FINAL REPORT

Givaudan Roure Corporation

Remedial Action Report for Sewer Decommissioning *Clifton, New Jersey*

February 2000

22329.00.01

Environmental Resources Management
855 Springdale Drive
Exton, Pennsylvania 19341

ERM.

110952

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Volume I
Appendix A-F

Environmental Resources Management
855 Springdale Drive
Exton, Pennsylvania 19341

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Appendix A
September 1983 CFM Report

GIVAUDAN CORPORATION

CLIFTON, NEW JERSEY

CHEMICAL SEWER INVESTIGATION

CHEMICAL PLANT

SEPTEMBER 1983

CFM INCORPORATED
ENVIRONMENTAL ENGINEERING SERVICES
628 ROUTE 10, WHIPPANY, NEW JERSEY

CFM INCORPORATED — ENVIRONMENTAL ENGINEERING SERVICES
628 ROUTE 10 WHIPPANY, NJ 07981 (201) 884-2111

September 20, 1983

Givaudan Corporation
125 Delawanna Avenue
Clifton, New Jersey 07014

Attention: Mr. William Turetsky
Director of Safety &
Environmental Protection

RE: CHEMICAL SEWER INVESTIGATION

Gentlemen:

The following report has been prepared to summarize and list the data obtained in our investigation of the Chemical Sewer at your Clifton, New Jersey plant. The data includes information obtained in the inspection of manholes, sewers and connections, including the video inspection of the sewer system. All video tapes of the internal inspection are available for further reference. Convenient summaries of the investigations have been prepared and included in the various sections of the report. A map of the chemical sewer and its branches showing the results of the investigation in symbolic terms, is also included.

The investigation of the chemical sewer identified many reaches of the system as containing piping defects that may allow exfiltration of process waste from the chemical sewer and its branches during typical daily plant operation. Estimates of the potential of leakage from the various segments of the system have been prepared and are included in the report.

The potential for significant leakage at several locations is high. As such, we recommend that repairs to the piping system be undertaken in those locations where significant deterioration or breakage has occured. Although significant defects were found in the system, it is our opinion that repairs can be made to the sewer to continue its usefullness into the future while limiting (as much as possible) the amount of leakage occuring.

CFM INCORPORATED

This report provides data upon the condition of the chemical sewer and its branches. A subsequent report will identify rehabilitatio alternatives for the repair or replacement of the chemical sewer and its branches. Should you have any questions on the data obtained during this investigation, please advise.

Very truly yours,

CFM INCORPORATED

John J. Flood, P.E.

JJF:car
Attachments

GIVAUDAN CORPORATION

CLIFTON - NEW JERSEY

CHEMICAL SEWER INVESTIGATION

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1.0 INTRODUCTION

An investigation was undertaken of the chemical sewer and its various branches and connections at the Givaudan Corporation chemical plant in Clifton, New Jersey. The investigation was directed at obtaining specific information and data upon the condition of the chemical sewer and further upon the potential for exfiltration from the sewer. The investigative work was accomplished by experienced field personnel under an excelerated time schedule in order to accomplish as much of the work as possible during a plant shutdown in late July, 1983. The investigation included the inspection of each manhole and chamber providing access to the chemical sewer and its branches; an internal inspection of each reach of the chemical sewer and its branches utilizing closed circuit television equipment; hydrostatic testing of each reach of the chemical sewer and its branches to determine the potential for exfiltration and the inspection of each connection to the chemical sewer and its branches. All data and information obtained during the investigation are shown on individual report forms, copies of which are contained in the Appendix of this report. Summaries of all data obtained are included in the various sections of this report. Additionally, all video tapes obtained during the inspection are available for review. Copies of photographs obtained in each manhole are contained in the Appendix of this report.

The investigation indicated that many defects are present within the piping system and structures comprising the chemical sewer and its branches. Defects identified included misaligned and open joints in the piping system (that have a potential for exfiltration), as well as cracked and broken pipe in many locations. Some of the manhole structures were also found to be in poor condition. The results of the exfiltration hydrostatic test suggested a potential for leakage from the system. Although some leakage can be expected from all piping systems constructed of similar materials utilized in the chemical sewer, the leakage from this particular system was felt to be higher than normal. Many segments of the system, however, were found to be in reasonable condition.

An inspection of the connections to the chemical sewer and its branches found many locations where exfiltration could occur. Significant deterioration of discharge troughs, traps and connections were evident - providing locations where direct exfiltration could occur.

2.0 MANHOLE INSPECTION

An inspection was made of all manholes and structures on the chemical sewer and its branches. The inspection was undertaken by experienced personnel to determine the structural condition of the various manhole components, as well as pipe defects detectable from the manhole. All observations of the field personnel were recorded on manhole inspection reports, copies of which are included in the Appendix of this report. In addition to the structural condition of the manhole and piping system, the depth, construction material of the manhole and pipe size and materials were also recorded. Infiltration sources observed in manholes were identified and the rate of leakage estimated or quantified where possible. Potential inflow sources, mainly through the manhole cover and frame were also noted. The various manhole components inspected included the cover; the frame; the riser (the section between the manhole wall and the manhole frame); the channel; the benching and the wall joints. The incoming and outgoing pipes in each manhole were "lamped" (inspected using high intensity light) where possible and defects such as joint misalignment, broken pipe and leaking joints were noted. This inspection was limited to 10 - 20 feet from the manhole due to visual limitations.

The chemical sewer and branches contained 41 manholes

and 14 chambers or entrance structures. Each manhole or structure was identified by a specific number starting with the first manhole at the sewer connection to the City of Clifton sewer system and proceeding upstream. Branches to the chemical sewer were numbered from the connection manhole with a subscript.

Table No. 1 is a summary of the manhole inspections performed. Most of the manholes in the system were found to be in reasonable condition, expecially along the chemical sewer. Many of the pits contained on the branches to the chemical sewer were found to contain no channels (to carry the flow through the pit). Without these channels the base of the pits were eroded in many cases. Likewise, some of the manholes on the branch sewers were without benching or channels that affected the flow conditions in the manholes and the condition of the base. No attempt was made to hydrostatic test each manhole or pit, however, it was evident that some leakage must be occuring from some of the structures, especially in the branches.

TABLE 1

GIVAUDAN CORPORATION
CLIFTON - NEW JERSEY
CHEMICAL SEWER INVESTIGATION
SUMMARY OF MANHOLE INSPECTION

MANHOLE NUMBER	LOCATION	STRUCTURAL CONDITION FRAME/COVER	WALLS	BASE	CONSTRUCTION MATERIAL	PIPE SIZE	DESCRIPTION OF DEFECTS
1	Chemical sewer	Wood-poor	Good	Good	Precast-Acid Brick	18"VCP	None evident
2	Chemical sewer	NOT INSPECTED DUE TO PRESENCE OF pH PROBE					None evident
3	Chemical sewer	Good	Good	ND	Block	18"VCP	None evident
4	Chemical sewer	None-Grate	Good	Good	Block	18"VCP	None evident
5	Chemical sewer	Good	Good	Good	Block	18"VCP	None evident
6	Chemical sewer	Wood	Good	ND	Precast	18"VCP	None evident
7	Chemical sewer @ Lime Tower	Wood	Good	ND	24"VCP	18"VCP	None evident
8	Chemical sewer @ Lime Tower	Good	Good	Good	Block	18"VCP	None evident
9	Chemical Sewer	NOT INSPECTED DUE TO PRESENCE OF pH PROBE				18"VCP	None evident
9-1	Branch-to Bldg. 95	Good	Good	None	Block-Acid Brick	12"VCP	No bench or channel
9-2	Branch-to Bldg. 95	Fair (shifted)	Worn	None	Block-Acid Brick	12"VCP	No bench or channel
9-3	Branch-to Bldg. 95			None	Block-Acid Brick	12"VCP	No bench or channel
10	Chemical sewer	Good	Good	Good	Block	18"VCP	Poor connection of side line
10-1	Branch-to Bldg. 79	NO MANHOLE - CLEAN OUT					
11	Chemical sewer	Good	Good	Worn	Block-Acid Brick	18"VCP	None evident

MANHOLE NUMBER	LOCATION	STRUCTURAL CONDITION FRAME/COVER	WALLS	BASE	CONSTRUCTION MATERIAL	PIPE SIZE	DESCRIPTION OF DEFECTS
11-1	Branch-to Bldg. 68	Worn	Good	Worn	Block	18/15"VCP	No channel
11-2	Branch-to Bldg. 68	Good	Good	Fair	Brick	18/15"VCP	None evident
11-3	Branch-to Bldg. 68	Worn	Good	Good	Brick	15"VCP	None evident
11-5	Branch-to Bldg. 58	Worn	Worn	None	Brick	10/12"VCP	None evident
11-7	Branch-to Bldg. 75	Good	Worn	Good	Block	12"VCP	None evident
11-8	Branch-chemical sewer	Loose	Worn	Worn	Brick	10/15"VCP	Poor channel
11-10	Branch-chemical sewer	Good	Worn	Loose	Block	12"VCP	Poor channel
11-11	Branch-chemical sewer	Worn	Worn	Worn	Brick	12"VCP	None evident
11-13	Branch-chemical sewer	Worn	Worn	Fair	Brick-Acid Brick	18"VCP	None evident
11-14	Branch-chemical sewer	None	Good	Poor	Precast/Brick	10"VCP	Poor channel
11-15	Branch-chemical sewer	Worn	Worn	Poor	Precast/Brick	15"VCP	Poor channel & walls
11-16	Branch-chemical sewer	Worn	Worn	None	Brick	12"VCP	Poor channel & benching
11-18	Branch-chemical sewer	None	None	None	3x3 Concrete Pit	8"VCP	None evident
12	Chemical sewer	Good	Worn	Worn	Block	18"VCP	None evident
13	Chemical sewer	Good	Good	Worn	Block	18"VCP	None evident
13-1	Branch-chemical sewer	Good	Good	None	Block	12"VCP	No benching
13-2	Branch-chemical sewer	Worn	Worn	None		18"VCP	Poor benching & channel
13-3	Branch-chemical sewer	Worn	Loose	Worn	Brick	18"VCP	Poor channel
13-5	Branch-chemical sewer	**CONCRETE PIT - NOT MANHOLE**			Concrete	8"CIP	None evident
13-6	Branch-chemical sewer	**DRAIN INLET - NOT MANHOLE**			Concrete	-	Abandoned
13-7	Branch-chemical sewer	**BRICK PIT - NOT MANHOLE**			Brick	8"VCP	None evident
13-8	Branch-chemical sewer	**CONCRETE PIT - NOT MANHOLE**			Concrete	10"VCP	Poor channel
13-9	Branch-chemical sewer	**CONCRETE PIT - NOT MANHOLE**			Concrete	6"VCP	Poor channel - bulkhead
13-10	Branch-chemical sewer	**CONCRETE PIT - NOT MANHOLE**			Concrete	6"VCP	Poor channel - bulkhead
13-13	Branch-chemical sewer	Worn	Good	None	Block	6"VCP	No channel
13-14	Branch-chemical sewer	**CONCRETE PIT - NOT MANHOLE**			Concrete	Not Visible	Poor walls - surcharged
13-12	Branch-chemical sewer	**CONCRETE PIT - NOT MANHOLE**			Concrete	6"CIP	No channel

MANHOLE NUMBER	LOCATION	STRUCTURAL CONDITION FRAME/COVER	WALLS	BASE	CONSTRUCTION MATERIAL	PIPE SIZE	DESCRIPTION OF DEFECTS
13-15	Branch-chemical sewer	Worn	Worn	None	Block	6"VCP	Poor channel - no benching
13-17	Branch-chemical sewer	Worn	None	None	24"VCP Pipe	6"VCP	Poor channel - no benching
14	Chemical sewer	Good	Good	Good	Block	24"VCP	None evident
15	Chemical sewer	Worn	Worn	Poor	Block	24"VCP	Poor channel
16	Chemical sewer	Worn	Worn	Poor	Block	24"VCP	Poor channel
17	Chemical sewer	Worn	Good	Poor	Block	18"VCP	Poor channel
17-1	Branch-chemical sewer	**CONCRETE PIT - NOT MANHOLE**			Concrete	8"VCP	No channel
18	Chemical sewer	Worn	Worn	Worn	Block	18"VCP	None evident
19	Chemical sewer	Worn	Broken	Worn	Brick	15"VCP	Poor walls & channel
20	Chemical sewer	None	Good	Poor	Brick	10"VCP	Poor channel
21	Chemical sewer	**CONCRETE PIT - NOT MANHOLE**			Concrete	8"VCP	Poor channel
22	Chemical sewer	**CONCRETE PIT - NOT MANHOLE**			Precast Concrete	8"VCP	Poor channel
23	Chemical sewer	**CONCRETE PIT - NOT MANHOLE**			Concrete Pit	10"VCP	Pit in poor condition
24	Chemical sewer	**BRICK PIT - NOT MANHOLE**			Brick Pit	10"VCP	Poor channel
25	Chemical sewer	**PIT CANNOT BE INSPECTED DUE TO PRESENCE OF NOXIOUS GASES**					

3.0 HYDROSTATIC TESTS

Each segment of the chemical sewer and its branches were tested, where possible, utilizing hydrostatic pressure to develop an estimate of potential exfiltration. The work was accomplished utilizing specially designed "plugs" that were installed in the sewer to isolate the reach and allow the development of a small pressure head in the sewer. Once developed the rate of water required to maintain the pressure head was measured over a short period of time. The measured rate was determined to be the exfiltration from the sewer reach under a small pressure head.

Some reaches could not be tested utilizing the above procedure in that pipe defects prevented the insertion of the necessary plugs. At these locations the pipe was filled with as much water as possible utilizing a temporary dam and again the leakage rate estabilshed but under a non-pressure head. The results of the hydrostatic tests are included in the Appendix of this report.

A summary of the results of the testing has been prepared as Table No. 2. The Table identifies the characteristics of the sewer reach being tested in terms not only of its length and diameter but also of the product of these two dimensions. A normal piping system constructed of vitrified tile pipe would be expected to leak through the joints of the pipeline (assuming the pipe is structually intact). The amount of leakage would

TABLE 2

GIVAUDAN CORPORATION
CLIFTON - NEW JERSEY
CHEMICAL SEWER INVESTIGATION
SUMMARY OF HYDROSTATIC TEST RESULTS

MANHOLE REACH FROM	MANHOLE REACH TO	PIPE DIMENSIONS SIZE (Inches)	PIPE DIMENSIONS LENGTH (Feet)	PIPE DIMENSIONS INCH-FEET	MEASURED EXFILTRATION RATE (GPM)	UNIFIED EXFILTRATION RATE (GPD/In-Ft)	POTENTIAL DAILY EXFILTRATION (GPD)
A. CHEMICAL SEWER							
1	2	18	17	306	0	0	0
2	Pit 35	18	38	684	0	0	0
Pit 35	3	18	19	432	0	0	0
3	4	18	64	1422	5.4	5.5	1300
Pit 74	6	18	265	4590	8.6	2.7	2400
9	10	18	141	2538	8.6	4.9	2400
10	11	18	121	2178	> 60.0	39.7	5700
11	12	18	235	4230	20.3	6.9	1800
12	13	18	38	684	11.0	23.2	1700
13	14	24	42	1281	**COULD NOT TEST**		-
14	15	24	140	3360	20.0	8.6	1100
15	16	24	67	1608	6.0	5.4	400
16	17	18	48	864	20.0	33.3	800
17	18	18	122	2196	14.3	9.4	700
18	19	15	82	1302	27.8	30.7	4200
19	20	10	82	820	41.7	73.2	3900
20	21	10	43	430	1.6	5.4	300
21	22	8	48	384	> 60.0	>225.0	4800
22	23	8	250	2000	> 60.0	> 43.2	4000

MANHOLE REACH FROM	TO	PIPE DIMENSIONS SIZE (Inches)	LENGTH (Feet)	INCH-FEET	MEASURED EXFILTRATION RATE (GPM)	UNIFIED EXFILTRATION RATE (GPD/InFt)	POTENTIAL DAILY EXFILTRATION (GPD)
B. BRANCH SEWER (STARTING @ MANHOLE 9)							
9	9-1	12	158	1896	62.5	47.5	2100
9-1	9-2	12	45	540	11.1	29.6	1000
9-2	9-3	12	42	504	9.6	27.4	300
9-2	9-5	12	74	888	760.0	> 97.3	5200
9-3	9-4	8	43	344	COULD NOT TEST		-
C. BRANCH SEWER (STARTING @ MANHOLE 10)							
10	10-1	12	358	4296	2.0	0.7	200
D. BRANCH SEWER (STARTING @ MANHOLE 11)							
11	11-1	18	78	1404	16.7	17.1	1700
11-1	11-2	15	103	1545	29.4	27.4	2300
11-2	11-3	18	26	468	0	0	0
11-3	11-4	10	161	1610	> 60.0	> 53.7	2100
11-3	11-5	12	38	456	> 60.0	> 189.5	2400
11-5	11-6	10	163	1630	1.5	1.3	200
11-2	11-7	12	232	2784	8.8	4.6	1100
11-7	11-8	18	48	864	> 60.0	> 100.0	3000
11-8	11-9	10	154	1540	29.4	27.5	3800
11-7	11-10	12	72	864	4.9	8.2	400
11-10	11-11	12	34	408	8.6	30.4	700
11-11	11-12	10	164	1640	> 60.0	> 52.7	2600
11-11	11-13	18/15	63	1044	20.0	27.6	1700
11-13	11-14	10	46	460	10.0	31.3	900
11-13	11-15	12	66	792	COULD NOT TEST		-
11-15	11-16	12	22	264	COULD NOT TEST		-
11-16	11-18	8	83	664	23.8	51.6	2000

MANHOLE REACH FROM	TO	PIPE DIMENSIONS SIZE (Inches)	LENGTH (Feet)	INCH-FEET	MEASURED EXFILTRATION RATE (GPM)	UNIFIED EXFILTRATION RATE (GPD/In-Ft)	POTENTIAL DAILY EXFILTRATION (GPD)
E. BRANCH SEWER (STARTING @ MANHOLE 13)							
13	13-1	12	170	2040	6.5	4.6	300
13-2	13-3	18	26	468	COULD NOT TEST		-
13-3	13-4	8	57	456	5.4	17.1	200
13-4	13-5	8	14	112	0	0	0
13-4	13-7	8	54	392	1.0	3.7	100
13-7	13-8	8	25	296	> 60.0	> 291.9	2600
13-8	13-9	6	25	228	1.3	8.2	100
13-7	13-11	6	198	1296	25.0	27.8	1100
13-11	13-12	6	35	210	1.2	8.2	100
13-12	13-13	6	27	162	0.7	6.2	100
13-11	13-14	6	44	312	> 60.0	> 276.9	2600
13-14	13-15	6	59	354	10.7	43.5	400
F. BRANCH SEWER (STARTING @ MANHOLE 17)							
17	17-1	8	62	496	15.0	43.5	600
G. BRANCH SEWER (STARTING @ MANHOLE 19)							
19	19-1	10	128	1280	> 60.0	> 67.5	1500
H. BRANCH SEWER (STARTING @ MANHOLE 20)							
20	20-1	10	159	1590	> 60.0	> 54.3	1500

be proportional to the circumference of the pipeline and the number of joints contained therein. Both of these factors are considered in the product of the diameter of the pipeline and its length. As such, the developed dimension of the pipeline, (in terms of inch/feet) is a means of evaluated leakage from the various segments of the chemical sewer and its branches on a unified basis. Table No. 2 also contains the measured exfiltration determined from the hydrostatic test, as well as the developed unified exfiltration rate, based upon the diameter and length of the individual segments. Finally, the Table contains an estimate of potential exfiltration from each segment of the chemical sewer and its branches in terms of Gallons Per Day (GPD) of leakage. This estimate was developed utilizing the measured exfiltration rate and the anticipated depth of gravity flow in each sewer segment, as well as the results of the internal inspection performed on the pipeline. As such, consideration was given for the rate measured, relative to the anticipated depth of flow in the sewer during a typical daily production cycle and the condition of the pipeline. Segments with broken pipe in the lower quadrants of the pipeline were given particular consideration, since the potential for exfiltration at these locations is significantly greater then through joint openings. Nevertheless, a poorly jointed or misaligned pipeline can produce significant exfiltration.

A summary of the potential daily exfiltration for the principle chemical sewer and each of its branches is shown hereafter.

SUMMARY OF POTENTIAL DAILY EXFILTRATION

BRANCH	GALLONS PER DAY	PRECENT OF TOTAL
Chemical sewer (main branch)	35,500	44.4
Branch starting @ MH-9	8,600	10.7
Branch starting @ MH-10	200	0.2
Branch starting @ MH-11	24,900	31.0
Branch starting @ MH-13	7,600	9.4
Branch starting @ MH-17	600	0.7
Branch starting @ MH-19	1,500	1.8
Branch starting @ MH-20	1,500	1.8
TOTAL FOR CHEMICAL SEWER	80,400	

The total estimated potential daily exfiltration was determined to be about 80,000 GPD. Of this total about 44% was thought to occur along the chemical sewer with the remaining 56% in the branches of the chemical sewer. Of the 7 branches to the chemical sewer, the principle branch (starting at manhole No. 11) was thought to produce the greatest amount of leakage (over 31% of the total). It is important to note, however, that the estimate of potential daily exfiltration was developed utilizing the results of an hydrostatic test performed under a low head condition. For the most part, this condition is not prevalent

in the system and as such, the estimated daily exfiltration of 80,000 GPD should be considered only as an order of magnitude estimate. Of importance, however, is the location where the majority of leakage is occuring, namely along the main branch of the chemical sewer and the branch starting at manhole No. 11. These two piping systems were estimated to contribute over 75% of the exfiltration in the system while comprising only 65% of the total length of the system.

Plate "A" shows the results of the hydrostatic test procedure utilizing the developed unified exfiltration rate. A convenient symbol is included in the evaluation of each reach, based upon an estimate of minor, moderate and significant leakage. Most of the significant leakage was found to occur in the branches of the system rather then in the main chemical sewer.

4.0 BUILDING CONNECTION INVESTIGATION

An investigation of the building connections to the chemical sewer and its branches was undertaken to determine the potential for exfiltration from these connections. The original intention of the investigation of the building connections was to estimate leakage that could occur in each connection. This work was to be accomplished with the use of a "packer" assembly during the internal inspection of the chemical sewer or its branches. The "packer" will provide a seal of one end of the connection and allow the introduction of test water to the other end.

During the internal inspection of the chemical sewer and its branches it was found that the introduction of the Packer assembly could not be accomplished in many cases. As such, the sealing of one end of the connection was not possible.

As an alternative to this testing procedure a visual inspection of each of the connections was undertaken. The results of this inspection are shown on the following summary that includes a describtion of the connection by the field personnel performing the inspection. Connections were identified utilizing the building number and a letter subscript from the first connection at the downstream end of the building to the last connection at the upstream end. Plate "A" shows the number sequence utilized, for future reference.

Many of the connections were found to be in poor condition with open joints and cracks that could allow exfiltration.

No estimate, however, has been prepared of the amount of exfiltration that could occur at each connection. The summary of the inspection includes a determination of possible exfiltration for those connections that appeared to be in poor condition. Copies of the inspection description are included in the Appendix of the report.

GIVAUDAN CORPORATION

CLIFTON - NEW JERSEY

CHEMICAL SEWER INVESTIGATION

SUMMARY OF BUILDING CONNECTION INVESTIGATION

CONNECTION DESIGNATION	BUILDING SERVING	CONNECTION DIMENSIONS TROUGH SIZE	CONNECTION DIMENSIONS CONNECTION SIZE	DESCRIPTION OF DEFECTS TROUGH	DESCRIPTION OF DEFECTS CONNECTION	POSSIBLE EXFILTRATION
9-4A, B, C, D	93	12" concrete	8" VTP	Worn	(see II)	CND
9-6A	94	12" concrete	8" VTP	Slightly worn	(see II)	CND
9-5A, B, C, D, E	95	None	4" VTP	None	CNI	CND
9-7A	95	None	4" VTP	None	CNI	CND
9-7B	95	None	4" Steel	None	CNI	CND
10-A	79	12" lead lined	CNI	Openings	CNI	CND
10-B	79	12" V.C.	CNI	Misaligned, cracks	CNI	Possible
10-C	80	12" V.C.	CNI	Misaligned, joints open	CNI	Possible
10-D	80	12" V.C.	CNI	Joints open, cracks	CNI	Possible
10-E	81	10" V.C.	CND	Grating prevented inspection	Cracks & breaks	Possible
10-F	81	12" V.C.	CNI	Fair condition	CNI	CND
10-G	82	12" V.C.	CND	Joints open, cracks @ invert	Appears good	Observed

CND - COULD NOT DETERMINE CNI - COULD NOT INSPECT II - INTERNAL INSPECTION

GIVAUDAN CORPORATION

CLIFTON - NEW JERSEY

CHEMICAL SEWER INVESTIGATION

SUMMARY OF BUILDING CONNECTION INVESTIGATION

CONNECTION DESIGNATION	BUILDING SERVING	CONNECTION DIMENSIONS TROUGH SIZE	CONNECTION DIMENSIONS CONNECTION SIZE	DESCRIPTION OF DEFECTS TROUGH	DESCRIPTION OF DEFECTS CONNECTION	POSSIBLE EXFILTRATION
10-H	82	12" V.C.	CND	Joints open, cracks @ invert	Worn	Possible
10-I	83B	None	2-4" V.C.	None	Broken pipe observed	Possible
10-J, K	83A	None	CNI	None	CNI	CND
11-3A, B, C, D	68	**COULD NOT LOCATE DUE TO EQUIPMENT & ACID SPILLS ON FLOOR**				CND
11-5A	58	8" V.C.	CND	Inactive good	CNI	CND
11-5B	58	8" V.C.	CND	Some cracks joints good	Some cracks	Possible @ connection
11-5C	59	8" V.C.	CNI	Some cracks	CNI	CND
11-5D	59	8" V.C.	CND	Cracks at invert	Poor connection	Possible @ connection
11-5E	60	8" V.C.	CND	Good condition	Poor alignment	Possible @ connection
11-5F	60	8" V.C.	CND	Some joints open	CNI	CND
11-5G	61	8" V.C.	CND	Some cracks	Slightly worn	CND
11-5H	61	8" V.C.	CND	Joints open, broken pipe	Cracks in drain	Possible
11-5I	62	8" V.C.	CND	Good condition	Good condition	CND

GIVAUDAN CORPORATION

CLIFTON - NEW JERSEY

CHEMICAL SEWER INVESTIGATION

SUMMARY OF BUILDING CONNECTION INVESTIGATION

CONNECTION DESIGNATION	BUILDING SERVING	CONNECTION DIMENSIONS		DESCRIPTION OF DEFECTS		POSSIBLE EXFILTRATION
		TROUGH SIZE	CONNECTION SIZE	TROUGH	CONNECTION	
11-5J	62	8" V.C.	CND	Limited access - inspenction difficult		CND
11-5K	63	8" V.C.	CND	Debris in drain	Good condition	CND
11-5L	63	8" V.C.	CND	Joints open, cracks	Good condition	Possible @ trough
11-5M	64B	None	2-C.O.	None	No visible defects	CND
11-9A	52	8" V.C.	CND	Joints open, cracks	CNI	CND
11-9B	52	8" V.C.	CND	Good condition	CNI	CND
11-9C	53	8" V.C.	CND	Good condition	CNI	CND
11-9D	53	8" V.C.	CND	Good condition	CNI	CND
11-9E	54	8" V.C.	CND	Minor cracks	Good condition	CND
11-9F	54	8" V.C.	CND	Joints open	Worn	Possible
11-9G	55					

GIVAUDAN CORPORATION

CLIFTON - NEW JERSEY

CHEMICAL SEWER INVESTIGATION

SUMMARY OF BUILDING CONNECTION INVESTIGATION

CONNECTION DESIGNATION	BUILDING SERVING	CONNECTION DIMENSIONS TROUGH SIZE	CONNECTION DIMENSIONS CONNECTION SIZE	DESCRIPTION OF DEFECTS TROUGH	DESCRIPTION OF DEFECTS CONNECTION	POSSIBLE EXFILTRATION
11-9H	55					
11-9I	56	8" V.C.	CND	Joints open, cracks	Drains clogged	Possible
11-9J	56	8" V.C.	CND	Joints open, cracks	Drains clogged	Possible
11-9K	57	8" V.C.	CND	Joints open, cracks	CND	Possible
11-9L	57	8" V.C.	CND	Joints open, cracks	CND	Possible
11-8A	65	None	6" VCP	None	Open joint observed	Possible
11-11A	92	12" concrete	CND	Not in use	CND	CND
11-11B	42	12" V.C.	CND	Joints open, cracks	CND	Possible
11-11C	42	12" V.C.	CND	Joints open, cracks	Crack in drain	Possible
11-11D	43	12" V.C.	CND	Joints open	CNI	Possible
11-11E	43	12" V.C.	CND	Joints open	CNI	Possible
11-11F	44	12" V.C.	CND	Joints open, cracks	None evident	CND
11-11G	44	12" V.C.	CND	Joints open, cracks	None evident	CND

GIVAUDAN CORPORATION

CLIFTON - NEW JERSEY

CHEMICAL SEWER INVESTIGATION

SUMMARY OF BUILDING CONNECTION INVESTIGATION

CONNECTION DESIGNATION	BUILDING SERVING	CONNECTION DIMENSIONS		DESCRIPTION OF DEFECTS		POSSIBLE EXFILTRATION
		TROUGH SIZE	CONNECTION SIZE	TROUGH	CONNECTION	
11-11H	45	12" V.C.	CND	Joints slightly open	Some cracks	Possible
11-11I	45	12" V.C.	CND	Joints slightly open	None	Possible
11-11J	46	12" V.C.	CND	Misaligned, slightly open	Joints open, crack	Porrible
11-11K	46	12" V.C.	CND	Misaligned slightly open	Joints open crack	Possible
11-11L	47	12" C.I.	CND	Good-some sealing needed	None evident	CND
11-11M	47	12" C.I.	CND	Good-some sealing needed	CND	CND
11-11N	75	12" C.I.	CND	Inactive drain	CND	CND
11-10A, B	200	None	6" VTP	None	Poor Alignment, open	Possible
11-14A, B, C, D, E F. G	36A	8" V.C.	CND	None evident	-	CND

GIVAUDAN CORPORATION

CLIFTON - NEW JERSEY

CHEMICAL SEWER INVESTIGATION

SUMMARY OF BUILDING CONNECTION INVESTIGATION

CONNECTION DESIGNATION	BUILDING SERVING	CONNECTION DIMENSIONS		DESCRIPTION OF DEFECTS		POSSIBLE EXFILTRATION
		TROUGH SIZE	CONNECTION SIZE	TROUGH	CONNECTION	
11-14H	36B	6" concrete	CND	Slightly worn	CND	CND
11-14I	36B	None	CNI	-	Beneath floor	CND
11-14J	36B	8" V.C.	CND	Joint open slightly	CND	CND
11-16A	35	Drain inlet	4" VTP	-	Pipe misaligned	Possible
11-17A	35C	-	8" VTP	None	Joints open	Possible
11-13A	Cooling tower	None	Could not inspect	-	-	CND
11-19A	36B	None	CNI	None	Connection under floor	CND
13-1A	72	None	4" CIP	None	No visible defects	CND
13-2A	26	None	6" VTP	None	Broken pipe	Possible
13-3A	200	None	4" VTP	None	Slightly misaligned	CND
13-2B	200	None	CNI	Steam in manhole	CNI	CND
13-9A	89	10" concrete	CNI	slightly worn	CNI	CND

GIVAUDAN CORPORATION

CLIFTON - NEW JERSEY

CHEMICAL SEWER INVESTIGATION

SUMMARY OF BUILDING CONNECTION INVESTIGATION

CONNECTION DESIGNATION	BUILDING SERVING	CONNECTION DIMENSIONS TROUGH SIZE	CONNECTION DIMENSIONS CONNECTION SIZE	DESCRIPTION OF DEFECTS TROUGH	DESCRIPTION OF DEFECTS CONNECTION	POSSIBLE EXFILTRATION
13-10A	89	10" concrete	CNI	slightly worn	CNI	CND
13-12A	7	None	4" CIP	None	None evident	CND
13-13A	7	None	6" CIP	None	None evident	CND
13-13B	7	None	CNI	None	CNI	CND
13-14A	7A	None	CNI	**PIT SURCHARGED - COULD NOT INSPECT**		CND
13-14B, C	7A	Concrete	6" VTP	Slightly worn	CND	CND
13-14D, E	7A	None	CND	Cleanouts surcharged	CNI	CND
13-15A, B, C, D	27	None	6" VTP	None	Misaligned joints on all	CND
13-17A	7	None	4" CIP	None	Fair condition	CND
13-17B	7	None	6" CIP	None	None evident	CND
16A, B, E, F, G	26	None	CND	**COMPLETE INSPECTION NOT POSSIBLE - PIPE SECTION MISSING**		Possible
16C, D	26	None	3" steel	None	Leaking connection to floor	Possible
18A	72	None	10" VTP	None	Could not inspect due to fumes	CND

GIVAUDAN CORPORATION

CLIFTON - NEW JERSEY

CHEMICAL SEWER INVESTIGATION

SUMMARY OF BUILDING CONNECTION INVESTIGATION

CONNECTION DESIGNATION	BUILDING SERVING	CONNECTION DIMENSIONS TROUGH SIZE	CONNECTION DIMENSIONS CONNECTION SIZE	DESCRIPTION OF DEFECTS TROUGH	DESCRIPTION OF DEFECTS CONNECTION	POSSIBLE EXFILTRATION
19A	28	8" V.C.	CND	Good condition	Misaligned	CND
19B	28	8" Concrete	CND	Worn	Poor condition	Possible @ connection
19C	29	8" V.C.	CND	Joints open errosion	Fair	Possible in trough
19D	29	8" V.C.	CND	Worn	Worn	Possible
19E	30	8" V.C.	CND	Cracks @ invert	None evident	Possible in trough
19F	30	Plastic liner	CND	Flow spill over liner	CNI	Possible in trough
19G	31	8" concrete	CND	Worn	CNI	CND
19H	31	8" concrete	CND	Worn	CNI	CND
19I	32E	None	6" CIP	None	No visible defects	CND
20A	22	CND	CND	Boiling water being discharged	CNI	CND
20B	22	CND	CND	Boiling water being discharged	CNI	CND
20C	22	8" V.C.	CND	Some cracks	Poor condition	Possible

GIVAUDAN CORPORATION

CLIFTON - NEW JERSEY

CHEMICAL SEWER INVESTIGATION

SUMMARY OF BUILDING CONNECTION INVESTIGATION

CONNECTION DESIGNATION	BUILDING SERVING	CONNECTION DIMENSIONS		DESCRIPTION OF DEFECTS		POSSIBLE EXFILTRATION
		TROUGH SIZE	CONNECTION SIZE	TROUGH	CONNECTION	
20D	23	8" V.C.	CND	Joints open	Poor condition	Possible
20E	23	Concrete	CND	None evident	Poor condition	Possible
20F	24	4" concrete	CND	Hole near connection	CNI	Possible
20G	24	4" concrete	CND	Poor - errosion evident	Cracked pipe	Possible
20H	25	concrete	CND	Poor- errosion evident	Cracked pipe	Possible
20I	25	V.T./concrete	CND	Break in trough	Worn	Possible
20J	76	Covered CNI	CND	Not in use	CNI	CND
20K	76	Covered CNI	CND	Not in use	CNI	CND
21A	22	3" C.I.P.	4" VTP	Spills from CIP-directly to soil	Joints open	Possible
24A	9	None	CND	None	None evident	CND

5.0 INTERNAL INSPECTION

An internal inspection was made of most of sewer reaches comprising the chemical sewer and its branches. The inspection included first the cleaning of each reach utilizing an hydraulic jet or other appropriate equipment. The subsequent internal inspection of the sewer by a small portable television camera provided a view of the interior of the sewer that was permanently recorded on video tape for future reference and review. Both the cleaning and internal inspection of the sewers was undertaken by Robinson Pipe Cleaning Co., a contractor skilled in this type of work. At several locations in the system, the contractor was unable to televise the sewer due to colapsed pipe, significant blockages or other factors that effected the internal inspection. The length of various size pipe cleaned and inspected is summarized on the Table No. 3, that also includes the length of sewers not televised. Approximately 85 percent of the total system (not including minor connections) was inspected, including the majority of the principal sewer.

Individual field logs or records were prepared for all sewer reaches inspected. The logs identified the location of the sewer, its size, material of construction, length, as well as the location of other pertinent features observed during the video inspection. These features normally include the location of joints, both leaking and non-leaking, circumferencial

TABLE 3
GIVAUDAN CORPORATION
CHEMICAL SEWER DIMENSIONS
(Based Upon Internal Inspection Results)

PIPE SIZE (Dia./Mat.)	SEWERS INSPECTED Reaches	SEWERS INSPECTED Length (ft)	SEWERS NOT INSPECTED Reaches	SEWERS NOT INSPECTED Length (ft)	% of System
24" VTP	4	312	-	-	5.2
18" VTP	15	1286	2	317	26.6
15" VTP	2	185	-	-	3.1
12" VTP	12	1211	-	-	20.1
10" VTP	9	1100	-	-	18.2
8" VTP	10	615	5	419	17.1
6" VTP/CIP	6	425	4	160	9.7
TOTAL	58	5134	11	896	100.0

TOTAL SYSTEM 69 Reaches
6030 LF - Sewer

cracks, longitudinal cracks, broken pipe, building connections, pipe sections out of alignment, open joints, low spots (where water or sediment is trapped) and other visible defects. The equipment utilized permitted a simultaneous vocal interpretation and account of the internal inspection on the video recording tapes. The record included references to length of pipe reviewed (for the accurate location of each condition observed) as well as conditions encountered. As such, internal inspection provided a detailed record of the conditions of the interior of the sewer from manhole to manhole. The video tapes are maintained on file for future reference.

The internal inspection provided detailed information necessary to determine the condition of the pipeline as it may relate to the potential for exfiltration from the sewer. The visual inspection will also be useful in estimating rehabilitation cost for the sewers inspected. The results of the internal inspection have been included in the Appendix of this report both in a summary form as a field log and as a graphical representation, included in this section.

The investigation involved the inspection of over six thousand feet of the chemical sewer and its branches. A summary of the internal inspection, including specific data on the internal condition of the pipeline is shown on Table 4. The location of poorly aligned joints, cracks and all broken pipe was of immediate concern in this project since the potential for exfiltration is high at locations where

these defects are found. Plate "A" included in the rear of this report shows the chemical sewer system and identifies (in summary format) the results of the internal inspection and hydrostatic testing described hereafter. A code has been included on the Plate to show reaches where visible defects were found to be significant. In evaluation of the 58 segments of sewer inspected (comprising about 5,134 lineal feet of sewer) it was apparent that the majority of the sewers (over 93%) exhibited some type of defect, while over 25% of the total sewers were found to be in poor condition either as severly eroded pipe or broken pipe.

A direct correlation between the condition of the pipeline and the hydrostatic test results could not be made in many sewers, due to the presence of broken pipe. The evaluation shown on Plate "A" of the condition of the pipeline was based solely upon the visual inspection and not by the hydrostatic test. As such, the viewers experienced opinion of the pipe condition became the basis for the evaluation shown.

TABLE 4

GIVAUDAN CORPORATION
CLIFTON - NEW JERSEY
CHEMICAL SEWER INVESTIGATION
SUMMARY OF INTERNAL INSPECTION

MANHOLE REACH FROM	TO	PIPE DIMENSIONS SIZE (Inches)	LENGTH (Feet)	MATERIAL	DEFECTS OBSERVED JOINTS OUT OF ALIGNMENT (Number)	CRACKED PIPE Location Number	BROKEN PIPE Location Number	DESCRIPTION OF PIPE CONDITION PIPE	JOINTS	OTHER
A. CHEMICAL SEWER										
1	2	18	17	VTP	1	0	0	Good	Misaligned	None
2	Pit 35	18	38	VTP	4	0	0	Good	Misaligned	None
Pit 35	3	18	19	VTP	0	0	0	Good	Misaligned	None
3	4	18	64	VTP	3	0	0	Good	Misaligned	None
Pit 74	6	18	265	VTP	10	3	0	Good	Misaligned	None
9	10	18	141	VTP	1	1	0	Good	Good	Crack @ MH 9
10	11	18	121	VTP	4	3	0	Fair	Good	None
11	12	18	235	VTP	11	2	0	Fair	Misaligned	Break in pipe - deposits
12	13	18	38	VTP	8	1	0	Good	Misaligned	None
13	14	24/21	42	VTP	6	0	0	Good(24")	Misaligned	Poor condition @ 21"
14	15	24	140	VTP	4	0	0	Fair	Fair	Pipe walls are eroded
15	16	24	67	VTP	1	2	1	Good	Fair	Pipe invert cracked
16	17	18	48	VTP	1	0	0	Good	Good	None
17	18	18	122	VTP	3	4	0	Good	Fair	None
18	19	15	82	VTP	14	0	0	Good	Poor	Joints Open

MANHOLE NAME	REACH TO	PIPE DIMENSIONS SIZE (Inches)	LENGTH (Feet)	MATERIAL	DEFECTS OBSERVED JOINTS OUT OF ALIGNMENT (Number)	CRACKED PIPE Location Number	BROKEN PIPE Location Number	DESCRIPTION OF PIPE CONDITION PIPE	JOINTS	OTHER
19	20	10	82	VTP	4	3	0	Good	Good	None
20	21	10	43	VTP	2	3	0	Good	Poor	None
21	22	8	17	VTP	PIPE IS COLLAPSED - INSPECTION NOT POSSIBLE					
22	23	8	250	VTP	27	36	1	Fair	Poor	Pipe is broken
B. BRANCH SEWER (STARTING @ MANHOLE 9)										
9	9-1	12	158	VTP	1	0	1	Good	Misaligned	Broken pipe
9-1	9-2	12	45	VTP	1	2	2	Fair	Open	Broken pipe
9-2	9-3	12	42	VIP	6	2	0	Good	Misaligned	None
9-3	9-4	8	43	VTP	2	0	0	Good	Good	Entire pipe was not inspected
9-3	9-6	8	10	VTP	2	0	0	Good	Open	Entire pipe was not inspected
9-2	9-5	12	74	VTP	4	15	1	Fair	Fair	Pipe broken
C. BRANCH SEWER (STARTING @ MANHOLE 10)										
10	10-1	12	358	VTP	3	3	0	Fair	Fair	Deposits
D. BRANCH SEWER (STARTING @ MANHOLE 11)										
11	11-1	18	78	VTP	6	0	0	Good	Misaligned	None
11-1	11-2	15	103	VTP	7	0	0	Good	Misaligned	None
11-2	11-3	18	26	VTP	6	0	0	Fair	Misaligned	None
11-3	11-4	10	161	VTP	8	1	1	Fair	Misaligned	Broken pipe
11-5	11-6	10	163	VTP	7	2	0	Good	Misaligned	None
11-3	11-5	12	38	VTP	7	0	0	Good	Open	None

MANHOLE NAME	REACH TO	PIPE DIMENSIONS SIZE (Inches)	LENGTH (Feet)	MATERIAL	DEFECTS OBSERVED JOINTS OUT OF ALIGNMENT (Number)	CRACKED PIPE Location Number	BROKEN PIPE Location Number	DESCRIPTION OF PIPE CONDITION PIPE	JOINTS	OTHER
11-2	11-7	12	232	VTP	13	5	0	Fair	Fair	None
11-7	11-8	18	48	VTP	13	0	1	Fair	Badly Misaligned	Broken pipe
11-8	11-9	10	154	VTP	27	3	0	Good	Misaligned	Deposits
11-7	11-10	12	72	VTP	9	0	0	Good	Misaligned	None
11-10	11-11	12	34	VTP	4	1	0	Fair	Poor	Deposits
11-11	11-12	10	164	VTP	29	9	2	Fair	Poor	Broken pipe
11-11	11-13	18/12	63	VTP	7	3	2	Fair	Poor	Broken pipe
11-13	11-14	10	46	VTP	10	1	0	Fair	Poor	None
11-13	11-15	12	66	VTP	9	4	0	Fair	Poor	None
11-15	11-16	12	22	VTP	4	2	1	Fair	Poor	Broken pipe
11-16	11-18	8	83	VTP	15	5	0	Good	Misaligned	None
E. BRANCH SEWER (STARTING @ MANHOLE 13)										
13	13-1	12	170	VTP	29	2	0	Fair	Misaligned	None
13-2	13-3	18	26	VTP	5	7	2	Fair	Fair	Broken pipe
13-3	13-4	8	57	VTP	6	1	0	Fair	Fair	None
13-4	13-7	8	54	VTP	7	1	0	Good	Fair	Bend in pipe
13-4	13-5	8	14	CIP	0	0	0	Good	Good	None
13-7	13-8	8	25	VTP	2	1	0	Poor	Poor	Poor condition
13-8	13-9	6	36	VTP/CIP	2	2	0	Poor	Poor	Heavy errosion
13-7	13-11	6	216	VTP/CIP	1	2	0	Poor	Poor	Heavy errosion
13-11	13-14	6	52	VTP/CIP	10	4	1	Poor	Poor	Broken pipe
13-11	13-12	6	35	CIP	0	0	0	Poor	Good	None
13-12	13-13	6	27	CIP	0	0	0	Poor	Good	Heavy errosion
13-14	13-15	6	59	VTP	4	5	0	Poor	Poor	Poor condition

MANHOLE NAME	REACH TO	PIPE DIMENSIONS SIZE (Inches)	LENGTH (Feet)	MATERIAL	DEFECTS OBSERVED JOINTS OUT OF ALIGNMENT (Number)	CRACKED PIPE (Location Number)	BROKEN PIPE (Location Number)	DESCRIPTION OF PIPE CONDITION PIPE	JOINTS	OTHER
F. BRANCH SEWER (STARTING @ MANHOLE 17)										
17	17-1	8	62	VTP	14	1	0	Good	Fair	None
G. BRANCH SEWER (STARTING @ MANHOLE 19)										
19	19-1	10	128	VTP	14	7	2	Fair	Poor	Broken pipe
H. BRANCH SEWER (STARTING @ MANHOLE 20)										
20	20-1	10	159	VTP	7	5	1	Fair	Fair	Broken pipe

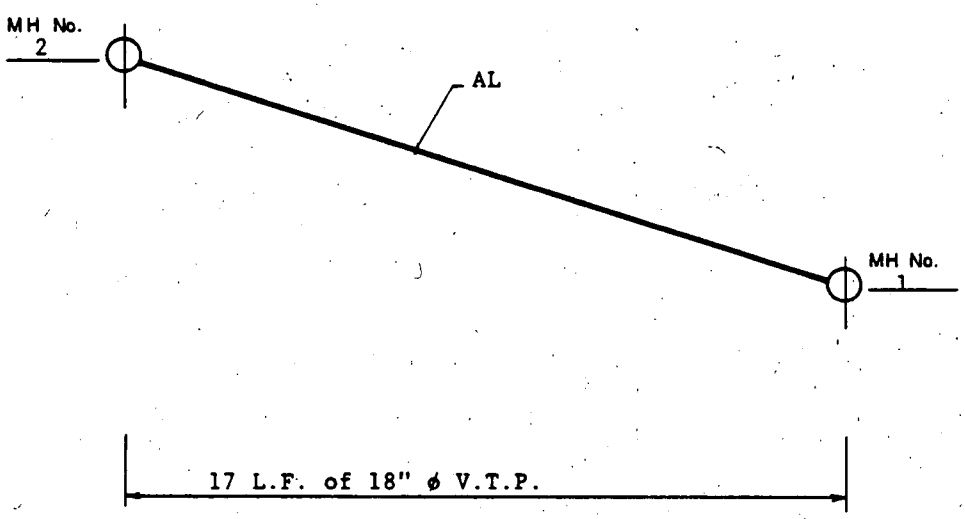
SEWERS THAT COULD NOT BE INSPECTED

CHEMICAL SEWER

8	9	-	Sewer Surcharged
23	24	-	Dangerous sewer atmosphere
24	25	-	Dangerous sewer atmosphere

BRANCH SEWERS

11-10	11-19	-	Bend in sewer - equipment could not pass
11-15	11-17	-	Bend in sewer - equipment could not pass
11-16	11-20	-	Could not install equipment through cleanout
13	13-2	-	Significant blockage under building - so prevented inspection & cleaning
13-2	Bldg. 26	-	Bend in sewer - equipment could not pass
13-9	13-10	-	Bend in sewer - equipment could not pass
13-13	13-16	-	Equipment could not be installed in manhole
13-14	13-14A	-	Equipment could not be installed in trough



PROJECT No. 106
CLIENT Givaudan Corporation
LOCATION Building 91
MANHOLE REACH 2 to 1
VIDEO TAPE No. TV-16-5
INDEX 142 - 169

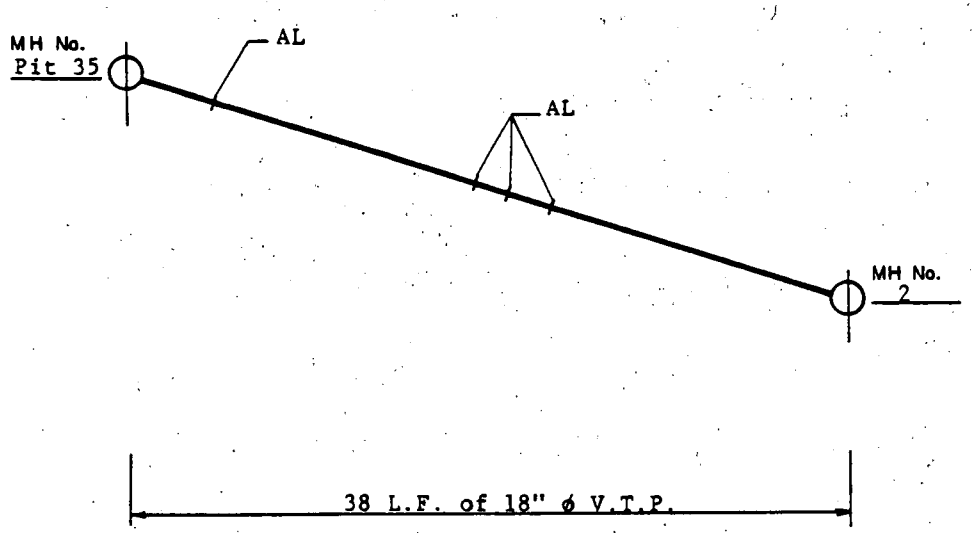
LEGEND

LK - LEAKING
CC - CIRCUMFERENCIAL CRACK
LC - LONGITUDINAL CRACK
CR - CRACK
BP - BROKEN PIPE
BC - BUILDING CONNECTION
RT - ROOTS
AL - OUT OF ALIGNMENT
OJT - OPEN JOINT
LS - LOW SPOT
H - HOLE
ACP - ASBESTOS CEMENT PIPE
VTP - VITRIFIED TILE PIPE
CIP - CAST IRON PIPE
GPD - GALLONS PER DAY
GPM - GALLONS PER MINUTE

MEASURED EXFILTRATION RATE 0(0) GPM (GPD)
INCH-FEET OF REACH 306
UNIFIED EXFILTRATION RATE 0 GPD/INCH-FEET

SEWER SYSTEM INVESTIGATION
RESULTS OF
INTERNAL INSPECTION

CFM INCORPORATED
ENVIRONMENTAL ENGINEERING SERVICES



PROJECT No. 106
CLIENT Givaudan Corporation
LOCATION Building 91
MANHOLE REACH Pit 35 to 2
VIDEO TAPE No. TV-16-5
INDEX 096 to 142

LEGEND

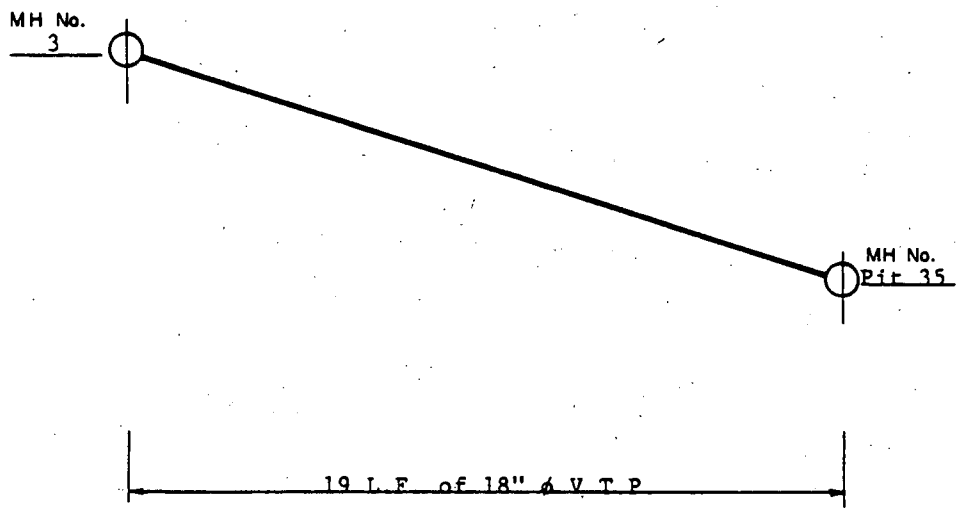
LK – LEAKING
CC – CIRCUMFERENCIAL CRACK
LC – LONGITUDINAL CRACK
CR – CRACK
BP – BROKEN PIPE
BC – BUILDING CONNECTION
RT – ROOTS
AL – OUT OF ALIGNMENT
OJT – OPEN JOINT
LS – LOW SPOT
H – HOLE
ACP – ASBESTOS CEMENT PIPE
VTP – VITRIFIED TILE PIPE
CIP – CAST IRON PIPE
GPD – GALLONS PER DAY
GPM – GALLONS PER MINUTE

MEASURED EXFILTRATION RATE 0 (0) GPM (GPD)
INCH-FEET OF REACH 684
UNIFIED EXFILTRATION RATE 0 GPD/INCH-FEET

SEWER SYSTEM INVESTIGATION
RESULTS OF
INTERNAL INSPECTION

CFM INCORPORATED
ENVIRONMENTAL ENGINEERING SERVICES

PROJECT No. 106
CLIENT Givaudan Corporation
LOCATION Building 91
MANHOLE REACH 3 to Pit 35
VIDEO TAPE No. TV-16-5
INDEX 075 to 096



LEGEND

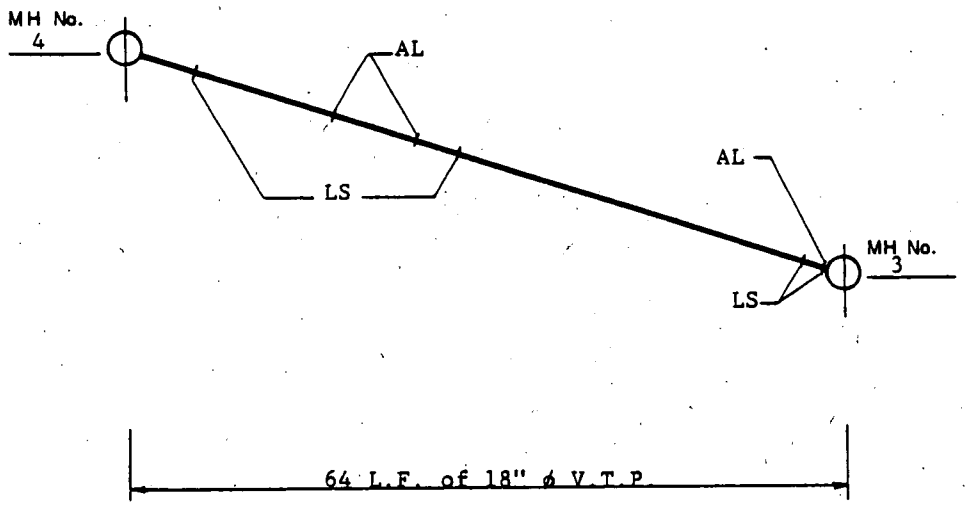
LK - LEAKING
CC - CIRCUMFERENCIAL CRACK
LC - LONGITUDINAL CRACK
CR - CRACK
BP - BROKEN PIPE
BC - BUILDING CONNECTION
RT - ROOTS
AL - OUT OF ALIGNMENT
OJT - OPEN JOINT
LS - LOW SPOT
H - HOLE
ACP - ASBESTOS CEMENT PIPE
VTP - VITRIFIED TILE PIPE
CIP - CAST IRON PIPE
GPD - GALLONS PER DAY
GPM - GALLONS PER MINUTE

MEASURED EXFILTRATION RATE 0 (0) / GPM (GPD)
INCH-FEET OF REACH 432
UNIFIED EXFILTRATION RATE 0 GPD/INCH-FEET

SEWER SYSTEM INVESTIGATION
RESULTS OF
INTERNAL INSPECTION

CFM INCORPORATED
ENVIRONMENTAL ENGINEERING SERVICES

PROJECT No. 106
CLIENT Givaudan Corporarion
LOCATION East of Building 91
MANHOLE REACH 4 to 3
VIDEO TAPE No. TV-16-5
INDEX 000 to 075



LEGEND

LK – LEAKING
CC – CIRCUMFERENCIAL CRACK
LC – LONGITUDINAL CRACK
CR – CRACK
BP – BROKEN PIPE
BC – BUILDING CONNECTION
RT – ROOTS
AL – OUT OF ALIGNMENT
OJT – OPEN JOINT
LS – LOW SPOT
H – HOLE
ACP – ASBESTOS CEMENT PIPE
VTP – VITRIFIED TILE PIPE
CIP – CAST IRON PIPE
GPD – GALLONS PER DAY
GPM – GALLONS PER MINUTE

MEASURED EXFILTRATION RATE 5.4(7,776) GPM (GPD)

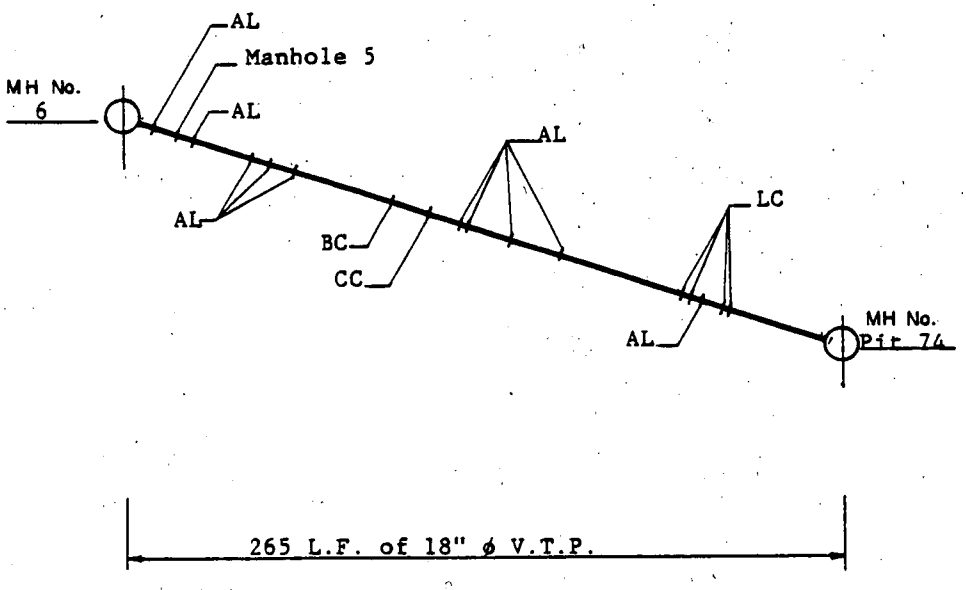
INCH-FEET OF REACH 1422

UNIFIED EXFILTRATION RATE 5.5 GPD/INCH-FEET

NOTE: measured from Pit 74 to MH 3 - 79 L.F.

