDE	BDL	7
BROMODICHLOROMETHANE	BDL	7
1,2-DICHLOROPROPANE	BDL	7
1,3-trans-DICHLOROPROPENE	BDL	7
TRICHLOROETHYLENE	30	7
BENZENE	BDL	7
1,3-cis-DICHLOROPROPENE	BDL	7
1,1,2-TRICHLOROETHANE	BDL	7
2-CHLOROETHYL VINYL ETHER	BDL	7
DIBROMOCHLOROMETHANE	BDL	7
BROMOFORM	BDL	7
TETRACHLOROETHYLENE	Trace	7
1,1,2,2-TETRACHLOROETHANE	BDL	7
TOLUENE	BDL	7
CHLOROBENZENE	BDL	7
ETHYLBENZENE	BDL	7
ACETONE	BDL	35
CARBON DISULFIDE	BDL	7
THF	BDL	35
MEK	BDL	35
MIBK	BDL	35
STYRENE	BDL	7
XYLENES	BDL	7

"Trace" denotes probable presence below listed detection limit.

BDL = BELOW DETECTION LIMIT
METHOD REFERENCE: EPA 600/4-79-020 METHOD 624

Lab Number: 5008-30
Sample Designation: Trip Blank
Date analyzed: 7-26-85

VOLATILE ORGANICS	CONCENTRATION (ug/L)	DETECTION LIMIT (ug/L)
CHLOROMETHANE	BDL	10
VINYL CHLORIDE	BDL	10
CHLOROETHANE	BDL	5
BROMOMETHANE	BDL	10
METHYLENE CHLORIDE	BDL	5
TRICHLOROFLUOROMETHANE	BDL	5
1,1-DICHLOROETHYLENE	BDL	5
1,1-DICHLOROETHANE	BDL	5
1,2-trans-DICHLOROETHYLENE	BDL	5
CHLOROFORM	BDL	5
1,2-DICHLOROETHANE	BDL	5
1,1,1-TRICHLOROETHANE	BDL	5
CARBON TETRACHLORIDE	BDL	5
BROMODICHLOROMETHANE	BDL	5
1,2-DICHLOROPROPANE	BDL	5
1,3-trans-DICHLOROPROPENE	BDL	5
TRICHLOROETHYLENE	BDL	5
BENZENE	BDL	5
1,3-cis-DICHLOROPROPENE	BDL	5
1,1,2-TRICHLOROETHANE	BDL	5
2-CHLOROETHYL VINYL ETHER	BDL	5
DIBROMOCHLOROMETHANE	BDL	5
BROMOFORM	BDL	5
TETRACHLOROETHYLENE	BDL	5
1,1,2,2-TETRACHLOROETHANE	BDL	5
TOLUENE	BDL	5
CHLOROBENZENE	BDL	5
ETHYLBENZENE	BDL	5
ACETONE	BDL	25
CARBON DISULFIDE	BDL	5
THF	BDL	25
MEK	BDL	25
MIBK	BDL	25
STYRENE	BDL	5
XYLENES	BDL	5

BDL = BELOW DETECTION LIMIT
METHOD REFERENCE: EPA 600/4-79-020 METHOD 624

ENVIRONMENTAL FIELD SERVICES, INC.
Box 4778
Hampton, N.H. 03842
(603) 926-8142

LOCATION: ATF DAVIDSON, WHITINSVILLE, MA

ENGINEERS: Caswell, Eichler and Hill, Inc.

SAMPLING DATE: 11/13/85

WELL NUMBER	TOTAL DEPTH	DIAMETER	TIME	STATIC LEVEL TO STEEL CASING	COND/TEMP umhos/cm	°C	pH
M-1	14'	1.5"	1455	7.17'	300	15	5.25
M-2	12'	1.5"	1520	7.74'	242	16	8.15
M-3	10'	1.5"	1710	6.48'	208	15	7.40
M-4	10'	1.5"	1650	7.35'	120	16	6.60
M-5	10'	1.5"	1540	7.02'	358	18	6.30
M-6	10'	1.5"	1620	7.08'	230	15	6.36
M-7	9.5'	1.5"	1606	6.24'	229	15	9.55
M-8	9.8'	1.5"	1640	6.71'	170	15	9.13

Total depths come from the well plans.

RAI

Resource Analysts, Incorporated
Box 4778 Hampton, NH 03842
(603) 926-7777

TO:

Mr. Matt Eichler
Caswell, Eichler, and Hill
P.O. Box 4696
Portsmouth, NH 03801

PO # ATF/Davidson

Date Received: 11-14-85 (1030)

Lab Number: 5665

Date Reported: 11-29-85

Please find attached results for Volatile Organic Compounds, Arsenic, Barium, and Zinc.

Russell [signature]

Technical Director

Date 11·29·85

CHAIN OF CUSTODY DOCUMENTATION

CLIENT

ADDRESS

JOB NAME/NUMBER

PROJECT CONTACT

SAMPLING LOCATION

SAMPLE COLLECTOR

FIELD IDENTIFICATION List each container separately	LAB #	SAMPLE MATRIX	CONTAINER TYPE/VOLUME	FILTRATION	FIELD PRESERVATION	REMARKS/ANALYSIS REQUESTED
Date M-1 Time		Solid / Liquid / Other	P/ mL / G/ mL / G/T/ mL	field / lab / none		15
Date M-2 Time		Solid / Liquid / Other	P/ mL / G/ mL / G/T/ mL	field / lab / none		
Date M-3 Time		Solid / Liquid / Other	P/ mL / G/ mL / G/T/ mL	field / lab / none		7.45
Date Time		Solid / Liquid / Other	P/ mL / G/ mL / G/T/ mL	field / lab / none		
Date Time		Solid / Liquid / Other	P/ mL / G/ mL / G/T/ mL	field / lab / none		
Date Time		Solid / Liquid / Other	P/ mL / G/ mL / G/T/ mL	field / lab / none		
Date Time		Solid / Liquid / Other	P/ mL / G/ mL / G/T/ mL	field / lab / none		
Date Time		Solid / Liquid / Other	P/ mL / G/ mL / G/T/ mL	field / lab / none		

Relinquished By:	Date	Time	Received By:	Date	Time
Relinquished By:	**Date**	**Time**	**Received For Laboratory By:**	**Date**	**Time**
			Maria Clarke	11/14	10

Resource Analysts, Incorporated

Resource Analysts, Incorporated

CHAIN OF CUSTODY DOCUMENTATION

CLIENT: CEI

ADDRESS:

JOB NAME/NUMBER:

PROJECT CONTACT: [illegible]

SAMPLING LOCATION: [illegible]

SAMPLE COLLECTOR: [illegible]

FIELD IDENTIFICATION List each container separately	LAB #	SAMPLE MATRIX	CONTAINER TYPE/VOLUME	FILTRATION	FIELD PRESERVATION	REMARKS/ANALYSIS REQUESTED
Date 11/5/[illegible] M-1 Time 1455		○ Solid ● Liquid ○ Other	● P/ [illegible] mL ○ G/ mL ○ G/T/ mL	● field ○ lab ○ none	HNO3 [illegible]	[illegible]
Date M-2 Time 1520		○ Solid ○ Liquid ○ Other	○ P/ mL ○ G/ mL ○ G/T/ mL	○ field ○ lab ○ none		
Date M-3 Time 1710		○ Solid ○ Liquid ○ Other	○ P/ mL ○ G/ mL ○ G/T/ mL	○ field ○ lab ○ none		
Date M-4 Time 1650		○ Solid ○ Liquid ○ Other	○ P/ mL ○ G/ mL ○ G/T/ mL	○ field ○ lab ○ none		
Date M-5 Time 154[illegible]		○ Solid ○ Liquid ○ Other	○ P/ mL ○ G/ mL ○ G/T/ mL	○ field ○ lab ○ none		
Date M- Time [illegible]		○ Solid ○ Liquid ○ Other	○ P/ mL ○ G/ mL ○ G/T/ mL	○ field ○ lab ○ none		
Date Time [illegible]		○ Solid ○ Liquid ○ Other	○ P/ mL ○ G/ mL ○ G/T/ mL	○ field ○ lab ○ none		
Date Time [illegible]		○ Solid ○ Liquid ○ Other	○ P/ mL ○ G/ mL ○ G/T/ mL	○ field ○ lab ○ none		

Relinquished By:	Date	Time	Received By:	Date	Time
[illegible]	[illegible]	[illegible]			
Relinquished By:	Date	Time	Received For Laboratory By: Laurie Clarke	Date 11/14	Time 103[illegible]

Resource Analysts, Incorporated

Resource Analysts, Incorporated

page [illegible] of ____

CHAIN OF CUSTODY DOCUMENTATION

CLIENT [illegible]

ADDRESS

JOB NAME/NUMBER

PROJECT CONTACT [illegible]

SAMPLING LOCATION [illegible]

SAMPLE COLLECTOR [illegible]

FIELD IDENTIFICATION List each container separately	LAB #	SAMPLE MATRIX	CONTAINER TYPE/VOLUME	FILTRATION	FIELD PRESERVATION	REMARKS/ANALYSIS REQUESTED
11/13/[illegible] Date M-1 Time 1455		○ Solid ● Liquid ○ Other	○ P/ mL ○ G/ mL ● G/T/ 40 mL	○ field ○ lab ● none	[illegible]	[illegible]
Date M-2 Time 1520		○ Solid ○ Liquid ○ Other	○ P/ mL ○ G/ mL ○ G/T/ mL	○ field ○ lab ○ none		
Date M-3 Time 1710		○ Solid ○ Liquid ○ Other	○ P/ mL ○ G/ mL ○ G/T/ mL	○ field ○ lab ○ none		
Date M-4 Time 1650		○ Solid ○ Liquid ○ Other	○ P/ mL ○ G/ mL ○ G/T/ mL	○ field ○ lab ○ none		
Date M-5 Time [illegible]		○ Solid ○ Liquid ○ Other	○ P/ mL ○ G/ mL ○ G/T/ mL	○ field ○ lab ○ none		
Date M-6 Time [illegible]		○ Solid ○ Liquid ○ Other	○ P/ mL ○ G/ mL ○ G/T/ mL	○ field ○ lab ○ none		
Date M-7 Time [illegible]		○ Solid ○ Liquid ○ Other	○ P/ mL ○ G/ mL ○ G/T/ mL	○ field ○ lab ○ none		
Date M-8 Time [illegible]		○ Solid ○ Liquid ○ Other	○ P/ mL ○ G/ mL ○ G/T/ mL	○ field ○ lab ○ none		

Relinquished By:	Date	Time	Received By:	Date	Time
[illegible]	[illegible]				
Relinquished By:	**Date**	**Time**	**Received For Laboratory By:**	**Date**	**Time**
			Laura Clarke	11/14	10[illegible]

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eld Identification: M-1 Matrix: Water
aboratory Number: 5665-9

Parameter	Date analyzed	Method	Ref.	Concentration
Arsenic, dissolved (mg/L)	11-15-85	303A	1	<0.01
Barium, dissolved (mg/L)	11-15-85	303C	1	<0.2
Zinc, dissolved (mg/L)	11-20-85	303A	1	<0.005

eld Identification: M-2 Matrix: Water
aboratory Number: 5665-10

Parameter	Date analyzed	Method	Ref.	Concentration
Arsenic, dissolved (mg/L)	11-15-85	303A	1	<0.01
Barium, dissolved (mg/L)	11-15-85	303C	1	<0.2
Zinc, dissolved (mg/L)	11-20-85	303A	1	<0.005

eld Identification: M-3 Matrix: Water
aboratory Number: 5665-11

Parameter	Date analyzed	Method	Ref.	Concentration
Arsenic, dissolved (mg/L)	11-15-85	303A	1	<0.01
Barium, dissolved (mg/L)	11-15-85	303C	1	<0.2
Zinc, dissolved (mg/L)	11-20-85	303A	1	0.005

Field Identification: M-4 Matrix: Water
aboratory Number: 5665-12

Parameter	Date analyzed	Method	Ref.	Concentration
Arsenic, dissolved (mg/L)	11-15-85	303A	1	<0.01
Barium, dissolved (mg/L)	11-15-85	303C	1	0.72
Zinc, dissolved (mg/L)	11-20-85	303A	1	<0.005

Reference 1: Standard Methods, 16th Edition

ld Identification: M-5 Matrix: Water
aboratory Number: 5665-13

arameter	Date analyzed	Method	Ref.	Concentration
Arsenic, dissolved (mg/L)	11-15-85	303A	1	<0.01
arium, dissolved (mg/L)	11-15-85	303C	1	3.1
inc, dissolved (mg/L)	11-20-85	303A	1	0.011

ld Identification: M-6 Matrix: Water
oratory Number: 5665-14

arameter	Date analyzed	Method	Ref.	Concentration
Arsenic, dissolved (mg/L)	11-15-85	303A	1	<0.01
arium, dissolved (mg/L)	11-15-85	303C	1	0.73
inc, dissolved (mg/L)	11-20-85	303A	1	<0.005

eld Identification: M-7 Matrix: Water
oratory Number: 5665-15

Parameter	Date analyzed	Method	Ref.	Concentration
Arsenic, dissolved (mg/L)	11-15-85	303A	1	<0.01
Barium, dissolved (mg/L)	11-15-85	303C	1	<0.2
Zinc, dissolved (mg/L)	11-20-85	303A	1	<0.005

ield Identification: M-8 Matrix: Water
boratory Number: 5665-16

Parameter	Date analyzed	Method	Ref.m	Concentration
Arsenic, dissolved (mg/L)	11-15-85	303A	1	<0.01
Barium, dissolved (mg/L)	11-15-85	303C	1	1.4
Zinc, dissolved (mg/L)	11-20-85	303A	1	<0.005

Reference 1: Standard Methods, 16th Edition

Lab Number: 5665-1
Sample Designation: M-1
Date analyzed: 11-16-85

VOLATILE ORGANICS	CONCENTRATION (ug/L)	DETECTION LIMIT (ug/L)
CHLOROMETHANE	BDL	10
VINYL CHLORIDE	BDL	10
CHLOROETHANE	BDL	5
BROMOMETHANE	BDL	10
METHYLENE CHLORIDE	BDL	5
TRICHLOROFLUOROMETHANE	BDL	5
1,1-DICHLOROETHYLENE	BDL	5
1,1-DICHLOROETHANE	BDL	5
1,2-trans-DICHLOROETHYLENE	BDL	5
CHLOROFORM	BDL	5
1,2-DICHLOROETHANE	BDL	5
1,1,1-TRICHLOROETHANE	BDL	5
CARBON TETRACHLORIDE	BDL	5
BROMODICHLOROMETHANE	BDL	5
1,2-DICHLOROPROPANE	BDL	5
1,3-trans-DICHLOROPROPENE	BDL	5
TRICHLOROETHYLENE	BDL	5
BENZENE	BDL	5
1,3-cis-DICHLOROPROPENE	BDL	5
1,1,2-TRICHLOROETHANE	BDL	5
2-CHLOROETHYL VINYL ETHER	BDL	5
DIBROMOCHLOROMETHANE	BDL	5
BROMOFORM	BDL	5
TETRACHLOROETHYLENE	BDL	5
1,1,2,2-TETRACHLOROETHANE	BDL	5
TOLUENE	BDL	5
CHLOROBENZENE	BDL	5
ETHYLBENZENE	BDL	5
ACETONE	BDL	25
CARBON DISULFIDE	BDL	5
THF	BDL	25
MEK	BDL	25
MIBK	BDL	25
STYRENE	BDL	5
XYLENES	BDL	5

BDL = BELOW DETECTION LIMIT
METHOD REFERENCE: EPA 600/4-82-057 METHOD 624

Lab Number: 5665-2
Sample Designation: M-2
Date analyzed: 11-16-85

VOLATILE ORGANICS	CONCENTRATION (ug/L)	DETECTION LIMIT (ug/L)
CHLOROMETHANE	BDL	10
VINYL CHLORIDE	BDL	10
CHLOROETHANE	BDL	5
BROMOMETHANE	BDL	10
METHYLENE CHLORIDE	BDL	5
TRICHLOROFLUOROMETHANE	BDL	5
1,1-DICHLOROETHYLENE	BDL	5
1,1-DICHLOROETHANE	BDL	5
1,2-trans-DICHLOROETHYLENE	BDL	5
CHLOROFORM	BDL	5
1,2-DICHLOROETHANE	BDL	5
1,1,1-TRICHLOROETHANE	BDL	5
CARBON TETRACHLORIDE	BDL	5
BROMODICHLOROMETHANE	BDL	5
1,2-DICHLOROPROPANE	BDL	5
1,3-trans-DICHLOROPROPENE	BDL	5
TRICHLOROETHYLENE	BDL	5
BENZENE	BDL	5
1,3-cis-DICHLOROPROPENE	BDL	5
1,1,2-TRICHLOROETHANE	BDL	5
2-CHLOROETHYL VINYL ETHER	BDL	5
DIBROMOCHLOROMETHANE	BDL	5
BROMOFORM	BDL	5
TETRACHLOROETHYLENE	BDL	5
1,1,2,2-TETRACHLOROETHANE	BDL	5
TOLUENE	BDL	5
CHLOROBENZENE	BDL	5
ETHYLBENZENE	BDL	5
ACETONE	BDL	25
CARBON DISULFIDE	BDL	5
THF	BDL	25
MEK	BDL	25
MIBK	BDL	25
STYRENE	BDL	5
XYLENES	BDL	5

BDL = BELOW DETECTION LIMIT
METHOD REFERENCE: EPA 600/4-82-057 METHOD 624

Resource Analysts, Incorporated

Lab Number: 5665-2 (Laboratory Duplicate)
Sample Designation: M-2
Date analyzed: 11-16-85

VOLATILE ORGANICS	CONCENTRATION (ug/L)	DETECTION LIMIT (ug/L)
CHLOROMETHANE	BDL	10
VINYL CHLORIDE	BDL	10
CHLOROETHANE	BDL	5
BROMOMETHANE	BDL	10
METHYLENE CHLORIDE	BDL	5
TRICHLOROFLUOROMETHANE	BDL	5
1,1-DICHLOROETHYLENE	BDL	5
1,1-DICHLOROETHANE	BDL	5
1,2-trans-DICHLOROETHYLENE	BDL	5
CHLOROFORM	BDL	5
1,2-DICHLOROETHANE	BDL	5
1,1,1-TRICHLOROETHANE	BDL	5
CARBON TETRACHLORIDE	BDL	5
BROMODICHLOROMETHANE	BDL	5
1,2-DICHLOROPROPANE	BDL	5
1,3-trans-DICHLOROPROPENE	BDL	5
TRICHLOROETHYLENE	BDL	5
BENZENE	BDL	5
1,3-cis-DICHLOROPROPENE	BDL	5
1,1,2-TRICHLOROETHANE	BDL	5
2-CHLOROETHYL VINYL ETHER	BDL	5
DIBROMOCHLOROMETHANE	BDL	5
BROMOFORM	BDL	5
TETRACHLOROETHYLENE	BDL	5
1,1,2,2-TETRACHLOROETHANE	BDL	5
TOLUENE	BDL	5
CHLOROBENZENE	BDL	5
ETHYLBENZENE	BDL	5
ACETONE	BDL	25
CARBON DISULFIDE	BDL	5
THF	BDL	25
MEK	BDL	25
MIBK	BDL	25
STYRENE	BDL	5
XYLENES	BDL	5

BDL = BELOW DETECTION LIMIT
METHOD REFERENCE: EPA 600/4-82-057 METHOD 624

Lab Number: 5665-3
Sample Designation: M-3
Date analyzed: 11-16-85

VOLATILE ORGANICS	CONCENTRATION (ug/L)	DETECTION LIMIT (ug/L)
CHLOROMETHANE	BDL	10
VINYL CHLORIDE	80	10
CHLOROETHANE	BDL	5
BROMOMETHANE	BDL	10
METHYLENE CHLORIDE	BDL	5
TRICHLOROFLUOROMETHANE	BDL	5
1,1-DICHLOROETHYLENE	BDL	5
1,1-DICHLOROETHANE	BDL	5
1,2-trans-DICHLOROETHYLENE	20	5
CHLOROFORM	BDL	5
1,2-DICHLOROETHANE	BDL	5
1,1,1-TRICHLOROETHANE	BDL	5
CARBON TETRACHLORIDE	BDL	5
BROMODICHLOROMETHANE	BDL	5
1,2-DICHLOROPROPANE	BDL	5
1,3-trans-DICHLOROPROPENE	BDL	5
TRICHLOROETHYLENE	BDL	5
BENZENE	BDL	5
1,3-cis-DICHLOROPROPENE	BDL	5
1,1,2-TRICHLOROETHANE	BDL	5
2-CHLOROETHYL VINYL ETHER	BDL	5
DIBROMOCHLOROMETHANE	BDL	5
BROMOFORM	BDL	5
TETRACHLOROETHYLENE	BDL	5
1,1,2,2-TETRACHLOROETHANE	BDL	5
TOLUENE	BDL	5
CHLOROBENZENE	BDL	5
ETHYLBENZENE	BDL	5
ACETONE	BDL	25
CARBON DISULFIDE	BDL	5
THF	BDL	25
MEK	BDL	25
MIBK	BDL	25
STYRENE	BDL	5
XYLENES	BDL	5

BDL = BELOW DETECTION LIMIT
METHOD REFERENCE: EPA 600/4-82-057 METHOD 624

Lab Number: 5665-4
Sample Designation: M-4
Date analyzed: 11-16-85

VOLATILE ORGANICS	CONCENTRATION (ug/L)	DETECTION LIMIT (ug/L)
CHLOROMETHANE	BDL	10
VINYL CHLORIDE	BDL	10
CHLOROETHANE	Trace	5
BROMOMETHANE	BDL	10
METHYLENE CHLORIDE	BDL	5
TRICHLOROFLUOROMETHANE	BDL	5
1,1-DICHLOROETHYLENE	BDL	5
1,1-DICHLOROETHANE	Trace	5
1,2-trans-DICHLOROETHYLENE	BDL	5
CHLOROFORM	BDL	5
1,2-DICHLOROETHANE	BDL	5
1,1,1-TRICHLOROETHANE	BDL	5
CARBON TETRACHLORIDE	BDL	5
BROMODICHLOROMETHANE	BDL	5
1,2-DICHLOROPROPANE	BDL	5
1,3-trans-DICHLOROPROPENE	BDL	5
TRICHLOROETHYLENE	BDL	5
BENZENE	BDL	5
1,3-cis-DICHLOROPROPENE	BDL	5
1,1,2-TRICHLOROETHANE	BDL	5
2-CHLOROETHYL VINYL ETHER	BDL	5
DIBROMOCHLOROMETHANE	BDL	5
BROMOFORM	BDL	5
TETRACHLOROETHYLENE	BDL	5
1,1,2,2-TETRACHLOROETHANE	BDL	5
TOLUENE	BDL	5
CHLOROBENZENE	BDL	5
ETHYLBENZENE	BDL	5
ACETONE	BDL	25
CARBON DISULFIDE	BDL	5
THF	BDL	25
MEK	BDL	25
MIBK	BDL	25
STYRENE	BDL	5
XYLENES	BDL	5

"Trace" denotes probable presence below listed detection limit.

BDL = BELOW DETECTION LIMIT
METHOD REFERENCE: EPA 600/4-82-057 METHOD 624

Lab Number: 5665-5
Sample Designation: M-5
Date analyzed: 11-16-85

VOLATILE ORGANICS	CONCENTRATION (ug/L)	DETECTION LIMIT (ug/L)
CHLOROMETHANE	BDL	10
VINYL CHLORIDE	BDL	10
CHLOROETHANE	BDL	5
BROMOMETHANE	BDL	10
METHYLENE CHLORIDE	BDL	5
TRICHLOROFLUOROMETHANE	BDL	5
1,1-DICHLOROETHYLENE	BDL	5
1,1-DICHLOROETHANE	BDL	5
1,2-trans-DICHLOROETHYLENE	BDL	5
CHLOROFORM	BDL	5
1,2-DICHLOROETHANE	BDL	5
1,1,1-TRICHLOROETHANE	BDL	5
CARBON TETRACHLORIDE	BDL	5
BROMODICHLOROMETHANE	BDL	5
1,2-DICHLOROPROPANE	BDL	5
1,3-trans-DICHLOROPROPENE	BDL	5
TRICHLOROETHYLENE	BDL	5
BENZENE	BDL	5
1,3-cis-DICHLOROPROPENE	BDL	5
1,1,2-TRICHLOROETHANE	BDL	5
2-CHLOROETHYL VINYL ETHER	BDL	5
DIBROMOCHLOROMETHANE	BDL	5
BROMOFORM	BDL	5
TETRACHLOROETHYLENE	BDL	5
1,1,2,2-TETRACHLOROETHANE	BDL	5
TOLUENE	BDL	5
CHLOROBENZENE	BDL	5
ETHYLBENZENE	BDL	5
ACETONE	BDL	25
CARBON DISULFIDE	BDL	5
THF	BDL	25
MEK	BDL	25
MIBK	BDL	25
STYRENE	BDL	5
XYLENES	BDL	5

BDL = BELOW DETECTION LIMIT
METHOD REFERENCE: EPA 600/4-82-057 METHOD 624

Lab Number: 5665-6
Sample Designation: M-6
Date analyzed: 11-19-85

VOLATILE ORGANICS	CONCENTRATION (ug/L)	DETECTION LIMIT (ug/L)
CHLOROMETHANE	BDL	10
VINYL CHLORIDE	180	10
CHLOROETHANE	BDL	5
BROMOMETHANE	BDL	10
METHYLENE CHLORIDE	BDL	5
TRICHLOROFLUOROMETHANE	BDL	5
1,1-DICHLOROETHYLENE	BDL	5
1,1-DICHLOROETHANE	BDL	5
1,2-trans-DICHLOROETHYLENE	330	5
CHLOROFORM	BDL	5
1,2-DICHLOROETHANE	BDL	5
1,1,1-TRICHLOROETHANE	BDL	5
CARBON TETRACHLORIDE	BDL	5
BROMODICHLOROMETHANE	BDL	5
1,2-DICHLOROPROPANE	BDL	5
1,3-trans-DICHLOROPROPENE	BDL	5
TRICHLOROETHYLENE	13	5
BENZENE	BDL	5
1,3-cis-DICHLOROPROPENE	BDL	5
1,1,2-TRICHLOROETHANE	BDL	5
2-CHLOROETHYL VINYL ETHER	BDL	5
DIBROMOCHLOROMETHANE	BDL	5
BROMOFORM	BDL	5
TETRACHLOROETHYLENE	27	5
1,1,2,2-TETRACHLOROETHANE	BDL	5
TOLUENE	BDL	5
CHLOROBENZENE	BDL	5
ETHYLBENZENE	BDL	5
ACETONE	BDL	25
CARBON DISULFIDE	BDL	5
THF	BDL	25
MEK	BDL	25
MIBK	BDL	25
STYRENE	BDL	5
XYLENES	BDL	5

BDL = BELOW DETECTION LIMIT
METHOD REFERENCE: EPA 600/4-82-057 METHOD 624

Lab Number: 5665-7
Sample Designation: M-7
Date analyzed: 11-19-85

VOLATILE ORGANICS	CONCENTRATION (ug/L)	DETECTION LIMIT (ug/L)
CHLOROMETHANE	BDL	10
VINYL CHLORIDE	BDL	10
CHLOROETHANE	BDL	5
BROMOMETHANE	BDL	10
METHYLENE CHLORIDE	BDL	5
TRICHLOROFLUOROMETHANE	BDL	5
1,1-DICHLOROETHYLENE	9	5
1,1-DICHLOROETHANE	BDL	5
1,2-trans-DICHLOROETHYLENE	BDL	5
CHLOROFORM	BDL	5
1,2-DICHLOROETHANE	BDL	5
1,1,1-TRICHLOROETHANE	BDL	5
CARBON TETRACHLORIDE	BDL	5
BROMODICHLOROMETHANE	BDL	5
1,2-DICHLOROPROPANE	BDL	5
1,3-trans-DICHLOROPROPENE	BDL	5
TRICHLOROETHYLENE	Trace	5
BENZENE	Trace	5
1,3-cis-DICHLOROPROPENE	BDL	5
1,1,2-TRICHLOROETHANE	BDL	5
2-CHLOROETHYL VINYL ETHER	BDL	5
DIBROMOCHLOROMETHANE	BDL	5
BROMOFORM	BDL	5
TETRACHLOROETHYLENE	BDL	5
1,1,2,2-TETRACHLOROETHANE	BDL	5
TOLUENE	BDL	5
CHLOROBENZENE	BDL	5
ETHYLBENZENE	BDL	5
ACETONE	BDL	25
CARBON DISULFIDE	BDL	5
THF	BDL	25
MEK	BDL	25
MIBK	BDL	25
STYRENE	BDL	5
XYLENES	BDL	5

"Trace" denotes probable presence below listed detection limit.

BDL = BELOW DETECTION LIMIT
METHOD REFERENCE: EPA 600/4-82-057 METHOD 624

Lab Number: 5665-8
Sample Designation: M-8
Date analyzed: 11-19-85

VOLATILE ORGANICS	CONCENTRATION (ug/L)	DETECTION LIMIT (ug/L)
CHLOROMETHANE	BDL	50
VINYL CHLORIDE	380	50
CHLOROETHANE	BDL	25
BROMOMETHANE	BDL	50
METHYLENE CHLORIDE	BDL	25
TRICHLOROFLUOROMETHANE	BDL	25
1,1-DICHLOROETHYLENE	BDL	25
1,1-DICHLOROETHANE	BDL	25
1,2-trans-DICHLOROETHYLENE	1100	25
CHLOROFORM	BDL	25
1,2-DICHLOROETHANE	BDL	25
1,1,1-TRICHLOROETHANE	BDL	25
CARBON TETRACHLORIDE	BDL	25
BROMODICHLOROMETHANE	BDL	25
1,2-DICHLOROPROPANE	BDL	25
1,3-trans-DICHLOROPROPENE	BDL	25
TRICHLOROETHYLENE	Trace	25
BENZENE	BDL	25
1,3-cis-DICHLOROPROPENE	BDL	25
1,1,2-TRICHLOROETHANE	BDL	25
2-CHLOROETHYL VINYL ETHER	BDL	25
DIBROMOCHLOROMETHANE	BDL	25
BROMOFORM	BDL	25
TETRACHLOROETHYLENE	BDL	25
1,1,2,2-TETRACHLOROETHANE	BDL	25
TOLUENE	BDL	25
CHLOROBENZENE	BDL	25
ETHYLBENZENE	BDL	25
ACETONE	BDL	120
CARBON DISULFIDE	BDL	25
THF	BDL	120
MEK	BDL	120
MIBK	BDL	120
STYRENE	BDL	25
XYLENES	BDL	25

"Trace" denotes probable presence below listed detection limit.

BDL = BELOW DETECTION LIMIT
METHOD REFERENCE: EPA 600/4-82-057 METHOD 624

ENVIRONMENTAL FIELD SERVICES INC.
Box 4776
Hampton, N.H. 03842
(603) 926-8142

LOCATION: ATF Davidson, Whitinsville, MA

ENGINEERS: Caswell, Eichler and Hill

SAMPLING DATE: 2/10/86

WELL NUMBER	TOTAL DEPTH	DIAMETER	TIME	STATIC LEVEL TO STEEL CASING	COND/TEMP umhos/cm	°C	pH
M-1	14'	1.5"	1235	8.21'	280	10.0	6.8
M-2	12'	1.5"	1247	8.52'	220	10.1	8.7
M-3	10'	1.5"	1407	6.79'	161	10.2	7.0
M-4	10'	1.5"	1315	7.81'	104	10.3	7.0
M-5	10'	1.5"	1348	7.33'	290	10.1	6.8
M-6	10'	1.5"	1421	7.62'	218	10.0	6.9
M-7	9.5'	1.5"	1426	6.94'	170	10.2	9.7
M-8	9.8'	1.5"	1458	7.08'	150	10.3	8.1

Total depths come from the well plans.

Resource Analysts, Incorporated
Box 4778 Hampton, NH 03842
(603) 926-7777

TO:

Mr. Matthew Eichler
Caswell, Eichler and Hill
PO Box 4696
Portsmouth, NH 03801

PO # ATF Davidson

Date Received: 2-11-86 (9:35)

Lab Number: 6205

Date Reported: 2-26-86

Please find attached results for Volatile Organic Compounds and Barium.

Russell [illegible] Date 2-26-86

Technical Director

CHAIN OF CUSTODY DOCUMENTATION

CLIENT: CEH

ADDRESS: PO Box 4696
Portsmouth, NH 03801

JOB NAME/NUMBER:

PROJECT CONTACT: Matt Eichler

SAMPLING LOCATION: ATF Davidson, Whitinsville, MA

SAMPLE COLLECTOR: [illegible] R. McCampbell

FIELD IDENTIFICATION (list each container separately)	LAB #	SAMPLE MATRIX	CONTAINER TYPE/VOLUME	FILTRATION	FIELD PRESERVATION	REMARKS/ANALYSIS REQUESTED
2/10/86 Date; M-1 Time 1235		○ Solid ● Liquid ○ Other	○ P/ mL ○ G/ mL ● G/T/40 mL	○ field ○ lab ● none	Cool	VOA - EPA 624
Date; M-2 Time 1247		○ Solid ○ Liquid ○ Other	○ P/ mL ○ G/ mL ○ G/T/ mL	○ field ○ lab ○ none		
Date; M-3 Time 1515		○ Solid ○ Liquid ○ Other	○ P/ mL ○ G/ mL ○ G/T/ mL	○ field ○ lab ○ none		
Date; M-4 Time 1315		○ Solid ○ Liquid ○ Other	○ P/ mL ○ G/ mL ○ G/T/ mL	○ field ○ lab ○ none		
Date; M-5 Time 1348		○ Solid ○ Liquid ○ Other	○ P/ mL ○ G/ mL ○ G/T/ mL	○ field ○ lab ○ none		
Date; M-6 Time 1421		○ Solid ○ Liquid ○ Other	○ P/ mL ○ G/ mL ○ G/T/ mL	○ field ○ lab ○ none		
Date; M-7 Time 1426		○ Solid ○ Liquid ○ Other	○ P/ mL ○ G/ mL ○ G/T/ mL	○ field ○ lab ○ none		
Date; M-8 Time 1458		○ Solid ○ Liquid ○ Other	○ P/ mL ○ G/ mL ○ G/T/ mL	○ field ○ lab ○ none		

Relinquished By:	Date	Time	Received By:	Date	Time
[signature]	2/11	0935			
Relinquished By:	**Date**	**Time**	**Received for Laboratory By:**	**Date**	**Time**
			David M. [illegible]	2/11/86	09[illegible]

Resource Analysts, Incorporated

CHAIN OF CUSTODY DOCUMENTATION

CLIENT: CEH

ADDRESS:

JOB NAME/NUMBER:

PROJECT CONTACT: Matt Eichler

SAMPLING LOCATION: ATF Davidson, Whitinsville, MA

SAMPLE COLLECTOR: M. [illegible], R. McCampbell

FIELD IDENTIFICATION (List each container separately)	LAB #	SAMPLE MATRIX	CONTAINER TYPE/VOLUME	FILTRATION	FIELD PRESERVATION	REMARKS/ANALYSIS REQUESTED
2/10/86 Date M-1 Time 1235		○ Solid ● Liquid ○ Other	● P/ 125 mL ○ G/ mL ○ G/T/ mL	● field ○ lab ○ none	HNO3 + cool	Dissolved Barium
Date M-2 Time 1247		○ Solid ○ Liquid ○ Other	○ P/ mL ○ G/ mL ○ G/T/ mL	○ field ○ lab ○ none		
Date M-3 Time 1515		○ Solid ○ Liquid ○ Other	○ P/ mL ○ G/ mL ○ G/T/ mL	○ field ○ lab ○ none		
Date M-4 Time 1315		○ Solid ○ Liquid ○ Other	○ P/ mL ○ G/ mL ○ G/T/ mL	○ field ○ lab ○ none		
Date M-5 Time 1348		○ Solid ○ Liquid ○ Other	○ P/ mL ○ G/ mL ○ G/T/ mL	○ field ○ lab ○ none		
Date M-6 Time 1421		○ Solid ○ Liquid ○ Other	○ P/ mL ○ G/ mL ○ G/T/ mL	○ field ○ lab ○ none		
Date M-7 Time 1420		○ Solid ○ Liquid ○ Other	○ P/ mL ○ G/ mL ○ G/T/ mL	○ field ○ lab ○ none		
Date M-8 Time 1458		○ Solid ○ Liquid ○ Other	○ P/ mL ○ G/ mL ○ G/T/ mL	○ field ○ lab ○ none		

Relinquished By:	Date	Time	Received By:	Date	Time
[illegible]	2/11	0935			

Relinquished By:	Date	Time	Received for Laboratory By:	Date	Time
			David M. Pease	2/11/86	0935

Resource Analysts, Incorporated

CHAIN OF CUSTODY DOCUMENTATION

CLIENT: CEH

ADDRESS:

JOB NAME/NUMBER:

PROJECT CONTACT: Matt Eichler

SAMPLING LOCATION:

SAMPLE COLLECTOR: [illegible]

FIELD IDENTIFICATION (list each container separately)	LAB #	SAMPLE MATRIX	CONTAINER TYPE/VOLUME	FILTRATION	FIELD PRESERVATION	REMARKS/ANALYSIS REQUESTED
2/10/86 Trip Blank Date Time		○ Solid ● Liquid ○ Other	○ P/ mL ○ G/ mL ● G/1/40 mL	○ field ○ lab ● none	cool	VOA - EPA 624
Date Time		○ Solid ○ Liquid ○ Other	○ P/ mL ○ G/ mL ○ G/1/ mL	○ field ○ lab ○ none		
Date Time		○ Solid ○ Liquid ○ Other	○ P/ mL ○ G/ mL ○ G/1/ mL	○ field ○ lab ○ none		
Date Time		○ Solid ○ Liquid ○ Other	○ P/ mL ○ G/ mL ○ G/1/ mL	○ field ○ lab ○ none		
Date Time		○ Solid ○ Liquid ○ Other	○ P/ mL ○ G/ mL ○ G/1/ mL	○ field ○ lab ○ none		
Date Time		○ Solid ○ Liquid ○ Other	○ P/ mL ○ G/ mL ○ G/1/ mL	○ field ○ lab ○ none		
Date Time		○ Solid ○ Liquid ○ Other	○ P/ mL ○ G/ mL ○ G/1/ mL	○ field ○ lab ○ none		
Date Time		○ Solid ○ Liquid ○ Other	○ P/ mL ○ G/ mL ○ G/1/ mL	○ field ○ lab ○ none		

Relinquished By:	Date	Time	Received By:	Date	Time
[illegible]	2/11	0905			
Relinquished By:	**Date**	**Time**	**Received For Laboratory By:**	**Date**	**Time**
			David M. Pease Resource Analysts, Incorporated	2/11/86	0955

Parameter: Barium, dissolved (mg/L) Matrix: Water
Method: 303C Reference: 1

Laboratory Number	Field Identification	Concentration
6205-10	M-1	<0.3
6205-11	M-2	<0.3
6205-12	M-3	<0.3
6205-13	M-4	<0.3
6205-14	M-5	3.0
6205-15	M-6	1.1
6205-16	M-7	<0.3
6205-17	M-8	1.2

Reference 1: Standard Methods, 16th Edition

Lab Number: 6205-1
Sample Designation: M-1
Date analyzed: 2-13-86

VOLATILE ORGANICS	CONCENTRATION (ug/L)	DETECTION LIMIT (ug/L)
CHLOROMETHANE	BDL	10
VINYL CHLORIDE	BDL	10
CHLOROETHANE	BDL	5
BROMOMETHANE	BDL	10
METHYLENE CHLORIDE	BDL	5
1,1-DICHLOROETHYLENE	BDL	5
1,1-DICHLOROETHANE	BDL	5
1,2-trans-DICHLOROETHYLENE	BDL	5
CHLOROFORM	BDL	5
1,2-DICHLOROETHANE	BDL	5
1,1,1-TRICHLOROETHANE	BDL	5
CARBON TETRACHLORIDE	BDL	5
VINYL ACETATE	BDL	10
BROMODICHLOROMETHANE	BDL	5
1,2-DICHLOROPROPANE	BDL	5
1,3-trans-DICHLOROPROPENE	BDL	5
TRICHLOROETHYLENE	BDL	5
BENZENE	TRACE	5
1,3-cis-DICHLOROPROPENE	BDL	5
1,1,2-TRICHLOROETHANE	BDL	5
2-CHLOROETHYL VINYL ETHER	BDL	5
DIBROMOCHLOROMETHANE	BDL	5
BROMOFORM	BDL	5
TETRACHLOROETHYLENE	BDL	5
1,1,2,2-TETRACHLOROETHANE	BDL	5
TOLUENE	TRACE	5
CHLOROBENZENE	BDL	5
ETHYLBENZENE	BDL	5
ACETONE	BDL	25
CARBON DISULFIDE	BDL	5
THF	BDL	25
MEK	BDL	25
MIBK	BDL	25
2-HEXANONE	BDL	25
STYRENE	BDL	5
XYLENES	BDL	5

"Trace" denotes probable presence below listed detection limit.

BDL = BELOW DETECTION LIMIT
METHOD REFERENCE: EPA 600/4-82-057 METHOD 624

Resource Analysts, Incorporated

Lab Number: 6205-1 (Laboratory Duplicate)
Sample Designation: M-1
Date analyzed: 2-13-86

VOLATILE ORGANICS	CONCENTRATION (ug/L)	DETECTION LIMIT (ug/L)
CHLOROMETHANE	BDL	10
VINYL CHLORIDE	BDL	10
CHLOROETHANE	BDL	5
BROMOMETHANE	BDL	10
METHYLENE CHLORIDE	BDL	5
1,1-DICHLOROETHYLENE	BDL	5
1,1-DICHLOROETHANE	BDL	5
1,2-trans-DICHLOROETHYLENE	BDL	5
CHLOROFORM	BDL	5
1,2-DICHLOROETHANE	BDL	5
1,1,1-TRICHLOROETHANE	BDL	5
CARBON TETRACHLORIDE	BDL	5
VINYL ACETATE	BDL	10
BROMODICHLOROMETHANE	BDL	5
1,2-DICHLOROPROPANE	BDL	5
1,3-trans-DICHLOROPROPENE	BDL	5
TRICHLOROETHYLENE	BDL	5
BENZENE	BDL	5
1,3-cis-DICHLOROPROPENE	BDL	5
1,1,2-TRICHLOROETHANE	BDL	5
2-CHLOROETHYL VINYL ETHER	BDL	5
DIBROMOCHLOROMETHANE	BDL	5
BROMOFORM	BDL	5
TETRACHLOROETHYLENE	BDL	5
1,1,2,2-TETRACHLOROETHANE	BDL	5
TOLUENE	12	5
CHLOROBENZENE	BDL	5
ETHYLBENZENE	BDL	5
ACETONE	BDL	25
CARBON DISULFIDE	BDL	5
THF	BDL	25
MEK	BDL	25
MIBK	BDL	25
2-HEXANONE	BDL	25
STYRENE	BDL	5
XYLENES	BDL	5

BDL = BELOW DETECTION LIMIT
METHOD REFERENCE: EPA 600/4-82-057 METHOD 624

Resource Analysts, Incorporated

Lab Number: 6205-2
Sample Designation: M-2
Date analyzed: 2-13-86

VOLATILE ORGANICS	CONCENTRATION (ug/L)	DETECTION LIMIT (ug/L)
CHLOROMETHANE	BDL	10
VINYL CHLORIDE	BDL	10
CHLOROETHANE	BDL	5
BROMOMETHANE	BDL	10
METHYLENE CHLORIDE	BDL	5
1,1-DICHLOROETHYLENE	BDL	5
1,1-DICHLOROETHANE	BDL	5
1,2-trans-DICHLOROETHYLENE	BDL	5
CHLOROFORM	BDL	5
1,2-DICHLOROETHANE	BDL	5
1,1,1-TRICHLOROETHANE	BDL	5
CARBON TETRACHLORIDE	BDL	5
VINYL ACETATE	BDL	10
BROMODICHLOROMETHANE	BDL	5
1,2-DICHLOROPROPANE	BDL	5
1,3-trans-DICHLOROPROPENE	BDL	5
TRICHLOROETHYLENE	BDL	5
BENZENE	TRACE	5
1,3-cis-DICHLOROPROPENE	BDL	5
1,1,2-TRICHLOROETHANE	BDL	5
2-CHLOROETHYL VINYL ETHER	BDL	5
DIBROMOCHLOROMETHANE	BDL	5
BROMOFORM	BDL	5
TETRACHLOROETHYLENE	BDL	5
1,1,2,2-TETRACHLOROETHANE	BDL	5
TOLUENE	BDL	5
CHLOROBENZENE	BDL	5
ETHYLBENZENE	BDL	5
ACETONE	BDL	25
CARBON DISULFIDE	BDL	5
THF	BDL	25
MEK	BDL	25
MIBK	BDL	25
2-HEXANONE	BDL	25
STYRENE	BDL	5
XYLENES	BDL	5

"Trace" denotes probable presence below listed detection limit.

BDL = BELOW DETECTION LIMIT
METHOD REFERENCE: EPA 600/4-82-057 METHOD 624

Resource Analysts, Incorporated

MATRIX SPIKE DUPLICATE RECOVERY

LAB NUMBER 6205-2 DATE 2-13-86 SAMPLE DESIGNATION M-2

COMPOUND	CONCENTRATION SPIKE ADDED (u/g)	SAMPLE RESULT	CONCENTRATION MATRIX SPIKE	% RECOVERY	CONCENTRATION MATRIX DUP. SPIKE	% RECOVERY	RELATIVE % DIFFERENCE
1,1 DICHLOROETHYLENE	63	0	59	94	60	95	1.0
TRICHLOROETHYLENE	51	0	46	90	48	94	4.3
BENZENE	54	0	41	76	45	83	8.8
TOLUENE	52	0	47	90	67	128	35
CHLOROBENZENE	52	0	49	94	53	102	8.2

METHOD REFERENCE: EPA 600/4-82-057 METHOD 624

Lab Number: 6205-3
Sample Designation: M-3
Date analyzed: 2-21-86

VOLATILE ORGANICS	CONCENTRATION (ug/L)	DETECTION LIMIT (ug/L)
CHLOROMETHANE	BDL	10
VINYL CHLORIDE	19	10
CHLOROETHANE	BDL	5
BROMOMETHANE	BDL	10
METHYLENE CHLORIDE	BDL	5
1,1-DICHLOROETHYLENE	BDL	5
1,1-DICHLOROETHANE	BDL	5
1,2-trans-DICHLOROETHYLENE	9	5
CHLOROFORM	BDL	5
1,2-DICHLOROETHANE	BDL	5
1,1,1-TRICHLOROETHANE	BDL	5
CARBON TETRACHLORIDE	BDL	5
VINYL ACETATE	BDL	10
BROMODICHLOROMETHANE	BDL	5
1,2-DICHLOROPROPANE	BDL	5
1,3-trans-DICHLOROPROPENE	BDL	5
TRICHLOROETHYLENE	BDL	5
BENZENE	BDL	5
1,3-cis-DICHLOROPROPENE	BDL	5
1,1,2-TRICHLOROETHANE	BDL	5
2-CHLOROETHYL VINYL ETHER	BDL	5
DIBROMOCHLOROMETHANE	BDL	5
BROMOFORM	BDL	5
TETRACHLOROETHYLENE	BDL	5
1,1,2,2-TETRACHLOROETHANE	BDL	5
TOLUENE	BDL	5
CHLOROBENZENE	BDL	5
ETHYLBENZENE	BDL	5
ACETONE	BDL	25
CARBON DISULFIDE	BDL	5
THF	BDL	25
MEK	BDL	25
MIBK	BDL	25
2-HEXANONE	BDL	25
STYRENE	BDL	5
XYLENES	BDL	5

BDL = BELOW DETECTION LIMIT
METHOD REFERENCE: EPA 600/4-82-057 METHOD 624

Resource Analysts, Incorporated

Lab Number: 6205-4
Sample Designation: M-4
Date analyzed: 2-13-86

VOLATILE ORGANICS	CONCENTRATION (ug/L)	DETECTION LIMIT (ug/L)
CHLOROMETHANE	BDL	10
VINYL CHLORIDE	BDL	10
CHLOROETHANE	25	5
BROMOMETHANE	BDL	10
METHYLENE CHLORIDE	BDL	5
1,1-DICHLOROETHYLENE	BDL	5
1,1-DICHLOROETHANE	BDL	5
1,2-trans-DICHLOROETHYLENE	BDL	5
CHLOROFORM	BDL	5
1,2-DICHLOROETHANE	BDL	5
1,1,1-TRICHLOROETHANE	BDL	5
CARBON TETRACHLORIDE	BDL	5
VINYL ACETATE	BDL	10
BROMODICHLOROMETHANE	BDL	5
1,2-DICHLOROPROPANE	BDL	5
1,3-trans-DICHLOROPROPENE	BDL	5
TRICHLOROETHYLENE	BDL	5
BENZENE	BDL	5
1,3-cis-DICHLOROPROPENE	BDL	5
1,1,2-TRICHLOROETHANE	BDL	5
2-CHLOROETHYL VINYL ETHER	BDL	5
DIBROMOCHLOROMETHANE	BDL	5
BROMOFORM	BDL	5
TETRACHLOROETHYLENE	BDL	5
1,1,2,2-TETRACHLOROETHANE	BDL	5
TOLUENE	BDL	5
CHLOROBENZENE	BDL	5
ETHYLBENZENE	BDL	5
ACETONE	BDL	25
CARBON DISULFIDE	BDL	5
THF	BDL	25
MEK	BDL	25
MIBK	BDL	25
2-HEXANONE	BDL	25
STYRENE	BDL	5
XYLENES	BDL	5

BDL = BELOW DETECTION LIMIT
METHOD REFERENCE: EPA 600/4-82-057 METHOD 624

Resource Analysts, Incorporated

Lab Number: 6205-5
Sample Designation: M-5
Date analyzed: 2-14-86

VOLATILE ORGANICS	CONCENTRATION (ug/L)	DETECTION LIMIT (ug/L)
CHLOROMETHANE	BDL	10
VINYL CHLORIDE	BDL	10
CHLOROETHANE	BDL	5
BROMOMETHANE	BDL	10
METHYLENE CHLORIDE	BDL	5
1,1-DICHLOROETHYLENE	BDL	5
1,1-DICHLOROETHANE	BDL	5
1,2-trans-DICHLOROETHYLENE	BDL	5
CHLOROFORM	BDL	5
1,2-DICHLOROETHANE	BDL	5
1,1,1-TRICHLOROETHANE	BDL	5
CARBON TETRACHLORIDE	BDL	5
VINYL ACETATE	BDL	10
BROMODICHLOROMETHANE	BDL	5
1,2-DICHLOROPROPANE	BDL	5
1,3-trans-DICHLOROPROPENE	BDL	5
TRICHLOROETHYLENE	BDL	5
BENZENE	BDL	5
1,3-cis-DICHLOROPROPENE	BDL	5
1,1,2-TRICHLOROETHANE	BDL	5
2-CHLOROETHYL VINYL ETHER	BDL	5
DIBROMOCHLOROMETHANE	BDL	5
BROMOFORM	BDL	5
TETRACHLOROETHYLENE	BDL	5
1,1,2,2-TETRACHLOROETHANE	BDL	5
TOLUENE	BDL	5
CHLOROBENZENE	BDL	5
ETHYLBENZENE	BDL	5
ACETONE	BDL	25
CARBON DISULFIDE	BDL	5
THF	BDL	25
MEK	BDL	25
MIBK	BDL	25
2-HEXANONE	BDL	25
STYRENE	BDL	5
XYLENES	BDL	5

BDL = BELOW DETECTION LIMIT
METHOD REFERENCE: EPA 600/4-82-057 METHOD 624

Resource Analysts, Incorporated

Lab Number: 6205-5 (Laboratory Duplicate)
Sample Designation: M-5
Date analyzed: 2-14-86

VOLATILE ORGANICS	CONCENTRATION (ug/L)	DETECTION LIMIT (ug/L)
CHLOROMETHANE	BDL	10
VINYL CHLORIDE	BDL	10
CHLOROETHANE	BDL	5
BROMOMETHANE	BDL	10
METHYLENE CHLORIDE	BDL	5
1,1-DICHLOROETHYLENE	BDL	5
1,1-DICHLOROETHANE	BDL	5
1,2-trans-DICHLOROETHYLENE	BDL	5
CHLOROFORM	BDL	5
1,2-DICHLOROETHANE	BDL	5
1,1,1-TRICHLOROETHANE	BDL	5
CARBON TETRACHLORIDE	BDL	5
VINYL ACETATE	BDL	10
BROMODICHLOROMETHANE	BDL	5
1,2-DICHLOROPROPANE	BDL	5
1,3-trans-DICHLOROPROPENE	BDL	5
TRICHLOROETHYLENE	BDL	5
BENZENE	BDL	5
1,3-cis-DICHLOROPROPENE	BDL	5
1,1,2-TRICHLOROETHANE	BDL	5
2-CHLOROETHYL VINYL ETHER	BDL	5
DIBROMOCHLOROMETHANE	BDL	5
BROMOFORM	BDL	5
TETRACHLOROETHYLENE	BDL	5
1,1,2,2-TETRACHLOROETHANE	BDL	5
TOLUENE	BDL	5
CHLOROBENZENE	BDL	5
ETHYLBENZENE	BDL	5
ACETONE	BDL	25
CARBON DISULFIDE	BDL	5
THF	BDL	25
MEK	BDL	25
MIBK	BDL	25
2-HEXANONE	BDL	25
STYRENE	BDL	5
XYLENES	BDL	5

BDL = BELOW DETECTION LIMIT
METHOD REFERENCE: EPA 600/4-82-057 METHOD 624

Resource Analysts, Incorporated

Lab Number: 6205-6
Sample Designation: M-6
Date analyzed: 2-17-86

VOLATILE ORGANICS	CONCENTRATION (ug/L)	DETECTION LIMIT (ug/L)
CHLOROMETHANE	BDL	50
VINYL CHLORIDE	TRACE	50
CHLOROETHANE	BDL	25
BROMOMETHANE	BDL	50
METHYLENE CHLORIDE	BDL	25
1,1-DICHLOROETHYLENE	BDL	25
1,1-DICHLOROETHANE	BDL	25
1,2-trans-DICHLOROETHYLENE	TRACE	25
CHLOROFORM	BDL	25
1,2-DICHLOROETHANE	BDL	25
1,1,1-TRICHLOROETHANE	TRACE	25
CARBON TETRACHLORIDE	BDL	25
VINYL ACETATE	BDL	50
BROMODICHLOROMETHANE	BDL	25
1,2-DICHLOROPROPANE	BDL	25
1,3-trans-DICHLOROPROPENE	BDL	25
TRICHLOROETHYLENE	TRACE	25
BENZENE	BDL	25
1,3-cis-DICHLOROPROPENE	BDL	25
1,1,2-TRICHLOROETHANE	BDL	25
2-CHLOROETHYL VINYL ETHER	BDL	25
DIBROMOCHLOROMETHANE	BDL	25
BROMOFORM	BDL	25
TETRACHLOROETHYLENE	73	25
1,1,2,2-TETRACHLOROETHANE	BDL	25
TOLUENE	BDL	25
CHLOROBENZENE	BDL	25
ETHYLBENZENE	BDL	25
ACETONE	BDL	125
CARBON DISULFIDE	BDL	25
THF	BDL	125
MEK	BDL	125
MIBK	BDL	125
2-HEXANONE	BDL	125
STYRENE	BDL	25
XYLENES	BDL	25

"Trace" denotes probable presence below listed detection limit.
Detection limit raised by the presence of non-listed compounds.

BDL = BELOW DETECTION LIMIT
METHOD REFERENCE: EPA 600/4-82-057 METHOD 624

Resource Analysts, Incorporated

Lab Number: 6205-7
Sample Designation: M-7
Date analyzed: 2-14-86

VOLATILE ORGANICS	CONCENTRATION (ug/L)	DETECTION LIMIT (ug/L)
CHLOROMETHANE	BDL	10
VINYL CHLORIDE	BDL	10
CHLOROETHANE	BDL	5
BROMOMETHANE	BDL	10
METHYLENE CHLORIDE	BDL	5
1,1-DICHLOROETHYLENE	BDL	5
1,1-DICHLOROETHANE	BDL	5
1,2-trans-DICHLOROETHYLENE	BDL	5
CHLOROFORM	TRACE	5
1,2-DICHLOROETHANE	BDL	5
1,1,1-TRICHLOROETHANE	BDL	5
CARBON TETRACHLORIDE	BDL	5
VINYL ACETATE	BDL	10
BROMODICHLOROMETHANE	BDL	5
1,2-DICHLOROPROPANE	BDL	5
1,3-trans-DICHLOROPROPENE	BDL	5
TRICHLOROETHYLENE	BDL	5
BENZENE	BDL	5
1,3-cis-DICHLOROPROPENE	BDL	5
1,1,2-TRICHLOROETHANE	BDL	5
2-CHLOROETHYL VINYL ETHER	BDL	5
DIBROMOCHLOROMETHANE	BDL	5
BROMOFORM	BDL	5
TETRACHLOROETHYLENE	BDL	5
1,1,2,2-TETRACHLOROETHANE	BDL	5
TOLUENE	6	5
CHLOROBENZENE	BDL	5
ETHYLBENZENE	BDL	5
ACETONE	BDL	25
CARBON DISULFIDE	BDL	5
THF	BDL	25
MEK	BDL	25
MIBK	BDL	25
2-HEXANONE	BDL	25
STYRENE	BDL	5
XYLENES	BDL	5

"Trace" denotes probable presence below listed detection limit.

BDL = BELOW DETECTION LIMIT
METHOD REFERENCE: EPA 600/4-82-057 METHOD 624

Resource Analysts, Incorporated

Lab Number: 6205-8
Sample Designation: M-8
Date analyzed: 2-17-86

VOLATILE ORGANICS	CONCENTRATION (ug/L)	DETECTION LIMIT (ug/L)
CHLOROMETHANE	BDL	50
VINYL CHLORIDE	TRACE	50
CHLOROETHANE	BDL	25
BROMOMETHANE	BDL	50
METHYLENE CHLORIDE	BDL	25
1,1-DICHLOROETHYLENE	BDL	25
1,1-DICHLOROETHANE	BDL	25
1,2-trans-DICHLOROETHYLENE	380	25
CHLOROFORM	BDL	25
1,2-DICHLOROETHANE	BDL	25
1,1,1-TRICHLOROETHANE	TRACE	25
CARBON TETRACHLORIDE	BDL	25
VINYL ACETATE	BDL	50
BROMODICHLOROMETHANE	BDL	25
1,2-DICHLOROPROPANE	BDL	25
1,3-trans-DICHLOROPROPENE	BDL	25
TRICHLOROETHYLENE	TRACE	25
BENZENE	BDL	25
1,3-cis-DICHLOROPROPENE	BDL	25
1,1,2-TRICHLOROETHANE	BDL	25
2-CHLOROETHYL VINYL ETHER	BDL	25
DIBROMOCHLOROMETHANE	BDL	25
BROMOFORM	BDL	25
TETRACHLOROETHYLENE	TRACE	25
1,1,2,2-TETRACHLOROETHANE	BDL	25
TOLUENE	BDL	25
CHLOROBENZENE	BDL	25
ETHYLBENZENE	BDL	25
ACETONE	BDL	125
CARBON DISULFIDE	BDL	25
THF	BDL	125
MEK	BDL	125
MIBK	BDL	125
2-HEXANONE	BDL	125
STYRENE	BDL	25
XYLENES	BDL	25

"Trace" denotes probable presence below listed detection limit.

BDL = BELOW DETECTION LIMIT
METHOD REFERENCE: EPA 600/4-82-057 METHOD 624

Resource Analysts, Incorporated

Lab Number: 6205-9
Sample Designation: Trip Blank
Date analyzed: 2-17-86

VOLATILE ORGANICS	CONCENTRATION (ug/L)	DETECTION LIMIT (ug/L)
CHLOROMETHANE	BDL	10
VINYL CHLORIDE	BDL	10
CHLOROETHANE	BDL	5
BROMOMETHANE	BDL	10
METHYLENE CHLORIDE	BDL	5
1,1-DICHLOROETHYLENE	BDL	5
1,1-DICHLOROETHANE	BDL	5
1,2-trans-DICHLOROETHYLENE	BDL	5
CHLOROFORM	BDL	5
1,2-DICHLOROETHANE	BDL	5
1,1,1-TRICHLOROETHANE	BDL	5
CARBON TETRACHLORIDE	BDL	5
VINYL ACETATE	BDL	10
BROMODICHLOROMETHANE	BDL	5
1,2-DICHLOROPROPANE	BDL	5
1,3-trans-DICHLOROPROPENE	BDL	5
TRICHLOROETHYLENE	BDL	5
BENZENE	BDL	5
1,3-cis-DICHLOROPROPENE	BDL	5
1,1,2-TRICHLOROETHANE	BDL	5
2-CHLOROETHYL VINYL ETHER	BDL	5
DIBROMOCHLOROMETHANE	BDL	5
BROMOFORM	BDL	5
TETRACHLOROETHYLENE	BDL	5
1,1,2,2-TETRACHLOROETHANE	BDL	5
TOLUENE	BDL	5
CHLOROBENZENE	BDL	5
ETHYLBENZENE	BDL	5
ACETONE	BDL	25
CARBON DISULFIDE	BDL	5
THF	BDL	25
MEK	BDL	25
MIBK	BDL	25
2-HEXANONE	BDL	25
STYRENE	BDL	5
XYLENES	BDL	5

BDL = BELOW DETECTION LIMIT
METHOD REFERENCE: EPA 600/4-82-057 METHOD 624

Resource Analysts, Incorporated

RAI

Resource Analysts, Incorporated
Box 4778 Hampton, NH 03842
(603) 926-7777

TO:

Mr. Matt Eichler
CEH
P.O. Box 4696
Portsmouth, NH 03801

PO # ATF Davidson

Date Received: 5/14/86 (0900)

Lab Number: 6830

Date Reported: May 30, 1986

Attached please find test results for Volatile Organic Compounds, Barium, and Specific Conductance.

Russell D. Foster

Date 5/30/86

Technical Director

LOCATION: ATF Davidson, Whitinsville, MA

ENGINEERS: Caswell, Eichler and Hill

SAMPLING DATE: 5/13/86

WELL NUMBER	TOTAL DEPTH	DIAMETER	TIME	STATIC LEVEL TO STEEL CASING	COND/TEMP* umhos/cm	°C	pH
M-1	14'	1.5"	1345	8.38'	305	25.0	7.9
M-2	12'	1.5"	1356	8.83'	270	25.0	9.0
M-3	10'	1.5"	1437	7.00'	150	25.0	6.9
M-4	10'	1.5"	1431	7.71'	235	25.0	7.4
M-5	10'	1.5"	1425	7.42'	370	25.0	7.2
M-6	10'	1.5"	1550	7.67'	195	25.0	7.6
M-7	9.5'	1.5"	1555	7.12'	190	25.0	10.6
M-8	9.8'	1.5"	1615	7.15'	180	25.0	9.1

Total depths come from the well plans.

* The conductivity data was provided by Resource Analysts, Inc. Samples were brought to 25.0 °C.

CHAIN OF CUSTODY DOCUMENTATION

CLIENT: CEH
ADDRESS: PO Box 4696
Portsmouth, NH 03801

JOB NAME/NUMBER: 6836

PROJECT CONTACT: Matt Eichler
SAMPLING LOCATION: ATF Davidson, Whitinsville, MA
SAMPLE COLLECTOR: [illegible]

FIELD IDENTIFICATION (list each container separately)	LAB #	SAMPLE MATRIX	CONTAINER TYPE/VOLUME	FILTRATION	FIELD PRESERVATION	REMARKS/ANALYSIS REQUESTED
5/13/96 Date M-1 Time 1359		○ Solid ● Liquid ○ Other	○ P/ mL ○ G/ mL ● G/T/ 40 mL	○ field ○ lab ● none	Cool	VOA - EPA 624
Date M-2 Time 1412		○ Solid ○ Liquid ○ Other	○ P/ mL ○ G/ mL ○ G/T/ mL	○ field ○ lab ○ none		
Date M-3 Time 1544		○ Solid ○ Liquid ○ Other	○ P/ mL ○ G/ mL ○ G/T/ mL	○ field ○ lab ○ none		
Date M-4 Time 1523		○ Solid ○ Liquid ○ Other	○ P/ mL ○ G/ mL ○ G/T/ mL	○ field ○ lab ○ none		
Date M-5 Time 1505		○ Solid ○ Liquid ○ Other	○ P/ mL ○ G/ mL ○ G/T/ mL	○ field ○ lab ○ none		
Date M-6 Time 1723		○ Solid ○ Liquid ○ Other	○ P/ mL ○ G/ mL ○ G/T/ mL	○ field ○ lab ○ none		
Date M-7 Time 1734		○ Solid ○ Liquid ○ Other	○ P/ mL ○ G/ mL ○ G/T/ mL	○ field ○ lab ○ none		
Date M-8 Time 1810		○ Solid ○ Liquid ○ Other	○ P/ mL ○ G/ mL ○ G/T/ mL	○ field ○ lab ○ none		

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Relinquished By:	**Date**	**Time**	**Received For Labpratory By:**	**Date**	**Time**
			Z. Woods	5/14	0845

Resource Analysts, Incorporated

CHAIN OF CUSTODY DOCUMENTATION

CLIENT: CEH

ADDRESS:

JOB NAME/NUMBER:

PROJECT CONTACT: Matt Eichler

SAMPLING LOCATION: ATF Davidson, Whitinsville, MA

SAMPLE COLLECTOR: [illegible]

FIELD IDENTIFICATION (list each container separately)	LAB #	SAMPLE MATRIX	CONTAINER TYPE/VOLUME	FILTRATION	FIELD PRESERVATION	REMARKS/ANALYSES REQUESTED
Date 5/13/86 M-1 Time 1359		● Solid ● Liquid ○ Other	● P/ 125 mL ○ G/ mL ○ G/T/ mL	● field ○ lab ○ none	HNO3 + cool	Dissolved / Barium
Date M-2 Time 1412		○ Solid ○ Liquid ○ Other	○ P/ mL ○ G/ mL ○ G/T/ mL	○ field ○ lab ○ none		
Date M-3 Time 1544		○ Solid ○ Liquid ○ Other	○ P/ mL ○ G/ mL ○ G/T/ mL	○ field ○ lab ○ none		
Date M-4 Time 1523		○ Solid ○ Liquid ○ Other	○ P/ mL ○ G/ mL ○ G/T/ mL	○ field ○ lab ○ none		
Date M-5 Time 1505		○ Solid ○ Liquid ○ Other	○ P/ mL ○ G/ mL ○ G/T/ mL	○ field ○ lab ○ none		
Date M-6 Time 1723		○ Solid ○ Liquid ○ Other	○ P/ mL ○ G/ mL ○ G/T/ mL	○ field ○ lab ○ none		
Date M-7 Time 1034		○ Solid ○ Liquid ○ Other	○ P/ mL ○ G/ mL ○ G/T/ mL	○ field ○ lab ○ none		
Date M-8 Time 1810		○ Solid ○ Liquid ○ Other	○ P/ mL ○ G/ mL ○ G/T/ mL	○ field ○ lab ○ none		

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[illegible]	5/14	0845			

Relinquished By:	Date	Time	Received For Laboratory By:	Date	Time
			Z. Woods	5/14	0845

Resource Analysts, Incorporated

CHAIN OF CUSTODY DOCUMENTATION

CLIENT: CEH

ADDRESS:

JOB NAME/NUMBER:

PROJECT CONTACT: Matt Eichler

SAMPLING LOCATION: ATE Davidson, Whitinsville, MA

SAMPLE COLLECTOR: [signature]

FIELD IDENTIFICATION (list each container separately)	LAB #	SAMPLE MATRIX	CONTAINER TYPE/VOLUME	FILTRATION	FIELD PRESERVATION	REMARKS/ANALYSIS REQUESTED
5/12/86 Date Trip Blank Time 1400		○ Solid ● Liquid ○ Other	○ P/ mL ○ G/ mL ● G/T/ 40 mL	○ field ○ lab ● none	cool	VOA - EPA 624
5/13/86 Date M-1 Time 1359		○ Solid ○ Liquid ○ Other	● P/ 250 mL ○ G/ mL ○ G/T/ mL	○ field ○ lab ● none		Spec cond
Date 2 Time 1412		○ Solid ○ Liquid ○ Other	○ P/ mL ○ G/ mL ○ G/T/ mL	○ field ○ lab ○ none		
Date 3 Time 1544		○ Solid ○ Liquid ○ Other	○ P/ mL ○ G/ mL ○ G/T/ mL	○ field ○ lab ○ none		
Date 4 Time 1503		○ Solid ○ Liquid ○ Other	○ P/ mL ○ G/ mL ○ G/T/ mL	○ field ○ lab ○ none		
Date 5 Time 1505		○ Solid ○ Liquid ○ Other	○ P/ mL ○ G/ mL ○ G/T/ mL	○ field ○ lab ○ none		
Date 6 Time 1733		○ Solid ○ Liquid ○ Other	○ P/ mL ○ G/ mL ○ G/T/ mL	○ field ○ lab ○ none		
Date 7 Time 1734		○ Solid ○ Liquid ○ Other	○ P/ mL ○ G/ mL ○ G/T/ mL	○ field ○ lab ○ none		

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Relinquished By:	**Date**	**Time**	**Received For Laboratory By:**	**Date**	**Time**
			Z Woods	5/14	0845

Resource Analysts, Incorporated

CHAIN OF CUSTODY DOCUMENTATION

CLIENT: CEH

ADDRESS:

PROJECT CONTACT: Matt Eichler

JOB NAME/NUMBER:

SAMPLING LOCATION: A-TF Davidson, Whitinsville, MA

SAMPLE COLLECTOR: [illegible]

FIELD IDENTIFICATION (list each container separately)	LAB #	SAMPLE MATRIX	CONTAINER TYPE/VOLUME	FILTRATION	FIELD PRESERVATION	REMARKS/ANALYSIS REQUESTED
Date 5/13/86 M-8 Time 1810		○ Solid ● Liquid ○ Other	● P/ 250 mL ○ G/ mL ○ G/T/ mL	○ field ○ lab ● none	cool	Spec. Cond.
Date Time		○ Solid ○ Liquid ○ Other	○ P/ mL ○ G/ mL ○ G/T/ mL	○ field ○ lab ○ none		
Date Time		○ Solid ○ Liquid ○ Other	○ P/ mL ○ G/ mL ○ G/T/ mL	○ field ○ lab ○ none		
Date Time		○ Solid ○ Liquid ○ Other	○ P/ mL ○ G/ mL ○ G/T/ mL	○ field ○ lab ○ none		
Date Time		○ Solid ○ Liquid ○ Other	○ P/ mL ○ G/ mL ○ G/T/ mL	○ field ○ lab ○ none		
Date Time		○ Solid ○ Liquid ○ Other	○ P/ mL ○ G/ mL ○ G/T/ mL	○ field ○ lab ○ none		
Date Time		○ Solid ○ Liquid ○ Other	○ P/ mL ○ G/ mL ○ G/T/ mL	○ field ○ lab ○ none		
Date Time		○ Solid ○ Liquid ○ Other	○ P/ mL ○ G/ mL ○ G/T/ mL	○ field ○ lab ○ none		

Relinquished By:	Date	Time	Received By:	Date	Time
[signature]	5/14	0845			
Relinquished By:	**Date**	**Time**	**Received for Laboratory By:**	**Date**	**Time**
			Z. Woods	5/14	0845

Resource Analysts, Incorporated

Resource Analysts, Incorporated

Parameter: Barium, dissolved (mg/L) Matrix: Water
Method, Reference: 303C, Standard Methods, 16th Edition
Date Analyzed: 5/20/86

Laboratory Number	Field Identification	Concentration
6830-10	M-1	<0.3
6830-11	M-2	<0.3
6830-12	M-3	<0.3
6830-13	M-4	0.81
6830-14	M-5	3.6
6830-15	M-6	0.96
6830-16	M-7	<0.3
6830-17	M-8	1.3

Parameter: Specific Conductance (umho/cm) Matrix: Water
Method, Reference: 205, Standard Methods, 16th Edition
Date Analyzed: 5/20/86

Laboratory Number	Field Identification	Concentration
6830-18	M-1	305
6830-19	M-2	270
6830-20	M-3	150
6830-21	M-4	235
6830-22	M-5	370
6830-23	M-6	195
6830-24	M-7	190
6830-25	M-8	180

Lab Number: 6830-1
Sample Designation: M-1
Date analyzed: 5/16/86
Matrix: WATER

VOLATILE ORGANICS	CONCENTRATION (ug/L)	DETECTION LIMIT (ug/L)
CHLOROMETHANE	BDL	10
VINYL CHLORIDE	BDL	10
CHLOROETHANE	BDL	5
BROMOMETHANE	BDL	10
METHYLENE CHLORIDE	BDL	5
1,1-DICHLOROETHYLENE	BDL	5
1,1-DICHLOROETHANE	BDL	5
1,2-trans-DICHLOROETHYLENE	BDL	5
CHLOROFORM	BDL	5
1,2-DICHLOROETHANE	BDL	5
.1,1-TRICHLOROETHANE	BDL	5
RBON TETRACHLORIDE	BDL	5
OMODICHLOROMETHANE	BDL	5
-DICHLOROPROPANE	BDL	5
-trans-DICHLOROPROPENE	BDL	5
LOROETHYLENE	*TRACE	5
E	TRACE	5
is-DICHLOROPROPENE	BDL	5
-TRICHLOROETHANE	BDL	5
LOROETHYL VINYL ETHER	BDL	5
OMOCHLOROMETHANE	BDL	5
MOFORM	BDL	5
RACHLOROETHYLENE	BDL	5
,1,2,2-TETRACHLOROETHANE	BDL	5
TOLUENE	BDL	5
CHLOROBENZENE	BDL	5
ETHYLBENZENE	BDL	5
ACETONE	BDL	25
CARBON DISULFIDE	BDL	5
THF	BDL	25
MEK	BDL	25
VINYL ACETATE	BDL	10
MIBK	BDL	25
2-HEXANONE	BDL	25
STYRENE	BDL	5
XYLENES	BDL	5

"Trace" denotes probable presence below listed detection limit.

BDL = BELOW DETECTION LIMIT
METHOD REFERENCE: EPA 600/4-82-057 METHOD 624

Lab Number: 6830-2
Sample Designation: M-2
Date analyzed: 5/16/86
Matrix: WATER

VOLATILE ORGANICS	CONCENTRATION REP. 1 (ug/L)	REP. 2 (ug/L)	DETECTION LIMIT (ug/L)
CHLOROMETHANE	BDL	BDL	10
VINYL CHLORIDE	BDL	BDL	10
CHLOROETHANE	BDL	BDL	5
BROMOMETHANE	BDL	BDL	10
METHYLENE CHLORIDE	BDL	BDL	5
1,1-DICHLOROETHYLENE	BDL	BDL	5
1,1-DICHLOROETHANE	BDL	BDL	5
1,2-trans-DICHLOROETHYLENE	BDL	BDL	5
CHLOROFORM	BDL	BDL	5
.2-DICHLOROETHANE	BDL	BDL	5
1,1-TRICHLOROETHANE	BDL	BDL	5
RBON TETRACHLORIDE	BDL	BDL	5
10DICHLOROMETHANE	BDL	BDL	5
DICHLOROPROPANE	BDL	BDL	5
ans-DICHLOROPROPENE	BDL	BDL	5
DROETHYLENE	BDL	BDL	5
E	BDL	BDL	5
is-DICHLOROPROPENE	BDL	BDL	5
2-TRICHLOROETHANE	BDL	BDL	5
LOROETHYL VINYL ETHER	BDL	BDL	5
ROMOCHLOROMETHANE	BDL	BDL	5
OMOFORM	BDL	BDL	5
TRACHLOROETHYLENE	BDL	BDL	5
1,1,2,2-TETRACHLOROETHANE	BDL	BDL	5
TOLUENE	BDL	BDL	5
CHLOROBENZENE	BDL	BDL	5
ETHYLBENZENE	BDL	BDL	5
ACETONE	BDL	BDL	25
CARBON DISULFIDE	BDL	BDL	5
THF	BDL	BDL	25
MEK	BDL	BDL	25
VINYL ACETATE	BDL	BDL	10
MIBK	BDL	BDL	25
2-HEXANONE	BDL	BDL	25
STYRENE	BDL	BDL	5
XYLENES	BDL	BDL	5

BDL = BELOW DETECTION LIMIT
METHOD REFERENCE: EPA 600/4-82-057 METHOD 624

Lab Number: 6830-3
Sample Designation: M-3
Date analyzed: 5/16/86
Matrix: WATER

VOLATILE ORGANICS	CONCENTRATION (ug/L)	DETECTION LIMIT (ug/L)
CHLOROMETHANE	BDL	10
VINYL CHLORIDE	29	10
CHLOROETHANE	BDL	5
BROMOMETHANE	BDL	10
METHYLENE CHLORIDE	BDL	5
1,1-DICHLOROETHYLENE	BDL	5
1,1-DICHLOROETHANE	BDL	5
1,2-trans-DICHLOROETHYLENE	11	5
CHLOROFORM	BDL	5
',2-DICHLOROETHANE	BDL	5
1,1-TRICHLOROETHANE	BDL	5
RBON TETRACHLORIDE	BDL	5
MODICHLOROMETHANE	BDL	5
DICHLOROPROPANE	BDL	5
rans-DICHLOROPROPENE	BDL	5
OROETHYLENE	TRACE	5
-	BDL	5
is-DICHLOROPROPENE	BDL	5
-TRICHLOROETHANE	BDL	5
LOROETHYL VINYL ETHER	BDL	5
ROMOCHLOROMETHANE	BDL	5
MOFORM	BDL	5
TRACHLOROETHYLENE	BDL	5
,1,2,2-TETRACHLOROETHANE	BDL	5
TOLUENE	BDL	5
CHLOROBENZENE	BDL	5
ETHYLBENZENE	BDL	5
ACETONE	BDL	25
CARBON DISULFIDE	BDL	5
THF	BDL	25
MEK	BDL	25
VINYL ACETATE	BDL	10
MIBK	BDL	25
2-HEXANONE	BDL	25
STYRENE	BDL	5
XYLENES	BDL	5

"Trace" denotes probable presence below listed detection limit.

BDL = BELOW DETECTION LIMIT
METHOD REFERENCE: EPA 600/4-82-057 METHOD 624

Lab Number: 6830-4
Sample Designation: M-4
Date analyzed: 5/16/86
Matrix: WATER

VOLATILE ORGANICS	CONCENTRATION (ug/L)	DETECTION LIMIT (ug/L)
CHLOROMETHANE	BDL	10
VINYL CHLORIDE	BDL	10
CHLOROETHANE	25	5
BROMOMETHANE	BDL	10
METHYLENE CHLORIDE	BDL	5
1,1-DICHLOROETHYLENE	BDL	5
1,1-DICHLOROETHANE	BDL	5
1,2-trans-DICHLOROETHYLENE	BDL	5
CHLOROFORM	BDL	5
1,2-DICHLOROETHANE	BDL	5
,1,1-TRICHLOROETHANE	BDL	5
RBON TETRACHLORIDE	BDL	5
OMODICHLOROMETHANE	BDL	5
-DICHLOROPROPANE	BDL	5
trans-DICHLOROPROPENE	BDL	5
LOROETHYLENE	BDL	5
E	BDL	5
is-DICHLOROPROPENE	BDL	5
2-TRICHLOROETHANE	BDL	5
LOROETHYL VINYL ETHER	BDL	5
ROMOCHLOROMETHANE	BDL	5
MOFORM	BDL	5
TRACHLOROETHYLENE	BDL	5
,1,2,2-TETRACHLOROETHANE	BDL	5
TOLUENE	BDL	5
CHLOROBENZENE	BDL	5
ETHYLBENZENE	BDL	5
ACETONE	BDL	25
CARBON DISULFIDE	BDL	5
THF	BDL	25
MEK	BDL	25
VINYL ACETATE	BDL	10
MIBK	BDL	25
2-HEXANONE	BDL	25
STYRENE	BDL	5
XYLENES	BDL	5

BDL = BELOW DETECTION LIMIT
METHOD REFERENCE: EPA 600/4-82-057 METHOD 624

Lab Number: 6030-5
Sample Designation: M-5
Date analyzed: 5/16/86
Matrix: WATER

VOLATILE ORGANICS	CONCENTRATION (ug/L)	DETECTION LIMIT (ug/L)
CHLOROMETHANE	BDL	10
VINYL CHLORIDE	BDL	10
CHLOROETHANE	BDL	5
BROMOMETHANE	BDL	10
METHYLENE CHLORIDE	BDL	5
1,1-DICHLOROETHYLENE	BDL	5
1,1-DICHLOROETHANE	BDL	5
1,2-trans-DICHLOROETHYLENE	BDL	5
CHLOROFORM	BDL	5
1,2-DICHLOROETHANE	BDL	5
,1,1-TRICHLOROETHANE	BDL	5
RBON TETRACHLORIDE	BDL	5
OMODICHLOROMETHANE	BDL	5
-DICHLOROPROPANE	BDL	5
trans-DICHLOROPROPENE	BDL	5
LOROETHYLENE	BDL	5
E	BDL	5
is-DICHLOROPROPENE	BDL	5
2-TRICHLOROETHANE	BDL	5
LOROETHYL VINYL ETHER	BDL	5
ROMOCHLOROMETHANE	BDL	5
MOFORM	BDL	5
TRACHLOROETHYLENE	BDL	5
,1,2,2-TETRACHLOROETHANE	BDL	5
TOLUENE	BDL	5
CHLOROBENZENE	BDL	5
ETHYLBENZENE	BDL	5
ACETONE	BDL	25
CARBON DISULFIDE	BDL	5
THF	BDL	25
MEK	BDL	25
VINYL ACETATE	BDL	10
MIBK	BDL	25
2-HEXANONE	BDL	25
STYRENE	BDL	5
XYLENES	BDL	5

BDL = BELOW DETECTION LIMIT
METHOD REFERENCE: EPA 600/4-82-057 METHOD 624

Lab Number: 6830-6
Sample Designation: M-6
Date analyzed: 5/19/86
Matrix: WATER

VOLATILE ORGANICS	CONCENTRATION (ug/L)	DETECTION LIMIT (ug/L)
CHLOROMETHANE	BDL	10
VINYL CHLORIDE	76	10
CHLOROETHANE	BDL	5
BROMOMETHANE	BDL	10
METHYLENE CHLORIDE	BDL	5
1,1-DICHLOROETHYLENE	BDL	5
1,1-DICHLOROETHANE	BDL	5
1,2-trans-DICHLOROETHYLENE	75	5
CHLOROFORM	BDL	5
1,2-DICHLOROETHANE	BDL	5
,1,1-TRICHLOROETHANE	BDL	5
RBON TETRACHLORIDE	BDL	5
MODICHLOROMETHANE	BDL	5
DICHLOROPROPANE	BDL	5
rans-DICHLOROPROPENE	BDL	5
OROETHYLENE	BDL	5
-	BDL	5
.s-DICHLOROPROPENE	BDL	5
-TRICHLOROETHANE	BDL	5
LOROETHYL VINYL ETHER	BDL	5
OMOCHLOROMETHANE	BDL	5
OFORM	BDL	5
RACHLOROETHYLENE	12	5
,1,2,2-TETRACHLOROETHANE	BDL	5
OLUENE	BDL	5
CHLOROBENZENE	BDL	5
ETHYLBENZENE	BDL	5
ACETONE	BDL	25
CARBON DISULFIDE	BDL	5
THF	BDL	25
MEK	BDL	25
VINYL ACETATE	BDL	10
MIBK	BDL	25
2-HEXANONE	BDL	25
STYRENE	BDL	5
XYLENES	BDL	5

BDL = BELOW DETECTION LIMIT
METHOD REFERENCE: EPA 600/4-82-057 METHOD 624

Lab Number: 6830-7
Sample Designation: M-7
Date analyzed: 5/19/86
Matrix: WATER

VOLATILE ORGANICS	CONCENTRATION (ug/L)	DETECTION LIMIT (ug/L)
CHLOROMETHANE	BDL	10
VINYL CHLORIDE	BDL	10
CHLOROETHANE	BDL	5
BROMOMETHANE	BDL	10
METHYLENE CHLORIDE	BDL	5
1,1-DICHLOROETHYLENE	BDL	5
1,1-DICHLOROETHANE	BDL	5
1,2-trans-DICHLOROETHYLENE	BDL	5
CHLOROFORM	BDL	5
1,2-DICHLOROETHANE	BDL	5
,1,1-TRICHLOROETHANE	BDL	5
RBON TETRACHLORIDE	BDL	5
OMODICHLOROMETHANE	BDL	5
-DICHLOROPROPANE	BDL	5
trans-DICHLOROPROPENE	BDL	5
OROETHYLENE	BDL	5
E	BDL	5
is-DICHLOROPROPENE	BDL	5
-TRICHLOROETHANE	BDL	5
LOROETHYL VINYL ETHER	BDL	5
ROMOCHLOROMETHANE	BDL	5
MOFORM	BDL	5
TRACHLOROETHYLENE	BDL	5
,1,2,2-TETRACHLOROETHANE	BDL	5
TOLUENE	BDL	5
CHLOROBENZENE	BDL	5
ETHYLBENZENE	BDL	5
ACETONE	BDL	25
CARBON DISULFIDE	BDL	5
THF	BDL	25
MEK	BDL	25
VINYL ACETATE	BDL	10
MIBK	BDL	25
2-HEXANONE	BDL	25
STYRENE	BDL	5
XYLENES	BDL	5

BDL = BELOW DETECTION LIMIT
METHOD REFERENCE: EPA 600/4-82-057 METHOD 624

Lab Number: 6830-8
Sample Designation: M-8
Date analyzed: 5/19/86
Matrix: WATER

VOLATILE ORGANICS	CONCENTRATION (ug/L)	DETECTION LIMIT (ug/L)
CHLOROMETHANE	BDL	20
VINYL CHLORIDE	600	20
CHLOROETHANE	BDL	10
BROMOMETHANE	BDL	20
METHYLENE CHLORIDE	BDL	10
1,1-DICHLOROETHYLENE	BDL	10
1,1-DICHLOROETHANE	BDL	10
1,2-trans-DICHLOROETHYLENE	1600	10
CHLOROFORM	BDL	10
1,2-DICHLOROETHANE	BDL	10
1,1-TRICHLOROETHANE	BDL	10
RBON TETRACHLORIDE	BDL	10
MODICHLOROMETHANE	BDL	10
DICHLOROPROPANE	BDL	10
rans-DICHLOROPROPENE	BDL	10
OROETHYLENE	26	10
E	BDL	10
is-DICHLOROPROPENE	BDL	10
2-TRICHLOROETHANE	BDL	10
LOROETHYL VINYL ETHER	BDL	10
ROMOCHLOROMETHANE	BDL	10
OMOFORM	BDL	10
TRACHLOROETHYLENE	BDL	10
,1,2,2-TETRACHLOROETHANE	BDL	10
TOLUENE	BDL	10
CHLOROBENZENE	BDL	10
ETHYLBENZENE	BDL	10
ACETONE	BDL	50
CARBON DISULFIDE	BDL	10
THF	BDL	50
MEK	BDL	50
VINYL ACETATE	BDL	20
MIBK	BDL	50
2-HEXANONE	BDL	50
STYRENE	BDL	10
XYLENES	BDL	10

BDL = BELOW DETECTION LIMIT
METHOD REFERENCE: EPA 600/4-82-057 METHOD 624

Resource Analysts, Incorporated

Lab Number: 6830-9
Sample Designation: TRIP BLANK
Date analyzed: 5/19/86
Matrix: WATER

VOLATILE ORGANICS	CONCENTRATION REP. 1 (ug/L)	REP. 2 (ug/L)	DETECTION LIMIT (ug/L)
CHLOROMETHANE	BDL	BDL	10
VINYL CHLORIDE	BDL	BDL	10
CHLOROETHANE	BDL	BDL	5
BROMOMETHANE	BDL	BDL	10
METHYLENE CHLORIDE	BDL	BDL	5
1,1-DICHLOROETHYLENE	BDL	BDL	5
1,1-DICHLOROETHANE	BDL	BDL	5
1,2-trans-DICHLOROETHYLENE	BDL	BDL	5
LOROFORM	BDL	BDL	5
-DICHLOROETHANE	BDL	BDL	5
1-TRICHLOROETHANE	BDL	BDL	5
N TETRACHLORIDE	BDL	BDL	5
CHLOROMETHANE	BDL	BDL	5
HLOROPROPANE	BDL	BDL	5
is-DICHLOROPROPENE	BDL	BDL	5
ROETHYLENE	BDL	BDL	5
NE	BDL	BDL	5
is-DICHLOROPROPENE	BDL	BDL	5
2-TRICHLOROETHANE	BDL	BDL	5
HLOROETHYL VINYL ETHER	BDL	BDL	5
ROMOCHLOROMETHANE	BDL	BDL	5
OMOFORM	BDL	BDL	5
ETRACHLOROETHYLENE	BDL	BDL	5
1,1,2,2-TETRACHLOROETHANE	BDL	BDL	5
TOLUENE	BDL	BDL	5
CHLOROBENZENE	BDL	BDL	5
ETHYLBENZENE	BDL	BDL	5
ACETONE	BDL	BDL	25
CARBON DISULFIDE	BDL	BDL	5
THF	BDL	BDL	25
MEK	BDL	BDL	25
VINYL ACETATE	BDL	BDL	10
MIBK	BDL	BDL	25
2-HEXANONE	BDL	BDL	25
STYRENE	BDL	BDL	5
XYLENES	BDL	BDL	5

BDL = BELOW DETECTION LIMIT
METHOD REFERENCE: EPA 600/4-82-057 METHOD 624

Resource Analysts, Incorporated

RAI

Resource Analysts, Incorporated
Box 4778 Hampton, NH 03842
(603) 926-7777

TO:

Mr. Matt Eichler
Caswell, Eichler & Hill
P.O. Box 4696
Protsmouth, NH 03801

PO # ATF Davidson

Date Received: 8/7/86 (815)

Lab Number: 7472

Date Reported: 8/20/86

Date Reissued: 10/13/86

Attached please find test results for Volatile Organic Compounds and Barium.

Date 10/13/86

h

Technical Director

LOCATION: ATF DAVIDSON, WHITINSVILLE, MA

ENGINEERS: Caswell, Eichler and Hill, Inc.

SAMPLING DATE: 8/6/86

WELL NUMBER	TOTAL DEPTH	DIAMETER	TIME	STATIC LEVEL TO STEEL CASING	COND/TEMP umhos/cm	°C	pH
M-1	14'	1.5"	1100	8.67'	338	17.5	7.87
M-2	12'	1.5"	1045	8.83'	152	18.5	8.96
M-3	10'	1.5"	1330	7.00'	275	21.0	6.03
M-4	10'	1.5"	1225	7.79'	270	22.0	6.78
M-5	10'	1.5"	1125	7.65'	418	20.5	7.41
M-6	10'	1.5"	1415	7.60'	230	21.5	6.91
M-7	9.5'	1.5"	1135	7.04'	210	19.0	10.39
M-8	9.8'	1.5"	1435	7.48'	208	20.0	7.06

Total depths come from the well plans.

page 1 of

CHAIN OF CUSTODY DOCUMENTATION

pH Calibration 7= 7.00, 10= 9.93, 4= 4.13

CLIENT: CEH

ADDRESS: P.O. Box 4196, Portsmouth, NH 03801

JOB NAME/NUMBER:

PROJECT CONTACT: Matt Fichler

SAMPLING LOCATION: BTF Davidson, Attleboro, MA SAMPLE COLLECTOR: [illegible]

FIELD IDENTIFICATION (List each container separately)	LAB #	SAMPLE MATRIX	CONTAINER TYPE/VOLUME	FILTRATION	FIELD PRESERVATION	REMARKS/ANALYSIS REQUESTED
2/6/26 Date M-2 Time 1155		Solid / Liquid / Other	P/ ≈50 mL / G/ mL / G/T/ mL	field / lab / none	cool	pH 8.96
Date M-2 Time 1045		Solid / Liquid / Other	P/ ≈50 mL / G/ mL / G/T/ mL	field / lab / none	cool	SC 8'10' / 152. °C 18.5
Date M-1 Time 1715		Solid / Liquid / Other	P/ ≈50 mL / G/ mL / G/T/ mL	field / lab / none	cool	pH 7.87
Date M-1 Time 1100		Solid / Liquid / Other	P/ ≈50 mL / G/ mL / G/T/ mL	field / lab / none	cool	SC 8'8" / 3.38 °C 17.5
Date M-3 Time 1348		Solid / Liquid / Other	P/ ≈50 mL / G/ mL / G/T/ mL	field / lab / none	cool	pH 6.03
Date M-3 Time 1330		Solid / Liquid / Other	P/ ≈50 mL / G/ mL / G/T/ mL	field / lab / none	cool	SC 7'0" / 275 °C 21.0
Date M-4 Time 1240		Solid / Liquid / Other	P/ ≈50 mL / G/ mL / G/T/ mL	field / lab / none	cool	pH 6.78
Date M-4 Time 1225		Solid / Liquid / Other	P/ ≈50 mL / G/ mL / G/T/ mL	field / lab / none	cool	SC 7'9.5" / 270 °C 22.0

Relinquished By:	Date	Time	Received By:	Date	Time
Relinquished By:	Date	Time	Received for Laboratory By:	Date	Time

Resource Analysts, Incorporated

CHAIN OF CUSTODY DOCUMENTATION

CLIENT: CEH
ADDRESS: P.O. Box 7696
Portsmouth, NH 03801

JOB NAME/NUMBER:

PROJECT CONTACT: Matt Fichler
SAMPLING LOCATION: ATF Davidson, Whitinsville, MA
SAMPLE COLLECTOR: [illegible]

FIELD IDENTIFICATION (list each container separately)	LAB #	SAMPLE MATRIX	CONTAINER TYPE/VOLUME	FILTRATION	FIELD PRESERVATION	REMARKS/ANALYSIS REQUESTED
2/6/86 Date M-5 Time 1200		○ Solid ● Liquid ○ Other	● P/ 250 mL ○ G/ mL ○ G/T/ mL	○ field ○ lab ● none	cool	pH 7.41
Date M-5 Time 1125		○ Solid ● Liquid ○ Other	● P/ 250 mL ○ G/ mL ○ G/T/ mL	○ field ○ lab ● none	cool	SC 7'7 3/4" / 418 °C 20.5
Date M-6 Time 1423		○ Solid ● Liquid ○ Other	● P/ 250 mL ○ G/ mL ○ G/T/ mL	○ field ○ lab ● none	cool	pH 6.91
Date M-6 Time 1415		○ Solid ● Liquid ○ Other	● P/ 250 mL ○ G/ mL ○ G/T/ mL	○ field ○ lab ● none	cool	SC 7'7 1/4" / 230 °C 21.5
Date M-7 Time 1210		○ Solid ● Liquid ○ Other	● P/ 250 mL ○ G/ mL ○ G/T/ mL	○ field ○ lab ● none	cool	pH 10.29
Date M-7 Time 1135		○ Solid ● Liquid ○ Other	● P/ 250 mL ○ G/ mL ○ G/T/ mL	○ field ○ lab ● none	cool	SC 7'1 1/2" / 210 °C 19.0
Date M-8 Time 1450		○ Solid ● Liquid ○ Other	● P/ 250 mL ○ G/ mL ○ G/T/ mL	○ field ○ lab ● none	cool	pH 7.06
Date M-8 Time 1435		○ Solid ● Liquid ○ Other	● P/ 250 mL ○ G/ mL ○ G/T/ mL	○ field ○ lab ● none	cool	SC 7'5 1/4" / 208 °C 20.0

Relinquished By:	Date	Time	Received By:	Date	Time
Relinquished By:	Date	Time	Received For Laboratory By:	Date	Time

CHAIN OF CUSTODY DOCUMENTATION

CLIENT: SEH
ADDRESS: P.O. Box 4696
Portsmouth, NH 03801

JOB NAME/NUMBER:

PROJECT CONTACT: Matt Eichler
SAMPLING LOCATION: ATF Davidson Whitinsville, MA
SAMPLE COLLECTOR: [illegible]

FIELD IDENTIFICATION (List each container separately)	LAB #	SAMPLE MATRIX	CONTAINER TYPE/VOLUME	FILTRATION	FIELD PRESERVATION	REMARKS/ANALYSIS REQUESTED
8/6/86 Date M-1 Time 1110		Solid / Liquid / Other	P/ mL / G/ mL / G/T/ 40 mL	field / lab / none	Cool	VOA - EPA 624
Date M-2 Time 1055		Solid / Liquid / Other	P/ mL / G/ mL / G/T/ 40 mL	field / lab / none	Cool	
Date M-3 Time 1348		Solid / Liquid / Other	P/ mL / G/ mL / G/T/ 40 mL	field / lab / none	Cool	
Date M-4 Time 1240		Solid / Liquid / Other	P/ mL / G/ mL / G/T/ 40 mL	field / lab / none	Cool	
Date M-5 Time 1200		Solid / Liquid / Other	P/ mL / G/ mL / G/T/ 40 mL	field / lab / none	Cool	
Date M-6 Time 1423		Solid / Liquid / Other	P/ mL / G/ mL / G/T/ 40 mL	field / lab / none	Cool	
Date M-7 Time 1142		Solid / Liquid / Other	P/ mL / G/ mL / G/T/ 40 mL	field / lab / none	Cool	
Date M-8 Time 1450		Solid / Liquid / Other	P/ mL / G/ mL / G/T/ 40 mL	field / lab / none	Cool	

Relinquished By:	Date	Time	Received By:	Date	Time
[signature]	8/7	0815			
Relinquished By:	**Date**	**Time**	**Received For Laboratory By:**	**Date**	**Time**
			[signature]	8/7	08[illegible]

Resource Analysis, Incorporated

CHAIN OF CUSTODY DOCUMENTATION

CLIENT: CEH
ADDRESS: P.O. Box 4196
Portsmouth, NH 03801

JOB NAME/NUMBER:

PROJECT CONTACT: Matt Fichler
SAMPLING LOCATION: AT&T Davidson Whitinsville MA
SAMPLE COLLECTOR: [illegible]

FIELD IDENTIFICATION (list each container separately)	LAB #	SAMPLE MATRIX	CONTAINER TYPE/VOLUME	FILTRATION	FIELD PRESERVATION	REMARKS/ANALYSIS REQUESTED
8/5/86 Trip blank Date Time PM		○ Solid ● Liquid ○ Other	○ P/ mL ○ G/ mL ● G/T/40 mL	○ field ○ lab ● none	COR	VOA - EPA 624
8/6/86 M-1 Date Time 1110		○ Solid ● Liquid ○ Other	● P/ 125 mL ○ G/ mL ○ G/T/ mL	● field ○ lab ○ none	HNO_3 COR	Dissolved Boron
M-2 Date Time 1055		○ Solid ● Liquid ○ Other	● P/ 125 mL ○ G/ mL ○ G/T/ mL	● field ○ lab ○ none		
M-3 Date Time 1348		○ Solid ● Liquid ○ Other	● P/ 125 mL ○ G/ mL ○ G/T/ mL	● field ○ lab ○ none		
M-4 Date Time 1240		○ Solid ● Liquid ○ Other	● P/ 125 mL ○ G/ mL ○ G/T/ mL	● field ○ lab ○ none		
M-5 Date Time 1200		○ Solid ● Liquid ○ Other	● P/ 125 mL ○ G/ mL ○ G/T/ mL	● field ○ lab ○ none		
M-6 Date Time 1423		○ Solid ● Liquid ○ Other	● P/ 125 mL ○ G/ mL ○ G/T/ mL	● field ○ lab ○ none		
M-7 Date Time 1143		○ Solid ● Liquid ○ Other	● P/ 125 mL ○ G/ mL ○ G/T/ mL	● field ○ lab ○ none		

Relinquished By:	Date	Time	Received By:	Date	Time
[signature]	8/7	0815			

Relinquished By:	Date	Time	Received For Laboratory By:	Date	Time
			[signature] Resource Analysts, Incorporated	8/7	0815

CHAIN OF CUSTODY DOCUMENTATION

CLIENT: CEH

ADDRESS: P.O. Box 4696
Portsmouth, NH 03801

PROJECT CONTACT: Matt Fichler

JOB NAME/NUMBER:

SAMPLING LOCATION: ATF Davidson Whitinsville, MA

SAMPLE COLLECTOR: [illegible]

FIELD IDENTIFICATION (list each container separately)	LAB #	SAMPLE MATRIX	CONTAINER TYPE/VOLUME	FILTRATION	FIELD PRESERVATION	REMARKS/ANALYSES REQUESTED
8/6/86 Date M-8 Time 1450		(Solid) (Liquid) Other	(P) P/ 125 mL G/ mL G/T/ mL	(field) lab none	HNO3 + cool	Dissolved Barium
Date Time		Solid Liquid Other	P/ mL G/ mL G/T/ mL	field lab none		
Date Time		Solid Liquid Other	P/ mL G/ mL G/T/ mL	field lab none		
Date Time		Solid Liquid Other	P/ mL G/ mL G/T/ mL	field lab none		
Date Time		Solid Liquid Other	P/ mL G/ mL G/T/ mL	field lab none		
Date Time		Solid Liquid Other	P/ mL G/ mL G/T/ mL	field lab none		
Date Time		Solid Liquid Other	P/ mL G/ mL G/T/ mL	field lab none		
Date Time		Solid Liquid Other	P/ mL G/ mL G/T/ mL	field lab none		

Relinquished By:	Date	Time	Received By:	Date	Time
[signature]	8/7	0815			
Relinquished By:	**Date**	**Time**	**Received for Laboratory By:**	**Date**	**Time**
			[signature] Resource Analysts, Incorporated	8/7	0850

Parameter: Barium (mg/L)
Method: 303C

Matrix: Water
Date Analyzed: 8-11-86

Field Identification	Laboratory Number	Concentration
M-1	7472-10	<0.3
M-2	7472-11	<0.3
M-3	7472-12	<0.31
M-4	7472-13	0.41
M-5	7472-14	2.1
M-6	7472-15	0.51
M-7	7472-16	<0.3
M-8	7472-17	0.79

Lab Number: 7472-1
Sample Designation: M-1
Date Analyzed: 8-10-86
Matrix: Water

VOLATILE ORGANICS	CONCENTRATION (ug/L)	DETECTION LIMIT (ug/L)
CHLOROMETHANE	BDL	10
VINYL CHLORIDE	BDL	10
CHLOROETHANE	BDL	5
BROMOMETHANE	BDL	10
METHYLENE CHLORIDE	BDL	5
1,1-DICHLOROETHYLENE	BDL	5
1,1-DICHLOROETHANE	BDL	5
1,2-trans-DICHLOROETHYLENE	BDL	5
CHLOROFORM	BDL	5
1,2-DICHLOROETHANE	BDL	5
1,1,1-TRICHLOROETHANE	BDL	5
CARBON TETRACHLORIDE	BDL	5
BROMODICHLOROMETHANE	BDL	5
1,2-DICHLOROPROPANE	BDL	5
1,3-trans-DICHLOROPROPENE	BDL	5
TRICHLOROETHYLENE	BDL	5
BENZENE	BDL	5
1,3-cis-DICHLOROPROPENE	BDL	5
1,1,2-TRICHLOROETHANE	BDL	5
2-CHLOROETHYL VINYL ETHER	BDL	5
DIBROMOCHLOROMETHANE	BDL	5
BROMOFORM	BDL	5
TETRACHLOROETHYLENE	BDL	5
1,1,2,2-TETRACHLOROETHANE	BDL	5
TOLUENE	BDL	5
CHLOROBENZENE	BDL	5
ETHYLBENZENE	BDL	5
ACETONE	BDL	25
CARBON DISULFIDE	BDL	5
THF	BDL	25
MEK	BDL	25
VINYL ACETATE	BDL	10
MIBK	BDL	25
2-HEXANONE	BDL	25
STYRENE	BDL	5
XYLENES	BDL	5

BDL = BELOW DETECTION LIMIT
METHOD REFERENCE: EPA 600/4-82-057 METHOD 624

Lab Number: 7472-2
Sample Designation: M-2
Date Analyzed: 8-10-86
Matrix: Water

VOLATILE ORGANICS	CONCENTRATION (ug/L)	DETECTION LIMIT (ug/L)
CHLOROMETHANE	BDL	10
VINYL CHLORIDE	BDL	10
CHLOROETHANE	BDL	5
BROMOMETHANE	BDL	10
METHYLENE CHLORIDE	NO USEABLE DATA	5
1,1-DICHLOROETHYLENE	BDL	5
1,1-DICHLOROETHANE	BDL	5
1,2-trans-DICHLOROETHYLENE	BDL	5
CHLOROFORM	BDL	5
1,2-DICHLOROETHANE	BDL	5
1,1,1-TRICHLOROETHANE	BDL	5
CARBON TETRACHLORIDE	BDL	5
BROMODICHLOROMETHANE	BDL	5
1,2-DICHLOROPROPANE	BDL	5
1,3-trans-DICHLOROPROPENE	BDL	5
TRICHLOROETHYLENE	BDL	5
BENZENE	BDL	5
1,3-cis-DICHLOROPROPENE	BDL	5
1,1,2-TRICHLOROETHANE	BDL	5
2-CHLOROETHYL VINYL ETHER	BDL	5
DIBROMOCHLOROMETHANE	BDL	5
BROMOFORM	BDL	5
TETRACHLOROETHYLENE	BDL	5
1,1,2,2-TETRACHLOROETHANE	BDL	5
TOLUENE	BDL	5
CHLOROBENZENE	BDL	5
ETHYLBENZENE	BDL	5
ACETONE	NO USEABLE DATA	25
CARBON DISULFIDE	BDL	5
THF	BDL	25
MEK	BDL	25
VINYL ACETATE	BDL	10
MIBK	BDL	25
2-HEXANONE	BDL	25
STYRENE	BDL	5
XYLENES	BDL	5

BDL = BELOW DETECTION LIMIT
METHOD REFERENCE: EPA 600/4-82-057 METHOD 624

Lab Number: 7472-3
Sample Designation: M-3
Date Analyzed: 8-10-86
Matrix: Water

VOLATILE ORGANICS	CONCENTRATION (ug/L)	DETECTION LIMIT (ug/L)
CHLOROMETHANE	BDL	10
VINYL CHLORIDE	12	10
CHLOROETHANE	BDL	5
BROMOMETHANE	BDL	10
METHYLENE CHLORIDE	BDL	5
1,1-DICHLOROETHYLENE	BDL	5
1,1-DICHLOROETHANE	BDL	5
1,2-trans-DICHLOROETHYLENE	31	5
CHLOROFORM	BDL	5
1,2-DICHLOROETHANE	BDL	5
1,1,1-TRICHLOROETHANE	Trace	5
CARBON TETRACHLORIDE	BDL	5
BROMODICHLOROMETHANE	BDL	5
1,2-DICHLOROPROPANE	BDL	5
1,3-trans-DICHLOROPROPENE	BDL	5
TRICHLOROETHYLENE	BDL	5
BENZENE	BDL	5
1,3-cis-DICHLOROPROPENE	BDL	5
1,1,2-TRICHLOROETHANE	BDL	5
2-CHLOROETHYL VINYL ETHER	BDL	5
DIBROMOCHLOROMETHANE	BDL	5
BROMOFORM	BDL	5
TETRACHLOROETHYLENE	BDL	5
1,1,2,2-TETRACHLOROETHANE	BDL	5
TOLUENE	BDL	5
CHLOROBENZENE	BDL	5
ETHYLBENZENE	BDL	5
ACETONE	BDL	25
CARBON DISULFIDE	BDL	5
THF	BDL	25
MEK	BDL	25
VINYL ACETATE	BDL	10
MIBK	BDL	25
2-HEXANONE	BDL	25
STYRENE	BDL	5
XYLENES	BDL	5

"Trace" denotes probable presence below listed detection limit.

BDL = BELOW DETECTION LIMIT
METHOD REFERENCE: EPA 600/4-82-057 METHOD 624

Lab Number: 7472-4
Sample Designation: M-4
Date Analyzed: 8-12-86
Matrix: Water

VOLATILE ORGANICS	CONCENTRATION (ug/L)	DETECTION LIMIT (ug/L)
CHLOROMETHANE	BDL	10
VINYL CHLORIDE	BDL	10
CHLOROETHANE	12	5
BROMOMETHANE	BDL	10
METHYLENE CHLORIDE	BDL	5
1,1-DICHLOROETHYLENE	BDL	5
1,1-DICHLOROETHANE	BDL	5
1,2-trans-DICHLOROETHYLENE	BDL	5
CHLOROFORM	BDL	5
1,2-DICHLOROETHANE	BDL	5
1,1,1-TRICHLOROETHANE	BDL	5
CARBON TETRACHLORIDE	BDL	5
BROMODICHLOROMETHANE	BDL	5
1,2-DICHLOROPROPANE	BDL	5
1,3-trans-DICHLOROPROPENE	BDL	5
TRICHLOROETHYLENE	BDL	5
BENZENE	BDL	5
1,3-cis-DICHLOROPROPENE	BDL	5
1,1,2-TRICHLOROETHANE	BDL	5
2-CHLOROETHYL VINYL ETHER	BDL	5
DIBROMOCHLOROMETHANE	BDL	5
BROMOFORM	BDL	5
TETRACHLOROETHYLENE	BDL	5
1,1,2,2-TETRACHLOROETHANE	BDL	5
TOLUENE	BDL	5
CHLOROBENZENE	BDL	5
ETHYLBENZENE	BDL	5
ACETONE	BDL	25
CARBON DISULFIDE	BDL	5
THF	BDL	25
MEK	BDL	25
VINYL ACETATE	BDL	10
MIBK	BDL	25
2-HEXANONE	BDL	25
STYRENE	BDL	5
XYLENES	BDL	5

BDL = BELOW DETECTION LIMIT
METHOD REFERENCE: EPA 600/4-82-057 METHOD 624

Lab Number: 7472-5
Sample Designation: M-5
Date Analyzed: 8-10-86
Matrix: Water

VOLATILE ORGANICS	CONCENTRATION (ug/L)	DETECTION LIMIT (ug/L)
CHLOROMETHANE	BDL	10
VINYL CHLORIDE	BDL	10
CHLOROETHANE	BDL	5
BROMOMETHANE	BDL	10
METHYLENE CHLORIDE	BDL	5
1,1-DICHLOROETHYLENE	BDL	5
1,1-DICHLOROETHANE	BDL	5
1,2-trans-DICHLOROETHYLENE	BDL	5
CHLOROFORM	BDL	5
1,2-DICHLOROETHANE	BDL	5
1,1,1-TRICHLOROETHANE	BDL	5
CARBON TETRACHLORIDE	BDL	5
BROMODICHLOROMETHANE	BDL	5
1,2-DICHLOROPROPANE	BDL	5
1,3-trans-DICHLOROPROPENE	BDL	5
TRICHLOROETHYLENE	BDL	5
BENZENE	BDL	5
1,3-cis-DICHLOROPROPENE	BDL	5
1,1,2-TRICHLOROETHANE	BDL	5
2-CHLOROETHYL VINYL ETHER	BDL	5
DIBROMOCHLOROMETHANE	BDL	5
BROMOFORM	BDL	5
TETRACHLOROETHYLENE	BDL	5
1,1,2,2-TETRACHLOROETHANE	BDL	5
TOLUENE	BDL	5
CHLOROBENZENE	BDL	5
ETHYLBENZENE	BDL	5
ACETONE	BDL	25
CARBON DISULFIDE	BDL	5
THF	BDL	25
MEK	BDL	25
VINYL ACETATE	BDL	10
MIBK	BDL	25
2-HEXANONE	BDL	25
STYRENE	BDL	5
XYLENES	BDL	5

BDL = BELOW DETECTION LIMIT
METHOD REFERENCE: EPA 600/4-82-057 METHOD 624

Lab Number: 7472-6
Sample Designation: M-6
Date Analyzed: 8-12-86
Matrix: Water

VOLATILE ORGANICS	CONCENTRATION (ug/L)	DETECTION LIMIT (ug/L)
CHLOROMETHANE	BDL	50
VINYL CHLORIDE	80	50
CHLOROETHANE	BDL	25
BROMOMETHANE	BDL	50
METHYLENE CHLORIDE	BDL	25
1,1-DICHLOROETHYLENE	BDL	25
1,1-DICHLOROETHANE	BDL	25
1,2-trans-DICHLOROETHYLENE	50	25
CHLOROFORM	BDL	25
1,2-DICHLOROETHANE	BDL	25
1,1,1-TRICHLOROETHANE	Trace	25
CARBON TETRACHLORIDE	BDL	25
BROMODICHLOROMETHANE	BDL	25
1,2-DICHLOROPROPANE	BDL	25
1,3-trans-DICHLOROPROPENE	BDL	25
TRICHLOROETHYLENE	Trace	25
BENZENE	BDL	25
1,3-cis-DICHLOROPROPENE	BDL	25
1,1,2-TRICHLOROETHANE	BDL	25
2-CHLOROETHYL VINYL ETHER	BDL	25
DIBROMOCHLOROMETHANE	BDL	25
BROMOFORM	BDL	25
TETRACHLOROETHYLENE	Trace	25
1,1,2,2-TETRACHLOROETHANE	BDL	25
TOLUENE	BDL	25
CHLOROBENZENE	BDL	25
ETHYLBENZENE	BDL	25
ACETONE	BDL	125
CARBON DISULFIDE	BDL	25
THF	BDL	125
MEK	BDL	125
VINYL ACETATE	BDL	50
MIBK	BDL	125
2-HEXANONE	BDL	125
STYRENE	BDL	25
XYLENES	BDL	25

"Trace" denotes probable presence below listed detection limit.
Detection limit raised due to the foaming properties of the sample.

BDL = BELOW DETECTION LIMIT
METHOD REFERENCE: EPA 600/4-82-057 METHOD 624

Lab Number: 7472-7
Sample Designation: M-7
Date Analyzed: 8-10-86
Matrix: Water

VOLATILE ORGANICS	CONCENTRATION (ug/L)	DETECTION LIMIT (ug/L)
CHLOROMETHANE	BDL	10
VINYL CHLORIDE	BDL	10
CHLOROETHANE	BDL	5
BROMOMETHANE	BDL	10
METHYLENE CHLORIDE	NO USEABLE DATA	5
1,1-DICHLOROETHYLENE	BDL	5
1,1-DICHLOROETHANE	BDL	5
1,2-trans-DICHLOROETHYLENE	BDL	5
CHLOROFORM	BDL	5
1,2-DICHLOROETHANE	BDL	5
1,1,1-TRICHLOROETHANE	BDL	5
CARBON TETRACHLORIDE	BDL	5
BROMODICHLOROMETHANE	BDL	5
1,2-DICHLOROPROPANE	BDL	5
1,3-trans-DICHLOROPROPENE	BDL	5
TRICHLOROETHYLENE	BDL	5
BENZENE	BDL	5
1,3-cis-DICHLOROPROPENE	BDL	5
1,1,2-TRICHLOROETHANE	BDL	5
2-CHLOROETHYL VINYL ETHER	BDL	5
DIBROMOCHLOROMETHANE	BDL	5
BROMOFORM	BDL	5
TETRACHLOROETHYLENE	BDL	5
1,1,2,2-TETRACHLOROETHANE	BDL	5
TOLUENE	BDL	5
CHLOROBENZENE	BDL	5
ETHYLBENZENE	BDL	5
ACETONE	NO USEABLE DATA	25
CARBON DISULFIDE	BDL	5
THF	BDL	25
MEK	BDL	25
VINYL ACETATE	BDL	10
MIBK	BDL	25
2-HEXANONE	BDL	25
STYRENE	BDL	5
XYLENES	BDL	5

BDL = BELOW DETECTION LIMIT
METHOD REFERENCE: EPA 600/4-82-057 METHOD 624

Lab Number: 7872-8
Sample Designation: M-8
Date Analyzed: 8/12/86
Matrix: Water

VOLATILE ORGANICS	CONCENTRATION (ug/L)	DETECTION LIMIT (ug/L)
CHLOROMETHANE	BDL	10
VINYL CHLORIDE	220	10
CHLOROETHANE	BDL	5
BROMOMETHANE	BDL	10
METHYLENE CHLORIDE	BDL	5
1,1-DICHLOROETHYLENE	BDL	5
1,1-DICHLOROETHANE	BDL	5
1,2-trans-DICHLOROETHYLENE	720	5
CHLOROFORM	BDL	5
1,2-DICHLOROETHANE	BDL	5
1,1,1-TRICHLOROETHANE	BDL	5
CARBON TETRACHLORIDE	BDL	5
BROMODICHLOROMETHANE	BDL	5
1,2-DICHLOROPROPANE	BDL	5
1,3-trans-DICHLOROPROPENE	BDL	5
TRICHLOROETHYLENE	15	5
BENZENE	BDL	5
1,3-cis-DICHLOROPROPENE	BDL	5
1,1,2-TRICHLOROETHANE	BDL	5
2-CHLOROETHYL VINYL ETHER	BDL	5
DIBROMOCHLOROMETHANE	BDL	5
BROMOFORM	BDL	5
TETRACHLOROETHYLENE	BDL	5
1,1,2,2-TETRACHLOROETHANE	BDL	5
TOLUENE	BDL	5
CHLOROBENZENE	BDL	5
ETHYLBENZENE	BDL	5
ACETONE	BDL	25
CARBON DISULFIDE	BDL	5
THF	BDL	25
MEK	BDL	25
VINYL ACETATE	BDL	10
MIBK	BDL	25
2-HEXANONE	BDL	25
STYRENE	BDL	5
XYLENES	BDL	5

BDL = BELOW DETECTION LIMIT
METHOD REFERENCE: EPA 600/4-82-057 METHOD 624

Lab Number: 7472-9
Sample Designation: Trip Blank
Date Analyzed: 8-12-86
Matrix: Water

VOLATILE ORGANICS	CONCENTRATION (ug/L)	DETECTION LIMIT (ug/L)
CHLOROMETHANE	BDL	10
VINYL CHLORIDE	BDL	10
CHLOROETHANE	BDL	5
BROMOMETHANE	BDL	10
METHYLENE CHLORIDE	BDL	5
1,1-DICHLOROETHYLENE	BDL	5
1,1-DICHLOROETHANE	BDL	5
1,2-trans-DICHLOROETHYLENE	BDL	5
CHLOROFORM	BDL	5
1,2-DICHLOROETHANE	BDL	5
1,1,1-TRICHLOROETHANE	BDL	5
CARBON TETRACHLORIDE	BDL	5
BROMODICHLOROMETHANE	BDL	5
1,2-DICHLOROPROPANE	BDL	5
1,3-trans-DICHLOROPROPENE	BDL	5
TRICHLOROETHYLENE	BDL	5
BENZENE	BDL	5
1,3-cis-DICHLOROPROPENE	BDL	5
1,1,2-TRICHLOROETHANE	BDL	5
2-CHLOROETHYL VINYL ETHER	BDL	5
DIBROMOCHLOROMETHANE	BDL	5
BROMOFORM	BDL	5
TETRACHLOROETHYLENE	BDL	5
1,1,2,2-TETRACHLOROETHANE	BDL	5
TOLUENE	BDL	5
CHLOROBENZENE	BDL	5
ETHYLBENZENE	BDL	5
ACETONE	BDL	25
CARBON DISULFIDE	BDL	5
THF	BDL	25
MEK	BDL	25
VINYL ACETATE	BDL	10
MIBK	BDL	25
2-HEXANONE	BDL	25
STYRENE	BDL	5
XYLENES	BDL	5

BDL = BELOW DETECTION LIMIT
METHOD REFERENCE: EPA 600/4-82-057 METHOD 624

Complete

ADDITIONAL M-8 INVESTIGATIONS

ATF/DAVIDSON ARCADE FACILITY

WHITINSVILLE, MASSACHUSETTS

Submitted to:

WHITE CONSOLIDATED INDUSTRIES

COLUMBUS, OHIO

Prepared by:

Caswell, Eichler and Hill, Inc.
Portsmouth, New Hampshire

March 1987

CEH Caswell, Eichler and Hill, Inc.
GEOLOGY HYDROLOGY GEOPHYSICS

Portsmouth, New Hampshire
West Topsham, Vermont
Augusta, Maine

CEH Caswell, Eichler and Hill, Inc.
GEOLOGY HYDROLOGY GEOPHYSICS
P.O. Box 4696
Portsmouth, NH 03801
TEL. (603) 431-4899

March 25, 1987

White Consolidated Industries, Inc.
300 Phillippi Road
Columbus, Ohio 43228

Attn: Mr. Daniel Marques, P.E.