SEWER SYSTEM INVESTIGATION
RESULTS OF
INTERNAL INSPECTION

CFM INCORPORATED
ENVIRONMENTAL ENGINEERING SERVICES



PROJECT No. 106
CLIENT Givaudan Corporation
LOCATION Building 85 - 91
MANHOLE REACH 6 to Pit 74
VIDEO TAPE No. TV-16-4
INDEX 805 to 951

LEGEND

LK - LEAKING
CC - CIRCUMFERENCIAL CRACK
LC - LONGITUDINAL CRACK
CR - CRACK
BP - BROKEN PIPE
BC - BUILDING CONNECTION
RT - ROOTS
AL - OUT OF ALIGNMENT
OJT - OPEN JOINT
LS - LOW SPOT
H - HOLE
ACP - ASBESTOS CEMENT PIPE
VTP - VITRIFIED TILE PIPE
CIP - CAST IRON PIPE
GPD - GALLONS PER DAY
GPM - GALLONS PER MINUTE

MEASURED EXFILTRATION RATE 8.6(12,384) GPM (GPD)

INCH-FEET OF REACH 4590

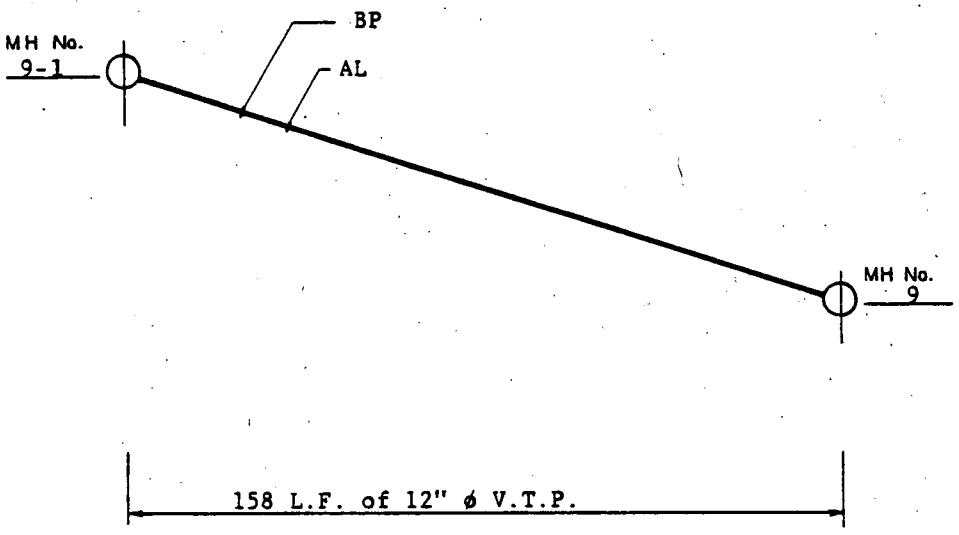
UNIFIED EXFILTRATION RATE 2.7 GPD/INCH-FEET

NOTE: measured from MH 5 to Pit 74

SEWER SYSTEM INVESTIGATION
RESULTS OF
INTERNAL INSPECTION

CFM INCORPORATED
ENVIRONMENTAL ENGINEERING SERVICES

PROJECT No. 106
CLIENT Givaudan Corporation
LOCATION Building 98
MANHOLE REACH 9-1 to 9
VIDEO TAPE No. TV-17-1
INDEX 820 to 890



LEGEND

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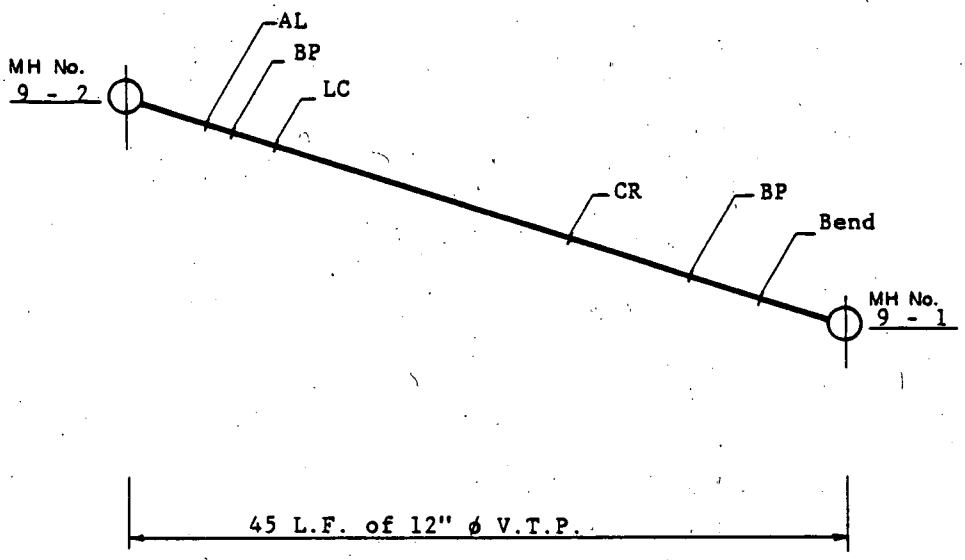
H – HOLE
ACP – ASBESTOS CEMENT PIPE
VTP – VITRIFIED TILE PIPE
CIP – CAST IRON PIPE
GPD – GALLONS PER DAY
GPM – GALLONS PER MINUTE

MEASURED EXFILTRATION RATE 62.5(90,000) GPM (GPD)
INCH-FEET OF REACH 1896
UNIFIED EXFILTRATION RATE 47.5 GPD/INCH-FEET

SEWER SYSTEM INVESTIGATION
RESULTS OF
INTERNAL INSPECTION

CFM INCORPORATED
ENVIRONMENTAL ENGINEERING SERVICES

PROJECT No. 106
CLIENT Givaudan Corporation
LOCATION Building 94
MANHOLE REACH 9-2 to 9-1
VIDEO TAPE No. TV-17-1
INDEX 766 to 822



LEGEND

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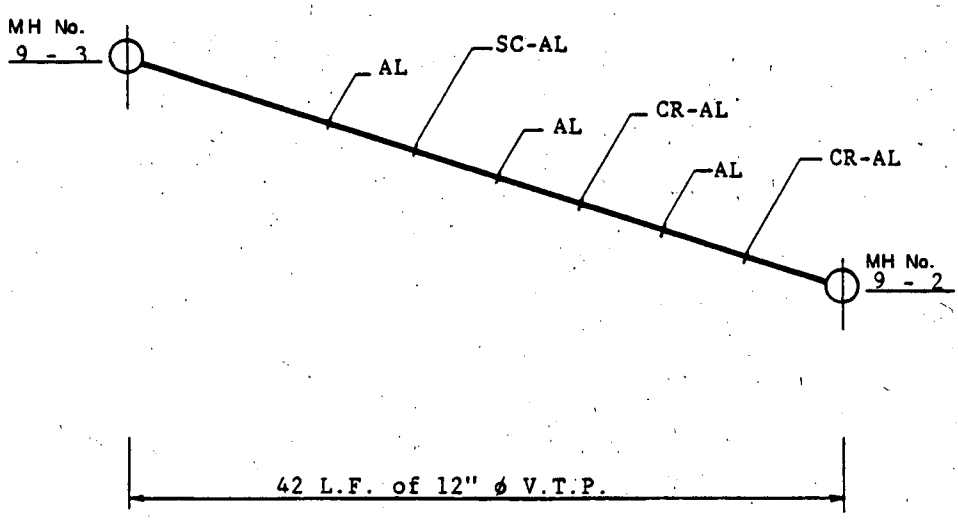
ACP - ASBESTOS CEMENT PIPE
VTP - VITRIFIED TILE PIPE
CIP - CAST IRON PIPE
GPD - GALLONS PER DAY
GPM - GALLONS PER MINUTE

MEASURED EXFILTRATION RATE 11.1(15,984) GPM (GPD)
INCH-FEET OF REACH 540
UNIFIED EXFILTRATION RATE 29.6 GPD/INCH-FEET

SEWER SYSTEM INVESTIGATION
RESULTS OF
INTERNAL INSPECTION

CFM INCORPORATED
ENVIRONMENTAL ENGINEERING SERVICES

PROJECT No. 106
CLIENT Givaudan Corporation
LOCATION Building 94
MANHOLE REACH 9-2 to 9-3
VIDEO TAPE No. TV-16-5
INDEX 424 to 455



LEGEND

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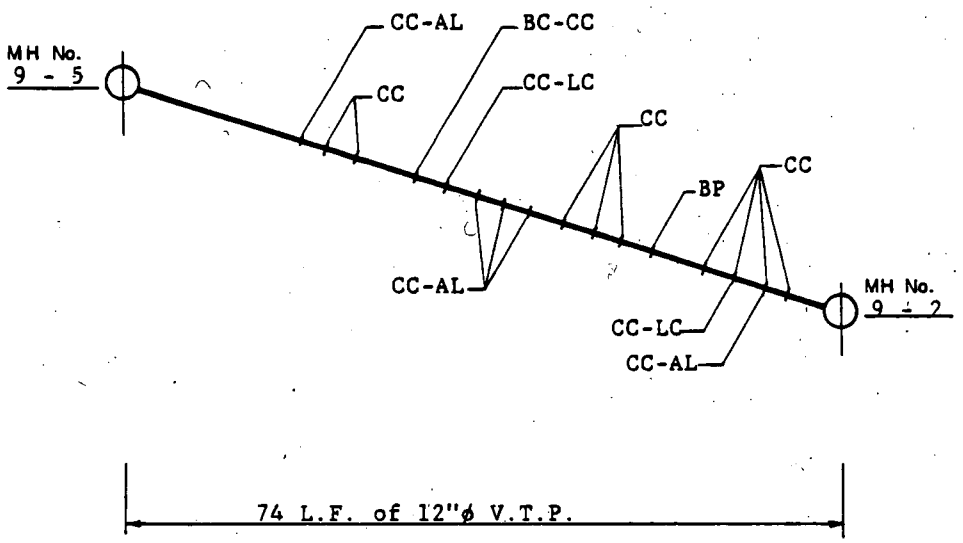
VTP - VITRIFIED TILE PIPE
CIP - CAST IRON PIPE
GPD - GALLONS PER DAY
GPM - GALLONS PER MINUTE

MEASURED EXFILTRATION RATE 9.6(13,824) GPM (GPD)
INCH-FEET OF REACH 504
UNIFIED EXFILTRATION RATE 27.4 GPD/INCH-FEET

SEWER SYSTEM INVESTIGATION
RESULTS OF
INTERNAL INSPECTION

CFM INCORPORATED
ENVIRONMENTAL ENGINEERING SERVICES

PROJECT No. 106
CLIENT Givaudan Corporation
LOCATION Building 95
MANHOLE REACH 9-2 to 9-5
VIDEO TAPE No. TV-16-5
INDEX 455 to521



LEGEND

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VTP - VITRIFIED TILE PIPE
CIP - CAST IRON PIPE
GPD - GALLONS PER DAY
GPM - GALLONS PER MINUTE

MEASURED EXFILTRATION RATE >60(>86,400) GPM (GPD)

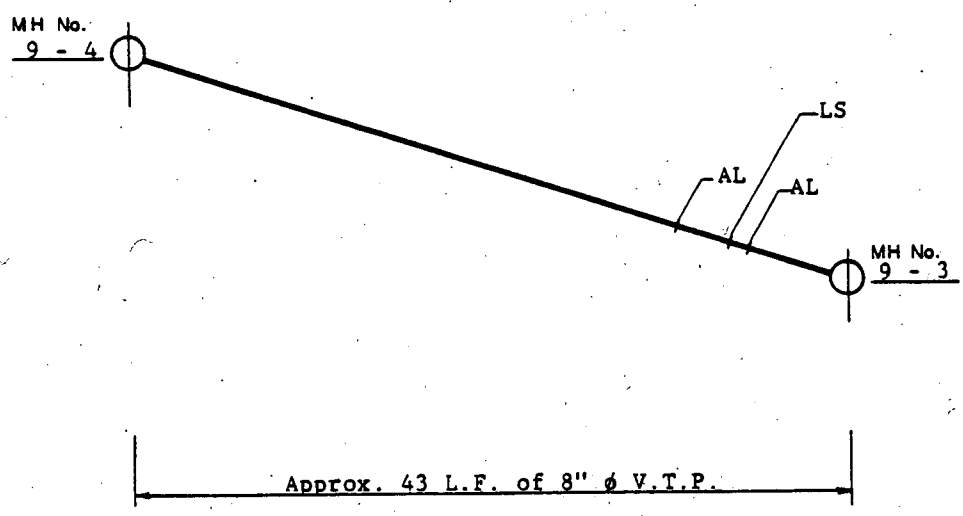
INCH-FEET OF REACH 888

UNIFIED EXFILTRATION RATE >97.3 GPD/INCH-FEET

SEWER SYSTEM INVESTIGATION
RESULTS OF
INTERNAL INSPECTION

CFM INCORPORATED
ENVIRONMENTAL ENGINEERING SERVICES

PROJECT No. 106
CLIENT Givaudan Corporation
LOCATION Building 94-93
MANHOLE REACH 9-3 to 9-4
VIDEO TAPE No. TV-16-5
INDEX 574 to 628



LEGEND

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VTP – VITRIFIED TILE PIPE
CIP – CAST IRON PIPE
GPD – GALLONS PER DAY
GPM – GALLONS PER MINUTE

MEASURED EXFILTRATION RATE * GPM (GPD)

INCH-FEET OF REACH 344

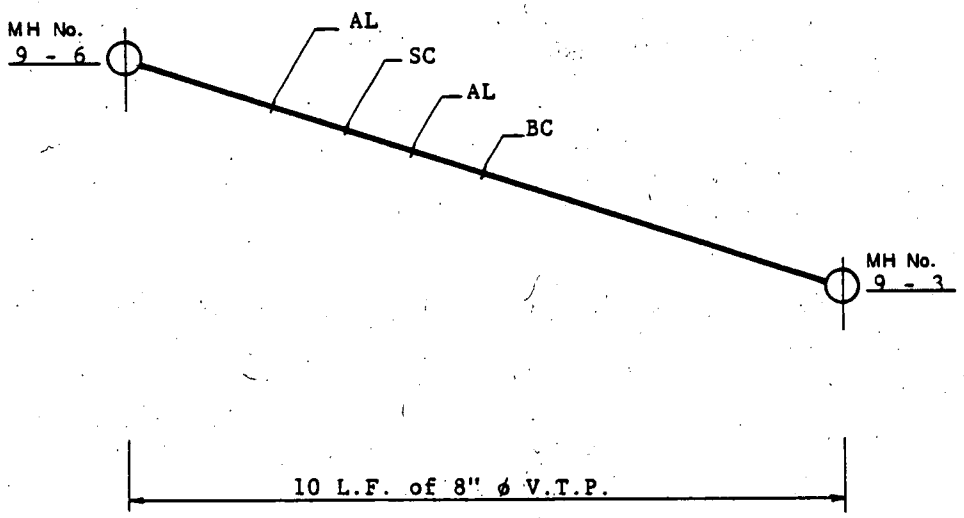
UNIFIED EXFILTRATION RATE * GPD/INCH-FEET

* - Could not test - plug could not be installed

SEWER SYSTEM INVESTIGATION
RESULTS OF
INTERNAL INSPECTION

CFM INCORPORATED
ENVIRONMENTAL ENGINEERING SERVICES

PROJECT No. 106
CLIENT Givaudan Corporation
LOCATION Building 94
MANHOLE REACH 9-3 to 9-6
VIDEO TAPE No. TV-16-5
INDEX 628 - 641



LEGEND

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CR - CRACK
BP - BROKEN PIPE
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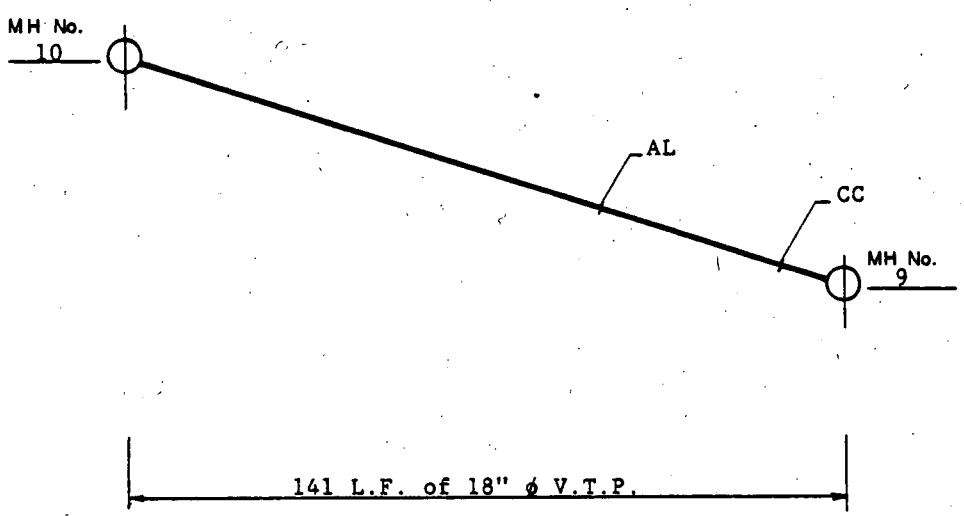
H - HOLE
ACP - ASBESTOS CEMENT PIPE
VTP - VITRIFIED TILE PIPE
CIP - CAST IRON PIPE
GPD - GALLONS PER DAY
GPM - GALLONS PER MINUTE

MEASURED EXFILTRATION RATE * GPM (GPD)
INCH-FEET OF REACH 80
UNIFIED EXFILTRATION RATE * GPD/INCH-FEET
* - Could not test - plug could not be installed

SEWER SYSTEM INVESTIGATION
RESULTS OF
INTERNAL INSPECTION

CFM INCORPORATED
ENVIRONMENTAL ENGINEERING SERVICES

PROJECT No. 106
CLIENT Givaudan Corporation
LOCATION E. of Bldgs. 78 & 9
MANHOLE REACH 10 to 9
VIDEO TAPE No. TV-16-4
INDEX 427 - 459



LEGEND

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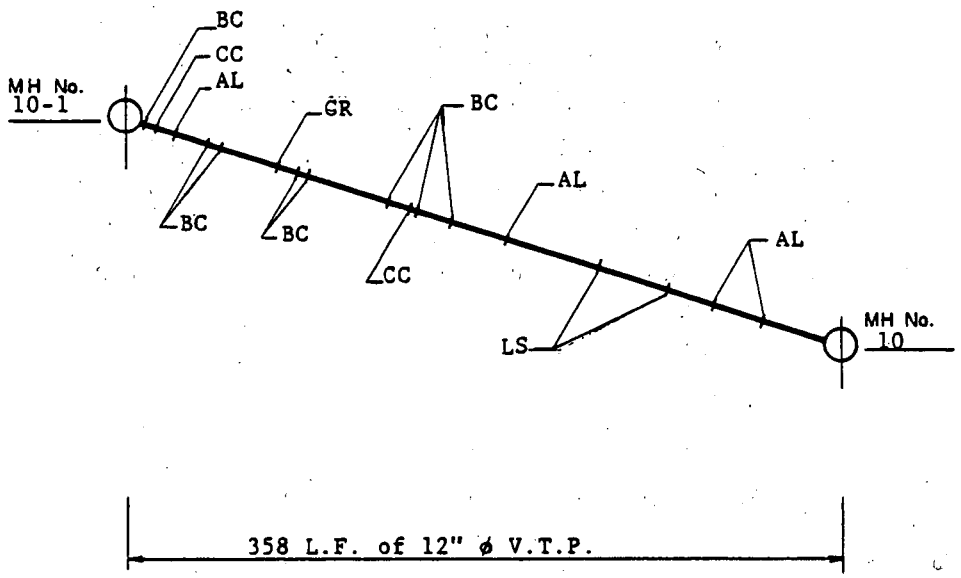
H - HOLE
ACP - ASBESTOS CEMENT PIPE
VTP - VITRIFIED TILE PIPE
CIP - CAST IRON PIPE
GPD - GALLONS PER DAY
GPM - GALLONS PER MINUTE

MEASURED EXFILTRATION RATE 8.6(12,384) GPM (GPD)
INCH-FEET OF REACH 2538
UNIFIED EXFILTRATION RATE 4.9 GPD/INCH-FEET

SEWER SYSTEM INVESTIGATION
RESULTS OF
INTERNAL INSPECTION

CFM INCORPORATED
ENVIRONMENTAL ENGINEERING SERVICES



PROJECT No. 106
CLIENT Givaudan Corporation
LOCATION Building 78 to 72
MANHOLE REACH 10 to 10-1
VIDEO TAPE No. TV-16-3
INDEX 317 to 633

LEGEND

LK – LEAKING
CC – CIRCUMFERENCIAL CRACK
LC – LONGITUDINAL CRACK
CR – CRACK
BP – BROKEN PIPE
BC – BUILDING CONNECTION
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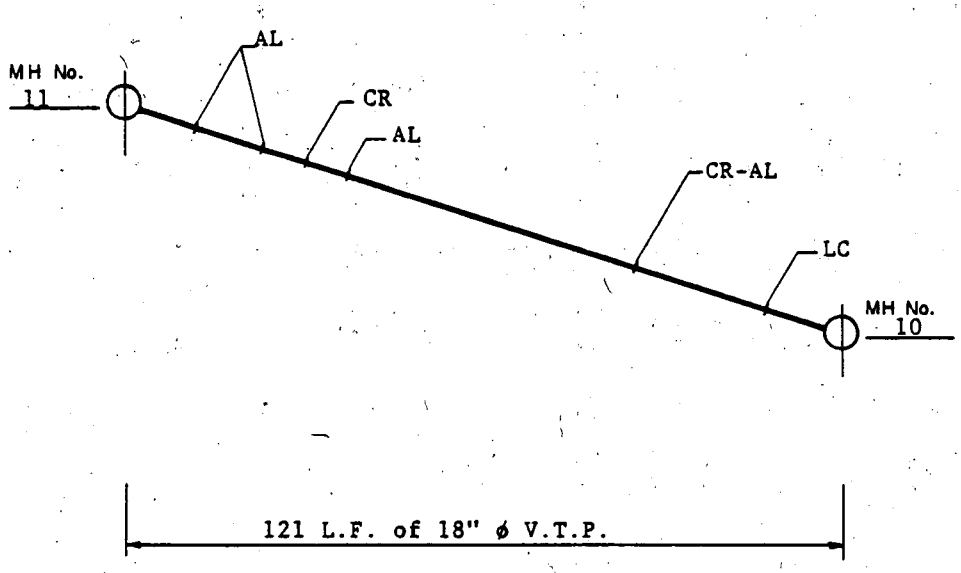
ACP – ASBESTOS CEMENT PIPE
VTP – VITRIFIED TILE PIPE
CIP – CAST IRON PIPE
GPD – GALLONS PER DAY
GPM – GALLONS PER MINUTE

MEASURED EXFILTRATION RATE 2 (2,880) GPM (GPD)
INCH-FEET OF REACH 4296
UNIFIED EXFILTRATION RATE 0.7 GPD/INCH-FEET

SEWER SYSTEM INVESTIGATION
RESULTS OF
INTERNAL INSPECTION

CFM INCORPORATED
ENVIRONMENTAL ENGINEERING SERVICES



PROJECT No. 106
CLIENT Givaudan Corporatior
LOCATION East of bldg. 78
MANHOLE REACH 11 to 10
VIDEO TAPE No. TV-16-4
INDEX 282 - 375

LEGEND

LK - LEAKING
CC - CIRCUMFERENCIAL CRACK
LC - LONGITUDINAL CRACK
CR - CRACK
BP - BROKEN PIPE
BC - BUILDING CONNECTION
RT - ROOTS
AL - OUT OF ALIGNMENT
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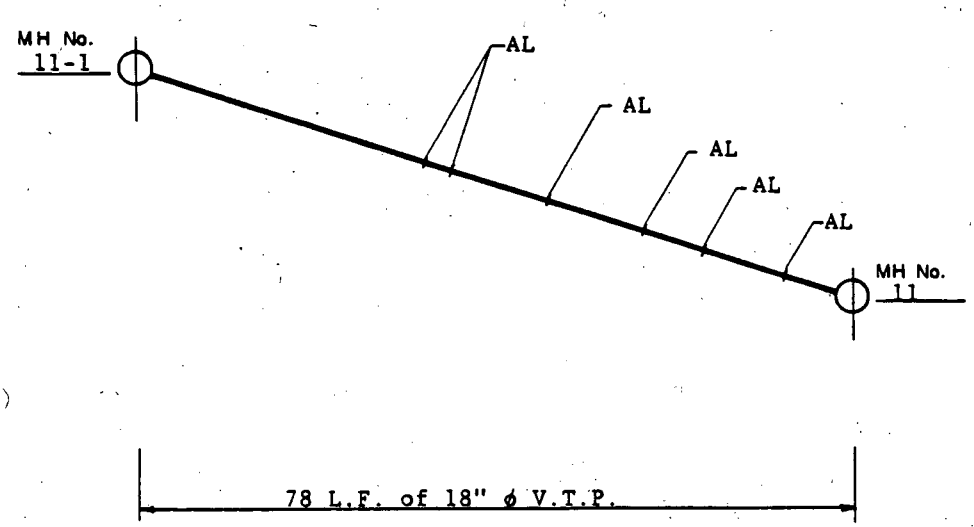
H - HOLE
ACP - ASBESTOS CEMENT PIPE
VTP - VITRIFIED TILE PIPE
CIP - CAST IRON PIPE
GPD - GALLONS PER DAY
GPM - GALLONS PER MINUTE

MEASURED EXFILTRATION RATE 60(86,400) GPM (GPD)
INCH-FEET OF REACH 2178
UNIFIED EXFILTRATION RATE 39.7 GPD/INCH-FEET

SEWER SYSTEM INVESTIGATION
RESULTS OF
INTERNAL INSPECTION

CFM INCORPORATED
ENVIRONMENTAL ENGINEERING SERVICES

PROJECT No. 106
CLIENT Givaudan Corporation
LOCATION Building 71 - 49
MANHOLE REACH 11-1 to 11
VIDEO TAPE No. TV-16-1A
INDEX 447 to 525



LEGEND

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CR - CRACK
BP - BROKEN PIPE
BC - BUILDING CONNECTION
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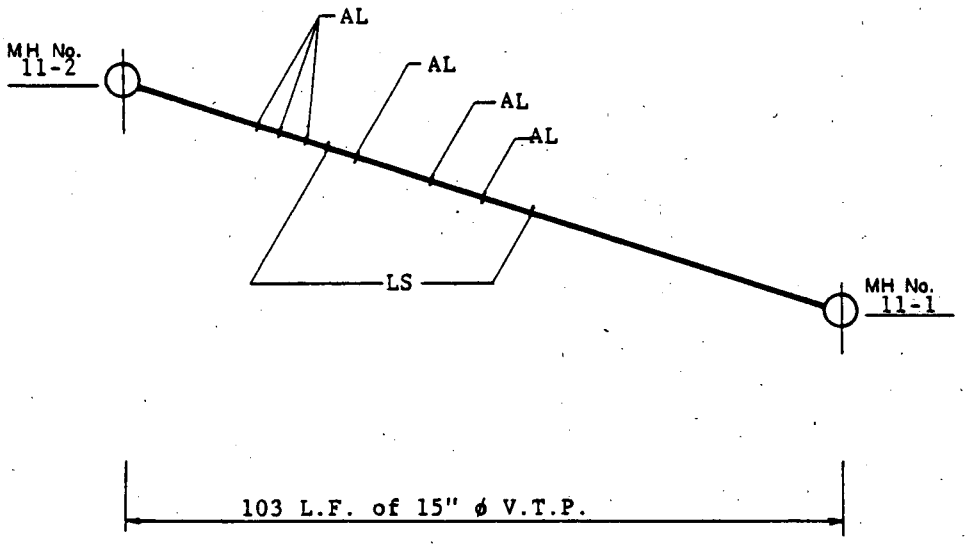
H - HOLE
ACP - ASBESTOS CEMENT PIPE
VTP - VITRIFIED TILE PIPE
CIP - CAST IRON PIPE
GPD - GALLONS PER DAY
GPM - GALLONS PER MINUTE

MEASURED EXFILTRATION RATE 16.7(24,048) GPM (GPD)
INCH-FEET OF REACH 1404
UNIFIED EXFILTRATION RATE 17.12 GPD/INCH-FEET

SEWER SYSTEM INVESTIGATION
RESULTS OF
INTERNAL INSPECTION

CFM INCORPORATED
ENVIRONMENTAL ENGINEERING SERVICES

PROJECT No. 106
CLIENT Givaudan Corp.
LOCATION Bldg. 71
MANHOLE REACH 11-2 to 11-1
VIDEO TAPE No. TV-17-1
INDEX 000-202



LEGEND

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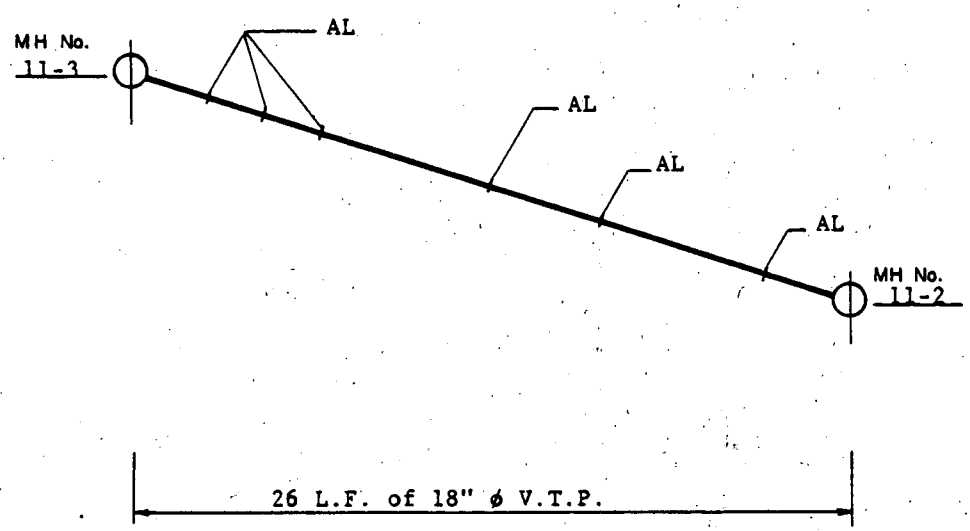
VTP – VITRIFIED TILE PIPE
CIP – CAST IRON PIPE
GPD – GALLONS PER DAY
GPM – GALLONS PER MINUTE

MEASURED EXFILTRATION RATE 29.4(42,336) GPM (GPD)
INCH-FEET OF REACH 1545
UNIFIED EXFILTRATION RATE 27.4 GPD/INCH-FEET

SEWER SYSTEM INVESTIGATION
RESULTS OF
INTERNAL INSPECTION

CFM INCORPORATED
ENVIRONMENTAL ENGINEERING SERVICES

PROJECT No. 106
CLIENT Givaudan Corporation
LOCATION Building 68A
MANHOLE REACH 11-3 to 11-2
VIDEO TAPE No. TV-16-(5)
INDEX 310 - 339



LEGEND

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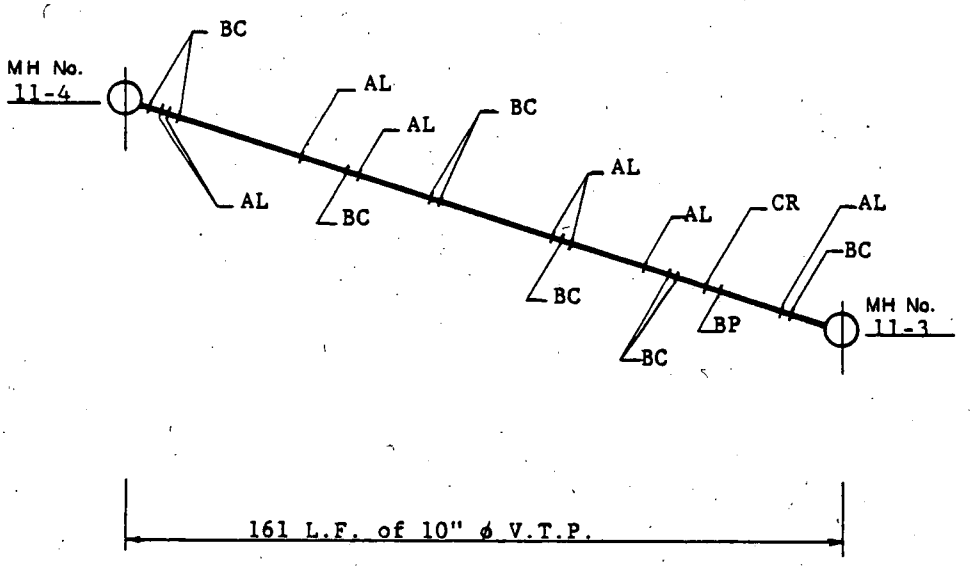
VTP - VITRIFIED TILE PIPE
CIP - CAST IRON PIPE
GPD - GALLONS PER DAY
GPM - GALLONS PER MINUTE

MEASURED EXFILTRATION RATE 0 (0) GPM (GPD)
INCH-FEET OF REACH 468
UNIFIED EXFILTRATION RATE 0 GPD/INCH-FEET

SEWER SYSTEM INVESTIGATION
RESULTS OF
INTERNAL INSPECTION

CFM INCORPORATED
ENVIRONMENTAL ENGINEERING SERVICES

PROJECT No. 106
CLIENT Givaudan Corporation
LOCATION Building 68 to 68A
MANHOLE REACH 11-4 to 11-3
VIDEO TAPE No. TV-17-1
INDEX 890 - 1040



LEGEND

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VTP - VITRIFIED TILE PIPE
CIP - CAST IRON PIPE
GPD - GALLONS PER DAY
GPM - GALLONS PER MINUTE

MEASURED EXFILTRATION RATE >60(>86,400) GPM (GPD)

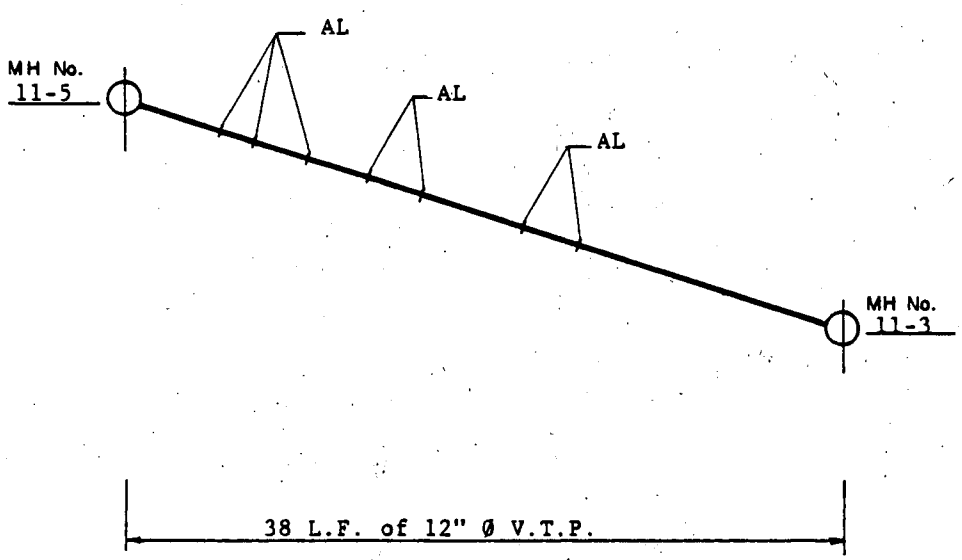
INCH-FEET OF REACH 1610

UNIFIED EXFILTRATION RATE >53.7 GPD/INCH-FEET

SEWER SYSTEM INVESTIGATION
RESULTS OF
INTERNAL INSPECTION

CFM INCORPORATED
ENVIRONMENTAL ENGINEERING SERVICES

PROJECT No. 106
CLIENT Givaudan Corporation
LOCATION Building 68A to 64B
MANHOLE REACH 11-5 to 11-3
VIDEO TAPE No. TV-17-1
INDEX 717 - 766



LEGEND

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VTP – VITRIFIED TILE PIPE
CIP – CAST IRON PIPE
GPD – GALLONS PER DAY
GPM – GALLONS PER MINUTE

MEASURED EXFILTRATION RATE >60(86,400) GPM (GPD)

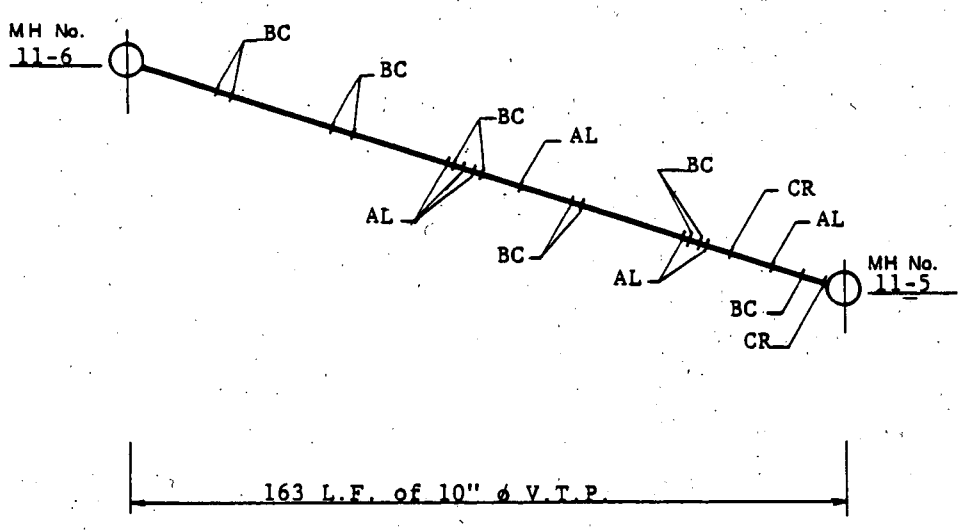
INCH-FEET OF REACH 456

UNIFIED EXFILTRATION RATE >189.5 GPD/INCH-FEET

SEWER SYSTEM INVESTIGATION
RESULTS OF
INTERNAL INSPECTION

CFM INCORPORATED
ENVIRONMENTAL ENGINEERING SERVICES

PROJECT No. 106
CLIENT Givaudan Corporation
LOCATION Building 58 to 63
MANHOLE REACH 11-6 to 11-5
VIDEO TAPE No. TV-17-1
INDEX 1062 - 1160



LEGEND

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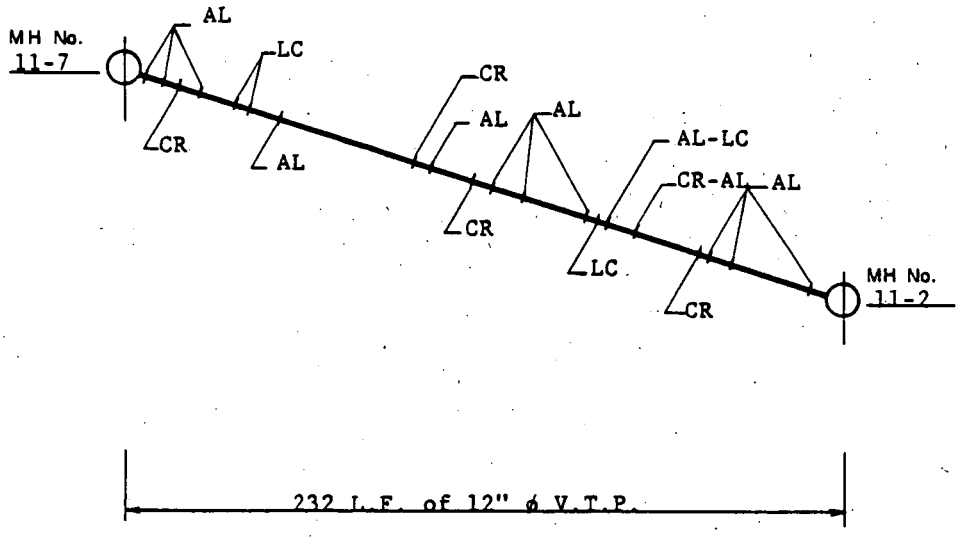
VTP - VITRIFIED TILE PIPE
CIP - CAST IRON PIPE
GPD - GALLONS PER DAY
GPM - GALLONS PER MINUTE

MEASURED EXFILTRATION RATE 1.5 (2,160) GPM (GPD)
INCH-FEET OF REACH 1630
UNIFIED EXFILTRATION RATE 1.3 GPD/INCH-FEET

SEWER SYSTEM INVESTIGATION
RESULTS OF
INTERNAL INSPECTION

CFM INCORPORATED
ENVIRONMENTAL ENGINEERING SERVICES

PROJECT No. 106
CLIENT Givaudan Corporation
LOCATION Building 51
MANHOLE REACH 11-7 to 11-2
VIDEO TAPE No. TV-16-1 & 2
INDEX 783 - 218



LEGEND

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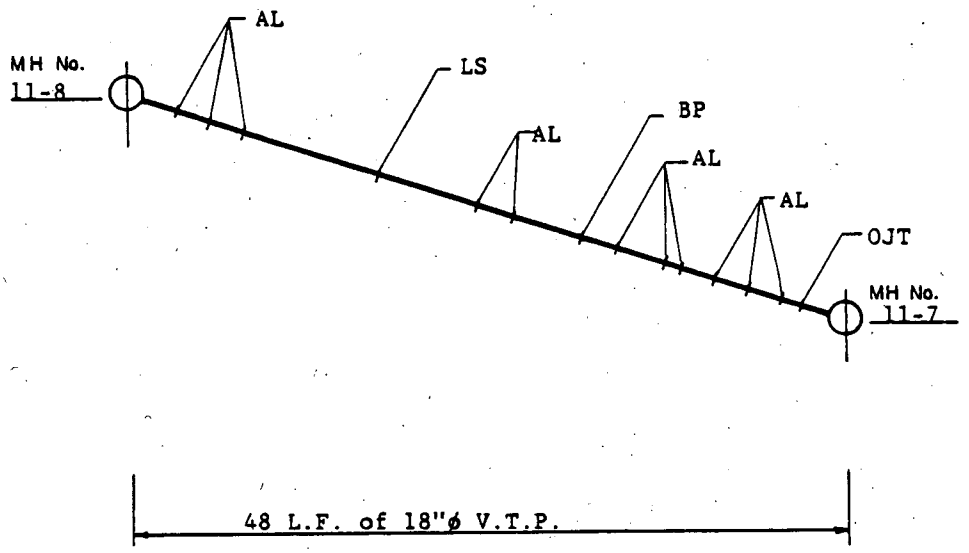
VTP - VITRIFIED TILE PIPE
CIP - CAST IRON PIPE
GPD - GALLONS PER DAY
GPM - GALLONS PER MINUTE

MEASURED EXFILTRATION RATE 8.8 (12,672) GPM (GPD)
INCH-FEET OF REACH 2784
UNIFIED EXFILTRATION RATE 4.6 GPD/INCH-FEET

SEWER SYSTEM INVESTIGATION
RESULTS OF
INTERNAL INSPECTION

CFM INCORPORATED
ENVIRONMENTAL ENGINEERING SERVICES



PROJECT No. 106
CLIENT Givaudan Corp.
LOCATION Bldg. 75 to 65
MANHOLE REACH 11-8 to 11-7
VIDEO TAPE No. TV-16-A
INDEX 203-276

LEGEND

LK – LEAKING
CC – CIRCUMFERENCIAL CRACK
LC – LONGITUDINAL CRACK
CR – CRACK
BP – BROKEN PIPE
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CIP – CAST IRON PIPE
GPD – GALLONS PER DAY
GPM – GALLONS PER MINUTE

MEASURED EXFILTRATION RATE >60(86,400) GPM (GPD)

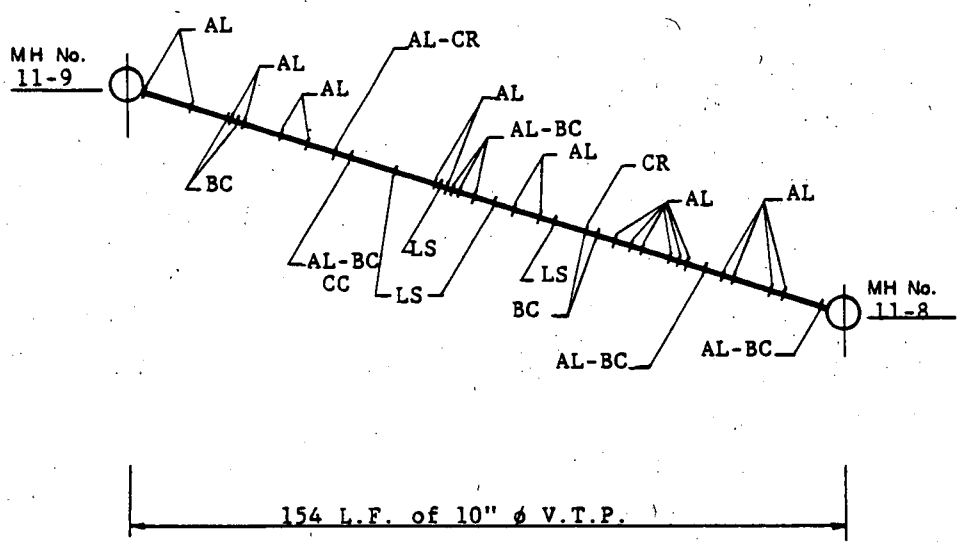
INCH-FEET OF REACH 864

UNIFIED EXFILTRATION RATE 100 GPD/INCH-FEET

SEWER SYSTEM INVESTIGATION
RESULTS OF
INTERNAL INSPECTION

CFM INCORPORATED
ENVIRONMENTAL ENGINEERING SERVICES

PROJECT No. 106
CLIENT Givaudan Corporation
LOCATION Building 52 to 65
MANHOLE REACH 11-9 to 11-8
VIDEO TAPE No. TV-16-4
INDEX 676 - 805



LEGEND

LK - LEAKING
CC - CIRCUMFERENCIAL CRACK
LC - LONGITUDINAL CRACK
CR - CRACK
BP - BROKEN PIPE
BC - BUILDING CONNECTION
RT - ROOTS
AL - OUT OF ALIGNMENT
OJT - OPEN JOINT
LS - LOW SPOT
H - HOLE
ACP - ASBESTOS CEMENT PIPE
VTP - VITRIFIED TILE PIPE
CIP - CAST IRON PIPE
GPD - GALLONS PER DAY
GPM - GALLONS PER MINUTE

MEASURED EXFILTRATION RATE 29.4(42,336) GPM (GPD)

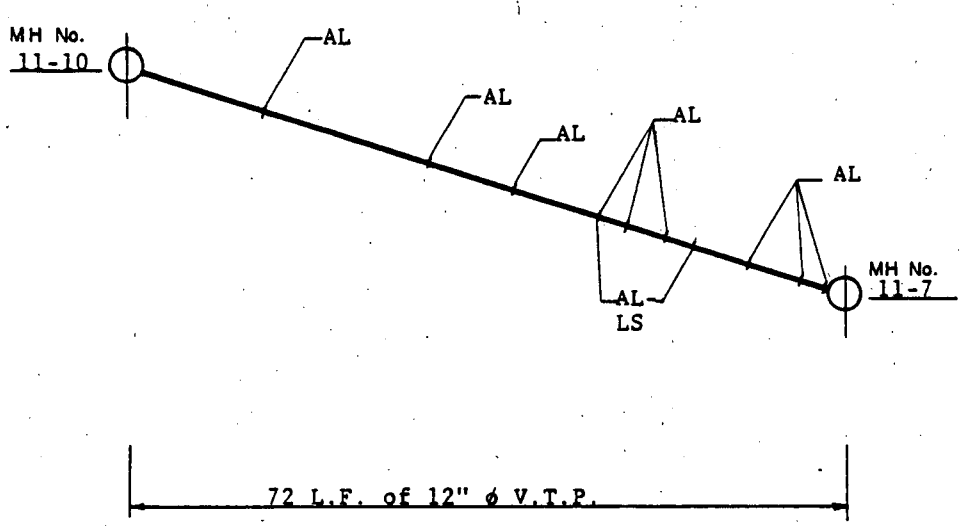
INCH-FEET OF REACH 1540

UNIFIED EXFILTRATION RATE 27.5 GPD/INCH-FEET

SEWER SYSTEM INVESTIGATION
RESULTS OF
INTERNAL INSPECTION

CFM INCORPORATED
ENVIRONMENTAL ENGINEERING SERVICES

PROJECT No. 106
CLIENT Givaudan Corporation
LOCATION Building 75A
MANHOLE REACH 11-10 to 11-7
VIDEO TAPE No. TV-16-1
INDEX 736 - 781



LEGEND

LK - LEAKING
CC - CIRCUMFERENCIAL CRACK
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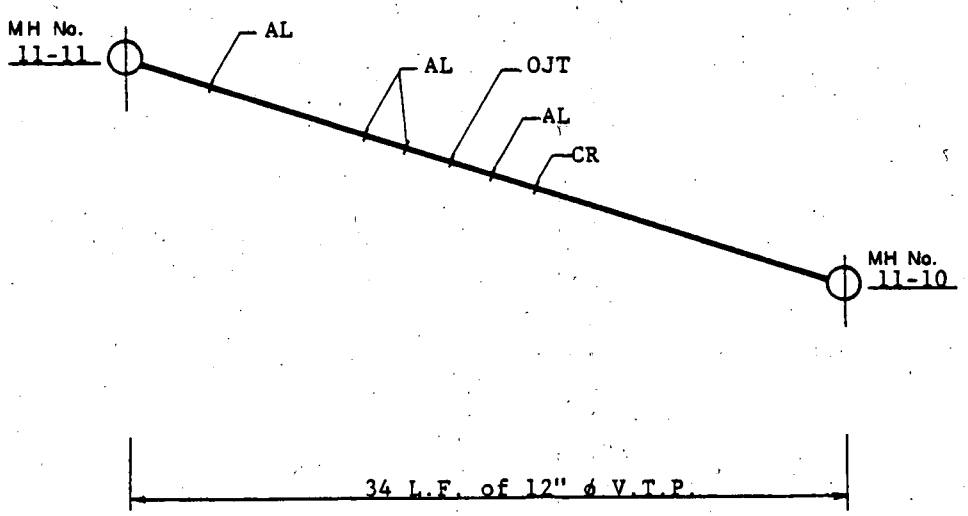
VTP - VITRIFIED TILE PIPE
CIP - CAST IRON PIPE
GPD - GALLONS PER DAY
GPM - GALLONS PER MINUTE

MEASURED EXFILTRATION RATE 4.9 (7,056) GPM (GPD)
INCH-FEET OF REACH 864
UNIFIED EXFILTRATION RATE 8.2 GPD/INCH-FEET

SEWER SYSTEM INVESTIGATION
RESULTS OF
INTERNAL INSPECTION

CFM INCORPORATED
ENVIRONMENTAL ENGINEERING SERVICES

PROJECT No. 106
CLIENT Givaudan Corporation
LOCATION Building 47 to 75
MANHOLE REACH 11-11 to 11-10
VIDEO TAPE No. TV-16-1
INDEX 706 - 735



LEGEND

LK – LEAKING
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CR – CRACK
BP – BROKEN PIPE
BC – BUILDING CONNECTION
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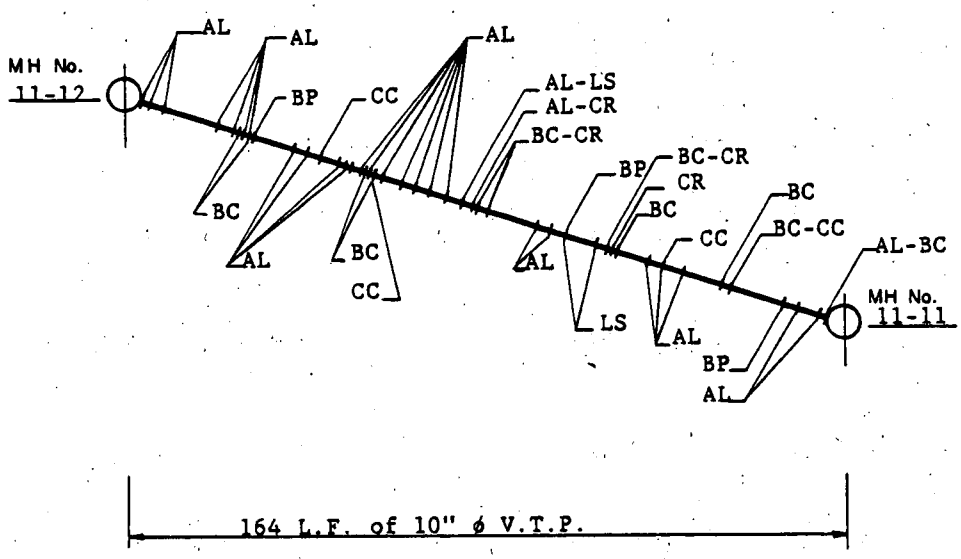
ACP – ASBESTOS CEMENT PIPE
VTP – VITRIFIED TILE PIPE
CIP – CAST IRON PIPE
GPD – GALLONS PER DAY
GPM – GALLONS PER MINUTE

MEASURED EXFILTRATION RATE 8.6 (12,384) GPM (GPD)
INCH-FEET OF REACH 408
UNIFIED EXFILTRATION RATE 30.4 GPD/INCH-FEET

SEWER SYSTEM INVESTIGATION
RESULTS OF
INTERNAL INSPECTION

CFM INCORPORATED
ENVIRONMENTAL ENGINEERING SERVICES

PROJECT No. 106
CLIENT Givaudan Corporation
LOCATION Building 42 to 75
MANHOLE REACH 11-12 to 11-
VIDEO TAPE No. TV-16-4
INDEX 528 - 676



LEGEND

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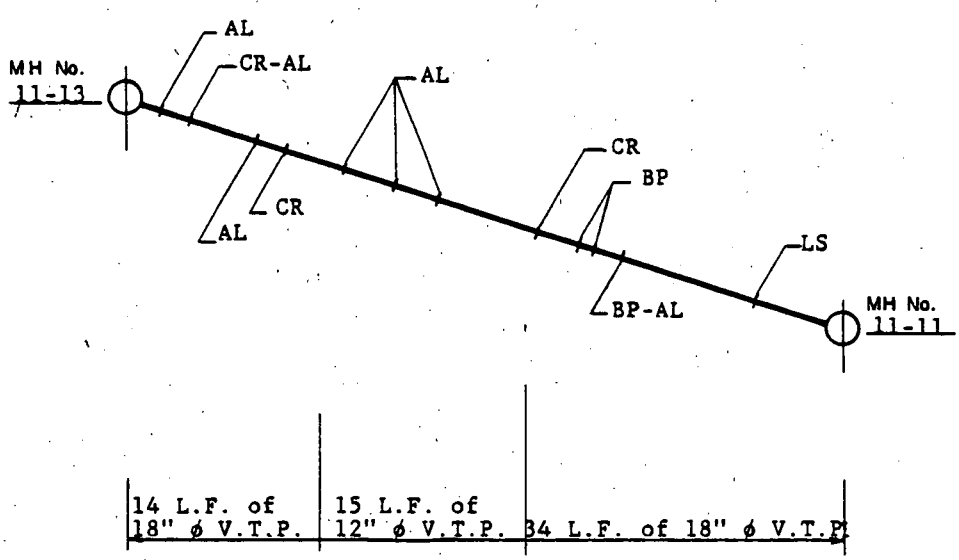
ACP - ASBESTOS CEMENT PIPE
VTP - VITRIFIED TILE PIPE
CIP - CAST IRON PIPE
GPD - GALLONS PER DAY
GPM - GALLONS PER MINUTE

MEASURED EXFILTRATION RATE >60 (>86,400) GPM (GPD)
INCH-FEET OF REACH 1640
UNIFIED EXFILTRATION RATE >52.7 GPD/INCH-FEET

SEWER SYSTEM INVESTIGATION
RESULTS OF
INTERNAL INSPECTION

CFM INCORPORATED
ENVIRONMENTAL ENGINEERING SERVICES

PROJECT No. 106
CLIENT Givaudan Corporation
LOCATION Building 75 to CT2
MANHOLE REACH 11-13 to 11-
VIDEO TAPE No. TV-16-5
INDEX 339 - 424



LEGEND

LK - LEAKING
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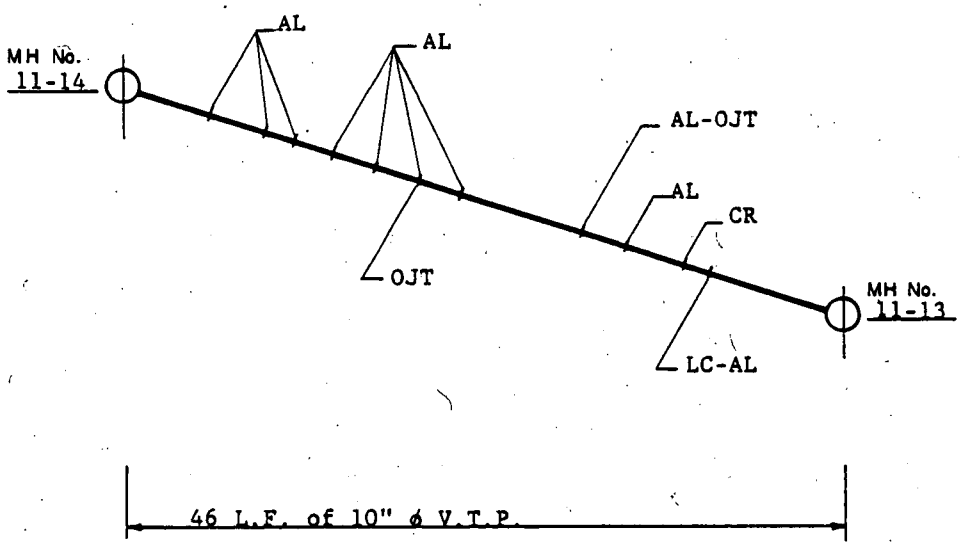
ACP - ASBESTOS CEMENT PIPE
VTP - VITRIFIED TILE PIPE
CIP - CAST IRON PIPE
GPD - GALLONS PER DAY
GPM - GALLONS PER MINUTE

MEASURED EXFILTRATION RATE 20(28,800) GPM (GPD)
INCH-FEET OF REACH 1044
UNIFIED EXFILTRATION RATE 27.6 GPD/INCH-FEET

SEWER SYSTEM INVESTIGATION
RESULTS OF
INTERNAL INSPECTION

CFM INCORPORATED
ENVIRONMENTAL ENGINEERING SERVICES



PROJECT No. 106
CLIENT Givaudan Corporation
LOCATION Building 36
MANHOLE REACH 11-14 to 11-
VIDEO TAPE No. TV-16-1
INDEX 671 - 706

LEGEND

LK - LEAKING
CC - CIRCUMFERENCIAL CRACK
LC - LONGITUDINAL CRACK
CR - CRACK
BP - BROKEN PIPE
BC - BUILDING CONNECTION
RT - ROOTS
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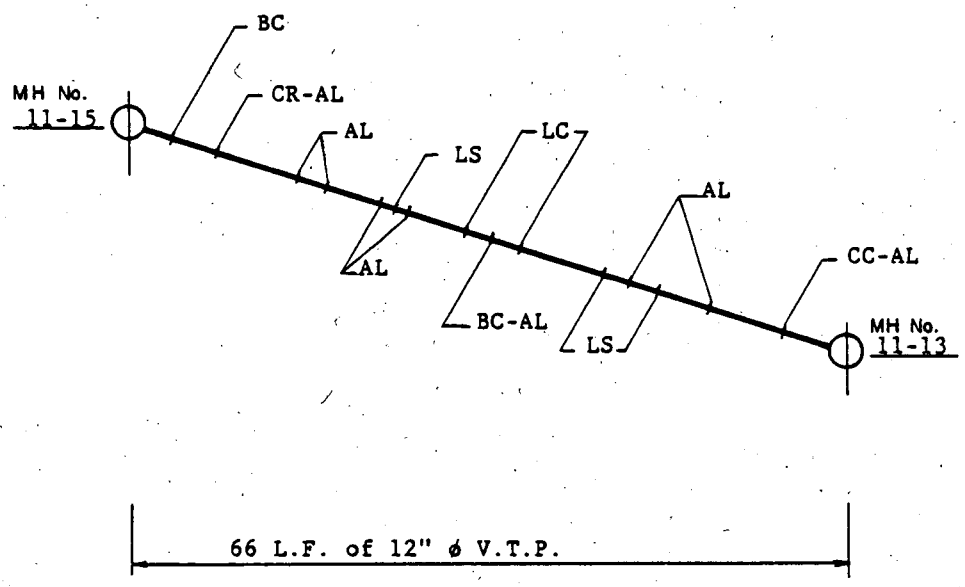
H - HOLE
ACP - ASBESTOS CEMENT PIPE
VTP - VITRIFIED TILE PIPE
CIP - CAST IRON PIPE
GPD - GALLONS PER DAY
GPM - GALLONS PER MINUTE

MEASURED EXFILTRATION RATE 10 (14,400) GPM (GPD)
INCH-FEET OF REACH 460
UNIFIED EXFILTRATION RATE 31.3 GPD/INCH-FEET

SEWER SYSTEM INVESTIGATION
RESULTS OF
INTERNAL INSPECTION

CFM INCORPORATED
ENVIRONMENTAL ENGINEERING SERVICES



PROJECT No. 106
CLIENT Givaudan Corporation
LOCATION Bldg. CT2-66
MANHOLE REACH 11-15 to 11-1
VIDEO TAPE No. TV-16-1
INDEX 613 - 670

LEGEND

LK - LEAKING
CC - CIRCUMFERENCIAL CRACK
LC - LONGITUDINAL CRACK
CR - CRACK
BP - BROKEN PIPE
BC - BUILDING CONNECTION
RT - ROOTS
AL - OUT OF ALIGNMENT
OJT - OPEN JOINT
LS - LOW SPOT
H - HOLE
ACP - ASBESTOS CEMENT PIPE
VTP - VITRIFIED TILE PIPE
CIP - CAST IRON PIPE
GPD - GALLONS PER DAY
GPM - GALLONS PER MINUTE

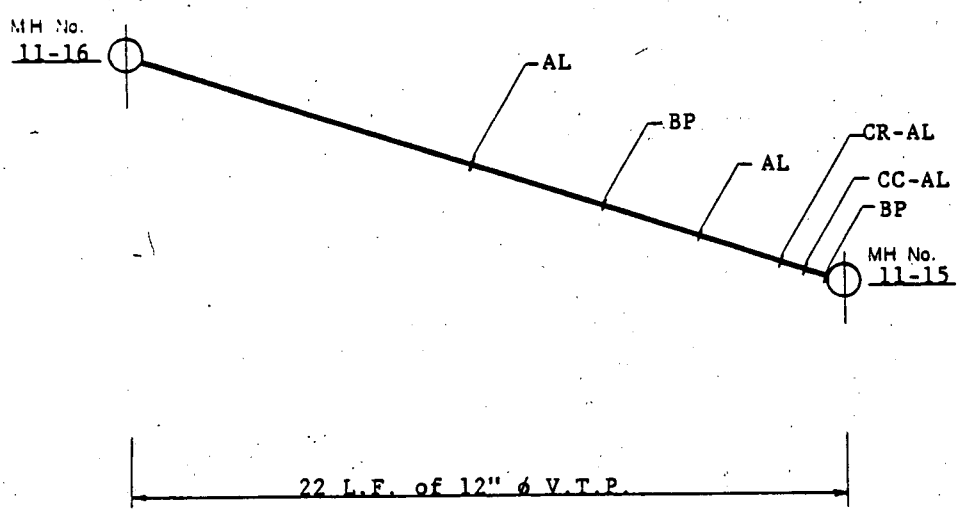
MEASURED EXFILTRATION RATE * GPM (GPD)
INCH-FEET OF REACH 792
UNIFIED EXFILTRATION RATE * GPD/INCH-FEET

* - Could not test - plug could not be installed

SEWER SYSTEM INVESTIGATION
RESULTS OF
INTERNAL INSPECTION

CFM INCORPORATED
ENVIRONMENTAL ENGINEERING SERVICES

PROJECT No. 106
CLIENT Givaudan Corporation
LOCATION Bldg. 66
MANHOLE REACH 11-16 to 11-15
VIDEO TAPE No. TV-16-1
INDEX 590 - 612



LEGEND

LK - LEAKING
CC - CIRCUMFERENCIAL CRACK
LC - LONGITUDINAL CRACK
CR - CRACK
BP - BROKEN PIPE
BC - BUILDING CONNECTION
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H - HOLE
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VTP - VITRIFIED TILE PIPE
CIP - CAST IRON PIPE
GPD - GALLONS PER DAY
GPM - GALLONS PER MINUTE

MEASURED EXFILTRATION RATE * GPM (GPD)

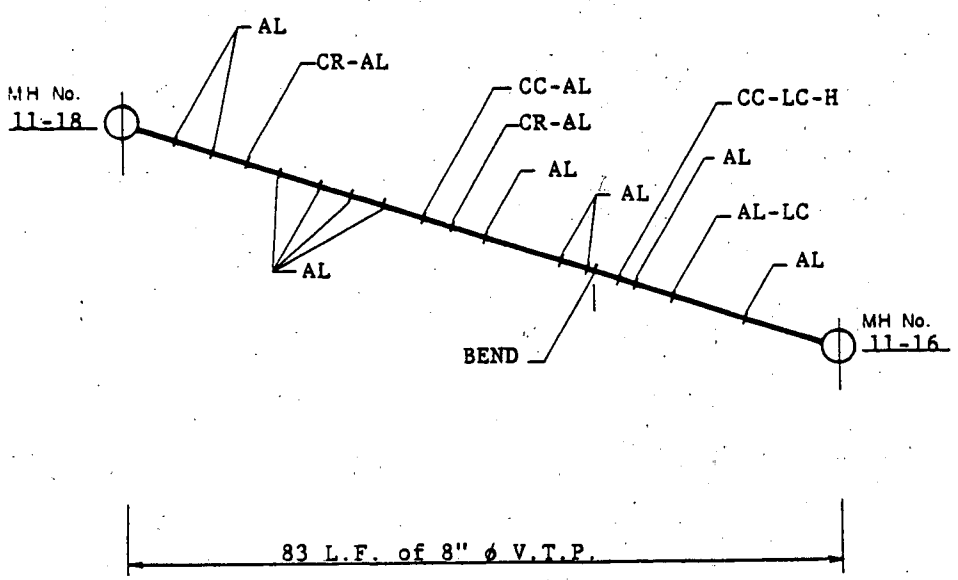
INCH-FEET OF REACH 264

UNIFIED EXFILTRATION RATE * GPD/INCH-FEET

* - Could not test - plug could not be installed

SEWER SYSTEM INVESTIGATION
RESULTS OF
INTERNAL INSPECTION

CFM INCORPORATED
ENVIRONMENTAL ENGINEERING SERVICES



PROJECT No. 106
CLIENT Givaudan Corp.
LOCATION Bldg. 35-B
MANHOLE REACH 11-18 to 11-16
VIDEO TAPE No. TV-16-5
INDEX 169-288

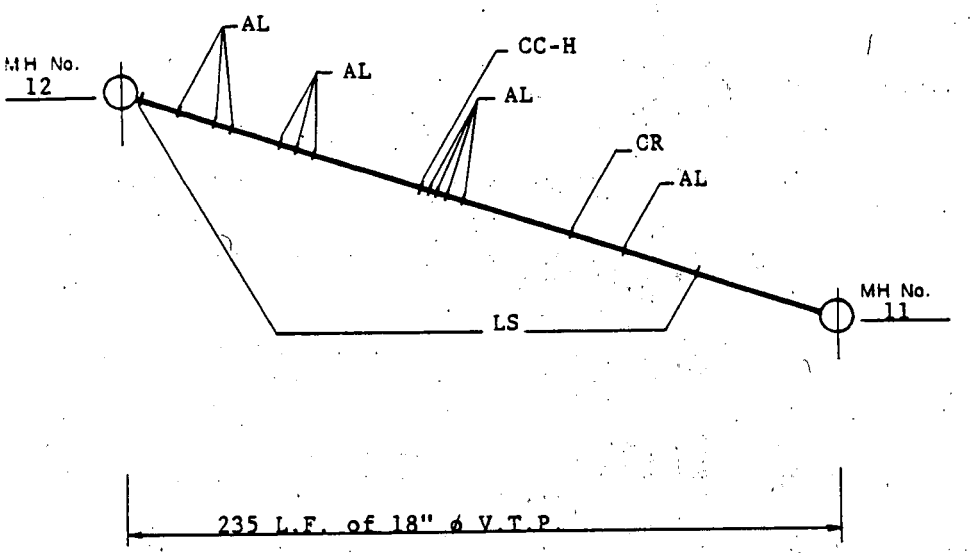
LEGEND

LK - LEAKING
CC - CIRCUMFERENCIAL CRACK
LC - LONGITUDINAL CRACK
CR - CRACK
BP - BROKEN PIPE
BC - BUILDING CONNECTION
RT - ROOTS
AL - OUT OF ALIGNMENT
OJT - OPEN JOINT
LS - LOW SPOT
H - HOLE
ACP - ASBESTOS CEMENT PIPE
VTP - VITRIFIED TILE PIPE
CIP - CAST IRON PIPE
GPD - GALLONS PER DAY
GPM - GALLONS PER MINUTE

MEASURED EXFILTRATION RATE 23.8(34.272) GPM (GPD)
INCH-FEET OF REACH 664
UNIFIED EXFILTRATION RATE 51.6 GPD/INCH-FEET

SEWER SYSTEM INVESTIGATION
RESULTS OF
INTERNAL INSPECTION

CFM INCORPORATED
ENVIRONMENTAL ENGINEERING SERVICES



PROJECT No. 106
CLIENT Givaudan Corp.
LOCATION E. of Bldg 50 & 49
MANHOLE REACH 12 to 11
VIDEO TAPE No. TV-16-5
INDEX 641-796

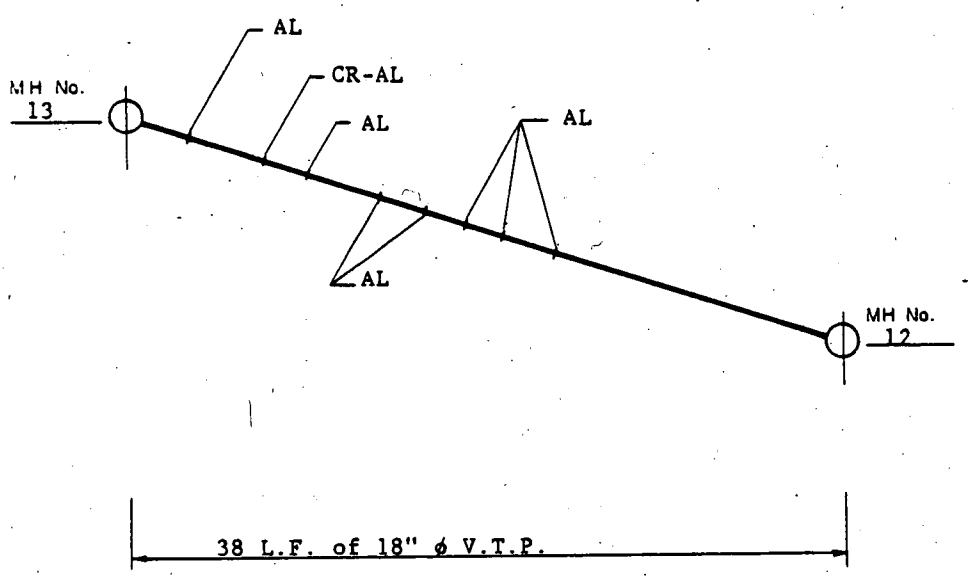
LEGEND

LK - LEAKING
CC - CIRCUMFERENCIAL CRACK
LC - LONGITUDINAL CRACK
CR - CRACK
BP - BROKEN PIPE
BC - BUILDING CONNECTION
RT - ROOTS
AL - OUT OF ALIGNMENT
OJT - OPEN JOINT
LS - LOW SPOT
H - HOLE
ACP - ASBESTOS CEMENT PIPE
VTP - VITRIFIED TILE PIPE
CIP - CAST IRON PIPE
GPD - GALLONS PER DAY
GPM - GALLONS PER MINUTE

MEASURED EXFILTRATION RATE 20.3(29,232) GPM (GPD)
INCH-FEET OF REACH 4230
UNIFIED EXFILTRATION RATE 6.9 GPD/INCH-FEET

SEWER SYSTEM INVESTIGATION
RESULTS OF
INTERNAL INSPECTION

CFM INCORPORATED
ENVIRONMENTAL ENGINEERING SERVICES



PROJECT No. 106
CLIENT Givaudan Corp.
LOCATION Bldg. 50
MANHOLE REACH 13 to 12
VIDEO TAPE No. TV-16-6
INDEX 000-057

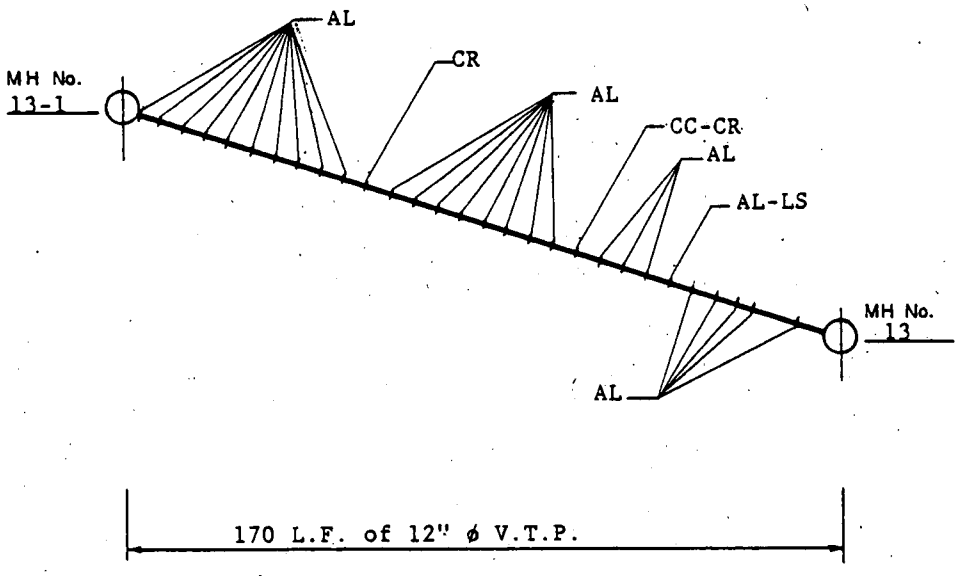
LEGEND

LK - LEAKING
CC - CIRCUMFERENCIAL CRACK
LC - LONGITUDINAL CRACK
CR - CRACK
BP - BROKEN PIPE
BC - BUILDING CONNECTION
RT - ROOTS
AL - OUT OF ALIGNMENT
OJT - OPEN JOINT
LS - LOW SPOT
H - HOLE
ACP - ASBESTOS CEMENT PIPE
VTP - VITRIFIED TILE PIPE
CIP - CAST IRON PIPE
GPD - GALLONS PER DAY
GPM - GALLONS PER MINUTE

MEASURED EXFILTRATION RATE 11(15,840) GPM (GPD)
INCH-FEET OF REACH 684
UNIFIED EXFILTRATION RATE 23.2 GPD/INCH-FEET

SEWER SYSTEM INVESTIGATION
RESULTS OF
INTERNAL INSPECTION

CFM INCORPORATED
ENVIRONMENTAL ENGINEERING SERVICES



PROJECT No. 106
CLIENT Givaudan Corp.
LOCATION East of Bldgs. 72, 67 and 50
MANHOLE REACH 13-1 to 13
VIDEO TAPE No. TV-16-1A
INDEX 000-202

LEGEND

LK – LEAKING
CC – CIRCUMFERENCIAL CRACK
LC – LONGITUDINAL CRACK
CR – CRACK
BP – BROKEN PIPE
BC – BUILDING CONNECTION
RT – ROOTS
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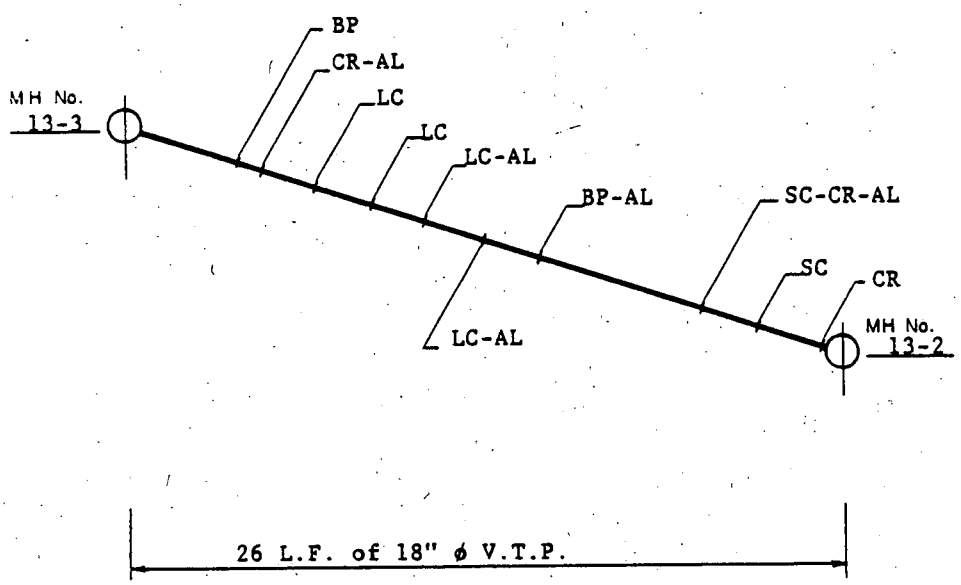
H – HOLE
ACP – ASBESTOS CEMENT PIPE
VTP – VITRIFIED TILE PIPE
CIP – CAST IRON PIPE
GPD – GALLONS PER DAY
GPM – GALLONS PER MINUTE

MEASURED EXFILTRATION RATE 6.5 (9,360) GPM (GPD)
INCH-FEET OF REACH 2040
UNIFIED EXFILTRATION RATE 4.6 GPD/INCH-FEET

SEWER SYSTEM INVESTIGATION
RESULTS OF
INTERNAL INSPECTION

CFM INCORPORATED
ENVIRONMENTAL ENGINEERING SERVICES

PROJECT No. 106
CLIENT Givaudan Corp.
LOCATION Bldg. 26 area
MANHOLE REACH 13-3 to 13-2
VIDEO TAPE No. TV-16-6
INDEX 64-109



LEGEND

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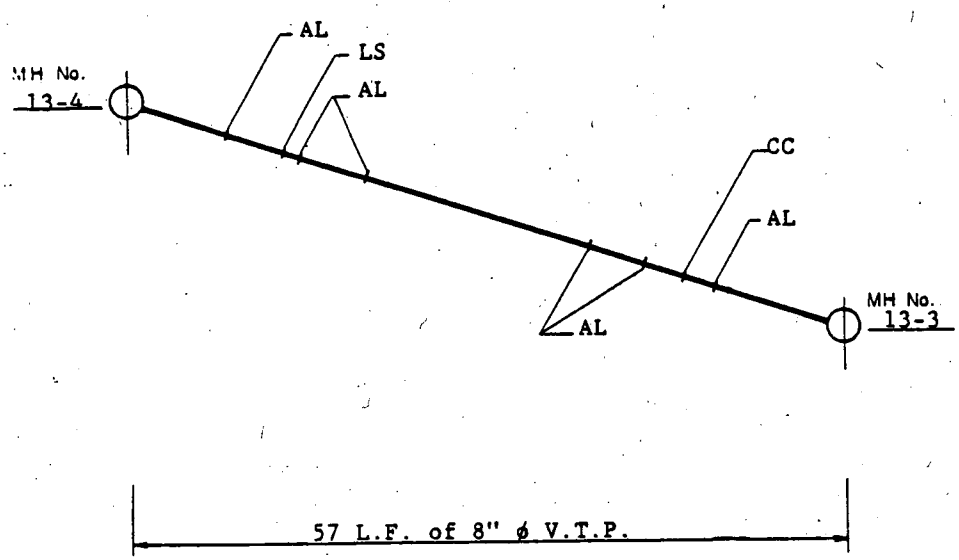
VTP - VITRIFIED TILE PIPE
CIP - CAST IRON PIPE
GPD - GALLONS PER DAY
GPM - GALLONS PER MINUTE

MEASURED EXFILTRATION RATE * GPM (GPD)
INCH-FEET OF REACH 468
UNIFIED EXFILTRATION RATE * GPD/INCH-FEET

* - Could not test - plug could not be installed

SEWER SYSTEM INVESTIGATION
RESULTS OF
INTERNAL INSPECTION

CFM INCORPORATED
ENVIRONMENTAL ENGINEERING SERVICES



PROJECT No. 106
CLIENT Givaudan Corp.
LOCATION Bldg. 15 to 26
MANHOLE REACH 13-4 to 13-3
VIDEO TAPE No. TV-16-4
INDEX 180-238

LEGEND

LK - LEAKING
CC - CIRCUMFERENCIAL CRACK
LC - LONGITUDINAL CRACK
CR - CRACK
BP - BROKEN PIPE
BC - BUILDING CONNECTION
RT - ROOTS
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H - HOLE
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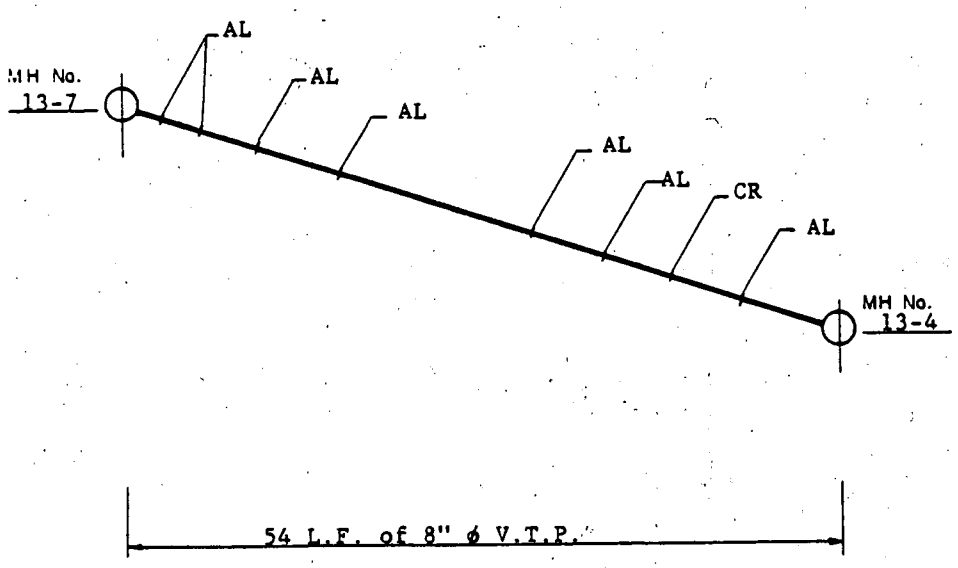
VTP - VITRIFIED TILE PIPE
CIP - CAST IRON PIPE
GPD - GALLONS PER DAY
GPM - GALLONS PER MINUTE

MEASURED EXFILTRATION RATE 5.4 (7,776) GPM (GPD)
INCH-FEET OF REACH 456
UNIFIED EXFILTRATION RATE 17.1 GPD/INCH-FEET

SEWER SYSTEM INVESTIGATION
RESULTS OF
INTERNAL INSPECTION

CFM INCORPORATED
ENVIRONMENTAL ENGINEERING SERVICES



PROJECT No. 106
CLIENT Givaudan Corp.
LOCATION Bldg. 15
MANHOLE REACH 13-4 to 13-7
VIDEO TAPE No. TV-16-4
INDEX 110-180

LEGEND

LK – LEAKING
CC – CIRCUMFERENCIAL CRACK
LC – LONGITUDINAL CRACK
CR – CRACK
BP – BROKEN PIPE
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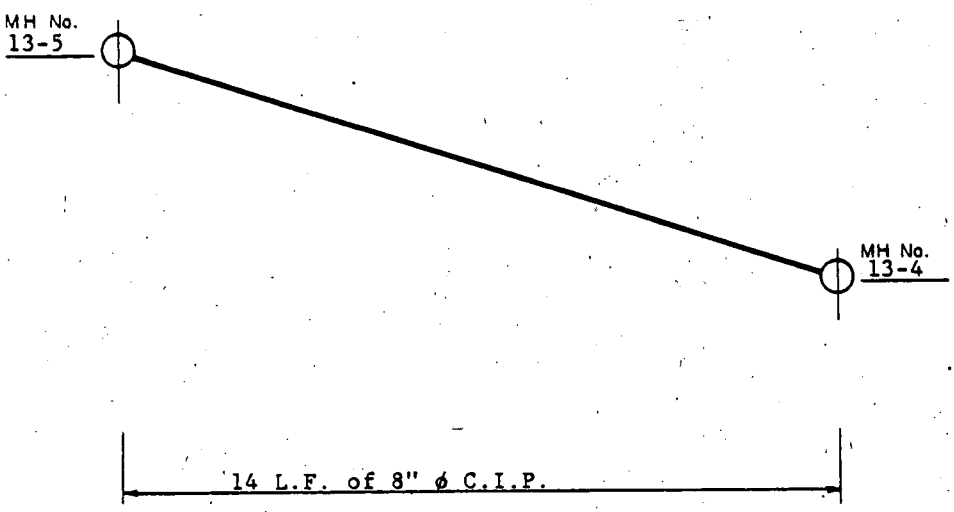
VTP – VITRIFIED TILE PIPE
CIP – CAST IRON PIPE
GPD – GALLONS PER DAY
GPM – GALLONS PER MINUTE

MEASURED EXFILTRATION RATE 1.0 (1,440) GPM (GPD)
INCH-FEET OF REACH 392
UNIFIED EXFILTRATION RATE 3.7 GPD/INCH-FEET

SEWER SYSTEM INVESTIGATION
RESULTS OF
INTERNAL INSPECTION

CFM INCORPORATED
ENVIRONMENTAL ENGINEERING SERVICES

PROJECT No. 106
CLIENT Givaudan Corp.
LOCATION Bldg. 15
MANHOLE REACH 13-5 to 13-4
VIDEO TAPE No. TV-16-4
INDEX 238-263



LEGEND

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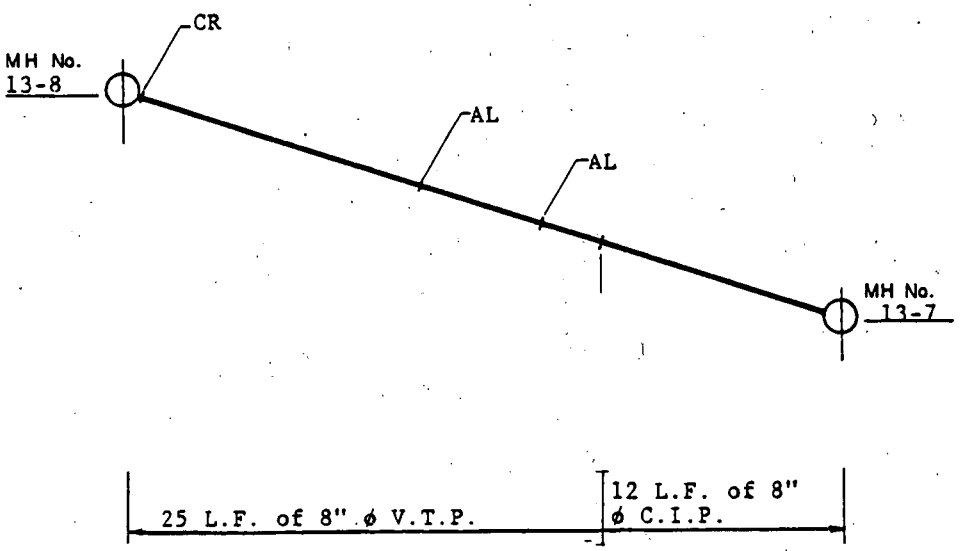
VTP - VITRIFIED TILE PIPE
CIP - CAST IRON PIPE
GPD - GALLONS PER DAY
GPM - GALLONS PER MINUTE

MEASURED EXFILTRATION RATE 0 (0) GPM (GPD)
INCH-FEET OF REACH 112
UNIFIED EXFILTRATION RATE 0 GPD/INCH-FEET

SEWER SYSTEM INVESTIGATION
RESULTS OF
INTERNAL INSPECTION

CFM INCORPORATED
ENVIRONMENTAL ENGINEERING SERVICES

PROJECT No. 106
CLIENT Givaudan Corp.
LOCATION Bldg. 39
MANHOLE REACH 13-8 to 13-7
VIDEO TAPE No. TV-16-2
INDEX 223-276



LEGEND

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VTP - VITRIFIED TILE PIPE
CIP - CAST IRON PIPE
GPD - GALLONS PER DAY
GPM - GALLONS PER MINUTE

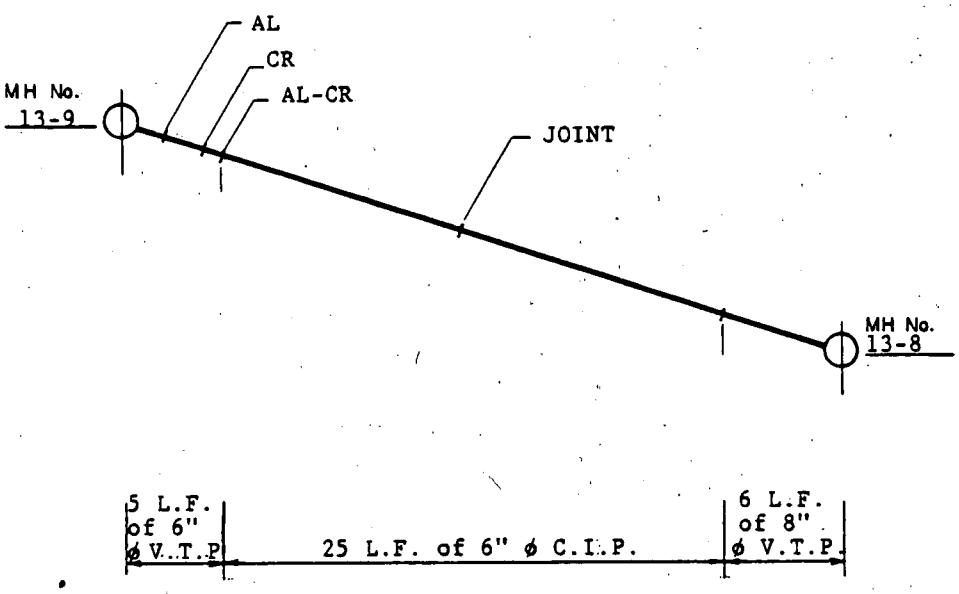
MEASURED EXFILTRATION RATE >60 (>86,400) GPM (GPD)

INCH-FEET OF REACH 296

UNIFIED EXFILTRATION RATE 291.9 GPD/INCH-FEET

SEWER SYSTEM INVESTIGATION
RESULTS OF
INTERNAL INSPECTION

CFM INCORPORATED
ENVIRONMENTAL ENGINEERING SERVICES



PROJECT No. 106
CLIENT Givaudan Corp.
LOCATION Bldg. 89 to 39
MANHOLE REACH 13-8 to 13-9
VIDEO TAPE No. TV-16-2
INDEX 276-375

LEGEND

LK - LEAKING
CC - CIRCUMFERENCIAL CRACK
LC - LONGITUDINAL CRACK
CR - CRACK
BP - BROKEN PIPE
BC - BUILDING CONNECTION
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VTP - VITRIFIED TILE PIPE
CIP - CAST IRON PIPE
GPD - GALLONS PER DAY
GPM - GALLONS PER MINUTE

MEASURED EXFILTRATION RATE 1.3 (1,872) GPM (GPD)

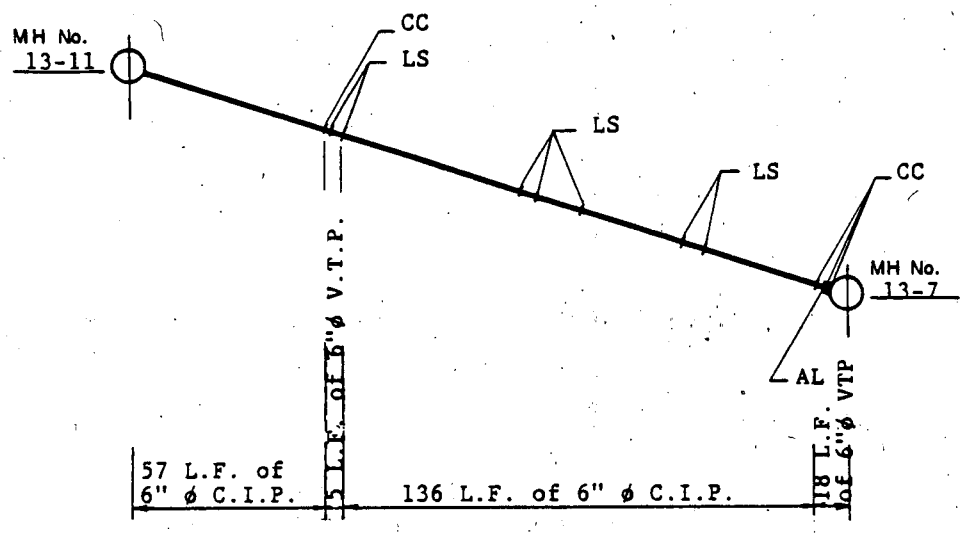
INCH-FEET OF REACH 228

UNIFIED EXFILTRATION RATE 8.2 GPD/INCH-FEET

SEWER SYSTEM INVESTIGATION
RESULTS OF
INTERNAL INSPECTION

CFM INCORPORATED
ENVIRONMENTAL ENGINEERING SERVICES

PROJECT No. 106
CLIENT Givaudan Corp.
LOCATION Bldg. 7-39
MANHOLE REACH 13-11 to 13-7
VIDEO TAPE No. TV-16-2
INDEX 375-778



LEGEND

LK - LEAKING
CC - CIRCUMFERENCIAL CRACK
LC - LONGITUDINAL CRACK
CR - CRACK
BP - BROKEN PIPE
BC - BUILDING CONNECTION
RT - ROOTS
AL - OUT OF ALIGNMENT
OJT - OPEN JOINT
LS - LOW SPOT
H - HOLE
ACP - ASBESTOS CEMENT PIPE
VTP - VITRIFIED TILE PIPE
CIP - CAST IRON PIPE
GPD - GALLONS PER DAY
GPM - GALLONS PER MINUTE

MEASURED EXFILTRATION RATE 25.0(36,000) GPM (GPD)

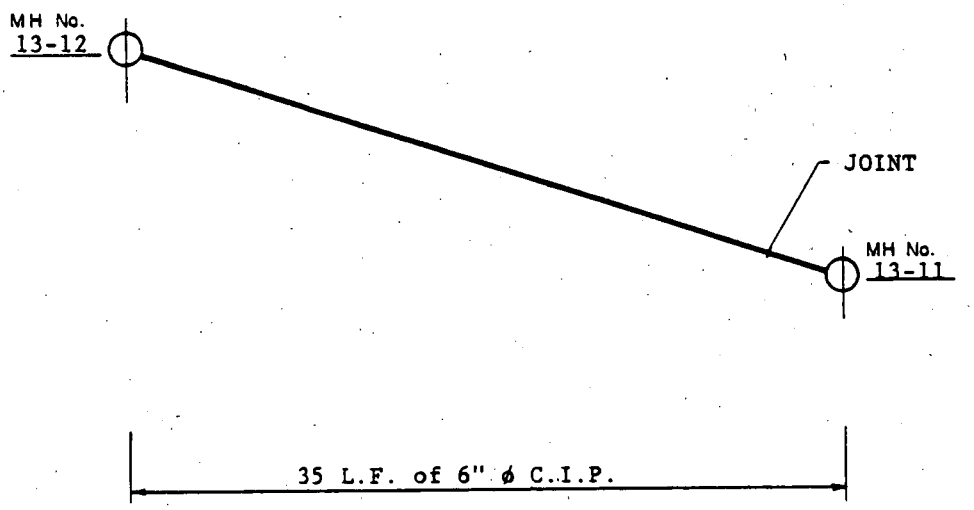
INCH-FEET OF REACH 1296

UNIFIED EXFILTRATION RATE 27.8 GPD/INCH-FEET

SEWER SYSTEM INVESTIGATION
RESULTS OF
INTERNAL INSPECTION

CFM INCORPORATED
ENVIRONMENTAL ENGINEERING SERVICES

PROJECT No. 106
CLIENT Givaudan Corp.
LOCATION Bldg. 7
MANHOLE REACH 13-12 to 13-1
VIDEO TAPE No. TV-16-3
INDEX 633-693



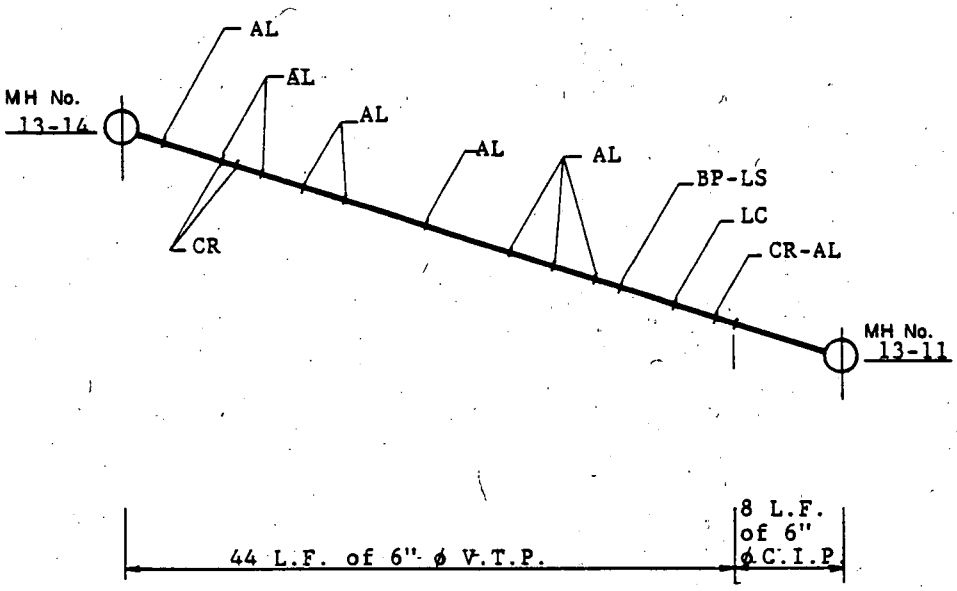
LEGEND

LK - LEAKING
CC - CIRCUMFERENCIAL CRACK
LC - LONGITUDINAL CRACK
CR - CRACK
BP - BROKEN PIPE
BC - BUILDING CONNECTION
RT - ROOTS
AL - OUT OF ALIGNMENT
OJT - OPEN JOINT
LS - LOW SPOT
H - HOLE
ACP - ASBESTOS CEMENT PIPE
VTP - VITRIFIED TILE PIPE
CIP - CAST IRON PIPE
GPD - GALLONS PER DAY
GPM - GALLONS PER MINUTE

MEASURED EXFILTRATION RATE 1.2 (1,728) GPM (GPD)
INCH-FEET OF REACH 210
UNIFIED EXFILTRATION RATE 8.2 GPD/INCH-FEET

SEWER SYSTEM INVESTIGATION
RESULTS OF
INTERNAL INSPECTION

CFM INCORPORATED
ENVIRONMENTAL ENGINEERING SERVICES



PROJECT No. 106
CLIENT Givaudan Corp.
LOCATION Bldg. 7A to 7
MANHOLE REACH 13-14 to 13-11
VIDEO TAPE No. TV-16-3 & 4
INDEX 816-037

LEGEND

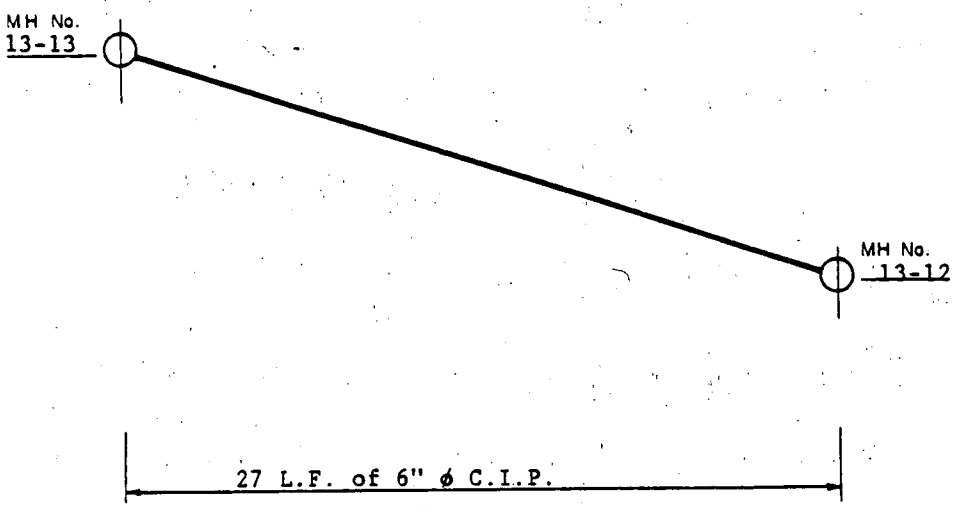
LK – LEAKING
CC – CIRCUMFERENCIAL CRACK
LC – LONGITUDINAL CRACK
CR – CRACK
BP – BROKEN PIPE
BC – BUILDING CONNECTION
RT – ROOTS
AL – OUT OF ALIGNMENT
OJT – OPEN JOINT
LS – LOW SPOT
H – HOLE
ACP – ASBESTOS CEMENT PIPE
VTP – VITRIFIED TILE PIPE
CIP – CAST IRON PIPE
GPD – GALLONS PER DAY
GPM – GALLONS PER MINUTE

MEASURED EXFILTRATION RATE >60(86,400) GPM (GPD)
INCH-FEET OF REACH 312
UNIFIED EXFILTRATION RATE 276.9 GPD/INCH-FEET

SEWER SYSTEM INVESTIGATION
RESULTS OF
INTERNAL INSPECTION

CFM INCORPORATED
ENVIRONMENTAL ENGINEERING SERVICES

PROJECT No. 106
CLIENT Givaudan Corp.
LOCATION Bldg. 7
MANHOLE REACH 13-12 to 13-
VIDEO TAPE No. TV-16-3
INDEX 693-752



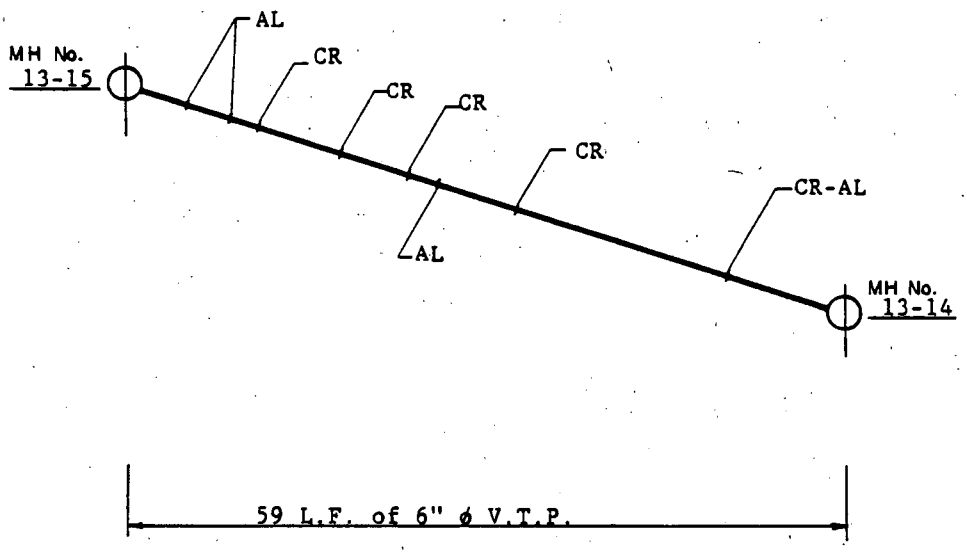
LEGEND

LK – LEAKING
CC – CIRCUMFERENCIAL CRACK
LC – LONGITUDINAL CRACK
CR – CRACK
BP – BROKEN PIPE
BC – BUILDING CONNECTION
RT – ROOTS
AL – OUT OF ALIGNMENT
OJT – OPEN JOINT
LS – LOW SPOT
H – HOLE
ACP – ASBESTOS CEMENT PIPE
VTP – VITRIFIED TILE PIPE
CIP – CAST IRON PIPE
GPD – GALLONS PER DAY
GPM – GALLONS PER MINUTE

MEASURED EXFILTRATION RATE 0.7 (1,008) GPM (GPD)
INCH-FEET OF REACH 162
UNIFIED EXFILTRATION RATE 6.2 GPD/INCH-FEET

SEWER SYSTEM INVESTIGATION
RESULTS OF
INTERNAL INSPECTION

CFM INCORPORATED
ENVIRONMENTAL ENGINEERING SERVICES



PROJECT No. 106
CLIENT Givaudan Corp.
LOCATION Bldg. 7A to 27
MANHOLE REACH 13-15 to 13-1
VIDEO TAPE No. TV-16-3
INDEX 752-816