Re: Additional Monitoring Well Installation, Soil Sampling and Analysis, and Groundwater Sampling and Analysis at the ATF/Davidson Arcade Facility, Whitinsville, Massachusetts

Dear Dan:

Consistent with the agreements reached at our November 1986 meeting with Ms. Carol de Groot of the Massachusetts Department of Environmental Quality Engineering (DEQE), we designed an additional monitoring and sampling program in the vicinity of monitoring well M-8 at the Arcade. On December 16, 1986 we met with Carol, reviewed the work plan, and obtained her approval to proceed. The scope of work consisted of installing and developing three additional monitoring wells (M-9, M-10 and M-11) at the site, collecting soil samples above and below the water table at the new well locations, and collecting groundwater samples from the new wells and existing wells M-6, M-7 and M-8. The wells were to be constructed of 1½ inch, flush joint, schedule 40, PVC. Five feet of ten-slot screen was to be placed at and below the water table, sand packed and isolated by a bentonite seal. Solid PVC riser was to continue from the top of the screen to above land surface. The wells were to be pumped until free of fines. The soil and groundwater samples were to be analyzed for volatile organic compounds (EPA-624) by GC/MS method. The overall thrust of the additional work was to determine if the contamination observed at M-8 is localized, or emanating from an hydraulically upgradient location.

On December 22, 1986, a CEH drilling, well construction and sampling crew under the supervision of CEH principal Matthew F. Eichler III mobilized to the site and completed all the necessary field work. Using a General 440 portable power auger unit, the wells were constructed to specification. The augers were thoroughly cleansed with deionized water and methanol between borings. Soil samples were collected from above and below the water table, placed in air-tight double plastic bags, and stored in an ice chest for transport to Resource Analysts, Inc. for laboratory analysis. Soil samples

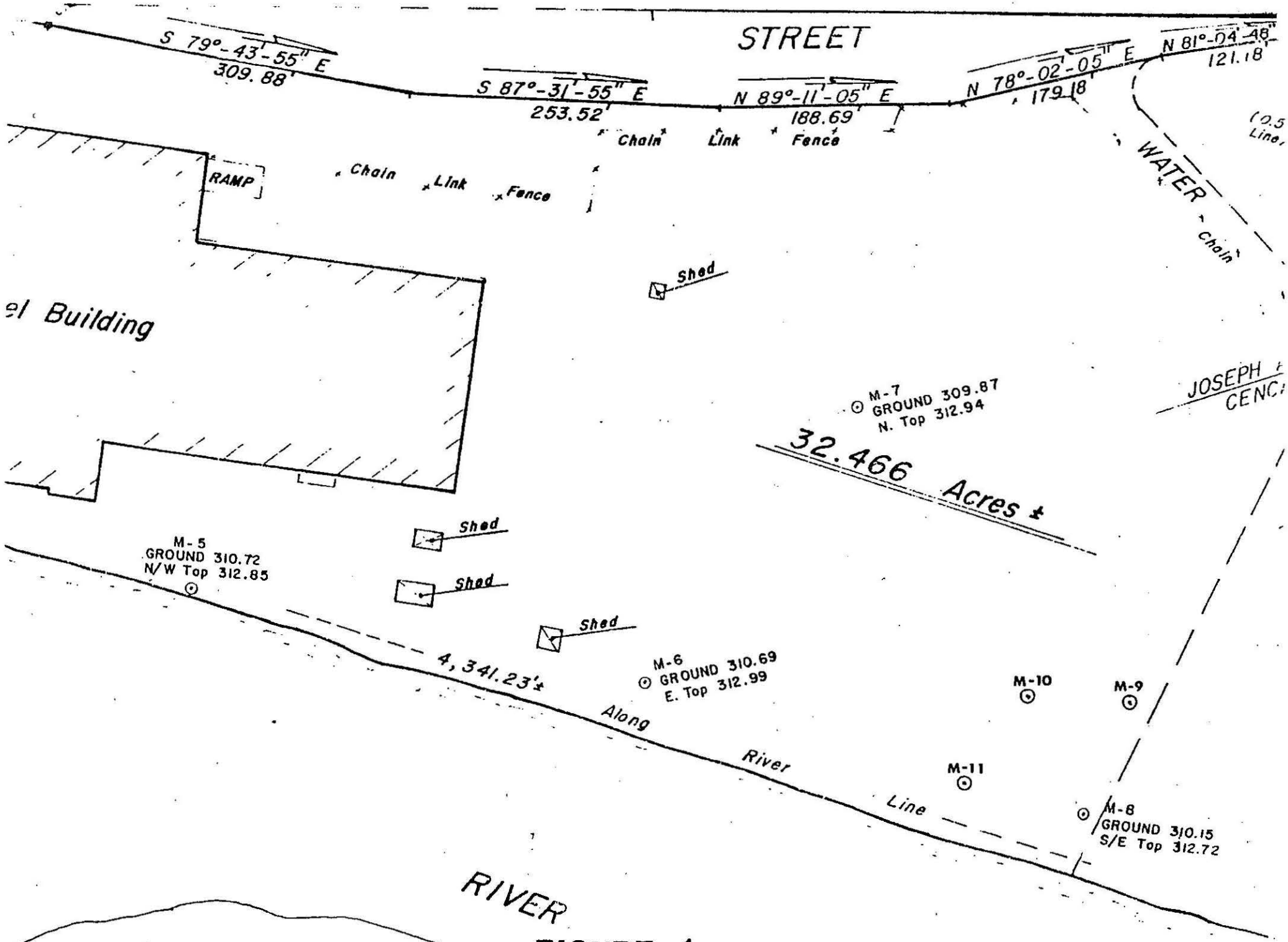
STREET
S 79°-43'-55" E
309.88'
S 87°-31'-55" E
253.52'
N 89°-11'-05" E
188.69'
N 78°-02'-05" E
179.18'
N 81°-04'-48"
121.18'
Chain Link Fence
Chain Link Fence
RAMP
WATER
Chain
el Building
Shed
Shed
Shed
Shed
M-7
GROUND 309.87
N. Top 312.94
32.466 Acres ±
JOSEPH
CENC
M-5
GROUND 310.72
N/W Top 312.85
4,341.23'±
Along River Line
M-6
GROUND 310.69
E. Top 312.99
M-10
M-9
M-11
M-8
GROUND 310.15
S/E Top 312.72
RIVER

FIGURE 1

were noted to be the same coarse grained foundry fill as was observed during earlier well installations. Each well was pump developed for one hour using a peristaltic pump and dedicated polyethylene tubing. Each well produced a continuous flow of groundwater, and was noted to be clear of fines after 2-5 minutes. Groundwater samples were taken with dedicated teflon bailers and teflon coated stainless steel cable. The samples were immediately packed in ice for transport to the laboratory.

As seen on Figure 1, the new wells (M-9, M-10, M-11) were positioned in radial fashion around the hydraulically upgradient area surrounding M-8. Each well is approximately 100 feet from M-8 and its adjacent counterpart. Laboratory analyses of the soil and groundwater samples are contained in Appendix A. As these data indicate, the upgradient area surrounding M-8 is essentially clean. Only trace and low levels of the contaminants (48μg/l Tetrachloroethylene) found in M-8 are observed in the M-9 groundwater sample, and none were found in M-10 or M-11. The soil samples were also nearly devoid of any contaminants found in M-8. An extremely low level of Tetrachloroethylene (1.2 μg/g) was reported in the M-9 sample. Similarly, minute levels of Toluene (0.6-4.8 μg/g) were also reported in each soil sample.

Analysis of these data lead us to conclude that the contamination historically observed at M-8 is characteristic of a localized zone of groundwater degradation. In that groundwater and the contaminants are obviously flowing toward, and being diluted by the adjacent river, no emergency health hazard appears to exist.

We hope these additional analyses will prove helpful to you and the DEQE. Please call should you have any questions or additional needs.

Very truly yours,
Caswell, Eichler and Hill, Inc.

Matthew F. Eichler III
Principal

MFE/amk

APPENDIX A

WATER QUALITY DATA

RAI

Resource Analysts, Incorporated
Box 4778 Hampton, NH 03842
(603) 926-7777

TO:

Mr. Matt Eichler
Caswell, Eichler, & Hill
P.O. Box 4696
Portsmouth, NH 03801

PO # ATF Davidson

Date Received: 12/23/86 (1300

Lab Number: 8593

Date Reported: 1/13/87

Attached please find test results for Volatile Organic Compounds.

S

Technical Director

Date 1/13/87

page ____ of ____

CHAIN OF CUSTODY DOCUMENTATION

CLIENT: CASWELL EICHLER & HILL, INC.
ADDRESS: P.O. BOX 4696
PORTSMOUTH, N.H. 03801

JOB NAME/NUMBER: ATF/DAVIDSON

PROJECT CONTACT: MATT EICHLER
SAMPLING LOCATION: ATF/DAVIDSON WHITINSVILLE MA.
SAMPLE COLLECTOR: MATT EICHLER

FIELD IDENTIFICATION List each container separately	LAB #	SAMPLE MATRIX	CONTAINER TYPE/VOLUME	FILTRATION	FIELD PRESERVATION	REMARKS/ANALYSIS REQUESTE
B-11 ABOVE WATER TABLE Date 12/22/86 Time 3:00 PM	8593-1	⊘ Solid ○ Liquid ○ Other	○ P/ mL ○ G/ mL ○ G/T/ mL Plastic bags	○ field ○ lab ⊘ none		GPA/6211
B-11 BELOW WATER TABLE Date 12/22/86 Time 3:00 PM	2	⊘ Solid ○ Liquid ○ Other	○ P/ mL ○ G/ mL ○ G/T/ mL	○ field ○ lab ⊘ none		
B-9 ABOVE WATER TABLE Date 12/22/86 Time 1:00 PM	3	⊘ Solid ○ Liquid ○ Other	○ P/ mL ○ G/ mL ○ G/T/ mL	○ field ○ lab ⊘ none		
B-10 ABOVE WATER TABLE Date 12/22/86 Time 2:00 PM	4	⊘ Solid ○ Liquid ○ Other	○ P/ mL ○ G/ mL ○ G/T/ mL	○ field ○ lab ⊘ none		
B-10 BELOW WATER TABLE Date 12/22/86 Time 2:00 PM	5	⊘ Solid ○ Liquid ○ Other	○ P/ mL ○ G/ mL ○ G/T/ mL	○ field ○ lab ⊘ none		
Date Time		○ Solid ○ Liquid ○ Other	○ P/ mL ○ G/ mL ○ G/T/ mL	○ field ○ lab ○ none		
Date Time		○ Solid ○ Liquid ○ Other	○ P/ mL ○ G/ mL ○ G/T/ mL	○ field ○ lab ○ none		
Date Time		○ Solid ○ Liquid ○ Other	○ P/ mL ○ G/ mL ○ G/T/ mL	○ field ○ lab ○ none		

Relinquished By:	Date	Time	Received By:	Date
Marshall Eichler III	12/23/86	12:53		
Relinquished By:	**Date**	**Time**	**Received For Laboratory By:**	**Date**
			S. Grannell Resource Analysts, Incorporated	12/23/86

Lab Number: 8593-1
Sample Designation: B-11 Above Water Table
Date Analyzed: 1/2/87
Matrix: Solid

Results expressed on a dry (103 degrees C) basis.

VOLATILE ORGANICS	CONCENTRATION (ug/g)	DETECTION LIMIT (ug/g)
CHLOROMETHANE	BDL	1
VINYL CHLORIDE	BDL	1
CHLOROETHANE	BDL	.5
BROMOMETHANE	BDL	1
METHYLENE CHLORIDE	BDL	.5
1,1-DICHLOROETHYLENE	BDL	.5
1,1-DICHLOROETHANE	BDL	.5
1,2-trans-DICHLOROETHYLENE	BDL	.5
CHLOROFORM	BDL	.5
1,2-DICHLOROETHANE	BDL	.5
1,1,1-TRICHLOROETHANE	BDL	.5
CARBON TETRACHLORIDE	BDL	.5
BROMODICHLOROMETHANE	BDL	.5
1,2-DICHLOROPROPANE	BDL	.5
1,3-trans-DICHLOROPROPENE	BDL	.5
TRICHLOROETHYLENE	BDL	.5
BENZENE	BDL	.5
1,3-cis-DICHLOROPROPENE	BDL	.5
1,1,2-TRICHLOROETHANE	BDL	.5
2-CHLOROETHYL VINYL ETHER	BDL	.5
DIBROMOCHLOROMETHANE	BDL	.5
BROMOFORM	BDL	.5
TETRACHLOROETHYLENE	BDL	.5
1,1,2,2-TETRACHLOROETHANE	BDL	.5
TOLUENE	4.3	.5
CHLOROBENZENE	BDL	.5
ETHYLBENZENE	BDL	.5
ACETONE	BDL	2.5
CARBON DISULFIDE	BDL	.5
THF	BDL	2.5
MEK	BDL	2.5
VINYL ACETATE	BDL	1
MIBK	BDL	2.5
2-HEXANONE	BDL	2.5
STYRENE	BDL	.5
XYLENES	BDL	.5

BDL = BELOW DETECTION LIMIT
METHOD REFERENCE: EPA SW 846, 2nd Edition METHOD 8240

Resource Analysts, Incorporated

Lab Number: 8593-2
Sample Designation: B-11 Below Water Table
Date Analyzed: 1/2/87
Matrix: Solid

Results expressed on a dry (103 degrees C) basis.

VOLATILE ORGANICS	CONCENTRATION (ug/g)	DETECTION LIMIT (ug/g)
CHLOROMETHANE	BDL	1
VINYL CHLORIDE	BDL	1
CHLOROETHANE	BDL	.5
BROMOMETHANE	BDL	1
METHYLENE CHLORIDE	BDL	.5
1,1-DICHLOROETHYLENE	BDL	.5
1,1-DICHLOROETHANE	BDL	.5
1,2-trans-DICHLOROETHYLENE	BDL	.5
CHLOROFORM	BDL	.5
1,2-DICHLOROETHANE	BDL	.5
1,1,1-TRICHLOROETHANE	BDL	.5
CARBON TETRACHLORIDE	BDL	.5
BROMODICHLOROMETHANE	BDL	.5
1,2-DICHLOROPROPANE	BDL	.5
1,3-trans-DICHLOROPROPENE	BDL	.5
TRICHLOROETHYLENE	BDL	.5
BENZENE	BDL	.5
1,3-cis-DICHLOROPROPENE	BDL	.5
1,1,2-TRICHLOROETHANE	BDL	.5
2-CHLOROETHYL VINYL ETHER	BDL	.5
DIBROMOCHLOROMETHANE	BDL	.5
BROMOFORM	BDL	.5
TETRACHLOROETHYLENE	BDL	.5
1,1,2,2-TETRACHLOROETHANE	BDL	.5
TOLUENE	.6	.5
CHLOROBENZENE	BDL	.5
ETHYLBENZENE	BDL	.5
ACETONE	BDL	2.5
CARBON DISULFIDE	BDL	.5
THF	BDL	2.5
MEK	BDL	2.5
VINYL ACETATE	BDL	1
MIBK	BDL	2.5
2-HEXANONE	BDL	2.5
STYRENE	BDL	.5
XYLENES	BDL	.5

BDL = BELOW DETECTION LIMIT
METHOD REFERENCE: EPA SW 846, 2nd Edition METHOD 8240

Lab Number: 8593-3
Sample Designation: B-9 Above Water Table
Date Analyzed: 1/2/87
Matrix: Solid

Results expressed on a dry (103 degrees C) basis.

VOLATILE ORGANICS	CONCENTRATION (ug/g)	DETECTION LIMIT (ug/g)
CHLOROMETHANE	BDL	1
VINYL CHLORIDE	BDL	1
CHLOROETHANE	BDL	.5
BROMOMETHANE	BDL	1
METHYLENE CHLORIDE	BDL	.5
1,1-DICHLOROETHYLENE	BDL	.5
1,1-DICHLOROETHANE	BDL	.5
1,2-trans-DICHLOROETHYLENE	BDL	.5
CHLOROFORM	BDL	.5
1,2-DICHLOROETHANE	BDL	.5
1,1,1-TRICHLOROETHANE	BDL	.5
CARBON TETRACHLORIDE	BDL	.5
BROMODICHLOROMETHANE	BDL	.5
1,2-DICHLOROPROPANE	BDL	.5
1,3-trans-DICHLOROPROPENE	BDL	.5
TRICHLOROETHYLENE	BDL	.5
BENZENE	BDL	.5
1,3-cis-DICHLOROPROPENE	BDL	.5
1,1,2-TRICHLOROETHANE	BDL	.5
2-CHLOROETHYL VINYL ETHER	BDL	.5
DIBROMOCHLOROMETHANE	BDL	.5
BROMOFORM	BDL	.5
TETRACHLOROETHYLENE	1.2	.5
1,1,2,2-TETRACHLOROETHANE	BDL	.5
TOLUENE	3.8	.5
CHLOROBENZENE	BDL	.5
ETHYLBENZENE	BDL	.5
ACETONE	BDL	2.5
CARBON DISULFIDE	BDL	.5
THF	BDL	2.5
MEK	BDL	2.5
VINYL ACETATE	BDL	1
MIBK	BDL	2.5
2-HEXANONE	BDL	2.5
STYRENE	BDL	.5
XYLENES	BDL	.5

BDL = BELOW DETECTION LIMIT
METHOD REFERENCE: EPA SW 846, 2nd Edition METHOD 8240

Lab Number: 8593-4
Sample Designation: B-10 Above Water Table
Date Analyzed: 1/6/87
Matrix: Solid

Results expressed on a dry (103 degrees C) basis.

VOLATILE ORGANICS	CONCENTRATION (ug/g)	DETECTION LIMIT (ug/g)
CHLOROMETHANE	BDL	1
VINYL CHLORIDE	BDL	1
CHLOROETHANE	BDL	.5
BROMOMETHANE	BDL	1
METHYLENE CHLORIDE	BDL	.5
1,1-DICHLOROETHYLENE	BDL	.5
1,1-DICHLOROETHANE	BDL	.5
1,2-trans-DICHLOROETHYLENE	BDL	.5
CHLOROFORM	BDL	.5
1,2-DICHLOROETHANE	BDL	.5
1,1,1-TRICHLOROETHANE	BDL	.5
CARBON TETRACHLORIDE	BDL	.5
BROMODICHLOROMETHANE	BDL	.5
1,2-DICHLOROPROPANE	BDL	.5
1,3-trans-DICHLOROPROPENE	BDL	.5
TRICHLOROETHYLENE	BDL	.5
BENZENE	BDL	.5
1,3-cis-DICHLOROPROPENE	BDL	.5
1,1,2-TRICHLOROETHANE	BDL	.5
2-CHLOROETHYL VINYL ETHER	BDL	.5
DIBROMOCHLOROMETHANE	BDL	.5
BROMOFORM	BDL	.5
TETRACHLOROETHYLENE	BDL	.5
1,1,2,2-TETRACHLOROETHANE	BDL	.5
TOLUENE	2.7	.5
CHLOROBENZENE	BDL	.5
ETHYLBENZENE	BDL	.5
ACETONE	BDL	2.5
CARBON DISULFIDE	BDL	.5
THF	BDL	2.5
MEK	BDL	2.5
VINYL ACETATE	BDL	1
MIBK	BDL	2.5
2-HEXANONE	BDL	2.5
STYRENE	BDL	.5
XYLENES	BDL	.5

BDL = BELOW DETECTION LIMIT
METHOD REFERENCE: EPA SW 846, 2nd Edition METHOD 8240

Lab Number: 8593-5
Sample Designation: B-10 Below Water Table
Date Analyzed: 1/2/87
Matrix: Solid

Results expressed on a dry (103 degrees C) basis.

VOLATILE ORGANICS	CONCENTRATION (ug/g)	DETECTION LIMIT (ug/g)
CHLOROMETHANE	BDL	1
VINYL CHLORIDE	BDL	1
CHLOROETHANE	BDL	.5
BROMOMETHANE	BDL	1
METHYLENE CHLORIDE	BDL	.5
1,1-DICHLOROETHYLENE	BDL	.5
1,1-DICHLOROETHANE	BDL	.5
1,2-trans-DICHLOROETHYLENE	BDL	.5
CHLOROFORM	BDL	.5
1,2-DICHLOROETHANE	BDL	.5
1,1,1-TRICHLOROETHANE	BDL	.5
CARBON TETRACHLORIDE	BDL	.5
BROMODICHLOROMETHANE	BDL	.5
1,2-DICHLOROPROPANE	BDL	.5
1,3-trans-DICHLOROPROPENE	BDL	.5
TRICHLOROETHYLENE	BDL	.5
BENZENE	BDL	.5
1,3-cis-DICHLOROPROPENE	BDL	.5
1,1,2-TRICHLOROETHANE	BDL	.5
2-CHLOROETHYL VINYL ETHER	BDL	.5
DIBROMOCHLOROMETHANE	BDL	.5
BROMOFORM	BDL	.5
TETRACHLOROETHYLENE	BDL	.5
1,1,2,2-TETRACHLOROETHANE	BDL	.5
TOLUENE	4.8	.5
CHLOROBENZENE	BDL	.5
ETHYLBENZENE	BDL	.5
ACETONE	BDL	2.5
CARBON DISULFIDE	BDL	.5
THF	BDL	2.5
MEK	BDL	2.5
VINYL ACETATE	BDL	1
MIBK	BDL	2.5
2-HEXANONE	BDL	2.5
STYRENE	BDL	.5
XYLENES	BDL	.5

BDL = BELOW DETECTION LIMIT
METHOD REFERENCE: EPA SW 846, 2nd Edition METHOD 8240

RAI

Resource Analysts, Incorporated
Box 4778 Hampton, NH 03842
(603) 926-7777

TO:

Mr. Matt Eichler
ATF/Davidson
C/O Caswell, Eichler & Hill
Box 4696
Portsmouth, NH 03801

PO # Whitinsville, MA

Date Received: 1/27/87 (150

Lab Number: 8806

Date Reported: 2/10/87

Attached please find test results for Volatile Organic Compounds.

Russell Foster h

h

Technical Director

Date 2/10/87

CHAIN OF CUSTODY DOCUMENTATION

M-6

CLIENT: ATF/Davidson
ADDRESS: c/o CEH
Box 4696 Portsmouth, NH 03801

JOB NAME/NUMBER:

PROJECT CONTACT: Matt Eichler
SAMPLING LOCATION: Whitinsville Ma

SAMPLE COLLECTOR: B. Bline (CEH)

FIELD IDENTIFICATION (list each container separately)	LAB #	SAMPLE MATRIX	CONTAINER TYPE/VOLUME	FILTRATION	FIELD PRESERVATION	REMARKS/ANALYSIS REQUESTED
Date 1/24/87 Time 11:45	8806-1	○ Solid ● Liquid ○ Other	○ P/ mL ○ G/2x40 mL ● G/T/ mL	○ field ○ lab ● none	4°C	VOA
Date Time		○ Solid ○ Liquid ○ Other	○ P/ mL ○ G/ mL ○ G/T/ mL	○ field ○ lab ○ none		
Date Time		○ Solid ○ Liquid ○ Other	○ P/ mL ○ G/ mL ○ G/T/ mL	○ field ○ lab ○ none		
Date Time		○ Solid ○ Liquid ○ Other	○ P/ mL ○ G/ mL ○ G/T/ mL	○ field ○ lab ○ none		
Date Time		○ Solid ○ Liquid ○ Other	○ P/ mL ○ G/ mL ○ G/T/ mL	○ field ○ lab ○ none		
Date Time		○ Solid ○ Liquid ○ Other	○ P/ mL ○ G/ mL ○ G/T/ mL	○ field ○ lab ○ none		
Date Time		○ Solid ○ Liquid ○ Other	○ P/ mL ○ G/ mL ○ G/T/ mL	○ field ○ lab ○ none		
Date Time		○ Solid ○ Liquid ○ Other	○ P/ mL ○ G/ mL ○ G/T/ mL	○ field ○ lab ○ none		

Relinquished By:	Date	Time	Received By:	Date	Time
Bruce Bline	1/25/87	9:45			
Relinquished By:	**Date**	**Time**	**Received For Laboratory By:**	**Date**	**Time**
[illegible]	1-27	1500	S. Chamney	1/27	1500

Resource Analysts, Incorporated

CHAIN OF CUSTODY DOCUMENTATION

M-8

CLIENT: ATF/Davidson
ADDRESS: c/o CEH
Box 4696 Portsmouth, NH 03801

PROJECT CONTACT: Matt Eichler
SAMPLING LOCATION: Whitinsville MA

JOB NAME/NUMBER:
SAMPLE COLLECTOR: B. Bline (CEH)

FIELD IDENTIFICATION (List each container separately)	LAB #	SAMPLE MATRIX	CONTAINER TYPE/VOLUME	FILTRATION	FIELD PRESERVATION	REMARKS/ANALYSIS REQUESTED
Date 1/24/87 Time 12:15	8806-3	○ Solid ● Liquid ○ Other	○ P/ mL ○ G/2x40 mL ● G/T/ mL	○ field ○ lab ● none	4°C	VOA
Date Time		○ Solid ○ Liquid ○ Other	○ P/ mL ○ G/ mL ○ G/T/ mL	○ field ○ lab ○ none		
Date Time		○ Solid ○ Liquid ○ Other	○ P/ mL ○ G/ mL ○ G/T/ mL	○ field ○ lab ○ none		
Date Time		○ Solid ○ Liquid ○ Other	○ P/ mL ○ G/ mL ○ G/T/ mL	○ field ○ lab ○ none		
Date Time		○ Solid ○ Liquid ○ Other	○ P/ mL ○ G/ mL ○ G/T/ mL	○ field ○ lab ○ none		
Date Time		○ Solid ○ Liquid ○ Other	○ P/ mL ○ G/ mL ○ G/T/ mL	○ field ○ lab ○ none		
Date Time		○ Solid ○ Liquid ○ Other	○ P/ mL ○ G/ mL ○ G/T/ mL	○ field ○ lab ○ none		
Date Time		○ Solid ○ Liquid ○ Other	○ P/ mL ○ G/ mL ○ G/T/ mL	○ field ○ lab ○ none		

Relinquished By:	Date	Time	Received By:	Date	Time
Bill Bline	1/25/87	9:45			

Relinquished By:	Date	Time	Received For Laboratory By:	Date	Time
[illegible]	1-27	1500	[illegible]	1/27	1500

Resource Analysts, Incorporated

CHAIN OF CUSTODY DOCUMENTATION

M-7

CLIENT: ATF/Davidson
ADDRESS: c/o CEH
Box 4696 Portsmouth, NH 03801

PROJECT CONTACT: Matt Eichler
SAMPLING LOCATION: Whitinsville Mt
JOB NAME/NUMBER:
SAMPLE COLLECTOR: B. Bline (CEH)

FIELD IDENTIFICATION (List each container separately)	LAB #	SAMPLE MATRIX	CONTAINER TYPE/VOLUME	FILTRATION	FIELD PRESERVATION	REMARKS/ANALYSIS REQUESTED
Date 1/24/87 Time 12:50	8806-2	○ Solid ● Liquid ○ Other	○ P/ mL ○ G/2x40 mL ● G/T/ mL	○ field ○ lab ● none	4°C	VOA
Date Time		○ Solid ○ Liquid ○ Other	○ P/ mL ○ G/ mL ○ G/T/ mL	○ field ○ lab ○ none		
Date Time		○ Solid ○ Liquid ○ Other	○ P/ mL ○ G/ mL ○ G/T/ mL	○ field ○ lab ○ none		
Date Time		○ Solid ○ Liquid ○ Other	○ P/ mL ○ G/ mL ○ G/T/ mL	○ field ○ lab ○ none		
Date Time		○ Solid ○ Liquid ○ Other	○ P/ mL ○ G/ mL ○ G/T/ mL	○ field ○ lab ○ none		
Date Time		○ Solid ○ Liquid ○ Other	○ P/ mL ○ G/ mL ○ G/T/ mL	○ field ○ lab ○ none		
Date Time		○ Solid ○ Liquid ○ Other	○ P/ mL ○ G/ mL ○ G/T/ mL	○ field ○ lab ○ none		

Relinquished By:	Date	Time	Received By:	Date	Time
Bill Bline	1/25/87	9:45			

Relinquished By:	Date	Time	Received For Laboratory By:	Date	Time
[illegible]	1-27-	1500	[illegible]	1/27	15

Resource Analysis, Incorporated

CHAIN OF CUSTODY DOCUMENTATION

M-10

CLIENT: ATF/Davidson
ADDRESS: c/o CEH
Box 4696 Portsmouth, NH 03801

JOB NAME/NUMBER:

PROJECT CONTACT: Matt Eichler
SAMPLING LOCATION: Whitinsville MA

SAMPLE COLLECTOR: B. Bline (CEH)

FIELD IDENTIFICATION (List each container separately)	LAB #	SAMPLE MATRIX	CONTAINER TYPE/VOLUME	FILTRATION	FIELD PRESERVATION	REMARKS/ANALYSIS REQUESTED
Date 1/24/87 Time 13:20	8806-4	○ Solid ● Liquid ○ Other	○ P/ mL ○ G/2x40mL ● G/T/ mL	○ field ○ lab ● none	4°C	VOA
Date Time		○ Solid ○ Liquid ○ Other	○ P/ mL ○ G/ mL ○ G/T/ mL	○ field ○ lab ○ none		
Date Time		○ Solid ○ Liquid ○ Other	○ P/ mL ○ G/ mL ○ G/T/ mL	○ field ○ lab ○ none		
Date Time		○ Solid ○ Liquid ○ Other	○ P/ mL ○ G/ mL ○ G/T/ mL	○ field ○ lab ○ none		
Date Time		○ Solid ○ Liquid ○ Other	○ P/ mL ○ G/ mL ○ G/T/ mL	○ field ○ lab ○ none		
Date Time		○ Solid ○ Liquid ○ Other	○ P/ mL ○ G/ mL ○ G/T/ mL	○ field ○ lab ○ none		
Date Time		○ Solid ○ Liquid ○ Other	○ P/ mL ○ G/ mL ○ G/T/ mL	○ field ○ lab ○ none		
Date Time		○ Solid ○ Liquid ○ Other	○ P/ mL ○ G/ mL ○ G/T/ mL	○ field ○ lab ○ none		

Relinquished By:	Date	Time	Received By:	Date	Time
Bruce Bline	1/25/87	9:45			

Relinquished By:	Date	Time	Received For Laboratory By:	Date	Time
[illegible]	1-27	1500	[illegible]	1/27	1500

Resource Analysts, Incorporated

CHAIN OF CUSTODY DOCUMENTATION

M-11

CLIENT: ATF/Davidson
ADDRESS: c/o CEH
Box 4696 Portsmouth, NH 03801

PROJECT CONTACT: Matt Eichler
SAMPLING LOCATION: Whitinsville MA

JOB NAME/NUMBER:
SAMPLE COLLECTOR: B. Bline (CEH)

FIELD IDENTIFICATION (List each container separately)	LAB #	SAMPLE MATRIX	CONTAINER TYPE/VOLUME	FILTRATION	FIELD PRESERVATION	REMARKS/ANALYSIS REQUESTED
Date 1/24/87 Time 14:05	8806-5	○ Solid ● Liquid ○ Other	○ P/ mL ○ G/2x40 mL ● G/T/ mL	○ field ○ lab ● none	4°C	VOA
Date Time		○ Solid ○ Liquid ○ Other	○ P/ mL ○ G/ mL ○ G/T/ mL	○ field ○ lab ○ none		
Date Time		○ Solid ○ Liquid ○ Other	○ P/ mL ○ G/ mL ○ G/T/ mL	○ field ○ lab ○ none		
Date Time		○ Solid ○ Liquid ○ Other	○ P/ mL ○ G/ mL ○ G/T/ mL	○ field ○ lab ○ none		
Date Time		○ Solid ○ Liquid ○ Other	○ P/ mL ○ G/ mL ○ G/T/ mL	○ field ○ lab ○ none		
Date Time		○ Solid ○ Liquid ○ Other	○ P/ mL ○ G/ mL ○ G/T/ mL	○ field ○ lab ○ none		
Date Time		○ Solid ○ Liquid ○ Other	○ P/ mL ○ G/ mL ○ G/T/ mL	○ field ○ lab ○ none		
Date Time		○ Solid ○ Liquid ○ Other	○ P/ mL ○ G/ mL ○ G/T/ mL	○ field ○ lab ○ none		

Relinquished By:	Date	Time	Received By:	Date	Time
Anne Bline	1/25/87	9:45			
Relinquished By:	**Date**	**Time**	**Received For Laboratory By:**	**Date**	**Time**
[illegible]	1-27	1500	[illegible]	1/27	1500

Resource Analysts, Incorporated

Lab Number: 8806-1
Sample Designation: M-6
Date Analyzed: 1/30/87
Matrix: Water

VOLATILE ORGANICS	CONCENTRATION (ug/L)	DETECTION LIMIT (ug/L)
CHLOROMETHANE	BDL	10
VINYL CHLORIDE	48	10
CHLOROETHANE	BDL	5
BROMOMETHANE	BDL	10
METHYLENE CHLORIDE	BDL	5
1,1-DICHLOROETHYLENE	BDL	5
1,1-DICHLOROETHANE	BDL	5
1,2-trans-DICHLOROETHYLENE	13	5
CHLOROFORM	BDL	5
1,2-DICHLOROETHANE	BDL	5
1,1,1-TRICHLOROETHANE	BDL	5
CARBON TETRACHLORIDE	BDL	5
BROMODICHLOROMETHANE	BDL	5
1,2-DICHLOROPROPANE	BDL	5
1,3-trans-DICHLOROPROPENE	BDL	5
TRICHLOROETHYLENE	7.6	5
BENZENE	BDL	5
1,3-cis-DICHLOROPROPENE	BDL	5
1,1,2-TRICHLOROETHANE	BDL	5
2-CHLOROETHYL VINYL ETHER	BDL	5
DIBROMOCHLOROMETHANE	BDL	5
BROMOFORM	BDL	5
TETRACHLOROETHYLENE	13	5
1,1,2,2-TETRACHLOROETHANE	BDL	5
TOLUENE	BDL	5
CHLOROBENZENE	BDL	5
ETHYLBENZENE	BDL	5
ACETONE	BDL	25
CARBON DISULFIDE	BDL	5
THF	BDL	25
MEK	BDL	25
VINYL ACETATE	BDL	10
MIBK	BDL	25
2-HEXANONE	BDL	25
STYRENE	BDL	5
XYLENES	BDL	5

BDL = BELOW DETECTION LIMIT
METHOD REFERENCE: 40 CFR PART 136, FRIDAY, OCTOBER 26, 1984
METHOD 624

Resource Analysts, Incorporated

Lab Number:	8806-2
Sample Designation:	M-7
Date Analyzed:	2/3/87
Matrix:	Water

VOLATILE ORGANICS	CONCENTRATION (ug/L)	DETECTION LIMIT (ug/L)
CHLOROMETHANE	BDL	10
VINYL CHLORIDE	BDL	10
CHLOROETHANE	BDL	5
BROMOMETHANE	BDL	10
METHYLENE CHLORIDE	BDL	5
1,1-DICHLOROETHYLENE	BDL	5
1,1-DICHLOROETHANE	BDL	5
1,2-trans-DICHLOROETHYLENE	BDL	5
CHLOROFORM	BDL	5
1,2-DICHLOROETHANE	BDL	5
1,1,1-TRICHLOROETHANE	BDL	5
CARBON TETRACHLORIDE	BDL	5
BROMODICHLOROMETHANE	BDL	5
1,2-DICHLOROPROPANE	BDL	5
1,3-trans-DICHLOROPROPENE	BDL	5
TRICHLOROETHYLENE	BDL	5
BENZENE	BDL	5
1,3-cis-DICHLOROPROPENE	BDL	5
1,1,2-TRICHLOROETHANE	BDL	5
2-CHLOROETHYL VINYL ETHER	BDL	5
DIBROMOCHLOROMETHANE	BDL	5
BROMOFORM	BDL	5
TETRACHLOROETHYLENE	BDL	5
1,1,2,2-TETRACHLOROETHANE	BDL	5
TOLUENE	BDL	5
CHLOROBENZENE	BDL	5
ETHYLBENZENE	BDL	5
ACETONE	BDL	25
CARBON DISULFIDE	BDL	5
THF	BDL	25
MEK	BDL	25
VINYL ACETATE	BDL	10
MIBK	BDL	25
2-HEXANONE	BDL	25
STYRENE	BDL	5
XYLENES	BDL	5

BDL = BELOW DETECTION LIMIT
METHOD REFERENCE: 40 CFR PART 136, FRIDAY, OCTOBER 26, 1984
METHOD 624

Resource Analysts, Incorporated

Lab Number: 8806-3
Sample Designation: M-8
Date Analyzed: 2/2/87
Matrix: Water

VOLATILE ORGANICS	CONCENTRATION (ug/L)	DETECTION LIMIT (ug/L)
CHLOROMETHANE	BDL	10
VINYL CHLORIDE	280	10
CHLOROETHANE	BDL	5
BROMOMETHANE	BDL	10
METHYLENE CHLORIDE	BDL	5
1,1-DICHLOROETHYLENE	BDL	5
1,1-DICHLOROETHANE	BDL	5
1,2-trans-DICHLOROETHYLENE	640	5
CHLOROFORM	BDL	5
1,2-DICHLOROETHANE	BDL	5
1,1,1-TRICHLOROETHANE	BDL	5
CARBON TETRACHLORIDE	BDL	5
BROMODICHLOROMETHANE	BDL	5
1,2-DICHLOROPROPANE	BDL	5
1,3-trans-DICHLOROPROPENE	BDL	5
TRICHLOROETHYLENE	17	5
BENZENE	BDL	5
1,3-cis-DICHLOROPROPENE	BDL	5
1,1,2-TRICHLOROETHANE	BDL	5
2-CHLOROETHYL VINYL ETHER	BDL	5
DIBROMOCHLOROMETHANE	BDL	5
BROMOFORM	BDL	5
TETRACHLOROETHYLENE	BDL	5
1,1,2,2-TETRACHLOROETHANE	BDL	5
TOLUENE	BDL	5
CHLOROBENZENE	BDL	5
ETHYLBENZENE	BDL	5
ACETONE	BDL	25
CARBON DISULFIDE	BDL	5
THF	BDL	25
MEK	BDL	25
VINYL ACETATE	BDL	10
MIBK	BDL	25
2-HEXANONE	BDL	25
STYRENE	BDL	5
XYLENES	BDL	5

BDL = BELOW DETECTION LIMIT
METHOD REFERENCE: 40 CFR PART 136, FRIDAY, OCTOBER 26, 1984
METHOD 624

Resource Analysts, Incorporated

Lab Number: 8806-4
Sample Designation: M-10
Date Analyzed: 2/2/87
Matrix: Water

VOLATILE ORGANICS	CONCENTRATION (ug/L)	DETECTION LIMIT (ug/L)
CHLOROMETHANE	BDL	10
VINYL CHLORIDE	BDL	10
CHLOROETHANE	BDL	5
BROMOMETHANE	BDL	10
METHYLENE CHLORIDE	BDL	5
1,1-DICHLOROETHYLENE	BDL	5
1,1-DICHLOROETHANE	BDL	5
1,2-trans-DICHLOROETHYLENE	BDL	5
CHLOROFORM	BDL	5
1,2-DICHLOROETHANE	BDL	5
1,1,1-TRICHLOROETHANE	BDL	5
CARBON TETRACHLORIDE	BDL	5
BROMODICHLOROMETHANE	BDL	5
1,2-DICHLOROPROPANE	BDL	5
1,3-trans-DICHLOROPROPENE	BDL	5
TRICHLOROETHYLENE	BDL	5
BENZENE	BDL	5
1,3-cis-DICHLOROPROPENE	BDL	5
1,1,2-TRICHLOROETHANE	BDL	5
2-CHLOROETHYL VINYL ETHER	BDL	5
DIBROMOCHLOROMETHANE	BDL	5
BROMOFORM	BDL	5
TETRACHLOROETHYLENE	BDL	5
1,1,2,2-TETRACHLOROETHANE	BDL	5
TOLUENE	BDL	5
CHLOROBENZENE	BDL	5
ETHYLBENZENE	BDL	5
ACETONE	BDL	25
CARBON DISULFIDE	BDL	5
THF	BDL	25
MEK	BDL	25
VINYL ACETATE	BDL	10
MIBK	BDL	25
2-HEXANONE	BDL	25
STYRENE	BDL	5
XYLENES	BDL	5

BDL = BELOW DETECTION LIMIT
METHOD REFERENCE: 40 CFR PART 136, FRIDAY, OCTOBER 26, 1984
METHOD 624

Resource Analysts, Incorporated

Lab Number: 8806-5
Sample Designation: M-11
Date Analyzed: 2/2/87
Matrix: Water

VOLATILE ORGANICS	CONCENTRATION (ug/L)	DETECTION LIMIT (ug/L)
CHLOROMETHANE	BDL	10
VINYL CHLORIDE	BDL	10
CHLOROETHANE	BDL	5
BROMOMETHANE	BDL	10
METHYLENE CHLORIDE	BDL	5
1,1-DICHLOROETHYLENE	BDL	5
1,1-DICHLOROETHANE	BDL	5
1,2-trans-DICHLOROETHYLENE	BDL	5
CHLOROFORM	BDL	5
1,2-DICHLOROETHANE	BDL	5
1,1,1-TRICHLOROETHANE	BDL	5
CARBON TETRACHLORIDE	BDL	5
BROMODICHLOROMETHANE	BDL	5
1,2-DICHLOROPROPANE	BDL	5
1,3-trans-DICHLOROPROPENE	BDL	5
TRICHLOROETHYLENE	BDL	5
BENZENE	BDL	5
1,3-cis-DICHLOROPROPENE	BDL	5
1,1,2-TRICHLOROETHANE	BDL	5
2-CHLOROETHYL VINYL ETHER	BDL	5
DIBROMOCHLOROMETHANE	BDL	5
BROMOFORM	BDL	5
TETRACHLOROETHYLENE	BDL	5
1,1,2,2-TETRACHLOROETHANE	BDL	5
TOLUENE	BDL	5
CHLOROBENZENE	BDL	5
ETHYLBENZENE	BDL	5
ACETONE	BDL	25
CARBON DISULFIDE	BDL	5
THF	BDL	25
MEK	BDL	25
VINYL ACETATE	BDL	10
MIBK	BDL	25
2-HEXANONE	BDL	25
STYRENE	BDL	5
XYLENES	BDL	5

BDL = BELOW DETECTION LIMIT
METHOD REFERENCE: 40 CFR PART 136, FRIDAY, OCTOBER 26, 1984
METHOD 624

Resource Analysts, Incorporated

RAI

Resource Analysts, Incorporated
Box 4778 Hampton, NH 03842
(603) 926-7777

TO:

Mr. Matt Eichler
Caswell, Eichler & Hill
P.O. Box 4696
Portsmouth, NH 03801

PO # ATF Davidson

Date Received: 3/13/87 (131

Lab Number: 9143

Date Reported: 3/18/87

Attached please find test results for Volatile Organic Compounds.

Russell [illegible] Date 3/18/87

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Technical Director

page 1 of 1

CHAIN OF CUSTODY DOCUMENTATION

CLIENT: ATF DAVIDSON

ADDRESS: Whitesville, [illegible]

PROJECT CONTACT: JOE MENENDEZ

JOB NAME/NUMBER:

SAMPLING LOCATION: M-9

SAMPLE COLLECTOR: KRUCE BLINE (CEH)

FIELD IDENTIFICATION list each container separately	LAB #	SAMPLE MATRIX	CONTAINER TYPE/VOLUME	FILTRATION	FIELD PRESERVATION	REMARKS/ANALYSIS REQUESTED
9143 Date 3/13/87 Time 1:15	9143	○ Solid ● Liquid ○ Other	○ P/ mL ○ G/2x40 mL ● G/T/ mL	○ field ○ lab ● none	4°C	VOA
Date Time		○ Solid ○ Liquid ○ Other	○ P/ mL ○ G/ mL ○ G/T/ mL	○ field ○ lab ○ none		
Date Time		○ Solid ○ Liquid ○ Other	○ P/ mL ○ G/ mL ○ G/T/ mL	○ field ○ lab ○ none		
Date Time		○ Solid ○ Liquid ○ Other	○ P/ mL ○ G/ mL ○ G/T/ mL	○ field ○ lab ○ none		
Date Time		○ Solid ○ Liquid ○ Other	○ P/ mL ○ G/ mL ○ G/T/ mL	○ field ○ lab ○ none		
Date Time		○ Solid ○ Liquid ○ Other	○ P/ mL ○ G/ mL ○ G/T/ mL	○ field ○ lab ○ none		
Date Time		○ Solid ○ Liquid ○ Other	○ P/ mL ○ G/ mL ○ G/T/ mL	○ field ○ lab ○ none		
Date Time		○ Solid ○ Liquid ○ Other	○ P/ mL ○ G/ mL ○ G/T/ mL	○ field ○ lab ○ none		

Relinquished By:	Date	Time	Received By:	Date	Time
Relinquished By: Bruce P. Bline	3/13/87	13:19	Received For Laboratory By: Beth O'Brien	3/13/87	13:19

Resource Analysts, Incorporated

Lab Number:	9143-1
Sample Designation:	M-9 ATF Davidson
Date Analyzed:	3/16/87
Matrix:	Water

VOLATILE ORGANICS	CONCENTRATION (ug/L)	DETECTION LIMIT (ug/L)
CHLOROMETHANE	BDL	10
VINYL CHLORIDE	BDL	10
CHLOROETHANE	BDL	5
BROMOMETHANE	BDL	10
METHYLENE CHLORIDE	BDL	5
1,1-DICHLOROETHYLENE	BDL	5
1,1-DICHLOROETHANE	BDL	5
1,2-trans-DICHLOROETHYLENE	Trace	5
CHLOROFORM	BDL	5
1,2-DICHLOROETHANE	BDL	5
1,1,1-TRICHLOROETHANE	BDL	5
CARBON TETRACHLORIDE	BDL	5
BROMODICHLOROMETHANE	BDL	5
1,2-DICHLOROPROPANE	BDL	5
1,3-trans-DICHLOROPROPENE	BDL	5
TRICHLOROETHYLENE	Trace	5
BENZENE	BDL	5
1,3-cis-DICHLOROPROPENE	BDL	5
1,1,2-TRICHLOROETHANE	BDL	5
2-CHLOROETHYL VINYL ETHER	BDL	5
DIBROMOCHLOROMETHANE	BDL	5
BROMOFORM	BDL	5
TETRACHLOROETHYLENE	48	5
1,1,2,2-TETRACHLOROETHANE	BDL	5
TOLUENE	BDL	5
CHLOROBENZENE	BDL	5
ETHYLBENZENE	BDL	5
ACETONE	BDL	25
CARBON DISULFIDE	BDL	5
THF	BDL	25
MEK	BDL	25
VINYL ACETATE	BDL	10
MIBK	BDL	25
2-HEXANONE	BDL	25
STYRENE	BDL	5
XYLENES	BDL	5

"Trace" denotes probable presence below listed detection limit.

BDL = BELOW DETECTION LIMIT
METHOD REFERENCE: 40 CFR PART 136, FRIDAY, OCTOBER 26, 1984
METHOD 624

Resource Analysts, Incorporated

Attachment 3

Monthly Cost Analysis Detailing the Purchase of Various Chrome-Plated Parts

WHITIN

MATERIAL COST JUSTIFICATION
(Schedule C - Line 4b)

DOMESTIC DIRECT MATERIAL

Based on an analysis of one month's usage of all Direct Material, we have found that the cost of Direct Material in our product has increased by 6.14% since 10/2/72.

The method used in this analysis was to compare prices paid at 10/2/72 with as current a price available from invoices and purchasing records.

If the prices for the item were unavailable, or if the item had not been purchased during the applicable time period, then the cost was assumed to be the same in both periods. Thus the resulting weighted % cost change does not contain anticipated cost increases, not does it assume increases equivalent to increases observed on similar materials used.

The total amount analyzed is based on the average monthly Direct Material in Cost of Sales for the 4th Quarter 1972.

The following Direct Material Schedules consist of:

(1) A one page summary listing the 37 commodity items having significant usage, showing the net cost changes from the analysis.

(2) Detail of items analyzed, showing the item price at 10/2/72 and the most recent price experience for the same item. Dollar amounts are accumulated to arrive at a weighted average.

WHITIN

Schedule I

DETAIL OF COST INCREASES
(Schedule C - Line 4b)

	Direct Materials	Current Cost Monthly Usage	Monthly Usage Cost at 10/2/72	Amount Change	% Change
1.	Pig Iron	$ 17,098	$ 16,075	$ 1,023	6.36%
2.	C. I. Scrap	11,819	10,183	1,636	16.07%
3.	Steel Scrap	4,132	3,624	508	14.02%
4.	Foundry Direct Matl.	3,978	3,395	583	17.17%
5.	Hardware	52,365	50,852	1,513	2.98%
6.	Steel, Brass, Aluminum	190,052	182,653	7,399	4.05%
7.	Bearings	66,630	63,566	3,064	4.82%
8.	Electrical, Motors	138,199	133,376	4,823	3.62%
9.	Castings, Forgings	92,070	80,416	11,654	14.49%
10.	Graphic Supplies	65,346	55,682	9,664	17.36%
11.	Coke	8,403	7,955	448	5.63%
12.	Spinning Rolls	33,432	30,092	3,340	11.10%
13.	Spinning Rings	49,863	45,688	4,175	9.13%
14.	Card Covering	6,339	6,283	56	0.89%
15.	Oiling Systems	10,838	10,290	548	5.33%
16.	Roll Cots	5,825	5,646	179	3.18%
17.	Counters & Numberers	3,632	3,642	(10)	(0.29)%
18.	Pulleys	4,632	4,098	534	13.03%
19.	Chain	5,764	5,373	391	7.28%
20.	Lumber	16,861	13,659	3,202	23.44%
21.	Cartons	7,027	6,920	107	1.55%
22.	Pumps	8,286	8,286	0	0
23.	Plastics	9,011	8,833	178	2.02%
24.	Unicomb Assemblies	5,008	5,008	0	0
25.	Rubber Roll Covering	74,322	68,295	6,027	8.82%
26.	Duplicator Dumbells	5,919	5,919	0	0
27.	Hinges & Lappets	4,143	4,189	(46)	(1.10)%
28.	Guides & Brake Pads	3,936	4,371	(435)	(9.95)%
29.	Chrome Plating	12,373	11,383	990	8.70%
30.	Web Press Assemblies	1,912	1,912	0	0
31.	Duplicator Roll Segments	28,496	26,096	2,400	9.20%
32.	Gripper Bars, Blades, Knives	16,872	16,572	300	1.81%
33.	Duplicator Cover Assemblies	20,188	19,760	428	2.17%
34.	Roving Flyers & Spindles	5,184	5,008	176	3.52%
35.	Duplicator Cylinders	5,463	5,463	0	0
36.	Couplings, Belting, Blanks	5,294	4,917	377	7.67%
37.	Misc. Parts & Accessories	126,722	126,706	16	0.01%
	TOTAL	$1,127,434	$1,062,186	$65,248	6.14%

WHITIN

DETAIL OF COST INCREASES
(Schedule C - Line 4b)

Schedule IA

(DETAIL) DIRECT MATERIALS	QTY.	CURRENT PRICE	CURRENT AMT.	1972 PRICE	1972 AMT.	DIFF.	% CHANGE
PIG IRON							
Total	188.72/N.T.	90.60/N.T.	17,098	85.18/N.T.	16,075		
Comparable Items			17,098		16,075	1,023	6.36
C. I. SCRAP							
Total	175.826/G.T.	67.22/G.T.	11,819	57.92/G.T.	10,183		
Comparable Items			11,819		10,183	1,636	16.07
STEEL SCRAP							
Cut Plate & Structual	20.679 G.T.	62.00/G.T.	1,282	50.00/G.T.	1,034		
Cut steel	9.7634/G.T.	70.00/G.T.	683	48.00/G.T.	469		
Cut Steel #1 mach cast	9.1518/G.T.	50.50/G.T.	462	48.50/G.T.	444		
Cut steel #1 mach cast	14.4866/G.T.	50.50/G.T.	731	48.50/G.T.	703		
Comparable Items			3,158		2,650	508	19.17
Other			974		974		
Total			4,132		3,624	508	14.02
FOUNDRY DIRECT							
Briquetter	12,000#	.0960	1,152	.092	1,104		
4 Pallets		15.00 ea	60	15.00 ea	60		
Premium Whse.	6,000 N.T.	27.00 N.T.	165	27.00 N.T.	165		
Ferro Cilicon	30,000#	.1750/#	2,463		)		
Premium Whse.	15,000 N.T.	27.00 N.T.	412	162.00 N.T.	) 2,430		
Pallet		15.00 ea	150		)		

WHITIN

DETAIL OF COST INCREASES
(Schedule C - Line 4b)

Schedule I A

(DETAIL) DIRECT MATERIALS	QTY.	CURRENT PRICE	CURRENT AMT.	1972 PRICE	1972 AMT.	DIFF.	% CHANGE
FOUNDRY DIRECT CONT'D							
Comparable Items			4,402		3,757	645	17.17
Other			(424)		(362)	(62)	17.17
Total			3,978		3,395	583	17.17
HARDWARE							
#207A981 Damper Springs	1,125 ea	46.00/C	518	31.00/C	349		
A88T16 Spring hooks	813 ea	52.00/C	423	50.00/C	407		
207A971 Springs Nipper Frame	1,096 ea	29.00/C	318	26.00/C	285		
2161F72 Spring Gripper	4,416 ea	225.00/M	994	225.00/M	994		
90W72 Catch springs	5,253 ea	74.00/M	389	106.00/M	557		
664614 Brake Springs	2,130 ea	21.00/C	447	37.00/C	788		
2032-Fos rev. 2	910 ea	574.25/M	523	347.30/M	316		
2161F72 rev. 1	4,416 ea	225.00/M	994	225.00/M	994		
207A131 Balance spring	10	7.20 ea	72	335.00/C	34		
2170W541 paper stop lever	1,084	138.00/M	150	244.00/M	264		
88-2527-01 springs	2,500 ea	110.60/M	277	74.00/M	185		
88-3803-01 "	1,060 ea	.17 ea	180	.11/ea	117		
88-2527-01 "	2,700 ea	110.60/M	299	74.00/M	200		
29CA8003 "	160 ea	.42/ea	67	.50 ea	80		
88-1767-01 "	1,600	68.00/M	109	58.00/M	93		
2879H681 "	300 ea	.91 ea	273	.93 ea	279		
88-2879-01 "	1,650 ea	.135 ea	223	.23 ea	380		
88-5148-01 "	1,390 ea	.47 ea	653	.35 ea	487		
207B231 "	600 ea	.28 ea	168	.261 ea	157		
90C75 SC16061090	1,425 ea	.112 ea	160	.195 ea	278		
90E63 ST3199120 lever	300 ea	.36 ea	108	.23 ea	69		
207A431 SE30075904 spring	2,600 ea	.144 ea	374	.12 ea	312		
88021 SC8028029 "	1,100 ea	.103 ea	113	.151 ea	166		
207A481 SEF90118141 "	32	.353 ea	113	.353 ea	113		
WM 22F40 set screws	210 ea	.86 ea	181	77.70/C	163		
13H10640 lag bolt	6,750 ea	8.25/C	557	7.35/C -50%	248		
23E20418 machine screw	3,400 ea	8.19/C	278	2.43/C -42%	48		
36510518 screws	5,400 ea	2.70/C	146	22.00/M	119		

(DETAIL) DIRECT MATERIALS	QTY.	CURRENT PRICE	CURRENT AMT.	1972 PRICE	1972 AMT.	DIFF.	% CHANGE
5. HARDWARE CONT'D							
23G52612 mach screws	22,810 ea	7.05/M	161	10.76/M	245		
80A12 washers	90,000 ea	.98/M	88	1.21/M	109		
52B126 nuts	200,000 ea	2.95/M	590	1.93/M	386		
36S10622 steel screws	3,600 ea	3.78/C	136	4.35/C	157		
52B312 nuts	2,000 ea	14.60/C	292	11.25/C	113	-50%	
36S10416 steel screws	10,800 ea	1.65/C	178	1.55/C	167		
36S 10628 cap screws	8,400 ea	4.45/C	374	41.00/M	172	-50%	
52B226 nuts	120,000 ea	3.75/M	450	1.58/M	190		
31H10696 lag screws	3,000 ea	17.45/C	524	16.15/C	291	-40%	
52B308 nuts	52,800 ea	5.35/C	2825	4.70/C	1241	-50%	
5/16-18-5/16 screws 14A10505	6,000 ea	18.04/M	108	16.70/M	100		
5/16-18 x 3/4 screws 14A30512	10,000 ea	20.72/M	207	22.65/M	227		
WM 2459 set screws	1,239	14.91/C	185	13.40/C	166		
14A30405 set screws	5,000	13.44/M	67	12.60/M	63		
14A32404 socket screws	5,000	12.81/M	64	30.00/M	105	-30%	
14A32604 set screws	30,000	11.55/M	347	14.80/M	444		
14A80628 sq. head screws	10,000	24.73/M	247	95.00/M	950		
WM23F14 set screws	2,825	81.50/M	230	25.65/M	72		
Nickel plated 10-24 x 5/8 5A68	19,400	15.12/M	293	12.75/M	247		
36S10542 set screws	3,500	8.25/C	289	4.55/C	159		
14A62604 set screw	15,000	11.95/M	180	12.15/M	182		
14A30505 set screw	20,000	14.21/M	285	14.90/M	298		
36S10542 hex caps 5/16-18X2 5/8	4,900	5.25/C	257	4.55/C	223		
14A80510 screws 5/16-18 X5/8	20,000	13.15/M	263	14.14/M	283		
36S10414 hex head 1/4-20X7/8	18,000	16.50/M	154	15.50/M	134	-52%	
36S10414 hex head 1/4-20X7/8	14,000	16.50/M	120	15.50/M	104	-52%	
24 A25 Head caps 24A25	4,000	6.95/C	278	6.95/C	278		
23E10508 mach screws5/16-18X½	3,300	108.50/M	115	11.61/C	111	-71%	
36S10528 hex head 5/16-18X1 3/4	20,000	33.50/M	322.	3.10/C	310	-50%	
36S10828 hex head 1/2-13X1 3/4	3,600	7.85/C	136	7.25/C	125	-52%	
0 X 1 taper pins 126A2016	3,500	4.20/C	125.	2.10/C	66	-10%	
4 x 1 1/4 taper pins 35C212	500	28.20/C	120.	14.10/C	71		
5/16-18 X 7/8 hex head 36S10514	10,000	24.00/M	125	16.50/M	83	-50%	
5/16-18 X1 3/4 heax head 36S10528	10,000	33.50/M	161	31.00/M	155	-50%	

WHITIN

DETAIL OF COST INCREASES
(Schedule C - Line 4b)