LEGEND

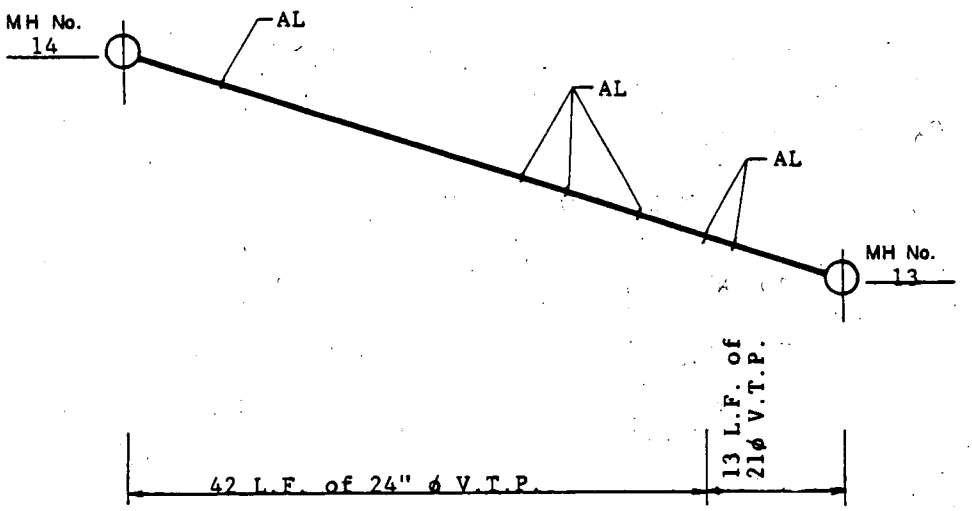
LK - LEAKING
CC - CIRCUMFERENCIAL CRACK
LC - LONGITUDINAL CRACK
CR - CRACK
BP - BROKEN PIPE
BC - BUILDING CONNECTION
RT - ROOTS
AL - OUT OF ALIGNMENT
OJT - OPEN JOINT
LS - LOW SPOT
H - HOLE
ACP - ASBESTOS CEMENT PIPE
VTP - VITRIFIED TILE PIPE
CIP - CAST IRON PIPE
GPD - GALLONS PER DAY
GPM - GALLONS PER MINUTE

MEASURED EXFILTRATION RATE 10.7(15,408) GPM (GPD)
INCH-FEET OF REACH 354
UNIFIED EXFILTRATION RATE 43.5 GPD/INCH-FEET

SEWER SYSTEM INVESTIGATION
RESULTS OF
INTERNAL INSPECTION

CFM INCORPORATED
ENVIRONMENTAL ENGINEERING SERVICES

PROJECT No. 106
CLIENT Givaudan Corp.
LOCATION NE Corner Bldg. 50
MANHOLE REACH 14 to 13
VIDEO TAPE No. TV-16-5
INDEX 521-574



LEGEND

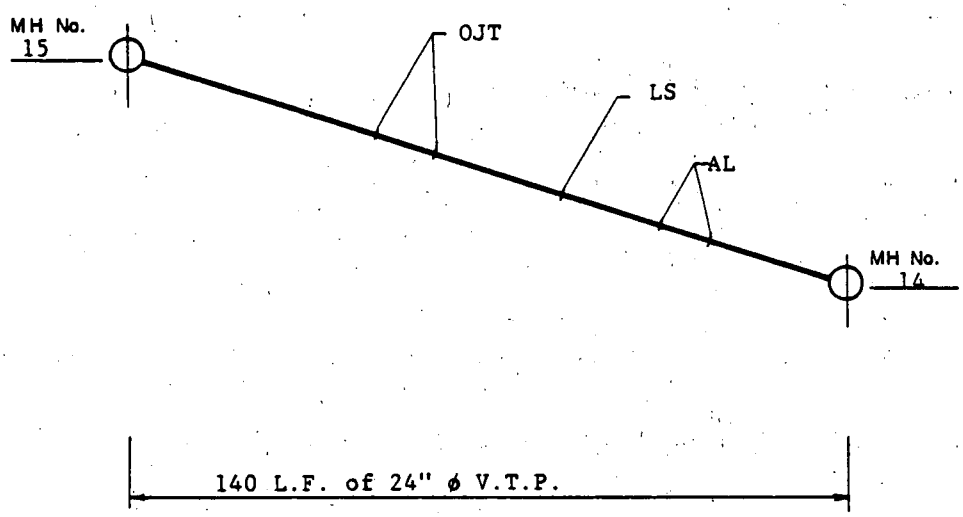
LK - LEAKING
CC - CIRCUMFERENCIAL CRACK
LC - LONGITUDINAL CRACK
CR - CRACK
BP - BROKEN PIPE
BC - BUILDING CONNECTION
RT - ROOTS
AL - OUT OF ALIGNMENT
OJT - OPEN JOINT
LS - LOW SPOT
H - HOLE
ACP - ASBESTOS CEMENT PIPE
VTP - VITRIFIED TILE PIPE
CIP - CAST IRON PIPE
GPD - GALLONS PER DAY
GPM - GALLONS PER MINUTE

MEASURED EXFILTRATION RATE * GPM (GPD)
INCH-FEET OF REACH 1281
UNIFIED EXFILTRATION RATE * GPD/INCH-FEET

* - Could not test - plug could not be installed

SEWER SYSTEM INVESTIGATION
RESULTS OF
INTERNAL INSPECTION

CFM INCORPORATED
ENVIRONMENTAL ENGINEERING SERVICES



PROJECT No. 106
CLIENT Givaudan Corp.
LOCATION Bldg. 67 & 50
MANHOLE REACH 15 to 14
VIDEO TAPE No. TV-16-1
INDEX 482-589

LEGEND

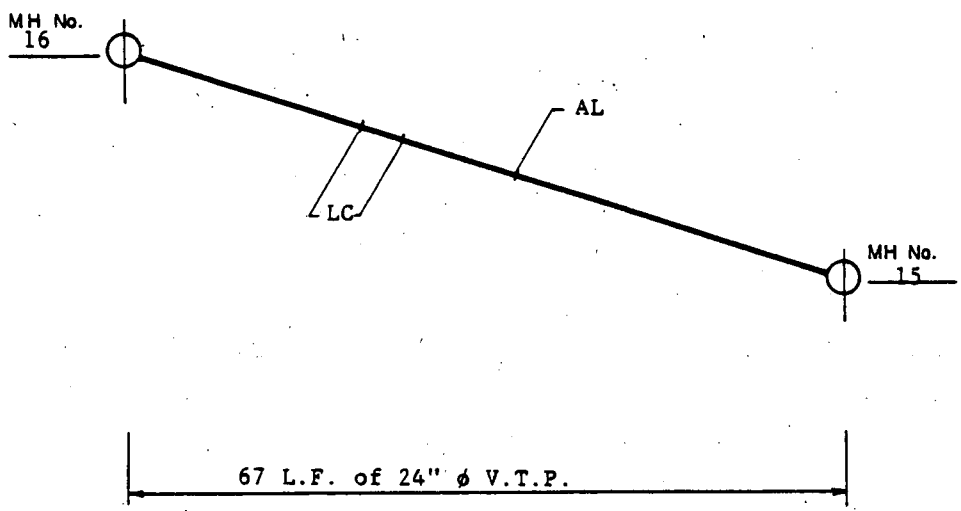
LK – LEAKING
CC – CIRCUMFERENCIAL CRACK
LC – LONGITUDINAL CRACK
CR – CRACK
BP – BROKEN PIPE
BC – BUILDING CONNECTION
RT – ROOTS
AL – OUT OF ALIGNMENT
OJT – OPEN JOINT
LS – LOW SPOT
H – HOLE
ACP – ASBESTOS CEMENT PIPE
VTP – VITRIFIED TILE PIPE
CIP – CAST IRON PIPE
GPD – GALLONS PER DAY
GPM – GALLONS PER MINUTE

MEASURED EXFILTRATION RATE 20(28,800) GPM (GPD)
INCH-FEET OF REACH 3360
UNIFIED EXFILTRATION RATE 8.6 GPD/INCH-FEET

SEWER SYSTEM INVESTIGATION
RESULTS OF
INTERNAL INSPECTION

CFM INCORPORATED
ENVIRONMENTAL ENGINEERING SERVICES

PROJECT No. 106
CLIENT Givaudan Corp.
LOCATION Bldg. 70
MANHOLE REACH 16 to 15
VIDEO TAPE No. TV-16-1
INDEX 439-482



LEGEND

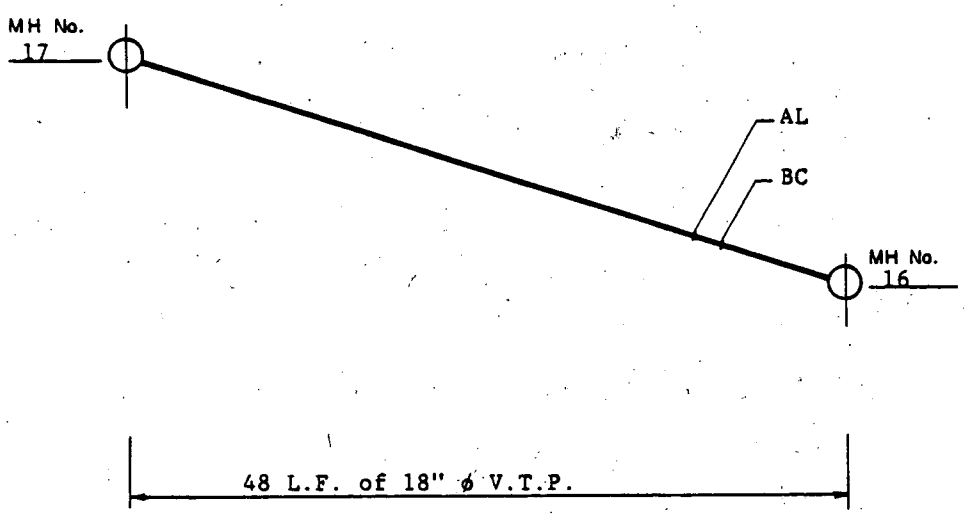
LK - LEAKING
CC - CIRCUMFERENCIAL CRACK
LC - LONGITUDINAL CRACK
CR - CRACK
BP - BROKEN PIPE
BC - BUILDING CONNECTION
RT - ROOTS
AL - OUT OF ALIGNMENT
OJT - OPEN JOINT
LS - LOW SPOT
H - HOLE
ACP - ASBESTOS CEMENT PIPE
VTP - VITRIFIED TILE PIPE
CIP - CAST IRON PIPE
GPD - GALLONS PER DAY
GPM - GALLONS PER MINUTE

MEASURED EXFILTRATION RATE 6.0(8,640) GPM (GPD)
INCH-FEET OF REACH 1608
UNIFIED EXFILTRATION RATE 5.37 GPD/INCH-FEET

SEWER SYSTEM INVESTIGATION
RESULTS OF
INTERNAL INSPECTION

CFM INCORPORATED
ENVIRONMENTAL ENGINEERING SERVICES

PROJECT No. 106
CLIENT Givaudan Corp.
LOCATION Bldg. 70
MANHOLE REACH 17 to 16
VIDEO TAPE No. TV-16-1
INDEX 402-436



LEGEND

LK - LEAKING
CC - CIRCUMFERENCIAL CRACK
LC - LONGITUDINAL CRACK
CR - CRACK
BP - BROKEN PIPE
BC - BUILDING CONNECTION
RT - ROOTS
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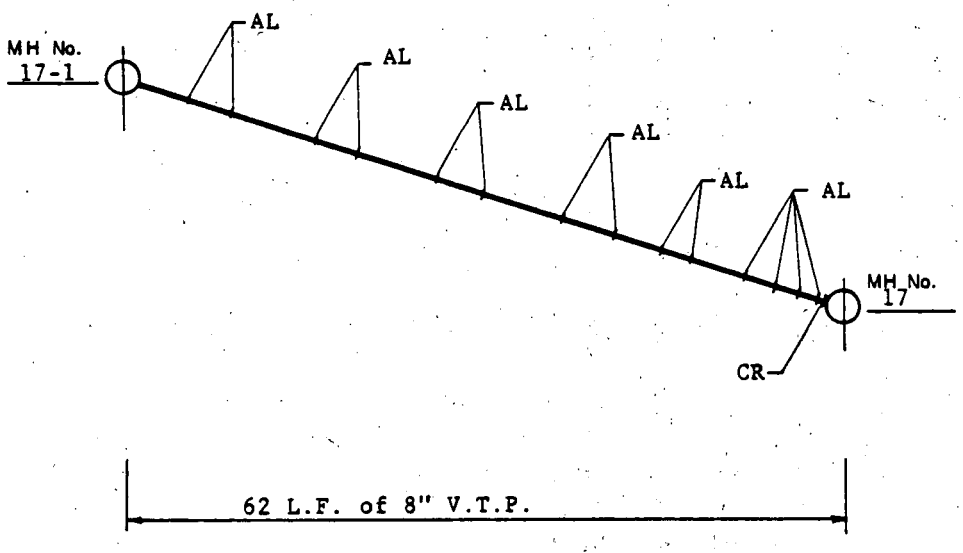
OJT - OPEN JOINT
LS - LOW SPOT
H - HOLE
ACP - ASBESTOS CEMENT PIPE
VTP - VITRIFIED TILE PIPE
CIP - CAST IRON PIPE
GPD - GALLONS PER DAY
GPM - GALLONS PER MINUTE

MEASURED EXFILTRATION RATE 20(28,800) GPM (GPD)
INCH-FEET OF REACH 864
UNIFIED EXFILTRATION RATE 33.3 GPD/INCH-FEET

SEWER SYSTEM INVESTIGATION
RESULTS OF
INTERNAL INSPECTION

CFM INCORPORATED
ENVIRONMENTAL ENGINEERING SERVICES

PROJECT No. 106
CLIENT Givaudan Corp.
LOCATION Bldg. 31
MANHOLE REACH 17-1 to 17
VIDEO TAPE No. TV-16-4
INDEX 459-528



LEGEND

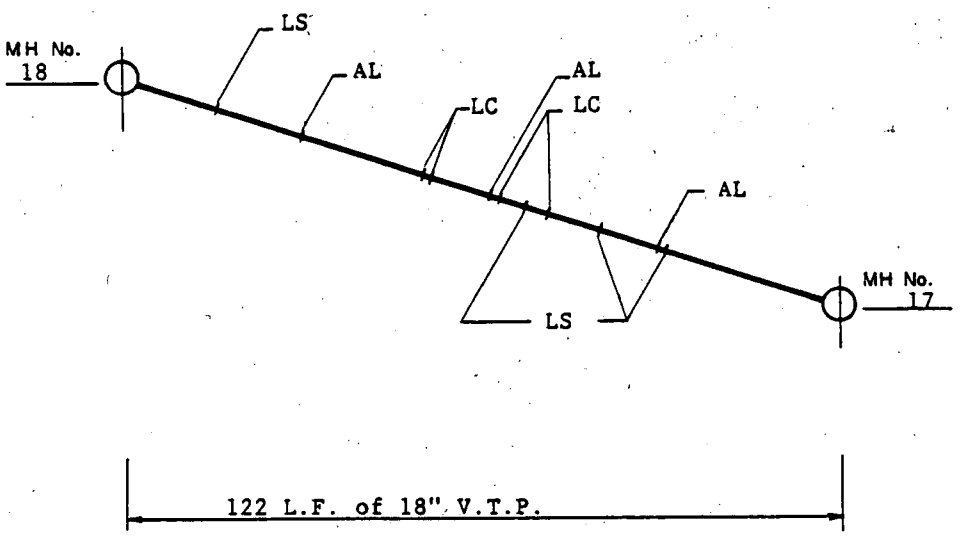
LK – LEAKING
CC – CIRCUMFERENCIAL CRACK
LC – LONGITUDINAL CRACK
CR – CRACK
BP – BROKEN PIPE
BC – BUILDING CONNECTION
RT – ROOTS
AL – OUT OF ALIGNMENT
OJT – OPEN JOINT
LS – LOW SPOT
H – HOLE
ACP – ASBESTOS CEMENT PIPE
VTP – VITRIFIED TILE PIPE
CIP – CAST IRON PIPE
GPD – GALLONS PER DAY
GPM – GALLONS PER MINUTE

MEASURED EXFILTRATION RATE 15 (21,600) GPM (GPD)
INCH-FEET OF REACH 496
UNIFIED EXFILTRATION RATE 43.5 GPD/INCH-FEET

SEWER SYSTEM INVESTIGATION
RESULTS OF
INTERNAL INSPECTION

CFM INCORPORATED
ENVIRONMENTAL ENGINEERING SERVICES

PROJECT No. 106
CLIENT Givaudan Corp.
LOCATION Bldg. 72
MANHOLE REACH 18 to 17
VIDEO TAPE No. TV-16-1
INDEX 305-401



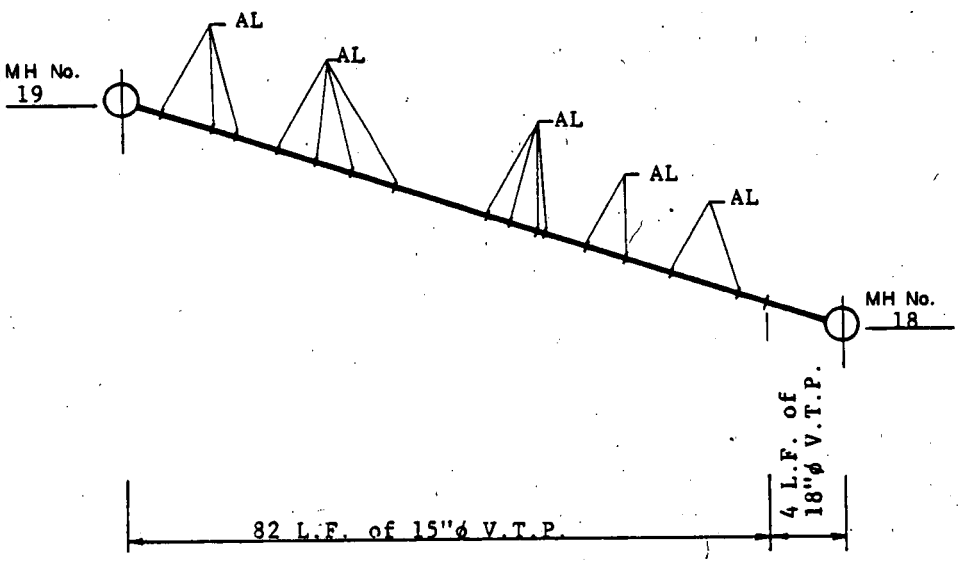
LEGEND

LK - LEAKING
CC - CIRCUMFERENCIAL CRACK
LC - LONGITUDINAL CRACK
CR - CRACK
BP - BROKEN PIPE
BC - BUILDING CONNECTION
RT - ROOTS
AL - OUT OF ALIGNMENT
OJT - OPEN JOINT
LS - LOW SPOT
H - HOLE
ACP - ASBESTOS CEMENT PIPE
VTP - VITRIFIED TILE PIPE
CIP - CAST IRON PIPE
GPD - GALLONS PER DAY
GPM - GALLONS PER MINUTE

MEASURED EXFILTRATION RATE 143(20,952) GPM (GPD)
INCH-FEET OF REACH 2196
UNIFIED EXFILTRATION RATE 9.4 GPD/INCH-FEET

SEWER SYSTEM INVESTIGATION
RESULTS OF
INTERNAL INSPECTION

CFM INCORPORATED
ENVIRONMENTAL ENGINEERING SERVICES



PROJECT No. 106
CLIENT Givaudan Corp.
LOCATION Bldg. 28
MANHOLE REACH 19 to 18
VIDEO TAPE No. TV-16-1
INDEX 223-301

LEGEND

LK - LEAKING
CC - CIRCUMFERENCIAL CRACK
LC - LONGITUDINAL CRACK
CR - CRACK
BP - BROKEN PIPE
BC - BUILDING CONNECTION
RT - ROOTS
AL - OUT OF ALIGNMENT
OJT - OPEN JOINT
LS - LOW SPOT
H - HOLE
ACP - ASBESTOS CEMENT PIPE
VTP - VITRIFIED TILE PIPE
CIP - CAST IRON PIPE
GPD - GALLONS PER DAY
GPM - GALLONS PER MINUTE

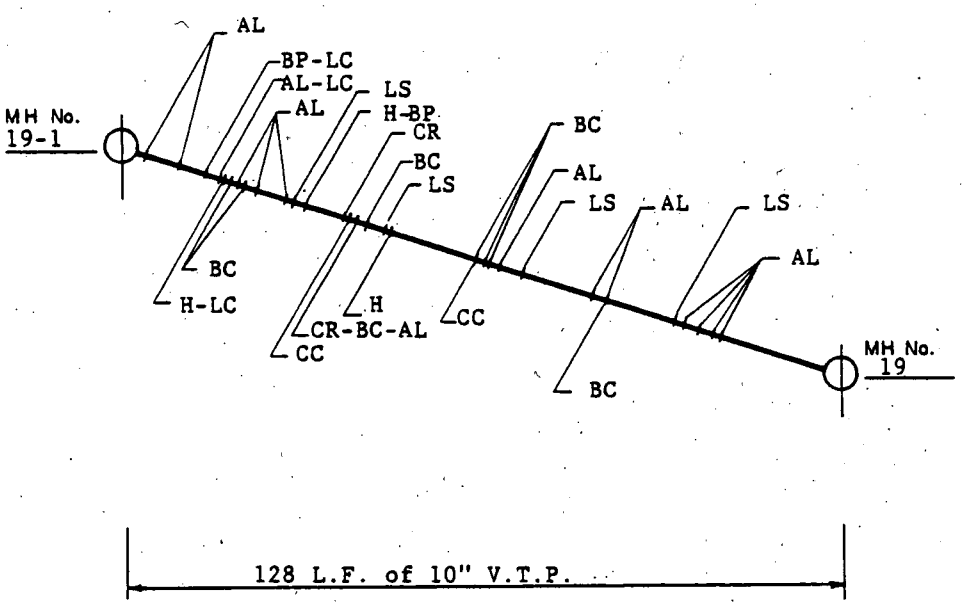
MEASURED EXFILTRATION RATE 27.8(40.032) GPM (GPD)

INCH-FEET OF REACH 1302

UNIFIED EXFILTRATION RATE 30.7 GPD/INCH-FEET

SEWER SYSTEM INVESTIGATION
RESULTS OF
INTERNAL INSPECTION

CFM INCORPORATED
ENVIRONMENTAL ENGINEERING SERVICES



PROJECT No. 106
CLIENT Givaudan Corp.
LOCATION Bldg. 32 to 28
MANHOLE REACH 19-1 to 19
VIDEO TAPE No. TV-16-1A
INDEX 277-447

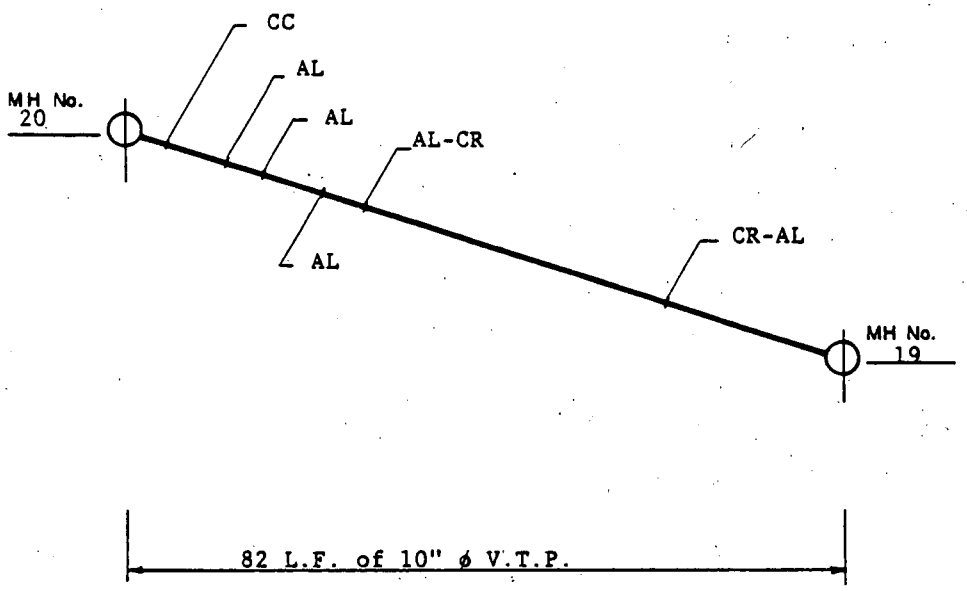
LEGEND

LK - LEAKING
CC - CIRCUMFERENCIAL CRACK
LC - LONGITUDINAL CRACK
CR - CRACK
BP - BROKEN PIPE
BC - BUILDING CONNECTION
RT - ROOTS
AL - OUT OF ALIGNMENT
OJT - OPEN JOINT
LS - LOW SPOT
H - HOLE
ACP - ASBESTOS CEMENT PIPE
VTP - VITRIFIED TILE PIPE
CIP - CAST IRON PIPE
GPD - GALLONS PER DAY
GPM - GALLONS PER MINUTE

MEASURED EXFILTRATION RATE ≥60 (86,400) GPM (GPD)
INCH-FEET OF REACH 1280
UNIFIED EXFILTRATION RATE 67.5 GPD/INCH-FEET

SEWER SYSTEM INVESTIGATION
RESULTS OF
INTERNAL INSPECTION

CFM INCORPORATED
ENVIRONMENTAL ENGINEERING SERVICES



PROJECT No. 106
CLIENT Givaudan Corp.
LOCATION Bldg. 22 to 28
MANHOLE REACH 20 to 19
VIDEO TAPE No. TV-16-1
INDEX 130-222

LEGEND

LK - LEAKING
CC - CIRCUMFERENCIAL CRACK
LC - LONGITUDINAL CRACK
CR - CRACK
BP - BROKEN PIPE
BC - BUILDING CONNECTION
RT - ROOTS
AL - OUT OF ALIGNMENT
OJT - OPEN JOINT
LS - LOW SPOT
H - HOLE
ACP - ASBESTOS CEMENT PIPE
VTP - VITRIFIED TILE PIPE
CIP - CAST IRON PIPE
GPD - GALLONS PER DAY
GPM - GALLONS PER MINUTE

MEASURED EXFILTRATION RATE 41.7(60,048) GPM (GPD)

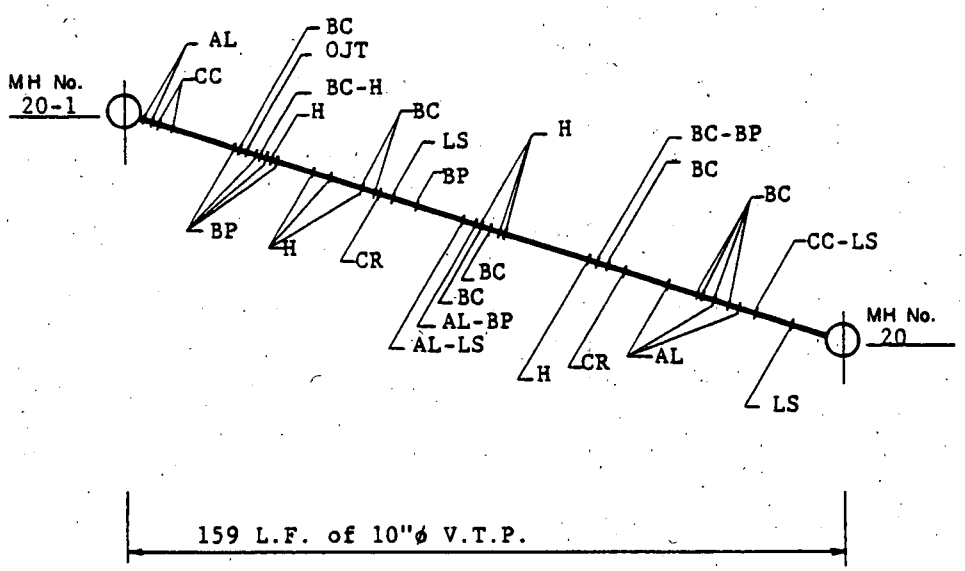
INCH-FEET OF REACH 820

UNIFIED EXFILTRATION RATE 73.2 GPD/INCH-FEET

SEWER SYSTEM INVESTIGATION
RESULTS OF
INTERNAL INSPECTION

CFM INCORPORATED
ENVIRONMENTAL ENGINEERING SERVICES

PROJECT No. 106
CLIENT Givaudan Corp.
LOCATION Bldg 87 to 22
MANHOLE REACH 20-1 to 20
VIDEO TAPE No. TV-17-1
INDEX 283-506



LEGEND

LK – LEAKING
CC – CIRCUMFERENCIAL CRACK
LC – LONGITUDINAL CRACK
CR – CRACK
BP – BROKEN PIPE
BC – BUILDING CONNECTION
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OJT – OPEN JOINT
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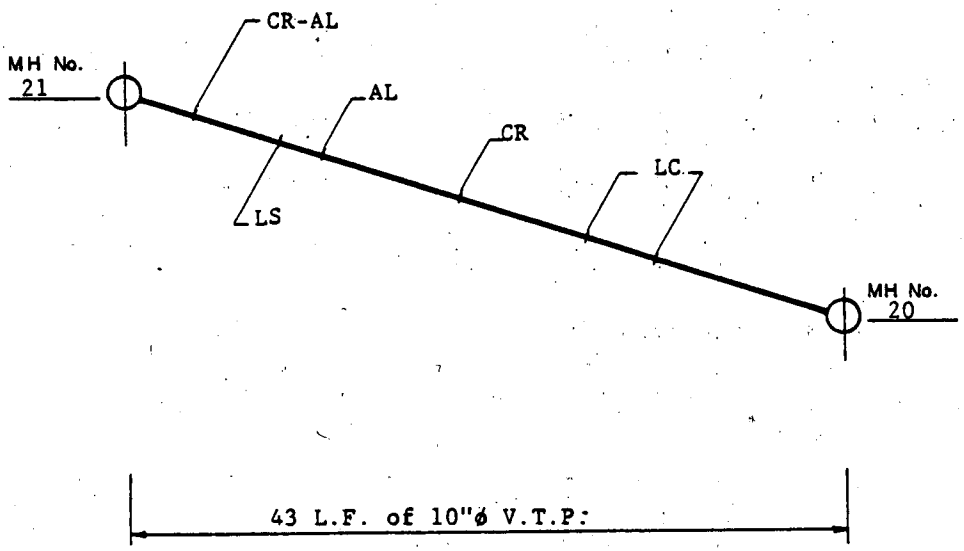
H – HOLE
ACP – ASBESTOS CEMENT PIPE
VTP – VITRIFIED TILE PIPE
CIP – CAST IRON PIPE
GPD – GALLONS PER DAY
GPM – GALLONS PER MINUTE

MEASURED EXFILTRATION RATE ≥60 (86,400) GPM (GPD)
INCH-FEET OF REACH 1590
UNIFIED EXFILTRATION RATE 54.3 GPD/INCH-FEET

SEWER SYSTEM INVESTIGATION
RESULTS OF
INTERNAL INSPECTION

CFM INCORPORATED
ENVIRONMENTAL ENGINEERING SERVICES



PROJECT No. 106
CLIENT Givaudan Corp.
LOCATION Bldg. 22
MANHOLE REACH 21 to 20
VIDEO TAPE No. TV-16-1
INDEX 055-127

LEGEND

LK – LEAKING
CC – CIRCUMFERENCIAL CRACK
LC – LONGITUDINAL CRACK
CR – CRACK
BP – BROKEN PIPE
BC – BUILDING CONNECTION
RT – ROOTS
AL – OUT OF ALIGNMENT
OJT – OPEN JOINT
LS – LOW SPOT
H – HOLE
ACP – ASBESTOS CEMENT PIPE
VTP – VITRIFIED TILE PIPE
CIP – CAST IRON PIPE
GPD – GALLONS PER DAY
GPM – GALLONS PER MINUTE

MEASURED EXFILTRATION RATE 1.6 (2,304) GPM (GPD)

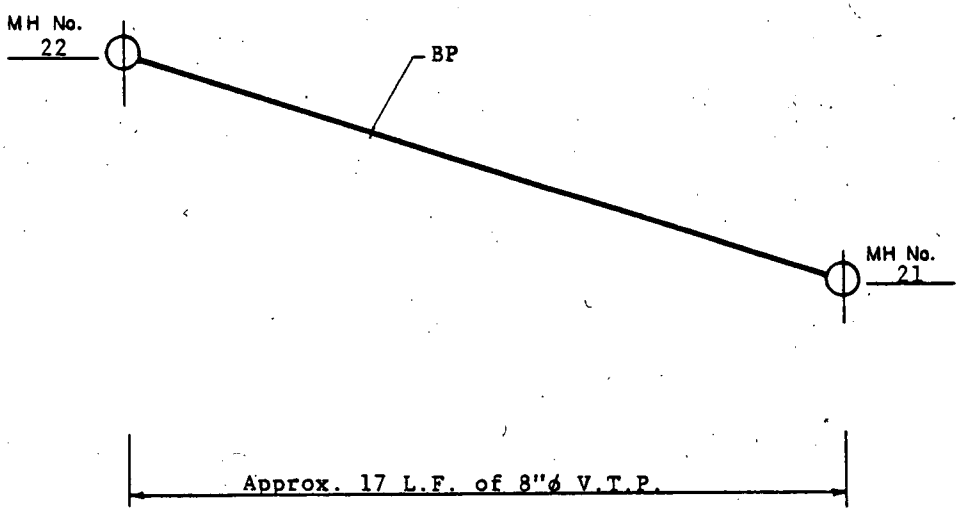
INCH-FEET OF REACH 430

UNIFIED EXFILTRATION RATE 5.4 GPD/INCH-FEET

SEWER SYSTEM INVESTIGATION
RESULTS OF
INTERNAL INSPECTION

CFM INCORPORATED
ENVIRONMENTAL ENGINEERING SERVICES

PROJECT No. 106
CLIENT Givaudan Corporation
LOCATION Bldg. 22
MANHOLE REACH 22 to 21
VIDEO TAPE No. TV-16-1
INDEX 000-012



LEGEND

LK – LEAKING
CC – CIRCUMFERENCIAL CRACK
LC – LONGITUDINAL CRACK
CR – CRACK
BP – BROKEN PIPE
BC – BUILDING CONNECTION
RT – ROOTS
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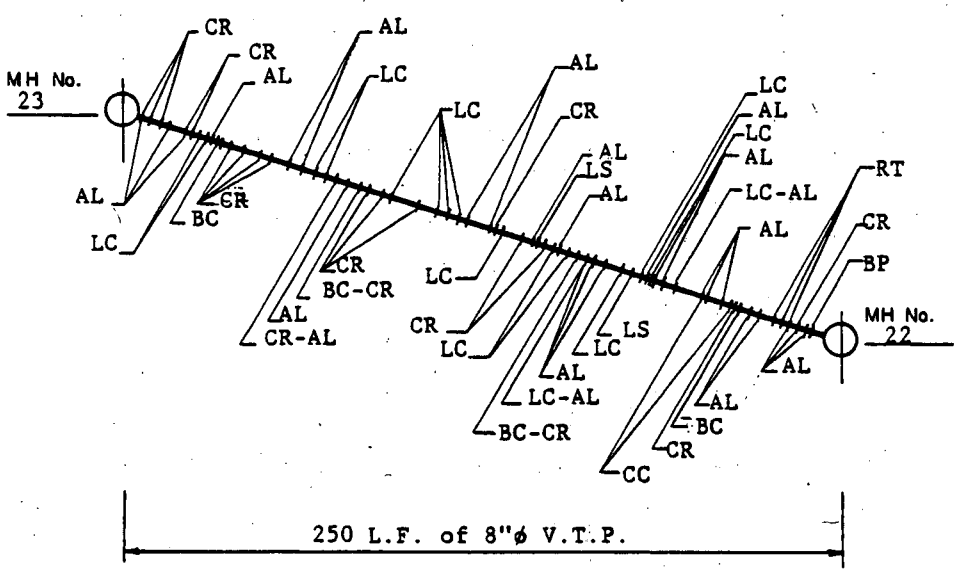
OJT – OPEN JOINT
LS – LOW SPOT
H – HOLE
ACP – ASBESTOS CEMENT PIPE
VTP – VITRIFIED TILE PIPE
CIP – CAST IRON PIPE
GPD – GALLONS PER DAY
GPM – GALLONS PER MINUTE

MEASURED EXFILTRATION RATE >60 (86,400) GPM (GPD)
INCH-FEET OF REACH 136
UNIFIED EXFILTRATION RATE >635 GPD/INCH-FEET

SEWER SYSTEM INVESTIGATION
RESULTS OF
INTERNAL INSPECTION

CFM INCORPORATED
ENVIRONMENTAL ENGINEERING SERVICES

PROJECT No. 106
CLIENT Givaudan Corp.
LOCATION Bldg. 22 to 84
MANHOLE REACH 22 to 23
VIDEO TAPE No. TV-16-3
INDEX 000-317



LEGEND

LK – LEAKING
CC – CIRCUMFERENCIAL CRACK
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BP – BROKEN PIPE
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LS – LOW SPOT
H – HOLE
ACP – ASBESTOS CEMENT PIPE
VTP – VITRIFIED TILE PIPE
CIP – CAST IRON PIPE
GPD – GALLONS PER DAY
GPM – GALLONS PER MINUTE

MEASURED EXFILTRATION RATE >60 (>86,400) GPM (GPD)

INCH-FEET OF REACH 2000

UNIFIED EXFILTRATION RATE >43.2 GPD/INCH-FEET

SEWER SYSTEM INVESTIGATION
RESULTS OF
INTERNAL INSPECTION

CFM INCORPORATED
ENVIRONMENTAL ENGINEERING SERVICES

APPENDIX

A. Manhole Inspection Reports

B. Photographs of Manholes

C. Internal Inspection Report

D. Hydrostatic Testing Reports

E. Connection Inspections

Appendices

APPENDIX A - MANHOLE INSPECTION REPORTS

CFM INCORPORATED
P.O. BOX 584 FAR HILLS, N.J. 07931 (201) 234-0234

MANHOLE INSPECTION REPORT

JOB NO. 106-9
CLIENT GUARDIAN

DATE	TIME	WEATHER	CREW CHIEF	MUNICIPALITY
7/13/83	1010	CLEAR ± 80°	AC	CLIFTON

SUB AREA	MINI SYS.	M.H. NO.	MANHOLE LOCATION
–	–	1	CHERRICK SEWER @ RR

MANHOLE PROPERTIES	CONST. MATERIAL	DEPTH	SURCHARGE HEIGHT IF EVIDENT	MANHOLE AIR QUALITY
	PRECAST	9.5'	–	POOR

DESCRIBE CONDITION OF EACH MANHOLE COMPONENT, SUCH AS: GOOD, WORN, BROKEN, MISSING, CRACKED, LOOSE, SHIFTED, VENTED, SOLID, ETC.

COVER	FRAME	RISER	WALL JOINTS
WOOD COVER –	GOOD	GOOD	GOOD

STEPS	BENCHING	CHANNEL	SPECIAL CONDITIONS
GOOD	BRICK - ON	BRICK - ON	NONE

PIPE INVENTORY

LINE NO.	PIPE SIZE	PIPE SHAPE	CONST. MATERIAL	FLOW DEPTH	DEPTH SEDIMENT	DETAILED DESCRIPTION OF PIPE DEFECTS
1	18"	⊕	VCP	10"	ND	NONE EVIDENT
2	18"	⊕	"	"	"	"
3						
4						
5						

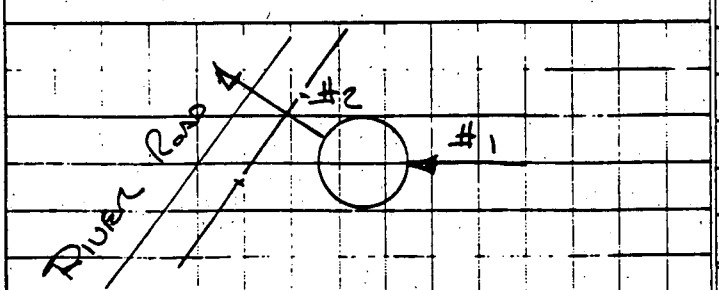
INFILTRATION SOURCES

NO.	DESCRIPTION	HEIGHT ABOVE INVERT	ESTIMATED LEAKAGE (GPD)
1			
2			
3			
4			

INFLOW SOURCES

SOURCE	DESCRIPTION OF SOURCE
COVER	THROUGH WOODEN COVER
RISER	
SURFACE	

SKETCH IDENTIFY RELATIVE LOCATION OF MANHOLE AND INCOMING AND OUTGOING SEWERS USING ABOVE LINE NO (INCLUDE FLOW DIRECTION, STREET, ETC.)



MEASURED FLOW DATA

LINE NO.	FLOW CLARITY	WEIR MEASUREMENT	AREA - VEL. METHOD DEPTH	VEL.	CAL. FLOW

NOTES: FLOW OVER BRICKWORK

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MANHOLE INSPECTION REPORT

JOB NO. 1069

CLIENT GIVAUDAN

DATE	TIME	WEATHER	CREW CHIEF	MUNICIPALITY
7/13/83	1015	CLEAR ± 80°	AE	CLIFTON

SUB AREA	MINI SYS.	M.H. NO.	MANHOLE LOCATION
–	–	2	CHEMICAL SEWER

MANHOLE PROPERTIES	CONST. MATERIAL	DEPTH	SURCHARGE HEIGHT IF EVIDENT	MANHOLE AIR QUALITY

DESCRIBE CONDITION OF EACH MANHOLE COMPONENT, SUCH AS: GOOD, WORN, BROKEN, MISSING, CRACKED, LOOSE, SHIFTED, VENTED, SOLID, ETC.

COVER	FRAME	RISER	WALL JOINTS

STEPS	BENCHING	CHANNEL	SPECIAL CONDITIONS
			SEE NOTES.

PIPE INVENTORY

LINE NO.	PIPE SIZE	PIPE SHAPE	CONST. MATERIAL	FLOW DEPTH	DEPTH SEDIMENT	DETAILED DESCRIPTION OF PIPE DEFECTS
1						
2						
3						
4						
5						

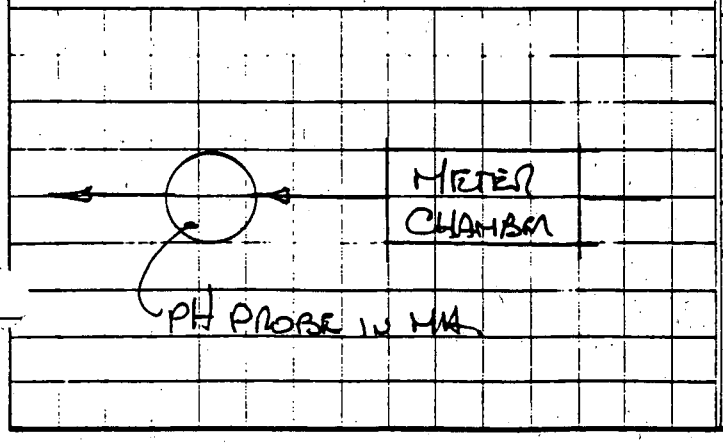
INFILTRATION SOURCES

NO.	DESCRIPTION	HEIGHT ABOVE INVERT	ESTIMATED LEAKAGE (GPD)
1			
2			
3			
4			

INFLOW SOURCES

SOURCE	DESCRIPTION OF SOURCE
COVER	
RISER	
SURFACE	

SKETCH IDENTIFY RELATIVE LOCATION OF MANHOLE AND INCOMING AND OUTGOING SEWERS USING ABOVE LINE NO. (INCLUDE FLOW DIRECTION, STREET, ETC.)



MEASURED FLOW DATA

LINE NO.	FLOW CLARITY	WEIR MEASUREMENT	AREA - VEL. METHOD		
			DEPTH	VEL.	CAL. FLOW

NOTES: MANHOLE NOT INSPECTED DUE TO PRESENCE OF pH PROBE ASSEMBLY

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MANHOLE INSPECTION REPORT

JOB NO. 106-9
CLIENT Giuandan

DATE	TIME	WEATHER	CREW CHIEF	MUNICIPALITY
7/13/83	1025	CLEAR 80°	AC	CLIFTON

SUB AREA	MINI SYS.	M.H. NO.	MANHOLE LOCATION
—	—	3	CHEMICAL SEWER - UPSTR. METER CHAMBER

MANHOLE PROPERTIES	CONST. MATERIAL	DEPTH	SURCHARGE HEIGHT IF EVIDENT	MANHOLE AIR QUALITY
	BLOCK	11.0	—	POOR

DESCRIBE CONDITION OF EACH MANHOLE COMPONENT, SUCH AS: GOOD, WORN, BROKEN, MISSING, CRACKED, LOOSE, SHIFTED, VENTED, SOLID, ETC.

COVER	FRAME	RISER	WALL JOINTS
GOOD - VENTED	GOOD	GOOD	GOOD

STEPS	BENCHING	CHANNEL	SPECIAL CONDITIONS
NONE	GOOD	*	FLOW ABOVE BENCHING

PIPE INVENTORY

LINE NO.	PIPE SIZE	PIPE SHAPE	CONST. MATERIAL	FLOW DEPTH	DEPTH SEDIMENT	DETAILED DESCRIPTION OF PIPE DEFECTS
1	18"	ϕ	VCP			NONE EVIDENT
2	"	"	"			" "
3						
4						
5						

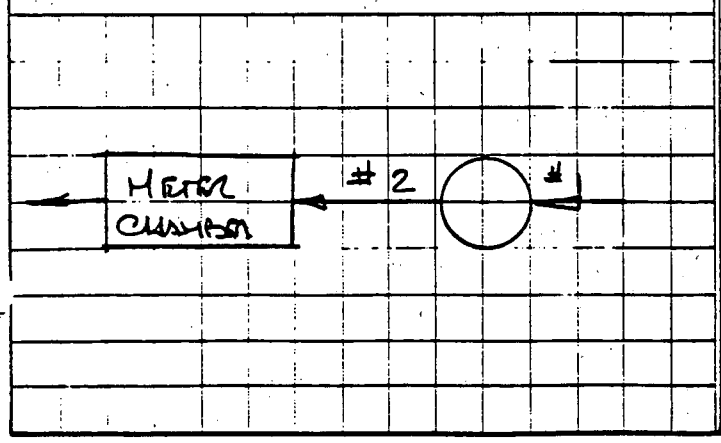
INFILTRATION SOURCES

NO.	DESCRIPTION	HEIGHT ABOVE INVERT	ESTIMATED LEAKAGE (GPD)
1			
2			
3			
4			

INFLOW SOURCES

SOURCE	DESCRIPTION OF SOURCE
COVER	
RISER	
SURFACE	

SKETCH IDENTIFY RELATIVE LOCATION OF MANHOLE AND INCOMING AND OUTGOING SEWERS USING ABOVE LINE NO (INCLUDE FLOW DIRECTION, STREET, ETC.)



MEASURED FLOW DATA

LINE NO.	FLOW CLARITY	WEIR MEASUREMENT	AREA - VEL. METHOD DEPTH	VEL.	CAL. FLOW

NOTES: * FLOW IN PIPE PREVENTED PROPER INSPECTION

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MANHOLE INSPECTION REPORT

JOB NO. 106-9

CLIENT GUARDA

DATE	TIME	WEATHER	CREW CHIEF	MUNICIPALITY
7/13/83	10 4.	CLEAR 80°	AC	CLIFTON

SUB AREA	MINI SYS.	M.H. NO.	MANHOLE LOCATION
–	–	4	CHROMICH SEWER - DUNSTER - PIT 74

MANHOLE PROPERTIES	CONST. MATERIAL	DEPTH	SURCHARGE HEIGHT IF EVIDENT	MANHOLE AIR QUALITY
	Block	13.0	–	POOR

DESCRIBE CONDITION OF EACH MANHOLE COMPONENT, SUCH AS: GOOD, WORN, BROKEN, MISSING, CRACKED, LOOSE, SHIFTED, VENTED, SOLID, ETC.

COVER	FRAME	RISER	WALL JOINTS
NO COVER - GRATE ONLY	GOOD	GOOD	GOOD

STEPS	BENCHING	CHANNEL	SPECIAL CONDITIONS
GOOD	GOOD	GOOD	NONE

PIPE INVENTORY

LINE NO.	PIPE SIZE	PIPE SHAPE	CONST. MATERIAL	FLOW DEPTH	DEPTH SEDIMENT	DETAILED DESCRIPTION OF PIPE DEFECTS
1	18"	"	Ucp		NONE	NONE EVIDENT
2	18"	"	"		"	" "
3						
4						
5						

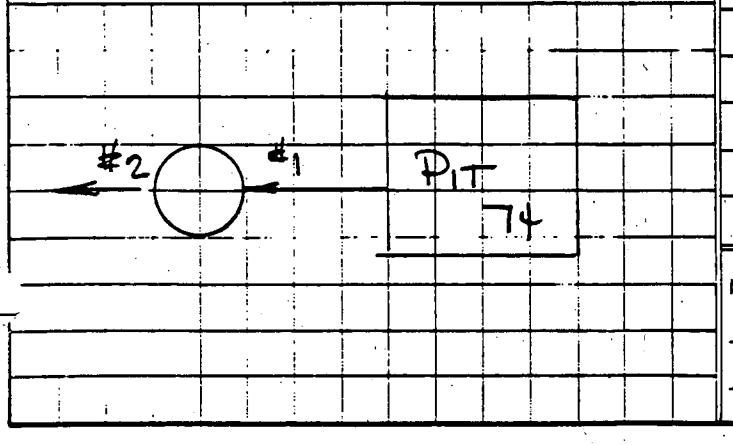
INFILTRATION SOURCES

NO.	DESCRIPTION	HEIGHT ABOVE INVERT	ESTIMATED LEAKAGE (GPD)
1	NONE		
2			
3			
4			

INFLOW SOURCES

SOURCE	DESCRIPTION OF SOURCE
COVER	NONE - EXCEPT THROUGH GRATE
RISER	
SURFACE	

SKETCH IDENTIFY RELATIVE LOCATION OF MANHOLE AND INCOMING AND OUTGOING SEWERS USING ABOVE LINE NO (INCLUDE FLOW DIRECTION, STREET, ETC.).



MEASURED FLOW DATA

LINE NO.	FLOW CLARITY	WEIR MEASUREMENT	AREA - VEL. METHOD DEPTH	VEL.	CAL. FLOW

NOTES: NONE

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MANHOLE INSPECTION REPORT

JOB NO. 106-9

CLIENT GUARDIAN

DATE	TIME	WEATHER	CREW CHIEF	MUNICIPALITY
7/13/83	1105	CLEAR 80°	AC	CLIFTON

SUB AREA	MINI SYS.	M.H. NO.	MANHOLE LOCATION
–	–	5	CLARMICH SEWER

MANHOLE PROPERTIES	CONST. MATERIAL	DEPTH	SURCHARGE HEIGHT IF EVIDENT	MANHOLE AIR QUALITY
	BLOCK	7.6		POOR

DESCRIBE CONDITION OF EACH MANHOLE COMPONENT, SUCH AS: GOOD, WORN, BROKEN, MISSING, CRACKED, LOOSE, SHIFTED, VENTED, SOLID, ETC.

COVER	FRAME	RISER	WALL JOINTS
VENTED	GOOD	GOOD	GOOD

STEPS	BENCHING	CHANNEL	SPECIAL CONDITIONS
NONE	NONE		

PIPE INVENTORY

LINE NO.	PIPE SIZE	PIPE SHAPE	CONST. MATERIAL	FLOW DEPTH	DEPTH SEDIMENT	DETAILED DESCRIPTION OF PIPE DEFECTS
1	18"	⊕	VCP			NONE EVIDENT
2	18	"	"			" "
3	6"	"	"			NONE " (DRAIN)
4	18"	"	"			" "
5						

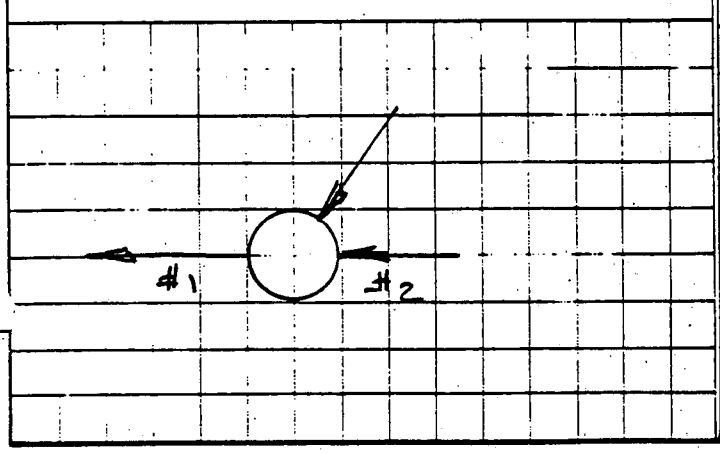
INFILTRATION SOURCES

NO.	DESCRIPTION	HEIGHT ABOVE INVERT	ESTIMATED LEAKAGE (GPD)
1	NONE		
2			
3			
4			

INFLOW SOURCES

SOURCE	DESCRIPTION OF SOURCE
COVER	NONE
RISER	
SURFACE	

SKETCH IDENTIFY RELATIVE LOCATION OF MANHOLE AND INCOMING AND OUTGOING SEWERS USING ABOVE LINE NO (INCLUDE FLOW DIRECTION, STREET, ETC.)



MEASURED FLOW DATA

LINE NO.	FLOW CLARITY	WEIR MEASUREMENT	AREA - VEL. METHOD DEPTH	VEL.	CAL. FLOW

NOTES:

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MANHOLE INSPECTION REPORT

JOB NO. 106-9
CLIENT GIVAUDAN

DATE	TIME	WEATHER	CREW CHIEF	MUNICIPALITY
8/16/83		CLEAR 80°	P. TYRRELL	CLIFTON

SUB AREA: | MINI SYS.: | M.H. NO.: 06 | MANHOLE LOCATION: GIVAUDAN - 2ND MH D.S. OF LIME TOWER

MANHOLE PROPERTIES	CONST. MATERIAL	DEPTH	SURCHARGE HEIGHT IF EVIDENT	MANHOLE AIR QUALITY
	PRECAST	11'		POOR

DESCRIBE CONDITION OF EACH MANHOLE COMPONENT, SUCH AS: GOOD, WORN, BROKEN, MISSING, CRACKED, LOOSE, SHIFTED, VENTED, SOLID, ETC.

COVER	FRAME	RISER	WALL JOINTS
WOOD 2' ABOVE GROUND	~~NONE~~ WORN	GOOD	GOOD

STEPS	BENCHING	CHANNEL	SPECIAL CONDITIONS
GOOD	—	—	SURCHARGED

PIPE INVENTORY

LINE NO.	PIPE SIZE	PIPE SHAPE	CONST. MATERIAL	FLOW DEPTH	DEPTH SEDIMENT	DETAILED DESCRIPTION OF PIPE DEFECTS
1						
2						CANNOT SEE
3						ANY PIPES
4						
5						

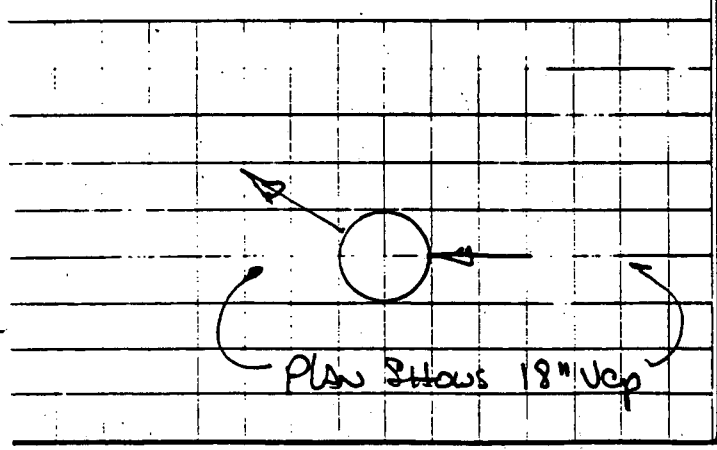
INFILTRATION SOURCES

NO.	DESCRIPTION	HEIGHT ABOVE INVERT	ESTIMATED LEAKAGE (GPD)
1			
2	NONE		
3			
4			

INFLOW SOURCES

SOURCE	DESCRIPTION OF SOURCE
COVER	
	NONE
RISER	
SURFACE	

SKETCH IDENTIFY RELATIVE LOCATION OF MANHOLE AND INCOMING AND OUTGOING SEWERS USING ABOVE LINE NO (INCLUDE FLOW DIRECTION, STREET, ETC.)



MEASURED FLOW DATA

LINE NO.	FLOW CLARITY	WEIR MEASUREMENT	AREA - VEL. METHOD DEPTH	VEL.	CAL. FLOW

NOTES: MANHOLE SURCHARGED

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MANHOLE INSPECTION REPORT

JOB NO. 106-9
CLIENT GIVAUDAN

DATE	TIME	WEATHER	CREW CHIEF	MUNICIPALITY
8/16/83		CLEAR 85°	P. TYRRELL	CLIFTON

SUB AREA: | MINI SYS.: | M.H. NO.: 07 | MANHOLE LOCATION: GIVAUDAN - 1ST MH D.S. OF LIME TOWER

MANHOLE PROPERTIES

CONST. MATERIAL	DEPTH	SURCHARGE HEIGHT IF EVIDENT	MANHOLE AIR QUALITY
V.C.P. PIPE - 24"	10'	3'	POOR

DESCRIBE CONDITION OF EACH MANHOLE COMPONENT, SUCH AS: GOOD, WORN, BROKEN, MISSING, CRACKED, LOOSE, SHIFTED, VENTED, SOLID, ETC.

COVER	FRAME	RISER	WALL JOINTS
WOOD ELEV. 2' ABOVE GROUND	NONE	GOOD	GOOD

STEPS	BENCHING	CHANNEL	SPECIAL CONDITIONS
NONE	CANNOT SEE	CANNOT SEE	SURCHARGED

PIPE INVENTORY

LINE NO.	PIPE SIZE	PIPE SHAPE	CONST. MATERIAL	FLOW DEPTH	DEPTH SEDIMENT	DETAILED DESCRIPTION OF PIPE DEFECTS
1						
2						NONE
3						VISIBLE
4						
5						

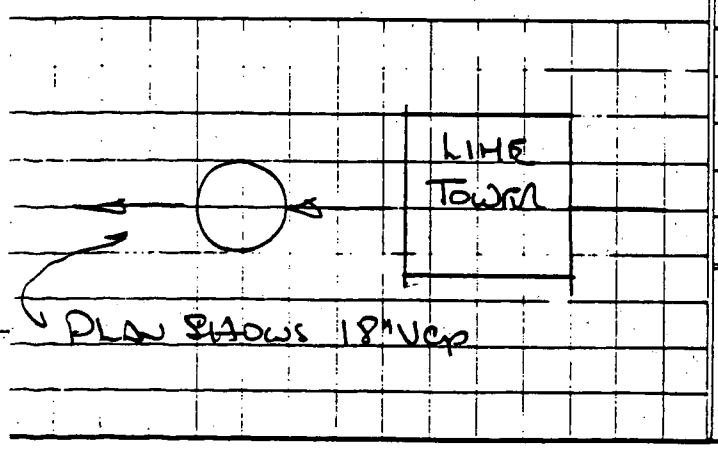
INFILTRATION SOURCES

NO.	DESCRIPTION	HEIGHT ABOVE INVERT	ESTIMATED LEAKAGE (GPD)
1			
2	NONE		
3			
4			

INFLOW SOURCES

SOURCE	DESCRIPTION OF SOURCE
COVER	
	NONE
RISER	
SURFACE	

SKETCH IDENTIFY RELATIVE LOCATION OF MANHOLE AND INCOMING AND OUTGOING SEWERS USING ABOVE LINE NO. (INCLUDE FLOW DIRECTION, STREET, ETC.)



MEASURED FLOW DATA

LINE NO.	FLOW CLARITY	WEIR MEASUREMENT	AREA - VEL. METHOD: DEPTH	VEL.	CAL. FLOW

NOTES: MANHOLE SURCHARGED - NOT INSPECTED

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MANHOLE INSPECTION REPORT

JOB NO. 106-9
CLIENT GIVANDAN

DATE	TIME	WEATHER	CREW CHIEF	MUNICIPALITY
7/13/83	1130	CLEAR 80°	AC	CLIFTON

SUB AREA: | MINI SYS.: | M.H. NO.: 8 | MANHOLE LOCATION: CHEMICAL SEWER - UPSTR OF LIME TOWER

MANHOLE PROPERTIES	CONST. MATERIAL	DEPTH	SURCHARGE HEIGHT IF EVIDENT	MANHOLE AIR QUALITY
	BLOCK	—		POOR

DESCRIBE CONDITION OF EACH MANHOLE COMPONENT, SUCH AS: GOOD, WORN, BROKEN, MISSING, CRACKED, LOOSE, SHIFTED, VENTED, SOLID, ETC.

COVER	FRAME	RISER	WALL JOINTS
GOOD - VENTED	GOOD	GOOD	GOOD

STEPS	BENCHING	CHANNEL	SPECIAL CONDITIONS
	NONE		

PIPE INVENTORY

LINE NO.	PIPE SIZE	PIPE SHAPE	CONST. MATERIAL	FLOW DEPTH	DEPTH SEDIMENT	DETAILED DESCRIPTION OF PIPE DEFECTS
1	18"	⌀	Vcp			NONE EVIDENT
2	18"	⌀	"			
3	18"	⌀	"			
4						
5						

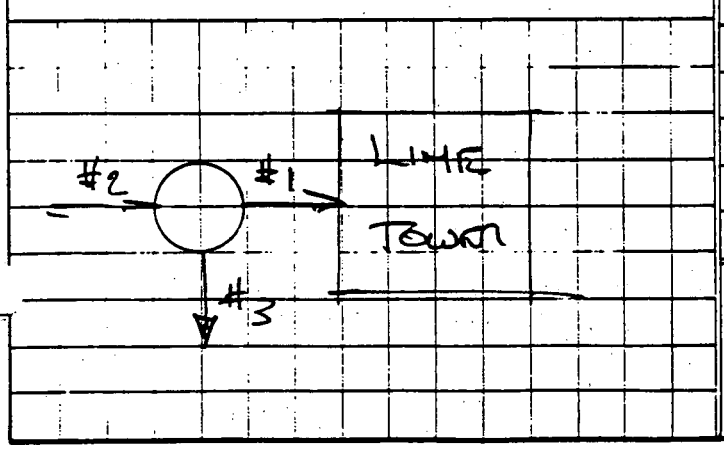
INFILTRATION SOURCES

NO.	DESCRIPTION	HEIGHT ABOVE INVERT	ESTIMATED LEAKAGE (GPD)
1	NONE		
2			
3			
4			

INFLOW SOURCES

SOURCE	DESCRIPTION OF SOURCE
COVER	NONE
RISER	
SURFACE	

SKETCH IDENTIFY RELATIVE LOCATION OF MANHOLE AND INCOMING AND OUTGOING SEWERS USING ABOVE LINE NO. (INCLUDE FLOW DIRECTION, STREET, ETC.).



MEASURED FLOW DATA

LINE NO.	FLOW CLARITY	WEIR MEASUREMENT	AREA - VEL. METHOD DEPTH	VEL.	CAL. FLOW

NOTES: LINE #1 WILL BE PLUGGED IN FUTURE & FLOW DIVERTED TO #3

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MANHOLE INSPECTION REPORT

JOB NO. 106-9
CLIENT GUADAN

DATE	TIME	WEATHER	CREW CHIEF	MUNICIPALITY
7/13/83	1145	CLEAR 85°	AC	CLIFTON

SUB AREA	MINI SYS.	M.H. NO.	MANHOLE LOCATION
		9	CHEMICAL SEWER

MANHOLE PROPERTIES	CONST. MATERIAL	DEPTH	SURCHARGE HEIGHT IF EVIDENT	MANHOLE AIR QUALITY
	BLOCK	-	NA	POOR

DESCRIBE CONDITION OF EACH MANHOLE COMPONENT, SUCH AS: GOOD, WORN, BROKEN, MISSING, CRACKED, LOOSE, SHIFTED, VENTED, SOLID, ETC.

COVER	FRAME	RISER	WALL JOINTS
WOODEN - SUPPORT FOR PH	2'-0 EXT.	-	-

STEPS	BENCHING	CHANNEL	SPECIAL CONDITIONS
-	-	-	NOT INSPECTED - SEE NOTE

PIPE INVENTORY

LINE NO.	PIPE SIZE	PIPE SHAPE	CONST. MATERIAL	FLOW DEPTH	DEPTH SEDIMENT	DETAILED DESCRIPTION OF PIPE DEFECTS
1	18"	⌀	VCP			SEE NOTE
2	18"	"	"			
3	12"	"	"			
4						
5						

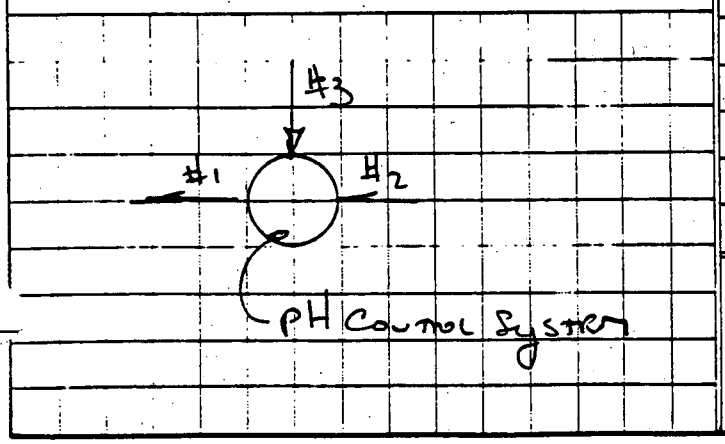
INFILTRATION SOURCES

NO.	DESCRIPTION	HEIGHT ABOVE INVERT	ESTIMATED LEAKAGE (GPD)
1			
2			
3			
4			

INFLOW SOURCES

SOURCE	DESCRIPTION OF SOURCE
COVER	
RISER	
SURFACE	

SKETCH IDENTIFY RELATIVE LOCATION OF MANHOLE AND INCOMING AND OUTGOING SEWERS USING ABOVE LINE NO (INCLUDE FLOW DIRECTION, STREET, ETC.).



MEASURED FLOW DATA

LINE NO.	FLOW CLARITY	WEIR MEASUREMENT	AREA - VEL. METHOD DEPTH	VEL.	CAL. FLOW

NOTES: NOT INSPECTED DUE TO PRESENCE OF pH CONTROL SYSTEM

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MANHOLE INSPECTION REPORT

JOB NO. 106.9
CLIENT GIUDICE

DATE	TIME	WEATHER	CREW CHIEF	MUNICIPALITY
7/13/83	1150	CLEAR 85°	AC	CLIFTON

SUB AREA: — MINI SYS.: — M.H. NO.: 9-1 MANHOLE LOCATION: BRANCH OF CHRYSLER SEWER TO BLDG 95

MANHOLE PROPERTIES	CONST. MATERIAL	DEPTH	SURCHARGE HEIGHT IF EVIDENT	MANHOLE AIR QUALITY
	BLOCK	7.3	—	POOR

DESCRIBE CONDITION OF EACH MANHOLE COMPONENT, SUCH AS: GOOD, WORN, BROKEN, MISSING, CRACKED, LOOSE, SHIFTED, VENTED, SOLID, ETC.

COVER	FRAME	RISER	WALL JOINTS
VENTED - GOOD	GOOD	GOOD	GOOD

STEPS	BENCHING	CHANNEL	SPECIAL CONDITIONS
NONE	NONE	NONE	NONE

PIPE INVENTORY

LINE NO.	PIPE SIZE	PIPE SHAPE	CONST. MATERIAL	FLOW DEPTH	DEPTH SEDIMENT	DETAILED DESCRIPTION OF PIPE DEFECTS
1	12	Φ	VCP			NONE EVIDENT
2	12	"	"			"
3	8	"	"			"
4						
5						

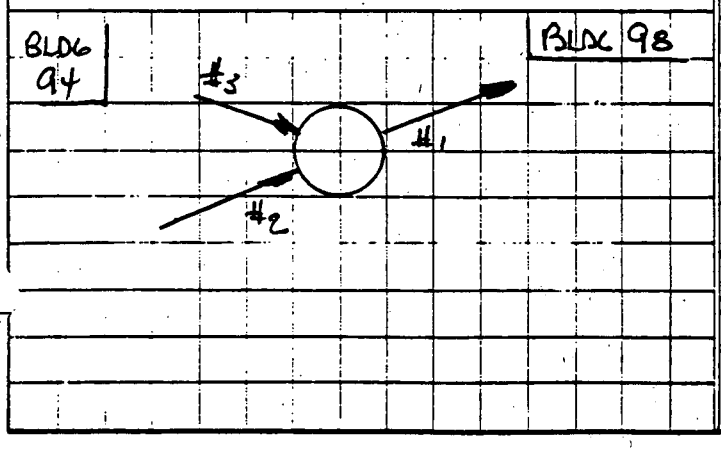
INFILTRATION SOURCES

NO.	DESCRIPTION	HEIGHT ABOVE INVERT	ESTIMATED LEAKAGE (GPD)
1	NONE		
2			
3			
4			

INFLOW SOURCES

SOURCE	DESCRIPTION OF SOURCE
COVER	NONE
RISER	
SURFACE	

SKETCH IDENTIFY RELATIVE LOCATION OF MANHOLE AND INCOMING AND OUTGOING SEWERS USING ABOVE LINE NO. (INCLUDE FLOW DIRECTION, STREET, ETC.).



MEASURED FLOW DATA

LINE NO.	FLOW CLARITY	WEIR MEASUREMENT	AREA - VEL. METHOD DEPTH	VEL.	CAL. FLOW

NOTES:

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MANHOLE INSPECTION REPORT

JOB NO. 106-9
CLIENT GIVAUDAN

DATE	TIME	WEATHER	CREW CHIEF	MUNICIPALITY
7/13/83	1210	CLEAR 85°	AC	CLIFTON

SUB AREA	MINI SYS.	M.H. NO.	MANHOLE LOCATION
		9-2	BRANCH OF CHEMICAL SEWER

MANHOLE PROPERTIES	CONST. MATERIAL	DEPTH	SURCHARGE HEIGHT IF EVIDENT	MANHOLE AIR QUALITY
	BLOCK	5	—	POOR

DESCRIBE CONDITION OF EACH MANHOLE COMPONENT, SUCH AS: GOOD, WORN, BROKEN, MISSING, CRACKED, LOOSE, SHIFTED, VENTED, SOLID, ETC.

COVER	FRAME	RISER	WALL JOINTS
GOOD - VENTED	SHIFTED	WORN	GOOD

STEPS	BENCHING	CHANNEL	SPECIAL CONDITIONS
NONE	NONE	NONE	—

PIPE INVENTORY

LINE NO.	PIPE SIZE	PIPE SHAPE	CONST. MATERIAL	FLOW DEPTH	DEPTH SEDIMENT	DETAILED DESCRIPTION OF PIPE DEFECTS
1	12"	ϕ	VCP			NONE EVIDENT
2	"	"	"			" "
3	"	"	"			" "
4						
5						

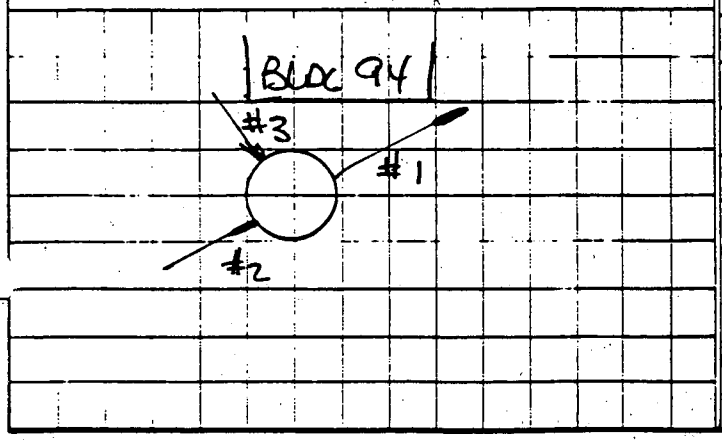
INFILTRATION SOURCES

NO.	DESCRIPTION	HEIGHT ABOVE INVERT	ESTIMATED LEAKAGE (GPD)
1	NONE		
2			
3			
4			

INFLOW SOURCES

SOURCE	DESCRIPTION OF SOURCE
COVER	NONE
RISER	
SURFACE	

SKETCH IDENTIFY RELATIVE LOCATION OF MANHOLE AND INCOMING AND OUTGOING SEWERS USING ABOVE LINE NO (INCLUDE FLOW DIRECTION, STREET, ETC.).



MEASURED FLOW DATA

LINE NO.	FLOW CLARITY	WEIR MEASUREMENT	AREA - VEL. METHOD DEPTH	VEL.	CAL. FLOW

NOTES:

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MANHOLE INSPECTION REPORT

JOB NO. 106-9

CLIENT GIVAUDAN

DATE	TIME	WEATHER	CREW CHIEF	MUNICIPALITY
9/12/83	1335	OC 85°	P. TYRRELL	CLIFTON

SUB AREA	MINI SYS.	M.H. NO.	MANHOLE LOCATION
		9-3	GIVAUDAN - SOUTHWEST CORNER OF BLDG 94

MANHOLE PROPERTIES	CONST. MATERIAL	DEPTH	SURCHARGE HEIGHT IF EVIDENT	MANHOLE AIR QUALITY
	1/2 BLOCK 1/2 BRICK	7.0'	0	

DESCRIBE CONDITION OF EACH MANHOLE COMPONENT, SUCH AS: GOOD, WORN, BROKEN, MISSING, CRACKED, LOOSE, SHIFTED, VENTED, SOLID, ETC.

COVER	FRAME	RISER	WALL JOINTS
SOLID 4 PICK HOLES	WORN	GOOD	GOOD

STEPS	BENCHING	CHANNEL	SPECIAL CONDITIONS
NONE	NONE	GOOD	MH PREVIOUSLY BURIED

PIPE INVENTORY

LINE NO.	PIPE SIZE	PIPE SHAPE	CONST. MATERIAL	FLOW DEPTH	DEPTH SEDIMENT	DETAILED DESCRIPTION OF PIPE DEFECTS
1	8"	CIRC	VCP	3"	0	
2	12"	CIRC	VCP	1 1/2"	0	NONE
3	8"	CIRC	VCP	0	0	VISIBLE
4	8"	CIRC	VCP	0	0	
5						

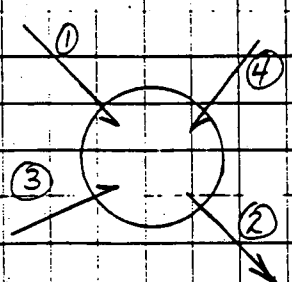
INFILTRATION SOURCES

NO.	DESCRIPTION	HEIGHT ABOVE INVERT	ESTIMATED LEAKAGE (GPD)
1	/		
2	NONE		
3	/		
4	/		

INFLOW SOURCES

SOURCE	DESCRIPTION OF SOURCE
COVER	4 3/4" PICK HOLES - COVER DUG UP, BELOW GRADE OF PAVEMENT
RISER	
SURFACE	

SKETCH IDENTIFY RELATIVE LOCATION OF MANHOLE AND INCOMING AND OUTGOING SEWERS USING ABOVE LINE NO (INCLUDE FLOW DIRECTION, STREET, ETC.)



MEASURED FLOW DATA

LINE NO.	FLOW CLARITY	WEIR MEASUREMENT	AREA - VEL. METHOD		
			DEPTH	VEL.	CAL. FLOW

NOTES:

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P.O. BOX 584 FAR HILLS, N.J. 07931 (201) 234-0234

MANHOLE INSPECTION REPORT

JOB NO. 106-9
CLIENT GUARDIAN

DATE	TIME	WEATHER	CREW CHIEF	MUNICIPALITY
7/13/83	1325	CLEAR 90°	AC	CLINTON

SUB AREA: — MINI SYS.: — M.H. NO.: 10 MANHOLE LOCATION: CHEMICAL SEWER

MANHOLE PROPERTIES

CONST. MATERIAL	DEPTH	SURCHARGE HEIGHT IF EVIDENT	MANHOLE AIR QUALITY
BLOCK	6.5'	-	POOR

DESCRIBE CONDITION OF EACH MANHOLE COMPONENT, SUCH AS: GOOD, WORN, BROKEN, MISSING, CRACKED, LOOSE, SHIFTED, VENTED, SOLID, ETC.

COVER	FRAME	RISER	WALL JOINTS
GOOD - VENTED	GOOD	GOOD	GOOD

STEPS	BENCHING	CHANNEL	SPECIAL CONDITIONS
NONE	NONE	GOOD	PIPE BROKEN - SEE NOTE

PIPE INVENTORY

LINE NO.	PIPE SIZE	PIPE SHAPE	CONST. MATERIAL	FLOW DEPTH	DEPTH SEDIMENT	DETAILED DESCRIPTION OF PIPE DEFECTS
1	18"	Φ	VCP			NONE EVIDENT - SEE NOTE
2	18"	Φ	"			
3	12"	Φ	"			
4						
5						

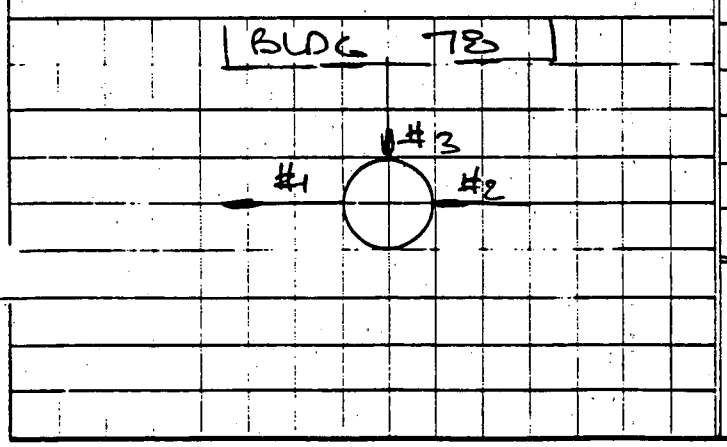
INFILTRATION SOURCES

NO.	DESCRIPTION	HEIGHT ABOVE INVERT	ESTIMATED LEAKAGE (GPD)
1	NONE		
2			
3			
4			

INFLOW SOURCES

SOURCE	DESCRIPTION OF SOURCE
COVER	NONE
RISER	
SURFACE	

SKETCH IDENTIFY RELATIVE LOCATION OF MANHOLE AND INCOMING AND OUTGOING SEWERS USING ABOVE LINE NO. (INCLUDE FLOW DIRECTION, STREET, ETC.)



MEASURED FLOW DATA

LINE NO.	FLOW CLARITY	WEIR MEASUREMENT	AREA - VEL. METHOD DEPTH	VEL.	CAL. FLOW

NOTES: PIPE IS STRAIGHT THROUGH HH WITH TOP BROKEN TO ACCEPT SIDE LINE

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MANHOLE INSPECTION REPORT

JOB NO. 106-9

CLIENT GUANDAN

DATE	TIME	WEATHER	CREW CHIEF	MUNICIPALITY
7/13/83	1335	CLEAR 90°	AC	CLIFTON

SUB AREA	MINI SYS.	M.H. NO.	MANHOLE LOCATION
		10-1	BRANCH CHEMICAL SEWER TO BLDG. 79-83

MANHOLE PROPERTIES	CONST. MATERIAL	DEPTH	SURCHARGE HEIGHT IF EVIDENT	MANHOLE AIR QUALITY

DESCRIBE CONDITION OF EACH MANHOLE COMPONENT, SUCH AS: GOOD, WORN, BROKEN, MISSING, CRACKED, LOOSE, SHIFTED, VENTED, SOLID, ETC.

COVER	FRAME	RISER	WALL JOINTS

STEPS	BENCHING	CHANNEL	SPECIAL CONDITIONS
			CLEAN OUT - SEE NOTE

PIPE INVENTORY

LINE NO.	PIPE SIZE	PIPE SHAPE	CONST. MATERIAL	FLOW DEPTH	DEPTH SEDIMENT	DETAILED DESCRIPTION OF PIPE DEFECTS
1						
2						
3						
4						
5						

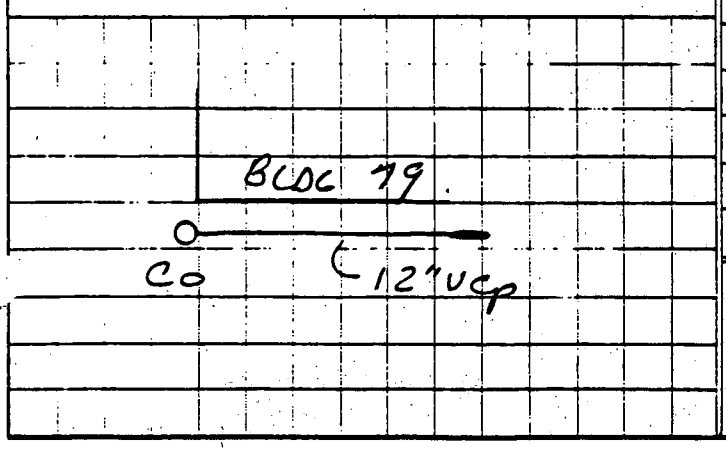
INFILTRATION SOURCES

NO.	DESCRIPTION	HEIGHT ABOVE INVERT	ESTIMATED LEAKAGE (GPD)
1			
2			
3			
4			

INFLOW SOURCES

SOURCE	DESCRIPTION OF SOURCE
COVER	
RISER	
SURFACE	

SKETCH IDENTIFY RELATIVE LOCATION OF MANHOLE AND INCOMING AND OUTGOING SEWERS USING ABOVE LINE NO (INCLUDE FLOW DIRECTION, STREET, ETC.)



MEASURED FLOW DATA

LINE NO.	FLOW CLARITY	WEIR MEASUREMENT	AREA - VEL. METHOD		
			DEPTH	VEL.	CAL. FLOW

NOTES: NO MANHOLE. CLEANOUT W/ 2 - 1 1/2" CONNECTIONS

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MANHOLE INSPECTION REPORT

JOB NO. 106-9

CLIENT GIUANDA

DATE	TIME	WEATHER	CREW CHIEF	MUNICIPALITY
7/13/83	1350	CLEAR 90°	AC	CLIFTON

SUB AREA	MINI SYS.	M.H. NO.	MANHOLE LOCATION
-	-	11	CHEMICAL SEWER

MANHOLE PROPERTIES	CONST. MATERIAL	DEPTH	SURCHARGE HEIGHT IF EVIDENT	MANHOLE AIR QUALITY
	BLOCK	8.0	-	POOR

DESCRIBE CONDITION OF EACH MANHOLE COMPONENT, SUCH AS: GOOD, WORN, BROKEN, MISSING, CRACKED, LOOSE, SHIFTED, VENTED, SOLID, ETC.

COVER	FRAME	RISER	WALL JOINTS
GOOD - VENTED	GOOD	GOOD	GOOD

STEPS	BENCHING	CHANNEL	SPECIAL CONDITIONS
BROKEN	NONE	WORN	NONE

PIPE INVENTORY

LINE NO.	PIPE SIZE	PIPE SHAPE	CONST. MATERIAL	FLOW DEPTH	DEPTH SEDIMENT	DETAILED DESCRIPTION OF PIPE DEFECTS
1	18"	ϕ	VCP		3"	NONE EVIDENT
2	18"	"	"		"	
3	18"	"	"		"	
4						
5						

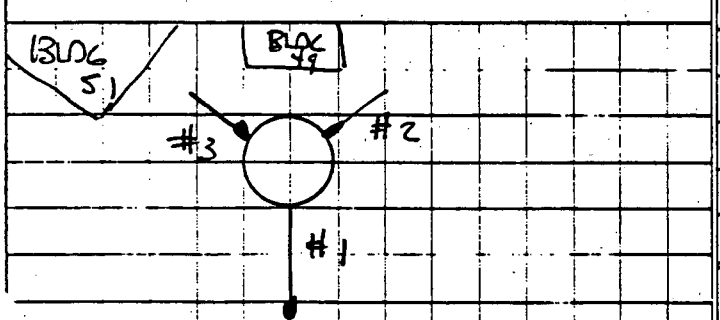
INFILTRATION SOURCES

NO.	DESCRIPTION	HEIGHT ABOVE INVERT	ESTIMATED LEAKAGE (GPD)
1	NONE		
2			
3			
4			

INFLOW SOURCES

SOURCE	DESCRIPTION OF SOURCE
COVER	NONE
RISER	
SURFACE	

SKETCH IDENTIFY RELATIVE LOCATION OF MANHOLE AND INCOMING AND OUTGOING SEWERS USING ABOVE LINE NO. (INCLUDE FLOW DIRECTION, STREET, ETC.)



MEASURED FLOW DATA

LINE NO.	FLOW CLARITY	WEIR MEASUREMENT	AREA - VEL. METHOD		
			DEPTH	VEL.	CAL. FLOW

NOTES:

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MANHOLE INSPECTION REPORT

JOB NO. 106-9
CLIENT GUANDA

DATE	TIME	WEATHER	CREW CHIEF	MUNICIPALITY
8/14/83		CLEAR 75°	P. TYRRELL	CLIFTON

SUB AREA: | MINI SYS.: | M.H. NO.: 11-1 | MANHOLE LOCATION: BRANCH CHEMICAL SEWER - TO BOX 68

MANHOLE PROPERTIES

CONST. MATERIAL	DEPTH	SURCHARGE HEIGHT IF EVIDENT	MANHOLE AIR QUALITY
BLOCK	7.3'	0	POOR

DESCRIBE CONDITION OF EACH MANHOLE COMPONENT, SUCH AS: GOOD, WORN, BROKEN, MISSING, CRACKED, LOOSE, SHIFTED, VENTED, SOLID, ETC.

COVER	FRAME	RISER	WALL JOINTS
SOLID - 4 PICK HOLES	WORN	GOOD	GOOD

STEPS	BENCHING	CHANNEL	SPECIAL CONDITIONS
WORN	NONE	WORN	OBSTRUCTION IN CHANNEL

PIPE INVENTORY

LINE NO.	PIPE SIZE	PIPE SHAPE	CONST. MATERIAL	FLOW DEPTH	DEPTH SEDIMENT	DETAILED DESCRIPTION OF PIPE DEFECTS
1	18"	CIRC	VCP	5"	3"	
2	18"	CIRC	VCP	5"	3"	
3						
4						
5						

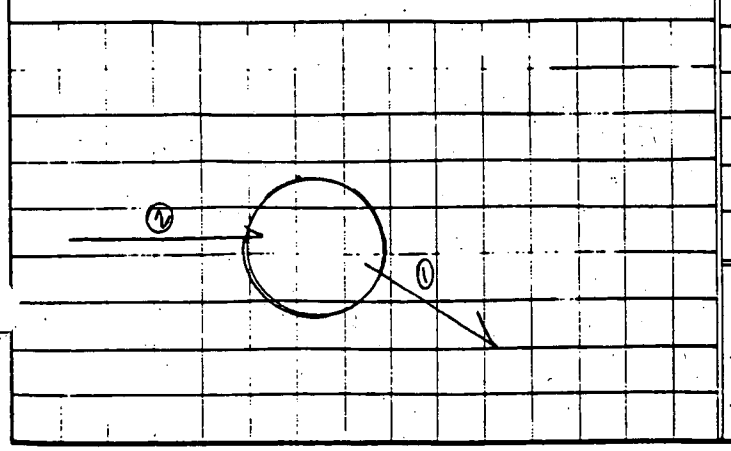
INFILTRATION SOURCES

NO.	DESCRIPTION	HEIGHT ABOVE INVERT	ESTIMATED LEAKAGE (GPD)
1			
2	NONE		
3			
4			

INFLOW SOURCES

SOURCE	DESCRIPTION OF SOURCE
COVER	
	NONE
RISER	
SURFACE	

SKETCH IDENTIFY RELATIVE LOCATION OF MANHOLE AND INCOMING AND OUTGOING SEWERS USING ABOVE LINE NO. (INCLUDE FLOW DIRECTION, STREET, ETC.)



MEASURED FLOW DATA

LINE NO.	FLOW CLARITY	WEIR MEASUREMENT	AREA - VEL. METHOD		
			DEPTH	VEL.	CAL. FLOW

NOTES:

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MANHOLE INSPECTION REPORT

JOB NO. 106-9
CLIENT GUADAN

DATE	TIME	WEATHER	CREW CHIEF	MUNICIPALITY
9/5/83	-	P. Cloudy 80°	PT	CLIFTON

SUB AREA	MINI SYS.	M.H. NO.	MANHOLE LOCATION
		11-2	BRANCH TO BLDG 68

MANHOLE PROPERTIES	CONST. MATERIAL	DEPTH	SURCHARGE HEIGHT IF EVIDENT	MANHOLE AIR QUALITY
	BRICK	7.3'	0	POOR

DESCRIBE CONDITION OF EACH MANHOLE COMPONENT, SUCH AS: GOOD, WORN, BROKEN, MISSING, CRACKED, LOOSE, SHIFTED, VENTED, SOLID, ETC.

COVER	FRAME	RISER	WALL JOINTS
GOOD - SOLID	GOOD	GOOD	GOOD

STEPS	BENCHING	CHANNEL	SPECIAL CONDITIONS
NONE	GOOD	FAIR	NONE

PIPE INVENTORY

LINE NO.	PIPE SIZE	PIPE SHAPE	CONST. MATERIAL	FLOW DEPTH	DEPTH SEDIMENT	DETAILED DESCRIPTION OF PIPE DEFECTS
1	18"	Φ	UCP		0	NONE EVIDENT
2	18"	"	"		"	
3	12"	"	"		"	
4						
5						

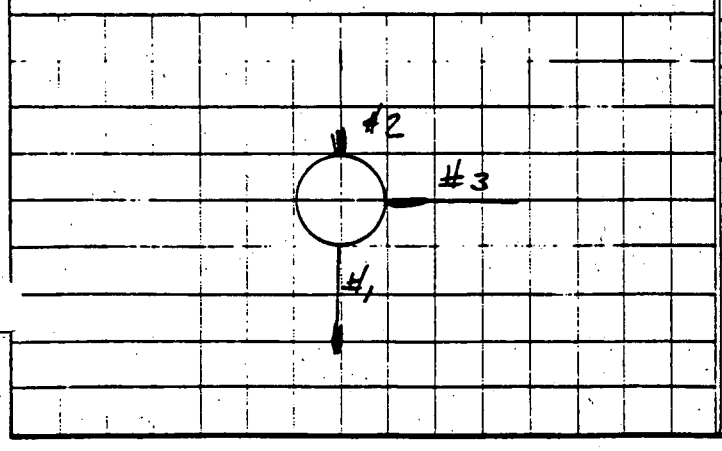
INFILTRATION SOURCES

NO.	DESCRIPTION	HEIGHT ABOVE INVERT	ESTIMATED LEAKAGE (GPD)
1			
2	NONE		
3			
4			

INFLOW SOURCES

SOURCE	DESCRIPTION OF SOURCE
COVER	NONE
RISER	
SURFACE	

SKETCH IDENTIFY RELATIVE LOCATION OF MANHOLE AND INCOMING AND OUTGOING SEWERS USING ABOVE LINE NO. (INCLUDE FLOW DIRECTION, STREET, ETC.)



MEASURED FLOW DATA

LINE NO.	FLOW CLARITY	WEIR MEASUREMENT	AREA - VEL. METHOD DEPTH	VEL.	CAL. FLOW

NOTES:

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MANHOLE INSPECTION REPORT

JOB NO. 106-9
CLIENT GIVAUDAN

DATE	TIME	WEATHER	CREW CHIEF	MUNICIPALITY
8/16/83	-	CLEAR 80°	PT	CLIFTON

SUB AREA	MINI SYS.	M.H. NO.	MANHOLE LOCATION
-	-	11-3	BRANCH CHEMICAL SEWER - TO BLDG 68

MANHOLE PROPERTIES	CONST. MATERIAL	DEPTH	SURCHARGE HEIGHT IF EVIDENT	MANHOLE AIR QUALITY
	Block	10.0	0	Poor

DESCRIBE CONDITION OF EACH MANHOLE COMPONENT, SUCH AS: GOOD, WORN, BROKEN, MISSING, CRACKED, LOOSE, SHIFTED, VENTED, SOLID, ETC.

COVER	FRAME	RISER	WALL JOINTS
Solid - Worn	Worn	Good	Good

STEPS	BENCHING	CHANNEL	SPECIAL CONDITIONS
-	Good	None	None

PIPE INVENTORY

LINE NO.	PIPE SIZE	PIPE SHAPE	CONST. MATERIAL	FLOW DEPTH	DEPTH SEDIMENT	DETAILED DESCRIPTION OF PIPE DEFECTS
1	18"	⌀	VTP			None Evident
2	12"	"	"			
3	10"	"	"			
4						
5						

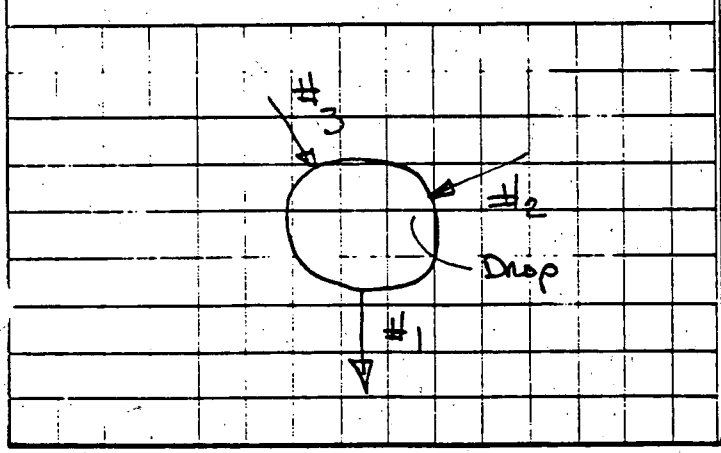
INFILTRATION SOURCES

NO.	DESCRIPTION	HEIGHT ABOVE INVERT	ESTIMATED LEAKAGE (GPD)
1	None		
2			
3			
4			

INFLOW SOURCES

SOURCE	DESCRIPTION OF SOURCE
COVER	None
RISER	
SURFACE	

SKETCH IDENTIFY RELATIVE LOCATION OF MANHOLE AND INCOMING AND OUTGOING SEWERS USING ABOVE LINE NO. (INCLUDE FLOW DIRECTION, STREET, ETC.)



MEASURED FLOW DATA

LINE NO.	FLOW CLARITY	WEIR MEASUREMENT	AREA - VEL. METHOD DEPTH	VEL.	CAL. FLOW

NOTES:

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MANHOLE INSPECTION REPORT

JOB NO. 106-9

CLIENT GIVAUDAN

DATE	TIME	WEATHER	CREW CHIEF	MUNICIPALITY
9/5/83		CLEAR 85°	PT	CLIFTON

SUB AREA	MINI SYS.	M.H. NO.	MANHOLE LOCATION
—	—	11-5	BRANCH - CHEMICAL SEWER TO BLDG 6A/B

MANHOLE PROPERTIES	CONST. MATERIAL	DEPTH	SURCHARGE HEIGHT IF EVIDENT	MANHOLE AIR QUALITY
	BRICK	9.4		POOR

DESCRIBE CONDITION OF EACH MANHOLE COMPONENT, SUCH AS: GOOD, WORN, BROKEN, MISSING, CRACKED, LOOSE, SHIFTED, VENTED, SOLID, ETC.

COVER	FRAME	RISER	WALL JOINTS
GOOD - UNUTED	WORN	WORN	GOOD

STEPS	BENCHING	CHANNEL	SPECIAL CONDITIONS
NONE	NONE	WORN	

PIPE INVENTORY

LINE NO.	PIPE SIZE	PIPE SHAPE	CONST. MATERIAL	FLOW DEPTH	DEPTH SEDIMENT	DETAILED DESCRIPTION OF PIPE DEFECTS
1	10"	Φ	VCP		0	
2	12"	"	"		"	NONE KNOWN
3	4"	"	"		"	
4						
5						

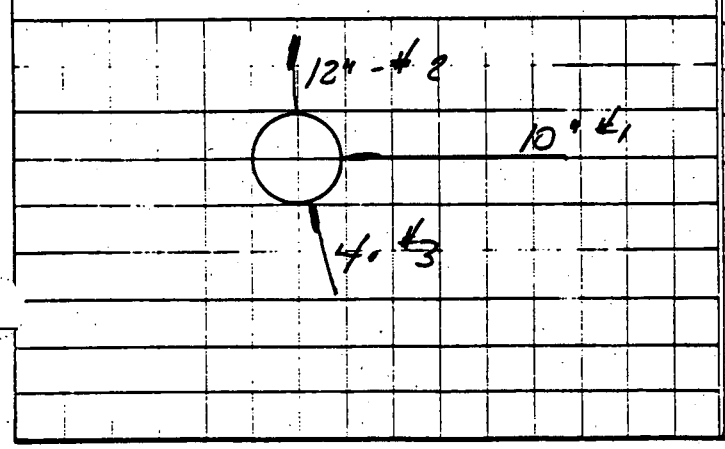
INFILTRATION SOURCES

NO.	DESCRIPTION	HEIGHT ABOVE INVERT	ESTIMATED LEAKAGE (GPD)
1	NONE		
2			
3			
4			

INFLOW SOURCES

SOURCE	DESCRIPTION OF SOURCE
COVER	NONE
RISER	
SURFACE	

SKETCH IDENTIFY RELATIVE LOCATION OF MANHOLE AND INCOMING AND OUTGOING SEWERS USING ABOVE LINE NO. (INCLUDE FLOW DIRECTION, STREET, ETC.).



MEASURED FLOW DATA

LINE NO.	FLOW CLARITY	WEIR MEASUREMENT	AREA - VEL. METHOD DEPTH	VEL.	CAL. FLOW

NOTES:

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MANHOLE INSPECTION REPORT

JOB NO. 106-9

CLIENT GIUANOA

DATE	TIME	WEATHER	CREW CHIEF	MUNICIPALITY
8/7/83	0850	CLEAR 90°	A COSCIA	CLIFTON

SUB AREA: | MINI SYS.: | M.H. NO. 11-7 | MANHOLE LOCATION: BRANCH CHEMICAL FENCE

MANHOLE PROPERTIES

CONST. MATERIAL	DEPTH	SURCHARGE HEIGHT IF EVIDENT	MANHOLE AIR QUALITY
BLOCK	5.3'		FAIR

DESCRIBE CONDITION OF EACH MANHOLE COMPONENT, SUCH AS: GOOD, WORN, BROKEN, MISSING, CRACKED, LOOSE, SHIFTED, VENTED, SOLID, ETC.

COVER	FRAME	RISER	WALL JOINTS
SOLID 4 PICK HOLES	GOOD	WORN	GOOD

STEPS	BENCHING	CHANNEL	SPECIAL CONDITIONS
NONE	GOOD	GOOD	NONE

PIPE INVENTORY

LINE NO.	PIPE SIZE	PIPE SHAPE	CONST. MATERIAL	FLOW DEPTH	DEPTH SEDIMENT	DETAILED DESCRIPTION OF PIPE DEFECTS
1	12"	CIRC	VCP	3/4"	0	SLIGHT MISALIGNMENT
2	12"	CIRC	VCP	3/4"	0	" "
3	18"	CIRC	VCP	1/4"	0	1" ROCKY SED; PIPE BENDS SLIGHTLY
4						ALL JOINTS EITHER MISAL. OR OPEN
5						

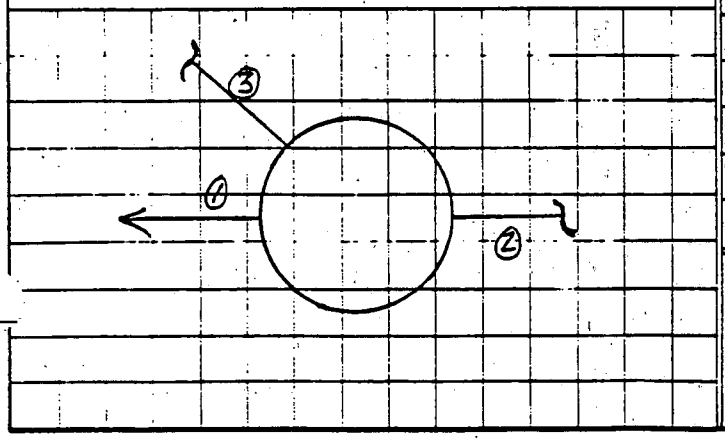
INFILTRATION SOURCES

NO.	DESCRIPTION	HEIGHT ABOVE INVERT	ESTIMATED LEAKAGE (GPD)
1			
2			
3			
4			

INFLOW SOURCES

SOURCE	DESCRIPTION OF SOURCE
COVER	NONE
RISER	
SURFACE	

SKETCH IDENTIFY RELATIVE LOCATION OF MANHOLE AND INCOMING AND OUTGOING SEWERS USING ABOVE LINE NO. (INCLUDE FLOW DIRECTION, STREET, ETC.)



MEASURED FLOW DATA

LINE NO.	FLOW CLARITY	WEIR MEASUREMENT	AREA - VEL. METHOD DEPTH	VEL.	CAL. FLOW

NOTES:

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MANHOLE INSPECTION REPORT

JOB NO.

CLIENT

DATE	TIME	WEATHER	CREW CHIEF	MUNICIPALITY
8/7/83	0905	CLEAR 90°	A COSCIA	CLIFTON

SUB AREA: | MINI SYS.: | M.H. NO.: 11-8 | MANHOLE LOCATION: BRANCH CHEMICAL SEWER.

MANHOLE PROPERTIES

CONST. MATERIAL	DEPTH	SURCHARGE HEIGHT IF EVIDENT	MANHOLE AIR QUALITY
BRICK	5.8'	0	FAIR

DESCRIBE CONDITION OF EACH MANHOLE COMPONENT, SUCH AS: GOOD, WORN, BROKEN, MISSING, CRACKED, LOOSE, SHIFTED, VENTED, SOLID, ETC.

COVER	FRAME	RISER	WALL JOINTS
VENTED - 1 VENT/2 PICKS	LOOSE/SHIFTED	WORN	WORN

STEPS	BENCHING	CHANNEL	SPECIAL CONDITIONS
NONE	WORN	WORN	NONE

PIPE INVENTORY

LINE NO.	PIPE SIZE	PIPE SHAPE	CONST. MATERIAL	FLOW DEPTH	DEPTH SEDIMENT	DETAILED DESCRIPTION OF PIPE DEFECTS
1	15"	CIRC	VCP	0.5	1/2"	PIPE CHANGES TO 18" BEFORE MH 11-7
2	10"	CIRC	VCP	0.5	1/2"	
3	6"	CIRC	VCP	.1	0	
4						
5						

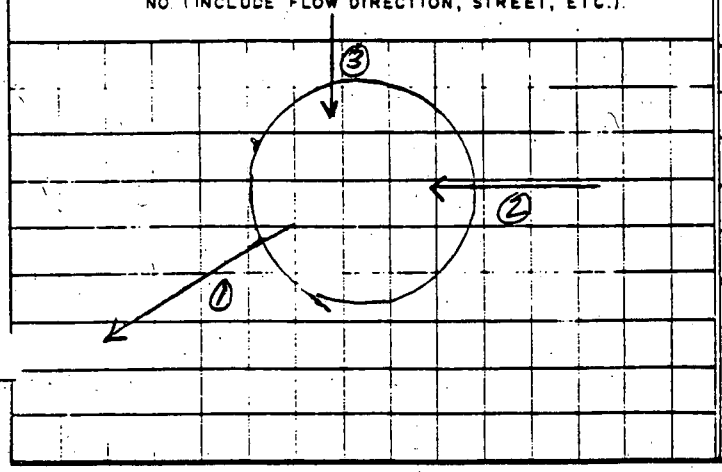
INFILTRATION SOURCES

NO.	DESCRIPTION	HEIGHT ABOVE INVERT	ESTIMATED LEAKAGE (GPD)
1	RISER BENEATH FRAME	5'	EVIDENCE
2	HAS 2" GAP		
3			
4			

INFLOW SOURCES

SOURCE	DESCRIPTION OF SOURCE
COVER	NONE
RISER	
SURFACE	

SKETCH IDENTIFY RELATIVE LOCATION OF MANHOLE AND INCOMING AND OUTGOING SEWERS USING ABOVE LINE NO. (INCLUDE FLOW DIRECTION, STREET, ETC.)



MEASURED FLOW DATA

LINE NO.	FLOW CLARITY	WEIR MEASUREMENT	AREA - VEL. METHOD		
			DEPTH	VEL.	CAL. FLOW

NOTES:

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P.O. BOX 584 FAR HILLS, N.J. 07931 (201) 234-0234

MANHOLE INSPECTION REPORT

JOB NO. 106-9
CLIENT GUARDIAN

DATE	TIME	WEATHER	CREW CHIEF	MUNICIPALITY
9/5/83	–	CLEAR 85°	PT	CLIFTON

SUB AREA	MINI SYS.	M.H. NO.	MANHOLE LOCATION
–	–	11-10	BRANCH CHEMICAL SEWER

MANHOLE PROPERTIES	CONST. MATERIAL	DEPTH	SURCHARGE HEIGHT IF EVIDENT	MANHOLE AIR QUALITY
	BLOCK	3.5	–	GOOD/FAIR

DESCRIBE CONDITION OF EACH MANHOLE COMPONENT, SUCH AS: GOOD, WORN, BROKEN, MISSING, CRACKED, LOOSE, SHIFTED, VENTED, SOLID, ETC.

COVER	FRAME	RISER	WALL JOINTS
SOLID - GOOD	GOOD	WORN	WORN

STEPS	BENCHING	CHANNEL	SPECIAL CONDITIONS
NONE	LOOSE	LOOSE	NONE.

PIPE INVENTORY

LINE NO.	PIPE SIZE	PIPE SHAPE	CONST. MATERIAL	FLOW DEPTH	DEPTH SEDIMENT	DETAILED DESCRIPTION OF PIPE DEFECTS
1	12	⌀	VCP		0	
2	12	"	"		"	NONE EVIDENT
3	8	"	"		"	
4	8	"	"		"	
5						

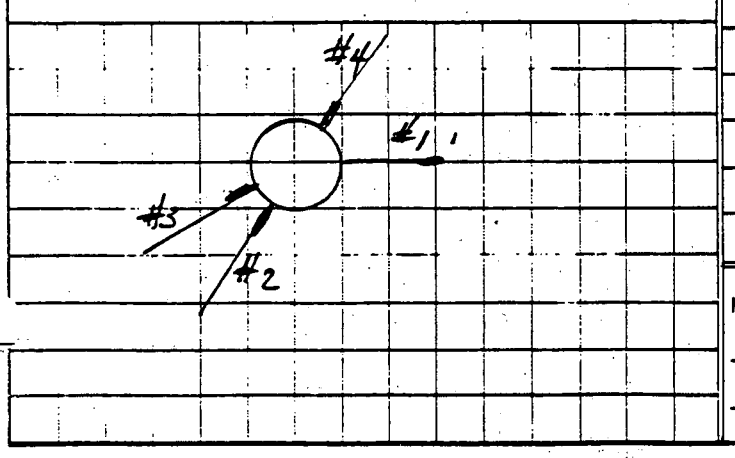
INFILTRATION SOURCES

NO.	DESCRIPTION	HEIGHT ABOVE INVERT	ESTIMATED LEAKAGE (GPD)
1	NONE		
2			
3			
4			

INFLOW SOURCES

SOURCE	DESCRIPTION OF SOURCE
COVER	NONE
RISER	
SURFACE	

SKETCH IDENTIFY RELATIVE LOCATION OF MANHOLE AND INCOMING AND OUTGOING SEWERS USING ABOVE LINE NO (INCLUDE FLOW DIRECTION, STREET, ETC.)



MEASURED FLOW DATA

LINE NO.	FLOW CLARITY	WEIR MEASUREMENT	AREA - VEL. METHOD DEPTH	VEL.	CAL. FLOW

NOTES: CHANNEL IS POORLY FORMED

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MANHOLE INSPECTION REPORT

JOB NO. 106-9

CLIENT GUADAN

DATE	TIME	WEATHER	CREW CHIEF	MUNICIPALITY
9/5/83		CLEAR 85°	PT	CLIFTON

SUB AREA: — MINI SYS.: — M.H. NO.: 11-11 MANHOLE LOCATION: BRANCH CHEMICAL SEWER - TO BLDG 75

MANHOLE PROPERTIES	CONST. MATERIAL	DEPTH	SURCHARGE HEIGHT IF EVIDENT	MANHOLE AIR QUALITY
	BRICK	5.8'	—	POOR

DESCRIBE CONDITION OF EACH MANHOLE COMPONENT, SUCH AS: GOOD, WORN, BROKEN, MISSING, CRACKED, LOOSE, SHIFTED, VENTED, SOLID, ETC.

COVER	FRAME	RISER	WALL JOINTS
GOOD - VENTED	WORN	WORN	WORN

STEPS	BENCHING	CHANNEL	SPECIAL CONDITIONS
NONE	NONE	WORN	

PIPE INVENTORY

LINE NO.	PIPE SIZE	PIPE SHAPE	CONST. MATERIAL	FLOW DEPTH	DEPTH SEDIMENT	DETAILED DESCRIPTION OF PIPE DEFECTS
1	12"	⌀	VCP	—	0"	
2	18"	"	"	—		NONE VISABLE
3	10"	"	"	—		
4	4"	"	"	—		
5						

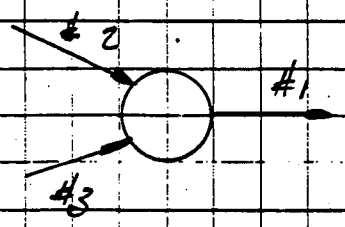
INFILTRATION SOURCES

NO.	DESCRIPTION	HEIGHT ABOVE INVERT	ESTIMATED LEAKAGE (GPD)
1	NONE		
2			
3			
4			

INFLOW SOURCES

SOURCE	DESCRIPTION OF SOURCE
COVER	
	NONE
RISER	
SURFACE	

SKETCH IDENTIFY RELATIVE LOCATION OF MANHOLE AND INCOMING AND OUTGOING SEWERS USING ABOVE LINE NO (INCLUDE FLOW DIRECTION, STREET, ETC.)