Schedule I A

(DETAIL) DIRECT MATERIALS	QTY.	CURRENT PRICE	CURRENT AMT.	1972 PRICE	1972 AMT.	DIFF.	% CHANGE
5. HARDWARE CONT'D							
Clamp Assy 88-3106-01	126	7.15 ea	901	6.50 ea	819		
3996 B Hard & Chrome 25914212 .082"	5020	315.00/M	1581	423.00/M	2123		
4500B891 Guide	6200	.20 ea	1240	.27 ea - 10%	1507		
6464 C hard & chrome 25914801 .002"	3196	334.00/M	1067	430.00/M	1374		
97-141 separator	11000	.055 ea	605	.05 ea	550		
35M741 tension post	4400	.22 ea	968	.22 ea	968		
2591A82 thread guides	375	1.50 ea	563	1.56 ea -10%	506		
4500B891 thread guides	4400	.27 ea	1188	.27 ea -10%	1069		
5437 guides 25914811	973	489.00/M	476	835.00/M	812		
1D10620 loom bolts 3/8-16 X 1 1/4	5950	37.41/M	223	37.41/M	223		
1D20832 loom bolts 1/2-13 X 2	10875	57.63/M	627	57.69/M	627		
1D20734 loom bolts 7/16-14 X 2 1/8	11000	47.04/M	517	53.81/M	591		
1D20640 loom bolts 3/8-16 X 2 1/2	12550	50.91/M	639	60.19/M	755		
1D20736 loom bolts 7/16-14-2 1/4	19885	48.36/M	962	55.15/M	1097		
1D20732 loom bolts 7/16-14 X 2	18750	45.44/M	852	52.09/M	977		
2827@72 shank bolts 1/2-13 X 2 3/8	4980	94.95/M	473	82.58/M	411		
1D10734 loom bolts 7/16-14 X 2 1/8	3640	53.81/M	196	205.50/M - 16%	628		
1D10739 loom bolts 7/16-14 X 2 1/8	5550	53.81/M	299	205.50/M - 16%	958		
Comparable Items			32,780		31,267	1,513	4.84
Other			19,585		19,585	-	-
Total			52,365		50,852	1,513	2.98

6. STEEL, BRASS, ALUM.					
HR Tee Iron 20' lgths 1 1/2 X 1/2	19152#	20.00/cwt	3830	11.68/cwt	2237
Carbon steel strip 3/16 X 1/2 HR	10720#	21.30/cwt	2283	12.80/cwt	1372
16 ga X 48" X 120" CR Sheets	49570#	11.55/cwt	5725	10.45/cwt	5180
13 ga X 48" X 120" HROP Sheets	32510#	10.95/cwt	3560	9.35/cwt	3040
16 ga X 48" X 120" CR Sheets	40200#	11.55/cwt	4643	10.45/cwt	4201
2 1/2 X 2 X 1/4 HR Angle Iron	20272#	15.85/cwt	3213	9.88/cwt	2003
3/16 X 3/4 HR Strip Mill Edge	23941#	16.06/cwt	3845	10.80/cwt	2586
7 ga X 48" X 120" HRPO Sheets	32520#	11.90/cwt	3870	9.85/cwt	3203
C12614 13/16 Rind CD	6000#	17.85/cwt	1071	19.45/cwt	1167

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DETAIL OF COST INCREASES
(Schedule C - Line 4b)

Schedule I A

(DETAIL) DIRECT MATERIALS	QTY.	CURRENT PRICE	CURRENT AMT.	1972 PRICE	1972 AMT.	DIFF.	% CHANGE
6. STEEL, BRASS, ALUM.							
1 1/2 x 1 1/2" x 3/16 HR Tee Iron	19,152#	20.00/cwt	3830	11.68/cwt	2237		
3/16 x 1/2 HR Carbon Steel strip	10,720#	21.30/cwt	2283	12.80/cwt	1372		
16 ga x 48" x 120" CR Sheets	49,570#	11.55/cwt	5725	10.45/cwt	5180		
13 ga x 48" x 120" HROP Sheets	32,510#	10.95/cwt	3560	9.35/cwt	3040		
16 ga x 48" x 120" CR Sheets	40,200#	11.55/cwt	4643	10.45/cwt	4201		
2 1/2 x 2 x 1/4 HR Angle Iron	20,272#	15.85/cwt	3213	9.88/cwt	2003		
3/16 x 3/4 HR Strip Mill Edge	23,941#	16.06/cwt	3845	10.80/cwt	2586		
7 ga x 48" x 120" HRPO Sheets	32,520#	11.90/cwt	3870	9.85/cwt	3203		
13/16 Rind CD C12614	6,000#	17.85/cwt	1071	19.45/cwt	1167		
11 ga x 48 x 120" HRPO Sheets	11,730#	10.75/cwt	1261	10.25/cwt	1202		
3 1/4" Rnd Dia C1215L CD	5,050#	21.20/cwt	1071	15.95/cwt	806		
2 5/8" Rnd Dia Dura Bar Cast Iron	3,088#	33.25/cwt	1027	33.25/cwt	1027		
2 3/4" Rnd Dia Dura Bar Cast Iron	677#	33.00/cwt	223	33.00/cwt	223		
1 3/8" Rnd Dia Dura Bar Cast Iron	534#	35.75/cwt	191	35.00/cwt	187		
1/2" x 3/4" C1018 CD 12' lgths	11,087#	19.15/cwt	2123	18.10/cwt	2007		
1/2" x 3/4" CD C1018 12' lgths	11,274#	19.15/cwt	2159	27.15/cwt	3061		
1" Rnd CD C1018 20' lgths	21,349#	14.35/cwt	3064	13.75/cwt	2934		
5/8" Rnd CD C1018 20' lgths	15,336#	14.90/cwt	2285	14.50/cwt	2224		
3 7/8" Rnd CD C12615	50,606#	16.40/cwt	8299	16.10/cwt	8148		
3/4" Sq. CD C1018	6,615#	15.15/cwt	1002	18.60/cwt	1230		
12 ga 48 x 120 CR Sheets	21,000#	12.00/cwt	2520	10.45/cwt	2195		
11 ga HRP 48 x 120 sheets	51,100#	11.75/cwt	6004	10.25/cwt	5228		
2" Hex CD C1215 12' lgths	9,965#	15.60/cwt	1555	21.90/cwt	2182		
1 1/64" Rnd CDC1118 20'3" lgths	17,925#	15.75/cwt	2823	16.00/cwt	2868		
1.753/1.756" Rd C1018 11'6" lgths	8,840#	13.75/cwt	1216	16.65/cwt	1472		
1" Sq. C1215 16' 10" lgths	29,800#	15.55/cwt	4634	15.40/cwt	4589		
3/4" Hex CD C1215 11'9"	7,045#	15.90/cwt	1120	15.75/cwt	1110		
1 1/2" Hex CD C1215 12'	30,740#	15.35/cwt	4719	14.75/cwt	4534		
2 3/4" Rd CD C1215 12'	10,075#	15.25/cwt	1536	15.25/cwt	1536		
1 1/2 x 1 1/2 x 3/16" HR Stl Angle	41,260#	9.425/cwt	3889	8.475/cwt	3497		
1 1/2 Rnd C 1215 CD 12' lgths	21,090#	15.45/cwt	3258	15.05/cwt	3174		
.063" x 36" x 96" alum sheets	6,262#	46.55/cwt	2912	49.70/cwt	3112		
.718" Rd x 12 ft alum	8,169#	70.70/cwt	5776	70.00/cwt	5718		
.718" Rd x 12 ft alum	13,740#	70.70/cwt	9714	70.00/cwt	9618		
.718" Rd x 12 ft alum	6,784	70.70/cwt	4796	70.00/cwt	4749		

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DETAIL OF COST INCREASES
(Schedule C - Line 4b)

Schedule I A

(DETAIL) DIRECT MATERIALS	QTY.	CURRENT PRICE	CURRENT AMT.	1972 PRICE	1972 AMT.	DIFF.	% CHANGE
6. STEEL, BRASS, ALUM. CONT'D							
2 3/4" O.D. Oct. x-5/8" I.D.x 19'tub.	4161#	69.30/cwt	2,884	66.00/cwt	2746		
4.438" x D. x 1.227" wall x .019"	9891#	59.00/cwt	5,836	66.00/cwt	6528		
" " " "	10613#	59.00/cwt	6,262	66.00/cwt	7005		
1 3/8" Rd alum bars x 12'	5590#	60.80/cwt	3,399	68.00/cwt	3801		
.760" Rd Alum Rd x 11'9"	4448#	68.00/cwt	3,025	52.00/cwt	2313		
2 3/4" O.D. Oct x 2 5/8" ID alum tub.	2244#	69.30/cwt	1,555	66.00/cwt	1481		
2 3/4" O.D. Oct x 2 5/8" ID alum tub.	2496#	69.30/cwt	1,730	66.00/cwt	1647		
.718" rd x 12' alum Rod	1944#	70.70/cwt	1,374	70.00 /cwt	1361		
.040 x 35" x 96" alum sh.	1400#	50.70/cwt	710	57.00/cwt	798		
3/16" x 48" x 144" alum sheet	645#	55.80/cwt	360	51.30/cwt	331		
.905/.910 Rnd CD 14'9" lgts	5024#	18.10/cwt	909	18.30/cwt	919		
1 1/2" Rd CD C1151 12' lgts	6138#	15.00/cwt	921	14.60/cwt	896		
1/2" x 1" CD C1018 15/17' lgths	13666#	16.55/cwt	2262	16.65/cwt	2275		
5/16" x 1" CD C1018 18/20' lgths	11,954#	25.45/cwt	3042	24.70/cwt	2953		
3/16" x 7" x 177 1/2" steel strap	61830#	9.25/cwt	5719	9.55/cwt	5905		
1 3/4" rd E 4617 T&P 12' lgts	13062#	24.80/cwt	3239	25.00/cwt	3266		
2 1/4" rd E 4617 T&P 12' lgts	10888#	23.95/cwt	2608	23.90/cwt	2602		
2" rd C 1118 CD 12' lgths	6639#	15.45/cwt	1026	14.95/cwt	993		
.632/.636 Rd C1151 CD 16'3"	7624#	19.35/cwt	1475	17.85/cwt	1361		
.185" x 13 1/2" x 122" CR Strip #4	32072#	16.05/cwt	5148	16.15/cwt	5180		
.150" x 6" x 146"CR strip #4 temper	24054#	14.70/cwt	3536	14.46/cwt	3478		
.150" x 6 7/16" CR " "	10156#	14.50/cwt	1473	14.50 cwt	1473		
7 ga .179 HRP x 48 x 120 Shts	44310#	11.25/cwt	4985	9.85/cwt	4364		
1 1/2" OD x 134" Steel tubing	14319'	54.89/c ft	7860	54.89'	7860		
Comparable Items			182555		175156	7,399	4.22
Other			7497		7497	-	-
Total			190052		182653	7,399	4.05

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DETAIL OF COST INCREASES
(Schedule C - Line 4b)

Schedule I A

(DETAIL) DIRECT MATERIALS		QTY.	CURRENT PRICE	CURRENT AMT.	1972 PRICE	1972 AMT.	DIFF.	% CHANGE
7. BEARINGS								
Ball Bearing Hoover Fafnir	#5001F331	500	4.25 ea	2,125	4.03	2015		
" " "	#5001A781	135	1.06 ea	143	.99	134		
Flange Cartridge Unit	#4001H181	195	4.24 ea	827	4.02	784		
Ball Bearings	#5001C131	100	2.38 ea	238	2.27	227		
" "	#5000F71	323	1.87 ea	604	1.78	575		
" "	#5001B431	500	1.53 ea	765	2.23	1115		
" "	#5001C841	177	1.74 ea	308	1.65	292		
Bearing Stud	#2559M21	1092	2.09 ea	2282	1.99	2173		
Ball Bearing	#5001C141	200	1.74 ea	348	1.65	330		
" "	#5001A891	43	4.17 ea	179	2.30	99		
" "	#5001A891	50	4.17 ea	209	2.30	115		
" "	#5001G551	740	1.37 ea	1014	1.32	977		
" "	#5001A861	250	1.41 ea	353	1.34	335		
" " & Stud	#5001A821	150	2.97 ea	446	2.83	425		
" " "	#2559M21	694	2.09 ea	1450	1.99	1381		
" " "	#2559M21	323	2.09 ea	675	1.99	643		
" " "	#2559M21	624	2.09 ea	1304	1.99	1242		
" "	#5001B231	200	.81 ea	162	.77	154		
" "	#5001A781	500	1.06 ea	530	.72	360		
" "	#5001B241	200	.97 ea	194	.92	184		
" "	#5001A891	117	3.81 ea	446	2.30	269		
" "	#5001A831	63	1.67 ea	105	1.59	100		
" "	#5001B431	479	2.35 ea	1126	2.23	1068		
" "	#5001B401	550	1.63 ea	897	1.55	853		
" "	#5001C881	500	.98 ea	490	.93	465		
" "	#1109P381	5	131.40 ea	657	125.14	626		
" "	#500DF71	82	1.87 ea	153	1.78	146		
" "	#5001G551	260	1.37 ea	356	1.32	343		
" "	#5001B711	75	3.70 ea	278	3.51	263		
" "	#5001B701	100	2.25 ea	225	2.13	213		
" "	#1109P381	3	131.40 ea	394	125.14	375		
" "	#5001M271	14	2.75 ea	39	2.61	37		
" "	#5001M281	14	3.32 ea	46	3.15	44		
" "	#5000F71	47	1.87 ea	88	1.78	84		
" "	#5001G551	1000	1.37 ea	1370	1.32	1320		
" "	#5000F41	113	3.23 ea	365	3.00	339		
" "	#5001M221	20	3.76	75	3.56	71		

DETAIL OF COST INCREASES
(Schedule C - Line 4b)

(DETAIL) DIRECT MATERIALS			QTY.	CURRENT PRICE	CURRENT AMT.	1972 PRICE	1972 AMT.	DIFF.	% CHANGE
BEARINGS CONT'D									
Ball Bearing		#5001M231	20	5.24 ea	105	4.97	99		
" "		#5001M311	250	3.19 ea	798	3.23	808		
" "		#5001A781	178	1.06 ea	189	1.01	180		
" "		#5001M311	250	3.19 ea	798	3.23	808		
" "		#5001A521	99	15.15 ea	1500	14.43	1429		
" "		#5001C321	250	1.37 ea	343	1.27	318		
" "		#5001E732	100	4.28 ea	428	4.06	406		
McGill "		#72-DY-290	75	1.84 ea	138	2.87	215		
"		#5001E861	100	1.79 ea	179	2.07	207		
RC Thomson "		#5001D341	250	1.34 ea	335	1.08	270		
Aetna Thrust "		F-9	400	1.15 ea	460	1.15	460		
" " "		#5001L441	100	1.44 ea	144	1.44	144		
McGill "		47-DO-2020	130	1.64 ea	213	1.90	247		
Aetna Thrust "	F-9	#5001A931	936	1.15 ea	1076	1.08	1011		
" " "	E-1	#5001L441	200	1.44 ea	288	1.44	288		
McGill "		#72-DY-219	100	2.49 ea	249	2.49	249		
" "	MR-26	#72-CA-8036	100	1.95 ea	195	2.17	217		
" M1-22-4S "		#72-CA-8037	100	1.28 ea	128	1.28	128		
" CF-5/8-S "		47-DO-2020	70	1.64 ea	115	1.90	133		
" CCFL-1 "		47-DA-8007	10	5.32 ea	53	5.32	53		
Sealmaster "		72-DY-4001	30	2.52 ea	76	3.95	119		
Hyatt "		#5001-A-951	32	1.34 ea	43	.51	16		
Hyatt 4811 "		#5001-A-951	300	1.34 ea	402	.51	153		
Aetna "	F-9	#5001A931	400	1.15 ea	460	1.08	432		
McGill CF-5/8 S7		(39-0404-03	500	1.85	925	1.61	805		
Cam Follower		CF-1-1/8	100	2.07	207	2.07	207		
Sintered Brg		88-130-5-07	1127	33.10/C	373	33.10/C	373		
" Bronz Brg		88-1305-01	772	53.40/C	412	39.21/C	303		
" " "		88-1305-01	230	53.40/C	123	39.21/C	90		
" Oil Impregnated		88-1305-03	288	126.10/C	363	98.40/C	284		
" " "		88-1305-03	398	126.10/C	502	98.40/C	392		
" " "		88-1305-03	131	126.10/C	165	98.40/C	129		
" " "		88-1305-03	988	126.10/C	1246	98.40/C	972		
" Brg Amples		88-1305-07	613	39.97/C	245	33.10/C	203		
Oilite Brg		838S72	600	20.82/C	125	17.67/C	106		

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DETAIL OF COST INCREASES
(Schedule C - Line 4b)

Schedule A I

(DETAIL) DIRECT MATERIALS		QTY.	CURRENT PRICE	CURRENT AMT.	1972 PRICE	1972 AMT.	DIFF.	% CHANGE
BEARINGS CONT'D								
Oilite Brg	838S72	752	20.82/C	1570	17.67/C	1329		
Oilite Brg	131B25	5000	5.01/C	250	4.42/C	210		
" "	131B615	200	.4355	87	.62 ea	124		
" "	PP-12000-6	43	18.76/C	807	23.00 ea	989		
" " Amplex	131B120	3000	5.96/C	179	5.25/C	158		
" "	131A610	100	.608	61	1.41 ea	141		
" "	39-0383-25	3000	5.37/C	161	5.37/C	161		
" "	131B410	3000	9.17/C	275	9.51/C	285		
Bearing-Inner Race	5001B321	100	1.24 ea	124	1.11 ea	111		
" Thrust Race	5001E611	1500	.2350 ea	353	.22	330		
" " "	5001B891	1200	.54 ea	648	.51	612		
" Roller Brg	5001L321	500	.5250 ea	263	.495 ea	248		
" "	72-DA-4335	75	.45 ea	34	1.02 ea	77		
Needle Brg	5001B911	500	.3250 ea	163	.305 ea	153		
Thrust Race	5001C854	3000	.08 ea	240	.075 ea	225		
Shields	35M578	3000	.33 ea	990	.31 ea	930		
"	35M603	2000	.34 ea	680	.32 ea	640		
"	35M606	1910	.35 ea	669	.33 ea	630		
Bearing	5001B391	1400	.3150	441	.28 ea	392		
Roller Brg	5001B131	5000	.45 ea	2250	.425 ea	2125		
Linear Motion	5001L151	114	4.67 ea	532	2.33 ea	266		
Roll Brg.	5001B131	3000	.45 ea	1350	.425 ea	1275		
Bearing	6275N831	20000	1.09	21800	1.09	21800		
Comparable Items				68804		65641	3,163	4.82
Other				(2174)		(2075)	(99)	4.82
Total				66630		63566	3,064	4.82

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DETAIL OF COST INCREASES
(Schedule C - Line 4b)

Schedule I A

(DETAIL) DIRECT MATERIALS		QTY.	CURRENT PRICE	CURRENT AMT.	1972 PRICE	1972 AMT.	DIFF.	% CHANGE
8 ELECTRICAL, MOTORS								
Legend Plates	1411151	500	.228 ea	114	.228 ea	114		
Pilot Light	1390098 & 99	200	6.612 ea	1,322	6.612 ea	1,322		
Line Starter	1342171	50	27.36 ea	1,368	25.84 ea	1,292		
Breaker, Thermal Magnetic	1050068	38	35.42 ea	1,346	36.48 ea	1,386		
Heater H34A	1261089	70	1.14 ea	80	1.14 ea	80		
Heater H34	1261089	60	1.14 ea	68	1.14 ea	68		
Heater H86	1261134	30	1.14 ea	34	1.14 ea	34		
Overload Relay AN13P	1442034	10	6.84 ea	68	6.84 ea	68		
Heater AU5.4	1261021	200	1.14 ea	228	1.14 ea	228		
Heater H52	1261107	18	1.14 ea	21	1.14 ea	21		
Breaker FB3150	1050080	2	97.047 ea	194	97.047 ea	194		
Legend Plate	1411158	100	.998 ea	99	.998 ea	99		
Legend Plate	1411159	100	.998 ea	99	.998 ea	99		
Line Starter A200 M1CACM	1342172	10	31.16 ea	312	29.64 ea	296		
Pushbutton Station HDS PB	1410094	30	12.92 ea	388	12.92 ea	388		
Line Starter	1343027	10	26.22 ea	262	26.22 ea	262		
Line Starter A200 MICACM	1342172	12	31.16 ea	374	29.64 ea	356		
Breaker FB3150	1050080	12	97.047 ea	1,165	97.047 ea	1,165		
Relay AN13P	1442034	12	6.84 ea	82	6.84 ea	82		
Heater H86	1261134	12	1.14 ea	14	1.14 ea	14		
Motor	1362212	1	199.92 ea	200	123.88 ea	124		
Contractor 205C002	1160007	30	25.84 ea	775	25.84 ea	775		
Switch Operator 2940UB200A	1410025	110	2.812 ea	309	2.627 ea	289		
Heater 123C778A	1260032	170	1.14 ea	194	1.14 ea	194		
Heater 123C180B	1260041	50	1.14 ea	57	1.14 ea	57		
Heater 123C180B	1260041	30	1.14 ea	34	1.14 ea	34		
Adj. Shaft Fused Dis. Switch	1510012	100	1.19 ea	122	1.19 ea	122		
Starter 206C022	1342185-2	100	29.64 ea	2,964	27.565 ea	2,756		
Fused Disconnect Switch	1510007	60	17.425 ea	1,046	17.425 ea	1,046		
Motor 5K213HN2159	35M261	6	209.16 ea	1,254	107.20 ea	643		
Contact Blocks 2940U301A	1410017	350	1.14 ea	399	1.275 ea	446		

WHITIN

DETAIL OF COST INCREASES
(Schedule C - Line 4b)

Schedule I A

(DETAIL) DIRECT MATERIALS		QTY.	CURRENT PRICE	CURRENT AMT.	1972 PRICE	1972 AMT.	DIFF.	% CHANGE
8 ELECTRICAL, MOTORS CONT'D								
Heater 123C695A	1260031	100	1.14 ea	114	1.005 ea	100		
Heater 123C356A	1260024	25	1.275 ea	32	1.14 ea	29		
Heater 123C419A	1260026	40	1.14 ea	46	1.185 ea	47		
Relay 120C02202AA	1440090	20	24.32 ea	486	24.32 ea	486		
Motor 5K213HN6264	1362177	8	199.92 ea	1,599	185.92 ea	1,487		
Motor 5K213HN6654F2	1362176	3	133.56 ea	401	128.70 ea	386		
Push Button Operator	1410019	250	2.052 ea	513	2.30 ea	575		
Switches THC32	1510008	40	19.125 ea	765	17.696 ea	708		
Switches	1510019	80	9.88 ea	790	9.88 ea	790		
Motor 5K213HN6654	1362181	1	133.56 ea	134	133.65 ea	134		
Push Button Station 2943NA102A	1413003	150	4.56 ea	684	4.56 ea	684		
Limit Switch 9440K1M1	1510019	100	9.88 ea	988	9.88 ea	988		
Line Starter 106B002	1340001	30	25.84 ea	775	25.84 ea	775		
Contact Blocks 2940U310A	1410016	450	1.14 ea	513	1.275 ea	574		
Relay 120C02202AA	1440090	20	24.32 ea	486	24.32 ea	486		
General Electric Supply -								
Relays CR120A02002AA	1440001	131	10.20 ea	1,368	7.92 ea	1,038		
Stations 2943NA102A	1413003	100	12.00 ea	510	-57.5% 4.56 ea	510		
Fuse Block 8411-3	1220031	200	.666 ea	133	.626 ea	125		
Wire #12 Black Stranded 12-7	1600069	3,000	34.16/M	102	26.50/M	80		
Benjamin Electric Supply Co.-								
Push Button Station 10250H3696A	492DE91	85	21.25 ea	1,806	21.25 ea	1,806		
Push Button Station	492CA8111	50	27.46 ea	1,373	22.68 ea	1,134		
Cord	1606021	550 Ft.	289.8/M	159	159.0/M	87		
Wire TW No. 6 Black	1600082	1,000 Ft.	143.0/M	143	103.65/M	104		
Cable	88-5367-01	1,000 Ft.	202.0/M	202	135.0/M	135		
Cord	1606021	2,500 Ft.	289.8/M	725	159.0/M	398		
Heater Coil	493DE196	150	1.275	191	1.50 ea	225		
Heater Coil	493DL2008	150	1.275	191	1.50 ea	225		
Elbow	1155071	750	69.02/C	518	63.81/C	479		
Control Enclosure	1192064	13	53.25 ea	692	49.46 ea	643		
Push Button Station	492DO2004	50	5.10 ea	255	4.74 ea	237		
Red Lamp Holder	1330014	150	10.30 ea	1,545	10.30 ea	1,545		

(DETAIL) DIRECT MATERIALS		QTY.	CURRENT PRICE	CURRENT AMT.	1972 PRICE	1972 AMT.	DIFF.	% CHANGE
8 ELECTRICAL, MOTORS CONT'D								
Delay Timer	1560004	3	43.35 ea	130	45.90 ea	138		
Louis Allis -								
Motor	1363095	3	200.76 ea	626	191.20 ea	574		
Motor	1363096	13	185.64 ea	2,413	167.07 ea	2,172		
Motor	1363111	1	185.64 ea	185	185.64 ea	185		
Rev. Switch	1513017-1	15	95.76 ea	1,442	95.76 ea	1,442		
Rev. Switch	1513017-1	1	106.05 ea	424	106.05 ea	424		
Rev. Switch	1513017	8	56.42 ea	451	56.42 ea	451		
Rev. Switch	1513017	20	53.53 ea	1,073	53.53 ea	1,073		
Rev. Switch	1513015	40	17.46 ea	701	20.61 ea	824		
Rev. Switch	1513017-1	9	100.91 ea	912	106.05 ea	954		
Combination Starter	1342184	14	238.98 ea	3,346	222.25 ea	3,112		
Terminal Strips	1540094	6,000	40.65/C	1,390	23.17/C	1,390		
O.L. Heater Coil	493DL2008	150	1.26 ea	189	1.50 ea	225		
O.L. Heater Coil	493DE196	150	1.26 ea	189	1.50 ea	225		
Connector	1152021	400	64.10/C	231 -10%	64.10/C	231		
Enclosure	1192003	110	9.08 ea	629	5.25 ea	578		
Wire Way - Surface Duct	1620027	500	54.8/C Ft.	274	54.80/C Ft.	274		
Connector	1152041	500	1.06/C	477 -10%	1.06/C	477		
Connector	1152031	300	1.06/C	286 -10%	1.06/C	286		
Vacuum Pump	2170T861	128	32.35 ea	4,141	32.35 ea	4,141		
Solenoids	88-5316-02	120	5.20 ea	593	4.95 ea	594		
Limit Switch	1510150	40	11.20 ea	448	13.35 ea	534		
Mite-Transformer Assembly	88-2362-01	25	39.70 ea	993	42.70 ea	1,068		

(DETAIL) DIRECT MATERIALS		QTY.	CURRENT PRICE		CURRENT AMT.	1972 PRICE		1972 AMT.	DIFF.	% CHANGE
8 ELECTRICAL, MOTORS CONT'D										
Transformer	1570001	65	12.29	ea	799	13.57	ea	882		
Acme Series Reactor	1630019	11	112.25	ea	1,256	80.95	ea	890		
" " "	1630050	3	206.34	ea	619	119.00	ea	357		
Delivery Lamp	2171K85	108	5.61	ea	625	5.82	ea	629		
" "	"	108	5.61	ea	626	5.82	ea	629		
Photoelectric Control	1380010	61	96.80	ea	5,905	92.00	ea	5,312		
" Receiver	1380013	69	19.60	ea	1,352	18.64	ea	1,286		
" Light	1380014	69	27.20	ea	1,877	25.88	ea	1,786		
Solenoids	88-5316-02	70	4.90	ea	343	4.95	ea	347		
Drive Motor	490DA8008	10	116.00	ea	1,160	104.40	ea	1,044		
Push Button Station	492RK8098	4	60.80	ea	243	27.28	ea	109		
Motor	1364280	1	407.40	ea	407	411.84	ea	412		
"	1364281	1	407.40	ea	407	323.00	ea	323		
Motor	1366201	20	126.55	ea	2,530	119.07	ea	2,381		
"	1367006-2	24	84.94	ea	2,039	74.49	ea	1,788		
"	1367006-8	15	84.94	ea	1,274	74.49	ea	1,117		
"	1367006-11	9	89.19	ea	803	84.94	ea	760		
"	1366200-1	3	124.57	ea	373	22.85	ea	369		
"	1367006	5	84.94	ea	424	74.49	ea			
Clutch	1120008	28	79.50	ea	875	72.25	ea	372		
" Assembly	33-0234-01	10	97.70	ea	977	97.70	ea	977		
" "	"	21	97.70	ea	1,075	97.70	ea	1,075		
P.C. Board	1642022	109	6.00	ea	654	6.00	ea	654		
Mac Air Valve	492RK8123	6	72.25	ea	433	72.25	ea	433		
Latching Relay	1440106	99	8.58	ea	849	8.54	ea	845		
" "	"	100	8.58	ea	858	8.54	ea	854		
" "	"	150	7.96	ea	1,194	8.54	ea	1,281		

(DETAIL) DIRECT MATERIALS		QTY.	CURRENT PRICE		CURRENT AMT.	1972 PRICE		1972 AMT.	DIFF.	% CHANGE
8 ELECTRICAL, MOTORS CONT'D										
Rectifier	39-0189-11	74	5.20	ea	385	5.80	ea	429		
Socket	1460012	260	.87	ea	226	.74	ea	192		
Clutch Assembly	1120001	24	86.63	ea	2,079	84.11	ea	2,019		
Motor Starter - Reversing	88-5395-01	50	76.925	ea	3,846	76.925	ea	3,846		
" " Switch	88-5131-01	100	5.525	ea	552	5.525	ea	552		
Control Relay	1440078	90	7.06	ea	635	7.06	ea	635		
Enclosure	1192073	20	14.28	ea	286	14.28	ea	286		
Relay Switch	1440114	258	9.775	ea	2,522	9.775	ea	2,522		
Comparable Items					94,962			90,139	4,823	5.35
Other					43,237			43,237	---	---
Total					138,199			133,376	4,823	3.62

WHITIN

DETAIL OF COST INCREASES
(Schedule C - Line 4b)

Schedule IA

(DETAIL) DIRECT MATERIALS		QTY.	CURRENT PRICE		CURRENT AMT.	1972 PRICE		1972 AMT.	DIFF.	% CHANGE
9. CASTINGS, FORGINGS										
Bearing Blk	H10-8715	271	.80	ea	217	.75	ea	203		
Cam	3396-527	32	4.45	ea	142	4.25	ea	136		
Arm	M1-233	130	1.00	ea	130	1.00	ea	130		
Lever	M1-162	757	.65	ea	492	.24	ea	182		
Cap	J31-198	6,034	.50	ea	3,017	.34	ea	2,051		
Back Plate	M1-197	203	.53	ea	108	.53	ea	108		
Arm	M1-236	455	1.25	ea	569	1.25	ea	569		
Cam	M1-215	410	.60	ea	246	.23	ea	94		
Lever	M1-55	400	.65	ea	260	.65	ea	260		
Arm	M1-137	757	.75	ea	568	.75	ea	568		
Arm	M1-121	422	.65	ea	274	.65	ea	274		
Cam	J36-333	35	6.00	ea	210	3.25	ea	114		
Bearing Block	H10-8715	440	.42	ea	186	.75	ea	330		
Back Plate	M1-197	270	.53	ea	143	.53	ea	143		
Bearing Block	H10-8715	300	.75	ea	225	.75	ea	225		
" "	H10-8715	660	.80	ea	528	.75	ea	495		
Lever	M1-83	600	.85	ea	510	.83	ea	498		
Plate	M1-147	454	1.25	ea	568	.36	ea	163		
Bracket	M1-333	958	1.00	ea	958	.32	ea	306		
Arm	M1-48	1,236	.75	ea	927	.22	ea	272		
Adj. Link	M1-98	500	.70	ea	350	.70	ea	350		
Gripper Link	M1-84	600	.85	ea	510	.32	ea	192		
Holder	G13-30	773	.75	ea	580	.75	ea	580		
Bearing Block	H10-8715	1,303	.80	ea	1,042	.75	ea	977		
" "	H10-8715	165	.75	ea	124	.75	ea	124		
Cap	J31-198	2,300	.50	ea	1,150	.34	ea	781		
Holder	G13-30	1,475	.75	ea	1,106	.75	ea	1,106		
Arm	M1-48	450	.75	ea	337	.22	ea	99		
Bearing Block	H10-8715	1,200	.75	ea	900	.75	ea	900		
Plate	G13-53	284	1.50	ea	426	1.14	ea	323		
Arm	M1-2	779	.63	ea	491	.35	ea	273		
Bearing Block	H10-8715	825	.75	ea	619	.75	ea	619		
Arm	M1-398	808	.75	ea	606	.75	ea	606		
Bearing Block	H10-8715	461	.80	ea	369	.75	ea	346		

(DETAIL) DIRECT MATERIALS		QTY.	CURRENT PRICE		CURRENT AMT.	1972 PRICE		1972 AMT.	DIFF.	% CHANGE
9. CASTINGS, FORGINGS CONT'D										
Block	M1-17	240	1.25	ea	300	1.25	ea	300		
Bracket	M1-192	1,100	.50	ea	550	.50	ea	550		
Lever	M1-162	1,031	.65	ea	670	.24	ea	247		
Arm	M1-108	132	2.00	ea	264	2.00	ea	264		
Fitting	M1-387	208	1.05	ea	218	.96	ea	200		
Bracket	M1-190	1,872	.79	ea	1,478	.79	ea	1,478		
Block	M1-17	323	1.25	ea	404	1.25	ea	404		
Link	M1-104	819	.65	ea	532	.65	ea	532		
Bracket	M1-190	249	.79	ea	197	.79	ea	197		
"	M1-192	400	.50	ea	200	.50	ea	200		
Arm	M1-233	816	1.00	ea	816	1.00	ea	816		
	M1-138	1,500	.50	ea	750	.17	ea	255		
Support	M1-397	243	.60	ea	146	.20	ea	49		
Lever	M1-131	2,303	.50	ea	1,151	.17	ea	392		
Shaft	C24-192	48	3.50	ea	168	3.35	ea	161		
Bracket	G13-184	704	1.00	ea	704	1.00	ea	704		
Cam	J36-333	359	6.00	ea	2,154	3.25	ea	1,167		
Bearing Block	H10-8715	437	.80	ea	350	.75	ea	328		
Frame R.H.	96-1979-02	50	22.27	ea	1,114	22.27	ea	1,114		
" "	96-1970-01	286	10.51	ea	3,006	9.47	ea	2,709		
Side Jogger Support	96-1832-01	528	2.19	ea	1,157	1.97	ea	1,040		
Wheel Ejector	88-5332-01	105	4.25	ea	446	3.83	ea	402		
Gear Blanks	2880B421	200	4.48	ea	896	3.75	ea	750		
Worm Gear 20T	99H83	60	6.37	ea	382	5.355	ea	321		
Gear Glanks 17T	2880B371	200	4.23	ea	846	3.75	ea	750		
" " "	"	300	4.25	ea	1,275	3.75	ea	1,125		
" " "	"	395	4.61	ea	1,821	3.75	ea	1,481		
Gear Blanks	2880B421	300	4.25	ea	1,275	3.75	ea	1,125		
Worm Gear 20T	99H83	40	6.07	ea	243	5.355	ea	214		
Inker Drive Gear	181CC8038	134	8.40	ea	1,125	3.475	ea	466		
Front Guard Cam	101CC8021	62	4.90	ea	303	3.48	ea	215		
Powdered Bronze Bushing	2544Y41	6,671	7.51/C		501	7.51/C		501		
Del. Sprocket Drive Gear 76T	189CC8008	10	6.30	ea	63	6.30	ea	63		
Gripper Spring Lever	270CA8099	57	.84	ea	48	.65	ea	37		

WHITIN

DETAIL OF COST INCREASES
(Schedule C - Line 4b)

Schedule IA

(DETAIL) DIRECT MATERIALS		QTY.	CURRENT PRICE	CURRENT AMT.	1972 PRICE	1972 AMT.	DIFF.	% CHANGE
9. CASTINGS, FORGINGS CONT'D								
Oilite Bearing	39-0383-66	1,095	87.66/M lbs	96	87.66/M lbs	96		
Hub	226DY4153	24	8.40 ea	202	9.60 ea	230		
Chain Tightener Wheel Bush.	71CA8066	313	67.93/C	213	65.33/C	204		
Del. Sprocket Drive Gear	189CC8008	49	6.30 ea	309	6.30 ea	309		
Cylinder Gear Hub	226DY4153	30	7.80 ea	234	9.60 ea	288		
Plate Cylinder Flange LH	2170R101	538	2.20 ea	1,184	1.82 ea	1,033		
Blanket " "	2160G13	678	2.03 ea	1,376	1.68 ea	1,139		
Die #13 Forged Gear Blank		232	4.61 ea	1,070	3.34 ea	775		
Ratchet Blank Forging	118R110	1,045	1.07 ea	1,118	1.06 ea	1,108		
Chain Holder	2023H41	480	.80 ea	384	.69 ea	331		
Cam Hub	691B11	551	2.48 ea	1,366	2.30 ea	1,267		
" "	691B11	600	2.40 ea	1,440	2.36 ea	1,380		
Die #17 Forged Gear Blank		441	2.43 ea	1,072	2.91 ea	1,283		
Gear Blank Forging	124M11	218	5.78 ea	1,260	5.78 ea	1,260		
Builder Nut	R9-1388A	68	.99 ea	67	.90 ea	61		
Gear 21T	R9-1740	914	.92 ea	841	.92 ea	841		
Gear 107T	G13-247	359	7.28 ea	2,614	7.28 ea	2,614		
Gear 45/47T	G13-41	77	2.10 ea	162	1.77 ea	136		
Gear 90/92T	G13-45	130	6.60 ea	858	5.50 ea	715		
Gear 21T	R9-1740	235	.92 ea	216	.92 ea	216		
Gear 90/92T	G13-45	346	6.60 ea	2,284	5.50 ea	1,902		
Gear 45/47T	G13-41	47	2.10 ea	99	1.77 ea	83		
Gear 50/52T	G13-41	28	3.45 ea	97	2.76 ea	77		
Gear 35/36T	G13-47	364	1.70 ea	619	1.60 ea	582		
Gear 50/52T	G13-41	32	3.45 ea	110	2.76 ea	88		
Gear 45/47T	G13-41	170	2.10 ea	357	2.76 ea	469		
Gear 50/52T	G13-41	66	3.45 ea	228	2.76 ea	182		
Gear 35/36T	G13-47	75	1.70 ea	128	1.60 ea	120		
Gear 35/36T	G13-47	117	1.70 ea	199	1.60 ea	187		
Gear 21T	R9-1740	466	.92 ea	429	.92 ea	429		
Gear 88T	G13-45	37	6.45 ea	239	6.45 ea	239		
Comparable Items				65,312		53,658	11,654	21.72%
Other				26,758		26,758	---	---
Total				92,070		80,416	11,654	14.49%

DETAIL OF COST INCREASES
(Schedule C - Line 4b)

(DETAIL) DIRECT MATERIALS	QTY.	CURRENT PRICE	CURRENT AMT.	1972 PRICE	1972 AMT.	DIFF.	% CHANGE
10. GRAPHIC SUPPLIES							
A2170R70 Cover Kits	2 cases	173.63 cs.	347	163.80 cs.	328		
40-0425-01D Wiporites	50 cases	19.95 cs.	998	19.95 cs.	998		
40-0425-01D Wiporites	100 cases	19.95 cs.	1995	19.95 cs.	1995		
40-0425-01D Wiporites	50 cases	19.95 cs.	998	19.95 cs.	998		
40-0425-01D Wiporites	125 cases	19.95 cs.	2494	19.95 cs.	2494		
40-0425-01A Cotton Pads	50 cases	19.95 cs.	997	19.95 cs.	997		
40-0425-01A Cotton Pads	25 cases	19.95 cs.	499	19.95 cs.	499		
40-0425-01D Wiporites	25 cases	19.95 cs.	499	19.95 cs.	499		
40-0425-01D Wiporites	26 cases	19.95 cs.	519	19.95 cs.	519		
40-0425-01D Wiporites	10 cases	19.95 cs.	200	19.95 cs.	200		
40-0425-01A Cotton Pads	10 cases	19.95 cs.	200	19.95 cs.	200		
40-0425-01A Cotton Pads	25 cases	19.95 cs.	499	19.95 cs.	499		
40-0425-01A Cotton Pads	25 cases	19.95 cs.	499	19.95 cs.	499		
40-0425-01D Wiporites	10 cases	19.95 cs.	200	19.95 cs.	200		
88-2876-01D Roll Covers	480 sets	1.10 set	528	1.10 set	528		
88-2876-06D Roll Covers	360 sets	1.73 set	623	1.10 set	623		
88-2874-05D Roll Covers	408 sets	.94 set	384	.94 set	384		
40-0428-02D Glaze Rem.	180 pts.	2.08 pt.	374	2.67 pt.	481		
40-0415-01A Dup. Sol.	216 qts.	.92 qt.	199	.88 qt.	190		
40-0415-01D Damporite	360 qts.	.92 qt.	331	.88 qt.	317		
40-0430-05D Clean up Sheets	80 pkgs.	3.25 pkg.	260	3.19 pkg.	255		
40-0430-04D Clean up Sheets	200 pkgs.	3.15 pkg.	630	3.15 pkg.	630		
40-0430-19D Clean up Sheets	35 pkgs.	5.88 pkg.	206	5.88 pkg.	206		
40-0430-07D Clean up Sheets	21 pkgs.	55.30/M	553	55.30/M	553		
40-0430-10D Cl. up Sheets	25 ctns.	4.49 ctn.	561	4.49 ctn.	561		
40-0444-01A Activator	20 cs.	8.20 cs.	164	8.20 cs.	164		
40-0445-01A Stop Bath	5 cs.	15.40 cs.	77	15.40 cs.	77		
40-0444-01A Activator	6 cs.	8.20 cs.	49	8.20 cs.	49		
40-0444-01D Activator	24 cs.	8.20 cs.	197	8.20 cs.	197		
40-0445-01A Stop Bath	9 cs.	15.40 cs.	139	15.40 cs.	139		
40-0443-01D Univ. Fountain Solution	30 cs.	9.40 cs.	282	9.40 cs.	282		
40-0443-01A Univ. Fountain Solution	9 cs.	9.40 cs.	84	9.40 cs.	84		

DETAIL OF COST INCREASES
(Schedule C - Line 4b)

(DETAIL) DIRECT MATERIALS	QTY.	CURRENT PRICE	CURRENT AMT.	1972 PRICE	1972 AMT.	DIFF.	% CHANGE
10. GRAPHIC SUPPLIES CONT'D							
40-0444-01A Activator	6 cases	8.20 cs.	49	8.20 cs.	49		
88-2874-01D Roll Covers	240 sets	.60 set	144	.60 set	144		
88-2874-02D Roll Cover Ductor	480 sets	.55 set	264	.55 set	264		
88-2874-10D Roll Cover Ductor	450 sets	.91 set	409	.91 set	409		
88-2874-05A Roll Covers	60 pcs.	.94 ea.	57	.94 ea.	57		
88-2876-01D Roll Covers	24 sets	1.26 set	30	1.10 set	26		
88-2876-01D Roll Covers	24 sets	1.26 set	30	1.10 set	26		
88-2874-05D Roll Covers	408 sets	.94 set	395	.94 set	395		
40-0001-01A Plates	900 pcs.	.45 pc.	405	.45 pc.	405		
40-0001-02A Plates	900 pcs.	.60 pc.	540	.45 pc.	405		
40-0001-03D Plates	500 pcs.	.45 pc.	225	1.11 pc.	555		
40-0001-07D Plates	500 pcs.	1.11 pc.	555	.96 pc.	480		
40-0001-04D Plates	500 pcs.	1.11 pc.	555	1.11 pc.	555		
40-0001-09A Plates	200 pcs.	1.11 pc.	111	1.11 pc.	111		
40-0001-50A Plates	200 pcs.	1.92 pc.	192	1.92 pc.	192		
40-0001-05 Plates	200 pcs.	.63 pc.	126	.60 pc.	120		
40-0001-36 Plates	200 pcs.	.99 pc.	198	.93 pc.	186		
40-0001-07 Plates	500 pcs.	1.02 pc.	510	.96 pc.	480		
40-0001-31 Plates	400 pcs.	1.59 pc.	636	1.50 pc.	600		
40-0001-60 Plates	100 pcs.	2.01 pc.	201	1.92 pc.	192		
40-0412-02D Etchorite	88 gal.	1.55 gal.	136	1.48 gal.	130		
40-0417-04D Coverite	72 qts.	.61 qt.	44	.61 qt.	44		
40-0420-01D Alumarite	60 pts.	.30 pt.	18	.29 pt.	17		
40-0428-02D Glaze Rem.	240 qts.	.77 qt.	185	.56 qt.	134		
40-0428-01D Spotorite	864 jars	.59 jar	339	.56 jar	484		
40-0413-02D Damorite	160 gals.	1.73 gal.	277	1.65 gal.	264		
40-0428-01D Spotorite	288 pts.	2.80 pt.	806	2.24 pt.	645		
40-0001-06A Plates	200 pcs.	.63 pc.	126	.60 pc.	120		
40-0001-06A Plates	100 pcs.	.63 pc.	63	.60 pc.	60		
40-0001-11 Plates	500 pcs.	.48 pc.	240	.45 pc.	225		
40-0001-51 Plates	500 pcs.	1.71 pc.	855	1.62 pc.	810		
40-0001-02 Plates	4000 pcs.	.63 pc.	2,520	.60 pc.	2,400		
40-0001-02 Plates	1000 pcs.	.63 pc.	630	.60 pc.	600		
40-0001-01A Plates	300 pcs.	.48 pc.	144	.48 pc.	144		
40-0001-35 Plates	200 pcs.	.63 pc.	126	.99 pc.	198		

(DETAIL) DIRECT MATERIALS		QTY.	CURRENT PRICE	CURRENT AMT.	1972 PRICE	1972 AMT.	DIFF.	% CHANGE
10. GRAPHIC SUPPLIES CONT'D								
40-0001-38	Plates	500 pcs.	1.04 pc.	520	1.65 pc.	825		
40-0001-19	Plates	1000 pcs.	.61 pc.	610	1.02 pc.	1,020		
40-0425-01A	Cotton Pads	5 cases	19.95 cs.	100	19.95 cs.	100		
40-C425-01A	Wiporettes	10 cases	19.95 cs.	200	19.95 cs.	200		
40-0443-01D	Solvent	28 cases	9.40 cs.	263	9.40 cs.	263		
40-0445-01A	Stop Bath	9 cases	15.40 cs.	139	15.40 cs.	139		
40-0444-01A	Activator	12 cases	8.20 cs.	98	8.20 cs.	98		
40-0443-01D	Solvent	30 cases	9.40 cs.	282	9.40 cs.	282		
40-0443-01A	Solvent	9 cases	9.40 cs.	85	9.40 cs.	85		
40-0428-010	Spotorite	864 jars	.59 jar	510	.56 jar	484		
40-0417-01D	Covorite	632 qts	.61 qt.	386	.58 qt.	367		
40-0413-040	Damporite	5 drums	80.32 dr.	402	76.50 dr.	383		
40-0427-01A	Pumice Powder	48 jars	.16 jar	8	.16 jar	7		
40-0427-01A	Pumice Powder	240 jars	.16 jar	38	.15 jar	36		
40-0415-04D	Damporite	6706 qts.	.92 qt.	617	.88 qt.	590		
40-0430-06D	Clean up Sheets	10 ctns.	3.19 ctn.	319	3.19 ctn.	319		
40-0430-03D	Clean up Sheets	4 ctns.	29.80 ctn.	119	29.80 ctn.	119		
40-0430-03A	Clean up Sheets	1 ctn.	29.80 ctn.	30	29.80 ctn.	30		
40-0430-19A	Clean up Sheets	3 ctns.	29.80 ctn.	88	29.80 ctn.	88		
40-0430-19D	Clean up Sheets	7 ctns.	29.80 ctn.	206	29.80 ctn.	206		
40-0430-11D	Clean up Sheets	40 ctns.	44.40 ctn.	880	44.40 ctn.	880		
40-0430-07A	Clean up Sheets	1 ctn.	55.30 ctn.	55	55.30 ctn.	55		
88-2326-01A	Roll Covers	48 pcs.	.75 ea.	36	.75 ea.	36		
88-2326-01D	Roll Covers	192 pcs.	.75 ea.	144	.75 ea.	144		
40-0720-04A	Roll Covers	96 pcs.	1.13 ea.	109	1.01 ea.	97		
88-2325-06D	Roll Covers	72 pcs.	.71 ea.	51	.62 ea.	45		
29-0002-02D	Roll Covers	60 pcs.	.97 ea.	58	.83 ea.	50		
29-0002-04D	Roll Covers	48 pcs.	.58 ea.	28	.53 ea.	25		
88-2324-01D	Roll Covers	240 pcs.	1.28 ea.	307	1.13 ea.	271		

(DETAIL) DIRECT MATERIALS		QTY.	CURRENT PRICE	CURRENT AMT.	1972 PRICE	1972 AMT.	DIFF.	% CHANGE
10. GRAPHIC SUPPLIES CONT'D								
88-2324-02D	Roll Covers	108 pcs.	1.28 ea.	138	1.20 ea.	130		
88-2325-02D	Roll Covers	240 pcs.	.65 ea.	156	.57 ea.	137		
88-2876-01A	Roll Covers	72 pcs.	1.26 ea.	91	1.10 ea.	79		
40-0740-04D	Roll Covers	72 pcs.	1.51 ea.	109	1.35 ea.	97		
40-0740-04A	Roll Covers	144 pcs.	1.51 ea.	217	1.35 ea.	193		
88-2876-03D	Roll Covers	240 pcs.	1.73 ea.	415	1.73 ea.	415		
88-2876-01D	Roll Covers	254 pcs.	1.10 ea.	279	1.10 ea.	279		
88-2876-06D	Roll Covers	803 pcs.	1.73 ea.	1,389	1.73 ea.	1,389		
135-DM-116A	Roll Covers	48 pcs.	.98 ea.	47	.87 ea.	42		
88-2874-04D	Roll Covers	120 pcs.	.91 ea.	109	.91 ea.	109		
88-2874-04A	Roll Covers	60 pcs.	.91 ea.	55	.91 ea.	55		
88-2324-01D	Roll Covers	240 pcs.	1.13 ea.	271	1.13 ea.	271		
88-2326-02D	Roll Covers	96 pcs.	1.04 ea.	100	1.04 ea.	100		
88-2876-06A	Roll Covers	48 pcs.	1.73 ea.	83	1.73 ea.	83		
88-2324-03D	Roll Covers	84 pcs.	1.76 ea.	148	1.76 ea.	148		
88-2876-01D	Roll Covers	226 pcs.	1.10 ea.	249	1.10 ea.	249		
88-2876-06D	Roll Covers	205 pcs.	1.73 ea.	355	1.73 ea.	355		
88-2874-05D	Roll Covers	158 pcs.	.94 ea.	149	.94 ea.	149		
40-0445-01A	Stop Bath	4 cases	15.40 cs.	62	15.40 cs.	62		
40-0443-01A	Univ. Fountain Solution	55 gallons	2.35 gal.	115	2.36 gal.	130		
40-0001-01	Plates	15,000 pcs.	.45 ea.	6,750	.45 ea.	6,750		
40-0001-02	Plates	6,000 pcs.	.45 ea.	2,780	.45 ea.	2,780		
40-0001-03	Plates	4,000 pcs.	1.10 ea.	4,400	1.10 ea.	4,400		
40-0001-07	Plates	1,000 pcs.	.96 ea.	960	.96 ea.	960		
40-0001-32	Plates	500 pcs.	1.92 ea.	960	1.92 ea.	960		
40-0001-50	Plates	2,000 pcs.	1.92 ea.	3,840	1.92 ea.	3,840		
40-0001-60	Plates	200 pcs.	1.92 ea.	384	1.92 ea.	384		
Comparable Items				60,175		50,511	9,664	19.13 %
Other				5,171		5,171	-	-
Total				65,346		55,682	9,664	17.36 %

(DETAIL) DIRECT MATERIALS	QTY.	CURRENT PRICE	CURRENT AMT.	1972 PRICE	1972 AMT.	DIFF.	% CHANGE
11. COKE							
Total	149.39NT	56.25NT	8,403	53.25NT	7,955		
Comparable			8,403		7,955	448	5.63
12. SPINNING ROLLS							
#2873H522 Spinning Rolls	236 ea	6.63 ea	1,565	6.17 ea	1,456		
J-490 Cots - Bevel Ends	236 ea	.93 ea	219	.91 ea	238		
#2873H3415 Spinning Rolls	20 ea	6.93 ea	139	6.45 ea	129		
J-490 Cots - Bevel Ends	20 ea	2.99 ea	60	2.91 ea	58		
#2642C156 Front Roving Rolls	38 ea	7.05 ea	268	6.00 ea	228		
2642C116 Geared Middle	38 ea	4.69 ea	178	4.36 ea	166		
#2642C176 Back Roving Rolls	38 ea	6.82 ea	259	5.79 ea	220		
#2642K662 NY*PRE*LON Cradles	768 ea	.57 ea	438	.54 ea	415		
#2873H522 Spinning Rolls	144 ea	6.63 ea	955	6.117 ea	880		
#2873H3415 Spinning Rolls	360 ea	6.93 ea	2,495	6.45 ea	2,322		
J-490 Cots - Bevel Ends	360 ea	2.99 ea	1,076	2.91 ea	1,048		
#2873H641 NY*PRE*LON Spin. Rolls	197 ea	4.39 ea	865	4.08 ea	804		
" " " "	183 ea	4.39 ea	803	4.08 ea	747		
#2873H3415 Spinning Rolls	228 ea	6.93 ea	1,580	6.45 ea	1,470		
#2873H641 Middle Spinning Rolls	228 ea	4.39 ea	1,001	4.08 ea	930		
#2873H522 Spinning Rolls	228 ea	6.63 ea	1,512	6.17 ea	1,407		
#2873L3722 Front Spin. Rolls	276 ea	6.93 ea	1,913	6.45 ea	1,770		
#2873H641 Middle Spin. Rolls	732 ea	4.39 ea	3,213	4.08 ea	2,987		
#2873H9516 Back Spin. Rolls	276 ea	6.63 ea	1,830	6.17 ea	1,703		
#2873K212 Middle Spin. Rolls	276 ea	4.39 ea	1,212	3.18 ea	878		
#2642K661 Cradles	2,000 ea	.57 ea	1,140	.54 ea	1,066		
#2873H9517 Back Spin. Rolls	276 ea	6.63 ea	1,830	6.17 ea	1,703		
#2873H3419 Front Spin. Rolls	240 ea	6.93 ea	1,663	6.45 ea	1,548		
#2873K211 Middle Spin. Rolls	720 ea	4.09 ea	2,975	3.80 ea-25%	2,736		
Comparable Items			30,259		26,919	3,340	12.41
Other			3,173		3,173	--	--
Total			33,432		30,092	3,340	11.10

(DETAIL) DIRECT MATERIALS	QTY.	CURRENT PRICE	CURRENT AMT.	1972 PRICE	1972 AMT.	DIFF.	% CHANGE
13. SPINNING RINGS							
4"x43/64" M type Con. Rings	416 ea	6.00 ea-10%	2,246	5.25 ea-10%	1,966		
" " " "	552 ea	6.00 ea-10%	2,981	5.25 ea-10%	2,608		
5½x43/64 Rings in 74D Hold.	456 ea	7.95 ea-10%	3,263	7.25 ea-10%	2,975		
" " " "	912 ea	7.95 ea-10%	6,525	7.25 ea-10%	5,951		
" " " "	304 ea	7.95 ea-10%	2,175	7.25 ea-10%	1,984		
6½x1 Rings in 61B Holder	1 ea	9.30 ea-10%	8	8.10 ea-10%	7		
8½x1 Rings in 50A Holders	16 ea	14.25 ea-10%	205	13.00 ea-10%	187		
6½x43/64 Rings in 61B Hold.	120 ea	9.30 ea-10%	1,004	8.85 ea-10%	956		
8½x1 Rings in 50A Holder	92 ea	14.25 ea-10%	1,180	13.00 ea-10%	1,076		
4½x43/64 Rings in 136A Holder	920 ea	6.30 ea-10%	5,216	6.05 ea-10%	5,009		
3½x"D" Ring in 123B Lub.	480 ea	6.10 ea-10%	2,635	6.10 ea-10%	2,635		
5½x43/64 Ring in 74D Holder	6,840 ea	7.95 ea-10%	48,940	7.25 ea-10%	44,631		
Comparable Items			76,378		69,985	6,393	9.13
Other			(26,515)		(24,297)	(2,218)	9.13
Total			49,863		45,688	4,175	9.13
14. CARD COVERING							
Feed Roll 61x4x5 A614A491	4 ea	101.50 ea	408	101.50 ea	408		
61x36x16 Roll	1 ea	480.05 ea	960	480.05 ea	960		
254C102189 Drum Terne	24 ea	42.00 ea	1,608	42.00 ea	1,008		
#10 Drum Heads	48 ea	11.95 ea	574	11.95 ea	574		
A854B61 Brush Roll Assembly	186 ea	4.45 ea	818	4.40 ea	818		
A854B71 Brush Roll Assembly	50 ea	4.45 ea	223	4.40 ea	220		
A854B61 Brush Roll Assembly	96 ea	4.45 ea	427	4.40 ea	422		
A854B71 Brush Roll Assembly	50 ea	4.45 ea	223	4.40 ea	223		
2636L11 Sta-Clean Clearers	400 ea	1.18 ea	472	1.27 ea	508		
Green Plush Cloth	75 yds	6.75/yd.	506	5.75/yd	431		
Comparable Items			5,628		5,572	56	1.01
Other			711		711	--	--
Total			6,339		6,283	56	.89

(DETAIL) DIRECT MATERIALS	QTY.	CURRENT PRICE	CURRENT AMT.	1972 PRICE	1972 AMT.	DIFF.	% CHANGE
15. OILING SYSTEMS							
Lubricator TM-5	1 ea	75.00 ea	75	75.00 ea	75		
B3494 Junction 3 Way	100 ea	.87 ea	87	.83 ea	83		
D2815 Lub. Hib Spec. 3/4"	160 ea	12.50 ea	2,000	11.00 ea	1,760		
B1084 Meter Unit-FSA-1	4,000 ea	.60 ea	2,400	.54 ea	2,160		
B1099 Meter Unit-FSA-1	250 ea	1.24 ea	310	1.24 ea	310		
B1071 Meter Unit-FSA-1	250 ea	1.24 ea	310	1.24 ea	310		
D3000 Lubr. TM-5	40 ea	55.25 ea	2,210	51.00 ea	2,040		
A2435 Single Tubing Clip	4,000 ea	.017 ea	352	.017 ea	352		
B5149 Junctions 2 Way	1,000 ea	.49 ea	490	.47 ea	470		
B4231 Jct. 4Way	500 ea	.72 ea	360	.39 ea	195		
B1078 Meter Unit FSA-3	600 ea	.70 ea	420	1.10 ea	660		
Bushing - N - 72	25,000 ea	.033 ea	825	.030 ea	750		
B3262 Jct. 4 Way	600 ea	.39 ea	234	.72 ea	432		
D3000 Lub. TM-5 117D866	3 ea	75.00 ea	225	51.00 ea	153		
Comparable Items			10,298		9,750	548	5.62
Other			540		540	-	-
Total			10,838		10,290	548	5.33
16. ROLL COTS							
9¼x1 5/8x1 3/32 860L311	500	2,290.00/M -10-5%	979	2,140.00/M -15%	913		
5 7/16x3x2½ 2872R119	375	2,480.00/M -10-5%	795	2,420.00/M -15%	790		
2 11/32x2½x2 2881T593	980	665.00/M -10-5%	557	649.00/M -15%	541		
Cork Cots #2543P81	360	917.00/M -20%	264	850.00/M -15%	260		
9¼x2x1 3/32 857L72	105	3,950.00/M -10-5%	355	3,700.00/M -15%	330		
9 3/4x1 5/8x7/8 1109L301	80	2,480.00/M -10-5%	170	2,420.00/M -15%	165		
1 3/32x1 5/8x9¼ 860L323	25	2.[illegible] ea -10-7½%	47	2.052 ea -17½%	42		