MEASURED FLOW DATA

LINE NO.	FLOW CLARITY	WEIR MEASUREMENT	AREA - VEL. METHOD DEPTH	VEL.	CAL. FLOW

NOTES:

CFM INCORPORATED

P.O. BOX 584 FAR HILLS, N.J. 07931 (201) 234-0234

MANHOLE INSPECTION REPORT

JOB NO. 106-9

CLIENT GIUAUDAN

DATE	TIME	WEATHER	CREW CHIEF	MUNICIPALITY
9/5/83		CLEAR 85°	PT	CLIFTON

SUB AREA	MINI SYS.	M.H. NO.	MANHOLE LOCATION
-	-	11-13	BRANCH CHEMICAL SEWER - TO BLDG 45

MANHOLE PROPERTIES	CONST. MATERIAL	DEPTH	SURCHARGE HEIGHT IF EVIDENT	MANHOLE AIR QUALITY
	BRICK	6.0'	0	POOR

DESCRIBE CONDITION OF EACH MANHOLE COMPONENT, SUCH AS: GOOD, WORN, BROKEN, MISSING, CRACKED, LOOSE, SHIFTED, VENTED, SOLID, ETC.

COVER	FRAME	RISER	WALL JOINTS
SOLID - GOOD	WORN	WORN	WORN

STEPS	BENCHING	CHANNEL	SPECIAL CONDITIONS
NONE	NONE	FAIR	

PIPE INVENTORY

LINE NO.	PIPE SIZE	PIPE SHAPE	CONST. MATERIAL	FLOW DEPTH	DEPTH SEDIMENT	DETAILED DESCRIPTION OF PIPE DEFECTS
1	10"	⌀	VCP		0	
2	12"	"	"		/	NONE EVIDENT
3	18"	"	"		↓	
4						
5						

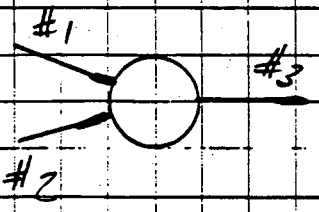
INFILTRATION SOURCES

NO.	DESCRIPTION	HEIGHT ABOVE INVERT	ESTIMATED LEAKAGE (GPD)
1	/		
2	NONE		
3	/		
4			

INFLOW SOURCES

SOURCE	DESCRIPTION OF SOURCE
COVER	/
	NONE
RISER	
	/
SURFACE	

SKETCH IDENTIFY RELATIVE LOCATION OF MANHOLE AND INCOMING AND OUTGOING SEWERS USING ABOVE LINE NO. (INCLUDE FLOW DIRECTION, STREET, ETC.).



MEASURED FLOW DATA

LINE NO.	FLOW CLARITY	WEIR MEASUREMENT	AREA - VEL. METHOD		
			DEPTH	VEL.	CAL. FLOW

NOTES:

CFM INCORPORATED

P.O. BOX 584 FAR HILLS, N.J. 07931 (201) 234-0234

MANHOLE INSPECTION REPORT

JOB NO. 106-9

CLIENT GIUANDAN

DATE	TIME	WEATHER	CREW CHIEF	MUNICIPALITY
8/16/83		CLEAR 82°	P TYRRELL	CLIFTON

SUB AREA: | MINI SYS.: | M.H. NO.: 11-14 | MANHOLE LOCATION: BRANCH CHEMICAL SEWER.

MANHOLE PROPERTIES

CONST. MATERIAL	DEPTH	SURCHARGE HEIGHT IF EVIDENT	MANHOLE AIR QUALITY
1/2 PREC / 1/2 BRICK	4.2'	0	POOR

DESCRIBE CONDITION OF EACH MANHOLE COMPONENT, SUCH AS: GOOD, WORN, BROKEN, MISSING, CRACKED, LOOSE, SHIFTED, VENTED, SOLID, ETC.

COVER	FRAME	RISER	WALL JOINTS
WOOD - SOLID	NONE	GOOD	WORN LOOSE

STEPS	BENCHING	CHANNEL	SPECIAL CONDITIONS
NONE	NONE	CRUMBLING	

PIPE INVENTORY

LINE NO.	PIPE SIZE	PIPE SHAPE	CONST. MATERIAL	FLOW DEPTH	DEPTH SEDIMENT	DETAILED DESCRIPTION OF PIPE DEFECTS
1	10"	CIRC	VCP	1.5"	1"	
2	10"	CIRC	VCP	1.5"	1"	
3						
4						
5						

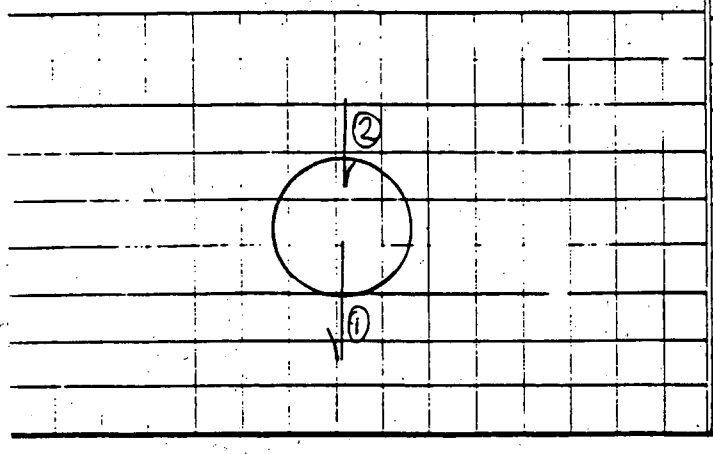
INFILTRATION SOURCES

NO.	DESCRIPTION	HEIGHT ABOVE INVERT	ESTIMATED LEAKAGE (GPD)
1			
2	NONE		
3			
4			

INFLOW SOURCES

SOURCE	DESCRIPTION OF SOURCE
COVER	
	NONE
RISER	
SURFACE	

SKETCH IDENTIFY RELATIVE LOCATION OF MANHOLE AND INCOMING AND OUTGOING SEWERS USING ABOVE LINE NO (INCLUDE FLOW DIRECTION, STREET, ETC.)



MEASURED FLOW DATA

LINE NO.	FLOW CLARITY	WEIR MEASUREMENT	AREA - VEL. METHOD		
			DEPTH	VEL.	CAL. FLOW

NOTES:

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MANHOLE INSPECTION REPORT

JOB NO. 106-9

CLIENT GUANDAN

DATE	TIME	WEATHER	CREW CHIEF	MUNICIPALITY
8/16/83		CLEAR 80°	P. TYRRELL	CLIFTON

SUB AREA: | MINI SYS.: | M.H. NO.: 11-15 | MANHOLE LOCATION: BRANCH - CHEMICAL SEWER -

MANHOLE PROPERTIES

CONST. MATERIAL	DEPTH	SURCHARGE HEIGHT IF EVIDENT	MANHOLE AIR QUALITY
1/2 PRECAST 1/2 BRICK	3.0	0	POOR

DESCRIBE CONDITION OF EACH MANHOLE COMPONENT, SUCH AS: GOOD, WORN, BROKEN, MISSING, CRACKED, LOOSE, SHIFTED, VENTED, SOLID, ETC.

COVER	FRAME	RISER	WALL JOINTS
SOLID	WORN	LOOSE	LOOSE

STEPS	BENCHING	CHANNEL	SPECIAL CONDITIONS
NONE	CRUMBLING	LOOSE	

PIPE INVENTORY

LINE NO.	PIPE SIZE	PIPE SHAPE	CONST. MATERIAL	FLOW DEPTH	DEPTH SEDIMENT	DETAILED DESCRIPTION OF PIPE DEFECTS
1	15"	CIRC	VCP	2"	1"	PIPE MOUTH OFFSET; SLOPES DOWNWARD
2	12"	CIRC	VCP	2"	1"	
3	8"	CIRC	VCP	1"	0	
4						
5						

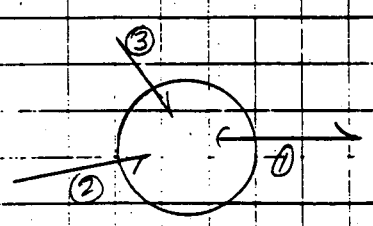
INFILTRATION SOURCES

NO.	DESCRIPTION	HEIGHT ABOVE INVERT	ESTIMATED LEAKAGE (GPD)
1			
2	NONE		
3			
4			

INFLOW SOURCES

SOURCE	DESCRIPTION OF SOURCE
COVER	
	NONE
RISER	
SURFACE	

SKETCH IDENTIFY RELATIVE LOCATION OF MANHOLE AND INCOMING AND OUTGOING SEWERS USING ABOVE LINE NO. (INCLUDE FLOW DIRECTION, STREET, ETC.)



MEASURED FLOW DATA

LINE NO.	FLOW CLARITY	WEIR MEASUREMENT	AREA - VEL. METHOD DEPTH	VEL.	CAL. FLOW

NOTES: MANHOLE IS IN POOR CONDITION

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MANHOLE INSPECTION REPORT

JOB NO. 1069

CLIENT GUANDAJ

DATE	TIME	WEATHER	CREW CHIEF	MUNICIPALITY
9/5/83		OC 85	PT	CLIFTON

SUB AREA	MINI SYS.	M.H. NO.	MANHOLE LOCATION
		11-16	BRANCH CHEMICAL SEWER

MANHOLE PROPERTIES

CONST. MATERIAL	DEPTH	SURCHARGE HEIGHT IF EVIDENT	MANHOLE AIR QUALITY
BRICK	3.7'		POOR

DESCRIBE CONDITION OF EACH MANHOLE COMPONENT, SUCH AS: GOOD, WORN, BROKEN, MISSING, CRACKED, LOOSE, SHIFTED, VENTED, SOLID, ETC.

COVER	FRAME	RISER	WALL JOINTS
SOLID	WORN	GOOD	LOOSE

STEPS	BENCHING	CHANNEL	SPECIAL CONDITIONS
NONE	NONE	NONE	

PIPE INVENTORY

LINE NO.	PIPE SIZE	PIPE SHAPE	CONST. MATERIAL	FLOW DEPTH	DEPTH SEDIMENT	DETAILED DESCRIPTION OF PIPE DEFECTS
1	12	CIRC	VCP	1/8"	0	
2	8	"	"	0	0	
3	8	"	"	1/8"	0	
4	8	"	"	0	0	ABANDONED LINE
5						

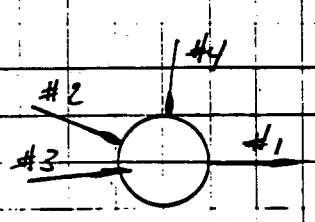
INFILTRATION SOURCES

NO.	DESCRIPTION	HEIGHT ABOVE INVERT	ESTIMATED LEAKAGE (GPD)
1			
2	NONE		
3			
4			

INFLOW SOURCES

SOURCE	DESCRIPTION OF SOURCE
COVER	NONE
RISER	
SURFACE	

SKETCH IDENTIFY RELATIVE LOCATION OF MANHOLE AND INCOMING AND OUTGOING SEWERS USING ABOVE LINE NO (INCLUDE FLOW DIRECTION, STREET, ETC.)



MEASURED FLOW DATA

LINE NO.	FLOW CLARITY	WEIR MEASUREMENT	AREA - VEL. METHOD DEPTH	VEL.	CAL. FLOW

NOTES: MANHOLE INVERT IN POOR CONDITION

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MANHOLE INSPECTION REPORT

JOB NO.

CLIENT

DATE	TIME	WEATHER	CREW CHIEF	MUNICIPALITY
9/5/83		OC. 85°	PT	BLDG 35

SUB AREA	MINI SYS.	M.H. NO.	MANHOLE LOCATION
		11-T7	CLEANOUT - NOT A MH

MANHOLE PROPERTIES	CONST. MATERIAL	DEPTH	SURCHARGE HEIGHT IF EVIDENT	MANHOLE AIR QUALITY
	—	—		

DESCRIBE CONDITION OF EACH MANHOLE COMPONENT, SUCH AS: GOOD, WORN, BROKEN, MISSING, CRACKED, LOOSE, SHIFTED, VENTED, SOLID, ETC.

COVER	FRAME	RISER	WALL JOINTS

STEPS	BENCHING	CHANNEL	SPECIAL CONDITIONS

PIPE INVENTORY

LINE NO.	PIPE SIZE	PIPE SHAPE	CONST. MATERIAL	FLOW DEPTH	DEPTH SEDIMENT	DETAILED DESCRIPTION OF PIPE DEFECTS
1						
2						
3						
4						
5						

INFILTRATION SOURCES

NO.	DESCRIPTION	HEIGHT ABOVE INVERT	ESTIMATED LEAKAGE (GPD)
1			
2			
3			
4			

INFLOW SOURCES

SOURCE	DESCRIPTION OF SOURCE
COVER	
RISER	
SURFACE	

SKETCH IDENTIFY RELATIVE LOCATION OF MANHOLE AND INCOMING AND OUTGOING SEWERS USING ABOVE LINE NO (INCLUDE FLOW DIRECTION, STREET, ETC.)

MEASURED FLOW DATA

LINE NO.	FLOW CLARITY	WEIR MEASUREMENT	AREA - VEL. METHOD		
			DEPTH	VEL.	CAL. FLOW

NOTES:

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MANHOLE INSPECTION REPORT

JOB NO. 1069

CLIENT GIVAUDAN

DATE	TIME	WEATHER	CREW CHIEF	MUNICIPALITY
9/5/83		OC 85°	PT	CLIFTON

SUB AREA: | MINI SYS.: | M.H. NO. 11-18 | MANHOLE LOCATION: BRANCH CHEMICAL SEWER @ BLDG 55

MANHOLE PROPERTIES	CONST. MATERIAL	DEPTH	SURCHARGE HEIGHT IF EVIDENT	MANHOLE AIR QUALITY
	CONC 3'x3'	1.5'	0	POOR

DESCRIBE CONDITION OF EACH MANHOLE COMPONENT, SUCH AS: GOOD, WORN, BROKEN, MISSING, CRACKED, LOOSE, SHIFTED, VENTED, SOLID, ETC.

COVER	FRAME	RISER	WALL JOINTS
SOLID SQUARE PLATE	NONE	NONE	NONE

STEPS	BENCHING	CHANNEL	SPECIAL CONDITIONS
NONE	NONE	NONE	

PIPE INVENTORY

LINE NO.	PIPE SIZE	PIPE SHAPE	CONST. MATERIAL	FLOW DEPTH	DEPTH SEDIMENT	DETAILED DESCRIPTION OF PIPE DEFECTS
1	8"	CIRC	VCP	0	0	
2	4"	"	"	0	0	LINEAR CRACK IN INVERT
3						
4						
5						

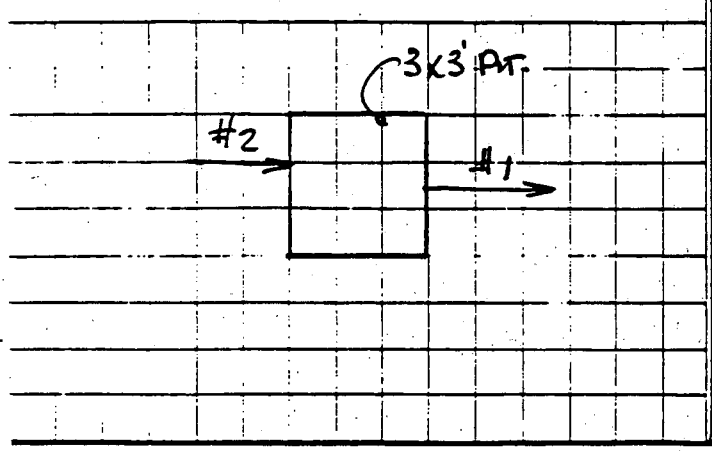
INFILTRATION SOURCES

NO.	DESCRIPTION	HEIGHT ABOVE INVERT	ESTIMATED LEAKAGE (GPD)
1			
2	NONE		
3			
4			

INFLOW SOURCES

SOURCE	DESCRIPTION OF SOURCE
COVER	
	NONE
RISER	
SURFACE	

SKETCH IDENTIFY RELATIVE LOCATION OF MANHOLE AND INCOMING AND OUTGOING SEWERS USING ABOVE LINE NO (INCLUDE FLOW DIRECTION, STREET, ETC.)



MEASURED FLOW DATA

LINE NO.	FLOW CLARITY	WEIR MEASUREMENT	AREA - VEL. METHOD		
			DEPTH	VEL.	CAL. FLOW

NOTES:

CFM INCORPORATED

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MANHOLE INSPECTION REPORT

JOB NO. 106-9

CLIENT GIUANDA

DATE	TIME	WEATHER	CREW CHIEF	MUNICIPALITY
8/14/83	1155	CLEAR 75°	P.T.	CLIFTON

SUB AREA: | MINI SYS.: | M.H. NO.: 12 | MANHOLE LOCATION: CHEMICAL SEWER

MANHOLE PROPERTIES	CONST. MATERIAL	DEPTH	SURCHARGE HEIGHT IF EVIDENT	MANHOLE AIR QUALITY
	BLOCK	6.8	0	Poor

DESCRIBE CONDITION OF EACH MANHOLE COMPONENT, SUCH AS: GOOD, WORN, BROKEN, MISSING, CRACKED, LOOSE, SHIFTED, VENTED, SOLID, ETC.

COVER	FRAME	RISER	WALL JOINTS
SOLID 4 PICK HOLES	GOOD	GOOD	WORN

STEPS	BENCHING	CHANNEL	SPECIAL CONDITIONS
WORN	NONE	WORN	

PIPE INVENTORY

LINE NO.	PIPE SIZE	PIPE SHAPE	CONST. MATERIAL	FLOW DEPTH	DEPTH SEDIMENT	DETAILED DESCRIPTION OF PIPE DEFECTS
1	18"	CIRC	VCP	4"	6"	
2	18"	CIRC	VCP	4"	6"	
3	6"	CIRC	VCP	0	0"	NONE EVIDENT
4	10"	CIRC	CIP	0	3"	
5						

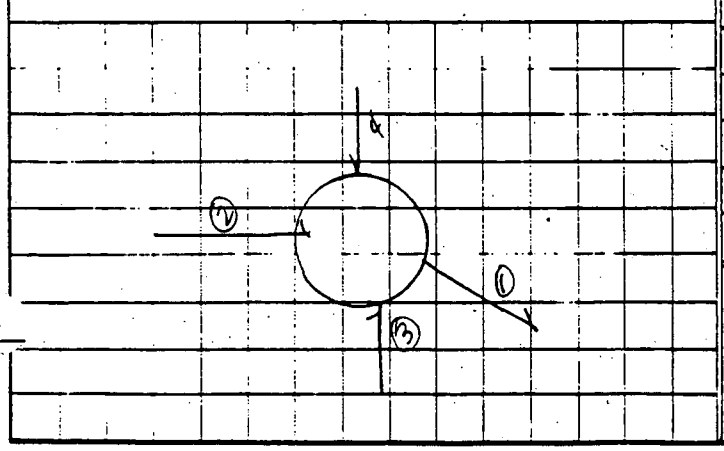
INFILTRATION SOURCES

NO.	DESCRIPTION	HEIGHT ABOVE INVERT	ESTIMATED LEAKAGE (GPD)
1			
2	NONE		
3	EVIDENT		
4			

INFLOW SOURCES

SOURCE	DESCRIPTION OF SOURCE
COVER	
	NONE
RISER	
SURFACE	

SKETCH IDENTIFY RELATIVE LOCATION OF MANHOLE AND INCOMING AND OUTGOING SEWERS USING ABOVE LINE NO. (INCLUDE FLOW DIRECTION, STREET, ETC.).



MEASURED FLOW DATA

LINE NO.	FLOW CLARITY	WEIR MEASUREMENT	AREA - VEL. METHOD		
			DEPTH	VEL.	CAL. FLOW

NOTES:

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P.O. BOX 584 FAR HILLS, N.J. 07931 (201) 234-0234

MANHOLE INSPECTION REPORT

JOB NO. 106-9

CLIENT GIUDADA

DATE	TIME	WEATHER	CREW CHIEF	MUNICIPALITY
8/14/83	1020	CLEAR 75°	P. TYRRELL	CLIFTON

SUB AREA	MINI SYS.	M.H. NO.	MANHOLE LOCATION
		13	CHEMICAL SEWER

MANHOLE PROPERTIES	CONST. MATERIAL	DEPTH	SURCHARGE HEIGHT IF EVIDENT	MANHOLE AIR QUALITY
	BLOCK	6.3'	0	TOXIC

DESCRIBE CONDITION OF EACH MANHOLE COMPONENT, SUCH AS: GOOD, WORN, BROKEN, MISSING, CRACKED, LOOSE, SHIFTED, VENTED, SOLID, ETC.

COVER	FRAME	RISER	WALL JOINTS
SOLID 2 PICK HOLES	GOOD	GOOD	GOOD

STEPS	BENCHING	CHANNEL	SPECIAL CONDITIONS
WORN	WORN	WORN	

PIPE INVENTORY

LINE NO.	PIPE SIZE	PIPE SHAPE	CONST. MATERIAL	FLOW DEPTH	DEPTH SEDIMENT	DETAILED DESCRIPTION OF PIPE DEFECTS
1	18"	CIRC	VCP	5"	3"	
2	18"	CIRC	VCP	5"	3"	24" & 18" INTERSECT AT MH - CAN-
3	24"	CIRC	VCP	5"	0	NOT PLUG FOR HYDRO-TEST
4	12"	CIRC	VCP	0	0	
5						

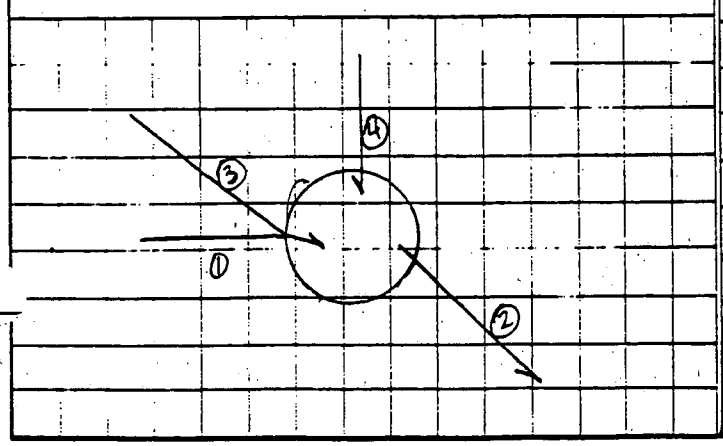
INFILTRATION SOURCES

NO.	DESCRIPTION	HEIGHT ABOVE INVERT	ESTIMATED LEAKAGE (GPD)
1			
2	NONE		
3	VISIBLE		
4			

INFLOW SOURCES

SOURCE	DESCRIPTION OF SOURCE
COVER	
	NONE
RISER	
SURFACE	

SKETCH IDENTIFY RELATIVE LOCATION OF MANHOLE AND INCOMING AND OUTGOING SEWERS USING ABOVE LINE NO. (INCLUDE FLOW DIRECTION, STREET, ETC.).



MEASURED FLOW DATA

LINE NO.	FLOW CLARITY	WEIR MEASUREMENT	AREA - VEL. METHOD		
			DEPTH	VEL.	CAL. FLOW

NOTES:

CFM INCORPORATED

P.O. BOX 584 FAR HILLS, N.J. 07931 (201) 234-0234

MANHOLE INSPECTION REPORT

JOB NO. 106-9

CLIENT GUARDIAN

DATE	TIME	WEATHER	CREW CHIEF	MUNICIPALITY
7/15/83	1040	CLEAR 80°	AC	CLIFTON

SUB AREA: – MINI SYS.: – M.H. NO.: 13-1

MANHOLE LOCATION: BRANCH CHEMICAL SEWER - TO BLDG 72

MANHOLE PROPERTIES

CONST. MATERIAL	DEPTH	SURCHARGE HEIGHT IF EVIDENT	MANHOLE AIR QUALITY
Block	3.8	–	Poor

DESCRIBE CONDITION OF EACH MANHOLE COMPONENT, SUCH AS: GOOD, WORN, BROKEN, MISSING, CRACKED, LOOSE, SHIFTED, VENTED, SOLID, ETC.

COVER	FRAME	RISER	WALL JOINTS
GOOD	GOOD	GOOD	GOOD

STEPS	BENCHING	CHANNEL	SPECIAL CONDITIONS
GOOD	NONE	NONE	

PIPE INVENTORY

LINE NO.	PIPE SIZE	PIPE SHAPE	CONST. MATERIAL	FLOW DEPTH	DEPTH SEDIMENT	DETAILED DESCRIPTION OF PIPE DEFECTS
1	12	ϕ	VTP			
2	4	ϕ	CIP			NONE EVIDENT
3						
4						
5						

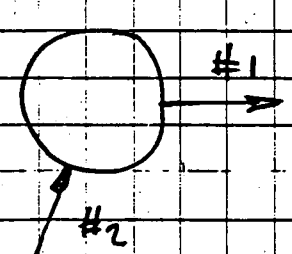
INFILTRATION SOURCES

NO.	DESCRIPTION	HEIGHT ABOVE INVERT	ESTIMATED LEAKAGE (GPD)
1	NONE		
2			
3			
4			

INFLOW SOURCES

SOURCE	DESCRIPTION OF SOURCE
COVER	
	NONE
RISER	
SURFACE	

SKETCH IDENTIFY RELATIVE LOCATION OF MANHOLE AND INCOMING AND OUTGOING SEWERS USING ABOVE LINE NO. (INCLUDE FLOW DIRECTION, STREET, ETC.)



MEASURED FLOW DATA

LINE NO.	FLOW CLARITY	WEIR MEASUREMENT	AREA - VEL. METHOD		
			DEPTH	VEL.	CAL. FLOW

NOTES:

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MANHOLE INSPECTION REPORT

JOB NO. 106-9

CLIENT GUARDA

DATE	TIME	WEATHER	CREW CHIEF	MUNICIPALITY
8/14/83	1000	CLEAR 75°	P. TYRRELL	CLIFTON

SUB AREA	MINI SYS.	M.H. NO.	MANHOLE LOCATION
		13-2	BRANCH CHEMICAL SEWER

MANHOLE PROPERTIES	CONST. MATERIAL	DEPTH	SURCHARGE HEIGHT IF EVIDENT	MANHOLE AIR QUALITY
		4'		POOR

DESCRIBE CONDITION OF EACH MANHOLE COMPONENT, SUCH AS: GOOD, WORN, BROKEN, MISSING, CRACKED, LOOSE, SHIFTED, VENTED, SOLID, ETC.

COVER	FRAME	RISER	WALL JOINTS
~~VENTED~~ SOLID - 2 PICK HOLES	WORN	POOR	WORN

STEPS	BENCHING	CHANNEL	SPECIAL CONDITIONS
NONE	NONE	WORN	

PIPE INVENTORY

LINE NO.	PIPE SIZE	PIPE SHAPE	CONST. MATERIAL	FLOW DEPTH	DEPTH SEDIMENT	DETAILED DESCRIPTION OF PIPE DEFECTS
1	18"	CIRC	VCP	~~4/8"~~	2"	FLOW PONDED
2	18"	CIRC	VCP	—	2"	" "
3	4"	CIRC	VCP	1/8"	0	
4	6"	CIRC	VCP	—	0	BACKED UP FLOW - MOUTH BROKEN
5						

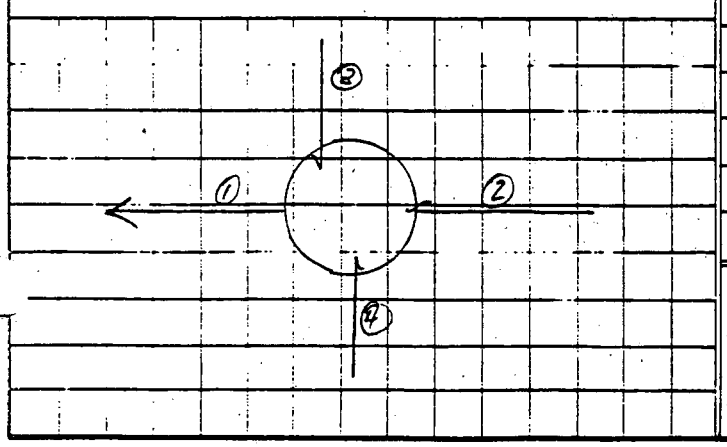
INFILTRATION SOURCES

NO.	DESCRIPTION	HEIGHT ABOVE INVERT	ESTIMATED LEAKAGE (GPD)
1			
2	NONE		
3	VISIBLE		
4			

INFLOW SOURCES

SOURCE	DESCRIPTION OF SOURCE
COVER	
RISER	GAP BETWEEN RISER & FRAME = 2"
SURFACE	

SKETCH IDENTIFY RELATIVE LOCATION OF MANHOLE AND INCOMING AND OUTGOING SEWERS USING ABOVE LINE NO. (INCLUDE FLOW DIRECTION, STREET, ETC.)



MEASURED FLOW DATA

LINE NO.	FLOW CLARITY	WEIR MEASUREMENT	AREA - VEL. METHOD		
			DEPTH	VEL.	CAL. FLOW

NOTES:

CFM INCORPORATED

P.O. BOX 584 FAR HILLS, N.J. 07931 (201) 234-0234

MANHOLE INSPECTION REPORT

JOB NO. 106-9

CLIENT GIVAUDAN

DATE	TIME	WEATHER	CREW CHIEF	MUNICIPALITY
8/16/83		CLEAR 82°	P. TYRRELL	CLIFTON

SUB AREA: | MINI SYS.: | M.H. NO.: 13-3 | MANHOLE LOCATION: BRANCH - CHEMICAL SEWER

MANHOLE PROPERTIES	CONST. MATERIAL	DEPTH	SURCHARGE HEIGHT IF EVIDENT	MANHOLE AIR QUALITY
	BRICK	4.0	0	NOXIOUS

DESCRIBE CONDITION OF EACH MANHOLE COMPONENT, SUCH AS: GOOD, WORN, BROKEN, MISSING, CRACKED, LOOSE, SHIFTED, VENTED, SOLID, ETC.

COVER	FRAME	RISER	WALL JOINTS
VENTED	WORN	LOOSE	LOOSE

STEPS	BENCHING	CHANNEL	SPECIAL CONDITIONS
NONE	WORN	LOOSE	

PIPE INVENTORY

LINE NO.	PIPE SIZE	PIPE SHAPE	CONST. MATERIAL	FLOW DEPTH	DEPTH SEDIMENT	DETAILED DESCRIPTION OF PIPE DEFECTS
1	18"	CIRC	VCP	1.5"	0	
2	8"	CIRC	VCP	2"	0	
3	4"	CIRC	VCP	1"	0	
4	18"	CIRC	VCP	0	1"	ABANDONED LINE
5						

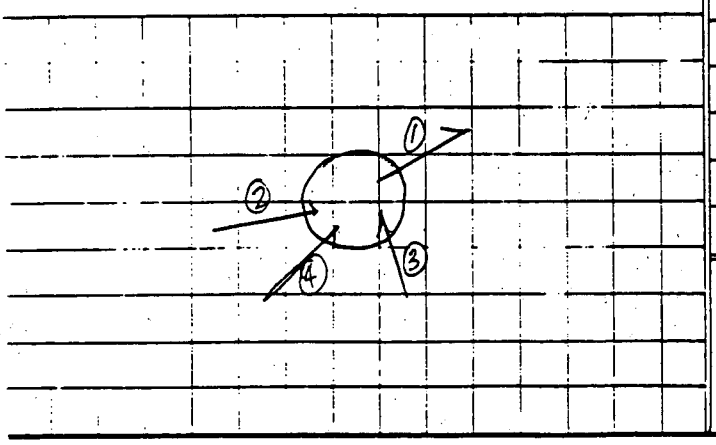
INFILTRATION SOURCES

NO.	DESCRIPTION	HEIGHT ABOVE INVERT	ESTIMATED LEAKAGE (GPD)
1			
2	NONE		
3			
4			

INFLOW SOURCES

SOURCE	DESCRIPTION OF SOURCE
COVER	
	NONE
RISER	
SURFACE	

SKETCH IDENTIFY RELATIVE LOCATION OF MANHOLE AND INCOMING AND OUTGOING SEWERS USING ABOVE LINE NO. (INCLUDE FLOW DIRECTION, STREET, ETC.)



MEASURED FLOW DATA

LINE NO.	FLOW CLARITY	WEIR MEASUREMENT	AREA - VEL. METHOD		
			DEPTH	VEL.	CAL. FLOW

NOTES:

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MANHOLE INSPECTION REPORT

JOB NO.

CLIENT

DATE	TIME	WEATHER	CREW CHIEF	MUNICIPALITY
7/15/83	1305	CLEAR - 90°	AC	CLIFTON

SUB AREA: | MINI SYS.: | M.H. NO.: 13-5 | MANHOLE LOCATION: BRANCH - CHEMICAL SEWER

MANHOLE PROPERTIES

CONST. MATERIAL	DEPTH	SURCHARGE HEIGHT IF EVIDENT	MANHOLE AIR QUALITY
PRECAST			POOR

DESCRIBE CONDITION OF EACH MANHOLE COMPONENT, SUCH AS: GOOD, WORN, BROKEN, MISSING, CRACKED, LOOSE, SHIFTED, VENTED, SOLID, ETC.

COVER	FRAME	RISER	WALL JOINTS
GOOD - SOLID	—	—	PRECAST

STEPS	BENCHING	CHANNEL	SPECIAL CONDITIONS
NONE	NONE	NONE	

PIPE INVENTORY

LINE NO.	PIPE SIZE	PIPE SHAPE	CONST. MATERIAL	FLOW DEPTH	DEPTH SEDIMENT	DETAILED DESCRIPTION OF PIPE DEFECTS
1	8	⌀	CIP			
2	8	⌀	"			PLUGGED
3	6	⌀	STEEL			
4	4	⌀	CIP			
5						

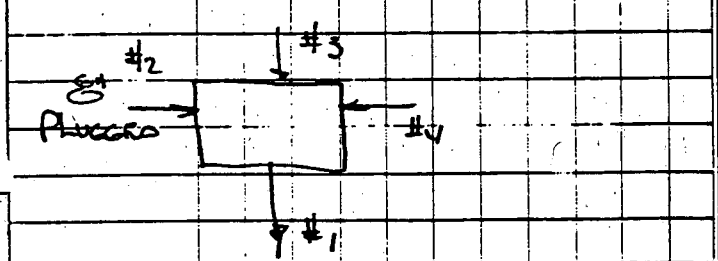
INFILTRATION SOURCES

NO.	DESCRIPTION	HEIGHT ABOVE INVERT	ESTIMATED LEAKAGE (GPD)
1			
2			
3			
4			

INFLOW SOURCES

SOURCE	DESCRIPTION OF SOURCE
COVER	
RISER	
SURFACE	

SKETCH IDENTIFY RELATIVE LOCATION OF MANHOLE AND INCOMING AND OUTGOING SEWERS USING ABOVE LINE NO. (INCLUDE FLOW DIRECTION, STREET, ETC.)



MEASURED FLOW DATA

LINE NO.	FLOW CLARITY	WEIR MEASUREMENT	AREA - VEL. METHOD		
			DEPTH	VEL.	CAL. FLOW

NOTES:

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MANHOLE INSPECTION REPORT

JOB NO. 106-9
CLIENT GIVAUDAN

DATE	TIME	WEATHER	CREW CHIEF	MUNICIPALITY
7/15/83	1315	CLEAR - 90°	AC	CLIFTON

SUB AREA	MINI SYS.	M.H. NO.	MANHOLE LOCATION
—	—	136	BRANCH CHEMICAL SEWER

MANHOLE PROPERTIES	CONST. MATERIAL	DEPTH	SURCHARGE HEIGHT IF EVIDENT	MANHOLE AIR QUALITY
	BLOCK	5.1		POOR

DESCRIBE CONDITION OF EACH MANHOLE COMPONENT, SUCH AS: GOOD, WORN, BROKEN, MISSING, CRACKED, LOOSE, SHIFTED, VENTED, SOLID, ETC.

COVER	FRAME	RISER	WALL JOINTS
GOOD - UNITED	—	—	—

STEPS	BENCHING	CHANNEL	SPECIAL CONDITIONS
—	—	—	DRAIN INLET - NOT MH

PIPE INVENTORY

LINE NO.	PIPE SIZE	PIPE SHAPE	CONST. MATERIAL	FLOW DEPTH	DEPTH SEDIMENT	DETAILED DESCRIPTION OF PIPE DEFECTS
1	8"	Φ	VCP	-		PLUGGED
2	8"	"	"	·		PLUGGED
3						
4						
5						

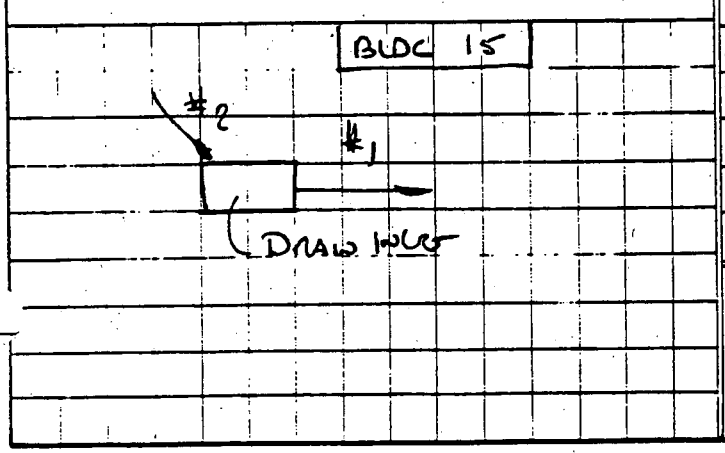
INFILTRATION SOURCES

NO.	DESCRIPTION	HEIGHT ABOVE INVERT	ESTIMATED LEAKAGE (GPD)
1			
2			
3			
4			

INFLOW SOURCES

SOURCE	DESCRIPTION OF SOURCE
COVER	
RISER	
SURFACE	

SKETCH IDENTIFY RELATIVE LOCATION OF MANHOLE AND INCOMING AND OUTGOING SEWERS USING ABOVE LINE NO. (INCLUDE FLOW DIRECTION, STREET, ETC.)



MEASURED FLOW DATA

LINE NO.	FLOW CLARITY	WEIR MEASUREMENT	AREA - VEL. METHOD DEPTH	VEL.	CAL. FLOW

NOTES: NOT MH BUT DRAIN INLET

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MANHOLE INSPECTION REPORT

JOB NO. 106-9
CLIENT GIVAUDAN

DATE	TIME	WEATHER	CREW CHIEF	MUNICIPALITY
8/16/83		CLEAR 82°	P. TYRRELL	CLIFTON

SUB AREA	MINI SYS.	M.H. NO.	MANHOLE LOCATION
		13-7	BRANCH - CHEMICAL SEWER

MANHOLE PROPERTIES	CONST. MATERIAL	DEPTH	SURCHARGE HEIGHT IF EVIDENT	MANHOLE AIR QUALITY
	BRICK	5.0	0	POOR

DESCRIBE CONDITION OF EACH MANHOLE COMPONENT, SUCH AS: GOOD, WORN, BROKEN, MISSING, CRACKED, LOOSE, SHIFTED, VENTED, SOLID, ETC.

COVER	FRAME	RISER	WALL JOINTS
WOODEN PLANKS LOOSE	NONE	NONE	WORN

STEPS	BENCHING	CHANNEL	SPECIAL CONDITIONS
NONE	NONE	NONE	

PIPE INVENTORY

LINE NO.	PIPE SIZE	PIPE SHAPE	CONST. MATERIAL	FLOW DEPTH	DEPTH SEDIMENT	DETAILED DESCRIPTION OF PIPE DEFECTS
1	6"	CIRC	VCP	1.5	0	PIPES ± 3' ABOVE BOTTOM OF PIT
2	8"	CIRC	VCP	1.5	0	
3	8"	CIRC	VCP	1.0	0	
4						
5						

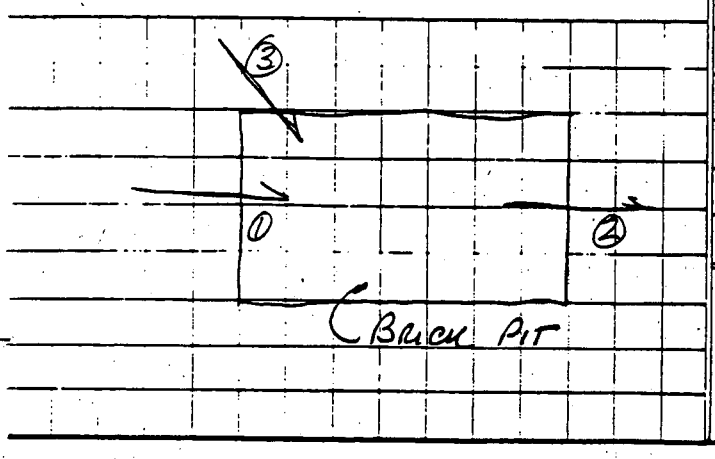
INFILTRATION SOURCES

NO.	DESCRIPTION	HEIGHT ABOVE INVERT	ESTIMATED LEAKAGE (GPD)
1			
2	NONE		
3			
4			

INFLOW SOURCES

SOURCE	DESCRIPTION OF SOURCE
COVER	
	NONE
RISER	
SURFACE	

SKETCH IDENTIFY RELATIVE LOCATION OF MANHOLE AND INCOMING AND OUTGOING SEWERS USING ABOVE LINE NO (INCLUDE FLOW DIRECTION, STREET, ETC.)



MEASURED FLOW DATA

LINE NO.	FLOW CLARITY	WEIR MEASUREMENT	AREA - VEL. METHOD DEPTH	VEL.	CAL. FLOW

NOTES:

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MANHOLE INSPECTION REPORT

JOB NO. 106-9

CLIENT GIVAUDAN

DATE	TIME	WEATHER	CREW CHIEF	MUNICIPALITY
8/16/83		CLEAR 82°	P. TYRRELL	CLIFTON

SUB AREA	MINI SYS.	M.H. NO.	MANHOLE LOCATION
		13-8	BRANCH - CHEMICAL SEWER

MANHOLE PROPERTIES	CONST. MATERIAL	DEPTH	SURCHARGE HEIGHT IF EVIDENT	MANHOLE AIR QUALITY
	CONC 4'X2' PIT	1.4'	0	POOR

DESCRIBE CONDITION OF EACH MANHOLE COMPONENT, SUCH AS: GOOD, WORN, BROKEN, MISSING, CRACKED, LOOSE, SHIFTED, VENTED, SOLID, ETC.

COVER	FRAME	RISER	WALL JOINTS
2-2'X2' STEEL PLATES	NONE	NONE	GOOD

STEPS	BENCHING	CHANNEL	SPECIAL CONDITIONS
NONE	NONE	FILLED W DEBRIS	

PIPE INVENTORY

LINE NO.	PIPE SIZE	PIPE SHAPE	CONST. MATERIAL	FLOW DEPTH	DEPTH SEDIMENT	DETAILED DESCRIPTION OF PIPE DEFECTS
1	10"	CIRC	VCP	1.5"	1"	PIPE CHANGES BETW 9+8 FROM 6"
2	10"	"	"	1.5"	1"	
3	8"	"	"	0	0	ABANDONED LINE
4						
5						

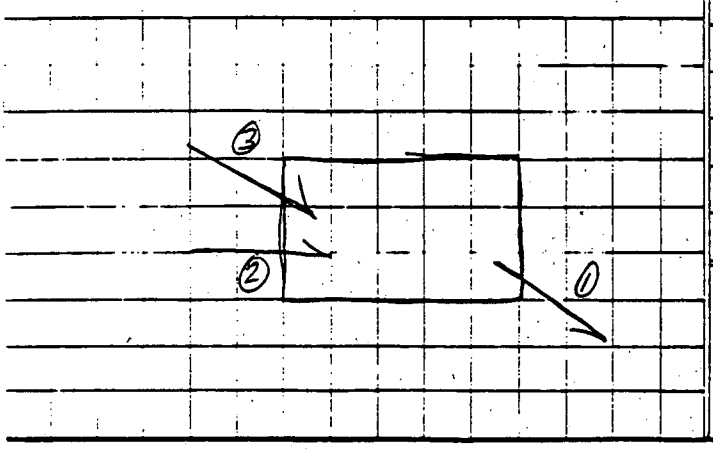
INFILTRATION SOURCES

NO.	DESCRIPTION	HEIGHT ABOVE INVERT	ESTIMATED LEAKAGE (GPD)
1			
2	NONE		
3			
4			

INFLOW SOURCES

SOURCE	DESCRIPTION OF SOURCE
COVER	
	NONE
RISER	
SURFACE	

SKETCH IDENTIFY RELATIVE LOCATION OF MANHOLE AND INCOMING AND OUTGOING SEWERS USING ABOVE LINE NO (INCLUDE FLOW DIRECTION, STREET, ETC.)



MEASURED FLOW DATA

LINE NO.	FLOW CLARITY	WEIR MEASUREMENT	AREA - VEL. METHOD		
			DEPTH	VEL.	CAL. FLOW

NOTES:

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MANHOLE INSPECTION REPORT

JOB NO. 106-9

CLIENT GIUAUDAN

DATE	TIME	WEATHER	CREW CHIEF	MUNICIPALITY
8/16/83		CLEAR 80°	P. TYRRELL	CLIFTON

SUB AREA	MINI SYS.	M.H. NO.	MANHOLE LOCATION
		13-9	BRANCH - CHEMICAL SEWER

MANHOLE PROPERTIES	CONST. MATERIAL	DEPTH	SURCHARGE HEIGHT IF EVIDENT	MANHOLE AIR QUALITY
	CONC. 2'x2' PIT	1.6'	0	GOOD

DESCRIBE CONDITION OF EACH MANHOLE COMPONENT, SUCH AS: GOOD, WORN, BROKEN, MISSING, CRACKED, LOOSE, SHIFTED, VENTED, SOLID, ETC.

COVER	FRAME	RISER	WALL JOINTS
2 1'x2' STEEL GRATES	NONE	GOOD	GOOD

STEPS	BENCHING	CHANNEL	SPECIAL CONDITIONS
NONE	NONE	WORN	

PIPE INVENTORY

LINE NO.	PIPE SIZE	PIPE SHAPE	CONST. MATERIAL	FLOW DEPTH	DEPTH SEDIMENT	DETAILED DESCRIPTION OF PIPE DEFECTS
1	6	CIRC	VCP	1.5	0	
2	6	CIRC	VCP	1.5	0	
3	6	CIRC	VCP	1.0	0	
4						
5						

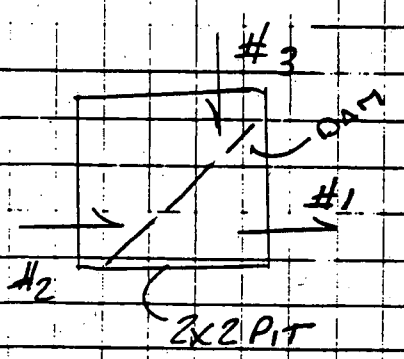
INFILTRATION SOURCES

NO.	DESCRIPTION	HEIGHT ABOVE INVERT	ESTIMATED LEAKAGE (GPD)
1			
2	NONE		
3			
4			

INFLOW SOURCES

SOURCE	DESCRIPTION OF SOURCE
COVER	
	NONE
RISER	
SURFACE	

SKETCH IDENTIFY RELATIVE LOCATION OF MANHOLE AND INCOMING AND OUTGOING SEWERS USING ABOVE LINE NO (INCLUDE FLOW DIRECTION, STREET, ETC.)



MEASURED FLOW DATA

LINE NO.	FLOW CLARITY	WEIR MEASUREMENT	AREA - VEL. METHOD		
			DEPTH	VEL.	CAL. FLOW

NOTES:

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MANHOLE INSPECTION REPORT

JOB NO. 106-9

CLIENT GUARDIAN

DATE	TIME	WEATHER	CREW CHIEF	MUNICIPALITY
8/16/83		CLEAR 82°	P. TYRRELL	CLIFTON

SUB AREA	MINI SYS.	M.H. NO.	MANHOLE LOCATION
		13-10	BRANCH-CHERRY LAWN

MANHOLE PROPERTIES	CONST. MATERIAL	DEPTH	SURCHARGE HEIGHT IF EVIDENT	MANHOLE AIR QUALITY
	2'X2' CONC. PIT	1'	0	FAIR

DESCRIBE CONDITION OF EACH MANHOLE COMPONENT, SUCH AS: GOOD, WORN, BROKEN, MISSING, CRACKED, LOOSE, SHIFTED, VENTED, SOLID, ETC.

COVER	FRAME	RISER	WALL JOINTS
SOLID - 2 - 1'X2' STEEL PLANKS	NONE	NONE	GOOD

STEPS	BENCHING	CHANNEL	SPECIAL CONDITIONS
NONE	NONE	NONE	BULKHEAD BETW PIPES

PIPE INVENTORY

LINE NO.	PIPE SIZE	PIPE SHAPE	CONST. MATERIAL	FLOW DEPTH	DEPTH SEDIMENT	DETAILED DESCRIPTION OF PIPE DEFECTS
1	6"	CIRC	CIP	3"	2"	STAGNANT FLOW
2	6"	CIRC	VCP	3"	2"	
3						
4						
5						

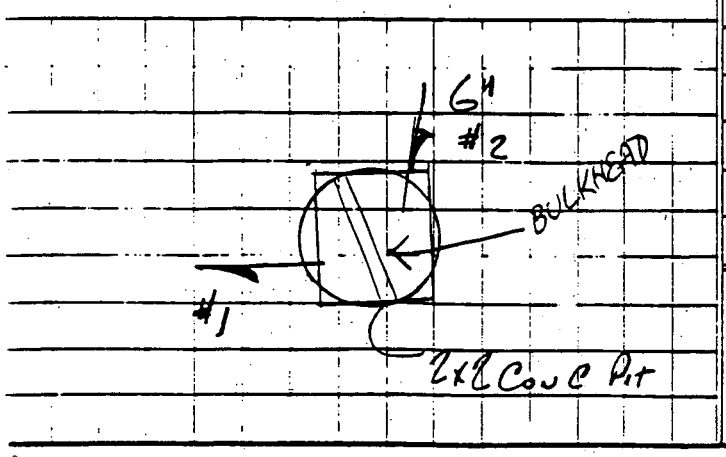
INFILTRATION SOURCES

NO.	DESCRIPTION	HEIGHT ABOVE INVERT	ESTIMATED LEAKAGE (GPD)
1			
2	NONE		
3			
4			

INFLOW SOURCES

SOURCE	DESCRIPTION OF SOURCE
COVER	
	NONE
RISER	
SURFACE	

SKETCH IDENTIFY RELATIVE LOCATION OF MANHOLE AND INCOMING AND OUTGOING SEWERS USING ABOVE LINE NO (INCLUDE FLOW DIRECTION, STREET, ETC.)



MEASURED FLOW DATA

LINE NO.	FLOW CLARITY	WEIR MEASUREMENT	AREA - VEL. METHOD		
			DEPTH	VEL.	CAL. FLOW

NOTES:

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MANHOLE INSPECTION REPORT

JOB NO. 106-9

CLIENT GIVAUDAN

DATE	TIME	WEATHER	CREW CHIEF	MUNICIPALITY
8/16/83	—	CLEAR 80°	P.T.	CLIFTON

SUB AREA	MINI SYS.	M.H. NO.	MANHOLE LOCATION
—	—	13-12	BRANCH CHEMICAL SEWER

MANHOLE PROPERTIES	CONST. MATERIAL	DEPTH	SURCHARGE HEIGHT IF EVIDENT	MANHOLE AIR QUALITY
	PRECAST	9.5	—	FAIR

DESCRIBE CONDITION OF EACH MANHOLE COMPONENT, SUCH AS: GOOD, WORN, BROKEN, MISSING, CRACKED, LOOSE, SHIFTED, VENTED, SOLID, ETC.

COVER	FRAME	RISER	WALL JOINTS
SOLID - GOOD	—	—	PRECAST

STEPS	BENCHING	CHANNEL	SPECIAL CONDITIONS
NONE	NONE	NONE	

PIPE INVENTORY

LINE NO.	PIPE SIZE	PIPE SHAPE	CONST. MATERIAL	FLOW DEPTH	DEPTH SEDIMENT	DETAILED DESCRIPTION OF PIPE DEFECTS
1	6	ϕ	CIP			
2	6	"	"			
3						
4						
5						

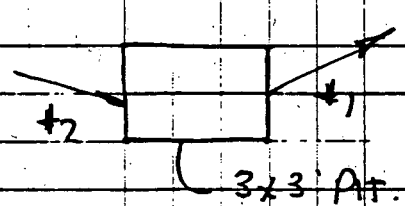
INFILTRATION SOURCES

NO.	DESCRIPTION	HEIGHT ABOVE INVERT	ESTIMATED LEAKAGE (GPD)
1			
2	NONE		
3			
4			

INFLOW SOURCES

SOURCE	DESCRIPTION OF SOURCE
COVER	
	NONE
RISER	
SURFACE	

SKETCH IDENTIFY RELATIVE LOCATION OF MANHOLE AND INCOMING AND OUTGOING SEWERS USING ABOVE LINE NO. (INCLUDE FLOW DIRECTION, STREET, ETC.).



MEASURED FLOW DATA

LINE NO.	FLOW CLARITY	WEIR MEASUREMENT	AREA - VEL. METHOD DEPTH	VEL.	CAL. FLOW

NOTES:

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MANHOLE INSPECTION REPORT

JOB NO. 106-9
CLIENT GIUAUDAN

DATE	TIME	WEATHER	CREW CHIEF	MUNICIPALITY
8/16/83		CLEAR 80°	P. TYRRELL	CLIFTON

SUB AREA: | MINI SYS.: | M.H. NO.: 13-13 | MANHOLE LOCATION: BRANCH CHEMICAL SEWER @ BLDG 7

MANHOLE PROPERTIES	CONST. MATERIAL	DEPTH	SURCHARGE HEIGHT IF EVIDENT	MANHOLE AIR QUALITY
	BLOCK	2.3'		FAIR

DESCRIBE CONDITION OF EACH MANHOLE COMPONENT, SUCH AS: GOOD, WORN, BROKEN, MISSING, CRACKED, LOOSE, SHIFTED, VENTED, SOLID, ETC.

COVER	FRAME	RISER	WALL JOINTS
SOLID	WORN	FAIR	GOOD

STEPS	BENCHING	CHANNEL	SPECIAL CONDITIONS
NONE	NONE	WORN	

PIPE INVENTORY

LINE NO.	PIPE SIZE	PIPE SHAPE	CONST. MATERIAL	FLOW DEPTH	DEPTH SEDIMENT	DETAILED DESCRIPTION OF PIPE DEFECTS
1	6"	CIRC	CIP	1"	~~0~~ 1/2"	
2	6"	CIRC	CIP	1"	1/2"	NONE
3	6"	CIRC	CIP	1/2"	0	
4	4"	CIRC	CIP	1/4"	0	
5						

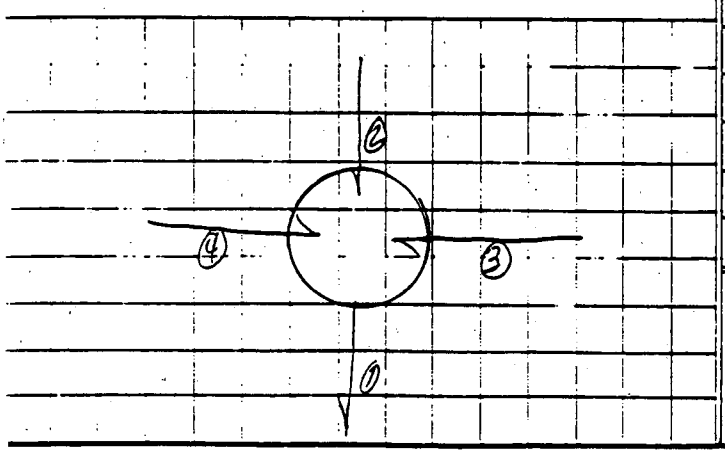
INFILTRATION SOURCES

NO.	DESCRIPTION	HEIGHT ABOVE INVERT	ESTIMATED LEAKAGE (GPD)
1			
2	NONE		
3			
4			

INFLOW SOURCES

SOURCE	DESCRIPTION OF SOURCE
COVER	NONE
RISER	
SURFACE	

SKETCH IDENTIFY RELATIVE LOCATION OF MANHOLE AND INCOMING AND OUTGOING SEWERS USING ABOVE LINE NO (INCLUDE FLOW DIRECTION, STREET, ETC.).