(DETAIL) DIRECT MATERIALS	QTY.	CURRENT PRICE	CURRENT AMT.	1972 PRICE	1972 AMT.	DIFF.	% CHANGE
16. ROLL COTS CONT'D							
1 3/32x1 3/8x9¼ 860L322	12 ea	1.26 ea -10-7½%	13	1.26 ea -10-7½%	13		
1 3/32x2"x9" 857L73	13 ea	3.564 ea -10-7½%	39	3.564 ea -10-7½%	39		
1 3/32x1 5/8x9" 860L323	26 ea	2.052 ea -10-7½%	44	2.052 ea -10-7½%	44		
2½x3"x5 7/16 2872R14	75 ea	2.078 ea -10-7½%	130	2.078 ea -10-7½%	130		
3"x3 7/16x2 15/16 2543P81	451 ea	917.00/M -20%	331	850.00/M -20%	307		
9 3/4x1 5/8x7/8 1109L301	920 ea	2,480.00/M -10-5%	1,951	2,420.00/M -10-5%	1,892		
13 1/8x55/64x17/32 865D781	1,020 ea	1,280.00/M -10-5%	1,116	1,280.00/M -10-15%	1,116		
Comparable Items			6,791		6,582	209	3.18
Other			(966)		(936)	(30)	3.18
Total			5,825		5,646	179	3.18
17. COUNTER & NUMBERER							
Numbering Machine 705040	16 ea	112.00 ea	1,792	101.20 ea	1,619		
Counters 2171B631	200 ea	4.27 ea	854	5.98 ea -10%	1,076		
Counters 35D306	10 ea	4.45 ea	445	5.15ea -10%	464		
Counters 35E360&1	6 ea	113.18 ea	679	115.10 ea -10%	622		
Comparable Items			3,770		3,781	(11)	(0.29)
Other			138		139	(1)	(0.29)
Total			3,632		3,642	(10)	(0.29)

(DETAIL) DIRECT MATERIALS	QTY.	CURRENT PRICE	CURRENT AMT.	1972 PRICE	1972 AMT.	DIFF.	% CHANGE
18. PULLEYS							
51260-PVS Pulley 2170B41	250 ea	8.10 ea	2,025	7.19 ea	1,798		
343CA8053 Variable Speed Pull.	75 ea	42.88 ea	3,215	37.80 ea	2,835		
51260-PVS 2170B41	150 ea	8.10 ea	1,215	7.19 ea	1,078		
Comparable Items			6,455		5,711	744	13.03
Others			(1,823)		(1,613)	(210)	13.03
Total			4,632		4,098	534	13.03
19. CHAIN							
424A602 Chain 43 Links	201.564 ft	1.59/ft	320	1.59/ft	320		
2629K75 Chain 129 Links	1,612.5/ft	1.327/ft	2,141	1.217/ft	1,962		
424A101 Chain A20 Links	300 ft	1.35/ft	405	1.29/ft	387		
419H3 Chain 1920 Links	2,000 ft	1.166/ft	2,332	1,069/ft	2,138		
86M55 Pins A7279-2	8,000 ea	2,90 ea	232	2,90 ea	232		
Comparable Items			5,430		5,039	391	7.76
Other			334		334	-	-
Total			5,764		5,373	391	7.28
20. LUMBER							
3/4x4x8 Interior Plywood	32 sh	.74/sq'	758	.69/sq'	707		
1x3 Spruce	3,048 ft	212.00/M'	646	110.00/M'	335		
2x6 Spruce	1,176 ft	225.00/M'	265	190.00/M'	223		
2x4 Spruce	2,342 ft	228.00/M'	534	152.00/M'	356		
2x4 Spruce	1,223 ft	228.00/M'	287	152.00/M'	186		
3/16x4x8 Fir	8,640 ft	86.40/sq'	752	77.00/M sq'	665		
1" Oak	1,338 ft	90.00/M'	120	90.00/M'	120		
4x6x10 Oak	553 ft	95.00/M'	53	95.00/M'	53		

WHITIN

DETAIL OF COST INCREASES
(Schedule C - Line 41)

Schedule C-1

(DETAIL) DIRECT MATERIALS	QTY.	CURRENT PRICE	CURRENT AMT.	1972 PRICE	1972 AMT.	DIFF.	% CHANGE
20. LUMBER CONT'D							
4x10x12 Oak	160 ft	100.00/M'	16	.10/ft	16		
1x4 Spruce #3	3,882 ft	217.50/M'	844	115.00/M'	446		
1x10 Pine #4	3,741 ft	155.00/M'	580	115.00/M'	430		
1x10 Pine #4	3,581 ft	155.00/M'	555	115.00/M'	412		
1x12 Pine #4	2,696 ft	155.00/M'	418	116.00/M'	313		
1x12 Pine #4	2,010 ft	155.00/M'	312	116.00/M'	233		
10/4 "C" Poplar Rough	2,205 ft	665.00/M'	1,466	505.00/M'	1,116		
1" Oak	1,245 ft	90.00/M'	112	90.00/M'	112		
4x4x10 Oak	477 ft	95.00/M'	45	95.00/M'	45		
4x6x10 Oak	720 ft	95.00/M'	68	95.00/M'	68		
1" Oak	1,404 ft	90.00/M'	126	90.00/M'	126		
4x6x10 Oak	647 ft	95.00/M'	61	95.00/M'	61		
1" Oak	1,667 ft	90.00/M'	150	90.00/M'	150		
4x6x10 Oak	651 ft	95.00/M'	62	95.00/M'	62		
1" Oak	1,332 ft	90.00/M'	120	90.00/M'	120		
4x6x10 Oak	698 ft	95.00/M'	66	95.00/M'	66		
1" Oak	1,190 ft	90.00/M'	107	90.00/M'	107		
4x4x10 Oak	678 ft	95.00/M'	64	95.00/M'	64		
4x6x10 Oak	168 ft	95.00/M'	16	95.00/M'	16		
4x8x10 Oak	432 ft	90.00/M'	39	90.00/M'	39		
#4C Pine 1x6	4,790 ft	125.00/M'	599	112.00/M'	536		
#4C Pine 1x10	4,619 ft	140.00/M'	647	115.00/M'	531		
#4C Pine 1x12	3,588 ft	145.00/M'	520	116.00/M'	416		
#4C Pine 1x12	4,212 ft	145.00/M'	611	116.00/M'	489		
3/4x5/8 Green Spruce	3,599 ft	215.00/M'	774	110.00/M'	396		
East Spruce 1x4 #3	1,894 ft	215.00/M'	407	115.00/M'	218		
#4C Nat. Pine 1x6	3,611 ft	125.00/M'	451	112.00/M'	404		
#4C Nat. Pine 1x8	3,368 ft	140.00/M'	472	115.00/M'	387		
#4C Nat. Pine 1x10	4,115 ft	140.00/M'	576	115.00/M'	473		
Comparable Items			13,609		10,497	3,202	30.50
Other			3,162		3,162	-	-
Total			16,861		13,659	3,202	23.41

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DETAIL OF COST INCREASES
(Schedule C - Line 4B)

Schedule I A

(DETAIL) DIRECT MATERIALS	QTY.	CURRENT PRICE	CURRENT ANT.	1972 PRICE	1972 ANT.	DIFF.	% CHANGE
21. CARTONS							
Cartons #19A Corrugated	136 ea	2,117.00/M	288	2,117.00/M	288		
" " " "	473 ea	2,117.00/M	1,001	2,117.00/M	1,001		
Carons #19A Pad 200# Test	1,075 ea	171.50/M	184	171.50/M	184		
Cartons #67 Partition	257 ea	257.75/M	66	245.50/M	63		
Cartons #24 Partition	512 ea	312.75/M	160	312.75/M	160		
Cartons #15 Reg. Slotted	532 ea	238.50/M	127	238.50/M	127		
Cartons #5	1,720 ea	193.75/M	333	193.75/M	333		
Cartons #59 Reg. Slotted	300 ea	306.00/M	92	306.00/M	92		
Cartons #59 2 PTNS	540 ea	162.25/M	88	162.25/M	88		
Cartons 3 Pads	280 ea	58.00/M	16	58.00/M	16		
Cartons #1A	2,475 ea	59.25/M	147	59.25/M	147		
Cartons #58	310 ea	459.50/M	142	459.50/M	142		
Cartons #19A	636 ea	2,117.00/M	1,346	2,117.00/M	1,346		
Cartons #55 Inner Fol. Tel	274 ea	3,150.75/M	863	3,150.75/M	863		
" " " "	260 ea	3,325.50/M	864	3,325.50/M	864		
Cartons #1100 ½ Slotted	71 ea	10.90 ea	774	9.44 ea	670		
Comparable Items			6,491		6,384	107	1.68
Other			536		536	-	-
Total			7,027		6,920	107	1.55
22. PUMPS							
Vacuum Pump #88-0811-02	300 ea	32.06 ea	9,618	66.80 ea x.48	9,618		
Comparable Items			9,618		9,618	0	0
Other			(1,332)		(1,332)	-	-
Total			8,286		8,286	0	0

(DETAIL) DIRECT MATERIALS	QTY.	CURRENT PRICE	CURRENT ANT.	1972 PRICE	1972 ANT.	DIFF.	% CHANG
23. PLASTICS							
#88-2079-01 Nylon Ball ½"	5,000 ea	62.00/M	310	62.00/M	310		
" " " "	11,000 ea	62.00/M	682	62.00/M	682		
" " " "	6,000 ea	62.00/M	372	62.00/M	372		
499CA8186 Guard	120 ea	.50 ea	60	.50 ea	60		
2156N44 Bearing	2,320 ea	35.00/C	812	35.00/C	812		
88-2545-02 Blade Cover	570 ea	.93 ea	530	.98 ea	559		
" " " "	550 ea	.93 ea	512	.98 ea	539		
79CA8018 Blade	146 ea	3.10 ea	453	3.10 ea	453		
2158N44 Bearing	2,235 ea	35.00/C	782	35.00/C	782		
123R73 Gear Blanks	158 ea	2.19 ea	346	1.48 ea	234		
865E531 Gear Blanks	80 ea	2.34 ea	187	2.34 ea	187		
123R73 Gear Blanks	150 ea	2.19 ea	329	1.48 ea	222		
Comparable Items			5,390		5,212	178	3.42
Other			3,621		3,621	-	-
Total			9,011		8,833	178	2.02
24. UNICOMB ASSEMBLIES							
865G978 #1500 Nitto Unicomb	105 ea	47.70 ea	5,008	47.70 ea	5,008		
Comparable Items			5,008		5,008	0	0

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DETAIL OF COST INCREASES
(Schedule C - Line 4b)

Schedule I A

(DETAIL) DIRECT MATERIALS	QTY.	CURRENT PRICE	CURRENT AMT.	1972 PRICE	1972 AMT.	DIFF.	% CHANGE
25. RUBBER ROLL COVERING							
88-3617-01 Water Fount. Roller	50	16.50 ea	825	12.90 ea	645		
221-268A Ink Ductor Roller	150	7.00 ea	1050	6.40 ea	960		
88-3617-05 Ink Fount. Roller	13	13.85 ea	180	13.85 ea	180		
88-3944-01 Water Ductor Roller	160	9.50 ea	1520	9.25 ea	1480		
88-3617-04 Ink Fount. Roller	50	15.45 ea	773	15.45 ea	773		
88-3617-03 Damp Fount. Roller	18	15.45 ea	278	15.45 ea	278		
88-3617-06 Fount. Roller	2	15.95 ea	32	15.95 ea	32		
88-3617-03 Damp Fount. Roller	114	15.45 ea	1761	15.45 ea	1761		
88-3617-06 Fount. Roller	100	15.95 ea	1595	15.95 ea	1595		
88-3617-06 Fount. Roller	24	16.70 ea	401	15.95 ea	383		
23-7/16 x 25 19/32 Rollers 499CD8062	100	13.34 ea	1334	13.34 ea	1334		
B-2165 42 Rollers	21	5.16 ea	108	5.16 ea	108		
2170-P761 Rollers	20	6.58 ea	132	6.58 ea	132		
A2170Y591 Rollers	27	4.66 ea	126	4.66 ea	126		
A2170R941 Rollers	29	5.84 ea	169	5.84 ea	169		
A2170T681 Rollers	28	6.17 ea	173	6.17 ea	173		
88-3617-01 Water Fount. Roller	50	16.50 ea	825	12.90 ea	645		
88-5289-02 Ink Fountain Roller	22	31.80 ea	700	31.80 ea	700		
88-5289-01 Ink Fountain Roller	4	25.30 ea	101	25.30 ea	101		
88-3944-01 Water Ductor Roller	31	9.25 ea	287	9.25 ea	287		
88-5289-02 Ink Fountain Roller	100	31.80 ea	3180	31.80 ea	3180		
21105G11 Rollers	59	8.87 ea	523	8.87 ea	523		
A2170R941 Rollers	2	5.84 ea	12	5.84 ea	11		
A2170R941 Rollers	8	5.84 ea	47	5.84 ea	47		
A2170Y581 Rollers	47	8.53 ea	401	8.53 ea	401		
Idler 2165-L12	48	5.16 ea	248	5.16 ea	248		
A2167N11 Rollers	32	4.25 ea	136	4.25 ea	136		
233-9A rollers	280	10.22 ea	2862	10.22 ea	286		
SW-4 Propeller Tire	176	1.67 ea	294	.59 ea	103		
88-2303-05 Rollers	90	12.53 ea	1128	28.50 ea	2565		
88-2303-04 Rollers	37	16.42 ea	608	33.39 ea	1235		
2165 G11 Fountain Roller	50	8.87 ea	444	8.87 ea	443		
A2170Y581 Ink Fount.	50	8.53 ea	427	8.53 ea	426		
0221-278A Rollers	100	6.42 ea	642	6.42 ea	642		
Cores	200	1.54 ea	308	1.54 ea	308		
X-8337 VIB	10	67.10 ea	671	67.10 ea	671		
SW 4 Propeller Tire	153	1.67 ea	256	.59 ea	90		
233-8A Ink Roll Assmb.	100	12.00 ea	1200	13.54 ea	1354		
Cores	100	1.54 ea	154	1.54 ea	154		

(DETAIL) DIRECT MATERIALS	QTY.	CURRENT PRICE	CURRENT AMT.	1972 PRICE	1972 AMT.	DIFF.	% CHANGE
25. RUBBER ROLL COVERING CONT'D							
88-2235-03 Rollers	9	27.30 ea	246	27.30 ea	246		
88-2303-05 Rollers	30	12.53 ea	376	28.50 ea	855		
2171-D-95 Rollers	296	5.28 ea	1563	5.28 ea	1563		
88-3617-03 Rollers	9	16.01 ea	144	15.48 ea	139		
88-5405-01 Rollers	9	90.00 ea	810	90.00 ea	810		
233-008-1 Rollers	26	13.54 ea	352	13.54 ea	352		
033-0009A Rollers	65	10.22 ea	664	10.22 ea	664		
233-0009-1 Rollers	27	12.86 ea	347	12.86 ea	247		
#500 Kits (experimental)	6	67.84 ea	407	67.84 ea	407		
#700 Kits (experimental)	6	90.00 ea	540	90.00 ea	540		
88-2235-03 Rollers	5	27.30 ea	137	27.30 ea	137		
A2171D95 Oscill. Rollers	300	5.28 ea	1584	5.28 ea	1584		
A2171E35 Oscill. Rollers	242	6.81 ea	1648	6.81 ea	1648		
88-2235-03 Oscill. Rollers	110	27.30 ea	3003	27.30 ea	3003		
SW-4 Propellor Tire	247	1.67 ea	412	.59 ea	146		
88-2303-03 Rollers	146	17.59 ea	2568	34.56 ea	5046		
88-2305-03 Rollers	175	22.76 ea	3983	37.48 ea	6559		
2171D415 Rollers	89	4.36 ea	388	4.36 ea	388		
X-8337 Rollers	1	67.10 ea	67	67.10 ea	67		
A2171D95 Rollers	20	5.28 ea	106	5.28 ea	106		
A2167N11 Rollers	65	4.25 ea	276	4.25 ea	276		
2170R941 Rollers	42	5.84 ea	245	5.84 ea	245		
2171K10 Rollers	49	4.75 ea	233	4.75 ea	233		
2170R941 Rollers	64	5.84 ea	374	5.84 ea	374		
A2167N11 Rollers	22	4.25 ea	94	4.25 ea	94		
A-2170Y581 Ink Fount. Roller	49	8.53 ea	418	8.53 ea	418		
A-2171K10 Dist. Roller	63	4.75 ea	299	4.75 ea	299		
2171K10 Rollers	7	4.75 ea	33	4.75 ea	33		
2171K11 Rollers	4	4.52 ea	18	4.52 ea	18		
A2170T685 Rollers	12	6.41 ea	77	6.41 ea	77		
A2170T685 Rollers	4	6.41 ea	26	6.41 ea	26		
A2170Y595 Rollers	16	4.44 ea	71	4.41 ea	71		
A2167N11 Rollers	41	4.25 ea	174	4.25 ea	174		
A2167N11 Rollers	8	4.25 ea	34	4.25 ea	34		
39-1049-02 Neop. Tubing	5975	102.50/M	612	150.00/M	896		
3/4" x 3/32" Neop. Sponge Rubber	1075	5.95/C	64	5.95/C	64		
3/4" x 1/8" x 22 1/4" Clear Vinyl Tub	60	.48 ea	29	.60 ea	36		
858N31 Cover Gasket	113	28.00/C	32	28.00/C	32		
3/4 x 3/32 Neop. Spong Rubber	1056	5.95/C	63	5.95/C	63		

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DETAIL OF COST INCREASES
(Schedule C - Line 4b)

Schedule I A

(DETAIL) DIRECT MATERIALS	QTY.	CURRENT PRICE	CURRENT AMT.	1972 PRICE	1972 AMT.	DIFF.	% CHANGE
25. RUBBER ROLL COVERING CONT'D							
223CA8005 Plastic Tubing	101	.83 ea	84	.83 ea	84		
223CA8006 Plastic Tubing	201	.41 ea	82	.41 ea	82		
223D02029 Plastic Tubing	102	.80 ea	82	.80 ea	82		
5/8 x 1/8 Neop. Sponge Rubber	1650	6.00/C	99	6.00/C	99		
2775E649 Lub. Strip	2500	59.75/M	149	43.00/M	108		
DMA-K-166 Roller Kits	8	262.56 ea	2100	215.45 ea	1724		
A2170P441 Rollers	62	3.35 ea	208	4.19 ea	260		
88-3617-06 Rollers	112	15.95 ea	1786	15.95 ea	1786		
88-3617-03 Rollers	131	15.45 ea	2024	15.45 ea	2024		
USC A-2171-095 Rollers	5	5.28 ea	26	5.28 ea	26		
A-2170T681 Rollers	6	6.17 ea	37	6.17 ea	37		
A-2167N11	20	4.25 ea	85	4.25 ea	85		
A461 FW4001 Roller	21	1.87 ea	38	.44 ea	9		
A-2170P441 Front Idler	12	4.19 ea	50	4.19 ea	50		
A-2170P441 Roller	19	4.19 ea	80	4.19 ea	80		
Cores	100	1.54 ea	154	1.54 ea	154		
2171-095 Roller	296	5.28 ea	1563	5.28 ea	1563		
Comparable Items			61140		55113	6,027	10.94
Other			13182		13182	-	-
Total			74322		68295	6,027	8.82

DETAIL OF COST INCREASES
(Schedule C - Line 4b)

(DETAIL) DIRECT MATERIALS	QTY.	CURRENT PRICE	CURRENT AMT.	1972 PRICE	1972 AMT.	DIFF.	% CHANGE
26. DUPLICATOR DUMBELLS							
88-1389-01 Ring & Shaft	270 pcs.	51.75 ea.	13,973	51.75 ea.	13,973		
Comparable Items			13,973		13,973	-0-	-0-
Other			(8,054)		(8,054)	-0-	-0-
Total			5,919		5,919	-0-	-0-
27. HINGES & LAPPETTS							
A689T61 Lappet Assem.	21,140 pcs.	189.00/M	3,995	192.00/M	4,059		
A85G11 Hinge Assem.	500 pcs.	3.45 ea.	1,732	3.45 ea.	1,732		
Comparable Items			5,727		5,791	(64)	(1.10)%
Other			(1,584)		(1,602)	(18)	(1.10)%
Total			4,143		4,189	(46)	(1.10)%
28. GUIDES & BRAKE PADS							
782S11 Brake Pad	348 pcs.	14.05/C	49	15.24/C	53		
782S12 Brake Pads	1,297 pcs.	14.05/C	182	15.24/C	198		
782S12 Brake Pads	963 pcs.	14.05/C	135	15.24/C	147		
782S11 Brake Pads	1,042 pcs.	14.05/C	146	15.24/C	159		
782S12 Brake Pads	290 pcs.	14.05/C	41	15.24/C	44		
782S11 Brake Pads	1,550 pcs.	14.05/C	218	15.24/C	236		
782S12 Brake Pads	673 pcs.	14.05/C	95	15.24/C	103		
782S12 Brake Pads	2,200 pcs.	14.05/C	300	15.24/C	335		
782S11 Brake Pads	602 pcs.	14.05/C	85	15.24/C	97		
2591Y731 Thread Guide	3,737 pcs.	229.00/M	856	282.00/M	1,054		
2591Y731 Thread Guide	2,312 pcs.	229.00/M	529	282.00/M	652		
2591Y731 Thread Guide	1,588 pcs.	229.00/M	364	282.00/M	448		
2630Y61 Thread Guide	600 pcs.	385.00/M	231	350.00/M	210		
2630Y61 Thread Guide	760 pcs.	385.00/M	293	350.00/M	266		
2630y61 Thread Guide	960 pcs.	385.00/M	370	350.00/M	336		
Comparable Items			3,903		4,338	(435)	(10.03)
Other			33		33	-	-
Total			3,936		4,371	(435)	(9.95)

(DETAIL) DIRECT MATERIALS	QTY.	CURRENT PRICE	CURRENT AMT.	1972 PRICE	1972 AMT.	DIFF.	% CHANGE
29. CHROME PLATING							
A2170P951 Impression Clydrs.	19	14.50 ea.	276	12.00 ea.	228		
A2170P951 Impression Clydrs.	14	14.50 ea.	203	12.00 ea.	168		
A2170P951 Impression Clydrs.	34	14.50 ea.	493	12.00 ea.	408		
A2160L11 Impression Clydrs.	30	14.50 ea.	435	12.00 ea.	360		
2804S51 Draw Rolls	60	2.50 ea.	150	2.25 ea.	135		
741S511 Spindles	1,391	.95 ea.	1,321	.95 ea.	1,321		
741S511 Spindles	661	.95 ea.	628	.95 ea.	628		
A2160L11 Impression Clydrs.	32	14.50 ea.	464	12.00 ea.	384		
A2160L11 Impression Clydrs.	41	14.50 ea.	595	12.00 ea.	492		
859L21 Top Cal. Rolls	147	1.40 ea.	206	1.05 ea.	154		
X8337 Vibrator Rolls	29	15.00 ea.	435	15.00 ea.	435		
A2170Y371 Auto Plate Clydrs.	34	14.50 ea.	493	12.00 ea.	408		
A2170Y371 Auto Plate Clydrs.	5	28.50 ea.	143	12.00 ea.	60		
A2170Y371 Auto Plate Clydrs.	1	21.50 ea.	22	12.00 ea.	12		
M1-44 Trigger Plates	986	.40 ea.	394	.40 ea.	394		
741S511 Spindles	530	.95 ea.	503	.95 ea.	503		
A2170P951 Impression Clydrs.	48	14.50 ea.	696	12.00 ea.	576		
A2170P951 Impression Clydrs.	46	14.50 ea.	667	12.00 ea.	552		
17-2786-05 Inner Disc.	99	1.00 ea.	99	1.00 ea.	99		
17-2784-05 Inner Disc.	102	.75 ea.	77	1.00 ea.	102		
88-1968-01 Block	200	.20 ea.	40	.20 ea.	40		
88-5245-01 Paper Banking Blks.	298	.25 ea.	75	.20 ea.	60		
C2150D61 Handwheel Knobs	600	.40 ea.	240	.40 ea.	240		
CT78A Pigtails	100	.10 ea.	10	.10 ea.	10		
2775A162 Lifting Rods	4	7.35 ea.	29	5.50 ea.	22		
6275C331 Lappet	4,400	.12 ea.	528	.10 ea.	440		
C2161W62 Control Lever Knobs	1,500	.40 ea.	600	.40 ea.	600		
Comparable Items			9,822		8,832	990	11.21%
Other			2,551		2,551	-	-
Total			12,373		11,383	990	8.70%

DETAIL OF COST INCREASES
(Schedule C - Line 4b)

(DETAIL) DIRECT MATERIALS		QTY.	CURRENT PRICE	CURRENT AMT.	1972 PRICE	1972 AMT.	DIFF.	% CHANGE
30. WEB PRESS ASSEMBLIES								
76DA8070 Assembly		10	13.61 ea	136.	13.61 ea	136.		
2310497 Serv. Corral Ass.		6	1075.	6450.	1075.	6450		
Comparable Items				6586		6586	---	--
Other				(4674)		(4674)	-	--
Total				1912		1912		
31. DUPLICATOR ROLL SEGMENTS								
Segments	88-4024-01	125	63.65 ea	7956	57.49	7186		
"	88-3110-01	30	63.65 ea	1910	57.49	1724		
"	251-0163	5	58.85 ea	294	55.00	275		
"	88-3919-01	165	82.15 ea	13575	73.18	12075		
"	227-10	61	59.49 ea	3629	57.49	3507		
"	221-403	97	59.49 ea	5771	57.49	5577		
Comparable Items				33,135		30,344	2,791	9.20
Other				(4,639)		(4,248)	(391)	9.20
Total				28,496		26,096	2,400	9.20
32. GRIPPER BARS, BLADES, KNIVES								
Gripper Bar	96-2819-01	2050	.74 ea	1517	.74 ea	1517		
Gripper	88-2378-05	127	4.82 ea	612	4.82 ea	612		
"	88-2378-05	50	4.82 ea	241	4.82 ea	241		
"	88-2830-02	75	18.50 ea	1388	18.50 ea	1388		
Segment	88-2928-01	9	105.00 ea	945	97.14 ea	874		
Blades	79RD4268	50	2.50 ea	125	1.90 ea	95		
"	79RB4268	25	2.50 ea	63	1.90 ea	48		
"	79DA4057	150	10.50 ea	1575.	10.50 ea	1575		
"	79DY4044	70	12.00 ea	840	12.00 ea	840		
"	79DA4062	100	10.50 ea	1050	10.50 ea	1050		
"	79RB4091	20	15.00 ea	300	12.75 ea	255		
"	79DA4270	125	2.25 ea	281.	2.259 ea	281		
Knives	DW-143	700	3.75 ea	2625	3.75 ea	2625		

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DETAIL OF COST INCREASES
(Schedule C - Line 4b)

Schedule I A

(DETAIL) DIRECT MATERIALS		QTY.	CURRENT PRICE	CURRENT AMT.	1972 PRICE	1972 AMT	DIFF	% CHANGE
32. GRIPPER BARS, BLADES, KNIVES								
Knives	SW-164	62	6.25 ea	388	6.25 ea	388		
"	SW-467	14	8.00 ea	112	4.50 ea	35		
"	SW-145	5	9.00 ea	45	6.50 ea	33		
"	SW-617	100	6.00 ea	600	5.50 ea	550		
"	SW-144	1020	4.00 ea	4080	4.00 ea	4080		
Comparable Items				16787		16487	300	1.82
Other				85		85	-	-
Total				16872		16572	300	1.81

DETAIL OF COST INCREASES
(Schedule C - Line 4b)

(DETAIL) DIRECT MATERIALS	QTY.	CURRENT PRICE	CURRENT AMT.	1972 PRICE	1972 AMT.	DIFF.	% CHANGE
33. DUPLICATOR COVER ASSEMBLIES							
A2166-H-14 Covers	75 pcs.	17.00 ea.	1275	13.50 ea.	1013		
A2166-G-11 Covers	36 pcs.	17.00 ea.	612	13.80 ea.	497		
A271-D-559 Covers	15 pcs.	11.00 ea.	165	11.00 ea.	165		
A271-D-558 Covers	30 pcs.	11.00 ea.	330	11.00 ea.	330		
A271-D-555 Covers	45 pcs.	9.15 ea.	412	9.15 ea.	412		
A271-D-592 Covers	45 pcs.	13.75 ea.	619	13.75 ea.	619		
A271-D-544 Covers	45 pcs.	10.25 ea.	461	10.25 ea.	461		
A271-D-545 Covers	45 pcs.	10.40 ea.	468	10.40 ea.	468		
A271-D-553 Covers	45 pcs.	15.65 ea.	704	15.65 ea.	704		
A271-D-547 Covers	45 pcs.	11.50 ea.	518	11.50 ea.	518		
A2171-D-559 Covers	10 pcs.	11.00 ea.	110	11.00 ea.	110		
A2171-D-558 Covers	20 pcs.	11.00 ea.	220	11.00 ea.	220		
A2171-D-555 Covers	30 pcs.	9.15 ea.	274	9.15 ea.	274		
A2171-D-592 Covers	30 pcs.	13.75 ea.	412	13.75 ea.	412		
A2171-D-544 Covers	30 pcs.	10.25 ea.	307	10.25 ea.	307		
A2171-D-545 Covers	30 pcs.	10.40 ea.	312	10.40 ea.	312		
A2171-D-553 Covers	30 pcs.	15.65 ea.	469	15.65 ea.	469		
A2171-D-547 Covers	30 pcs.	11.50 ea.	345	11.50 ea.	345		
A2170-R-70 Covers	20 kits	173.63 ea.	347	163.80 ea.	328		
88-5002-08 Covers	600 pcs.	3.75 ea.	2250	3.75 ea.	2250		
88-5178-01 Covers	200 pcs.	7.45 ea.	1490	6.95 ea.	1390		
H35-931 Tape Tension Arms	4680 pcs.	.599 ea.	2803	.599 ea.	2803		
H35-931 Tape Tension Arms	910 pcs.	.599 ea.	545	.872 ea.	793		
4H10-9485 Hand Brake Sup.	7776 pcs.	.292 ea.	2271	.282 ea.	2192		
4H10-9485 Hand Brake Sup.	7361 pcs.	.292 ea.	2177	.282 ea.	2076		
Comparable Items			19,896		19,468	428	2.20%
Other			292		292	-	-
Total			20,188		19,760	428	2.17%
34. ROVING FLYERS							
Maier Flyers with Notch	278	19.342 ea	5377	18.683 ea.	5194		
Comparable Items			5377		5194	183	3.52
Other			(193)		(186)	(7)	3.52
Total			5,184		5008	176	3.52

(DETAIL) DIRECT MATERIALS	QTY.	CURRENT PRICE	CURRENT AMT.	1972 PRICE	1972 AMT.	DIFF.	% CHANGE
35. DUPL. CYLINDERS, ETC.							
088-1857-01 Pneum. Cyl.	300 ea	2.03 ea	609	2.03 ea	609		
088-1982-02 Hose Fitting	1,000 ea	.25 ea	175	.25 ea	200		
		-30%		-30%			
2830W81 Latch Lever	331 ea	1.23 ea	408	1.16 ea	383		
A1109E321 Bear Ret. Assy.	24 ea	19.08 ea	458	19.08 ea	458		
" " " " "	71 ea	19.08 ea	1,355	19.08 ea	1,355		
101DM2120 Cam	75 ea	1.54 ea	116	1.54 ea	116		
70-1723 Flo-Mix Unit	[illegible] ea	159.00ea	95	159.00 ea	95		
		-40%		-40%			
Comparable Items			3,216		3,216	0	0
Other			2,247		2,247		
Total			5,463		5,463		
36. COUPLINGS, BELTINGS, BLANKS, CUROSTATS							
Micarta Gear Blanks 101K164	60 ea	4.55 ea	273	3.40 ea	204		
Micarta Gear Blanks 101R13	16 ea	2.10 ea	58	2.34 ea	37		
Micarta Gear Blanks 129S31	40 ea	2.65 ea	106	2.65 ea	106		
Flat Drive Belt 35L711	50 ea	6.58 ea	329	5.58 ea	279		
Flat Drive Belt 35 L721	50 ea	13.77 ea	689	12.12 ea	606		
Micarta Gear Blanks 101H11	150 ea	6.35 ea	953	6.35 ea	953		
Window Cover 1109C561	207 ea	3.05 ea	631	2.90 ea	600		
Chain #25	300 ft	.912/ft	273	.87/ft	261		
Leather Bends 5/16" 1/4"	49 lb	2.95/lb	145	2.50/lb	123		
Leather Thong 933H64	500 ea	.30 ea	150	.24 ea	120		
Trigger 2627C41	1,027 ea	376.00/M	386	352.00/M	362		
Brake Wedge 781P61	4,428 ea	173.00/M	766	165.00/M	731		
Comparable Items			4,759		4,382	377	8.60
Other			535		535	--	-
Total			5,294		4,917	377	7.67

WHITIN

DETAIL OF COST OF PRESSES
(Schedule C - Line 48)

Schedule [illegible]

(DETAIL) DIRECT MATERIALS	QTY.	CURRENT PRICE	CURRENT AMT.	1972 PRICE	1972 AMT.	DIFF.	% CHANGE
37. MISC. PARTS & ACCESSORIES							
Peg Tubing 2879W341	16,845 ea	.39 ea	6,569	.39 ea	6,569		
117F671 Weatherhead Conn.	800 ea	10.31/C	82	9.58/C	77		
112A10 Whitin Spec.Tool Kit	10 ea	20.05 ea	201	18.69 ea	187		
4½" Single Pulley	509 ft	2.16/ft +18-15%	1,103	2.16/ft +18-15%	1,103		
2170X161 B Timing Belts	300 ea	1.58 ea	474	1.58 ea	474		
35P334 B Timing Belts	75 ea	3.24 ea	243	3.24 ea	243		
116M61 Weatherhead Elbows	200 ea	16.78/C	34	15.28/C	31		
110D318 Wrenches	1,000 ea	5.46/C -35%	35	5.46/C -35%	35		
39-0461-02 Timing Belts	1,009 ea	.93 ea	938	.93 ea	938		
116M61 Weatherhead Fitting	400 ea	16.78/C	67	15.28/C	61		
WM42046 Allen Keys	12 ea	2.30 ea	28	2.30 ea	28		
117B421 Male Conn.	1,100 ea	10.31/C	113	9.95/C	109		
WM42014 Wm. Wrenches	70 ea	2.12 ea -40%	89	1.21 ea	85		
WM42069 Wm. Wrenches	60 ea	2.84 ea -40%	102	1.63 ea	98		
112A108 Wrenches	14 ea	7.96 ea -40%	67	7.96 ea -40%	67		
112A10 Wrench Set	20sets	20.05/set	401	18.69/set	374		
117B421 Conn.	500 ea	10.31/C	52	9.95/C	50		
117A665 Weatherhead Elbows	100 ea	.93 ea	93	.93 ea	93		
117F671 Weatherhead Conn.	800	10.31/C	82	9.58/C	77		
35M48611 V-Belt	220 ea	1.67 ea	367	1.59 ea	350		
35M4867 V-Belt	110 Ea	1.51 ea	166	1.44 ea	158		
35M5141 Timing Belt	14 ea	2.82 ea	39	2.82 ea	39		
35P239 Sheave	100 ea	4.22 ea	422	4.78 ea	478		
AK46x78 Pulley	55 ea	2.37 ea	130	2.26 ea	124		
137A362 Timing Belt	14 ea	14.53 ea	203	16.87 ea	236		
Head Frames 885163 & 4	99	207.35 ea	20,527	207.35 ea	20,527		
Comparable Items			32,627		32,611	16	0.05
Other			94,095		94,095	-	
Total			126,7[illegible]		126,7[illegible]	16	[illegible]

[Legal Notice]

NOTICE OF AN ENVIRONMENTAL RESPONSE ACTION

ATF Davidson
1 Main Street, Northbridge, MA 01588
RTN 2-0111

Pursuant to the Massachusetts Contingency Plan [310 CMR 40.1403(3)] adopted by the Department of Environmental Protection, notice is hereby given that the item(s) checked below applies to this site:

( ) Implementation of Phase IV Remedial Actions
( ) Use of Respirators & Protective Clothing
( ) Sampling of Private Drinking Water Wells/ Indoor Air/ or Surficial Soils at Residential Property
( ) Immediate Response Action (IRA) involving Imminent Hazard
( ) IRA Completion Statement Availability for above IRAs
( ) Release Abatement Measure (RAM) Implementation
( ) Phase I Initial Site Investigation Report Availability
( ) Subsequent Phase Report Availability
(X) Response Action Outcome (RAO) Statement Availability
( ) Downgradient Property Status (DPS) Submittal Availability.

PROJECT SUMMARY (Purpose, Nature, Expected Duration, etc.)

Elevated levels of chlorinated solvents and barium were identified in groundwater at the subject site in 1985. Subsequent assessment and monitoring activities indicated that contaminant concentrations had been reduced by natural attenuation to levels within the applicable Method 1 Cleanup Standards established by the DEP.

A Class B-1 Response Action Outcome (RAO) Statement was submitted to DEP in December 1998 demonstrating that a Permanent Solution had been achieved with a level of No Significant Risk of harm to health, safety, public welfare and the environment. Following a DEP Audit, a RAO Statement Addendum was prepared and submitted to DEP which provided additional documentation in support of the RAO.

Any person interested in obtaining additional information or purchasing a copy of the document(s) (where applicable) may contact Corey Management Company, Inc. (781-275-2970) or the Central Regional Office of the Mass. Dept. of Environmental Protection (508-792-7650).

cc: Chief Municipal Officer
Board of Health

[Legal Notice]

SCANNED

Massachusetts Department of Environmental Protection **BWSC-104**
Bureau of Waste Site Cleanup

RESPONSE ACTION OUTCOME (RAO) STATEMENT & DOWNGRADIENT PROPERTY STATUS TRANSMITTAL FORM

Pursuant to 310 CMR 40.0180 (Subpart B), 40.0580 (Subpart E) & 40.1056 (Subpart J)

Release Tracking Number: 2 - 0111

A. SITE OR DOWNGRADIENT PROPERTY LOCATION:

Site Name: (optional) ATF Davidson

Street: 1 Main Street Location Aid: opposite Whitin Pond

City/Town: Whitinsville (Northbridge) ZIP Code: 01588

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☑ Check here if this Site location is Tier Classified. If a Tier I Permit has been issued, state the Permit Number: _____

Related Release Tracking Numbers that this Form Addresses: 2-11846

If submitting an RAO Statement, you must document the location of the Site or the location and boundaries of the Disposal Site subject to this Statement. If submitting an RAO Statement for a PORTION of a Disposal Site, you must document the location and boundaries for both the portion subject to this submittal and, to the extent defined, the entire Disposal Site. If submitting a Downgradient Property Status Submittal, you must provide a site plan of the property subject to the submittal and, to the extent defined, the Disposal Site.

B. THIS FORM IS BEING USED TO: (check all that apply)

☑ Submit a **Response Action Outcome (RAO) Statement** (complete Sections A, B, C, D, E, F, H, I, J and L).

☑ Check here if this is a revised RAO Statement. Date of Prior Submittal: 12/18/98

☐ Check here if any Response Actions remain to be taken to address conditions associated with any of the Releases whose Release Tracking Numbers are listed above. This RAO Statement will record only an RAO-Partial Statement for those Release Tracking Numbers.

Specify Affected Release Tracking Numbers: _____

☐ Submit an optional **Phase I Completion Statement supporting an RAO Statement or Downgradient Property Status Submittal** (complete Sections A, B, H, I, J, and L).

☐ Submit a **Downgradient Property Status Submittal** (complete Sections A, B, G, H, I, J and K).

☐ Check here if this is a revised Downgradient Property Status Submittal. Date of Prior Submittal: _____

☐ Submit a **Termination of a Downgradient Property Status Submittal** (complete Sections A, B, I, J and L).

☐ Submit a **Periodic Review Opinion evaluating the status of a Temporary Solution** (complete Sections A, B, H, I, J and L).

Specify one: ☐ For a Class C RAO ☐ For a Waiver Completion Statement indicating a Temporary Solution

Provide Submittal Date of RAO Statement or Waiver Completion Statement: _____

You must attach all supporting documentation required for each use of form indicated, including copies of any Legal Notices and Notices to Public Officials required by 310 CMR 40.1400.

C. DESCRIPTION OF RESPONSE ACTIONS: (check all that apply)

☑ Assessment and/or Monitoring Only

☐ Removal of Contaminated Soils

☐ Re-use, Recycling or Treatment

○ On Site ○ Off Site Est. Vol.: _____ cubic yards

Describe: _____

☐ Landfill ○ Cover ○ Disposal Est. Vol.: _____ cubic yards

☐ Removal of Drums,Tanks or Containers

Describe: _____

☐ Removal of Other Contaminated Media

Specify Type and Volume: _____

☐ Other Response Actions

Describe: _____

☐ Deployment of Absorbant or Containment Materials

☐ Temporary Covers or Caps

☐ Bioremediation

☐ Soil Vapor Extraction

☐ Structure Venting System

☐ Product or NAPL Recovery

☐ Groundwater Treatment Systems

☐ Air Sparging

☐ Temporary Water Supplies

☐ Temporary Evacuation or Relocation of Residents

☐ Fencing and Sign Posting

SECTION C IS CONTINUED ON THE NEXT PAGE.

Massachusetts Department of Environmental Protection **BWSC-104**
Bureau of Waste Site Cleanup

RESPONSE ACTION OUTCOME (RAO) STATEMENT & DOWNGRADIENT PROPERTY STATUS TRANSMITTAL FORM
Pursuant to 310 CMR 40.0180 (Subpart B), 40.0580 (Subpart E) & 40.1056 (Subpart J)

Release Tracking Number: 2 - 0111

C. DESCRIPTION OF RESPONSE ACTIONS: (continued)

☐ Check here if any Response Action(s) that serve as the basis for this RAO Statement involve the use of Innovative Technologies. (DEP is interested in using this information to create an Innovative Technologies Clearinghouse.)

Describe Technologies: _____

D. TRANSPORT OF REMEDIATION WASTE: (if Remediation Waste was sent to an off-site facility, answer the following questions)

Name of Facility: N/A

Town and State: _____

Quantity of Remediation Waste Transported to Date: _____

E. RESPONSE ACTION OUTCOME CLASS:

Specify the Class of Response Action Outcome that applies to the Site or Disposal Site. Select **ONLY** one Class:

☐ **Class A-1 RAO:** Specify one of the following:

○ Contamination has been reduced to background levels. ○ A Threat of Release has been eliminated.

☐ **Class A-2 RAO:** You **MUST** provide justification that reducing contamination to background levels is infeasible.

☐ **Class A-3 RAO:** You **MUST** provide both an implemented Activity and Use Limitation (AUL) and justification that reducing contamination to background levels is infeasible.

If applicable, provide the earlier of the AUL expiration date or date the design life of the remedy will end: _____

☑ **Class B-1 RAO:** Specify one of the following:

○ Contamination is consistent with background levels ☑ Contamination is **NOT** consistent with background levels.

☐ **Class B-2 RAO:** You **MUST** provide an implemented AUL.

If applicable, provide the AUL expiration date : _____

☐ **Class C RAO:** ☐ Check here if you will conduct post-RAO Operation, Maintenance and Monitoring at the Site.

Specify One: ○ Passive Operation and Maintenance ○ Monitoring Only

○ Active Operation and Maintenance (defined at 310 CMR 40.0006)

F. RESPONSE ACTION OUTCOME INFORMATION:

☐ If an RAO Compliance Fee is required, check here to certify that the fee has been submitted. You **MUST** attach a photocopy of the payment.

☐ Check here if submitting one or more AULs. You must attach an AUL Transmittal Form (BWSC-113) and a copy of each implemented AUL related to this RAO Statement. Specify the type of AUL(s) below: (required for all Class A-3 RAOs and Class B-2 RAOs)

○ Notice of Activity and Use Limitation ○ Grant of Environmental Restriction Number of AULs attached: _____

Specify the Risk Characterization Method(s) used to achieve the RAO described above and all Soil and Groundwater Categories applicable to the Site.

More than one Soil Category and more than one Groundwater Category may apply at a Site.
Be sure to check off all APPLICABLE categories, even if more stringent soil and groundwater standards were met.

Risk Characterization Method(s) Used:	☑ Method 1	☐ Method 2	☐ Method 3
Soil Category(ies) Applicable:	☐ S-1	☑ S-2	☐ S-3
Groundwater Category(ies) Applicable:	☐ GW-1	☐ GW-2	☑ GW-3

> **When submitting any Class A-1 RAO or a Class B-1 RAO where contamination is consistent with background levels, do NOT specify a Risk Characterization Method.**

> **When submitting any Class A-2 RAO or a Class B-1 RAO where contamination is NOT consistent with background levels, you cannot use an AUL to maintain a level of no significant risk. Therefore, you must meet S-1 Soil Standards, if using Risk Characterization Method 1.**

Massachusetts Department of Environmental Protection **BWSC-104**

Bureau of Waste Site Cleanup

RESPONSE ACTION OUTCOME (RAO) STATEMENT & DOWNGRADIENT PROPERTY STATUS TRANSMITTAL FORM

Pursuant to 310 CMR 40.0180 (Subpart B), 40.0580 (Subpart E) & 40.1056 (Subpart J)

Release Tracking Number: 2 - 0111

G. DOWNGRADIENT PROPERTY STATUS SUBMITTAL:

☐ If a Downgradient Property Status Submittal Compliance Fee is required, check here to certify that the fee has been submitted. You **MUST** attach a photocopy of the payment.

☐ Check here if a Release(s) of Oil or Hazardous Material(s), other than that which is the subject of this submittal, has occurred at this property.

Release Tracking Number(s): _____

○ Check here if the Releases identified above require further Response Actions pursuant to 310 CMR 40.0000.

Required documentation for a Downgradient Property Status Submittal includes, but is not limited to, copies of notices provided to owners and operators of both upgradient and downgradient abutting properties and of any known or suspected source properties.

H. LSP OPINION:

I attest under the pains and penalties of perjury that I have personally examined and am familiar with this transmittal form, including any and all documents accompanying this submittal. In my professional opinion and judgment based upon application of (i) the standard of care in 309 CMR 4.02(1), (ii) the applicable provisions of 309 CMR 4.02(2) and (3), and (iii) the provisions of 309 CMR 4.03(5), to the best of my knowledge, information and belief,

> *if Section B indicates that a **Downgradient Property Status Submittal** is being provided,* the response action(s) that is (are) the subject of this submittal (i) has (have) been developed and implemented in accordance with the applicable provisions of M.G.L. c. 21E and 310 CMR 40.0000, (ii) is (are) appropriate and reasonable to accomplish the purposes of such response action(s) as set forth in 310 CMR 40.0183(2)(b), and (iii) complies(y) with the identified provisions of all orders, permits, and approvals identified in this submittal;

> *if Section B indicates that either an **RAO Statement, Phase I Completion Statement and/or Periodic Review Opinion** is being provided,* the response action(s) that is (are) the subject of this submittal (i) has (have) been developed and implemented in accordance with the applicable provisions of M.G.L. c. 21E and 310 CMR 40.0000, (ii) is (are) appropriate and reasonable to accomplish the purposes of such response action(s) as set forth in the applicable provisions of M.G.L. c. 21E and 310 CMR 40.0000, and (iii) complies(y) with the identified provisions of all orders, permits, and approvals identified in this submittal

I am aware that significant penalties may result, including, but not limited to, possible fines and imprisonment, if I submit information which I know to be false, inaccurate or materially incomplete.

☐ Check here if the Response Action(s) on which this opinion is based, if any, are (were) subject to any order(s), permit(s) and/or approval(s) issued by DEP or EPA. If the box is checked, you MUST attach a statement identifying the applicable provisions thereof.

LSP Name: Donald L. Corey LSP #: 4128 Stamp:

Telephone: 781-275-2970 Ext.: _____

FAX: (optional) 781-275-3557

Signature: Donald L. Corey

Date: 10/24/02

COMMONWEALTH OF MASSACHUSETTS — DONALD L COREY No. 4128 — REGISTERED LICENSED SITE PROFESSIONAL

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I. PERSON MAKING SUBMITTAL:

Name of Organization: Arcade Realty Trust

Name of Contact: Leonard Jolles Title: Property Manager

Street: 1 Main Street

City/Town: Whitinsville (Northbridge) State: MA ZIP Code: 01588

Telephone: 508-234-6301 Ext.: _____ FAX: (optional)

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J. RELATIONSHIP TO SITE OF PERSON MAKING SUBMITTAL: (check one)

✔ RP or PRP Specify: ✔ Owner ○ Operator ○ Generator ○ Transporter Other RP or PRP: _____

☐ Fiduciary, Secured Lender or Municipality with Exempt Status (as defined by M.G.L. c. 21E, s. 2)

☐ Agency or Public Utility on a Right of Way (as defined by M.G.L. c. 21E, s. 5(j))

☐ Any Other Person Submitting This Form Specify Relationship: _____

Massachusetts Department of Environmental Protection **BWSC-104**
Bureau of Waste Site Cleanup

RESPONSE ACTION OUTCOME (RAO) STATEMENT & DOWNGRADIENT PROPERTY STATUS TRANSMITTAL FORM
Pursuant to 310 CMR 40.0180 (Subpart B), 40.0580 (Subpart E) & 40.1056 (Subpart J)

Release Tracking Number
2 - 0111

K. CERTIFICATION OF PERSON SUBMITTING DOWNGRADIENT PROPERTY STATUS SUBMITTAL:

I, _____, attest under the pains and penalties of perjury (i) that I have personally examined and am familiar with the information contained in this submittal, including any and all documents accompanying this transmittal form; (ii) that, based on my inquiry of the/those individual(s) immediately responsible for obtaining the information, the material information contained herein is, to the best of my knowledge, information and belief, true, accurate and complete; (iii) that, to the best of my knowledge, information and belief, I/the person(s) or entity(ies) on whose behalf this submittal is made satisfy(ies) the criteria in 310 CMR 40.0183(2); (iv) that I/the person(s) or entity(ies) on whose behalf this submittal is made have provided notice in accordance with 310 CMR 40.0183(5); and (v) that I am fully authorized to make this attestation on behalf of the person(s) or entity(ies) legally responsible for this submittal. I/the person(s) or entity(ies) on whose behalf this submittal is made is/are aware that there are significant penalties, including, but not limited to, possible fines and imprisonment, for willfully submitting false, inaccurate, or incomplete information.

By: _____ Title: _____
(signature)

For: _____ Date: _____
(print name of person or entity recorded in Section I)

Enter address of the person providing certification, if different from address recorded in Section I:

Street: _____

City/Town: _____ State: _____ ZIP Code: _____

Telephone: _____ Ext.: _____ FAX: (optional) _____

L. CERTIFICATION OF PERSON MAKING SUBMITTAL:

If you are completing only a Downgradient Property Status Submittal, you do not need to complete this section of the form.

I, Leonard Jolles, attest under the pains and penalties of perjury (i) that I have personally examined and am familiar with the information contained in this submittal, including any and all documents accompanying this transmittal form, (ii) that, based on my inquiry of those individuals immediately responsible for obtaining the information, the material information contained in this submittal is, to the best of my knowledge and belief, true, accurate and complete, and (iii) that I am fully authorized to make this attestation on behalf of the entity legally responsible for this submittal. I/the person or entity on whose behalf this submittal is made am/is aware that there are significant penalties, including, but not limited to, possible fines and imprisonment, for willfully submitting false, inaccurate, or incomplete information.

By: _____ Title: Property Manager
(signature)

For: Arcade Realty Trust Date: 10-29-02
(print name of person or entity recorded in Section I)

Enter address of the person providing certification, if different from address recorded in Section I:

Street: same

City/Town: _____ State: _____ ZIP Code: _____

Telephone: _____ Ext.: _____ FAX: (optional) _____

YOU MUST COMPLETE ALL RELEVANT SECTIONS OF THIS FORM OR DEP MAY RETURN THE DOCUMENT AS INCOMPLETE. IF YOU SUBMIT AN INCOMPLETE FORM, YOU MAY BE PENALIZED FOR MISSING A REQUIRED DEADLINE, AND YOU MAY INCUR ADDITIONAL COMPLIANCE FEES.

Massachusetts Department of Environmental Protection
Bureau of Waste Site Cleanup

BWSC-111

AUDIT FOLLOW-UP PLAN TRANSMITTAL FORM & POST- AUDIT COMPLETION STATEMENT

Pursuant to 310 CMR 40.1160 - 40.1170 (Subpart K)

Release Tracking Number: 2 - 111

A. SITE LOCATION:

Site Name: (optional) ATF Davidson

Street: 1 Main Street Location Aid: opposite Whitin Pond

City/Town: Whitinsville (Northbridge) ZIP Code:

Tier Classification Status: (check one) ☐ Not Tier Classified ☑ Tier 2 ☐ Tier 1 Permit Transmittal Number:

Related Release Tracking Numbers that this form addresses: 2-11846

B. THIS FORM IS BEING USED TO: (check one)

☐ Submit an **Audit Follow-Up Plan** (complete Sections A, B, D, E and F).

☐ Submit a **Modified or Revised Audit Follow-Up Plan** (complete Sections A, B, D, E and F).

☑ Submit a **Post-Audit Completion Statement** (complete Sections A, B, C, D, E, and F).

You must attach all supporting documentation for the use of form indicated, including copies of any Legal Notices and Notices to Public Officials required by 310 CMR 40.1400.

C. POST-AUDIT RESPONSE ACTIONS SUMMARY:

Notice of Audit Finding: Date Issued: 01/23/2002

Check all that apply:

☑ Documentation (Check all that apply):

- ☑ Provided Technical Justification, or Supporting or Clarifying Information Relating to Previous Response Actions
- ☐ Performed Additional Risk Assessment
- ☐ Modified Disposal Site Boundary

☐ Field Work (Check all that apply):

- ☐ Sampled Previously Assessed Media (Check all that apply):
  - ☐ Soil ☐ GW ☐ SW ☐ Sediment ☐ Air ☐ Waste Material
- ☐ Sampled New Media Not Previously Assessed (Check all that apply):
  - ☐ Soil ☐ GW ☐ SW ☐ Sediment ☐ Air ☐ Waste Material
- ☐ Performed Remediation (Describe):

☐ Outcome (Check all that apply and submit appropriate transmittal form(s)):

- ☐ Implemented or Amended Activity and Use Limitation
- ☐ Modified Risk Assessment Method
- ☐ Revised Response Action Outcome (RAO) Class
- ☐ Revised Tier Classification
- ☐ Revised or Modified Phase Work
- ☐ Retracted RAO Statement
- ☐ Other:

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Bureau of Waste Site Cleanup

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AUDIT FOLLOW-UP PLAN TRANSMITTAL FORM
& POST AUDIT COMPLETION STATEMENT
Pursuant to 310 CMR 40.1160 - 40.1170 (Subpart K)

Release Tracking Number
2 - 111

D. LSP OPINION:

I attest under the pains and penalties of perjury that I have personally examined and am familiar with the information contained in this transmittal form, including any and all documents accompanying this submittal. In my professional opinion and judgment based upon application of (i) the standard of care in 309 CMR 4.02(1), (ii) the applicable provisions of 309 CMR 4.02(2) and (3), and (iii) the provisions of 309 CMR 4.03(5), to the best of my knowledge, information and belief.

> *if Section B of this form indicates that an **Audit Follow-up Plan, or a Modified or Revised Audit Follow-up Plan** is being submitted*, the response action(s) that is (are) the subject of this submittal (i) has (have) been developed in accordance with the applicable provisions of M.G.L. c. 21E and 310 CMR 40.0000, (ii) is (are) appropriate and reasonable to accomplish the purposes of such response action(s) as set forth in the applicable provisions of M.G.L. c. 21E and 310 CMR 40.0000 and (iii) complies(y) with the identified provisions of all orders, permits, and approvals identified in this submittal;

> *if Section B of this form indicates that an **Post-Audit Completion Statement** is being submitted*, the Post-Audit response action(s) that is (are) the subject of this submittal as required to correct either violations and/or deficiencies identified by DEP in a Notice of Audit Finding pursuant to 310 CMR 40.1140 (i) has (have) been developed, implemented and completed in accordance with the applicable provisions of M.G.L. c.21E and 310 CMR 40.0000, (ii) is (are) appropriate and reasonable to accomplish the purposes of such response action(s) as set forth in the applicable provisions of M.G.L. c.21E and 310 CMR 40.0000 and (iii) complies(y) with the identified provisions of all orders, permits, approvals, or Audit Follow-up Plans pursuant to 310 CMR 40.1160 as identified in this submittal. Development, implementation and completion of the Post-Audit response action(s) have corrected the violations and/or deficiencies identified by DEP in the Notice of Audit Finding. This Statement does not (1) apply to actions or other aspects of the site that were not reviewed in the audit, (2) preclude future audits of past, current, or future actions at the site, (3) in any way constitute a release from any liability, obligation, action or penalty under M.G.L. c.21E, 310 CMR 40.0000, or any other law, regulation, or requirement, or (4) limit the Department's authority to take or arrange, or to require any Responsible Party or Potentially Responsible Party to perform, any response action authorized by M.G.L. c.21E, which the Department deems necessary to protect health, safety, public welfare or the environment.

I am aware that significant penalties may result, including, but not limited to, possible fines and imprisonment, if I submit information which I know to be false, inaccurate or materially incomplete.

☐ Check here if the Response Action(s) on which this opinion is based, if any, are (were) subject to any order(s), permit(s) and/or approval(s) issued by DEP or EPA. If the box is checked, you MUST attach a statement identifying the applicable provisions thereof.

LSP Name: Donald L. Corey LSP #: 4128 Stamp:

Street: Corey Management Company, Inc., P.O. Box 276

City/Town: Bedford State: MA ZIP Code: 01730

Telephone: (781) 275-2970 Ext:

FAX: (optional) (781) 275-3557

Signature: Donald L Corey Date: 10/24/02

COMMONWEALTH OF MASSACHUSETTS
DONALD L. COREY
No. 4128
REGISTERED
LICENSED SITE PROFESSIONAL

E. RELATIONSHIP TO SITE OF PERSON RESPONDING TO AUDIT:

☑ RP or PRP ☑ Owner ☐ Operator ☐ Generator ☐ Transporter Other RP or PRP:

☐ Fiduciary, Secured Lender or Municipality with Exempt Status (as defined by M.G.L. c. 21E, s. 2)

☐ Agency or Public Utility on a Right of Way (as defined by M.G.L. c. 21E, s. 5(j))

☐ Any Other Person Responding to Audit Specify Relationship:

Massachusetts Department of Environmental Protection
Bureau of Waste Site Cleanup

BWSC-111

AUDIT FOLLOW-UP PLAN TRANSMITTAL FORM
& POST AUDIT COMPLETION STATEMENT

Pursuant to 310 CMR 40.1160 - 40.1170 (Subpart K)

Release Tracking Number

2 - 111

F. CERTIFICATION OF PERSON RESPONDING TO AUDIT:

☐ Check here if there has been a change in the person undertaking Response Actions at the Site since the previous submittal to DEP.

I, Leonard Jolles, attest under the pains and penalties of perjury (i) that I have personally examined and am familiar with the information contained in this submittal, including any and all documents accompanying this transmittal form, (ii) that, based on my inquiry of those individuals immediately responsible for obtaining the information, the material information contained in this submittal is, to the best of my knowledge and belief, true, accurate and complete, and (iii) that I am fully authorized to make this attestation on behalf of the entity legally responsible for this submittal. I/the person or entity on whose behalf this submittal is made am/is aware that there are significant penalties, including, but not limited to, possible fines and imprisonment, for willfully submitting false, inaccurate, or incomplete information.

By: _____ Title: Property Manager
(signature)

For: Arcade Realty Trust Date: 10-29-02
(print name of person or entity recorded in Section E)

Enter address of signer, if different from address recorded in Section E:

Street: same

City/Town: _____ State: _____ ZIP Code: _____

Telephone: _____ Ext.: _____

YOU MUST COMPLETE ALL RELEVANT SECTIONS OF THIS FORM OR DEP MAY RETURN THE DOCUMENT AS INCOMPLETE. IF YOU SUBMIT AN INCOMPLETE FORM, YOU MAY BE PENALIZED FOR MISSING A REQUIRED DEADLINE.

RECEIVED
OCT 31 2002
DEP - CERO

Response Action Outcome (RAO) Statement
ADDENDUM

Arcade Realty Trust
ATF-Davidson Property
355 Main Street
Whitinsville (Northbridge), MA

RTN #2-0111

Prepared by

Donald L. Corey, LSP
Corey Management Co., Inc.
P.O. Box 276
Bedford, MA 01730-0276

October 28, 2002

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Response Action Outcome (RAO) Statement

Arcade Realty Trust
ATF-Davidson Property
355 Main Street
Whitinsville (Northbridge) MA

RTN 2-0111

A. Site Description and History

The subject property is located at 355 Main Street in the Whitinsville section of the Town of Northbridge, Worcester County, Massachusetts. The Site was incorrectly identified as One Main Street when MADEP originally assigned the Disposal Site Number (RTN 2-0111). Figure 1 (Appendix A) provides the Site Locus based on the U. S. Geological Survey topographical map, Uxbridge Quadrangle. The Site is located at 4,665,418 mN, 278,463 mE using Universal Transverse Mercator (UTM) coordinates; and at 42°06'41" north latitude, 71°40'46" west longitude. The boundaries of the Site are shown in the Area Plan and Site Detail (Figure 3A & 3B-Appendix A).

Figure 2 (Appendix A) is the MADEP Priority Resources GIS Map, which identifies potential environmental receptors within a 500 foot and 1/2-mile radius. There are no known institutions as defined by MCP 310 CMR40.0006 within 500 feet of the Site per the Phase I report prepared by Kroll (1997) and a Phase I report for the abutting former Whitin Machine Works site (RTN#2-0112) (CEH1997), which were previously submitted to the MADEP and are included by reference. The only natural resource areas within 500 feet of the property are the Mumford River and Arcade Pond. The property is not located in a wellhead protection area, but the boundary of an approved Zone 2 wellhead protection area (Well 2216000-03G) is within a 0.5-mile radius immediately upgradient from the Site. Balmer School and several protected open spaces (i.e. parks) are within a 0.5-mile radius north of the Site. According to the CEH-Jacques Whitford (CEH-JW) Phase I report (1997), there are no Massachusetts-listed "rare wetland species of wildlife" inhabiting an area within 0.5 miles of the site.

Figures 3A & 3B identify features relevant to this submittal including groundwater flow contours calculated from the data shown in Table 2. The Site Detail identifies the site boundaries, and location of monitoring wells. There are no subsurface utilities, floor drains, or storm drains. Based on previous consultant reports, discussions with ATF-Davidson representatives and historical correspondence with the MADEP there is no history of hazardous material usage and no identified disposal area(s) within the Arcade property. The area where elevated levels of chlorinated volatile organic compounds (CVOCs) and barium were identified which triggered release notification under the MCP was identified as the foundry sand fill area south and southeast of the existing building.

The 27-acres Arcade Realty Trust property is zoned for commercial and industrial use. The property is owned by Arcade Realty Trust and is leased for light manufacturing, warehousing and distribution. The existing 194,000 square foot building was recently expanded by 50, 000 square feet. The area immediately adjacent to the building on all sides is asphalt paved for driveways and parking areas. The majority of the eastern and western portions of the property remain unpaved. The off-site areas around the Site are a mixture of commercial and residential properties along Main Street and primarily residential properties to the west and north. The Mumford River bounds the Site on the south, and the western abutting property is undeveloped, and owned by the Whitinsville Water Company. There are approximately 2,150 people living within 1-mile radius of the Site.

A complete site description including a site history is given in the Phase I Initial Site Investigation Report dated March 1997. The Phase I report was previously submitted to the MADEP and is included by reference. Pertinent site characteristics are described herein.

The ATF-Davidson (a.k.a. Whitin Machine Works) property was a 73-acre facility directly west of the downtown portion of Whitinsville, a village within the Town of Northbridge (see Figure 1). The site is located in the 50-100 year flood plain.

The entire property was originally owned by the Whitin Machine Works, which produced textile machines at the Covich location from approximately 1837 to 1966. From 1941-1945, 85% of the facility was converted to war production. After the war, production of textile machines resumed. In 1966, the company converted to the production of graphic arts equipment. Whitin Machine, then part of ATF-Davidson ceased operations in 1982. The ATF-Davidson property was later sub-divided into the Covich property (46 acres) and the ATF-Davidson "Arcade" (27 acres) by ATF-Davidson who sold the east portion to Covich, and the western "Arcade" portion to Arcade Realty Trust LLC.

Foundry wastes from the foundry at Whitin Machine Works manufacturing facility were mixed with spent foundry sand and were deposited, from roughly 1930 to 1979, adjacent to the present day Covich property in an unlined landfill called the "Arcade". The landfill area initially consisted of overburden of river sediments over bedrock extending approximately 3200 feet along the northern bank of the Mumford River. Total volume of the landfill was estimated at 40,000 cubic yards; total surface area is estimated at 730,000 square feet. Foundry sands range in size from fine to coarse with some pumice-like material, foundry glass and ash. In 1944, Whitin Machine Works built the Arcade facility upon a portion of the filled area as an equipment warehouse. Sometime after 1966, ATF-Davidson utilized the Arcade property to produce printing machines. Historic processes included turning, milling, grinding, assembly, painting and testing. There was no indication from discussions

with the ATF-Davidson representative or documents on file with the MADEP that hazardous materials were ever used on the Arcade property. At the time the Phase I Report was prepared, ATF-Davidson had already vacated the property, and there was no evidence of historical hazardous materials usage. As stated in the Phase I Report, the principal facilities for the former manufacturing operations that utilized hazardous materials were located to the east at the adjacent mill operations. It was noted that MADEP (former DEQE) had been involved with ATF-Davidson since the early 1980's. This included the period when ATF-Davidson still conducted operations at the Arcade property. At the time that ATF-Davidson provided its Release Notification and the MADEP subsequently issued its Notice of Responsibility, the only unresolved environmental matter was groundwater contamination of VOCs and barium.

Monitoring wells were initially installed within the "Arcade" property in 1985. Soil samples contained heavy metals consistent with natural occurring conditions and VOCs were less than actionable standards. Groundwater samples analyzed by a state certified laboratory contained volatile organic constituents (VOCs) and heavy metals. This resulted in the Arcade site being listed as a "Confirmed Non-Priority Site" by the MA DEP on October 15, 1987. Volatile organic constituents appear to be concentrated within one general area on the Arcade property south and east of the building, suggesting that limited and random spillage of solvents may have occurred. Heavy metal constituents appeared to be located in two (2) discrete locations along the Site's southern boundary. Additional monitoring wells on the abutting Covich Property have never indicated the presence of those contaminants in groundwater at or near action levels.

Information in the MADEP files suggested that historical site operations might have included the disposal of electroplating rinsewaters of at the Site. Sediment samples from a 1985 report by Caswell, Eichler and & Hill also indicated the presence of chromium in the Mumford River sediments. However, based on a file review performed by Blasland, Bouck & Lee, Inc. (2002) and on a former Whitin Machine Works/ATF-Davidson employee interview, it has been determined that chromium electroplating was never performed by Whitin Machine Works (the former owner and operator). According to Mr. Archie Misakion, the former plant manager and an employee with Whitin Machine Works from 1940 until 1973, there were no chrome plating operations conducted at the manufacturing facility and chrome-plated parts were purchased and shipped to the site. (Misakion, 2002).

Internal documents uncovered during BBL's review of the former Whitin Machine Works files support Mr. Misakion's statement and confirm that chrome-plated parts were purchased from a supplier and not manufactured at the Whitin Machine Works site (WCI, 1972, see Appendix C).

In addition, Whitin Machine Works reported to the USEPA in 1984 that its electroplating wastes were discharged into the Mumford River from 1930 until 1965 from its electroplating operations located on the adjacent Covich property. These

documents, interviews and data support the fact that chromium electroplating was not part of the historical operations and therefore, chromium electroplating wastes were not disposed of at the Arcade property.

Sediment samples collected in July 1985 and reported in October 1985 indicated the presence of chromium in the Mumford River sediments (Samples B-1 through B-5. In November 1985, eleven (11) additional sediment samples (B-1 through B-11) were collected by CEH from the Mumford River (locations are shown on Figure 3A & 3B) to evaluate the source of chromium detected in the October 1985 sediment samples. The October and November sediment data is tabulated below. Based on these data, a source of chromium was observed nearly a mile upstream of the site. In a report dated January 1986, the source of the chromium was attributed to historical upstream tanning operations, which was supported by the organic nature of the chromium (CEH 1986).

Chromium Conc. (ug/g) In Mumford River Sediments (CEH 1985)

July 1985		November 1985	
Sample #	Conc.	Sample #	Conc.
B-1	410	B-1	870
B-2	250	B-2	670
B-3	400	B-3	170
B-4	100	B-4	190
B-5	65	B-5	2300
		B-6	200
		B-7	2300
		B-8	1200
		B-9	92
		B-10	No Sample
		B-11	1600
		B-12	No Sample

Note: Samples B-1 through B-5 collected in November 1985 were taken from the same location as the July 1985 samples.

The concentrations of chromium in sediment adjacent to the site are lower than those found upstream, thus supporting the fact that the site is not a contributing source of chromium to the Mumford River. This is further supported by the historical groundwater data from July 1985 that reported chromium concentrations at less than method quantification limits in all groundwater samples from all on-site monitoring wells. Groundwater data is summarized in Table 2 (see Appendix B). The method quantification limit for chromium for these analyses was 0.005 milligrams per liter (mg/L), and the MADEP's current criteria for groundwater discharge to surface water is 2 mg/L. This method quantification limit is also below the December 2001 proposed criteria of 0.1 mg/L. Consequently, an incomplete pathway exists for potential chromium leaching from surface soil to groundwater

and migration to the Mumford River. Therefore, no further sediment sample collection was necessary to address chromium contamination.

With exception of barium (ranging 0.34 mg/l - 4.7 mg/l) in Monitoring Wells (M-3; M-4; M-5; M-6; and M-8), and zinc (0.010mg/L-0.045mg/L) all reported heavy metal concentrations in groundwater were less than method quantification levels. All reported metal concentrations in soil historically reported by CEH to MADEP were less than Method 1 S-1 standards.

A review of the former owner (Whitin Machine Works) and MADEP files does not indicate any historical non-compliance operations at the Site, and there are no known environmental discharge or use permits issued to former or current operations occupying the Arcade Site. Regulatory activity and dates of activity are listed below:

April 30, 1985	Release Notification to Department
April 30, 1985	NOR issued
October 15, 1987	Site Listed as a Location to be Investigated
January 8, 1997	Publication of Tier I Disposal Site for Failure to Take Action
March 7, 1997	Submittal of Phase I- Limited Site Investigation
April 4, 1997	Submittal of Tier II Site Classification
April 4, 1997	Submittal of LSP Evaluation Opinion
December 18, 1998	Class B-1 RAO was Filed
December 5, 2001	Notice of Audit-Request for Site Inspection issued by the Department
January 23, 2002	Notice of Audit Findings and Notice of Non-compliance issued by Department
April 16, 2002	Response to NOAF and NON
April 23, 2002	Interim Deadline- RAO Addendum

On January 23, 2002, the MADEP issued a Notice of Audit Findings (NOAF) and Notice of Non-compliance (NON-CE-01-3102). The NON required submittal of an Audit Follow-up Plan and retraction of the RAO by March 1, 2002. An extension of this deadline was verbally approved by James Moody of the MADEP pending further discussions. On April 16, 2002 supplemental information was provided to MADEP, and the MADEP agreed that retraction of the RAO was not required at that time. On April 23, 2002 the MADEP issued a notice requiring a submittal by October 31, 2002 of this RAO addendum to support a condition of No Significant Risk.

A Class A-3 RAO Statement for a petroleum release within the northern portion of the Arcade property (RTN 2-11846) was previously submitted to MADEP in October 1997. On December 14, 2001, the MADEP issued its RAO Screening Review, and reported that the Department did not identify any errors in the AUL Notice instrument that required correction.

B. Class of RAO and Risk Characterization Method

In accordance with the Response Action Performance Standard (RAPS) contained in 310 CMR 40.0191 of the Massachusetts Contingency Plan (MCP), a permanent solution has been achieved with a level of No Significant Risk to safety, health, public welfare, and the environment. This Statement is being submitted demonstrating that a Class B-1 Response Action Outcome (RAO) has been achieved with no Activity and Use Limitation (AUL) needed to maintain the level of No Significant Risk. The MCP Method 1 Cleanup Standards for soil and groundwater were used to characterize potential risks at the Site. Because chromium contamination of river sediments is related to an upgradient source, the conditions for use of Method 1 Standards for this site are satisfied.

C. Description of Release, Site Conditions and Receptors

Volatile organic compounds (VOCs) and heavy metals were identified in groundwater after the installation of monitoring wells in 1985. As a result, the Site was listed as a Confirmed Non-Priority Site by MADEP on October 15, 1987, and was assigned Disposal Site Number RTN# 2-0111. The Site was subsequently (April 4, 1997) classified as Tier II under the Massachusetts Contingency Plan (MCP) with a Site Score of 216. The Tier Classification Transmittal, Numerical Ranking Score sheet (NRSA) and Licensed Site Profession (LSP) Evaluation Opinion were submitted to MADEP with the Phase I Report in April and March 1997, respectively, and are included by reference.

The VOCs, including tetrachloroethylene and its decomposition products, were limited to four (4) monitoring wells on the south-eastern portion of the property abutting the Mumford River. Two (2) wells along the southern boundary of the property were reported to contain barium in excess of GW-1 standards.

Although undocumented, the likely source of the VOC contamination was associated with the past disposal of foundry sand with incidental solvents at the Site.

Potentially sensitive environment receptors are shown on the MADEP GIS Priority Resources Map (Figure 2). The GIS Map incorrectly indicates that the Site lies within an Interim Wellhead Protection Area (IWPA) for the Whitinsville Water Company's Whitin Pond well field. However, a previously submitted engineering plan (Whitman & Howard) specifies a defined Zone II area of contribution which is entirely off-site and upgradient of the Meadow Pond section of the Mumford River which borders the Site. Figure 2 also shows the defined Zone II within the erroneous IWPA.

Potential environmental receptors identified within 500 feet are the Meadow Pond section of the Mumford River to the south and a portion of Arcade Pond and the associated protected open space to the north. Located within a 1/2 mile radius to

the west are the Whitin Pond well field, the associated Zone II described above and portions of Meadow Pond. To the north are various protected open spaces (parks) and to the southwest is a potentially productive medium yield aquifer on the far side of the Mumford River. No exposure pathway to these potential off-site receptors has been identified.

Potential on-site receptors include soil, groundwater, facility employees and visitors to the Site.

D. Federal, State and Local Permits

No Federal, State or local permits were required in order to achieve a level of No Significant Risk of harm to health, safety, public welfare, and the environment as documented in this Class B-1 RAO. There are no known environmental permits having been issued to former or current tenants, owners or operator at the Site.

E. Description of Work Completed

The conditions which meet the requirements of this Class B-1 RAO were achieved by natural attenuation of the VOC contaminants in soil and groundwater. The reported barium concentration of 2.9 mg/l in MW-5 groundwater in July 1985 exceeded the RCGW-1 limit of 2 mg/l. However, once that the applicable groundwater category (GW-3) was determined, barium in all wells readily met the MCP Method 1 Cleanup Standard. The work completed included assessment and monitoring of soil and groundwater during the period 1985 through 1998. Historical reports are provided in Appendix C. Laboratory reports not previously submitted are included in Appendix B, and the soil results are summarized in Table 1 and groundwater results are summarized in Table 2.

Supplemental soil and groundwater sampling was conducted in October 1996 and January 1997 and the laboratory data was previously submitted to MADEP in the Phase I report. The results indicated that vinyl chloride exceeded the MCP Method 1, GW-2 Cleanup Standard of 2 ug/l in M-6, M-8 and a Geoprobe boring, GP-6. Locations of these sample locations are shown in Figure 3B.

Groundwater samples from the two monitoring wells noted above were re-sampled on May 29, 1998. Vinyl chloride was not detectable in M-6 and was at 72 ug/L in M-8. Due to the remote location of M-8, more than 300 feet from any existing occupied building (including a recent building addition), the applicable groundwater category is GW-3 and the limit of 600 ug/l was readily met.

A confirmatory sampling round of all wells, which had exceedences in the past, was conducted on August 31, 1998. The results met all applicable Method 1 Cleanup Standards.

Analytical results are summarized in Table 1 and monitoring well locations are shown in Figure 3B.

F. Findings and Conclusions

1. Demonstration of Uncontrolled Source Elimination

The source of the release has been identified as historic disposal practice for foundry wastes. The discontinuance of this former activity has eliminated the source.

2. Documentation of No Significant Risk

The objective of the assessment and monitoring at this Site was to ensure that a level of No Significant Risk of harm to health, safety, public welfare and the environment exists without an Activity and Use Limitation (AUL) to maintain this permanent solution. The analytical results from assessment activities have demonstrated that the residual contaminant concentrations have been reduced to levels below the applicable cleanup standards established by MADEP without remedial actions beyond natural attenuation. Therefore, the result is a Class B-1 RAO.

Soils

In characterizing the risk posed at this site, MCP Method 1 Cleanup Standards were applied after the appropriate soil and groundwater categories were determined. Identification of the MCP Method 1 soil category is based on the accessibility of the soil (<=3' unpaved) and on adults only being present at the industrial site. Frequency is high but intensity of use is low, so the appropriate soil category is S-2. However, in order to maintain a level of No Significant Risk without an AUL, the S-1 soil category standards must also be met. In January 1986 in direct response to the Department, CEH performed heavy metal analyses for arsenic (ranging 6.2 ug/g to 14 ug/g); barium (54 ug/g to 75 ug/g) and zinc (67 ug/g to 100 ug/g) in soil. Due to the historical use of the Site and groundwater monitoring results no other heavy metals were considered a concern. According to CEH's findings, none of the soil analytical results exceeded the applicable S-1/ GW-1, 2, 3 Standards (i.e. arsenic 30 ug/g; barium 1,000ug/g and zinc 2,500 ug/g).

Contact with soil anywhere within the impacted area represents a potential exposure point. As each reported value at each sample location meets the applicable S-1 standard, averaging is not required in order to determine exposure Point Concentrations (EPCs).

Groundwater

The Site is neither a Current nor Potential Drinking Water Source Area, so no GW-1 conditions exist at the Site. The impacted monitoring wells are located more than thirty (30) feet from an occupied structure, so no GW-2 condition

exists for those wells. The GW-3 Cleanup Standards are designed to protect surface waters such as the Mumford River, which is the sole potential pathway for off-site migration of groundwater from the Site. Therefore, the applicable groundwater category is GW-3.

The analytical results demonstrate that groundwater on-site readily meets the GW-3 Cleanup Standards. The laboratory reports not previously submitted are included as Appendix B and the results are summarized in Table 2. Each monitoring well represents a separate exposure point, and the reported contaminant values represent discreet EPCs. All contaminant concentrations (EPCs) are within the applicable GW-3 Cleanup Standards.

Sediment

The concentrations of chromium in sediments adjacent to the Arcade site were lower than those found upstream, thus supporting the fact that the site is not a contributing source of chromium to the Mumford River. Further, based on the historical groundwater data collected at the Site (i.e. all concentrations were less than method detection levels), an incomplete pathway exists for potential chromium leaching from the surface soils to groundwater and migration to the Mumford River. Heavy metal analyses of soils for those metals present in groundwater samples were less than S-1 standards. Therefore, an incomplete pathway exists for arsenic, barium and zinc, and further sediment sample collection and analysis was not warranted.

3. Risk To Safety Characterization

A characterization of risk to safety was performed in accordance with 310CMR40.0960(2). A level of "No Significant Risk" of harm to safety exists at the Site because:

- The conditions identified at 310CMR40.0960(3) do not exist at the Site, that being:
  - No rusted or corroded drums or other container, open pits, lagoons, or other dangerous structures exist at the Site;
  - No threat of fire or explosion due to explosive vapors from OHM release or other sources exists at the Site; and
  - No un-containerized materials which exhibit the characteristics of corrosivity, reactivity or flammability described at 310CMR40.0347 exist at the Site.
- Comparison of current and reasonably foreseeable conditions at the Site to applicable safety standards (such as OSHA regulations and municipal Fire Code) does not indicate any risk of harm to safety.

4. Feasibility Evaluation

A feasibility evaluation is not required for a Class B RAO as described under 310 CMR 40.0860. Compliance with MCP Method 1 Standard for soil and groundwater constitutes by definition a level of NO Significant Risk.

G. Remedial Waste

No remedial waste was generated to meet the conditions of the Class B-1 RAO at this Site.

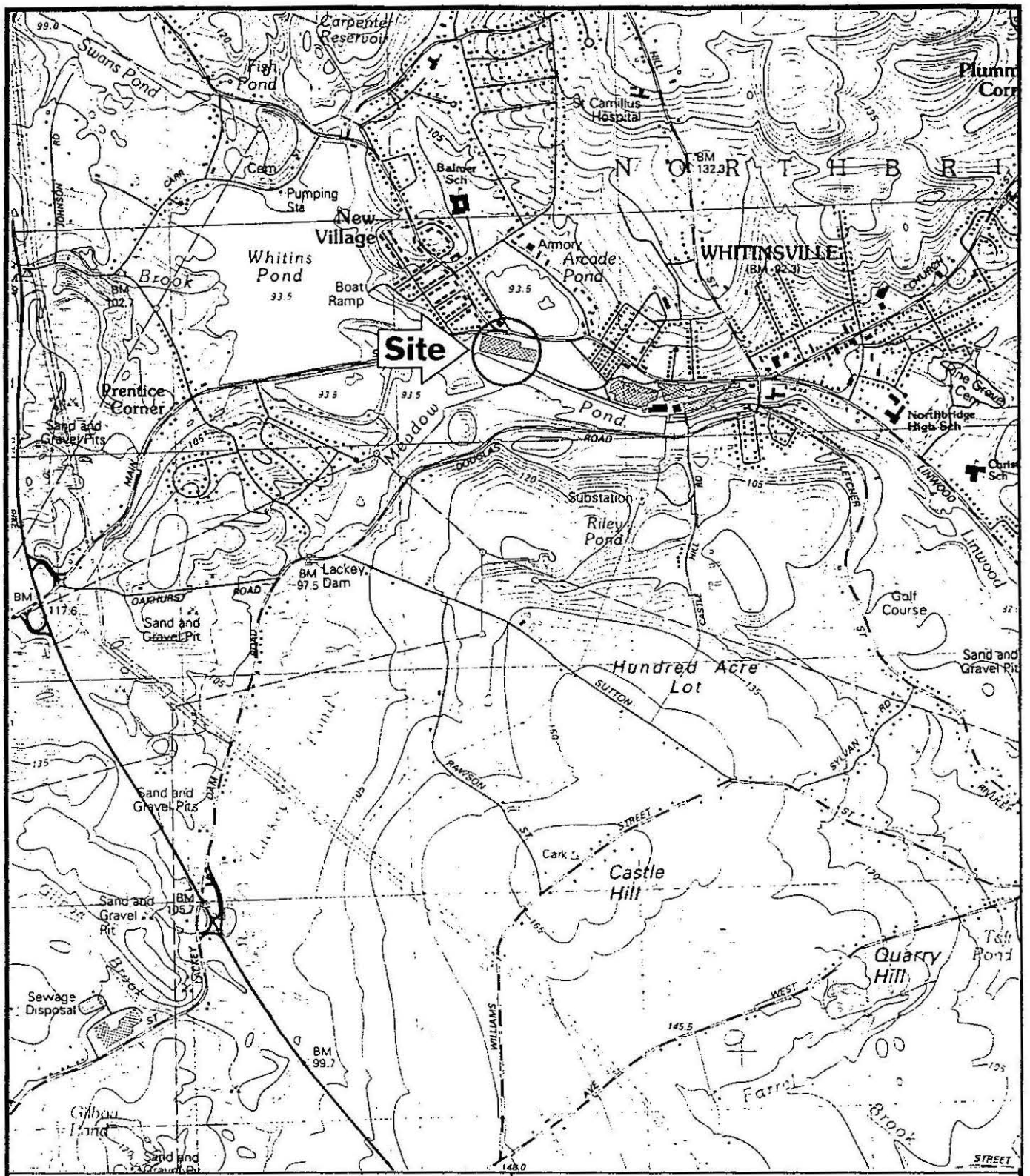
H. Operation, Maintenance and Monitoring

There is no operation, maintenance or monitoring associated with the Class B-1 RAO at this Site.

I. Public Involvement

The MCP requires that the Chief Municipal Officer and the Board of Health be notified of the availability of this Class B-1 Response Action Outcome (RAO) Statement Addendum [310 CMR 40.1403 (3)(f)].

A copy of the notice is contained in Appendix D.



KROLL ASSOCIATES, INC.
900 Third Avenue, New York, NY.

FIGURE 1
SITE LOCUS
ATF Davidson Property
1 Main Street
Northbridge, MA

REF. U.S. Geological Survey,
Uxbridge Quadrangle

Date: DEC 1998 | Scale: 1:25,000

SITE NAME:

ATF DAVIDSON PROPERTY
1 MAIN STREET
NORTHBRIDGE, MA
4665418n 278463ew

September 13, 1996

0 500 1000 FEET 2000
0 50 100 200 300 400 500 600 700 800 METERS

SCALE 1:15000

The information shown on this map is the best available at the date of printing. Please refer to the data source descriptions document.

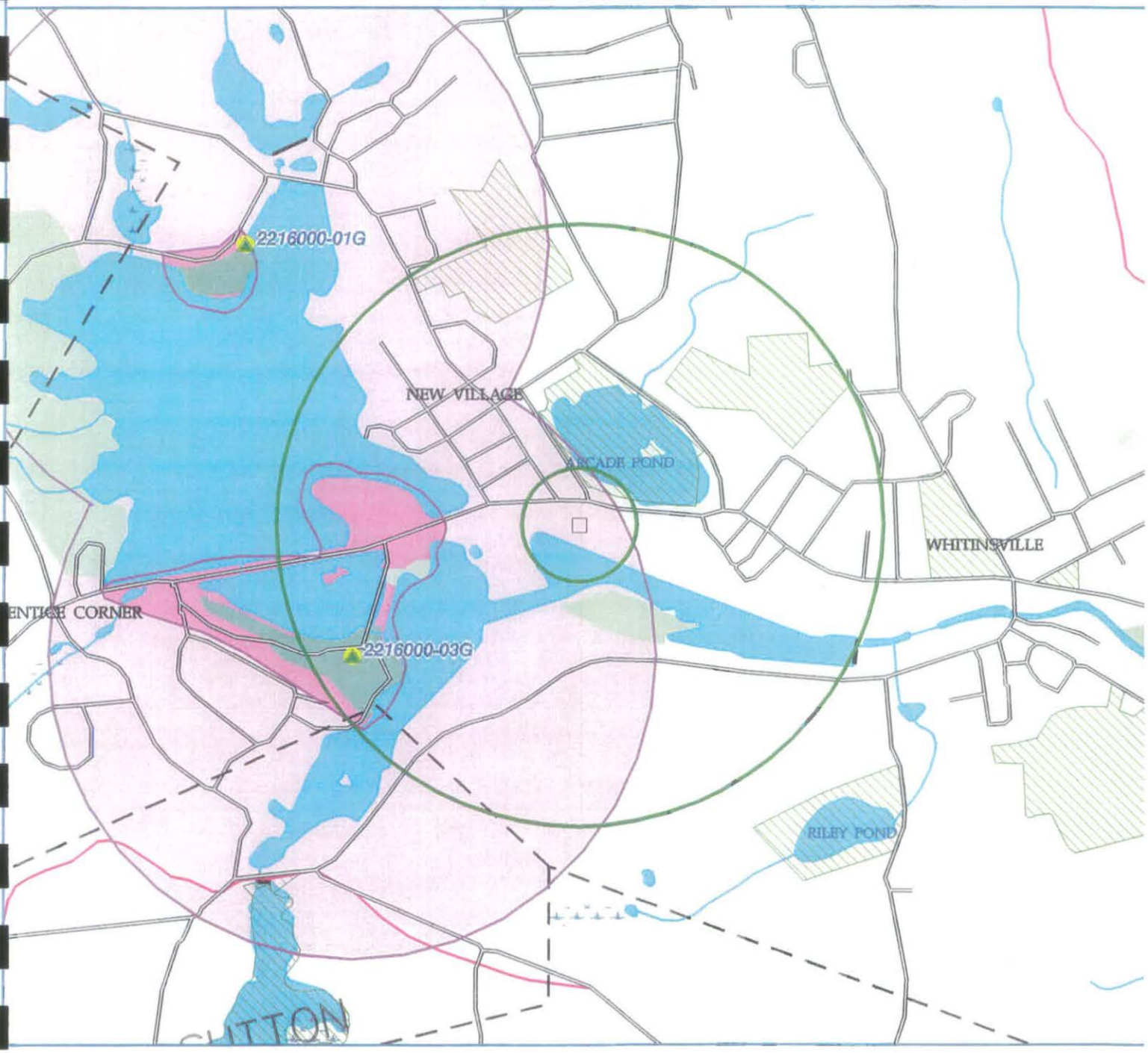
MA DEP - Bureau of Waste Site Cleanup

Site Scoring Map: 500 feet & 0.5 Mile Radii

- Potentially Productive Medium Yield Aquifer
- Potentially Productive High Yield Aquifer
- NOT Potentially Productive Medium Yield Aquifer
- NOT Potentially Productive High Yield Aquifer
- EPA Designated Sole Source Aquifers
- DEP Approved Wellhead Protection Area - ZONE 2
- Interim Wellhead Protection Area
- Public Surface Water Supply
- Lakes, Ponds, Other Fresh Water Features
- Bays, Estuaries, Other Salt Water Features
- Fresh Water Non-Forested Wetlands
- Salt Water Wetlands
- State, Federal, Municipal, Nonprofit and Private Open Space and Recreational Facilities
- Areas of Critical Environmental Concern
- DEP Permitted Solid Waste Facilities
- NHESP Estimated Habitats of Rare Wetlands Wildlife 1995 - for use with Wetlands Protection Act ONLY

- State, U.S., Interstate Routemarkers
- Interstate Highway
- U.S. Highway
- State Highway
- Other Roads
- Municipal Boundary
- County Boundary
- Train
- Powerline
- Pipeline
- Aqueduct
- Major Drainage Basin
- Sub Drainage Basin
- Zone of Contribution
- Public Water Supply - Groundwater
- Public Water Supply - Surface Water
- Non Community Public Water Supply
- Certified Vernal Pools

N W S



NRS SCORING MAP DATA SOURCES

AQUIFERS: USGS-WRD/MassGIS, 1:48,000. Automated by MassGIS from the USGS Water Resources Div. Hydrologic Atlas series manuscripts. The definitions of high and medium yield vary among basins. (1977 to 1988.)

SOLE SOURCE AQUIFERS: US EPA/MA DEP/MassGIS, various scales. They are defined by EPA as aquifers that are the 'sole or principal source' of drinking water for a given aquifer service area. Last updated July 1993.

DEP APPROVED ZONE IIS: MA DEP, 1:25,000. As stated in 310 CMR 22.02 'that area of an aquifer which contributes water to a well under the most severe pumping and recharge conditions that can be realistically anticipated.' Digitized from the DEP Water Supply Protection Atlas by DEP-DWS (Division of Water Supply) staff. (1983 to January 1995.)

POTENTIALLY PRODUCTIVE AQUIFERS: DEP-BWSC (Bureau of Waste Site Cleanup. These aquifers are defined as all medium or high yield aquifers except for that portion of the aquifers surface area that falls within a city or town that has a population density of greater than 4400 people per square mile, based on the most recent US. Census.

INTERIM WELLHEAD PROTECTION AREAS: DEP-DWS (Division of Water Supply), 1:25,000. Half-mile buffers zones were generated using the Community Public Water Supplies point coverage (see below). These polygons represent an interim Zone II for a groundwater source until an actual one is approved by the DEP Division of Water Supply. (January 1995.)

HYDROGRAPHY: USGS/MassGIS. Nearly half of the state is available as 1:24000/1:25000 USGS Digital Line Graph (DLG) data. In addition, for 40% of the state, USGS 1:100000 DLG hydrography has been enhanced with 1:25000 hydrographic features. The remainder were digitized at 1:25000 by MassGIS. Source dates vary for DLG's and USGS quadrangles.

WETLANDS: UMass Amherst RMP/MassGIS, 1:25,000. Includes nonforested wetlands extracted from the 1971-1984 Land Use datalayer which was photointerpreted from Summer CIR photography. Interpretation was not done in stereo. Also includes, in some areas, forested wetlands from USGS Digital Line Graph (DLG) data.

PROTECTED & RECREATIONAL OPEN SPACE: EOEA (Executive Office of Environmental Affairs) MassGIS, 1:25,000. Includes federal, state, county, municipal, non profit, private conservation and recreation lands and facilities. Geographic data sources are predominately town tax assessor maps and existing open space plans. Most of these maps have been recompiled onto a 1:25000 basemap provided by MASSGIS. The data are then digitized from these basemaps, which contain registration points. Ongoing updates.

ACECs: CZM and DEM, 1:25,000. Areas of Critical Environmental Concern are areas designated by the Secretary of EOEA as having a number of valuable environmental features coexisting. Projects in ACECs are subject to the highest standards of review and performance. Last updated October 1992.

ROADS: USGS/MassGIS, 1:100,000. MassGIS extracted roac from the USGS Transportation DLG files. They generalized, modi fied, and updated this coverage. Major roads are part of the state, US. or interstate highway systems. Circa 1985.

DRAINAGE BASINS: USGS-WRD/MassGIS, 1:24,000. Aut mated by MassGIS from USGS Water Resources Division manuscripts with approximately 2400 sub-basins as interpreted from 1:24,000 USGS quadrangle contour lines. Individual basins for su face Community Public Water Supplies were added by DEP in Apr 1993. 1987 - 1993.

POLITICAL BOUNDARIES: MassGIS/USGS, 1:25,000. Th datalayer was digitized by MassGIS from mylar USGS quads. Source date is approximately 1985.

QUADRANGLE INDEX: MassGIS. Generated from USGS 7 minute quadrangle corner coordinates converted from lat/long to Mass. State Plane coordinates. 1985.

DEP PERMITTED SOLID WASTE FACILITIES: DEP-DSW (Division of Solid Waste), 1:25,000. Includes only facilities regulated since 1971. Most are sanitary landfills, though transfer st tions and recycling or composting facilities are included. Either facility boundaries were compiled or approximate facility point locations drafted onto USGS quadrangles and automated by the DE Division of Solid Waste. Last updated 1994.

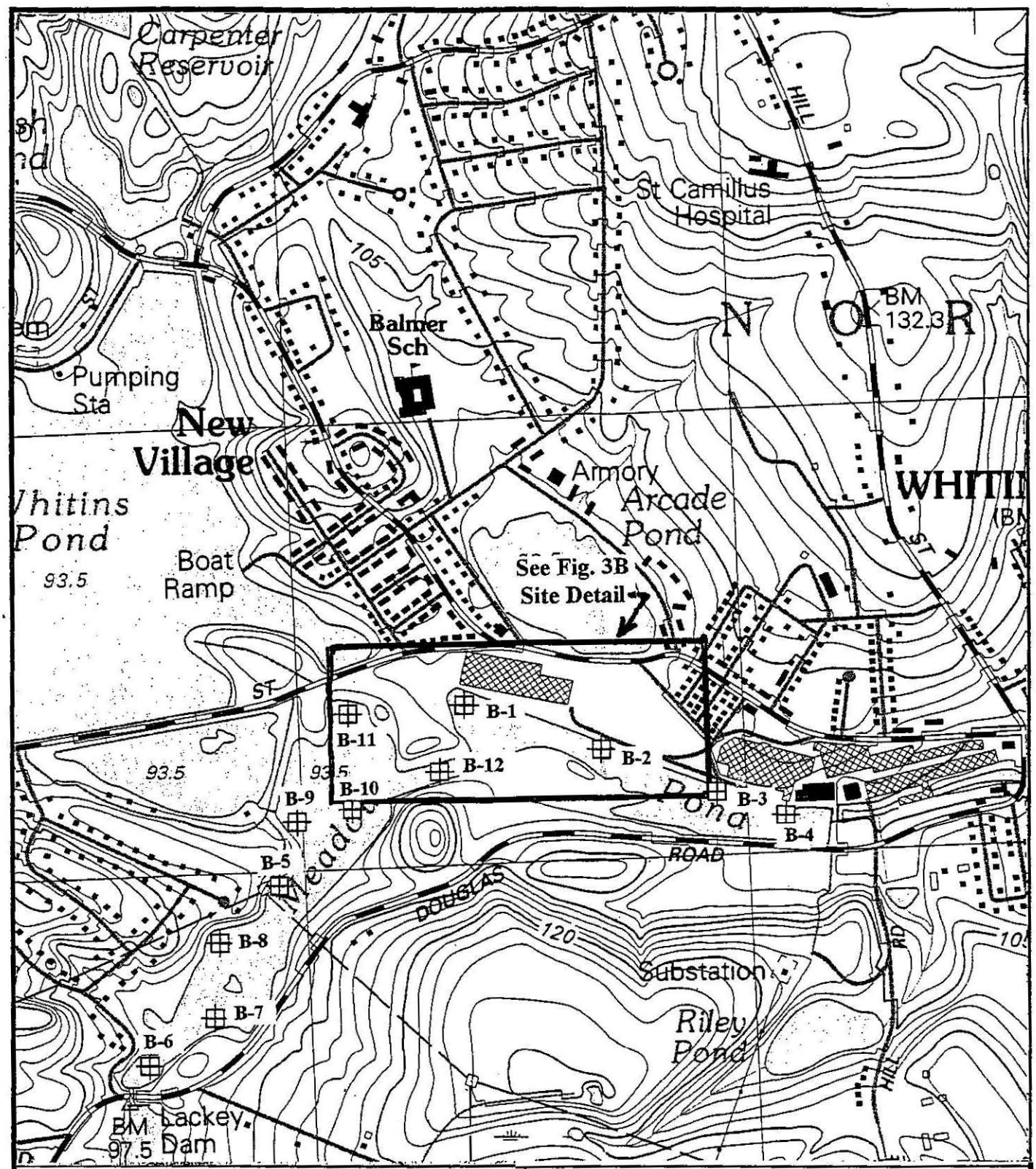
PUBLIC WATER SUPPLIES: DEP-DWS, 1:25,000. Comm nity and non-community surface and groundwater withdrawal point were field collected using Global Positioning System receivers. The attributes were added from the DEP Division of Water Supply database. Last updated January 1995.

SITE LOCATION: Location coordinates were converted to state plane coordinates from user supplied longitude and latitude or UTM. Coordinates are site specific and source dates vary.

NHESP Estimated Habitats of Rare Wetlands Wildlife: Pol gons show estimated habitats for all processed occurrences of rare wetlands wildlife. Data collected by Natural Heritage & Endangere Species Program and compiled at 1:24000 or 1:25000 scale. For use with Wetlands Protection Act Only. Effective Jan. 1, 1995 through Dec. 31 1995.

NHESP Certified Vernal Pools: Points show all vernal pools certified by NHESP/MADFW (Fisheries and Wildlife) as of January 1, 1993. Data compiled at 1:24000 or 1:25000 scale. Effective Jan ary 1, 1995 through December 31, 1995

Last Revised FEBRUARY 6. 1995

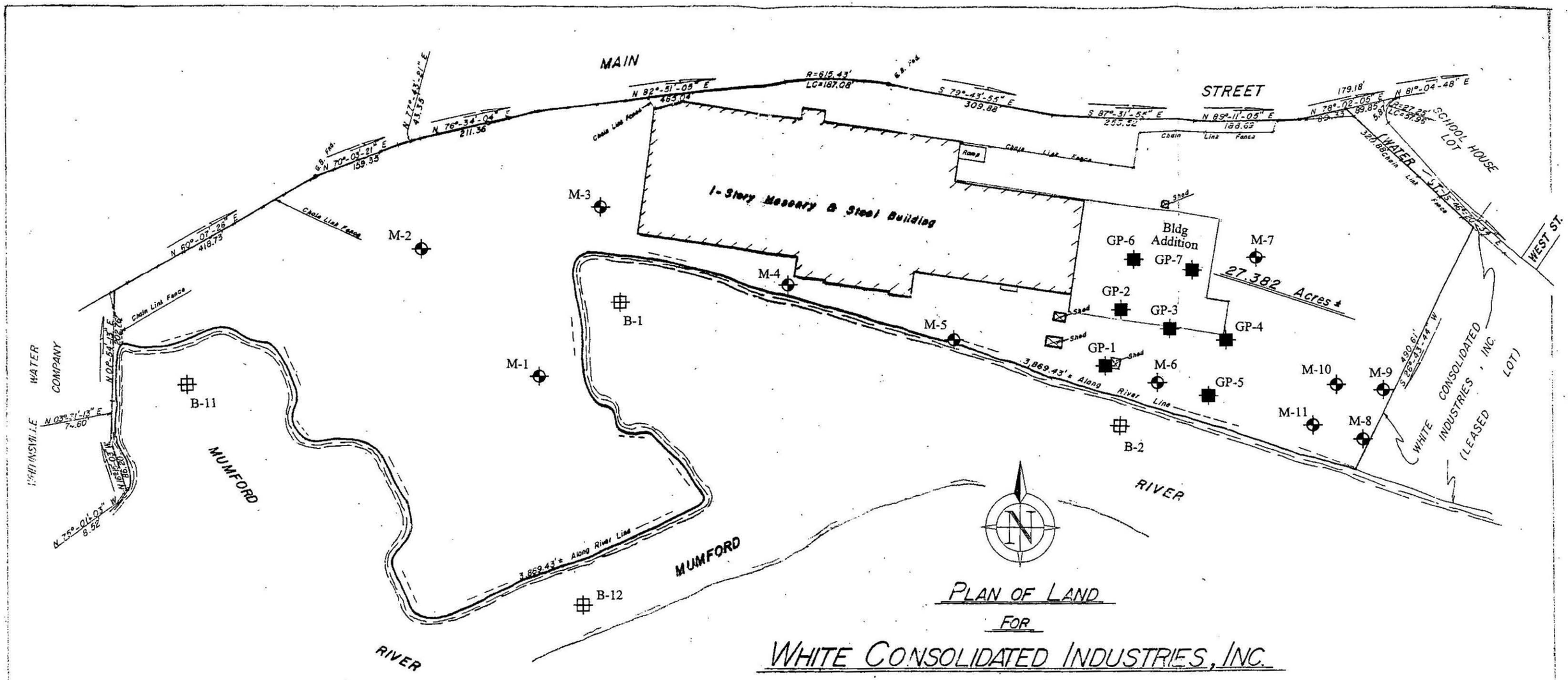


KROLL ASSOCIATES, INC.
900 Third Avenue, New York, NY.

FIGURE 3A
AREA PLAN
ATF Davidson Property
1 Main Street
Northbridge, MA

REF: U.S. Geological Survey, Uxbridge Quadrangle

Date: SEPT 2002 | Scale: 1:12,500



ASSESSORS PLAT 2 LOTS 36-37-38 & 39

ZONED: INDUSTRIAL

APPROVAL UNDER THE SUBDIVISION CONTROL LAW NOT REQUIRED.
TOWN OF NORTHBRIDGE PLANNING BOARD.

CHAIRMAN

BEING A MAJORITY

DATE: June 9, 1986

BIBEAULT AND FLORENTZ ENGINEERING CO., INC.
CIVIL ENGINEERS AND LAND SURVEYORS
117 MAIN STREET, WOONSOCKET, R.I.

I HEREBY CERTIFY THAT THE PROPERTY LINES SHOWN ARE THE LINES DIVIDING EXISTING OWNERSHIP AND THE LINES OF STREETS AND WAYS SHOWN ARE THOSE OF PUBLIC OR PRIVATE STREETS OR WAYS ALREADY ESTABLISHED AND THAT NO NEW LINES FOR DIVISION OF EXISTING OWNERSHIP OR NEW WAYS ARE SHOWN.

LAND SURVEYOR

PLAN OF LAND
FOR
WHITE CONSOLIDATED INDUSTRIES, INC.
AND/OR
Record Owner
ATF-DAVIDSON COMPANY, INC.

NORTHBRIDGE, MASS.

JUNE, 1986

METERS 0 10 20
FEET 0 100 200 300 400 500 600

CONVERSION: 1 FOOT = 0.3048 METERS

KROLL ASSOCIATES, INC.
900 Third Avenue, New York, NY.

FIGURE 3B
SITE DETAIL
ATF Davidson Property
1 Main Street
Northbridge, MA

Date: OCT 2002

Table 1

Soil Analytical Results
1 Main Street, Northbridge, MA

12/23/86 Parameter	B-9 (above GW)	B-10 (above GW)	B-10 (below GW)	B-11 (above GW)	B-11 (below GW)	S-1 (GW-3) Cleanup Standard
VOCs (mg/kg)						
PCE	1.2	ND	ND	ND	ND	20
TCE	ND	ND	ND	ND	ND	70
1,2-DCE	ND	ND	ND	ND	ND	100
VCl	ND	ND	ND	ND	ND	0.3
Toluene	3.8	2.7	4.8	4.3	0.6	500

Notes:
Soil Boring (B-) samples correspond with Monitoring Well (M-) groundwater sample points shown on Figure 3B.
ND = Not detected at the laboratory reporting limit.

01/17/97 Parameter	BS-1 (3-4')	SB-2 (5-6')	SB-3 (3-6')	SB-4 (3-6')	SB-5 (4-5')	SB-6 (3-5')	SB-7 (3-4')	S-1 (GW-3) Cleanup Standard
VOCs (mg/kg)								
PCE	ND	ND	ND	ND	ND	ND	ND	20
TCE	ND	ND	ND	ND	ND	ND	ND	70
1,2-DCE	ND	ND	ND	ND	ND	ND	ND	100
VCl	ND	ND	ND	ND	ND	0.025	ND	0.3
Acetone	ND	0.29	ND	ND	0.2	ND	ND	60
MeCl	0.007[a]	0.008[a]	ND	ND	0.022[a]	ND	ND	100

Notes:
Soil Boring (SB-) samples correspond with Geoprobe (GP-) groundwater sample points shown on Figure 3B.
ND = Not detected at the laboratory reporting limit.
a = Methylene chloride also detected in laboratory Method Blank.

Table 2

Groundwater Analytical Results
1 Main Street, Northbridge, MA

07/18/85 Parameter	M-1	M-2	M-3/Dupl.	M-4	M-5	M-6	M-7	M-8	GW-3 Cleanup Standard
VOCs (µg/L)									
PCE	ND	ND	ND/ND	ND	ND	950	ND	(7)	5,000
TCE	ND	ND	10/10	ND	ND	30	ND	30	20,000
1,2-DCE	ND	ND	250/250	ND	ND	15	ND	610	50,000
VCl	ND	ND	190/210	ND	ND	ND	ND	260	40,000
1,1-DCA	ND	ND	ND/ND	ND	ND	ND	ND	(7)	50,000
Metals (µg/L)									
Barium	ND	ND	340	1,000	2,900	910	ND	1,200	30,000
Zinc	28	45	22	21	16	20	16	10	900
Other PPM 13[a]	ND	ND	ND	ND	ND	ND	ND	ND	N/A

11/14/85 Parameter	M-1	M-2/Dupl.	M-3	M-4	M-5	M-6	M-7	M-8	GW-3 Cleanup Standard
VOCs (µg/L)									
PCE	ND	ND/ND	ND	ND	ND	27	ND	ND	5,000
TCE	ND	ND/ND	ND	ND	ND	13	(5)	(25)	20,000
1,2-DCE	ND	ND/ND	20	ND	ND	330	ND	1,100	50,000
VCl	ND	ND/ND	80	ND	ND	180	ND	380	40,000
Chloroethane	ND	ND/ND	ND	(5)	ND	ND	ND	ND	N/A
1,1-DCA	ND	ND/ND	ND	(5)	ND	ND	ND	ND	50,000
1,1-DCE	ND	ND/ND	ND	ND	ND	ND	9	ND	50,000
Benzene	ND	ND/ND	ND	ND	ND	ND	(5)	ND	7,000
Metals (µg/L)									
Arsenic	ND	ND	ND	ND	ND	ND	ND	ND	400
Barium	ND	ND	ND	720	3,100	730	ND	1,400	30,000
Zinc	ND	ND	5	ND	11	ND	ND	ND	900

Table 2 (Cont'd)

02/11/86 Parameter	M-1/Dupl.	M-2	M-3	M-4	M-5/Dupl.	M-6	M-7	M-8	GW-3 Cleanup Standard
VOCs (µg/L)									
PCE	ND/ND	ND	ND	ND	ND/ND	73	ND	(25)	5,000
TCE	ND/ND	ND	ND	ND	ND/ND	(25)	ND	(25)	20,000
1,2-DCE	ND/ND	ND	9	ND	ND/ND	(25)	ND	380	50,000
VCl	ND/ND	ND	19	ND	ND/ND	(50)	ND	(50)	40,000
Chloroethane	ND/ND	ND	ND	25	ND/ND	ND	ND	ND	N/A
1,1,1-TCA	ND/ND	ND	ND	ND	ND/ND	(25)	ND	(25)	50,000
Benzene	(5)/ND	(5)	ND	ND	ND/ND	ND	ND	ND	7,000
Toluene	(5)/12	ND	ND	ND	ND/ND	ND	6	ND	50,000
Metals (µg/L)									
Arsenic	ND	ND	ND	ND	ND	ND	ND	ND	400
Barium	ND	ND	ND	ND	3,000	1,100	ND	1,200	30,000
Zinc	ND	ND	5	ND	11	ND	ND	ND	900

05/13/86 Parameter	M-1	M-2	M-3	M-4	M-5	M-6	M-7	M-8	GW-3 Cleanup Standard
VOCs (µg/L)									
PCE	ND	ND	ND	ND	ND	12	ND	ND	5,000
TCE	(5)	ND	(5)	ND	ND	ND	ND	26	20,000
1,2-DCE	ND	ND	11	ND	ND	75	ND	1,600	50,000
VCl	ND	ND	29	ND	ND	76	ND	600	40,000
Chloroethane	ND	ND	ND	25	ND	ND	ND	ND	N/A
Benzene	(5)	ND	ND	ND	ND	ND	ND	ND	7,000
Metals (µg/L)									
Barium	ND	ND	ND	810	3,600	960	ND	1,300	30,000

Table 2 (Cont'd)

08/06/86 Parameter	M-1	M-2	M-3	M-4	M-5	M-6	M-7	M-8	GW-3 Cleanup Standard
VOCs (µg/L)									
PCE	ND	ND	ND	ND	ND	(25)	ND	ND	5,000
TCE	ND	ND	ND	ND	ND	(25)	ND	15	20,000
1,2-DCE	ND	ND	31	ND	ND	50	ND	720	50,000
VCl	ND	ND	12	ND	ND	80	ND	220	40,000
Chloroethane	ND	ND	ND	12	ND	ND	ND	ND	N/A
1,1,1-TCA	ND	ND	(5)	ND	ND	(25)	ND	ND	50,000
Metals (µg/L)									
Barium	ND	ND	ND	410	2,100	510	ND	790	30,000

01/24/87 Parameter	M-3	M-5	M-6	M-7	M-8	M-9	M-10	M-11	GW-3 Cleanup Standard
VOCs (µg/L)									
PCE	--	--	13	ND	ND	48	ND	ND	5,000
TCE	--	--	7.6	ND	17	(5)	ND	ND	20,000
1,2-DCE	--	--	13	ND	640	(5)	ND	ND	50,000
VCl	--	--	48	ND	280	ND	ND	ND	40,000
Metals (µg/L)									
Barium	--	--	ND	720	3,100	730	ND	1,400	30,000

Table 2 (Cont'd)

10/17/96 & 01/17/97 Parameter	M-3	M-5	M-6	M-7	M-8	M-9	M-10	M-11	GW-3 Cleanup Standard
VOCs (µg/L)									
PCE	ND	--	93.3	ND	ND	52.9	ND	ND	5,000
TCE	3.8	--	31.4	ND	5.1	9.8	ND	ND	20,000
1,2-DCE	2.6	--	28.2	ND	82.6	7.9	ND	ND	50,000
VCl	ND	--	17.8	ND	62.5	ND	ND	ND	40,000
Acetone	103	--	ND	ND	ND	ND	ND	ND	50,000
Metals (µg/L)									
Barium	--	4,630	--	--	1,050	--	--	--	30,000

01/17/97 Parameter	GP-1	GP-2	GP-3	GP-4	GP-5	GP-6	GP-7	GW-3 Cleanup Standard
VOCs (µg/L)								
PCE	ND	ND	ND	ND	ND	ND	ND	5,000
TCE	ND	ND	ND	ND	ND	ND	ND	20,000
1,2-DCE	ND	ND	ND	ND	ND	50	ND	50,000
VCl	ND	ND	ND	ND	ND	74	ND	40,000
1,2,3-TCB	ND	ND	ND	ND	ND	7	ND	N/A

Table 2 (Cont'd)

05/28/98 Parameter	M-3	M-5	M-6	M-7	M-8	M-9	M-10	M-11	GW-3 Cleanup Standard
VOCs (µg/L)									
PCE	--	--	5	--	ND	--	--	--	5,000
TCE	--	--	ND	--	2	--	--	--	20,000
1,2-DCE	--	--	ND	--	64	--	--	--	50,000
VCl	--	--	ND	--	72	--	--	--	40,000
MTBE	--	--	1	--	ND	--	--	--	50,000

08/31/98 Parameter	M-3	M-5	M-6	M-7	M-8	M-9	M-10	M-11	GW-3 Cleanup Standard
VOCs (µg/L)									
PCE	ND	--	18	--	ND	7	--	--	5,000
TCE	1	--	2	--	2	3	--	--	20,000
1,2-DCE	2	--	3	--	90	11	--	--	50,000
VCl	7	--	ND	--	82	3	--	--	40,000
MeCl	ND	--	ND	--	2[b]	ND	--	--	50,000
MTBE	2	--	ND	--	ND	ND	--	--	50,000
Metals (µg/L)									
Barium	--	4,700	--	--	1,800	--	--	--	30,000

Notes:
ND = Not detected at the laboratory reporting limit.
( ) = Laboratory detection limit where a "Trace" amount was detected.
a = All other Priority Polutant Metals (As, Ag, Be, Cd, Cr, Cu, Hg, Ni, Pb, Sb, Se & Tl) were below lab detection limits.
-- = Not sampled/Not analyzed.
b = Methylene chloride also detected in laboratory Method Blank.

 TOXIKON CORP. REPORT Work Order # 96-10-339

Received: 10/17/96 10/29/96 09:12:48

REPORT TO
PHOENIX ENVIRONMENTAL
PO BOX 276
BEDFORD, MA 01730
(617)275-2970 FAX:3557
ATTEN DOUG COREY

PREPARED BY
TOXIKON CORPORATION
15 WIGGINS AVE
BEDFORD, MA 01730
ATTEN PAUL LEZBERG
PHONE (617)275-3330

CERTIFIED BY

CONTACT JOHNM

CLIENT PHOENIX ENV SAMPLES 5
COMPANY PHOENIX ENVIRONMENTAL
FACILITY PO BOX 276
BEDFORD, MA 01730

MA CERT # M-MA064: TRACE METALS, SULFATE,CYANIDE,RES. FREE CHLORINE, Ca, TOTAL ALK., TDS, pH, THMs, VOC, PEST.,NUTRIENTS. DEMAND, O&G, PHENOLICS, PCBs . CT DHS #PH-0563, NY #10778 FL HRS E87143, NJ DEP 59538, NC DNR286, SC 88002, NH 204091-C.