MEASURED FLOW DATA

LINE NO.	FLOW CLARITY	WEIR MEASUREMENT	AREA - VEL. METHOD DEPTH	VEL.	CAL. FLOW

NOTES:

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MANHOLE INSPECTION REPORT

JOB NO. 106-9

CLIENT GUANDAN

DATE	TIME	WEATHER	CREW CHIEF	MUNICIPALITY
8/16/83		CLEAR 80°	P. TYRRELL	CLIFTON

SUB AREA	MINI SYS.	M.H. NO.	MANHOLE LOCATION
		13-14	BRANCH CHEMICAL SEWER @ BLDG 7A

MANHOLE PROPERTIES	CONST. MATERIAL	DEPTH	SURCHARGE HEIGHT IF EVIDENT	MANHOLE AIR QUALITY
	CONCRETE 1.5x1.5	1.8		GOOD

DESCRIBE CONDITION OF EACH MANHOLE COMPONENT, SUCH AS: GOOD, WORN, BROKEN, MISSING, CRACKED, LOOSE, SHIFTED, VENTED, SOLID, ETC.

COVER	FRAME	RISER	WALL JOINTS
SOLID	NONE	NONE	GOOD

STEPS	BENCHING	CHANNEL	SPECIAL CONDITIONS
NONE	NONE	NONE	SURCHARGED

PIPE INVENTORY

LINE NO.	PIPE SIZE	PIPE SHAPE	CONST. MATERIAL	FLOW DEPTH	DEPTH SEDIMENT	DETAILED DESCRIPTION OF PIPE DEFECTS
1						
2						NO PIPES VISIBLE
3						IN PIT
4						
5						

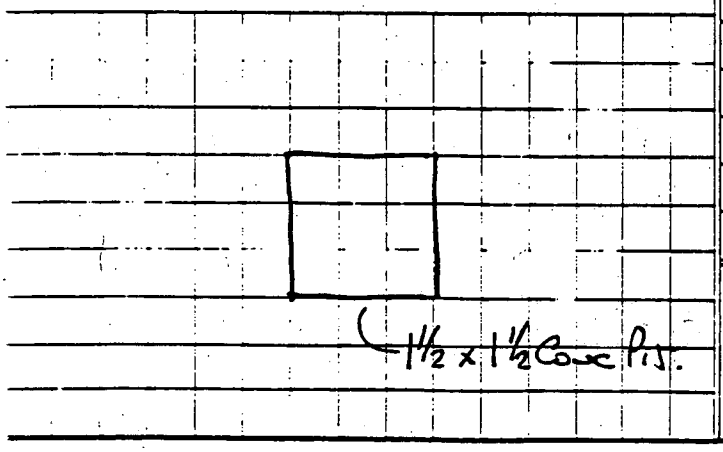
INFILTRATION SOURCES

NO.	DESCRIPTION	HEIGHT ABOVE INVERT	ESTIMATED LEAKAGE (GPD)
1			
2	NONE		
3			
4			

INFLOW SOURCES

SOURCE	DESCRIPTION OF SOURCE
COVER	
	NONE
RISER	
SURFACE	

SKETCH IDENTIFY RELATIVE LOCATION OF MANHOLE AND INCOMING AND OUTGOING SEWERS USING ABOVE LINE NO (INCLUDE FLOW DIRECTION, STREET, ETC.)



MEASURED FLOW DATA

LINE NO.	FLOW CLARITY	WEIR MEASUREMENT	AREA - VEL. METHOD		
			DEPTH	VEL.	CAL. FLOW

NOTES:

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MANHOLE INSPECTION REPORT

JOB NO. 106-9

CLIENT GUARDIAN

DATE	TIME	WEATHER	CREW CHIEF	MUNICIPALITY
8/16/83		CLEAR 80°	P. TYRRELL	CLIFTON

SUB AREA: | MINI SYS.: | M.H. NO.: 13-15 | MANHOLE LOCATION: BRANCH CHEMICAL SEWER @ BLDG #27

MANHOLE PROPERTIES	CONST. MATERIAL	DEPTH	SURCHARGE HEIGHT IF EVIDENT	MANHOLE AIR QUALITY
	BLOCK	2.8'	0	FAIR

DESCRIBE CONDITION OF EACH MANHOLE COMPONENT, SUCH AS: GOOD, WORN, BROKEN, MISSING, CRACKED, LOOSE, SHIFTED, VENTED, SOLID, ETC.

COVER	FRAME	RISER	WALL JOINTS
VENTED	WORN	WORN	WORN

STEPS	BENCHING	CHANNEL	SPECIAL CONDITIONS
NONE	NONE	NONE	

PIPE INVENTORY

LINE NO.	PIPE SIZE	PIPE SHAPE	CONST. MATERIAL	FLOW DEPTH	DEPTH SEDIMENT	DETAILED DESCRIPTION OF PIPE DEFECTS
1	6"	CIRC	VCP	0	0	
2	6"	CIRC	VCP	0	0	ALL PIPE MOUTHS CRACKED
3	6"	CIRC	VCP	0	0	
4	6"	CIRC	VCP	0	0	
5	6"	CIRC	VCP	0	0	ABANDONED LINE.

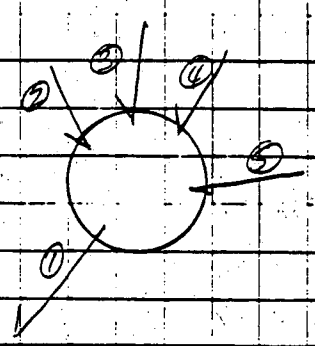
INFILTRATION SOURCES

NO.	DESCRIPTION	HEIGHT ABOVE INVERT	ESTIMATED LEAKAGE (GPD)
1			
2	NONE		
3			
4			

INFLOW SOURCES

SOURCE	DESCRIPTION OF SOURCE
COVER	
	NONE
RISER	
SURFACE	

SKETCH IDENTIFY RELATIVE LOCATION OF MANHOLE AND INCOMING AND OUTGOING SEWERS USING ABOVE LINE NO (INCLUDE FLOW DIRECTION, STREET, ETC.)



MEASURED FLOW DATA

LINE NO.	FLOW CLARITY	WEIR MEASUREMENT	AREA - VEL. METHOD		
			DEPTH	VEL.	CAL. FLOW

NOTES:

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P.O. BOX 584 FAR HILLS, N.J. 07931 (201) 234-0234

MANHOLE INSPECTION REPORT

JOB NO. 106-9

CLIENT GUAUDAN

DATE	TIME	WEATHER	CREW CHIEF	MUNICIPALITY
8/16/83		CLEAR 80°	P TYRRELL	CLIFTON

SUB AREA: | MINI SYS.: | M.H. NO. 13-E 17 | MANHOLE LOCATION: BRANCH CHEMICAL SEWER @ BLDG 7

MANHOLE PROPERTIES	CONST. MATERIAL	DEPTH	SURCHARGE HEIGHT IF EVIDENT	MANHOLE AIR QUALITY
	VCP PIPE 24"	2.1'	0	GOOD

DESCRIBE CONDITION OF EACH MANHOLE COMPONENT, SUCH AS: GOOD, WORN, BROKEN, MISSING, CRACKED, LOOSE, SHIFTED, VENTED, SOLID, ETC.

COVER	FRAME	RISER	WALL JOINTS
SOLID 2 PICK HOLES	WORN	NONE	NONE

STEPS	BENCHING	CHANNEL	SPECIAL CONDITIONS
NONE	NONE	WORN	

PIPE INVENTORY

LINE NO.	PIPE SIZE	PIPE SHAPE	CONST. MATERIAL	FLOW DEPTH	DEPTH SEDIMENT	DETAILED DESCRIPTION OF PIPE DEFECTS
1	6"	CIRC	CIP	2"	1/2"	FLOWS PONDED
2	6"	CIRC	CIP	2"	1/2"	
3	4"	CIRC	CIP	2"	1/2"	
4						
5						

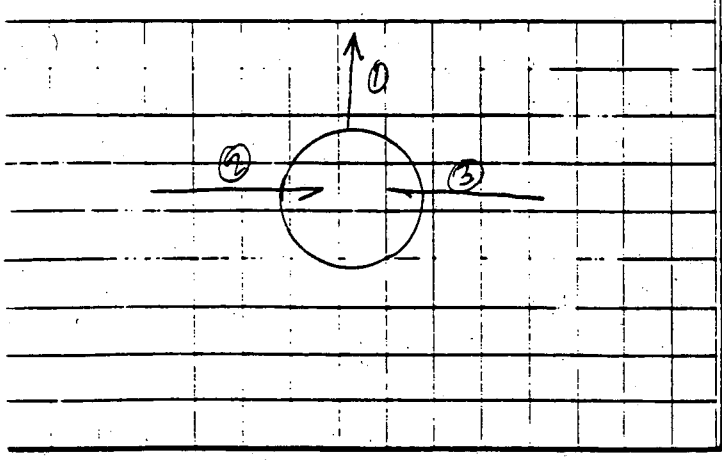
INFILTRATION SOURCES

NO.	DESCRIPTION	HEIGHT ABOVE INVERT	ESTIMATED LEAKAGE (GPD)
1	PIPE SLEEVES (3)	6"	NONE
2	(OPEN 1/2")		
3			
4			

INFLOW SOURCES

SOURCE	DESCRIPTION OF SOURCE
COVER	
	NONE
RISER	
SURFACE	

SKETCH IDENTIFY RELATIVE LOCATION OF MANHOLE AND INCOMING AND OUTGOING SEWERS USING ABOVE LINE NO. (INCLUDE FLOW DIRECTION, STREET, ETC.)



MEASURED FLOW DATA

LINE NO.	FLOW CLARITY	WEIR MEASUREMENT	AREA - VEL. METHOD DEPTH	VEL.	CAL. FLOW

NOTES:

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P.O. BOX 584 FAR HILLS, N.J. 07931 (201) 234-0234

MANHOLE INSPECTION REPORT

JOB NO. 106-9

CLIENT GUGUDAN

DATE	TIME	WEATHER	CREW CHIEF	MUNICIPALITY
7/13/83	1430	CLEAR 90°	AR	CLIFTON

SUB AREA	MINI SYS.	M.H. NO.	MANHOLE LOCATION
—	-	14	CHEMICAL SEWER

MANHOLE PROPERTIES	CONST. MATERIAL	DEPTH	SURCHARGE HEIGHT IF EVIDENT	MANHOLE AIR QUALITY
	BLOCK	7.6	-	POOR

DESCRIBE CONDITION OF EACH MANHOLE COMPONENT, SUCH AS: GOOD, WORN, BROKEN, MISSING, CRACKED, LOOSE, SHIFTED, VENTED, SOLID, ETC.

COVER	FRAME	RISER	WALL JOINTS
GOOD - VENTED	GOOD	GOOD	GOOD

STEPS	BENCHING	CHANNEL	SPECIAL CONDITIONS
WORN	GOOD	GOOD	NONE

PIPE INVENTORY

LINE NO.	PIPE SIZE	PIPE SHAPE	CONST. MATERIAL	FLOW DEPTH	DEPTH SEDIMENT	DETAILED DESCRIPTION OF PIPE DEFECTS
1	24"	ϕ	VCP		0	
2	24"	ϕ	"		0	NONE EVIDENT
3						
4						
5						

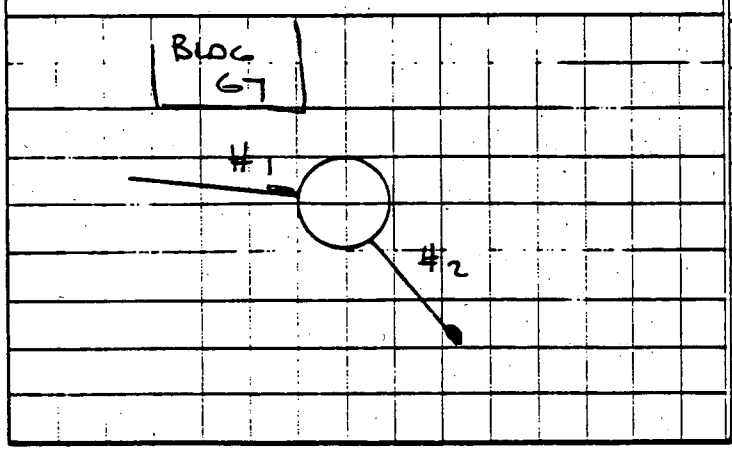
INFILTRATION SOURCES

NO.	DESCRIPTION	HEIGHT ABOVE INVERT	ESTIMATED LEAKAGE (GPD)
1	NONE		
2			
3			
4			

INFLOW SOURCES

SOURCE	DESCRIPTION OF SOURCE
COVER	
	NONE
RISER	
SURFACE	

SKETCH IDENTIFY RELATIVE LOCATION OF MANHOLE AND INCOMING AND OUTGOING SEWERS USING ABOVE LINE NO. (INCLUDE FLOW DIRECTION, STREET, ETC.).



MEASURED FLOW DATA

LINE NO.	FLOW CLARITY	WEIR MEASUREMENT	AREA - VEL. METHOD DEPTH	VEL.	CAL. FLOW

NOTES:

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MANHOLE INSPECTION REPORT

JOB NO. 106-9

CLIENT GUAUOAJ

DATE	TIME	WEATHER	CREW CHIEF	MUNICIPALITY
8/16/83		CLEAR 80°	P. TYRRELL	CLIFTON

SUB AREA: | MINI SYS.: | M.H. NO. 15 | MANHOLE LOCATION: CHEMICAL SEWER

MANHOLE PROPERTIES	CONST. MATERIAL	DEPTH	SURCHARGE HEIGHT IF EVIDENT	MANHOLE AIR QUALITY
	BLOCK	5.3	0	POOR

DESCRIBE CONDITION OF EACH MANHOLE COMPONENT, SUCH AS: GOOD, WORN, BROKEN, MISSING, CRACKED, LOOSE, SHIFTED, VENTED, SOLID, ETC.

COVER	FRAME	RISER	WALL JOINTS
VENTED	WORN	WORN	LOOSE

STEPS	BENCHING	CHANNEL	SPECIAL CONDITIONS
NONE	GOOD	BROKEN-MISSING	

PIPE INVENTORY

LINE NO.	PIPE SIZE	PIPE SHAPE	CONST. MATERIAL	FLOW DEPTH	DEPTH SEDIMENT	DETAILED DESCRIPTION OF PIPE DEFECTS
1	24"	CIRC	VCP	2"	0	
2	24"	CIRC	VCP	2"	0	
3						
4						
5						

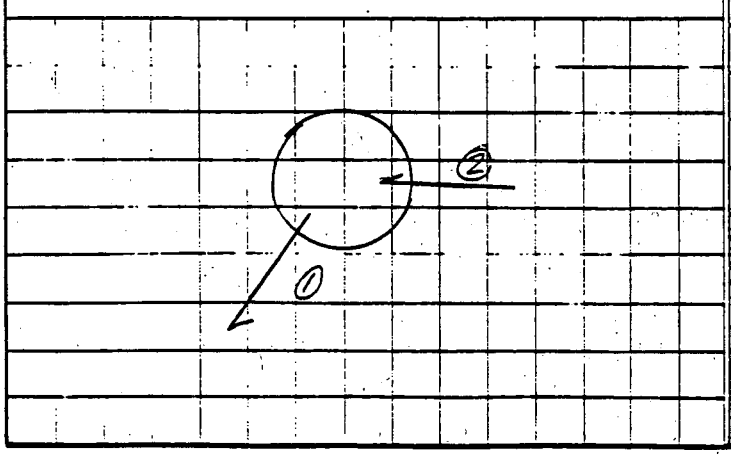
INFILTRATION SOURCES

NO.	DESCRIPTION	HEIGHT ABOVE INVERT	ESTIMATED LEAKAGE (GPD)
1	EXFIL- CHANNEL HAS		
2	MISSING PIECES & GAPS.		
3			
4	WALL JOINTS (INFIL)	3.5	EVIDENCE

INFLOW SOURCES

SOURCE	DESCRIPTION OF SOURCE
COVER	
	NONE
RISER	
SURFACE	

SKETCH IDENTIFY RELATIVE LOCATION OF MANHOLE AND INCOMING AND OUTGOING SEWERS USING ABOVE LINE NO. (INCLUDE FLOW DIRECTION, STREET, ETC.).



MEASURED FLOW DATA

LINE NO.	FLOW CLARITY	WEIR MEASUREMENT	AREA - VEL. METHOD		
			DEPTH	VEL.	CAL. FLOW

NOTES:

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MANHOLE INSPECTION REPORT

JOB NO. 106-9
CLIENT GUARDIAN

DATE	TIME	WEATHER	CREW CHIEF	MUNICIPALITY
8/16/83		CLEAR 80°	P. TYRRELL	CLIFTON

SUB AREA: | MINI SYS.: | M.H. NO.: 16 | MANHOLE LOCATION: CHEMICAL SEWER

MANHOLE PROPERTIES

CONST. MATERIAL	DEPTH	SURCHARGE HEIGHT IF EVIDENT	MANHOLE AIR QUALITY
BLOCK	4.9	0	POOR

DESCRIBE CONDITION OF EACH MANHOLE COMPONENT, SUCH AS: GOOD, WORN, BROKEN, MISSING, CRACKED, LOOSE, SHIFTED, VENTED, SOLID, ETC.

COVER	FRAME	RISER	WALL JOINTS
SOLID 2 PICK HOLES	WORN	WORN	LOOSE

STEPS	BENCHING	CHANNEL	SPECIAL CONDITIONS
NONE	WORN	BROKEN-MISSING	

PIPE INVENTORY

LINE NO.	PIPE SIZE	PIPE SHAPE	CONST. MATERIAL	FLOW DEPTH	DEPTH SEDIMENT	DETAILED DESCRIPTION OF PIPE DEFECTS
1	18"	CIRC	VCP	1.5	0	
2	24"	CIRC	VCP	1.5	0	
3	12"	CIRC	VCP	0	0	INVERT BROKEN IN MH - EXPOSED EARTH
4	4"	CIRC	VCP	0	0	
5						

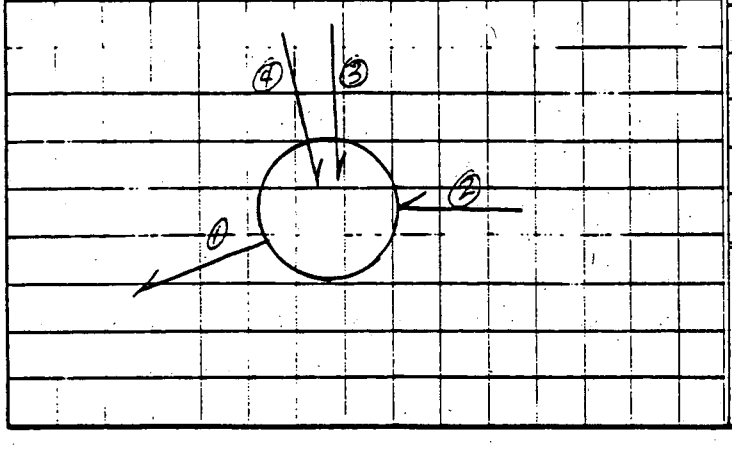
INFILTRATION SOURCES

NO.	DESCRIPTION	HEIGHT ABOVE INVERT	ESTIMATED LEAKAGE (GPD)
1	EXFIL - THROUGH SPACES		
2	IN CHANNEL		
3	INFIL - WALL JOINTS	3'	EVIDENCE
4			

INFLOW SOURCES

SOURCE	DESCRIPTION OF SOURCE
COVER	
RISER	
SURFACE	

SKETCH IDENTIFY RELATIVE LOCATION OF MANHOLE AND INCOMING AND OUTGOING SEWERS USING ABOVE LINE NO. (INCLUDE FLOW DIRECTION, STREET, ETC.)



MEASURED FLOW DATA

LINE NO.	FLOW CLARITY	WEIR MEASUREMENT	AREA - VEL. METHOD DEPTH	VEL.	CAL. FLOW

NOTES:

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MANHOLE INSPECTION REPORT

JOB NO. 106-9

CLIENT GUANDAN

DATE	TIME	WEATHER	CREW CHIEF	MUNICIPALITY
8/16/83		CLEAR 80°	P. TYRRELL	CLIFTON

SUB AREA	MINI SYS.	M.H. NO.	MANHOLE LOCATION
		17	CHEMICAL SEWER

MANHOLE PROPERTIES	CONST. MATERIAL	DEPTH	SURCHARGE HEIGHT IF EVIDENT	MANHOLE AIR QUALITY
	BLOCK	5.0'	0	POOR

DESCRIBE CONDITION OF EACH MANHOLE COMPONENT, SUCH AS: GOOD, WORN, BROKEN, MISSING, CRACKED, LOOSE, SHIFTED, VENTED, SOLID, ETC.

COVER	FRAME	RISER	WALL JOINTS
VENTED	WORN	GOOD	GOOD

STEPS	BENCHING	CHANNEL	SPECIAL CONDITIONS
NONE	WORN	BROKEN-MISSING	

PIPE INVENTORY

LINE NO.	PIPE SIZE	PIPE SHAPE	CONST. MATERIAL	FLOW DEPTH	DEPTH SEDIMENT	DETAILED DESCRIPTION OF PIPE DEFECTS
1	18"	CIRC	VCP	1.5	0	
2	18"	CIRC	VCP	1.5	0	
3	8"	CIRC	VCP	0	0	INVERT BROKEN
4						
5						

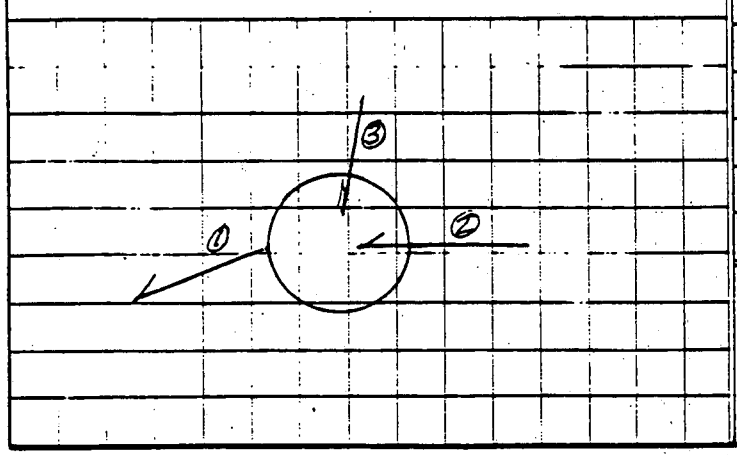
INFILTRATION SOURCES

NO.	DESCRIPTION	HEIGHT ABOVE INVERT	ESTIMATED LEAKAGE (GPD)
1	EXFILTRATION - PIECES		
2	OF VCP CHANNEL MIS-		
3	SING.		
4			

INFLOW SOURCES

SOURCE	DESCRIPTION OF SOURCE
COVER	8 VENT HOLES / MH AT GRADE
RISER	
SURFACE	

SKETCH IDENTIFY RELATIVE LOCATION OF MANHOLE AND INCOMING AND OUTGOING SEWERS USING ABOVE LINE NO. (INCLUDE FLOW DIRECTION, STREET, ETC.)



MEASURED FLOW DATA

LINE NO.	FLOW CLARITY	WEIR MEASUREMENT	AREA - VEL. METHOD		
			DEPTH	VEL.	CAL. FLOW

NOTES: POOR CONNECTION OF SIDE PIPE FLOW IS AROUND OUTSIDE OF MAIN PIPE

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MANHOLE INSPECTION REPORT

JOB NO. 106-9

CLIENT GIUANDAN

DATE	TIME	WEATHER	CREW CHIEF	MUNICIPALITY
9/5/83		OC 85°	PT	CLIFTON

SUB AREA: | MINI SYS.: | M.H. NO.: 17-1 | MANHOLE LOCATION: BRANCH - CHEMICAL SEWER CALDL31

MANHOLE PROPERTIES	CONST. MATERIAL	DEPTH	SURCHARGE HEIGHT IF EVIDENT	MANHOLE AIR QUALITY
	CONCRETE 3'x6'	1.5'	0	POOR

DESCRIBE CONDITION OF EACH MANHOLE COMPONENT, SUCH AS: GOOD, WORN, BROKEN, MISSING, CRACKED, LOOSE, SHIFTED, VENTED, SOLID, ETC.

COVER	FRAME	RISER	WALL JOINTS
WOOD BOARDS	NONE	NONE	NONE

STEPS	BENCHING	CHANNEL	SPECIAL CONDITIONS
NONE	NONE	NONE	

PIPE INVENTORY

LINE NO.	PIPE SIZE	PIPE SHAPE	CONST. MATERIAL	FLOW DEPTH	DEPTH SEDIMENT	DETAILED DESCRIPTION OF PIPE DEFECTS
1	6"	CIRC	ACP	0	0	
2	8"	CIRC	VCP	0	0	NONE
3						VISIBLE
4						
5						

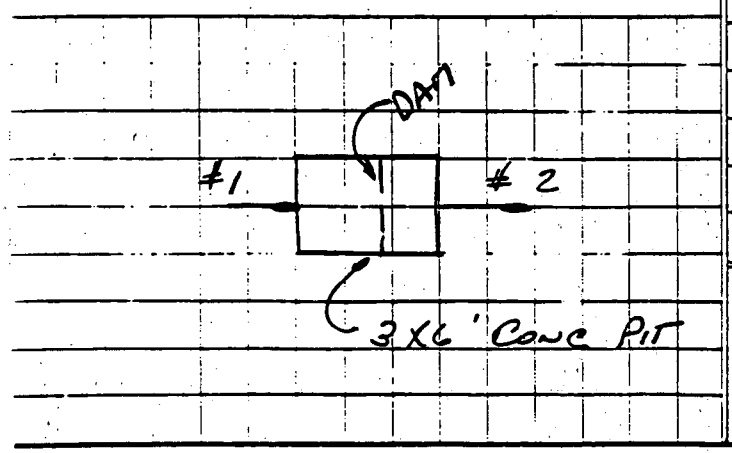
INFILTRATION SOURCES

NO.	DESCRIPTION	HEIGHT ABOVE INVERT	ESTIMATED LEAKAGE (GPD)
1	/		
2	NONE		
3	/		
4			

INFLOW SOURCES

SOURCE	DESCRIPTION OF SOURCE
COVER	NONE
RISER	
SURFACE	

SKETCH IDENTIFY RELATIVE LOCATION OF MANHOLE AND INCOMING AND OUTGOING SEWERS USING ABOVE LINE NO. (INCLUDE FLOW DIRECTION, STREET, ETC.)



MEASURED FLOW DATA

LINE NO.	FLOW CLARITY	WEIR MEASUREMENT	AREA - VEL. METHOD DEPTH	VEL.	CAL. FLOW

NOTES:

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MANHOLE INSPECTION REPORT

JOB NO. 106-9

CLIENT GUARDIAN

DATE	TIME	WEATHER	CREW CHIEF	MUNICIPALITY
8/15/83		CLEAR 80°	P. TYRRELL	CLIFTON

SUB AREA: | MINI SYS.: | M.H. NO.: 18 | MANHOLE LOCATION: CHEMICAL SEWER @ BLDG 72

MANHOLE PROPERTIES	CONST. MATERIAL	DEPTH	SURCHARGE HEIGHT IF EVIDENT	MANHOLE AIR QUALITY
	BLOCK & BRICK RISER	4.2'	0	Poor

DESCRIBE CONDITION OF EACH MANHOLE COMPONENT, SUCH AS: GOOD, WORN, BROKEN, MISSING, CRACKED, LOOSE, SHIFTED, VENTED, SOLID, ETC.

COVER	FRAME	RISER	WALL JOINTS
VENTED	WORN	WORN	WORN

STEPS	BENCHING	CHANNEL	SPECIAL CONDITIONS
1 - RUSTED	WORN	GOOD	

PIPE INVENTORY

LINE NO.	PIPE SIZE	PIPE SHAPE	CONST. MATERIAL	FLOW DEPTH	DEPTH SEDIMENT	DETAILED DESCRIPTION OF PIPE DEFECTS
1	18"	CIRC	VCP	2.5"	0	
2	18"	CIRC	VCP	2.5"	0	
3	8"	CIRC	VCP	1"	0	
4						
5						

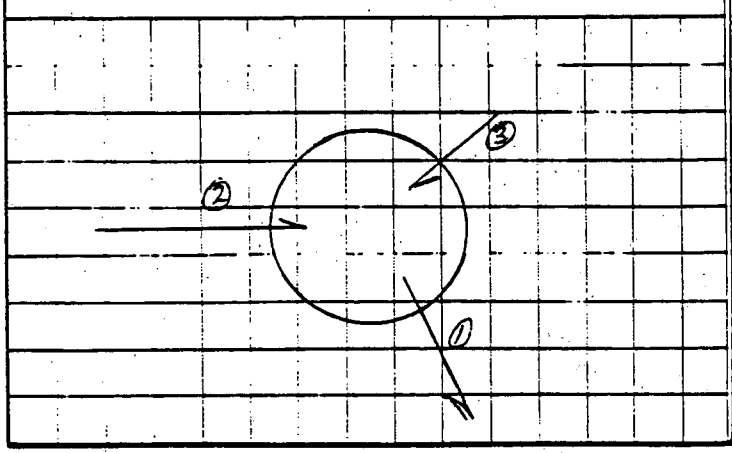
INFILTRATION SOURCES

NO.	DESCRIPTION	HEIGHT ABOVE INVERT	ESTIMATED LEAKAGE (GPD)
1			
2	NONE		
3	VISIBLE		
4			

INFLOW SOURCES

SOURCE	DESCRIPTION OF SOURCE
COVER	
	NONE
RISER	
SURFACE	

SKETCH IDENTIFY RELATIVE LOCATION OF MANHOLE AND INCOMING AND OUTGOING SEWERS USING ABOVE LINE NO. (INCLUDE FLOW DIRECTION, STREET, ETC.).



MEASURED FLOW DATA

LINE NO.	FLOW CLARITY	WEIR MEASUREMENT	AREA - VEL. METHOD		
			DEPTH	VEL.	CAL. FLOW

NOTES:

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P.O. BOX 584 FAR HILLS, N.J. 07931 (201) 234-0234

MANHOLE INSPECTION REPORT

JOB NO. 106-9
CLIENT GIVAUDAN

DATE	TIME	WEATHER	CREW CHIEF	MUNICIPALITY
8/15/83		CLEAR 80°	P. TYRRELL	CLIFTON

SUB AREA	MINI SYS.	M.H. NO.	MANHOLE LOCATION
		19	CHEMICAL SEWER

MANHOLE PROPERTIES	CONST. MATERIAL	DEPTH	SURCHARGE HEIGHT IF EVIDENT	MANHOLE AIR QUALITY
	BRICK	4.0	0	POOR

DESCRIBE CONDITION OF EACH MANHOLE COMPONENT, SUCH AS: GOOD, WORN, BROKEN, MISSING, CRACKED, LOOSE, SHIFTED, VENTED, SOLID, ETC.

COVER	FRAME	RISER	WALL JOINTS
STORM GRATE - CIRCULAR	WORN	CRACKED	WORN

STEPS	BENCHING	CHANNEL	SPECIAL CONDITIONS
NONE	NONE	WORN	

PIPE INVENTORY

LINE NO.	PIPE SIZE	PIPE SHAPE	CONST. MATERIAL	FLOW DEPTH	DEPTH SEDIMENT	DETAILED DESCRIPTION OF PIPE DEFECTS
1	~~10~~ 15"	CIRC	VCP	3"	0	PIPE CHANGES TO 18" BEFORE D.S. M.H.
2	10" ~~15"~~	CIRC	VCP	3"	0	
3	10"	CIRC	VCP	1/2"	1/2"	
4						
5						

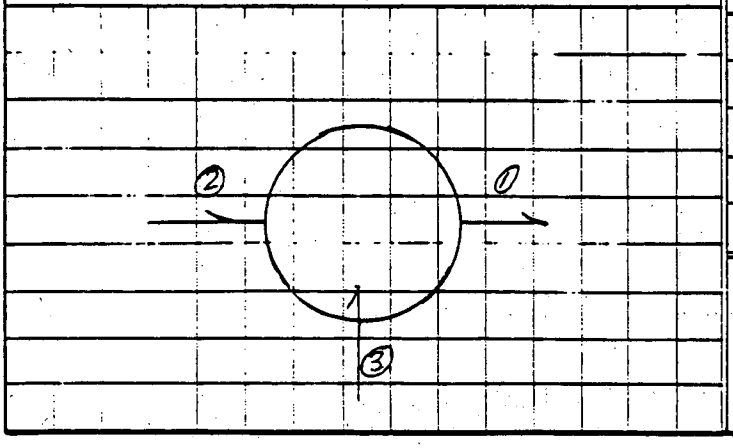
INFILTRATION SOURCES

NO.	DESCRIPTION	HEIGHT ABOVE INVERT	ESTIMATED LEAKAGE (GPD)
1			
2	NONE		
3	VISIBLE		
4			

INFLOW SOURCES

SOURCE	DESCRIPTION OF SOURCE
COVER	STORM DRAIN - 3" ABOVE GRADE
RISER	
SURFACE	

SKETCH IDENTIFY RELATIVE LOCATION OF MANHOLE AND INCOMING AND OUTGOING SEWERS USING ABOVE LINE NO. (INCLUDE FLOW DIRECTION, STREET, ETC.).



MEASURED FLOW DATA

LINE NO.	FLOW CLARITY	WEIR MEASUREMENT	AREA - VEL. METHOD DEPTH	VEL.	CAL. FLOW

NOTES:

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MANHOLE INSPECTION REPORT

JOB NO. 106-9
CLIENT GUAUDA

DATE	TIME	WEATHER	CREW CHIEF	MUNICIPALITY
8/15/83		CLEAR 80°	P. TYRRELL	CLIFTON

SUB AREA	MINI SYS.	M.H. NO.	MANHOLE LOCATION
		20	CHEMICAL SEWER

MANHOLE PROPERTIES	CONST. MATERIAL	DEPTH	SURCHARGE HEIGHT IF EVIDENT	MANHOLE AIR QUALITY
	BRICK	~~4.0'~~ 3.4'	0	POOR

DESCRIBE CONDITION OF EACH MANHOLE COMPONENT, SUCH AS: GOOD, WORN, BROKEN, MISSING, CRACKED, LOOSE, SHIFTED, VENTED, SOLID, ETC.

COVER	FRAME	RISER	WALL JOINTS
VENTED 48" DIAM.	NONE	GOOD	GOOD

STEPS	BENCHING	CHANNEL	SPECIAL CONDITIONS
NONE	LOOSE	SED. 3"	

PIPE INVENTORY

LINE NO.	PIPE SIZE	PIPE SHAPE	CONST. MATERIAL	FLOW DEPTH	DEPTH SEDIMENT	DETAILED DESCRIPTION OF PIPE DEFECTS
1	10"	CIRC	VCP	2"	3"	
2	10"	CIRC	VCP	2"	3"	
3	10"	CIRC	VCP	1"	0	PIECES BROKEN FROM MOUTH OF PIPE
4	6"	CIRC	VCP	1/4"	0	
5						

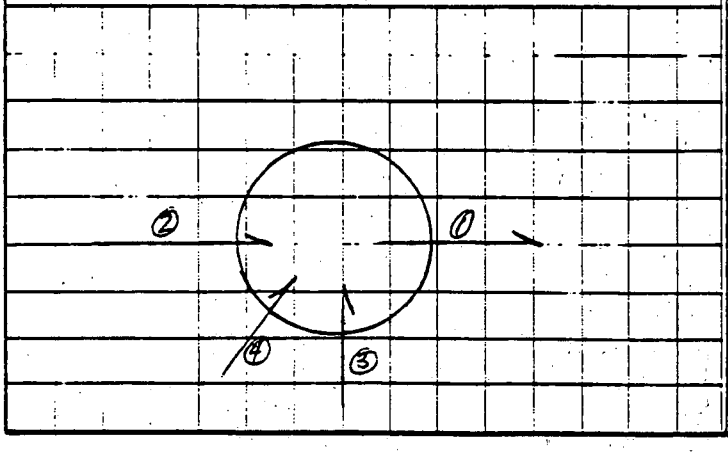
INFILTRATION SOURCES

NO.	DESCRIPTION	HEIGHT ABOVE INVERT	ESTIMATED LEAKAGE (GPD)
1			
2	NONE		
3	VISIBLE		
4			

INFLOW SOURCES

SOURCE	DESCRIPTION OF SOURCE
COVER	NO FRAME; COVER LOOSE ON GROUND; AT GRADE
RISER	
SURFACE	

SKETCH IDENTIFY RELATIVE LOCATION OF MANHOLE AND INCOMING AND OUTGOING SEWERS USING ABOVE LINE NO. (INCLUDE FLOW DIRECTION, STREET, ETC.).



MEASURED FLOW DATA

LINE NO.	FLOW CLARITY	WEIR MEASUREMENT	AREA - VEL. METHOD		
			DEPTH	VEL.	CAL. FLOW

NOTES:

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MANHOLE INSPECTION REPORT

JOB NO. 106-9
CLIENT GUANOAN

DATE	TIME	WEATHER	CREW CHIEF	MUNICIPALITY
7/15/83	1500	CLEAR - 90°	AC	CLIFTON

SUB AREA	MINI SYS.	M.H. NO.	MANHOLE LOCATION
—	—	21	CHEMICAL SEWER

MANHOLE PROPERTIES	CONST. MATERIAL	DEPTH	SURCHARGE HEIGHT IF EVIDENT	MANHOLE AIR QUALITY
	PRECAST	3.6'	—	POOR

DESCRIBE CONDITION OF EACH MANHOLE COMPONENT, SUCH AS: GOOD, WORN, BROKEN, MISSING, CRACKED, LOOSE, SHIFTED, VENTED, SOLID, ETC.

COVER	FRAME	RISER	WALL JOINTS
GOOD - VENTED	NONE	NONE	NONE

STEPS	BENCHING	CHANNEL	SPECIAL CONDITIONS
NONE	NONE	NONE	RECTANGULAR MANHOLE

PIPE INVENTORY

LINE NO.	PIPE SIZE	PIPE SHAPE	CONST. MATERIAL	FLOW DEPTH	DEPTH SEDIMENT	DETAILED DESCRIPTION OF PIPE DEFECTS
1	8"	⌀	VCP	0	0	
2	8"	"	↓		↓	
3	6"	"				
4	4"	"				
5						

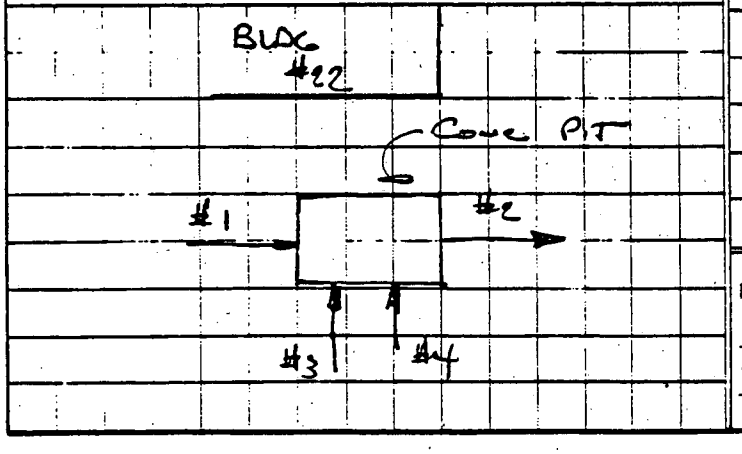
INFILTRATION SOURCES

NO.	DESCRIPTION	HEIGHT ABOVE INVERT	ESTIMATED LEAKAGE (GPD)
1	NONE		
2			
3			
4			

INFLOW SOURCES

SOURCE	DESCRIPTION OF SOURCE
COVER	NONE
RISER	
SURFACE	

SKETCH IDENTIFY RELATIVE LOCATION OF MANHOLE AND INCOMING AND OUTGOING SEWERS USING ABOVE LINE NO. (INCLUDE FLOW DIRECTION, STREET, ETC.).



MEASURED FLOW DATA

LINE NO.	FLOW CLARITY	WEIR MEASUREMENT	AREA - VEL. METHOD DEPTH	VEL.	CAL. FLOW

NOTES: CONC PIT

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MANHOLE INSPECTION REPORT

JOB NO. 1069

CLIENT GUAUDA

DATE	TIME	WEATHER	CREW CHIEF	MUNICIPALITY
7/15/83	1425	HAZY 90°	AC	CLINTON

SUB AREA	MINI SYS.	M.H. NO.	MANHOLE LOCATION
–	–	22	CHERRY STREET

MANHOLE PROPERTIES	CONST. MATERIAL	DEPTH	SURCHARGE HEIGHT IF EVIDENT	MANHOLE AIR QUALITY
	PRECAST	3.0	–	POOR

DESCRIBE CONDITION OF EACH MANHOLE COMPONENT, SUCH AS: GOOD, WORN, BROKEN, MISSING, CRACKED, LOOSE, SHIFTED, VENTED, SOLID, ETC.

COVER	FRAME	RISER	WALL JOINTS
Good - UNITED	NONE	NONE	NONE

STEPS	BENCHING	CHANNEL	SPECIAL CONDITIONS
NONE	NONE	NONE	RECTANGULAR MANHOLE

PIPE INVENTORY

LINE NO.	PIPE SIZE	PIPE SHAPE	CONST. MATERIAL	FLOW DEPTH	DEPTH SEDIMENT	DETAILED DESCRIPTION OF PIPE DEFECTS
1	8"	ϕ	VCP		0	NONE EVIDENT
2	8"	ϕ	"		0	
3						
4						
5						

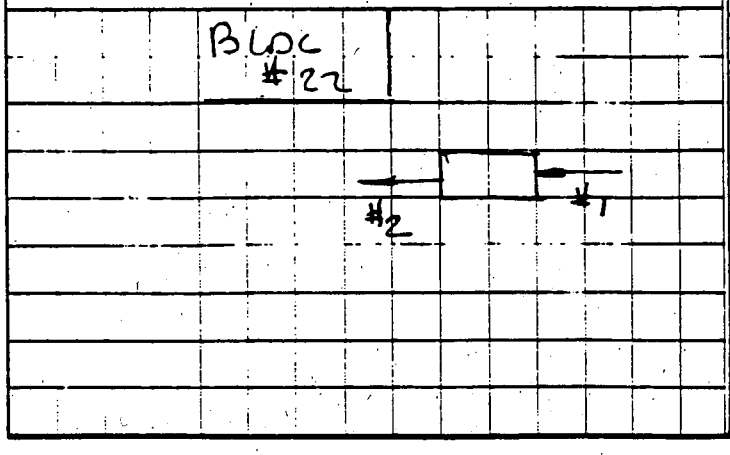
INFILTRATION SOURCES

NO.	DESCRIPTION	HEIGHT ABOVE INVERT	ESTIMATED LEAKAGE (GPD)
1	NONE		
2			
3			
4			

INFLOW SOURCES

SOURCE	DESCRIPTION OF SOURCE
COVER	
	NONE
RISER	
SURFACE	

SKETCH IDENTIFY RELATIVE LOCATION OF MANHOLE AND INCOMING AND OUTGOING SEWERS USING ABOVE LINE NO. (INCLUDE FLOW DIRECTION, STREET, ETC.).



MEASURED FLOW DATA

LINE NO.	FLOW CLARITY	WEIR MEASUREMENT	AREA - VEL. METHOD DEPTH	VEL.	CAL. FLOW

NOTES:

CFM INCORPORATED
P.O. BOX 584 FAR HILLS, N.J. 07931 (201) 234-0234

MANHOLE INSPECTION REPORT

JOB NO. 1069
CLIENT GIVAUDAN

DATE	TIME	WEATHER	CREW CHIEF	MUNICIPALITY
8/16/83		CLEAR 80°	P. TYRRELL	CLIFTON

SUB AREA	MINI SYS.	M.H. NO.	MANHOLE LOCATION
		23	GIVAUDAN - CHEMICAL SEWER

MANHOLE PROPERTIES

CONST. MATERIAL	DEPTH	SURCHARGE HEIGHT IF EVIDENT	MANHOLE AIR QUALITY
CONCRETE PIT 48"x48"	3.5'		POOR

DESCRIBE CONDITION OF EACH MANHOLE COMPONENT, SUCH AS: GOOD, WORN, BROKEN, MISSING, CRACKED, LOOSE, SHIFTED, VENTED, SOLID, ETC.

COVER	FRAME	RISER	WALL JOINTS
SOLID	NONE	NONE	GOOD

STEPS	BENCHING	CHANNEL	SPECIAL CONDITIONS
NONE	NONE	NONE	1' DIRT & DEBRIS OVER CEMENT BASE

PIPE INVENTORY

LINE NO.	PIPE SIZE	PIPE SHAPE	CONST. MATERIAL	FLOW DEPTH	DEPTH SEDIMENT	DETAILED DESCRIPTION OF PIPE DEFECTS
1	8"	CIRC	PVC	1"	0"	
2	10"	CIRC	VCP	1"	1"	
3	4"	CIRC	VCP	0	1/2"	
4	4"	CIRC	VCP	0"	0"	
5						

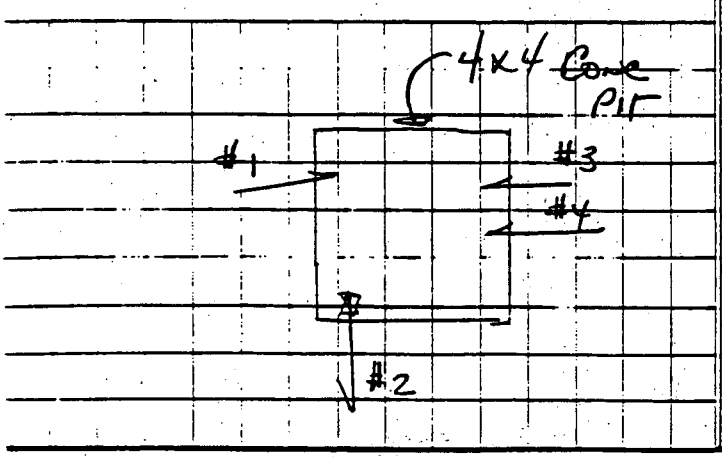
INFILTRATION SOURCES

NO.	DESCRIPTION	HEIGHT ABOVE INVERT	ESTIMATED LEAKAGE (GPD)
1			
2	NONE		
3	EVIDENT		
4			

INFLOW SOURCES

SOURCE	DESCRIPTION OF SOURCE
COVER	
	NONE
RISER	
SURFACE	

SKETCH IDENTIFY RELATIVE LOCATION OF MANHOLE AND INCOMING AND OUTGOING SEWERS USING ABOVE LINE NO (INCLUDE FLOW DIRECTION, STREET, ETC.)



MEASURED FLOW DATA

LINE NO.	FLOW CLARITY	WEIR MEASUREMENT	AREA - VEL. METHOD DEPTH	VEL.	CAL. FLOW

NOTES:

CFM INCORPORATED

P.O. BOX 584 FAR HILLS, N.J. 07931 (201) 234-0234

MANHOLE INSPECTION REPORT

JOB NO. 1069

CLIENT GUANDA

DATE	TIME	WEATHER	CREW CHIEF	MUNICIPALITY
8/16/83		CLEAR-80°	P. TYRELL	CLIFTON

SUB AREA	MINI SYS.	M.H. NO.	MANHOLE LOCATION
		24	CHEMICAL SEWER - LOADING DOCK @ BLDG 9

MANHOLE PROPERTIES	CONST. MATERIAL	DEPTH	SURCHARGE HEIGHT IF EVIDENT	MANHOLE AIR QUALITY
	BRICK	8.1'	0	NOXIOUS

DESCRIBE CONDITION OF EACH MANHOLE COMPONENT, SUCH AS: GOOD, WORN, BROKEN, MISSING, CRACKED, LOOSE, SHIFTED, VENTED, SOLID, ETC.

COVER	FRAME	RISER	WALL JOINTS
SOLID 1'X1' SQ.	GOOD	GOOD	GOOD

STEPS	BENCHING	CHANNEL	SPECIAL CONDITIONS
NONE	NONE	WORN	

PIPE INVENTORY

LINE NO.	PIPE SIZE	PIPE SHAPE	CONST. MATERIAL	FLOW DEPTH	DEPTH SEDIMENT	DETAILED DESCRIPTION OF PIPE DEFECTS
1	10"	CIRC	VCP	2"	–	NONE EVIDENT
2	10"	CIRC	VCP	2"	–	
3	4"	CIRC	CIP	0	0	
4						
5						

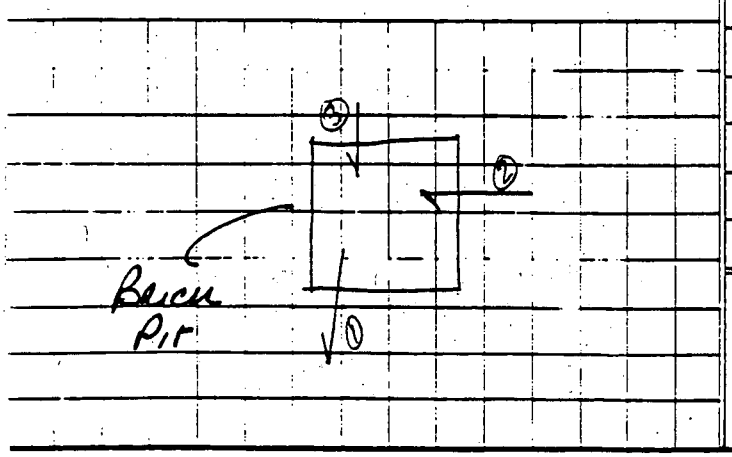
INFILTRATION SOURCES

NO.	DESCRIPTION	HEIGHT ABOVE INVERT	ESTIMATED LEAKAGE (GPD)
1	NONE		
2			
3			
4			

INFLOW SOURCES

SOURCE	DESCRIPTION OF SOURCE
COVER	NONE
RISER	
SURFACE	

SKETCH IDENTIFY RELATIVE LOCATION OF MANHOLE AND INCOMING AND OUTGOING SEWERS USING ABOVE LINE NO. (INCLUDE FLOW DIRECTION, STREET, ETC.)



MEASURED FLOW DATA

LINE NO.	FLOW CLARITY	WEIR MEASUREMENT	AREA - VEL. METHOD DEPTH	VEL.	CAL. FLOW

NOTES:

CFM INCORPORATED

P.O. BOX 584 FAR HILLS, N.J. 07931 (201) 234-0234

MANHOLE INSPECTION REPORT

JOB NO. 106-9

CLIENT GIVAUDAN

DATE	TIME	WEATHER	CREW CHIEF	MUNICIPALITY
9/5/83	1500	OC 85°	P. TYRRELL	CLIFTON

SUB AREA: | MINI SYS.: | M.H. NO.: 25 | MANHOLE LOCATION: GIVAUDAN BLDG 25 LOADING DOCK

MANHOLE PROPERTIES

CONST. MATERIAL: | DEPTH: | SURCHARGE HEIGHT IF EVIDENT: | MANHOLE AIR QUALITY:

DESCRIBE CONDITION OF EACH MANHOLE COMPONENT, SUCH AS: GOOD, WORN, BROKEN, MISSING, CRACKED, LOOSE, SHIFTED, VENTED, SOLID, ETC.

COVER: SOLID SQUARE PLATE | FRAME: | RISER: | WALL JOINTS:

STEPS: | BENCHING: | CHANNEL: | SPECIAL CONDITIONS: CANNOT OPEN

PIPE INVENTORY

LINE NO.	PIPE SIZE	PIPE SHAPE	CONST. MATERIAL	FLOW DEPTH	DEPTH SEDIMENT	DETAILED DESCRIPTION OF PIPE DEFECTS
1						
2						
3						
4						
5						

INFILTRATION SOURCES

NO.	DESCRIPTION	HEIGHT ABOVE INVERT	ESTIMATED LEAKAGE (GPD)
1			
2			
3			
4			

INFLOW SOURCES

SOURCE	DESCRIPTION OF SOURCE
COVER	NONE
RISER	
SURFACE	

SKETCH IDENTIFY RELATIVE LOCATION OF MANHOLE AND INCOMING AND OUTGOING SEWERS USING ABOVE LINE NO. (INCLUDE FLOW DIRECTION, STREET, ETC.).