WORK ID ATF DAVIDSON,NORTHBRIDGE
TAKEN 10/17/96
TRANS
TYPE WATER
P.O. # 10-17-96
INVOICE under separate cover

Verified By:
MADEP:MA064

SAMPLE IDENTIFICATION

01 M-3
02 M-5
03 MW-6
04 M-8
05 M-9

TEST CODES and NAMES used on this workorder

8240 PURGEABLE ORGANICS VOA
BA BARIUM
MEX TW METALS, TOTAL EXT., WATER

Received: 10/17/96 Results by Sample

SAMPLE ID M-3 FRACTION 01A TEST CODE 8240 NAME PURGEABLE ORGANICS VOA
Date & Time Collected 10/17/96 11:30:00 Category WATER

PURGEABLE ORGANICS VOA

	RESULT	LIMIT		RESULT	LIMIT
Acrolein	ND	100	trans-1,3-Dichloropropene	ND	2.0
Acrylonitrile	ND	10	Trichloroethene	3.8	2.0
Chloromethane	ND	2.0	Dibromochloromethane	ND	2.0
Bromomethane	ND	2.0	1,1,2-Trichloroethane	ND	2.0
Vinyl Chloride	ND	10	Benzene	ND	2.0
Chloroethane	ND	2.0	cis-1,3-Dichloropropene	ND	2.0
Methylene Chloride	ND	10	2-Chloroethylvinylether	ND	2.0
Acetone	103	50	Bromoform	ND	2.0
Carbon Disulfide	ND	50	2-Hexanone	ND	4.0
1,1-Dichloroethene	ND	2.0	4-Methyl-2-pentanone	ND	4.0
Trichlorofluoromethane	ND	2.0	Tetrachloroethene	ND	2.0
1,1-Dichloroethane	ND	2.0	1,1,2,2-Tetrachloroethane	ND	2.0
Total 1,2-Dichloroethene	2.6	2.0	Toluene	ND	2.0
Chloroform	ND	2.0	Chlorobenzene	ND	2.0
1,2-Dichloroethane	ND	2.0	Ethyl Benzene	ND	2.0
2-Butanone	ND	10	Styrene	ND	2.0
1,1,1-Trichloroethane	ND	2.0	Total Xylenes	ND	2.0
Carbon Tetrachloride	ND	2.0	1,2-Dichlorobenzene	ND	2.0
Vinyl Acetate	ND	2.0	1,3-Dichlorobenzene	ND	2.0
Bromodichloromethane	ND	2.0	1,4-Dichlorobenzene	ND	2.0
1,2-Dichloropropane	ND	2.0			

Notes and Definitions for this Report:

DATE RUN: 10/25/96
ANALYST: CM
INSTRUMENT: A
DIL. FACTOR: 1
COMMENTS:
UNITS: ug/L

ND = not detected at detection limit

Received: 10/17/96

Results by Sample

SAMPLE ID M-5 SAMPLE # 02 FRACTIONS: A

Date & Time Collected 10/17/96 11:45:00 Category WATER

BA 4.63

mg/L DL=0.010

Received: 10/17/96 Results by Sample

SAMPLE ID MW-6 FRACTION 03A TEST CODE 8240 NAME PURGEABLE ORGANICS VOA

Date & Time Collected 10/17/96 12:00:00 Category WATER

PURGEABLE ORGANICS VOA

	RESULT	LIMIT		RESULT	LIMIT
Acrolein	ND	100	trans-1,3-Dichloropropene	ND	2.0
Acrylonitrile	ND	10	Trichloroethene	31.4	2.0
Chloromethane	ND	2.0	Dibromochloromethane	ND	2.0
Bromomethane	ND	2.0	1,1,2-Trichloroethane	ND	2.0
Vinyl Chloride	17.8	10	Benzene	ND	2.0
Chloroethane	ND	2.0	cis-1,3-Dichloropropene	ND	2.0
Methylene Chloride	ND	10	2-Chloroethylvinylether	ND	2.0
Acetone	ND	50	Bromoform	ND	2.0
Carbon Disulfide	ND	50	2-Hexanone	ND	4.0
1,1-Dichloroethene	ND	2.0	4-Methyl-2-pentanone	ND	4.0
Trichlorofluoromethane	ND	2.0	Tetrachloroethene	93.3	2.0
1,1-Dichloroethane	ND	2.0	1,1,2,2-Tetrachloroethane	ND	2.0
Total 1,2-Dichloroethene	28.2	2.0	Toluene	ND	2.0
Chloroform	ND	2.0	Chlorobenzene	ND	2.0
1,2-Dichloroethane	ND	2.0	Ethyl Benzene	ND	2.0
2-Butanone	ND	10	Styrene	ND	2.0
1,1,1-Trichloroethane	ND	2.0	Total Xylenes	ND	2.0
Carbon Tetrachloride	ND	2.0	1,2-Dichlorobenzene	ND	2.0
Vinyl Acetate	ND	2.0	1,3-Dichlorobenzene	ND	2.0
Bromodichloromethane	ND	2.0	1,4-Dichlorobenzene	ND	2.0
1,2-Dichloropropane	ND	2.0			

Notes and Definitions for this Report:

DATE RUN: 10/25/96
ANALYST: CM
INSTRUMENT: A
DIL. FACTOR: 1
COMMENTS:
UNITS: ug/L

ND = not detected at detection limit

Received: 10/17/96 Results by Sample

SAMPLE ID M-8 SAMPLE # 04 FRACTIONS: A

Date & Time Collected 10/17/96 12:15:00 Category WATER

BA 1.05

mg/L DL=0.010

Received: 10/17/96 Results by Sample

SAMPLE ID M-8 FRACTION 04A TEST CODE 8240 NAME PURGEABLE ORGANICS VOA
Date & Time Collected 10/17/96 12:15:00 Category WATER

PURGEABLE ORGANICS VOA

	RESULT	LIMIT		RESULT	LIMIT
Acrolein	ND	100	trans-1,3-Dichloropropene	ND	2.0
Acrylonitrile	ND	10	Trichloroethene	5.1	2.0
Chloromethane	ND	2.0	Dibromochloromethane	ND	2.0
Bromomethane	ND	2.0	1,1,2-Trichloroethane	ND	2.0
Vinyl Chloride	62.5	10	Benzene	ND	2.0
Chloroethane	ND	2.0	cis-1,3-Dichloropropene	ND	2.0
Methylene Chloride	ND	10	2-Chloroethylvinylether	ND	2.0
Acetone	ND	50	Bromoform	ND	2.0
Carbon Disulfide	ND	50	2-Hexanone	ND	4.0
1,1-Dichloroethene	ND	2.0	4-Methyl-2-pentanone	ND	4.0
Trichlorofluoromethane	ND	2.0	Tetrachloroethene	ND	2.0
1,1-Dichloroethane	ND	2.0	1,1,2,2-Tetrachloroethane	ND	2.0
Total 1,2-Dichloroethene	82.6	2.0	Toluene	ND	2.0
Chloroform	ND	2.0	Chlorobenzene	ND	2.0
1,2-Dichloroethane	ND	2.0	Ethyl Benzene	ND	2.0
2-Butanone	ND	10	Styrene	ND	2.0
1,1,1-Trichloroethane	ND	2.0	Total Xylenes	ND	2.0
Carbon Tetrachloride	ND	2.0	1,2-Dichlorobenzene	ND	2.0
Vinyl Acetate	ND	2.0	1,3-Dichlorobenzene	ND	2.0
Bromodichloromethane	ND	2.0	1,4-Dichlorobenzene	ND	2.0
1,2-Dichloropropane	ND	2.0			

Notes and Definitions for this Report:

DATE RUN: 10/25/96
ANALYST: CM
INSTRUMENT: A
DIL. FACTOR: 1
COMMENTS:
UNITS: ug/L

ND = not detected at detection limit

Received: 10/17/96 Results by Sample

SAMPLE ID M-9 FRACTION 05A TEST CODE 8240 NAME PURGEABLE ORGANICS VOA
Date & Time Collected 10/17/96 12:30:00 Category WATER

PURGEABLE ORGANICS VOA

	RESULT	LIMIT		RESULT	LIMIT
Acrolein	ND	100	trans-1,3-Dichloropropene	ND	2.0
Acrylonitrile	ND	10	Trichloroethene	9.8	2.0
Chloromethane	ND	2.0	Dibromochloromethane	ND	2.0
Bromomethane	ND	2.0	1,1,2-Trichloroethane	ND	2.0
Vinyl Chloride	ND	10	Benzene	ND	2.0
Chloroethane	ND	2.0	cis-1,3-Dichloropropene	ND	2.0
Methylene Chloride	ND	10	2-Chloroethylvinylether	ND	2.0
Acetone	ND	50	Bromoform	ND	2.0
Carbon Disulfide	ND	50	2-Hexanone	ND	4.0
1,1-Dichloroethene	ND	2.0	4-Methyl-2-pentanone	ND	4.0
Trichlorofluoromethane	ND	2.0	Tetrachloroethene	52.9	2.0
1,1-Dichloroethane	ND	2.0	1,1,2,2-Tetrachloroethane	ND	2.0
Total 1,2-Dichloroethene	7.9	2.0	Toluene	ND	2.0
Chloroform	ND	2.0	Chlorobenzene	ND	2.0
1,2-Dichloroethane	ND	2.0	Ethyl Benzene	ND	2.0
2-Butanone	ND	10	Styrene	ND	2.0
1,1,1-Trichloroethane	ND	2.0	Total Xylenes	ND	2.0
Carbon Tetrachloride	ND	2.0	1,2-Dichlorobenzene	ND	2.0
Vinyl Acetate	ND	2.0	1,3-Dichlorobenzene	ND	2.0
Bromodichloromethane	ND	2.0	1,4-Dichlorobenzene	ND	2.0
1,2-Dichloropropane	ND	2.0			

Notes and Definitions for this Report:

DATE RUN: 10/25/96
ANALYST: CM
INSTRUMENT: A
DIL. FACTOR: 1
COMMENTS:
UNITS: ug/L

ND = not detected at detection limit

TEST CODE 8240 NAME PURGEABLE ORGANICS VOA

EPA METHOD: 8240: Gas Chromatography/Mass Spectrometry for Volatile Organics.

Reference: Test Methods for Evaluating Solid Wastes: Physical/Chemical Methods. EPA SW-846 (Third Edition) 1986. Office of Solid Waste, USEPA.

This method has been modified by the use of a capillary column.

TEST CODE MEX TW NAME METALS, TOTAL EXT., WATER

REFERENCE:

EPA METHOD 3005. Acid Digestion of Waters for Total Recoverable or Dissolved Metals for Analysis by Flame Atomic Absorption Spectroscopy or Inductively Coupled Plasma Spectroscopy. Test Methods for Evaluating Physical/Chemical Methods. SW 846, 3rd Edition.

Wastewater digestion
40CFR Part 136 Appendix C-Preparation for Inductively Coupled Plasma-Atomic Emission Spectrometric Method for Trace Element Analysis of Water and Wastes Method 200.7. Protection of Environment, 1991.

TOXIKON
15 Wiggins Ave., Bedford, MA 01730
Telephone: (617) 275-3330
Fax: (617) 271-1136

CHAIN OF CUSTODY RECORD

WORK ORDER #: ____-____-____

DUE DATE : 10-31-96

COMPANY: PHOENIX ENV. SERV., INC.
ADDRESS: P.O. BOX 276
BEDFORD, MA 01730
PHONE #: (617) 275-2970 FAX #: (617) 275-3557
P.O. #: 10-17-96
PROJECT MANAGER: DOUG COREY
PROJECT ID/LOCATION: ATF DAVIDSON, NORTHBRIDGE

SAMPLE TYPE	CONTAINER TYPE
1. WASTEWATER	P - PLASTIC
2. SOIL	G - GLASS
3. SLUDGE	V - VOA
4. OIL	
5. DRINKING WATER	
6. WATER (GW/MW/SW)	
7. OTHER (SPECIFY	

ANALYSES

TOXIKON #	SAMPLE IDENTIFICATION	SAMPLE TYPE	CONTAINER SIZE	CONTAINER TYPE	CONTAINER #	SAMPLING DATE	SAMPLING TIME	PRESERVATIVE	8240	TOTAL BARIUM											SPECIAL INSTRUCTIONS/ COMMENTS
1	M-3	6		V	2	10/17/96	11:30	HCl	X												
2	M-5	↓	250 ML	P	1	↓	11:45	—		X											
3	M-6	↓		V	2	↓	12:00	HCl	X												
4	M-8	↓	250 ML	V/P	3	↓	12:15	HCl/—	X	X											
5	M-9	↓		V	2	↓	12:30	HCl	X												

SAMPLED BY: Douglas M. Corey	DATE: 10 - 17 - 96	QUOTATION #:	
	TIME: - -		
RELINQUISHED BY: Douglas M. Corey	DATE: 10 - 17 - 96	RECEIVED BY:	DATE: 10 - 17 - 96
	TIME: 2 - 50 - PM		TIME: 14:50
RELINQUISHED BY:	DATE: - -	RECEIVED FOR LAB BY:	DATE: - -
	TIME: - -		TIME: - -
METHOD OF SHIPMENT		COOLER TEMPERATURE	

☐ RUSH ..... BUSINESS DAY TURN AROUND
☒ ROUTINE

Sample disposal information

Are there any other known or suspected contaminants in these samples other than those listed above?
Yes No X If Yes, 1st Known _____

IEA
An Aquarion Company

IEA, Inc.
149 Rangeway Road
North Billerica, MA 01862

Phone 508·667·1400
Fax 508·667·7871

Mr. Don Corey
Phoenix Environmental
P.O. Box 276
Bedford, MA 01730

February 3, 1997

Dear Mr. Corey:

Please find enclosed the analytical results of the sample(s) received at our laboratory on January 17, 1997. This report contains sections addressing the following information at a minimum:

- sample ID correspondence table
- analytical results
- chain-of-custody (if applicable)
- definitions of data qualifiers and terminology

Client Project #	N/A	**Client Project Name**	ATF-Arcade Whitinsville
IEA Report #	P116-106	**Purchase Order #**	1-17-97

Copies of this analytical report and supporting data are maintained in our files for a minimum of 3 years unless special arrangements are made. Unless specifically indicated, all analytical testing was performed at the IEA-Massachusetts laboratory.

We appreciate your selection of our services and welcome any questions or suggestions you may have relative to this report. Please contact your customer service representative at (508) 667-1400 for any additional information. Thank you for utilizing our services and we hope you will consider us for your future analytical needs.

I have reviewed and approved the enclosed data for final release.

Sincerely,

Michael F. Wheeler, Ph.D.
Laboratory Director

IEA-Massachusetts
MA-DEP #MA038

MW/klg

h:\reports\forms\dconwin\rpf00101.ma

2/3/97, 3:06 pm

IEA
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Sample ID Correspondence Table

Client Sample ID	IEA Sample ID
GP-1	P116-106-01
GP-2	P116-106-02
GP-3	P116-106-03
GP-4	P116-106-04
GP-5	P116-106-05
GP-6	P116-106-06
GP-7	P116-106-07
M-7	P116-106-08
M-10	P116-106-09
M-11	P116-106-10
SB-1 (3-4')	P116-106-11
SB-2 (5-6')	P116-106-12
SB-3 (3-6')	P116-106-13
SB-4 (3-6')	P116-106-14
SB-5 (4-5')	P116-106-15
SB-6 (3-5')	P116-106-16
SB-7 (3-4')	P116-106-17

IEA
An Aquarion Company

CASE NARRATIVE

Report Date: 02/03/97
Client: Phoenix Environmental
Project: ATF-Arcade Whitinsville

Received Date: 01/17/97
IEA Job Number: P116-106

The EPA Method 8260A analysis reports for samples SB-1 (3-4'), SB-2 (5-6'), SB-3 (3-6'), SB-4 (3-6') and SB-5 (4-5') (P116-106-11, P116-106-12, P116-106-13, P116-106-14, P116-106-15) show surrogate standard recovery of Bromofluorobenzene to be below the method specified control limits. The samples were analyzed twice with similar results. The low recovery is due to matrix effects of the samples.

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Analysis Report: EPA Method 8260A

Client:	Phoenix Environmental	IEA ID:	P116-106-01
Project:	ATF-Arcade Whitinsville	Sample:	GP-1
Report Date:	01/31/97	Type:	Water
Collected:	01/17/97	Container:	VOA
Received:	01/17/97		
Analyzed:	01/24/97	Dilution Factor:	1
By:	WJG		

Number	Priority Pollutant Compounds	PQL (ug/L)	Result (ug/L)
1	Benzene	1	BQL
2	Bromodichloromethane	1	BQL
3	Bromoform	1	BQL
4	Bromomethane	2	BQL
5	Carbon tetrachloride	1	BQL
6	Chlorobenzene	1	BQL
7	Chloroethane	2	BQL
8	2-Chloroethylvinyl ether	1	BQL
9	Chloroform	1	BQL
10	Chloromethane	2	BQL
11	Dibromochloromethane	1	BQL
12	1,2-Dichlorobenzene	1	BQL
13	1,3-Dichlorobenzene	1	BQL
14	1,4-Dichlorobenzene	1	BQL
15	1,1-Dichloroethane	1	BQL
16	1,2-Dichloroethane	1	BQL
17	1,1-Dichloroethene	1	BQL
18	cis-1,2-Dichloroethene	1	BQL
19	trans-1,2-Dichloroethene	1	BQL
20	1,2-Dichloropropane	1	BQL
21	cis-1,3-Dichloropropene	0.5	BQL
22	trans-1,3-Dichloropropene	0.5	BQL
23	Ethylbenzene	1	BQL
24	Methylene chloride	1	BQL
25	1,1,2,2-Tetrachloroethane	1	BQL
26	Tetrachloroethene	1	BQL
27	Toluene	1	BQL
28	1,1,1-Trichloroethane	1	BQL
29	1,1,2-Trichloroethane	1	BQL
30	Trichloroethene	1	BQL
31	Trichlorofluoromethane	1	BQL
32	Vinyl chloride	2	BQL

IEA
An Aquarion Company

Analysis Report: EPA Method 8260A

Client:	Phoenix Environmental	IEA ID:	P116-106-01
Project:	ATF-Arcade Whitinsville	Sample:	GP-1

Other TCL Compounds:		PQL (ug/L)	Result (ug/L)
33	Acetone	20	BQL
34	2-Butanone	20	BQL
35	n-Butylbenzene	1	BQL
36	s-Butylbenzene	1	BQL
37	t-Butylbenzene	1	BQL
38	Carbon disulfide	1	BQL
39	2-Chlorotoluene	1	BQL
40	4-Chlorotoluene	1	BQL
41	1,2-Dibromoethane	1	BQL
42	2-Hexanone	10	BQL
43	Hexachlorobutadiene	0.6	BQL
44	Isopropylbenzene	1	BQL
45	p-Isopropyltoluene	1	BQL
46	4-Methyl-2-pentanone	10	BQL
47	Methyl-t-butyl ether	1	BQL
48	Naphthalene	10	BQL
49	n-Propylbenzene	1	BQL
50	Styrene	1	BQL
51	1,1,1,2-Tetrachloroethane	1	BQL
52	1,2,3-Trichlorobenzene	1	BQL
53	1,2,4-Trichlorobenzene	1	BQL
54	1,2,4-Trimethylbenzene	1	BQL
55	1,3,5-Trimethlybenzene	1	BQL
56	Vinyl acetate	10	BQL
57	Xylenes	1	BQL

Surrogate Standard Recovery:

1,2-Dichloroethane-d4	117	%
Toluene-d8	108	%
Bromofluorobenzene	84	%

Comments:
PQL = Practical quantitation limit.
BQL = Below quantitation limit.

IEA
An Aquarion Company

Analysis Report: EPA Method 8260A

Client:	Phoenix Environmental	IEA ID:	P116-106-02
Project:	ATF-Arcade Whitinsville	Sample:	GP-2
Report Date:	01/31/97	Type:	Water
Collected:	01/17/97	Container:	VOA
Received:	01/17/97		
Analyzed:	01/23/97	Dilution Factor:	1
By:	WJG		

Number	Priority Pollutant Compounds	PQL (ug/L)	Result (ug/L)
1	Benzene	1	BQL
2	Bromodichloromethane	1	BQL
3	Bromoform	1	BQL
4	Bromomethane	2	BQL
5	Carbon tetrachloride	1	BQL
6	Chlorobenzene	1	BQL
7	Chloroethane	2	BQL
8	2-Chloroethylvinyl ether	1	BQL
9	Chloroform	1	BQL
10	Chloromethane	2	BQL
11	Dibromochloromethane	1	BQL
12	1,2-Dichlorobenzene	1	BQL
13	1,3-Dichlorobenzene	1	BQL
14	1,4-Dichlorobenzene	1	BQL
15	1,1-Dichloroethane	1	BQL
16	1,2-Dichloroethane	1	BQL
17	1,1-Dichloroethene	1	BQL
18	cis-1,2-Dichloroethene	1	BQL
19	trans-1,2-Dichloroethene	1	BQL
20	1,2-Dichloropropane	1	BQL
21	cis-1,3-Dichloropropene	0.5	BQL
22	trans-1,3-Dichloropropene	0.5	BQL
23	Ethylbenzene	1	BQL
24	Methylene chloride	1	BQL
25	1,1,2,2-Tetrachloroethane	1	BQL
26	Tetrachloroethene	1	BQL
27	Toluene	1	BQL
28	1,1,1-Trichloroethane	1	BQL
29	1,1,2-Trichloroethane	1	BQL
30	Trichloroethene	1	BQL
31	Trichlorofluoromethane	1	BQL
32	Vinyl chloride	2	BQL

IEA
An Aquarion Company

Analysis Report: EPA Method 8260A

Client:	Phoenix Environmental	IEA ID:	P116-106-02
Project:	ATF-Arcade Whitinsville	Sample:	GP-2

Other TCL Compounds:		PQL (ug/L)	Result (ug/L)
33	Acetone	20	BQL
34	2-Butanone	20	BQL
35	n-Butylbenzene	1	BQL
36	s-Butylbenzene	1	BQL
37	t-Butylbenzene	1	BQL
38	Carbon disulfide	1	BQL
39	2-Chlorotoluene	1	BQL
40	4-Chlorotoluene	1	BQL
41	1,2-Dibromoethane	1	BQL
42	2-Hexanone	10	BQL
43	Hexachlorobutadiene	0.6	BQL
44	Isopropylbenzene	1	BQL
45	p-Isopropyltoluene	1	BQL
46	4-Methyl-2-pentanone	10	BQL
47	Methyl-t-butyl ether	1	BQL
48	Naphthalene	10	BQL
49	n-Propylbenzene	1	BQL
50	Styrene	1	BQL
51	1,1,1,2-Tetrachloroethane	1	BQL
52	1,2,3-Trichlorobenzene	1	BQL
53	1,2,4-Trichlorobenzene	1	BQL
54	1,2,4-Trimethylbenzene	1	BQL
55	1,3,5-Trimethlybenzene	1	BQL
56	Vinyl acetate	10	BQL
57	Xylenes	1	BQL

Surrogate Standard Recovery:

1,2-Dichloroethane-d4	112	%
Toluene-d8	98	%
Bromofluorobenzene	92	%

Comments:
PQL = Practical quantitation limit.
BQL = Below quantitation limit.

IEA
An Aquarion Company

Analysis Report: EPA Method 8260A

Client:	Phoenix Environmental	IEA ID:	P116-106-03
Project:	ATF-Arcade Whitinsville	Sample:	GP-3
Report Date:	01/31/97	Type:	Water
Collected:	01/17/97	Container:	VOA
Received:	01/17/97		
Analyzed:	01/23/97	Dilution Factor:	1
By:	WJG		

Number	Priority Pollutant Compounds	PQL (ug/L)	Result (ug/L)
1	Benzene	1	BQL
2	Bromodichloromethane	1	BQL
3	Bromoform	1	BQL
4	Bromomethane	2	BQL
5	Carbon tetrachloride	1	BQL
6	Chlorobenzene	1	BQL
7	Chloroethane	2	BQL
8	2-Chloroethylvinyl ether	1	BQL
9	Chloroform	1	BQL
10	Chloromethane	2	BQL
11	Dibromochloromethane	1	BQL
12	1,2-Dichlorobenzene	1	BQL
13	1,3-Dichlorobenzene	1	BQL
14	1,4-Dichlorobenzene	1	BQL
15	1,1-Dichloroethane	1	BQL
16	1,2-Dichloroethane	1	BQL
17	1,1-Dichloroethene	1	BQL
18	cis-1,2-Dichloroethene	1	BQL
19	trans-1,2-Dichloroethene	1	BQL
20	1,2-Dichloropropane	1	BQL
21	cis-1,3-Dichloropropene	0.5	BQL
22	trans-1,3-Dichloropropene	0.5	BQL
23	Ethylbenzene	1	BQL
24	Methylene chloride	1	BQL
25	1,1,2,2-Tetrachloroethane	1	BQL
26	Tetrachloroethene	1	BQL
27	Toluene	1	BQL
28	1,1,1-Trichloroethane	1	BQL
29	1,1,2-Trichloroethane	1	BQL
30	Trichloroethene	1	BQL
31	Trichlorofluoromethane	1	BQL
32	Vinyl chloride	2	BQL

IEA
An Aquarion Company

Analysis Report: EPA Method 8260A

Client:	Phoenix Environmental	IEA ID:	P116-106-03
Project:	ATF-Arcade Whitinsville	Sample:	GP-3

Other TCL Compounds:		PQL (ug/L)	Result (ug/L)
33	Acetone	20	BQL
34	2-Butanone	20	BQL
35	n-Butylbenzene	1	BQL
36	s-Butylbenzene	1	BQL
37	t-Butylbenzene	1	BQL
38	Carbon disulfide	1	BQL
39	2-Chlorotoluene	1	BQL
40	4-Chlorotoluene	1	BQL
41	1,2-Dibromoethane	1	BQL
42	2-Hexanone	10	BQL
43	Hexachlorobutadiene	0.6	BQL
44	Isopropylbenzene	1	BQL
45	p-Isopropyltoluene	1	BQL
46	4-Methyl-2-pentanone	10	BQL
47	Methyl-t-butyl ether	1	BQL
48	Naphthalene	10	BQL
49	n-Propylbenzene	1	BQL
50	Styrene	1	BQL
51	1,1,1,2-Tetrachloroethane	1	BQL
52	1,2,3-Trichlorobenzene	1	BQL
53	1,2,4-Trichlorobenzene	1	BQL
54	1,2,4-Trimethylbenzene	1	BQL
55	1,3,5-Trimethlybenzene	1	BQL
56	Vinyl acetate	10	BQL
57	Xylenes	1	BQL

Surrogate Standard Recovery:

1,2-Dichloroethane-d4	116	%
Toluene-d8	105	%
Bromofluorobenzene	89	%

Comments:

PQL = Practical quantitation limit.
BQL = Below quantitation limit.

IEA
An Aquarion Company

Analysis Report: EPA Method 8260A

Client:	Phoenix Environmental	IEA ID:	P116-106-04
Project:	ATF-Arcade Whitinsville	Sample:	GP-4
Report Date:	01/31/97	Type:	Water
Collected:	01/17/97	Container:	VOA
Received:	01/17/97		
Analyzed:	01/23/97	Dilution Factor:	1
By:	WJG		

Number	Priority Pollutant Compounds	PQL (ug/L)	Result (ug/L)
1	Benzene	1	BQL
2	Bromodichloromethane	1	BQL
3	Bromoform	1	BQL
4	Bromomethane	2	BQL
5	Carbon tetrachloride	1	BQL
6	Chlorobenzene	1	BQL
7	Chloroethane	2	BQL
8	2-Chloroethylvinyl ether	1	BQL
9	Chloroform	1	BQL
10	Chloromethane	2	BQL
11	Dibromochloromethane	1	BQL
12	1,2-Dichlorobenzene	1	BQL
13	1,3-Dichlorobenzene	1	BQL
14	1,4-Dichlorobenzene	1	BQL
15	1,1-Dichloroethane	1	BQL
16	1,2-Dichloroethane	1	BQL
17	1,1-Dichloroethene	1	BQL
18	cis-1,2-Dichloroethene	1	BQL
19	trans-1,2-Dichloroethene	1	BQL
20	1,2-Dichloropropane	1	BQL
21	cis-1,3-Dichloropropene	0.5	BQL
22	trans-1,3-Dichloropropene	0.5	BQL
23	Ethylbenzene	1	BQL
24	Methylene chloride	1	BQL
25	1,1,2,2-Tetrachloroethane	1	BQL
26	Tetrachloroethene	1	BQL
27	Toluene	1	BQL
28	1,1,1-Trichloroethane	1	BQL
29	1,1,2-Trichloroethane	1	BQL
30	Trichloroethene	1	BQL
31	Trichlorofluoromethane	1	BQL
32	Vinyl chloride	2	BQL

IEA
An Aquarion Company

Analysis Report: EPA Method 8260A

Client:	Phoenix Environmental	IEA ID:	P116-106-04
Project:	ATF-Arcade Whitinsville	Sample:	GP-4

Other TCL Compounds:		PQL (ug/L)	Result (ug/L)
33	Acetone	20	BQL
34	2-Butanone	20	BQL
35	n-Butylbenzene	1	BQL
36	s-Butylbenzene	1	BQL
37	t-Butylbenzene	1	BQL
38	Carbon disulfide	1	BQL
39	2-Chlorotoluene	1	BQL
40	4-Chlorotoluene	1	BQL
41	1,2-Dibromoethane	1	BQL
42	2-Hexanone	10	BQL
43	Hexachlorobutadiene	0.6	BQL
44	Isopropylbenzene	1	BQL
45	p-Isopropyltoluene	1	BQL
46	4-Methyl-2-pentanone	10	BQL
47	Methyl-t-butyl ether	1	BQL
48	Naphthalene	10	BQL
49	n-Propylbenzene	1	BQL
50	Styrene	1	BQL
51	1,1,1,2-Tetrachloroethane	1	BQL
52	1,2,3-Trichlorobenzene	1	BQL
53	1,2,4-Trichlorobenzene	1	BQL
54	1,2,4-Trimethylbenzene	1	BQL
55	1,3,5-Trimethlybenzene	1	BQL
56	Vinyl acetate	10	BQL
57	Xylenes	1	BQL

Surrogate Standard Recovery:

1,2-Dichloroethane-d4	119	%
Toluene-d8	107	%
Bromofluorobenzene	90	%

Comments:

PQL = Practical quantitation limit.
BQL = Below quantitation limit.

IEA
An Aquarion Company

Analysis Report: EPA Method 8260A

Client:	Phoenix Environmental	IEA ID:	P116-106-05
Project:	ATF-Arcade Whitinsville	Sample:	GP-5
Report Date:	01/31/97	Type:	Water
Collected:	01/17/97	Container:	VOA
Received:	01/17/97		
Analyzed:	01/23/97	Dilution Factor:	1
By:	WJG		

Number	Priority Pollutant Compounds	PQL (ug/L)	Result (ug/L)
1	Benzene	1	BQL
2	Bromodichloromethane	1	BQL
3	Bromoform	1	BQL
4	Bromomethane	2	BQL
5	Carbon tetrachloride	1	BQL
6	Chlorobenzene	1	BQL
7	Chloroethane	2	BQL
8	2-Chloroethylvinyl ether	1	BQL
9	Chloroform	1	BQL
10	Chloromethane	2	BQL
11	Dibromochloromethane	1	BQL
12	1,2-Dichlorobenzene	1	BQL
13	1,3-Dichlorobenzene	1	BQL
14	1,4-Dichlorobenzene	1	BQL
15	1,1-Dichloroethane	1	BQL
16	1,2-Dichloroethane	1	BQL
17	1,1-Dichloroethene	1	BQL
18	cis-1,2-Dichloroethene	1	BQL
19	trans-1,2-Dichloroethene	1	BQL
20	1,2-Dichloropropane	1	BQL
21	cis-1,3-Dichloropropene	0.5	BQL
22	trans-1,3-Dichloropropene	0.5	BQL
23	Ethylbenzene	1	BQL
24	Methylene chloride	1	BQL
25	1,1,2,2-Tetrachloroethane	1	BQL
26	Tetrachloroethene	1	BQL
27	Toluene	1	BQL
28	1,1,1-Trichloroethane	1	BQL
29	1,1,2-Trichloroethane	1	BQL
30	Trichloroethene	1	BQL
31	Trichlorofluoromethane	1	BQL
32	Vinyl chloride	2	BQL

IEA
An Aquarion Company

Analysis Report: EPA Method 8260A

Client:	Phoenix Environmental	IEA ID:	P116-106-05
Project:	ATF-Arcade Whitinsville	Sample:	GP-5

	Other TCL Compounds:	PQL (ug/L)	Result (ug/L)
33	Acetone	20	BQL
34	2-Butanone	20	BQL
35	n-Butylbenzene	1	BQL
36	s-Butylbenzene	1	BQL
37	t-Butylbenzene	1	BQL
38	Carbon disulfide	1	BQL
39	2-Chlorotoluene	1	BQL
40	4-Chlorotoluene	1	BQL
41	1,2-Dibromoethane	1	BQL
42	2-Hexanone	10	BQL
43	Hexachlorobutadiene	0.6	BQL
44	Isopropylbenzene	1	BQL
45	p-Isopropyltoluene	1	BQL
46	4-Methyl-2-pentanone	10	BQL
47	Methyl-t-butyl ether	1	BQL
48	Naphthalene	10	BQL
49	n-Propylbenzene	1	BQL
50	Styrene	1	BQL
51	1,1,1,2-Tetrachloroethane	1	BQL
52	1,2,3-Trichlorobenzene	1	BQL
53	1,2,4-Trichlorobenzene	1	BQL
54	1,2,4-Trimethylbenzene	1	BQL
55	1,3,5-Trimethlybenzene	1	BQL
56	Vinyl acetate	10	BQL
57	Xylenes	1	BQL

Surrogate Standard Recovery:

1,2-Dichloroethane-d4	122	%
Toluene-d8	107	%
Bromofluorobenzene	86	%

Comments:

PQL = Practical quantitation limit.
BQL = Below quantitation limit.

IEA
An Aquarion Company

Analysis Report: EPA Method 8260A

Client:	Phoenix Environmental	IEA ID:	P116-106-06
Project:	ATF-Arcade Whitinsville	Sample:	GP-6
Report Date:	01/31/97	Type:	Water
Collected:	01/17/97	Container:	VOA
Received:	01/17/97		
Analyzed:	01/27/97	Dilution Factor:	5
By:	GMT		

Number	Priority Pollutant Compounds	PQL (ug/L)	Result (ug/L)
1	Benzene	5	BQL
2	Bromodichloromethane	5	BQL
3	Bromoform	5	BQL
4	Bromomethane	10	BQL
5	Carbon tetrachloride	5	BQL
6	Chlorobenzene	5	BQL
7	Chloroethane	10	BQL
8	2-Chloroethylvinyl ether	5	BQL
9	Chloroform	5	BQL
10	Chloromethane	10	BQL
11	Dibromochloromethane	5	BQL
12	1,2-Dichlorobenzene	5	BQL
13	1,3-Dichlorobenzene	5	BQL
14	1,4-Dichlorobenzene	5	BQL
15	1,1-Dichloroethane	5	BQL
16	1,2-Dichloroethane	5	BQL
17	1,1-Dichloroethene	5	BQL
18	cis-1,2-Dichloroethene	5	50
19	trans-1,2-Dichloroethene	5	BQL
20	1,2-Dichloropropane	5	BQL
21	cis-1,3-Dichloropropene	2.5	BQL
22	trans-1,3-Dichloropropene	2.5	BQL
23	Ethylbenzene	5	BQL
24	Methylene chloride	5	BQL
25	1,1,2,2-Tetrachloroethane	5	BQL
26	Tetrachloroethene	5	BQL
27	Toluene	5	BQL
28	1,1,1-Trichloroethane	5	BQL
29	1,1,2-Trichloroethane	5	BQL
30	Trichloroethene	5	BQL
31	Trichlorofluoromethane	5	BQL
32	Vinyl chloride	10	74

IEA
An Aquarion Company

Analysis Report: EPA Method 8260A

Client:	Phoenix Environmental	IEA ID:	P116-106-06
Project:	ATF-Arcade Whitinsville	Sample:	GP-6

Other TCL Compounds:		PQL (ug/L)	Result (ug/L)
33	Acetone	100	BQL
34	2-Butanone	100	BQL
35	n-Butylbenzene	5	BQL
36	s-Butylbenzene	5	BQL
37	t-Butylbenzene	5	BQL
38	Carbon disulfide	5	BQL
39	2-Chlorotoluene	5	BQL
40	4-Chlorotoluene	5	BQL
41	1,2-Dibromoethane	5	BQL
42	2-Hexanone	50	BQL
43	Hexachlorobutadiene	3	BQL
44	Isopropylbenzene	5	BQL
45	p-Isopropyltoluene	5	BQL
46	4-Methyl-2-pentanone	50	BQL
47	Methyl-t-butyl ether	5	BQL
48	Naphthalene	50	BQL
49	n-Propylbenzene	5	BQL
50	Styrene	5	BQL
51	1,1,1,2-Tetrachloroethane	5	BQL
52	1,2,3-Trichlorobenzene	5	7
53	1,2,4-Trichlorobenzene	5	BQL
54	1,2,4-Trimethylbenzene	5	BQL
55	1,3,5-Trimethlybenzene	5	BQL
56	Vinyl acetate	50	BQL
57	Xylenes	5	BQL

Surrogate Standard Recovery:

1,2-Dichloroethane-d4	105	%
Toluene-d8	107	%
Bromofluorobenzene	103	%

Comments:

PQL = Practical quantitation limit.
BQL = Below quantitation limit.
Quantitation limit elevated due to sample dilution prior to analysis.

IEA
An Aquarion Company

Analysis Report: EPA Method 8260A

Client:	Phoenix Environmental	IEA ID:	P116-106-07
Project:	ATF-Arcade Whitinsville	Sample:	GP-7
Report Date:	01/31/97	Type:	Water
Collected:	01/17/97	Container:	VOA
Received:	01/17/97		
Analyzed:	01/23/97	Dilution Factor:	1
By:	WJG		

Number	Priority Pollutant Compounds	PQL (ug/L)	Result (ug/L)
1	Benzene	1	BQL
2	Bromodichloromethane	1	BQL
3	Bromoform	1	BQL
4	Bromomethane	2	BQL
5	Carbon tetrachloride	1	BQL
6	Chlorobenzene	1	BQL
7	Chloroethane	2	BQL
8	2-Chloroethylvinyl ether	1	BQL
9	Chloroform	1	BQL
10	Chloromethane	2	BQL
11	Dibromochloromethane	1	BQL
12	1,2-Dichlorobenzene	1	BQL
13	1,3-Dichlorobenzene	1	BQL
14	1,4-Dichlorobenzene	1	BQL
15	1,1-Dichloroethane	1	BQL
16	1,2-Dichloroethane	1	BQL
17	1,1-Dichloroethene	1	BQL
18	cis-1,2-Dichloroethene	1	BQL
19	trans-1,2-Dichloroethene	1	BQL
20	1,2-Dichloropropane	1	BQL
21	cis-1,3-Dichloropropene	0.5	BQL
22	trans-1,3-Dichloropropene	0.5	BQL
23	Ethylbenzene	1	BQL
24	Methylene chloride	1	BQL
25	1,1,2,2-Tetrachloroethane	1	BQL
26	Tetrachloroethene	1	BQL
27	Toluene	1	BQL
28	1,1,1-Trichloroethane	1	BQL
29	1,1,2-Trichloroethane	1	BQL
30	Trichloroethene	1	BQL
31	Trichlorofluoromethane	1	BQL
32	Vinyl chloride	2	BQL

IEA
An Aquarion Company

Analysis Report: EPA Method 8260A

Client:	Phoenix Environmental	IEA ID:	P116-106-07
Project:	ATF-Arcade Whitinsville	Sample:	GP-7

Other TCL Compounds:		PQL (ug/L)	Result (ug/L)
33	Acetone	20	BQL
34	2-Butanone	20	BQL
35	n-Butylbenzene	1	BQL
36	s-Butylbenzene	1	BQL
37	t-Butylbenzene	1	BQL
38	Carbon disulfide	1	BQL
39	2-Chlorotoluene	1	BQL
40	4-Chlorotoluene	1	BQL
41	1,2-Dibromoethane	1	BQL
42	2-Hexanone	10	BQL
43	Hexachlorobutadiene	0.6	BQL
44	Isopropylbenzene	1	BQL
45	p-Isopropyltoluene	1	BQL
46	4-Methyl-2-pentanone	10	BQL
47	Methyl-t-butyl ether	1	BQL
48	Naphthalene	10	BQL
49	n-Propylbenzene	1	BQL
50	Styrene	1	BQL
51	1,1,1,2-Tetrachloroethane	1	BQL
52	1,2,3-Trichlorobenzene	1	BQL
53	1,2,4-Trichlorobenzene	1	BQL
54	1,2,4-Trimethylbenzene	1	BQL
55	1,3,5-Trimethlybenzene	1	BQL
56	Vinyl acetate	10	BQL
57	Xylenes	1	BQL

Surrogate Standard Recovery:

1,2-Dichloroethane-d4	120	%
Toluene-d8	108	%
Bromofluorobenzene	84	%

Comments:

PQL = Practical quantitation limit.
BQL = Below quantitation limit.

IEA
An Aquarion Company

Analysis Report: EPA Method 8260A

Client:	Phoenix Environmental	IEA ID:	P116-106-08
Project:	ATF-Arcade Whitinsville	Sample:	M-7
Report Date:	01/31/97	Type:	Water
Collected:	01/17/97	Container:	VOA
Received:	01/17/97		
Analyzed:	01/23/97	Dilution Factor:	1
By:	WJG		

Number	Priority Pollutant Compounds	PQL (ug/L)	Result (ug/L)
1	Benzene	1	BQL
2	Bromodichloromethane	1	BQL
3	Bromoform	1	BQL
4	Bromomethane	2	BQL
5	Carbon tetrachloride	1	BQL
6	Chlorobenzene	1	BQL
7	Chloroethane	2	BQL
8	2-Chloroethylvinyl ether	1	BQL
9	Chloroform	1	BQL
10	Chloromethane	2	BQL
11	Dibromochloromethane	1	BQL
12	1,2-Dichlorobenzene	1	BQL
13	1,3-Dichlorobenzene	1	BQL
14	1,4-Dichlorobenzene	1	BQL
15	1,1-Dichloroethane	1	BQL
16	1,2-Dichloroethane	1	BQL
17	1,1-Dichloroethene	1	BQL
18	cis-1,2-Dichloroethene	1	BQL
19	trans-1,2-Dichloroethene	1	BQL
20	1,2-Dichloropropane	1	BQL
21	cis-1,3-Dichloropropene	0.5	BQL
22	trans-1,3-Dichloropropene	0.5	BQL
23	Ethylbenzene	1	BQL
24	Methylene chloride	1	BQL
25	1,1,2,2-Tetrachloroethane	1	BQL
26	Tetrachloroethene	1	BQL
27	Toluene	1	BQL
28	1,1,1-Trichloroethane	1	BQL
29	1,1,2-Trichloroethane	1	BQL
30	Trichloroethene	1	BQL
31	Trichlorofluoromethane	1	BQL
32	Vinyl chloride	2	BQL

IEA
An Aquarion Company

Analysis Report: EPA Method 8260A

Client:	Phoenix Environmental	IEA ID:	P116-106-08
Project:	ATF-Arcade Whitinsville	Sample:	M-7

Other TCL Compounds:		PQL (ug/L)	Result (ug/L)
33	Acetone	20	BQL
34	2-Butanone	20	BQL
35	n-Butylbenzene	1	BQL
36	s-Butylbenzene	1	BQL
37	t-Butylbenzene	1	BQL
38	Carbon disulfide	1	BQL
39	2-Chlorotoluene	1	BQL
40	4-Chlorotoluene	1	BQL
41	1,2-Dibromoethane	1	BQL
42	2-Hexanone	10	BQL
43	Hexachlorobutadiene	0.6	BQL
44	Isopropylbenzene	1	BQL
45	p-Isopropyltoluene	1	BQL
46	4-Methyl-2-pentanone	10	BQL
47	Methyl-t-butyl ether	1	BQL
48	Naphthalene	10	BQL
49	n-Propylbenzene	1	BQL
50	Styrene	1	BQL
51	1,1,1,2-Tetrachloroethane	1	BQL
52	1,2,3-Trichlorobenzene	1	BQL
53	1,2,4-Trichlorobenzene	1	BQL
54	1,2,4-Trimethylbenzene	1	BQL
55	1,3,5-Trimethlybenzene	1	BQL
56	Vinyl acetate	10	BQL
57	Xylenes	1	BQL

Surrogate Standard Recovery:

1,2-Dichloroethane-d4	110	%
Toluene-d8	99	%
Bromofluorobenzene	83	%

Comments:
PQL = Practical quantitation limit.
BQL = Below quantitation limit.

IEA
An Aquarion Company

Analysis Report: EPA Method 8260A

Client:	Phoenix Environmental	IEA ID:	P116-106-09
Project:	ATF-Arcade Whitinsville	Sample:	M-10
Report Date:	01/31/97	Type:	Water
Collected:	01/17/97	Container:	VOA
Received:	01/17/97		
Analyzed:	01/24/97	Dilution Factor:	1
By:	WJG		

Number	Priority Pollutant Compounds	PQL (ug/L)	Result (ug/L)
1	Benzene	1	BQL
2	Bromodichloromethane	1	BQL
3	Bromoform	1	BQL
4	Bromomethane	2	BQL
5	Carbon tetrachloride	1	BQL
6	Chlorobenzene	1	BQL
7	Chloroethane	2	BQL
8	2-Chloroethylvinyl ether	1	BQL
9	Chloroform	1	BQL
10	Chloromethane	2	BQL
11	Dibromochloromethane	1	BQL
12	1,2-Dichlorobenzene	1	BQL
13	1,3-Dichlorobenzene	1	BQL
14	1,4-Dichlorobenzene	1	BQL
15	1,1-Dichloroethane	1	BQL
16	1,2-Dichloroethane	1	BQL
17	1,1-Dichloroethene	1	BQL
18	cis-1,2-Dichloroethene	1	BQL
19	trans-1,2-Dichloroethene	1	BQL
20	1,2-Dichloropropane	1	BQL
21	cis-1,3-Dichloropropene	0.5	BQL
22	trans-1,3-Dichloropropene	0.5	BQL
23	Ethylbenzene	1	BQL
24	Methylene chloride	1	BQL
25	1,1,2,2-Tetrachloroethane	1	BQL
26	Tetrachloroethene	1	BQL
27	Toluene	1	BQL
28	1,1,1-Trichloroethane	1	BQL
29	1,1,2-Trichloroethane	1	BQL
30	Trichloroethene	1	BQL
31	Trichlorofluoromethane	1	BQL
32	Vinyl chloride	2	BQL

IEA
An Aquarion Company

Analysis Report: EPA Method 8260A

Client:	Phoenix Environmental	IEA ID:	P116-106-09
Project:	ATF-Arcade Whitinsville	Sample:	M-10

Other TCL Compounds:		PQL (ug/L)	Result (ug/L)
33	Acetone	20	BQL
34	2-Butanone	20	BQL
35	n-Butylbenzene	1	BQL
36	s-Butylbenzene	1	BQL
37	t-Butylbenzene	1	BQL
38	Carbon disulfide	1	BQL
39	2-Chlorotoluene	1	BQL
40	4-Chlorotoluene	1	BQL
41	1,2-Dibromoethane	1	BQL
42	2-Hexanone	10	BQL
43	Hexachlorobutadiene	0.6	BQL
44	Isopropylbenzene	1	BQL
45	p-Isopropyltoluene	1	BQL
46	4-Methyl-2-pentanone	10	BQL
47	Methyl-t-butyl ether	1	BQL
48	Naphthalene	10	BQL
49	n-Propylbenzene	1	BQL
50	Styrene	1	BQL
51	1,1,1,2-Tetrachloroethane	1	BQL
52	1,2,3-Trichlorobenzene	1	BQL
53	1,2,4-Trichlorobenzene	1	BQL
54	1,2,4-Trimethylbenzene	1	BQL
55	1,3,5-Trimethlybenzene	1	BQL
56	Vinyl acetate	10	BQL
57	Xylenes	1	BQL

Surrogate Standard Recovery:

1,2-Dichloroethane-d4	114	%
Toluene-d8	104	%
Bromofluorobenzene	85	%

Comments:

PQL = Practical quantitation limit.
BQL = Below quantitation limit.

IEA
An Aquarion Company

Analysis Report: EPA Method 8260A

Client:	Phoenix Environmental	IEA ID:	P116-106-10
Project:	ATF-Arcade Whitinsville	Sample:	M-11
Report Date:	01/31/97	Type:	Water
Collected:	01/17/97	Container:	VOA
Received:	01/17/97		
Analyzed:	01/24/97	Dilution Factor:	1
By:	WJG		

Number	Priority Pollutant Compounds	PQL (ug/L)	Result (ug/L)
1	Benzene	1	BQL
2	Bromodichloromethane	1	BQL
3	Bromoform	1	BQL
4	Bromomethane	2	BQL
5	Carbon tetrachloride	1	BQL
6	Chlorobenzene	1	BQL
7	Chloroethane	2	BQL
8	2-Chloroethylvinyl ether	1	BQL
9	Chloroform	1	BQL
10	Chloromethane	2	BQL
11	Dibromochloromethane	1	BQL
12	1,2-Dichlorobenzene	1	BQL
13	1,3-Dichlorobenzene	1	BQL
14	1,4-Dichlorobenzene	1	BQL
15	1,1-Dichloroethane	1	BQL
16	1,2-Dichloroethane	1	BQL
17	1,1-Dichloroethene	1	BQL
18	cis-1,2-Dichloroethene	1	BQL
19	trans-1,2-Dichloroethene	1	BQL
20	1,2-Dichloropropane	1	BQL
21	cis-1,3-Dichloropropene	0.5	BQL
22	trans-1,3-Dichloropropene	0.5	BQL
23	Ethylbenzene	1	BQL
24	Methylene chloride	1	BQL
25	1,1,2,2-Tetrachloroethane	1	BQL
26	Tetrachloroethene	1	BQL
27	Toluene	1	BQL
28	1,1,1-Trichloroethane	1	BQL
29	1,1,2-Trichloroethane	1	BQL
30	Trichloroethene	1	BQL
31	Trichlorofluoromethane	1	BQL
32	Vinyl chloride	2	BQL

IEA
An Aquarion Company

Analysis Report: EPA Method 8260A

Client:	Phoenix Environmental	IEA ID:	P116-106-10
Project:	ATF-Arcade Whitinsville	Sample:	M-11

Other TCL Compounds:		PQL (ug/L)	Result (ug/L)
33	Acetone	20	BQL
34	2-Butanone	20	BQL
35	n-Butylbenzene	1	BQL
36	s-Butylbenzene	1	BQL
37	t-Butylbenzene	1	BQL
38	Carbon disulfide	1	BQL
39	2-Chlorotoluene	1	BQL
40	4-Chlorotoluene	1	BQL
41	1,2-Dibromoethane	1	BQL
42	2-Hexanone	10	BQL
43	Hexachlorobutadiene	0.6	BQL
44	Isopropylbenzene	1	BQL
45	p-Isopropyltoluene	1	BQL
46	4-Methyl-2-pentanone	10	BQL
47	Methyl-t-butyl ether	1	BQL
48	Naphthalene	10	BQL
49	n-Propylbenzene	1	BQL
50	Styrene	1	BQL
51	1,1,1,2-Tetrachloroethane	1	BQL
52	1,2,3-Trichlorobenzene	1	BQL
53	1,2,4-Trichlorobenzene	1	BQL
54	1,2,4-Trimethylbenzene	1	BQL
55	1,3,5-Trimethlybenzene	1	BQL
56	Vinyl acetate	10	BQL
57	Xylenes	1	BQL

Surrogate Standard Recovery:

1,2-Dichloroethane-d4	117	%
Toluene-d8	105	%
Bromofluorobenzene	84	%

Comments:
PQL = Practical quantitation limit.
BQL = Below quantitation limit.

IEA
An Aquarion Company

Analysis Report: EPA Method 8260A

Client:	Phoenix Environmental	IEA ID:	P116-106-11
Project:	ATF-Arcade Whitinsville	Sample:	SB-1 (3-4')
Report Date:	01/31/97	Type:	Soil
Collected:	01/17/97	Container:	Glass
Received:	01/17/97		
Analyzed:	01/23/97	Dilution Factor:	1.1
By:	GMT		

Number	Priority Pollutant Compounds	PQL ug/kg (dry)	Result ug/kg (dry)	
1	Benzene	6	BQL	
2	Bromodichloromethane	6	BQL	
3	Bromoform	6	BQL	
4	Bromomethane	11	BQL	
5	Carbon tetrachloride	6	BQL	
6	Chlorobenzene	6	BQL	
7	Chloroethane	11	BQL	
8	2-Chloroethylvinyl ether	6	BQL	
9	Chloroform	6	BQL	
10	Chloromethane	11	BQL	
11	Dibromochloromethane	6	BQL	
12	1,2-Dichlorobenzene	6	BQL	
13	1,3-Dichlorobenzene	6	BQL	
14	1,4-Dichlorobenzene	6	BQL	
15	1,1-Dichloroethane	6	BQL	
16	1,2-Dichloroethane	6	BQL	
17	1,1-Dichloroethene	6	BQL	
18	cis-1,2-Dichloroethene	6	BQL	
19	trans-1,2-Dichloroethene	6	BQL	
20	1,2-Dichloropropane	6	BQL	
21	cis-1,3-Dichloropropene	6	BQL	
22	trans-1,3-Dichloropropene	6	BQL	
23	Ethylbenzene	6	BQL	
24	Methylene chloride	6		7B
25	1,1,2,2-Tetrachloroethane	6	BQL	
26	Tetrachloroethene	6	BQL	
27	Toluene	6	BQL	
28	1,1,1-Trichloroethane	6	BQL	
29	1,1,2-Trichloroethane	6	BQL	
30	Trichloroethene	6	BQL	
31	Trichlorofluoromethane	6	BQL	
32	Vinyl chloride	11	BQL	

IEA
An Aquarion Company

Analysis Report: EPA Method 8260A

Client:	Phoenix Environmental	IEA ID:	P116-106-11
Project:	ATF-Arcade Whitinsville	Sample:	SB-1 (3-4')

Other TCL Compounds:		PQL ug/kg (dry)	Result ug/kg (dry)
33	Acetone	110	BQL
34	2-Butanone	110	BQL
35	n-Butylbenzene	6	BQL
36	s-Butylbenzene	6	BQL
37	t-Butylbenzene	6	BQL
38	Carbon disulfide	6	BQL
39	2-Chlorotoluene	6	BQL
40	4-Chlorotoluene	6	BQL
41	1,2-Dibromoethane	6	BQL
42	2-Hexanone	22	BQL
43	Hexachlorobutadiene	6	BQL
44	Isopropylbenzene	6	BQL
45	p-Isopropyltoluene	6	BQL
46	4-Methyl-2-pentanone	22	BQL
47	Methyl-t-butyl ether	6	BQL
48	Naphthalene	55	BQL
49	n-Propylbenzene	6	BQL
50	Styrene	6	BQL
51	1,1,1,2-Tetrachloroethane	6	BQL
52	1,2,3-Trichlorobenzene	6	BQL
53	1,2,4-Trichlorobenzene	6	BQL
54	1,2,4-Trimethylbenzene	6	BQL
55	1,3,5-Trimethylbenzene	6	BQL
56	Vinyl acetate	22	BQL
57	Xylenes	6	BQL

Surrogate Standard Recovery:

1,2-Dichloroethane-d4	117	%
Toluene-d8	83	%
Bromofluorobenzene	59	%

Comments:
PQL = Practical quantitation limit.
BQL = Below quantitation limit.
Dilution factor adjusted for moisture content of sample.
B = Compound in blank

IEA
An Aquarion Company

Analysis Report: EPA Method 8260A

Client:	Phoenix Environmental	IEA ID:	P116-106-12
Project:	ATF-Arcade Whitinsville	Sample:	SB-2 (5-6')
Report Date:	01/31/97	Type:	Soil
Collected:	01/17/97	Container:	Glass
Received:	01/17/97		
Analyzed:	01/24/97	Dilution Factor:	1.2
By:	LJT		

Number	Priority Pollutant Compounds	PQL ug/kg (dry)	Result ug/kg (dry)
1	Benzene	6	BQL
2	Bromodichloromethane	6	BQL
3	Bromoform	6	BQL
4	Bromomethane	12	BQL
5	Carbon tetrachloride	6	BQL
6	Chlorobenzene	6	BQL
7	Chloroethane	12	BQL
8	2-Chloroethylvinyl ether	6	BQL
9	Chloroform	6	BQL
10	Chloromethane	12	BQL
11	Dibromochloromethane	6	BQL
12	1,2-Dichlorobenzene	6	BQL
13	1,3-Dichlorobenzene	6	BQL
14	1,4-Dichlorobenzene	6	BQL
15	1,1-Dichloroethane	6	BQL
16	1,2-Dichloroethane	6	BQL
17	1,1-Dichloroethene	6	BQL
18	cis-1,2-Dichloroethene	6	BQL
19	trans-1,2-Dichloroethene	6	BQL
20	1,2-Dichloropropane	6	BQL
21	cis-1,3-Dichloropropene	6	BQL
22	trans-1,3-Dichloropropene	6	BQL
23	Ethylbenzene	6	BQL
24	Methylene chloride	6	8B
25	1,1,2,2-Tetrachloroethane	6	BQL
26	Tetrachloroethene	6	BQL
27	Toluene	6	BQL
28	1,1,1-Trichloroethane	6	BQL
29	1,1,2-Trichloroethane	6	BQL
30	Trichloroethene	6	BQL
31	Trichlorofluoromethane	6	BQL
32	Vinyl chloride	12	BQL

IEA
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Analysis Report: EPA Method 8260A

Client:	Phoenix Environmental	IEA ID:	P116-106-12
Project:	ATF-Arcade Whitinsville	Sample:	SB-2 (5-6')

Other TCL Compounds:		PQL ug/kg (dry)	Result ug/kg (dry)
33	Acetone	120	290
34	2-Butanone	120	BQL
35	n-Butylbenzene	6	BQL
36	s-Butylbenzene	6	BQL
37	t-Butylbenzene	6	BQL
38	Carbon disulfide	6	BQL
39	2-Chlorotoluene	6	BQL
40	4-Chlorotoluene	6	BQL
41	1,2-Dibromoethane	6	BQL
42	2-Hexanone	24	BQL
43	Hexachlorobutadiene	6	BQL
44	Isopropylbenzene	6	BQL
45	p-Isopropyltoluene	6	BQL
46	4-Methyl-2-pentanone	24	BQL
47	Methyl-t-butyl ether	6	BQL
48	Naphthalene	60	BQL
49	n-Propylbenzene	6	BQL
50	Styrene	6	BQL
51	1,1,1,2-Tetrachloroethane	6	BQL
52	1,2,3-Trichlorobenzene	6	BQL
53	1,2,4-Trichlorobenzene	6	BQL
54	1,2,4-Trimethylbenzene	6	BQL
55	1,3,5-Trimethylbenzene	6	BQL
56	Vinyl acetate	24	BQL
57	Xylenes	6	BQL

Surrogate Standard Recovery:

1,2-Dichloroethane-d4	106	%
Toluene-d8	88	%
Bromofluorobenzene	70	%

Comments:
PQL = Practical quantitation limit.
BQL = Below quantitation limit.
Dilution factor adjusted for moisture content of sample.
B = Compound in blank

IEA
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Analysis Report: EPA Method 8260A

Client:	Phoenix Environmental	IEA ID:	P116-106-13
Project:	ATF-Arcade Whitinsville	Sample:	SB-3 (3-6')
Report Date:	01/31/97	Type:	Soil
Collected:	01/17/97	Container:	Glass
Received:	01/17/97		
Analyzed:	01/24/97	Dilution Factor:	1.2
By:	LJT		

Number	Priority Pollutant Compounds	PQL ug/kg (dry)	Result ug/kg (dry)
1	Benzene	6	BQL
2	Bromodichloromethane	6	BQL
3	Bromoform	6	BQL
4	Bromomethane	12	BQL
5	Carbon tetrachloride	6	BQL
6	Chlorobenzene	6	BQL
7	Chloroethane	12	BQL
8	2-Chloroethylvinyl ether	6	BQL
9	Chloroform	6	BQL
10	Chloromethane	12	BQL
11	Dibromochloromethane	6	BQL
12	1,2-Dichlorobenzene	6	BQL
13	1,3-Dichlorobenzene	6	BQL
14	1,4-Dichlorobenzene	6	BQL
15	1,1-Dichloroethane	6	BQL
16	1,2-Dichloroethane	6	BQL
17	1,1-Dichloroethene	6	BQL
18	cis-1,2-Dichloroethene	6	BQL
19	trans-1,2-Dichloroethene	6	BQL
20	1,2-Dichloropropane	6	BQL
21	cis-1,3-Dichloropropene	6	BQL
22	trans-1,3-Dichloropropene	6	BQL
23	Ethylbenzene	6	BQL
24	Methylene chloride	6	12B
25	1,1,2,2-Tetrachloroethane	6	BQL
26	Tetrachloroethene	6	BQL
27	Toluene	6	BQL
28	1,1,1-Trichloroethane	6	BQL
29	1,1,2-Trichloroethane	6	BQL
30	Trichloroethene	6	BQL
31	Trichlorofluoromethane	6	BQL
32	Vinyl chloride	12	BQL

IEA
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Analysis Report: EPA Method 8260A

Client:	Phoenix Environmental	IEA ID:	P116-106-13
Project:	ATF-Arcade Whitinsville	Sample:	SB-3 (3-6')

Other TCL Compounds:		PQL ug/kg (dry)	Result ug/kg (dry)
33	Acetone	120	BQL
34	2-Butanone	120	BQL
35	n-Butylbenzene	6	BQL
36	s-Butylbenzene	6	BQL
37	t-Butylbenzene	6	BQL
38	Carbon disulfide	6	BQL
39	2-Chlorotoluene	6	BQL
40	4-Chlorotoluene	6	BQL
41	1,2-Dibromoethane	6	BQL
42	2-Hexanone	24	BQL
43	Hexachlorobutadiene	6	BQL
44	Isopropylbenzene	6	BQL
45	p-Isopropyltoluene	6	BQL
46	4-Methyl-2-pentanone	24	BQL
47	Methyl-t-butyl ether	6	BQL
48	Naphthalene	60	BQL
49	n-Propylbenzene	6	BQL
50	Styrene	6	BQL
51	1,1,1,2-Tetrachloroethane	6	BQL
52	1,2,3-Trichlorobenzene	6	BQL
53	1,2,4-Trichlorobenzene	6	BQL
54	1,2,4-Trimethylbenzene	6	BQL
55	1,3,5-Trimethylbenzene	6	BQL
56	Vinyl acetate	24	BQL
57	Xylenes	6	BQL

Surrogate Standard Recovery:

1,2-Dichloroethane-d4	114	%
Toluene-d8	83	%
Bromofluorobenzene	62	%

Comments:
PQL = Practical quantitation limit.
BQL = Below quantitation limit.
Dilution factor adjusted for moisture content of sample.
B = Compound in blank

IEA
An Aquarion Company

Analysis Report: EPA Method 8260A

Client:	Phoenix Environmental	IEA ID:	P116-106-14
Project:	ATF-Arcade Whitinsville	Sample:	SB-4 (3-6')
Report Date:	01/31/97	Type:	Soil
Collected:	01/17/97	Container:	Glass
Received:	01/17/97		
Analyzed:	01/24/97	Dilution Factor:	1.2
By:	LJT		

Number	Priority Pollutant Compounds	PQL ug/kg (dry)	Result ug/kg (dry)
1	Benzene	6	BQL
2	Bromodichloromethane	6	BQL
3	Bromoform	6	BQL
4	Bromomethane	12	BQL
5	Carbon tetrachloride	6	BQL
6	Chlorobenzene	6	BQL
7	Chloroethane	12	BQL
8	2-Chloroethylvinyl ether	6	BQL
9	Chloroform	6	BQL
10	Chloromethane	12	BQL
11	Dibromochloromethane	6	BQL
12	1,2-Dichlorobenzene	6	BQL
13	1,3-Dichlorobenzene	6	BQL
14	1,4-Dichlorobenzene	6	BQL
15	1,1-Dichloroethane	6	BQL
16	1,2-Dichloroethane	6	BQL
17	1,1-Dichloroethene	6	BQL
18	cis-1,2-Dichloroethene	6	BQL
19	trans-1,2-Dichloroethene	6	BQL
20	1,2-Dichloropropane	6	BQL
21	cis-1,3-Dichloropropene	6	BQL
22	trans-1,3-Dichloropropene	6	BQL
23	Ethylbenzene	6	BQL
24	Methylene chloride	6	BQL
25	1,1,2,2-Tetrachloroethane	6	BQL
26	Tetrachloroethene	6	BQL
27	Toluene	6	BQL
28	1,1,1-Trichloroethane	6	BQL
29	1,1,2-Trichloroethane	6	BQL
30	Trichloroethene	6	BQL
31	Trichlorofluoromethane	6	BQL
32	Vinyl chloride	12	BQL

IEA
An Aquarion Company

Analysis Report: EPA Method 8260A

Client:	Phoenix Environmental	IEA ID:	P116-106-14
Project:	ATF-Arcade Whitinsville	Sample:	SB-4 (3-6')

Other TCL Compounds:		PQL ug/kg (dry)	Result ug/kg (dry)
33	Acetone	120	BQL
34	2-Butanone	120	BQL
35	n-Butylbenzene	6	BQL
36	s-Butylbenzene	6	BQL
37	t-Butylbenzene	6	BQL
38	Carbon disulfide	6	BQL
39	2-Chlorotoluene	6	BQL
40	4-Chlorotoluene	6	BQL
41	1,2-Dibromoethane	6	BQL
42	2-Hexanone	24	BQL
43	Hexachlorobutadiene	6	BQL
44	Isopropylbenzene	6	BQL
45	p-Isopropyltoluene	6	BQL
46	4-Methyl-2-pentanone	24	BQL
47	Methyl-t-butyl ether	6	BQL
48	Naphthalene	60	BQL
49	n-Propylbenzene	6	BQL
50	Styrene	6	BQL
51	1,1,1,2-Tetrachloroethane	6	BQL
52	1,2,3-Trichlorobenzene	6	BQL
53	1,2,4-Trichlorobenzene	6	BQL
54	1,2,4-Trimethylbenzene	6	BQL
55	1,3,5-Trimethylbenzene	6	BQL
56	Vinyl acetate	24	BQL
57	Xylenes	6	BQL

Surrogate Standard Recovery:

1,2-Dichloroethane-d4	113	%
Toluene-d8	80	%
Bromofluorobenzene	66	%

Comments:
PQL = Practical quantitation limit.
BQL = Below quantitation limit.
Dilution factor adjusted for moisture content of sample.

IEA
An Aquarion Company

Analysis Report: EPA Method 8260A

Client:	Phoenix Environmental	IEA ID:	P116-106-15
Project:	ATF-Arcade Whitinsville	Sample:	SB-5 (4-5')
Report Date:	01/31/97	Type:	Soil
Collected:	01/17/97	Container:	Glass
Received:	01/17/97		
Analyzed:	01/24/97	Dilution Factor:	1.2
By:	LJT		

Number	Priority Pollutant Compounds	PQL ug/kg (dry)	Result ug/kg (dry)
1	Benzene	6	BQL
2	Bromodichloromethane	6	BQL
3	Bromoform	6	BQL
4	Bromomethane	12	BQL
5	Carbon tetrachloride	6	BQL
6	Chlorobenzene	6	BQL
7	Chloroethane	12	BQL
8	2-Chloroethylvinyl ether	6	BQL
9	Chloroform	6	BQL
10	Chloromethane	12	BQL
11	Dibromochloromethane	6	BQL
12	1,2-Dichlorobenzene	6	BQL
13	1,3-Dichlorobenzene	6	BQL
14	1,4-Dichlorobenzene	6	BQL
15	1,1-Dichloroethane	6	BQL
16	1,2-Dichloroethane	6	BQL
17	1,1-Dichloroethene	6	BQL
18	cis-1,2-Dichloroethene	6	BQL
19	trans-1,2-Dichloroethene	6	BQL
20	1,2-Dichloropropane	6	BQL
21	cis-1,3-Dichloropropene	6	BQL
22	trans-1,3-Dichloropropene	6	BQL
23	Ethylbenzene	6	BQL
24	Methylene chloride	6	22B
25	1,1,2,2-Tetrachloroethane	6	BQL
26	Tetrachloroethene	6	BQL
27	Toluene	6	BQL
28	1,1,1-Trichloroethane	6	BQL
29	1,1,2-Trichloroethane	6	BQL
30	Trichloroethene	6	BQL
31	Trichlorofluoromethane	6	BQL
32	Vinyl chloride	12	BQL

IEA
An Aquarion Company

Analysis Report: EPA Method 8260A

Client:	Phoenix Environmental	IEA ID:	P116-106-15
Project:	ATF-Arcade Whitinsville	Sample:	SB-5 (4-5')

Other TCL Compounds:		PQL ug/kg (dry)	Result ug/kg (dry)
33	Acetone	120	200
34	2-Butanone	120	BQL
35	n-Butylbenzene	6	BQL
36	s-Butylbenzene	6	BQL
37	t-Butylbenzene	6	BQL
38	Carbon disulfide	6	BQL
39	2-Chlorotoluene	6	BQL
40	4-Chlorotoluene	6	BQL
41	1,2-Dibromoethane	6	BQL
42	2-Hexanone	24	BQL
43	Hexachlorobutadiene	6	BQL
44	Isopropylbenzene	6	BQL
45	p-Isopropyltoluene	6	BQL
46	4-Methyl-2-pentanone	24	BQL
47	Methyl-t-butyl ether	6	BQL
48	Naphthalene	60	BQL
49	n-Propylbenzene	6	BQL
50	Styrene	6	BQL
51	1,1,1,2-Tetrachloroethane	6	BQL
52	1,2,3-Trichlorobenzene	6	BQL
53	1,2,4-Trichlorobenzene	6	BQL
54	1,2,4-Trimethylbenzene	6	BQL
55	1,3,5-Trimethylbenzene	6	BQL
56	Vinyl acetate	24	BQL
57	Xylenes	6	BQL

Surrogate Standard Recovery:

1,2-Dichloroethane-d4	113	%
Toluene-d8	84	%
Bromofluorobenzene	63	%

Comments:
PQL = Practical quantitation limit.
BQL = Below quantitation limit.
Dilution factor adjusted for moisture content of sample.
B = Compound in blank

IEA
An Aquarion Company

Analysis Report: EPA Method 8260A

Client:	Phoenix Environmental	IEA ID:	P116-106-16
Project:	ATF-Arcade Whitinsville	Sample:	SB-6 (3-5')
Report Date:	01/31/97	Type:	Soil
Collected:	01/17/97	Container:	Glass
Received:	01/17/97		
Analyzed:	01/23/97	Dilution Factor:	1.3
By:	GMT		

Number	Priority Pollutant Compounds	PQL ug/kg (dry)	Result ug/kg (dry)
1	Benzene	7	BQL
2	Bromodichloromethane	7	BQL
3	Bromoform	7	BQL
4	Bromomethane	13	BQL
5	Carbon tetrachloride	7	BQL
6	Chlorobenzene	7	BQL
7	Chloroethane	13	BQL
8	2-Chloroethylvinyl ether	7	BQL
9	Chloroform	7	BQL
10	Chloromethane	13	BQL
11	Dibromochloromethane	7	BQL
12	1,2-Dichlorobenzene	7	BQL
13	1,3-Dichlorobenzene	7	BQL
14	1,4-Dichlorobenzene	7	BQL
15	1,1-Dichloroethane	7	BQL
16	1,2-Dichloroethane	7	BQL
17	1,1-Dichloroethene	7	BQL
18	cis-1,2-Dichloroethene	7	BQL
19	trans-1,2-Dichloroethene	7	BQL
20	1,2-Dichloropropane	7	BQL
21	cis-1,3-Dichloropropene	7	BQL
22	trans-1,3-Dichloropropene	7	BQL
23	Ethylbenzene	7	BQL
24	Methylene chloride	7	BQL
25	1,1,2,2-Tetrachloroethane	7	BQL
26	Tetrachloroethene	7	BQL
27	Toluene	7	BQL
28	1,1,1-Trichloroethane	7	BQL
29	1,1,2-Trichloroethane	7	BQL
30	Trichloroethene	7	BQL
31	Trichlorofluoromethane	7	BQL
32	Vinyl chloride	13	25

IEA
An Aquarion Company

Analysis Report: EPA Method 8260A

Client:	Phoenix Environmental	IEA ID:	P116-106-16
Project:	ATF-Arcade Whitinsville	Sample:	SB-6 (3-5')

Other TCL Compounds:		PQL ug/kg (dry)	Result ug/kg (dry)
33	Acetone	130	BQL
34	2-Butanone	130	BQL
35	n-Butylbenzene	7	BQL
36	s-Butylbenzene	7	BQL
37	t-Butylbenzene	7	BQL
38	Carbon disulfide	7	BQL
39	2-Chlorotoluene	7	BQL
40	4-Chlorotoluene	7	BQL
41	1,2-Dibromoethane	7	BQL
42	2-Hexanone	26	BQL
43	Hexachlorobutadiene	7	BQL
44	Isopropylbenzene	7	BQL
45	p-Isopropyltoluene	7	BQL
46	4-Methyl-2-pentanone	26	BQL
47	Methyl-t-butyl ether	7	BQL
48	Naphthalene	65	BQL
49	n-Propylbenzene	7	BQL
50	Styrene	7	BQL
51	1,1,1,2-Tetrachloroethane	7	BQL
52	1,2,3-Trichlorobenzene	7	BQL
53	1,2,4-Trichlorobenzene	7	BQL
54	1,2,4-Trimethylbenzene	7	BQL
55	1,3,5-Trimethylbenzene	7	BQL
56	Vinyl acetate	26	BQL
57	Xylenes	7	BQL

Surrogate Standard Recovery:

1,2-Dichloroethane-d4	115	%
Toluene-d8	94	%
Bromofluorobenzene	84	%

Comments:
PQL = Practical quantitation limit.
BQL = Below quantitation limit.
Dilution factor adjusted for moisture content of sample.

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IEA
An Aquarion Company

Analysis Report: EPA Method 8260A

Client:	Phoenix Environmental	IEA ID:	P116-106-17
Project:	ATF-Arcade Whitinsville	Sample:	SB-7 (3-4')
Report Date:	01/31/97	Type:	Soil
Collected:	01/17/97	Container:	Glass
Received:	01/17/97		
Analyzed:	01/23/97	Dilution Factor:	1.2
By:	GMT		

Number	Priority Pollutant Compounds	PQL ug/kg (dry)	Result ug/kg (dry)
1	Benzene	6	BQL
2	Bromodichloromethane	6	BQL
3	Bromoform	6	BQL
4	Bromomethane	12	BQL
5	Carbon tetrachloride	6	BQL
6	Chlorobenzene	6	BQL
7	Chloroethane	12	BQL
8	2-Chloroethylvinyl ether	6	BQL
9	Chloroform	6	BQL
10	Chloromethane	12	BQL
11	Dibromochloromethane	6	BQL
12	1,2-Dichlorobenzene	6	BQL
13	1,3-Dichlorobenzene	6	BQL
14	1,4-Dichlorobenzene	6	BQL
15	1,1-Dichloroethane	6	BQL
16	1,2-Dichloroethane	6	BQL
17	1,1-Dichloroethene	6	BQL
18	cis-1,2-Dichloroethene	6	BQL
19	trans-1,2-Dichloroethene	6	BQL
20	1,2-Dichloropropane	6	BQL
21	cis-1,3-Dichloropropene	6	BQL
22	trans-1,3-Dichloropropene	6	BQL
23	Ethylbenzene	6	BQL
24	Methylene chloride	6	BQL
25	1,1,2,2-Tetrachloroethane	6	BQL
26	Tetrachloroethene	6	BQL
27	Toluene	6	BQL
28	1,1,1-Trichloroethane	6	BQL
29	1,1,2-Trichloroethane	6	BQL
30	Trichloroethene	6	BQL
31	Trichlorofluoromethane	6	BQL
32	Vinyl chloride	12	BQL

IEA
An Aquarion Company

Analysis Report: EPA Method 8260A

Client:	Phoenix Environmental	IEA ID:	P116-106-17
Project:	ATF-Arcade Whitinsville	Sample:	SB-7 (3-4')

Other TCL Compounds:		PQL ug/kg (dry)	Result ug/kg (dry)
33	Acetone	120	BQL
34	2-Butanone	120	BQL
35	n-Butylbenzene	6	BQL
36	s-Butylbenzene	6	BQL
37	t-Butylbenzene	6	BQL
38	Carbon disulfide	6	BQL
39	2-Chlorotoluene	6	BQL
40	4-Chlorotoluene	6	BQL
41	1,2-Dibromoethane	6	BQL
42	2-Hexanone	24	BQL
43	Hexachlorobutadiene	6	BQL
44	Isopropylbenzene	6	BQL
45	p-Isopropyltoluene	6	BQL
46	4-Methyl-2-pentanone	24	BQL
47	Methyl-t-butyl ether	6	BQL
48	Naphthalene	60	BQL
49	n-Propylbenzene	6	BQL
50	Styrene	6	BQL
51	1,1,1,2-Tetrachloroethane	6	BQL
52	1,2,3-Trichlorobenzene	6	BQL
53	1,2,4-Trichlorobenzene	6	BQL
54	1,2,4-Trimethylbenzene	6	BQL
55	1,3,5-Trimethylbenzene	6	BQL
56	Vinyl acetate	24	BQL
57	Xylenes	6	BQL

Surrogate Standard Recovery:

1,2-Dichloroethane-d4	114	%
Toluene-d8	94	%
Bromofluorobenzene	80	%

Comments:
PQL = Practical quantitation limit.
BQL = Below quantitation limit.
Dilution factor adjusted for moisture content of sample.

IEA
An Aquarion Company

Analysis Report: EPA Method 8260A

Client:		IEA ID:	Method Blank (01/24)
Project:		Sample:	
Report Date:	01/31/97	Type:	Soil
Collected:		Container:	
Received:			
Analyzed:	01/24/97	Dilution Factor:	1
By:	LJT		

Number	Priority Pollutant Compounds	PQL ug/kg (dry)	Result ug/kg (dry)
1	Benzene	5	BQL
2	Bromodichloromethane	5	BQL
3	Bromoform	5	BQL
4	Bromomethane	10	BQL
5	Carbon tetrachloride	5	BQL
6	Chlorobenzene	5	BQL
7	Chloroethane	10	BQL
8	2-Chloroethylvinyl ether	5	BQL
9	Chloroform	5	BQL
10	Chloromethane	10	BQL
11	Dibromochloromethane	5	BQL
12	1,2-Dichlorobenzene	5	BQL
13	1,3-Dichlorobenzene	5	BQL
14	1,4-Dichlorobenzene	5	BQL
15	1,1-Dichloroethane	5	BQL
16	1,2-Dichloroethane	5	BQL
17	1,1-Dichloroethene	5	BQL
18	cis-1,2-Dichloroethene	5	BQL
19	trans-1,2-Dichloroethene	5	BQL
20	1,2-Dichloropropane	5	BQL
21	cis-1,3-Dichloropropene	5	BQL
22	trans-1,3-Dichloropropene	5	BQL
23	Ethylbenzene	5	BQL
24	Methylene chloride	5	8
25	1,1,2,2-Tetrachloroethane	5	BQL
26	Tetrachloroethene	5	BQL
27	Toluene	5	BQL
28	1,1,1-Trichloroethane	5	BQL
29	1,1,2-Trichloroethane	5	BQL
30	Trichloroethene	5	BQL
31	Trichlorofluoromethane	5	BQL
32	Vinyl chloride	10	BQL

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Analysis Report: EPA Method 8260A

Client:
Project:

IEA ID: Method Blank (01/24)
Sample:

Other TCL Compounds:		PQL ug/kg (dry)	Result ug/kg (dry)
33	Acetone	100	BQL
34	2-Butanone	100	BQL
35	n-Butylbenzene	5	BQL
36	s-Butylbenzene	5	BQL
37	t-Butylbenzene	5	BQL
38	Carbon disulfide	5	BQL
39	2-Chlorotoluene	5	BQL
40	4-Chlorotoluene	5	BQL
41	1,2-Dibromoethane	5	BQL
42	2-Hexanone	20	BQL
43	Hexachlorobutadiene	5	BQL
44	Isopropylbenzene	5	BQL
45	p-Isopropyltoluene	5	BQL
46	4-Methyl-2-pentanone	20	BQL
47	Methyl-t-butyl ether	5	BQL
48	Naphthalene	50	BQL
49	n-Propylbenzene	5	BQL
50	Styrene	5	BQL
51	1,1,1,2-Tetrachloroethane	5	BQL
52	1,2,3-Trichlorobenzene	5	BQL
53	1,2,4-Trichlorobenzene	5	BQL
54	1,2,4-Trimethylbenzene	5	BQL
55	1,3,5-Trimethylbenzene	5	BQL
56	Vinyl acetate	20	BQL
57	Xylenes	5	BQL

Surrogate Standard Recovery:

1,2-Dichloroethane-d4	111	%
Toluene-d8	101	%
Bromofluorobenzene	105	%

Comments:
PQL = Practical quantitation limit.
BQL = Below quantitation limit.
Dilution factor adjusted for moisture content of sample.
Corresponding Samples: P116-106-12, P116-106-13, P116-106-15

IEA
An Aquarion Company

Analysis Report: EPA Method 8260A

Client:		IEA ID:	Method Blank (01/23)
Project:		Sample:	
Report Date:	01/31/97	Type:	Water
Collected:		Container:	
Received:			
Analyzed:	01/23/97	Dilution Factor:	1
By:	GMT		

Number	Priority Pollutant Compounds	PQL (ug/L)	Result (ug/L)
1	Benzene	1	BQL
2	Bromodichloromethane	1	BQL
3	Bromoform	1	BQL
4	Bromomethane	2	BQL
5	Carbon tetrachloride	1	BQL
6	Chlorobenzene	1	BQL
7	Chloroethane	2	BQL
8	2-Chloroethylvinyl ether	1	BQL
9	Chloroform	1	BQL
10	Chloromethane	2	BQL
11	Dibromochloromethane	1	BQL
12	1,2-Dichlorobenzene	1	BQL
13	1,3-Dichlorobenzene	1	BQL
14	1,4-Dichlorobenzene	1	BQL
15	1,1-Dichloroethane	1	BQL
16	1,2-Dichloroethane	1	BQL
17	1,1-Dichloroethene	1	BQL
18	cis-1,2-Dichloroethene	1	BQL
19	trans-1,2-Dichloroethene	1	BQL
20	1,2-Dichloropropane	1	BQL
21	cis-1,3-Dichloropropene	0.5	BQL
22	trans-1,3-Dichloropropene	0.5	BQL
23	Ethylbenzene	1	BQL
24	Methylene chloride	1	1J
25	1,1,2,2-Tetrachloroethane	1	BQL
26	Tetrachloroethene	1	BQL
27	Toluene	1	BQL
28	1,1,1-Trichloroethane	1	BQL
29	1,1,2-Trichloroethane	1	BQL
30	Trichloroethene	1	BQL
31	Trichlorofluoromethane	1	BQL
32	Vinyl chloride	2	BQL

printed on recycled paper

IEA
An Aquarion Company

Analysis Report: EPA Method 8260A

Client:
Project:

IEA ID: Method Blank (01/23)
Sample:

Other TCL Compounds:		PQL (ug/L)	Result (ug/L)
33	Acetone	20	BQL
34	2-Butanone	20	BQL
35	n-Butylbenzene	1	BQL
36	s-Butylbenzene	1	BQL
37	t-Butylbenzene	1	BQL
38	Carbon disulfide	1	BQL
39	2-Chlorotoluene	1	BQL
40	4-Chlorotoluene	1	BQL
41	1,2-Dibromoethane	1	BQL
42	2-Hexanone	10	BQL
43	Hexachlorobutadiene	0.6	BQL
44	Isopropylbenzene	1	BQL
45	p-Isopropyltoluene	1	BQL
46	4-Methyl-2-pentanone	10	BQL
47	Methyl-t-butyl ether	1	BQL
48	Naphthalene	10	BQL
49	n-Propylbenzene	1	BQL
50	Styrene	1	BQL
51	1,1,1,2-Tetrachloroethane	1	BQL
52	1,2,3-Trichlorobenzene	1	BQL
53	1,2,4-Trichlorobenzene	1	BQL
54	1,2,4-Trimethylbenzene	1	BQL
55	1,3,5-Trimethlybenzene	1	BQL
56	Vinyl acetate	10	BQL
57	Xylenes	1	BQL

Surrogate Standard Recovery:

1,2-Dichloroethane-d4	117	%
Toluene-d8	99	%
Bromofluorobenzene	101	%

Comments:
PQL = Practical quantitation limit.
BQL = Below quantitation limit.
J = Approximate result. Quantitation below calibration.
Corresponding Samples: P116-106-04

IEA
An Aquarion Company
149 Rangeway Road
N. Billerica, Massachusetts 01862
508 / 667-1400
Fax 508 / 667-7871

CHAIN OF CUSTODY RECORD

REGULATORY CLASSIFICATION - PLEASE SPECIFY

☐ NPDES ☐ DRINKING WATER ☐ RCRA ☒ MCP ☐ OTHER

REQUIRED

CUST P.O. #	1-17-97
IEA QUOTE #	

TURN AROUND

☐ 15 BUSINESS DAY
☒ 10 BUSINESS DAY
☐ RUSH
☐ OTHER

COMPANY	CONTACT PERSON	PROJECT I.D.	PHONE #	FAX #
PHOENIX ENV. SERV., INC	D. COREY	ATF - ARCADE WHITINSVILLE	617-275-2970	617-275-3557

ADDRESS: P.O. BOX 276

CITY	STATE	ZIP
BEDFORD	MA	01730

REQUESTED PARAMETERS (COMMENTS): P116-106

DATE	TIME	SAMPLE I.D.	MATRIX	CONTAINER TYPE	# OF CONTAINERS	PRESERVATIVES	VOA (8260 for MCP) 1/17/97								(COMMENTS)
1/17/97	10:00 A	GP-1	W	V	3	HCl	X								
		GP-2					X								
		GP-3					X								
		GP-4					X								
		GP-5					X								
		GP-6					X								
		GP-7					X								
		M-7					X								
		M-10					X								
	12:15P	M-11					X								

SAMPLED BY: DOUG COREY (PRINT NAME) Douglas M. Corey (SIGNATURE)

RELINQUISHED BY (SIGNATURE)	DATE / TIME	RECEIVED BY	DATE / TIME
Douglas M. Corey	1/17/97 5:50pm		

RELINQUISHED BY (SIGNATURE)	DATE / TIME	RECEIVED FOR LAB BY	DATE / TIME
		MW [illegible]	1/17/97 5:50 PM

IEA USE ONLY

FIELD REMARKS

IEA
An Aquarion Company
149 Rangeway Road
N. Billerica, Massachusetts 01862
508 / 667-1400
Fax 508 / 667-7871

CHAIN OF CUSTODY RECORD

REQUIRED	
CUST. P.O. #	1-17-97
IEA QUOTE #	

REGULATORY CLASSIFICATION - PLEASE SPECIFY

☐ NPDES ☐ DRINKING WATER ☐ RCRA ☒ MCP ☐ OTHER

TURN AROUND

☐ 15 BUSINESS DAY
☒ 10 BUSINESS DAY
☐ RUSH
☐ OTHER

COMPANY	CONTACT PERSON	PROJECT I.D.	PHONE #	FAX #
PHOENIX ENV. SERV. INC.	D. COREY	ATF - ARCADE WHITINSVILLE	617-275-2970	617-275-3557

ADDRESS		
P.O. BOX 276		
CITY	STATE	ZIP
BEDFORD	MA	01730

DATE	TIME	SAMPLE I.D.	MATRIX	CONTAINER TYPE	# OF CONTAINERS	PRESERVATIVES	REQUESTED PARAMETERS: VOA (8260)	(COMMENTS)
								P116-106
1/17/97	10:A	SB-1 (3-4')	S	✓	2	4°C	X	
		SB-2 (5-6')	S				X	
		SB-3 (3-6')	S				X	
		SB-4 (3-6')	S				X	
		SB-5 (4-5')	S				X	
	↓	SB-6 (3-5')	S				X	
↓	11:30A	SB-7 (3-4')	S	↓	↓	↓	X	

SAMPLED BY: DOUG COREY (PRINT NAME) Douglas M. Corey (SIGNATURE)

RELINQUISHED BY (SIGNATURE)	DATE / TIME	RECEIVED BY	DATE / TIME
Douglas M. Corey	1/17/97 5:50PM		
RELINQUISHED BY (SIGNATURE)	**DATE / TIME**	**RECEIVED FOR LAB BY**	**DATE / TIME**
		[illegible]	1/17/97 5:50 PM

IEA USE ONLY

FIELD REMARKS

American Environmental Network
149 Rangeway Road • N. Billerica, MA 01862 • (978) 667-1400 • Fax (978) 667-7871

Mr. Don Corey
Phoenix Environmental
P.O. Box 276
Bedford, MA 01730

June 5, 1998

Dear Mr. Corey:

Please find enclosed the analytical results of the sample(s) received at our laboratory on May 28, 1998. This report contains sections addressing the following information at a minimum:

- sample ID correspondence table
- analytical results
- chain-of-custody (if applicable)
- definitions of data qualifiers and terminology

Client Project #	N/A	**Client Project Name**	ATF-Davidson Whitinsville
IEA Report #	P116-167	**Purchase Order #**	05-28-98

Copies of this analytical report and supporting data are maintained in our files for a minimum of 3 years unless special arrangements are made. Unless specifically indicated, all analytical testing was performed at the IEA-Massachusetts laboratory.

We appreciate your selection of our services and welcome any questions or suggestions you may have relative to this report. Please contact your customer service representative at (978) 667-1400 for any additional information. Thank you for utilizing our services and we hope you will consider us for your future analytical needs.

I have reviewed and approved the enclosed data for final release.

Sincerely,

Michael F. Wheeler, Ph.D.
Laboratory Director

IEA/American Environmental Network (MA)
MA-DEP #MA038

MW/dib

h:\reports\forms\dconwin\rpf00101.ma 6/5/98, 1:08 pm

Sample ID Correspondence Table

Client Sample ID	IEA Sample ID
MW-6	P116-167-01
MW-8	P116-167-02

Definitions of Data Qualifiers and Terminology

A number of data qualifiers are widely used within the environmental testing industry and may be utilized in our data reports. The following definitions of these qualifiers are included as a service to our clientele. The majority of the qualifiers have evolved from the EPA contract laboratory program (CLP).

B - This flag is used when the analyte is found in the associated blank as well as in the sample. It indicates possible/probable blank contamination and warns the data user to use caution when applying the results of this analyte.

BQL - Below Quantitation Limit indicates the compound was not detected in the sample above the practical quantitation limit.

D - Indicates the compound was diluted below the calibration range.

E - Indicates that the concentration of the specific compound exceeded the calibration range of the instrument for that particular analysis.

J - Indicates an estimated value. The compound is determined to be present in the sample based on GC/MS criteria, but the amount is less than the sample quantitation limit. IEA - MA GC/MS reports do not typically report J - marked results. If requested, J - marked results are provided and the report flagged to verify that the data was appropriately reviewed.

MDL - The method detection limit is defined as the minimum concentration of a substance that can be measured and reported with 99% confidence that the analyte concentration is greater than zero.

NA - Not applicable or not available.

ND - Indicates the compound or analyte was not detected in the sample above the method detection limit or the practical quantitation limit for the particular analysis.

PQL - The practical quantitation limit is the lowest level that can be reliably achieved within specified limits of precision and accuracy during routine operating conditions.

AEN - Massachusetts
Analysis Report: EPA Method 8260B

Client:	Phoenix Environmental	AEN ID:	P116-167-01
Project:	ATF-Davidson Whittinsville	Sample:	MW-6
Report Date:	06/04/98	Type:	Water
Collected:	05/28/98	Container:	VOA
Received:	05/28/98		
Analyzed:	06/02/98	Dilution Factor:	1
By:	DB		

Number	Priority Pollutant Compounds	PQL (ug/L)	Result (ug/L)
1	Benzene	1	BQL
2	Bromodichloromethane	1	BQL
3	Bromoform	1	BQL
4	Bromomethane	2	BQL
5	Carbon tetrachloride	1	BQL
6	Chlorobenzene	1	BQL
7	Chloroethane	2	BQL
8	2-Chloroethylvinyl ether	1	BQL
9	Chloroform	1	BQL
10	Chloromethane	2	BQL
11	Dibromochloromethane	1	BQL
12	1,2-Dichlorobenzene	1	BQL
13	1,3-Dichlorobenzene	1	BQL
14	1,4-Dichlorobenzene	1	BQL
15	1,1-Dichloroethane	1	BQL
16	1,2-Dichloroethane	1	BQL
17	1,1-Dichloroethene	1	BQL
18	cis-1,2-Dichloroethene	1	BQL
19	trans-1,2-Dichloroethene	1	BQL
20	1,2-Dichloropropane	1	BQL
21	cis-1,3-Dichloropropene	0.5	BQL
22	trans-1,3-Dichloropropene	0.5	BQL
23	Ethylbenzene	1	BQL
24	Methylene chloride	1	BQL
25	1,1,2,2-Tetrachloroethane	1	BQL
26	Tetrachloroethene	1	5
27	Toluene	1	BQL
28	1,1,1-Trichloroethane	1	BQL
29	1,1,2-Trichloroethane	1	BQL
30	Trichloroethene	1	BQL
31	Trichlorofluoromethane	1	BQL
32	Vinyl chloride	2	BQL

AEN - Massachusetts
Analysis Report: EPA Method 8260B

Client:	Phoenix Environmental	AEN ID:	P116-167-01
Project:	ATF-Davidson Whittinsville	Sample:	MW-6

Other TCL Compounds:		PQL (ug/L)	Result (ug/L)
33	Acetone	20	BQL
34	2-Butanone	20	BQL
35	n-Butylbenzene	1	BQL
36	s-Butylbenzene	1	BQL
37	t-Butylbenzene	1	BQL
38	Carbon disulfide	1	BQL
39	2-Chlorotoluene	1	BQL
40	4-Chlorotoluene	1	BQL
41	1,2-Dibromoethane	1	BQL
42	2-Hexanone	10	BQL
43	Hexachlorobutadiene	0.6	BQL
44	Isopropylbenzene	1	BQL
45	p-Isopropyltoluene	1	BQL
46	4-Methyl-2-pentanone	10	BQL
47	Methyl-t-butyl ether	1	1
48	Naphthalene	10	BQL
49	n-Propylbenzene	1	BQL
50	Styrene	1	BQL
51	1,1,1,2-Tetrachloroethane	1	BQL
52	1,2,3-Trichlorobenzene	1	BQL
53	1,2,4-Trichlorobenzene	1	BQL
54	1,2,4-Trimethylbenzene	1	BQL
55	1,3,5-Trimethlybenzene	1	BQL
56	Vinyl acetate	10	BQL
57	Xylenes	1	BQL

Surrogate Standard Recovery:

1,2-Dichloroethane-d4	86	%
Toluene-d8	95	%
Bromofluorobenzene	99	%

Comments:
PQL = Practical quantitation limit.
BQL = Below quantitation limit.

AEN - Massachusetts
Analysis Report: EPA Method 8260B

Client:	Phoenix Environmental	AEN ID:	P116-167-02
Project:	ATF-Davidson Whittinsville	Sample:	MW-8
Report Date:	06/04/98	Type:	Water
Collected:	05/28/98	Container:	VOA
Received:	05/28/98		
Analyzed:	06/02/98	Dilution Factor:	2
By:	DB		

Number	Priority Pollutant Compounds	PQL (ug/L)	Result (ug/L)
1	Benzene	2	BQL
2	Bromodichloromethane	2	BQL
3	Bromoform	2	BQL
4	Bromomethane	4	BQL
5	Carbon tetrachloride	2	BQL
6	Chlorobenzene	2	BQL
7	Chloroethane	4	BQL
8	2-Chloroethylvinyl ether	2	BQL
9	Chloroform	2	BQL
10	Chloromethane	4	BQL
11	Dibromochloromethane	2	BQL
12	1,2-Dichlorobenzene	2	BQL
13	1,3-Dichlorobenzene	2	BQL
14	1,4-Dichlorobenzene	2	BQL
15	1,1-Dichloroethane	2	BQL
16	1,2-Dichloroethane	2	BQL
17	1,1-Dichloroethene	2	BQL
18	cis-1,2-Dichloroethene	2	60
19	trans-1,2-Dichloroethene	2	4
20	1,2-Dichloropropane	2	BQL
21	cis-1,3-Dichloropropene	1	BQL
22	trans-1,3-Dichloropropene	1	BQL
23	Ethylbenzene	2	BQL
24	Methylene chloride	2	BQL
25	1,1,2,2-Tetrachloroethane	2	BQL
26	Tetrachloroethene	2	BQL
27	Toluene	2	BQL
28	1,1,1-Trichloroethane	2	BQL
29	1,1,2-Trichloroethane	2	BQL
30	Trichloroethene	2	2
31	Trichlorofluoromethane	2	BQL
32	Vinyl chloride	4	72

AEN - Massachusetts
Analysis Report: EPA Method 8260B

Client:	Phoenix Environmental	AEN ID:	P116-167-02
Project:	ATF-Davidson Whittinsville	Sample:	MW-8

Other TCL Compounds:		PQL (ug/L)	Result (ug/L)
33	Acetone	40	BQL
34	2-Butanone	40	BQL
35	n-Butylbenzene	2	BQL
36	s-Butylbenzene	2	BQL
37	t-Butylbenzene	2	BQL
38	Carbon disulfide	2	BQL
39	2-Chlorotoluene	2	BQL
40	4-Chlorotoluene	2	BQL
41	1,2-Dibromoethane	2	BQL
42	2-Hexanone	20	BQL
43	Hexachlorobutadiene	1.2	BQL
44	Isopropylbenzene	2	BQL
45	p-Isopropyltoluene	2	BQL
46	4-Methyl-2-pentanone	20	BQL
47	Methyl-t-butyl ether	2	BQL
48	Naphthalene	20	BQL
49	n-Propylbenzene	2	BQL
50	Styrene	2	BQL
51	1,1,1,2-Tetrachloroethane	2	BQL
52	1,2,3-Trichlorobenzene	2	BQL
53	1,2,4-Trichlorobenzene	2	BQL
54	1,2,4-Trimethylbenzene	2	BQL
55	1,3,5-Trimethlybenzene	2	BQL
56	Vinyl acetate	20	BQL
57	Xylenes	2	BQL

Surrogate Standard Recovery:

1,2-Dichloroethane-d4	91	%
Toluene-d8	97	%
Bromofluorobenzene	97	%

Comments:

PQL = Practical quantitation limit.
BQL = Below quantitation limit.
Quantitation limit elevated due to sample dilution prior to analysis.
Sample diluted due to high concentration of target compounds present.

American Environmental Network, Inc.
149 Rangeway Road
N. Billerica, Massachusetts 01862
978/667-1400
Fax 978/667-7871

CHAIN OF CUSTODY RECORD

RECEIVED	
CUST. P.O. #	05-28-98
AEN QUOTE #	

REGULATORY CLASSIFICATION - PLEASE SPECIFY

☐ NPDES ☐ DRINKING WATER ☐ MCP GW1 ☒ MCP OTHER GW-2/3
☐ RCRA ☐ NIOSH ☐ OTHER

TURN AROUND

☐ 15 BUSINESS DAY
☒ 10 BUSINESS DAY
☐ RUSH
☐ OTHER

COMPANY	CONTACT PERSON	PROJECT I.D.	PHONE #	FAX #
PHOENIX ENV. SERV., INC.	DOUG COREY	ATF - DAVIDSON WHITINSVILLE	781 275-2970	781 275-3557

ADDRESS	CITY	STATE	ZIP
P.O. BOX 276	BEDFORD	MA	01730

DATE	TIME	SAMPLE I.D.	MATRIX	CONTAINER TYPE	# OF CONTAINERS	PRESERVATIVES	REQUESTED PARAMETERS: VOCs (8260)								(COMMENTS)
5/28/98	12:00	MW-6	GW	V	3	HCl	X								
↓	13:00	MW-8	↓	↓	↓	↓	X								

SAMPLED BY: DOUGLAS M. COREY (PRINT NAME) Douglas M. Corey (SIGNATURE)

RELINQUISHED BY (SIGNATURE)	DATE / TIME	RECEIVED BY	DATE / TIME
Douglas M. Corey	5/28/98 3:15pm	[illegible]	05/28/98 15:10

RELINQUISHED BY (SIGNATURE)	DATE / TIME	RECEIVED FOR LAB BY	DATE / TIME

AEN USE ONLY

FIELD REMARKS

Committed To *Your* Success

Severn Trent Laboratories
149 Rangeway Road
North Billerica MA 01862

Tel: (978) 667-1400
Fax: (978) 667-7871

Mr. Don Corey
Phoenix Environmental
P.O. Box 276
Bedford, MA 01730

September 14, 1998

Dear Mr. Corey:

Please find enclosed the analytical results of the sample(s) received at our laboratory on September 01, 1998. This report contains sections addressing the following information at a minimum:

- sample ID correspondence table
- analytical results
- chain-of-custody (if applicable)
- definitions of data qualifiers and terminology

Client Project #	N/A	**Client Project Name**	ATF Davidson Whitinsville
STL Report #	P116-173	**Purchase Order #**	8-31-98

Copies of this analytical report and supporting data are maintained in our files for a minimum of 3 years unless special arrangements are made. Unless specifically indicated, all analytical testing was performed at the Billerica, Massachusetts STL laboratory.

We appreciate your selection of our services and welcome any questions or suggestions you may have relative to this report. Please contact your customer service representative at (978) 667-1400 for any additional information. Thank you for utilizing our services and we hope you will consider us for your future analytical needs.

I have reviewed and approved the enclosed data for final release.

Sincerely,

Robert Leary

for: Michael F. Wheeler, Ph.D.
Laboratory Director

Severn Trent Laboratories
MA-DEP #MA038

MW/dib

h:\reports\forms\dconwin\rpf00101.ma 9/24/98, 11:48 am

Sample ID Correspondence Table

Client Sample ID	STL Sample ID
M-3	P116-173-01
M-5	P116-173-02
M-6	P116-173-03
M-8	P116-173-04
M-9	P116-173-05

Definitions of Data Qualifiers and Terminology

A number of data qualifiers are widely used within the environmental testing industry and may be utilized in our data reports. The following definitions of these qualifiers are included as a service to our clientele. The majority of the qualifiers have evolved from the EPA contract laboratory program (CLP).

B - This flag is used when the analyte is found in the associated blank as well as in the sample. It indicates possible/probable blank contamination and warns the data user to use caution when applying the results of this analyte.

BQL - Below Quantitation Limit indicates the compound was not detected in the sample above the practical quantitation limit.

D - Indicates the compound was diluted below the calibration range.

E - Indicates that the concentration of the specific compound exceeded the calibration range of the instrument for that particular analysis.

J - Indicates an estimated value. The compound is determined to be present in the sample based on GC/MS criteria, but the amount is less than the sample quantitation limit. STL - MA GC/MS reports do not typically report J - marked results. If requested, J - marked results are provided and the report flagged to verify that the data was appropriately reviewed.

MDL - The method detection limit is defined as the minimum concentration of a substance that can be measured and reported with 99% confidence that the analyte concentration is greater than zero.

NA - Not applicable or not available.

ND - Indicates the compound or analyte was not detected in the sample above the method detection limit or the practical quantitation limit for the particular analysis.

PQL - The practical quantitation limit is the lowest level that can be reliably achieved within specified limits of precision and accuracy during routine operating conditions.

Inorganics Analysis Data Sheet

Client ID : M-5
Client Name : Severn Trent Laboratories
Project Name : P116-173
Matrix : Water

Report No : 12731
STE Sample Number : 109661
Date Collected : 08/31/98
Date Received: 09/01/98

CAS NO	Analyte	Result	Units	Method	Date Analyzed
7440-39-3	Barium	4700	ug/L	EPA 200.7	09/18/98

Inorganics Analysis Data Sheet

Client ID : M-8
Client Name : Severn Trent Laboratories
Project Name : P116-173
Matrix : Water

Report No : 12731
STE Sample Number : 109662
Date Collected : 08/31/98
Date Received: 09/01/98

CAS NO	Analyte	Result	Units	Method	Date Analyzed
7440-39-3	Barium	1800	ug/L	EPA 200.7	09/18/98

Job No.: 12731
Project No.: P116-173
Compound: Barium
Date Collected: 08/31/98

SAMPLE ID	DL µg/L
M-5	10
M-8	10

STL - Massachusetts
Analysis Report: EPA Method 8260B

Client:	Phoenix Environmental	STL ID:	P116-173-01
Project:	ATF Davidson Whitinsville	Sample:	M-3
Report Date:	09/11/98	Type:	Water
Collected:	08/31/98	Container:	VOA
Received:	09/01/98		
Analyzed:	09/09/98	Dilution Factor:	1
By:	DB		

Number	Priority Pollutant Compounds	PQL (ug/L)	Result (ug/L)
1	Benzene	1	BQL
2	Bromodichloromethane	1	BQL
3	Bromoform	1	BQL
4	Bromomethane	2	BQL
5	Carbon tetrachloride	1	BQL
6	Chlorobenzene	1	BQL
7	Chloroethane	2	BQL
8	2-Chloroethylvinyl ether	1	BQL
9	Chloroform	1	BQL
10	Chloromethane	2	BQL
11	Dibromochloromethane	1	BQL
12	1,2-Dichlorobenzene	1	BQL
13	1,3-Dichlorobenzene	1	BQL
14	1,4-Dichlorobenzene	1	BQL
15	1,1-Dichloroethane	1	BQL
16	1,2-Dichloroethane	1	BQL
17	1,1-Dichloroethene	1	BQL
18	cis-1,2-Dichloroethene	1	2
19	trans-1,2-Dichloroethene	1	BQL
20	1,2-Dichloropropane	1	BQL
21	cis-1,3-Dichloropropene	0.5	BQL
22	trans-1,3-Dichloropropene	0.5	BQL
23	Ethylbenzene	1	BQL
24	Methylene chloride	1	BQL
25	1,1,2,2-Tetrachloroethane	1	BQL
26	Tetrachloroethene	1	BQL
27	Toluene	1	BQL
28	1,1,1-Trichloroethane	1	BQL
29	1,1,2-Trichloroethane	1	BQL
30	Trichloroethene	1	1
31	Trichlorofluoromethane	1	BQL
32	Vinyl chloride	2	7

STL - Massachusetts
Analysis Report: EPA Method 8260B

Client:	Phoenix Environmental	STL ID:	P116-173-01
Project:	ATF Davidson Whitinsville	Sample:	M-3

Other TCL Compounds:		PQL (ug/L)	Result (ug/L)
33	Acetone	20	BQL
34	2-Butanone	20	BQL
35	n-Butylbenzene	1	BQL
36	s-Butylbenzene	1	BQL
37	t-Butylbenzene	1	BQL
38	Carbon disulfide	1	BQL
39	2-Chlorotoluene	1	BQL
40	4-Chlorotoluene	1	BQL
41	1,2-Dibromoethane	1	BQL
42	2-Hexanone	10	BQL
43	Hexachlorobutadiene	0.6	BQL
44	Isopropylbenzene	1	BQL
45	p-Isopropyltoluene	1	BQL
46	4-Methyl-2-pentanone	10	BQL
47	Methyl-t-butyl ether	1	2
48	Naphthalene	10	BQL
49	n-Propylbenzene	1	BQL
50	Styrene	1	BQL
51	1,1,1,2-Tetrachloroethane	1	BQL
52	1,2,3-Trichlorobenzene	1	BQL
53	1,2,4-Trichlorobenzene	1	BQL
54	1,2,4-Trimethylbenzene	1	BQL
55	1,3,5-Trimethlybenzene	1	BQL
56	Vinyl acetate	10	BQL
57	Xylenes	1	BQL

Surrogate Standard Recovery:

1,2-Dichloroethane-d4	109	%
Toluene-d8	105	%
Bromofluorobenzene	102	%

Comments:
PQL = Practical quantitation limit.
BQL = Below quantitation limit.

STL - Massachusetts
Analysis Report: EPA Method 8260B

Client:	Phoenix Environmental	STL ID:	P116-173-03
Project:	ATF Davidson Whitinsville	Sample:	M-6
Report Date:	09/11/98	Type:	Water
Collected:	08/31/98	Container:	VOA
Received:	09/01/98		
Analyzed:	09/09/98	Dilution Factor:	1
By:	DB		

Number	Priority Pollutant Compounds	PQL (ug/L)	Result (ug/L)
1	Benzene	1	BQL
2	Bromodichloromethane	1	BQL
3	Bromoform	1	BQL
4	Bromomethane	2	BQL
5	Carbon tetrachloride	1	BQL
6	Chlorobenzene	1	BQL
7	Chloroethane	2	BQL
8	2-Chloroethylvinyl ether	1	BQL
9	Chloroform	1	BQL
10	Chloromethane	2	BQL
11	Dibromochloromethane	1	BQL
12	1,2-Dichlorobenzene	1	BQL
13	1,3-Dichlorobenzene	1	BQL
14	1,4-Dichlorobenzene	1	BQL
15	1,1-Dichloroethane	1	BQL
16	1,2-Dichloroethane	1	BQL
17	1,1-Dichloroethene	1	BQL
18	cis-1,2-Dichloroethene	1	3
19	trans-1,2-Dichloroethene	1	BQL
20	1,2-Dichloropropane	1	BQL
21	cis-1,3-Dichloropropene	0.5	BQL
22	trans-1,3-Dichloropropene	0.5	BQL
23	Ethylbenzene	1	BQL
24	Methylene chloride	1	BQL
25	1,1,2,2-Tetrachloroethane	1	BQL
26	Tetrachloroethene	1	18
27	Toluene	1	BQL
28	1,1,1-Trichloroethane	1	BQL
29	1,1,2-Trichloroethane	1	BQL
30	Trichloroethene	1	2
31	Trichlorofluoromethane	1	BQL
32	Vinyl chloride	2	BQL

STL - Massachusetts
Analysis Report: EPA Method 8260B

Client:	Phoenix Environmental	STL ID:	P116-173-03
Project:	ATF Davidson Whitinsville	Sample:	M-6

Other TCL Compounds:		PQL (ug/L)	Result (ug/L)
33	Acetone	20	BQL
34	2-Butanone	20	BQL
35	n-Butylbenzene	1	BQL
36	s-Butylbenzene	1	BQL
37	t-Butylbenzene	1	BQL
38	Carbon disulfide	1	BQL
39	2-Chlorotoluene	1	BQL
40	4-Chlorotoluene	1	BQL
41	1,2-Dibromoethane	1	BQL
42	2-Hexanone	10	BQL
43	Hexachlorobutadiene	0.6	BQL
44	Isopropylbenzene	1	BQL
45	p-Isopropyltoluene	1	BQL
46	4-Methyl-2-pentanone	10	BQL
47	Methyl-t-butyl ether	1	2
48	Naphthalene	10	BQL
49	n-Propylbenzene	1	BQL
50	Styrene	1	BQL
51	1,1,1,2-Tetrachloroethane	1	BQL
52	1,2,3-Trichlorobenzene	1	BQL
53	1,2,4-Trichlorobenzene	1	BQL
54	1,2,4-Trimethylbenzene	1	BQL
55	1,3,5-Trimethlybenzene	1	BQL
56	Vinyl acetate	10	BQL
57	Xylenes	1	BQL

Surrogate Standard Recovery:

1,2-Dichloroethane-d4	101	%
Toluene-d8	106	%
Bromofluorobenzene	97	%

Comments:
PQL = Practical quantitation limit.
BQL = Below quantitation limit.

STL - Massachusetts
Analysis Report: EPA Method 8260B

Client:	Phoenix Environmental	STL ID:	P116-173-04
Project:	ATF Davidson Whitinsville	Sample:	M-8
Report Date:	09/11/98	Type:	Water
Collected:	08/31/98	Container:	VOA
Received:	09/01/98		
Analyzed:	09/09/98	Dilution Factor:	2
By:	DB		

Number	Priority Pollutant Compounds	PQL (ug/L)	Result (ug/L)
1	Benzene	2	BQL
2	Bromodichloromethane	2	BQL
3	Bromoform	2	BQL
4	Bromomethane	4	BQL
5	Carbon tetrachloride	2	BQL
6	Chlorobenzene	2	BQL
7	Chloroethane	4	BQL
8	2-Chloroethylvinyl ether	2	BQL
9	Chloroform	2	BQL
10	Chloromethane	4	BQL
11	Dibromochloromethane	2	BQL
12	1,2-Dichlorobenzene	2	BQL
13	1,3-Dichlorobenzene	2	BQL
14	1,4-Dichlorobenzene	2	BQL
15	1,1-Dichloroethane	2	BQL
16	1,2-Dichloroethane	2	BQL
17	1,1-Dichloroethene	2	BQL
18	cis-1,2-Dichloroethene	2	86
19	trans-1,2-Dichloroethene	2	4
20	1,2-Dichloropropane	2	BQL
21	cis-1,3-Dichloropropene	1	BQL
22	trans-1,3-Dichloropropene	1	BQL
23	Ethylbenzene	2	BQL
24	Methylene chloride	2	2B
25	1,1,2,2-Tetrachloroethane	2	BQL
26	Tetrachloroethene	2	BQL
27	Toluene	2	BQL
28	1,1,1-Trichloroethane	2	BQL
29	1,1,2-Trichloroethane	2	BQL
30	Trichloroethene	2	2
31	Trichlorofluoromethane	2	BQL
32	Vinyl chloride	4	82

STL - Massachusetts
Analysis Report: EPA Method 8260B

Client:	Phoenix Environmental	STL ID:	P116-173-04
Project:	ATF Davidson Whitinsville	Sample:	M-8

Other TCL Compounds:		PQL (ug/L)	Result (ug/L)
33	Acetone	40	BQL
34	2-Butanone	40	BQL
35	n-Butylbenzene	2	BQL
36	s-Butylbenzene	2	BQL
37	t-Butylbenzene	2	BQL
38	Carbon disulfide	2	BQL
39	2-Chlorotoluene	2	BQL
40	4-Chlorotoluene	2	BQL
41	1,2-Dibromoethane	2	BQL
42	2-Hexanone	20	BQL
43	Hexachlorobutadiene	1.2	BQL
44	Isopropylbenzene	2	BQL
45	p-Isopropyltoluene	2	BQL
46	4-Methyl-2-pentanone	20	BQL
47	Methyl-t-butyl ether	2	BQL
48	Naphthalene	20	BQL
49	n-Propylbenzene	2	BQL
50	Styrene	2	BQL
51	1,1,1,2-Tetrachloroethane	2	BQL
52	1,2,3-Trichlorobenzene	2	BQL
53	1,2,4-Trichlorobenzene	2	BQL
54	1,2,4-Trimethylbenzene	2	BQL
55	1,3,5-Trimethlybenzene	2	BQL
56	Vinyl acetate	20	BQL
57	Xylenes	2	BQL

Surrogate Standard Recovery:

1,2-Dichloroethane-d4	104	%
Toluene-d8	105	%
Bromofluorobenzene	92	%

Comments:

PQL = Practical quantitation limit.
BQL = Below quantitation limit.
Quantitation limit elevated due to sample dilution prior to analysis.
Sample diluted due to high concentration of target compounds present.
B = Compound in blank

STL - Massachusetts
Analysis Report: EPA Method 8260B

Client:	Phoenix Environmental	STL ID:	P116-173-05
Project:	ATF Davidson Whitinsville	Sample:	M-9
Report Date:	09/11/98	Type:	Water
Collected:	08/31/98	Container:	VOA
Received:	09/01/98		
Analyzed:	09/09/98	Dilution Factor:	1
By:	DB		

Number	Priority Pollutant Compounds	PQL (ug/L)	Result (ug/L)
1	Benzene	1	BQL
2	Bromodichloromethane	1	BQL
3	Bromoform	1	BQL
4	Bromomethane	2	BQL
5	Carbon tetrachloride	1	BQL
6	Chlorobenzene	1	BQL
7	Chloroethane	2	BQL
8	2-Chloroethylvinyl ether	1	BQL
9	Chloroform	1	BQL
10	Chloromethane	2	BQL
11	Dibromochloromethane	1	BQL
12	1,2-Dichlorobenzene	1	BQL
13	1,3-Dichlorobenzene	1	BQL
14	1,4-Dichlorobenzene	1	BQL
15	1,1-Dichloroethane	1	BQL
16	1,2-Dichloroethane	1	BQL
17	1,1-Dichloroethene	1	BQL
18	cis-1,2-Dichloroethene	1	11
19	trans-1,2-Dichloroethene	1	BQL
20	1,2-Dichloropropane	1	BQL
21	cis-1,3-Dichloropropene	0.5	BQL
22	trans-1,3-Dichloropropene	0.5	BQL
23	Ethylbenzene	1	BQL
24	Methylene chloride	1	BQL
25	1,1,2,2-Tetrachloroethane	1	BQL
26	Tetrachloroethene	1	7
27	Toluene	1	BQL
28	1,1,1-Trichloroethane	1	BQL
29	1,1,2-Trichloroethane	1	BQL
30	Trichloroethene	1	3
31	Trichlorofluoromethane	1	BQL
32	Vinyl chloride	2	3

STL - Massachusetts
Analysis Report: EPA Method 8260B

Client:	Phoenix Environmental	STL ID:	P116-173-05
Project:	ATF Davidson Whitinsville	Sample:	M-9

Other TCL Compounds:		PQL (ug/L)	Result (ug/L)
33	Acetone	20	BQL
34	2-Butanone	20	BQL
35	n-Butylbenzene	1	BQL
36	s-Butylbenzene	1	BQL
37	t-Butylbenzene	1	BQL
38	Carbon disulfide	1	BQL
39	2-Chlorotoluene	1	BQL
40	4-Chlorotoluene	1	BQL
41	1,2-Dibromoethane	1	BQL
42	2-Hexanone	10	BQL
43	Hexachlorobutadiene	0.6	BQL
44	Isopropylbenzene	1	BQL
45	p-Isopropyltoluene	1	BQL
46	4-Methyl-2-pentanone	10	BQL
47	Methyl-t-butyl ether	1	BQL
48	Naphthalene	10	BQL
49	n-Propylbenzene	1	BQL
50	Styrene	1	BQL
51	1,1,1,2-Tetrachloroethane	1	BQL
52	1,2,3-Trichlorobenzene	1	BQL
53	1,2,4-Trichlorobenzene	1	BQL
54	1,2,4-Trimethylbenzene	1	BQL
55	1,3,5-Trimethlybenzene	1	BQL
56	Vinyl acetate	10	BQL
57	Xylenes	1	BQL

Surrogate Standard Recovery:

1,2-Dichloroethane-d4	108	%
Toluene-d8	106	%
Bromofluorobenzene	85	%

Comments:
PQL = Practical quantitation limit.
BQL = Below quantitation limit.

STL - Massachusetts
Analysis Report: EPA Method 8260B

Client:		STL ID:	Method Blank
Project:		Sample:	
Report Date:	09/11/98	Type:	Water
Collected:		Container:	
Received:			
Analyzed:	09/09/98	Dilution Factor:	1
By:	DB		

Number	Priority Pollutant Compounds	PQL (ug/L)	Result (ug/L)
1	Benzene	1	BQL
2	Bromodichloromethane	1	BQL
3	Bromoform	1	BQL
4	Bromomethane	2	BQL
5	Carbon tetrachloride	1	BQL
6	Chlorobenzene	1	BQL
7	Chloroethane	2	BQL
8	2-Chloroethylvinyl ether	1	BQL
9	Chloroform	1	BQL
10	Chloromethane	2	BQL
11	Dibromochloromethane	1	BQL
12	1,2-Dichlorobenzene	1	BQL
13	1,3-Dichlorobenzene	1	BQL
14	1,4-Dichlorobenzene	1	BQL
15	1,1-Dichloroethane	1	BQL
16	1,2-Dichloroethane	1	BQL
17	1,1-Dichloroethene	1	BQL
18	cis-1,2-Dichloroethene	1	BQL
19	trans-1,2-Dichloroethene	1	BQL
20	1,2-Dichloropropane	1	BQL
21	cis-1,3-Dichloropropene	0.5	BQL
22	trans-1,3-Dichloropropene	0.5	BQL
23	Ethylbenzene	1	BQL
24	Methylene chloride	1	1
25	1,1,2,2-Tetrachloroethane	1	BQL
26	Tetrachloroethene	1	BQL
27	Toluene	1	BQL
28	1,1,1-Trichloroethane	1	BQL
29	1,1,2-Trichloroethane	1	BQL
30	Trichloroethene	1	BQL
31	Trichlorofluoromethane	1	BQL
32	Vinyl chloride	2	BQL

STL - Massachusetts
Analysis Report: EPA Method 8260B

Client:
Project:

STL ID: Method Blank
Sample:

Other TCL Compounds:		PQL (ug/L)	Result (ug/L)
33	Acetone	20	BQL
34	2-Butanone	20	BQL
35	n-Butylbenzene	1	BQL
36	s-Butylbenzene	1	BQL
37	t-Butylbenzene	1	BQL
38	Carbon disulfide	1	BQL
39	2-Chlorotoluene	1	BQL
40	4-Chlorotoluene	1	BQL
41	1,2-Dibromoethane	1	BQL
42	2-Hexanone	10	BQL
43	Hexachlorobutadiene	0.6	BQL
44	Isopropylbenzene	1	BQL
45	p-Isopropyltoluene	1	BQL
46	4-Methyl-2-pentanone	10	BQL
47	Methyl-t-butyl ether	1	BQL
48	Naphthalene	10	BQL
49	n-Propylbenzene	1	BQL
50	Styrene	1	BQL
51	1,1,1,2-Tetrachloroethane	1	BQL
52	1,2,3-Trichlorobenzene	1	BQL
53	1,2,4-Trichlorobenzene	1	BQL
54	1,2,4-Trimethylbenzene	1	BQL
55	1,3,5-Trimethlybenzene	1	BQL
56	Vinyl acetate	10	BQL
57	Xylenes	1	BQL

Surrogate Standard Recovery:

1,2-Dichloroethane-d4	110	%
Toluene-d8	105	%
Bromofluorobenzene	91	%

Comments:
PQL = Practical quantitation limit.
BQL = Below quantitation limit.
Corresponding Samples: P116-173-01, -03, -04, -05.

American Environmental Network, Inc.
149 Rangeway Road
N. Billerica, Massachusetts 01862
978/667-1400
Fax 978/667-7871

CHAIN OF CUSTODY RECORD

REQUIRED	
CUST. P.O. #	8-31-98
AEN QUOTE #	

REGULATORY CLASSIFICATION - PLEASE SPECIFY

☐ NPDES ☐ DRINKING WATER ☒ MCP GW1 ☐ MCP OTHER ____
☐ RCRA ☐ NIOSH ☐ OTHER ____

TURN AROUND

☐ 15 BUSINESS DAY
☒ 10 BUSINESS DAY
☐ RUSH ____
☐ OTHER ____

COMPANY	CONTACT PERSON	PROJECT I.D.	PHONE #	FAX #
PHOENIX ENV. SERV., INC.	DOUG COREY	ATF DAVIDSON WHITINSVILLE	781 275-2970	781 275-3557

ADDRESS		
P.O. BOX 276		
CITY	STATE	ZIP
BEDFORD	MA	01730

DATE	TIME	SAMPLE I.D.	MATRIX	CONTAINER TYPE	# OF CONTAINERS	PRESERVATIVES	REQUESTED PARAMETERS: 8260	T. BARIUM							(COMMENTS)
8/31/98	15:00	M-3	W	V	3	HCl	X								
	15:15	M-5		250 ML P	1	–		X							
	15:30	M-6		V	3	HCl	X								
	15:45	M-8		V/250 ML	3/1	HCl/–	X	X							
	16:00	M-9		V	3	HCl	X								

SAMPLED BY: DOUGLAS COREY (PRINT NAME) Douglas M. Corey (SIGNATURE)

RELINQUISHED BY (SIGNATURE)	DATE / TIME	RECEIVED BY	DATE / TIME
Douglas M. Corey	9/01/98 9:40 AM	[illegible]	9/01/98 9:45
RELINQUISHED BY (SIGNATURE)	DATE / TIME	RECEIVED FOR LAB BY	DATE / TIME

AEN USE ONLY

FIELD REMARKS