MEASURED FLOW DATA

LINE NO.	FLOW CLARITY	WEIR MEASUREMENT	AREA - VEL. METHOD		
			DEPTH	VEL.	CAL. FLOW

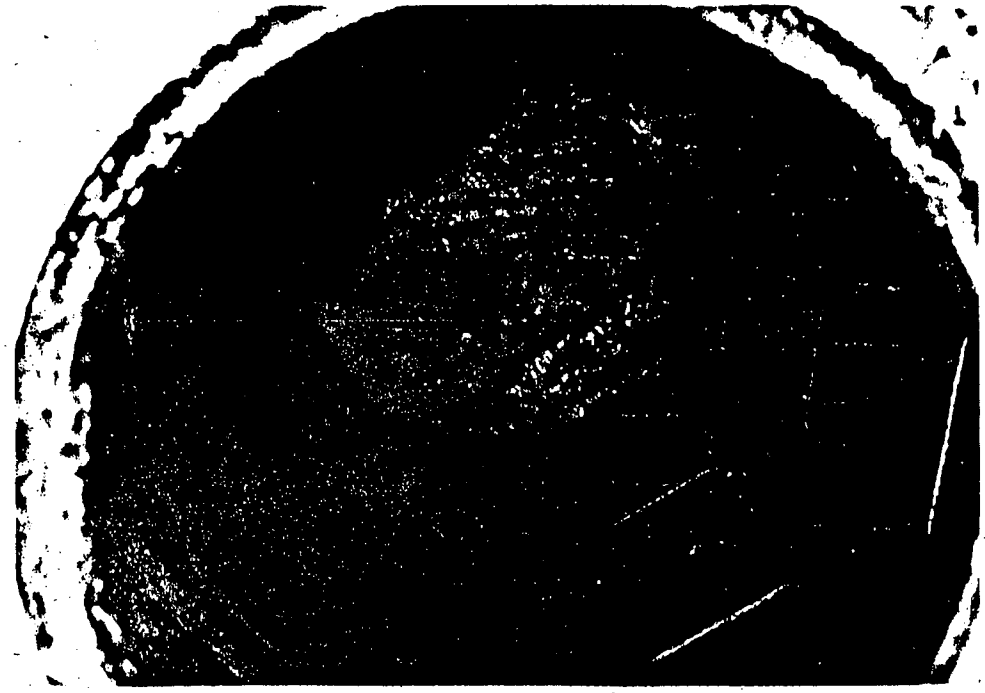
NOTES: VARIOUS DRAIN PIPES ATTACHED TO COVER; CANNOT OPEN

APPENDIX B - PHOTOGRAPHS OF MANHOLES

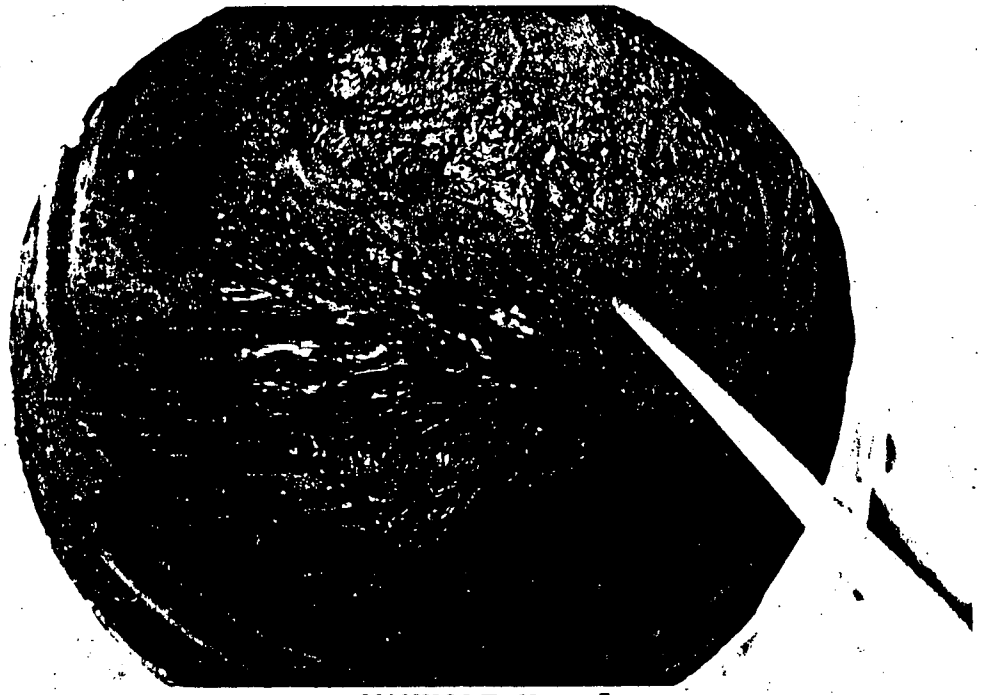
MANHOLE No. 1

MANHOLE No. 2

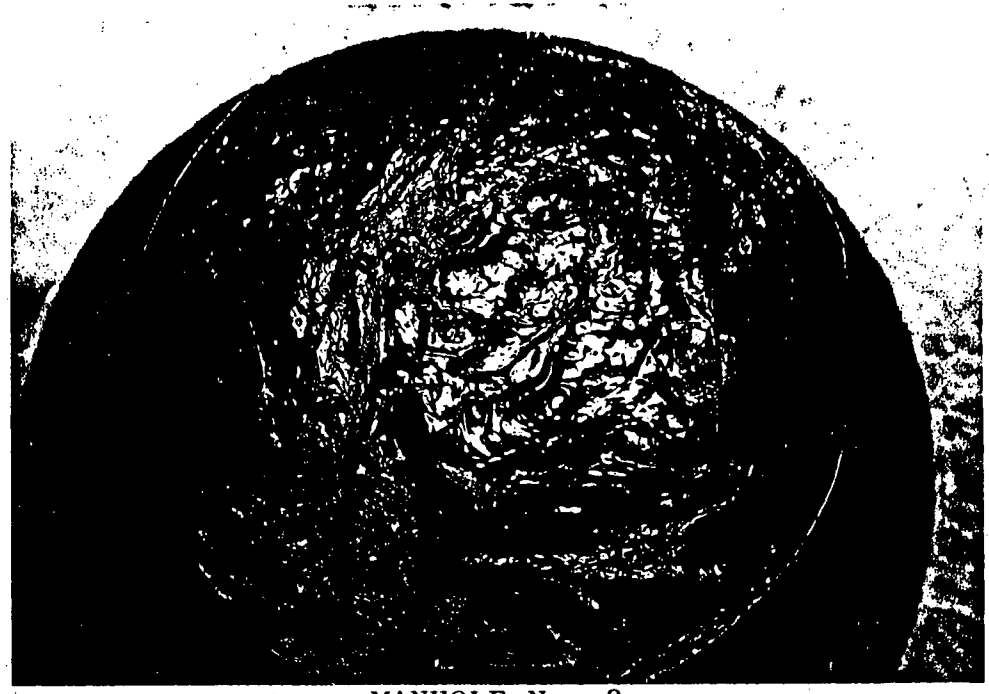
MANHOLE No. 3



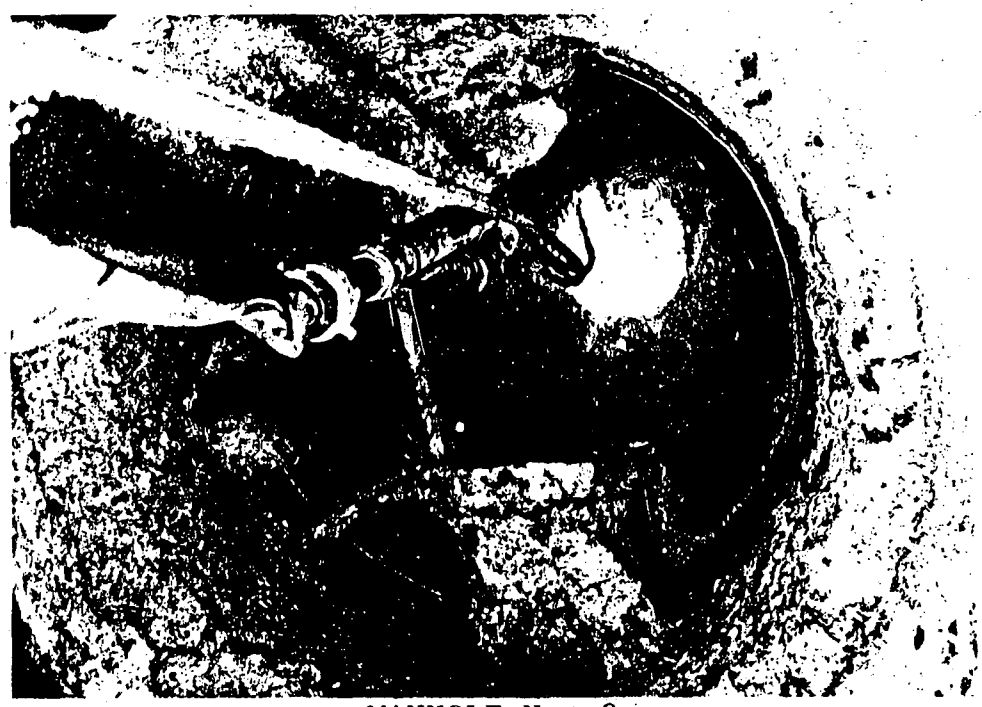
MANHOLE No. 4



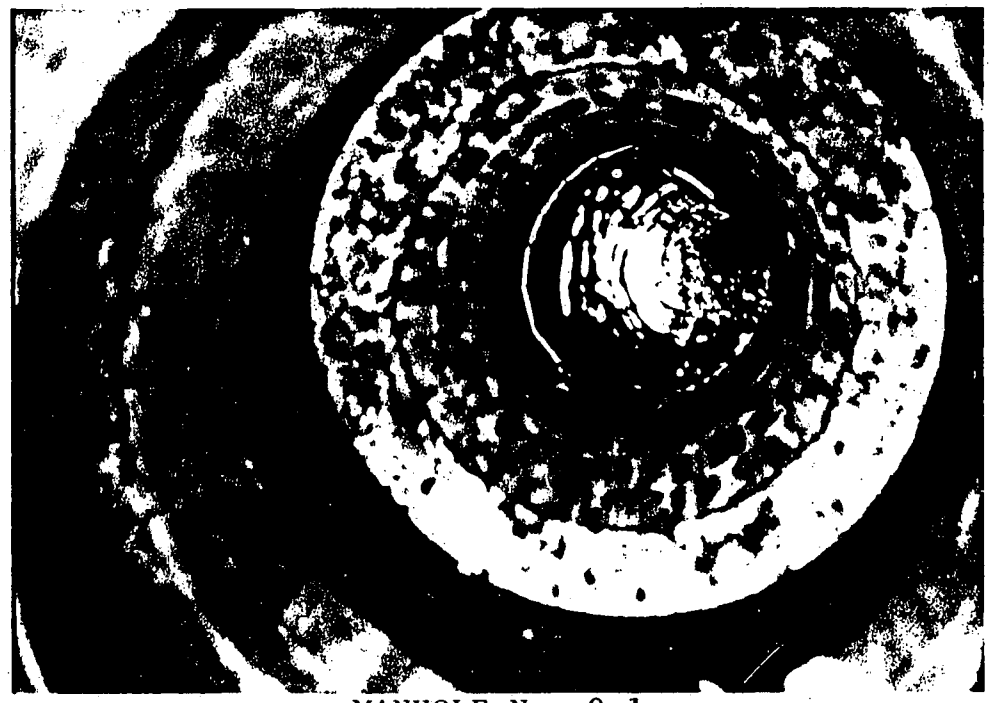
MANHOLE No. 5



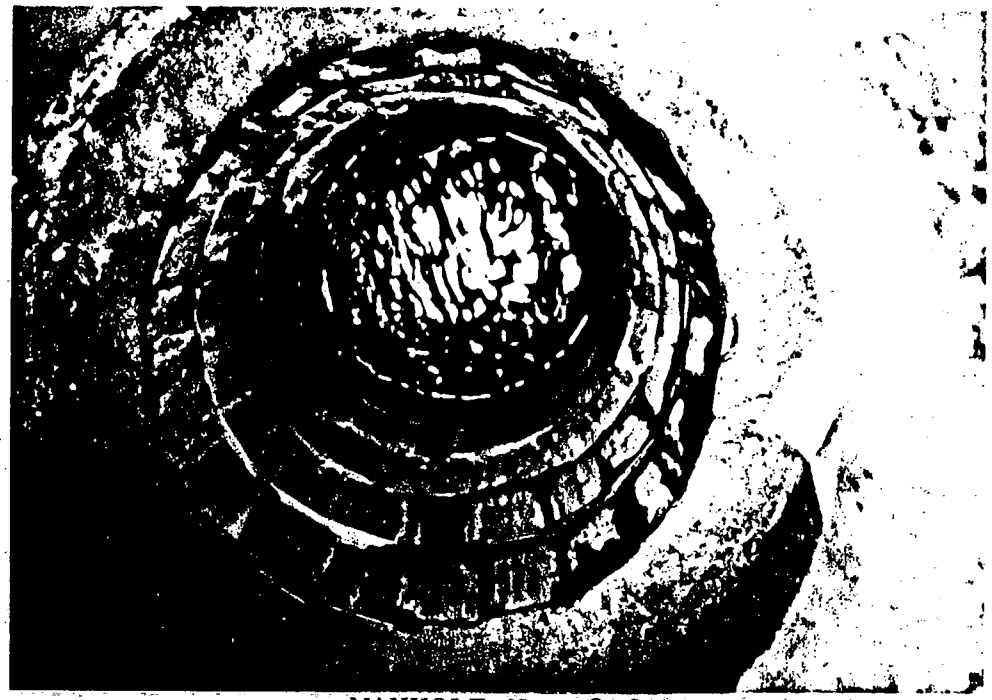
MANHOLE No. 8



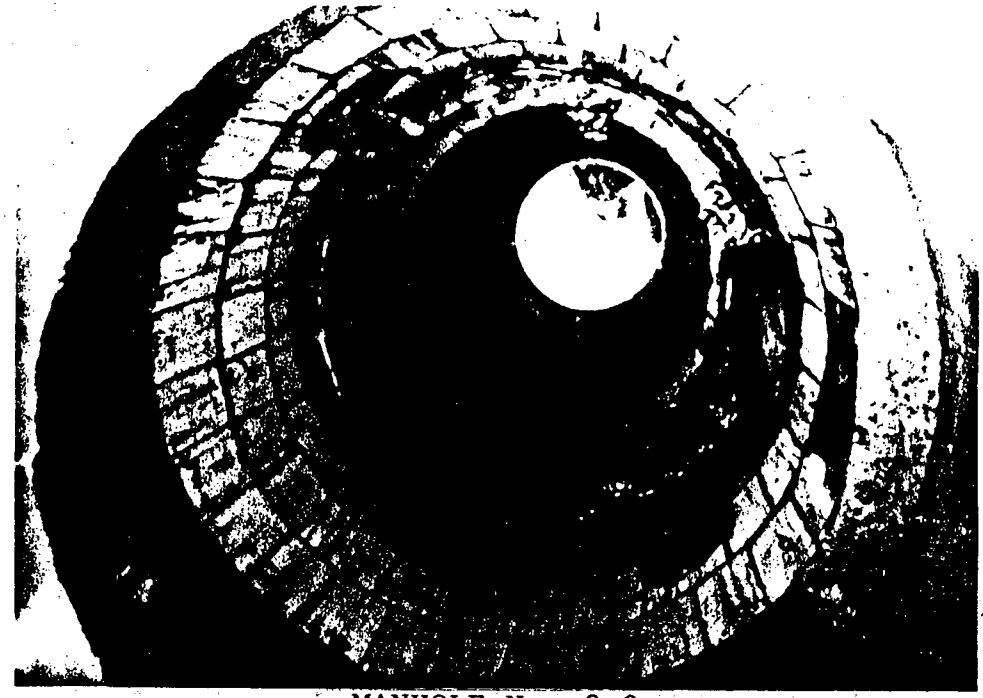
MANHOLE No. 9



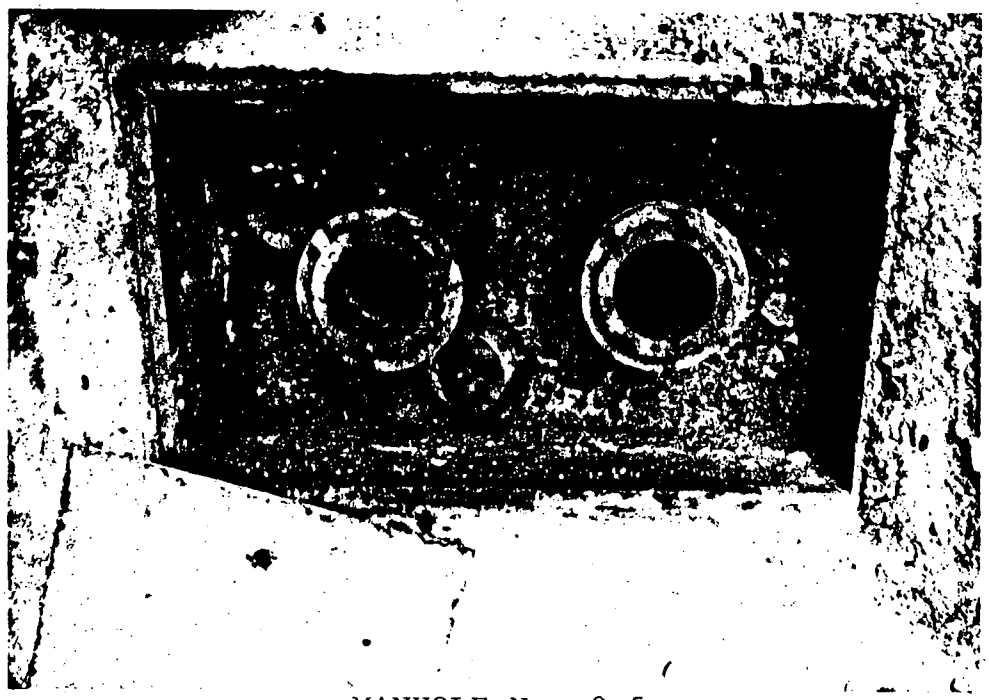
MANHOLE No. 9-1



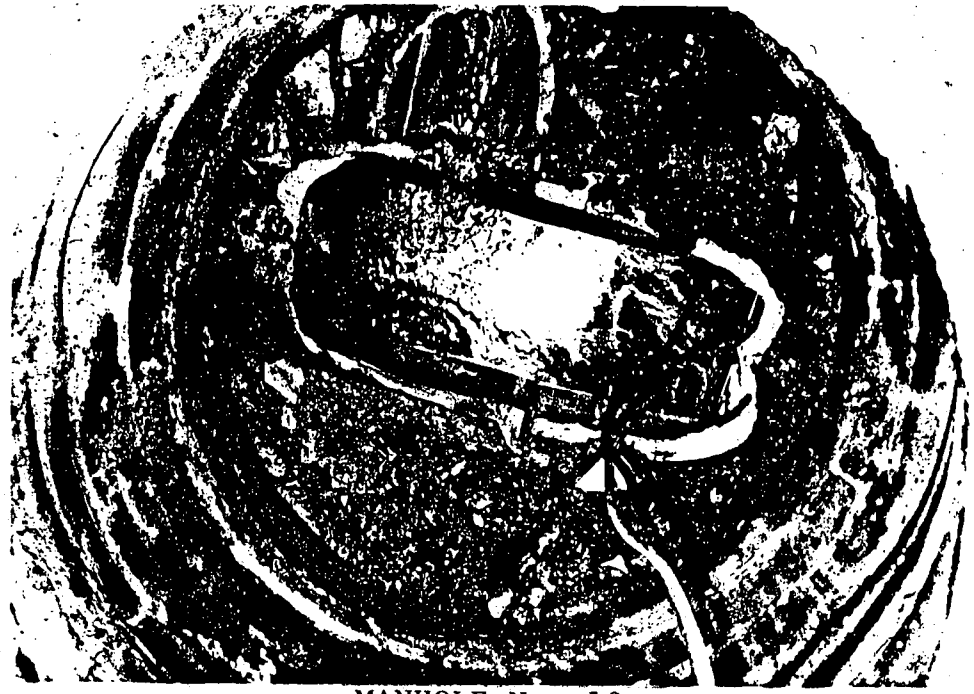
MANHOLE No. 9-2



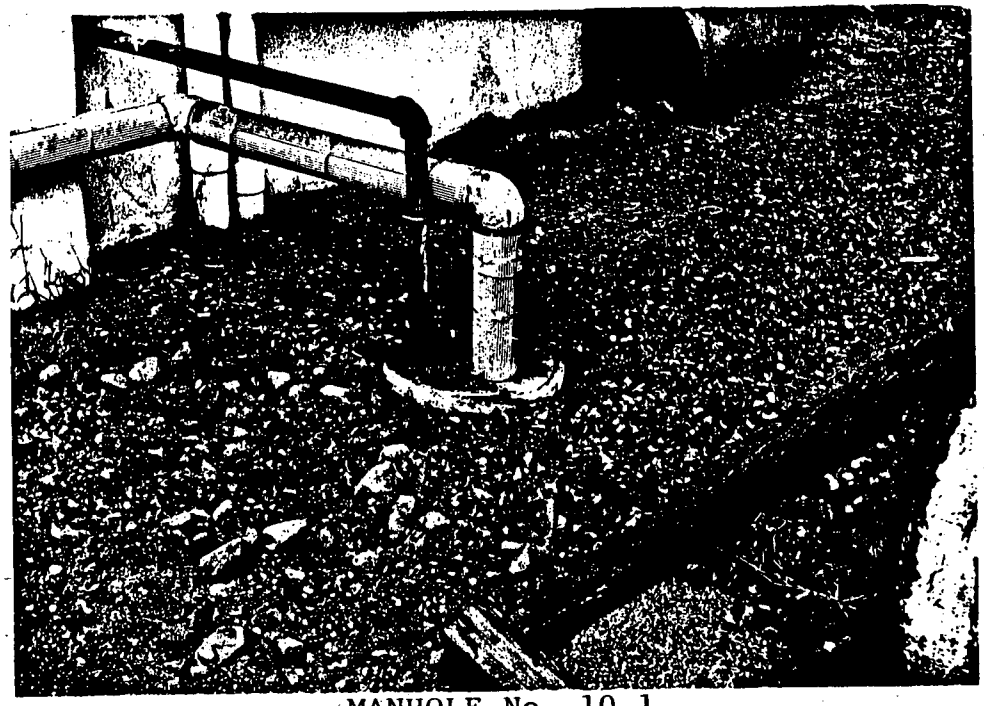
MANHOLE No. 9-3



MANHOLE No. 9-5

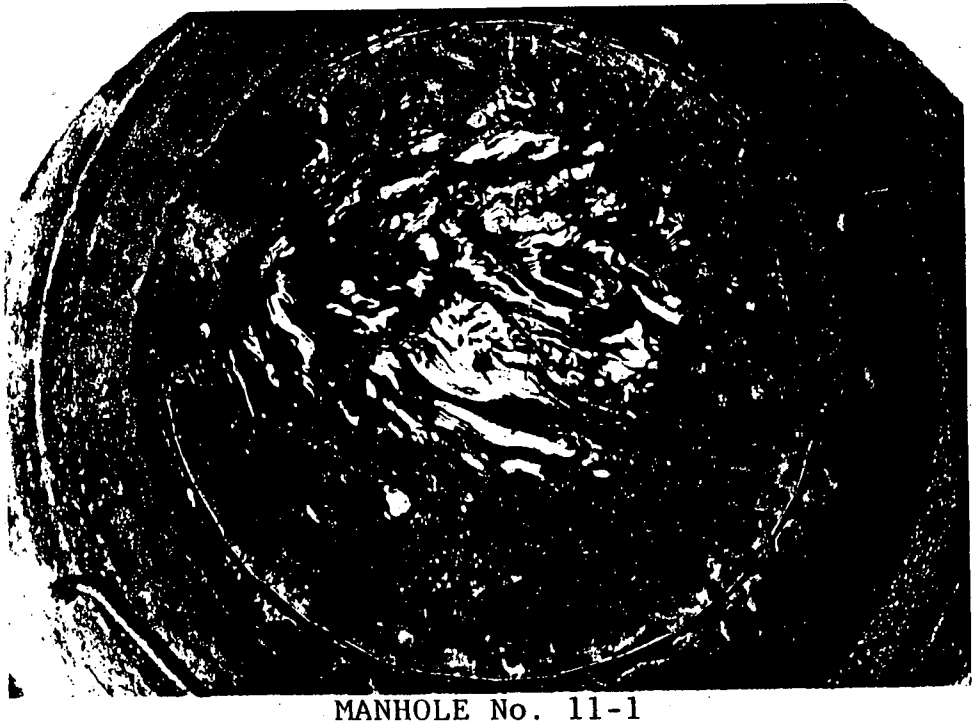


MANHOLE No. 10

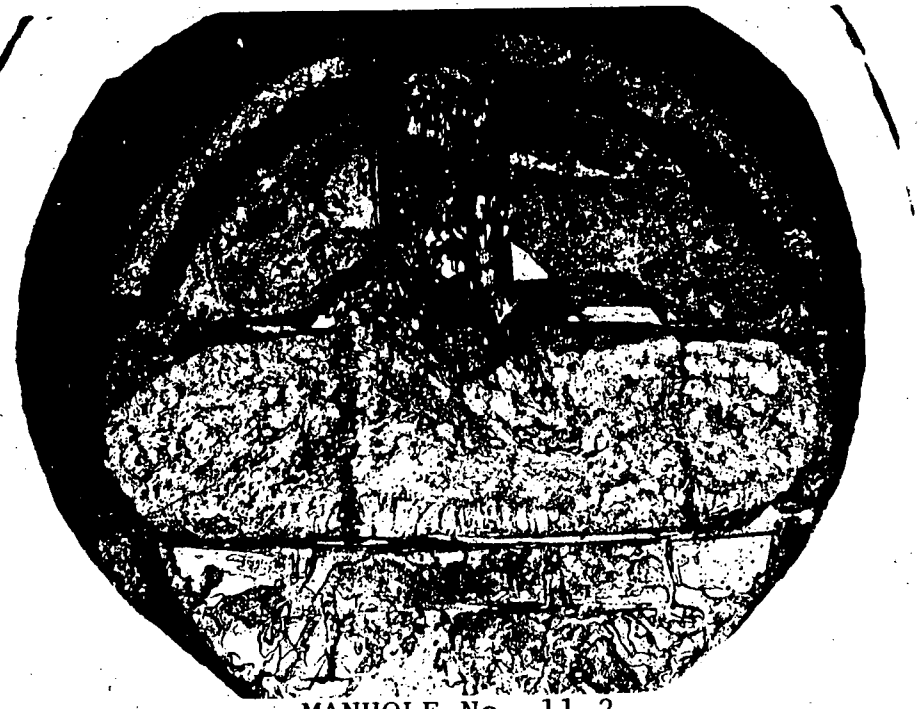


MANHOLE No. 10-1

MANHOLE No. 11



MANHOLE No. 11-1

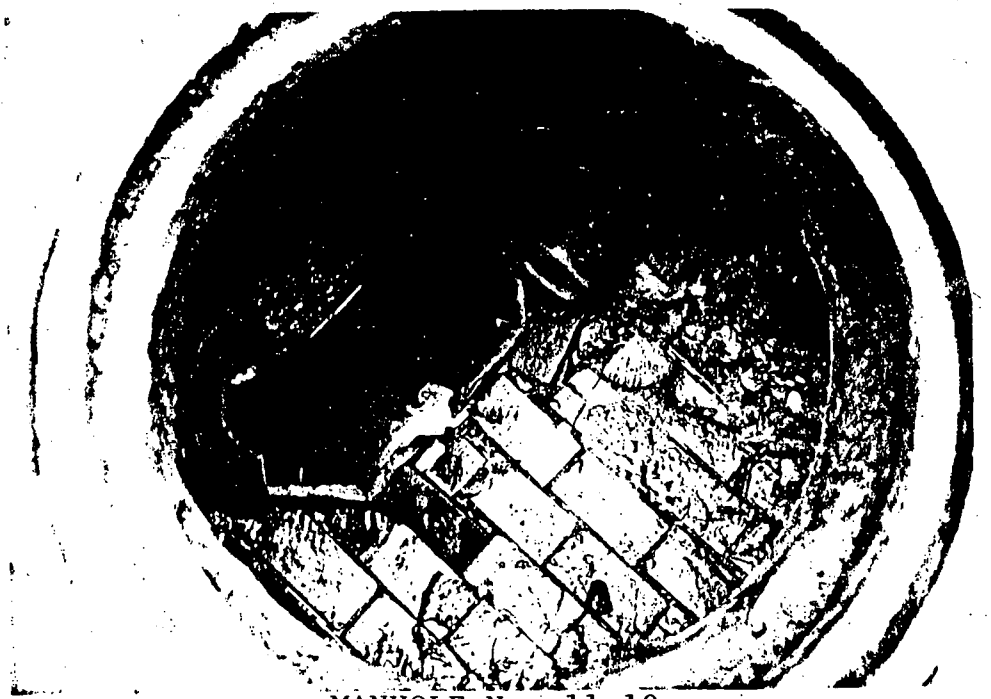


MANHOLE No. 11-2

MANHOLE No. 11-3

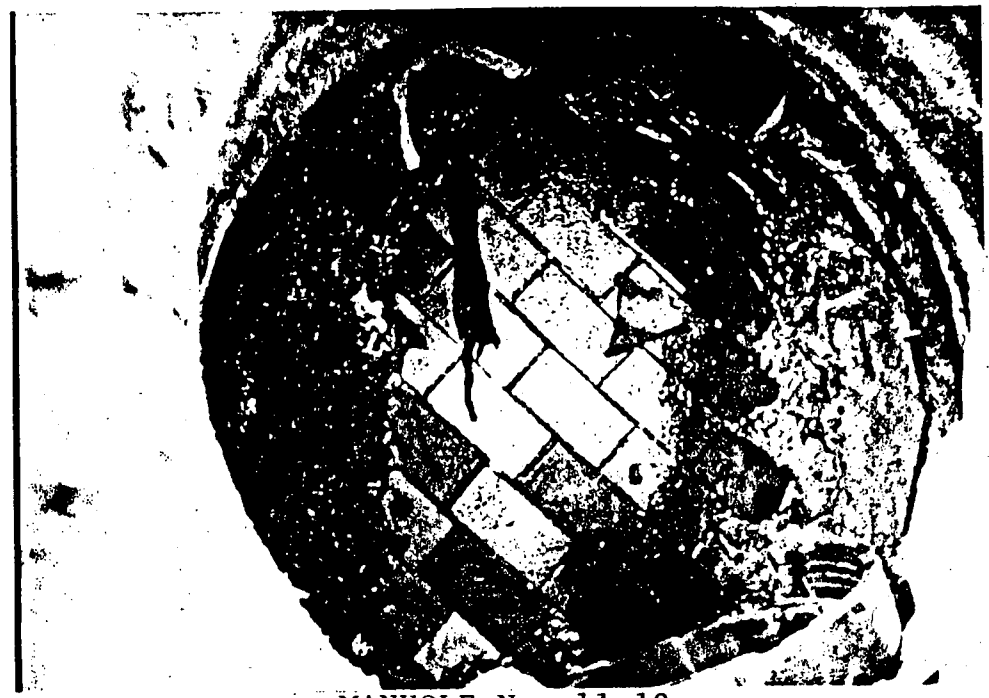
MANHOLE No. 11-7

MANHOLE No. 11-8



MANHOLE No. 11-10

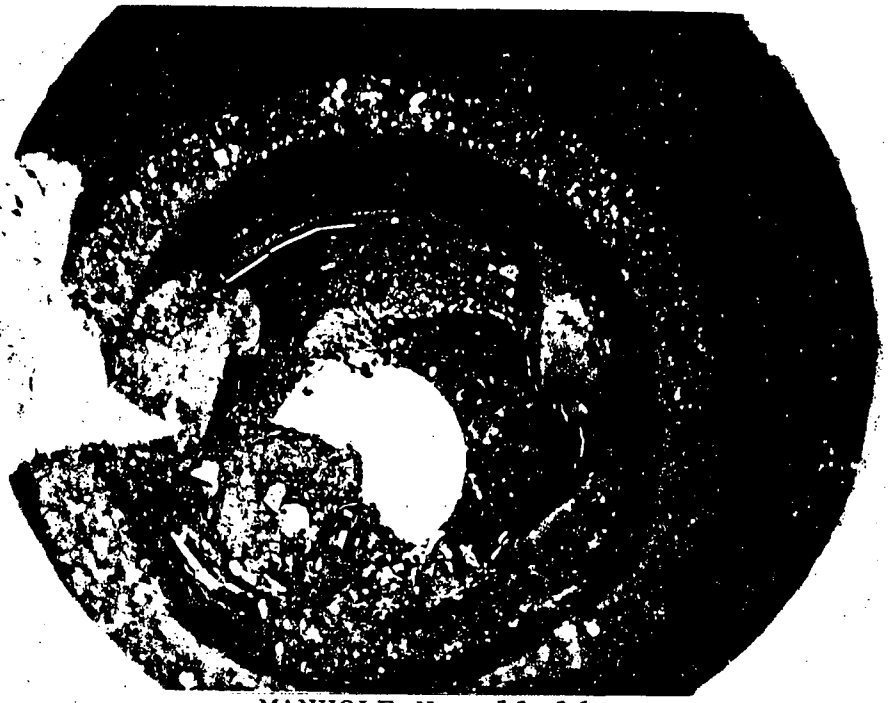
MANHOLE No. 11-11



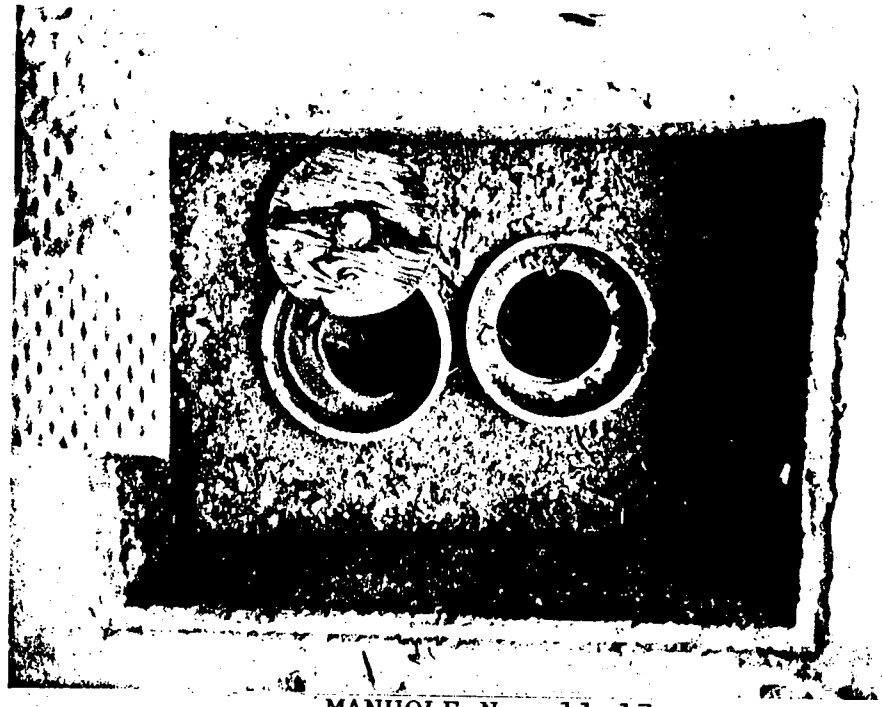
MANHOLE No. 11-13

MANHOLE No. 11-14

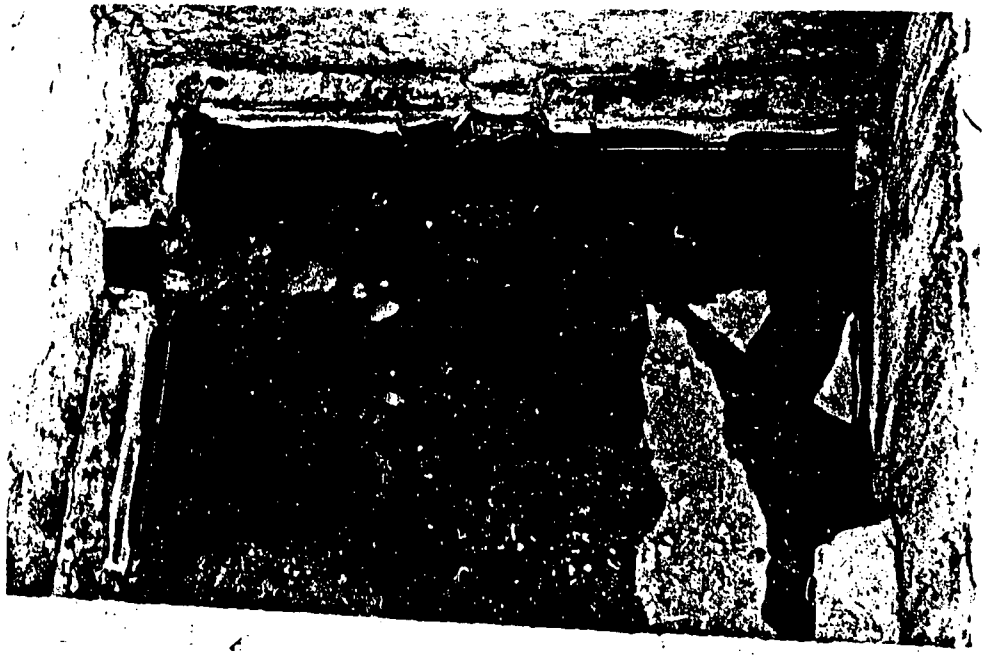
MANHOLE No. 11-15



MANHOLE No. 11-16



MANHOLE No. 11-17



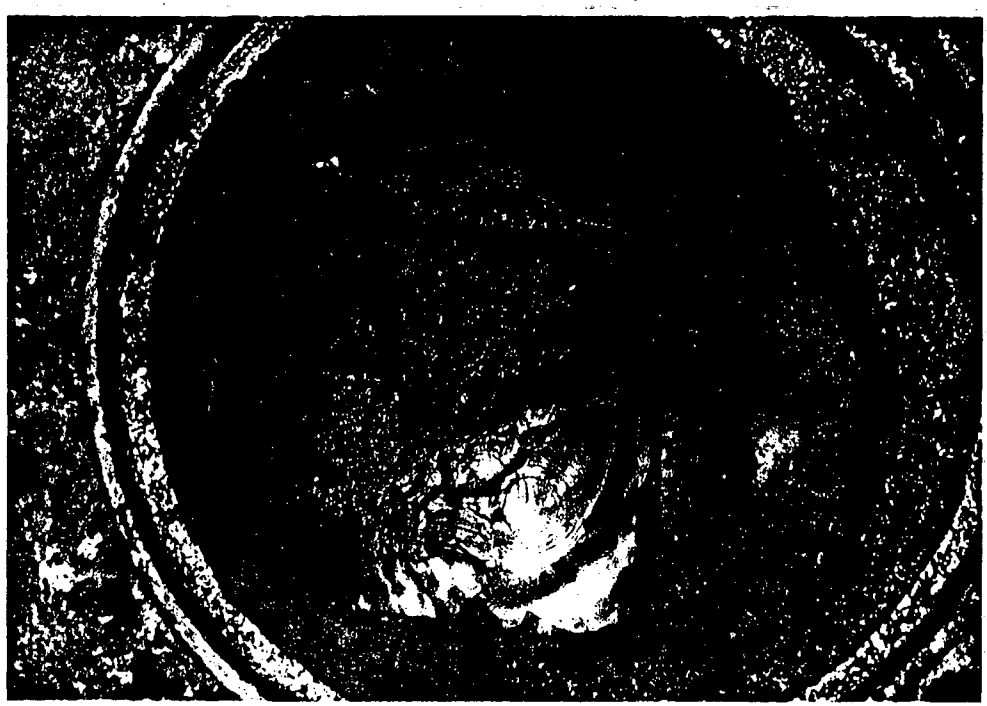
MANHOLE No. 11-18

MANHOLE No. 12

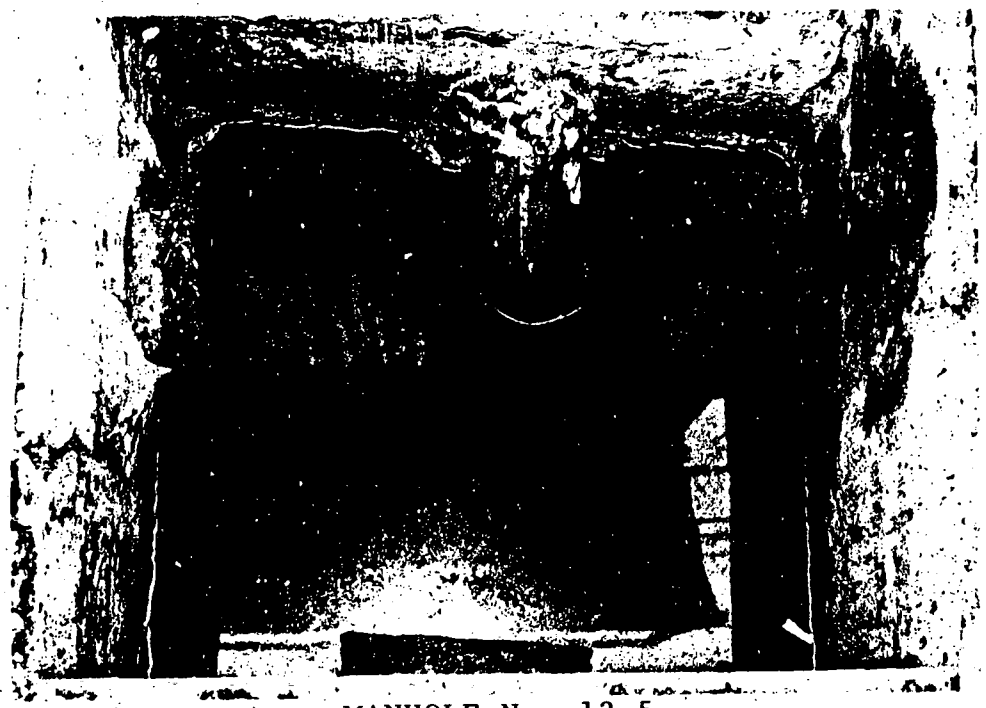
MANHOLE No. 13

MANHOLE No. 13-1

MANHOLE No. 13-2

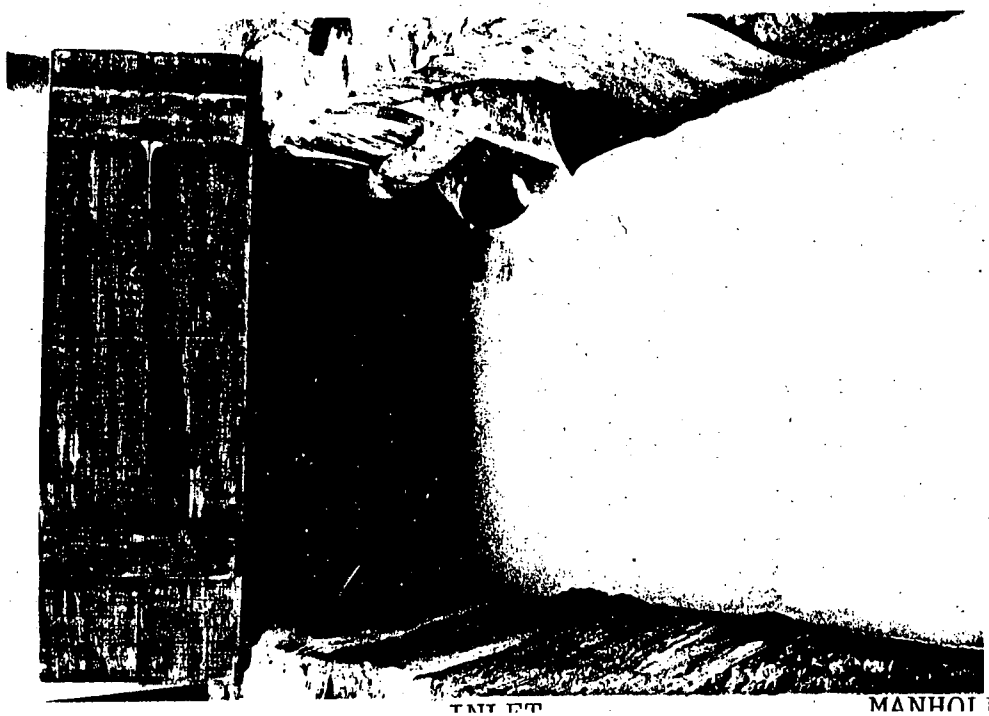


MANHOLE No. 13-3

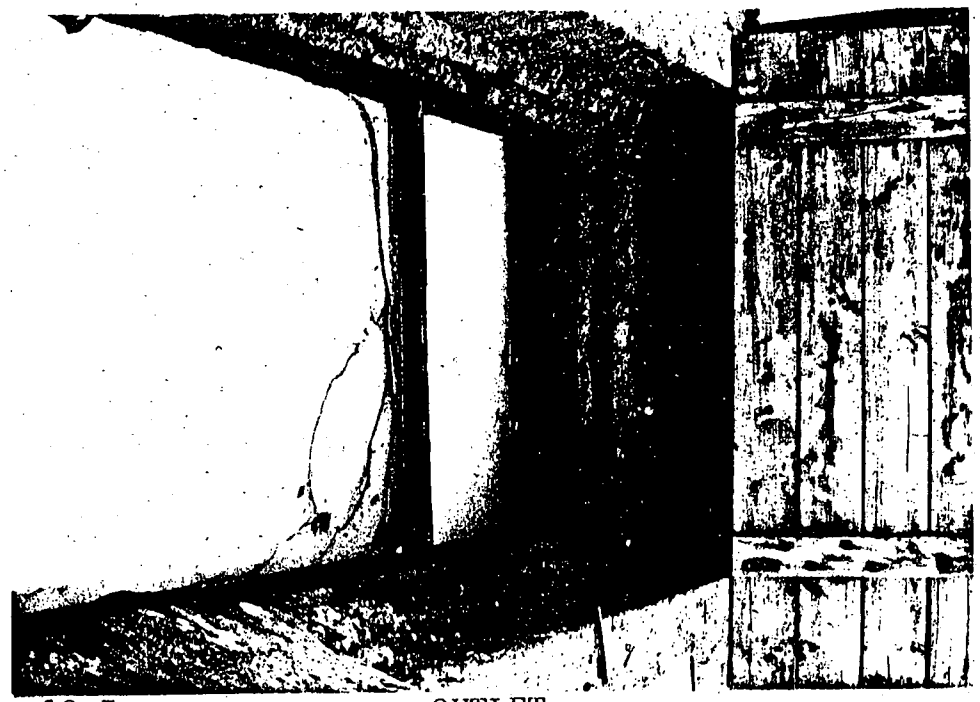


MANHOLE No. 13-5

MANHOLE No. 13-6

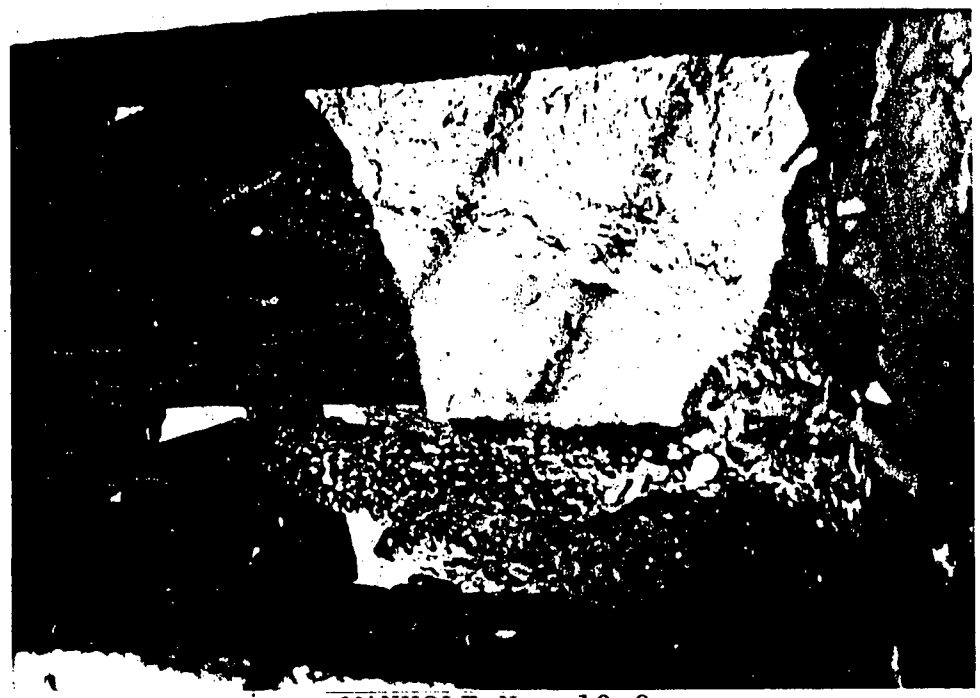


INLET



OUTLET

MANHOLE No. 13-7



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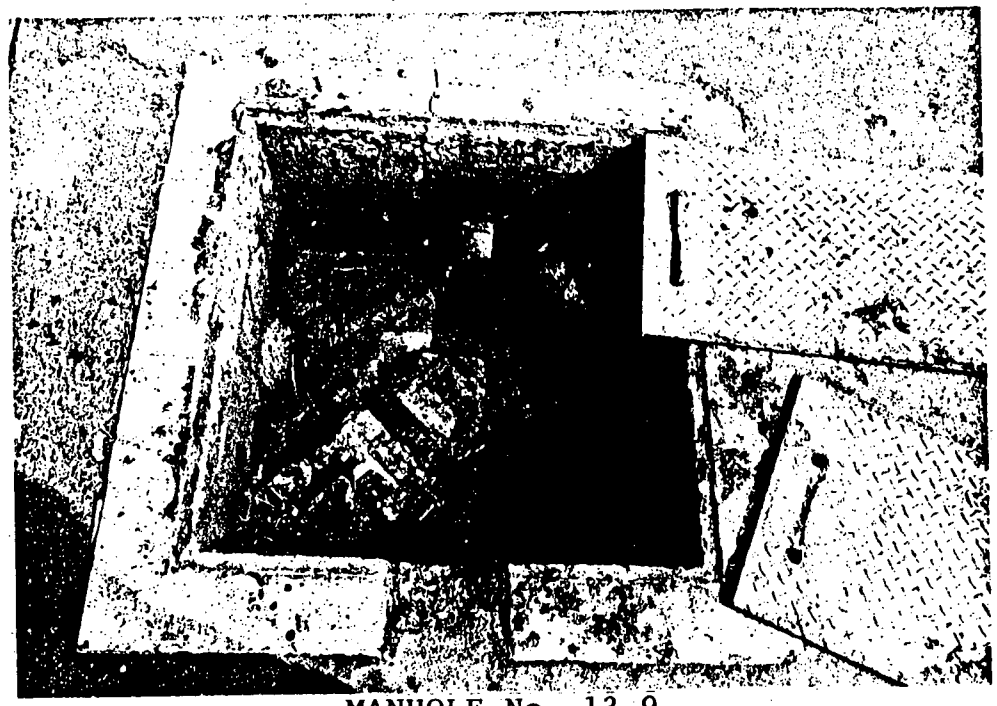
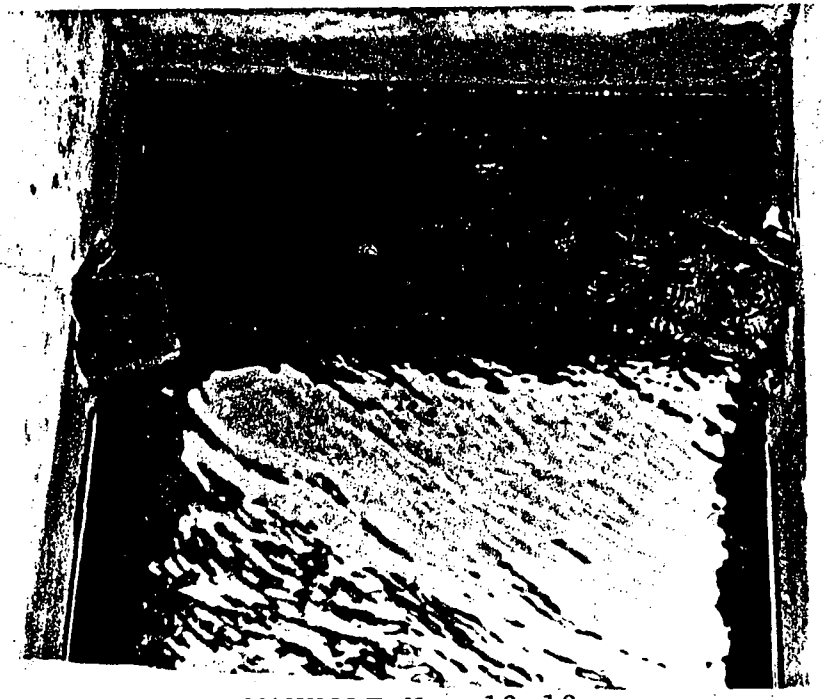
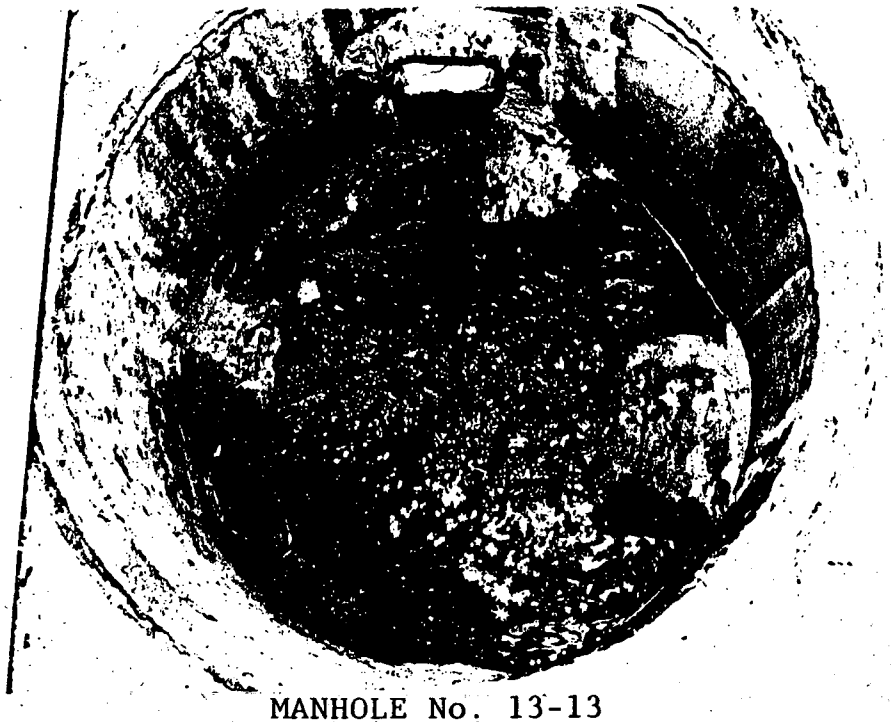


MANHOLE No. 13-9

MANHOLE No. 13-10



MANHOLE No. 13-12



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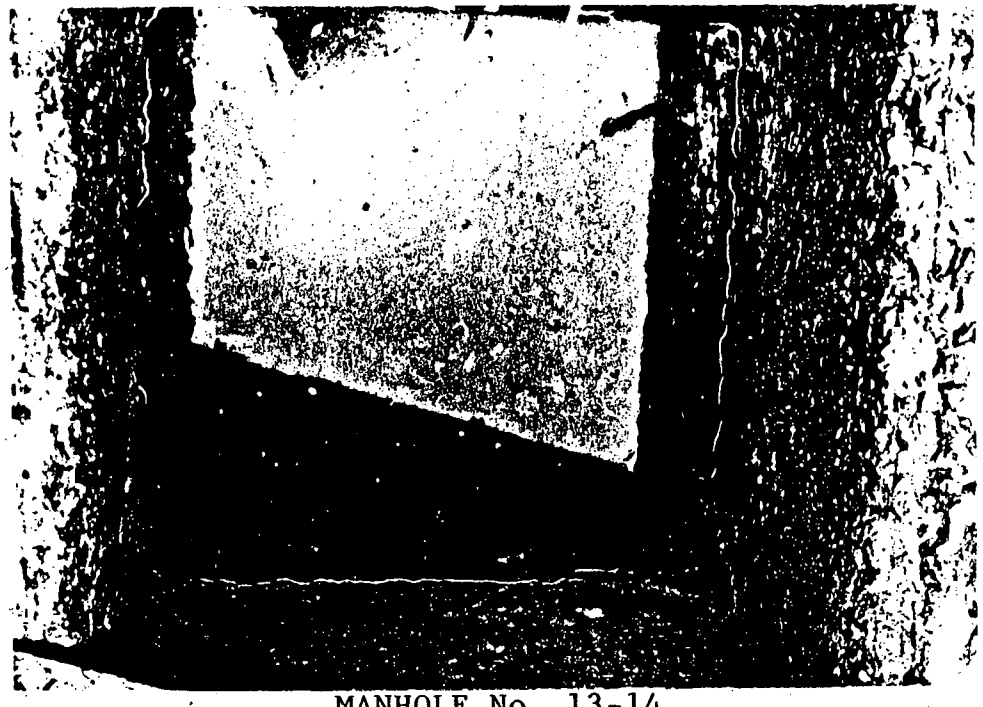
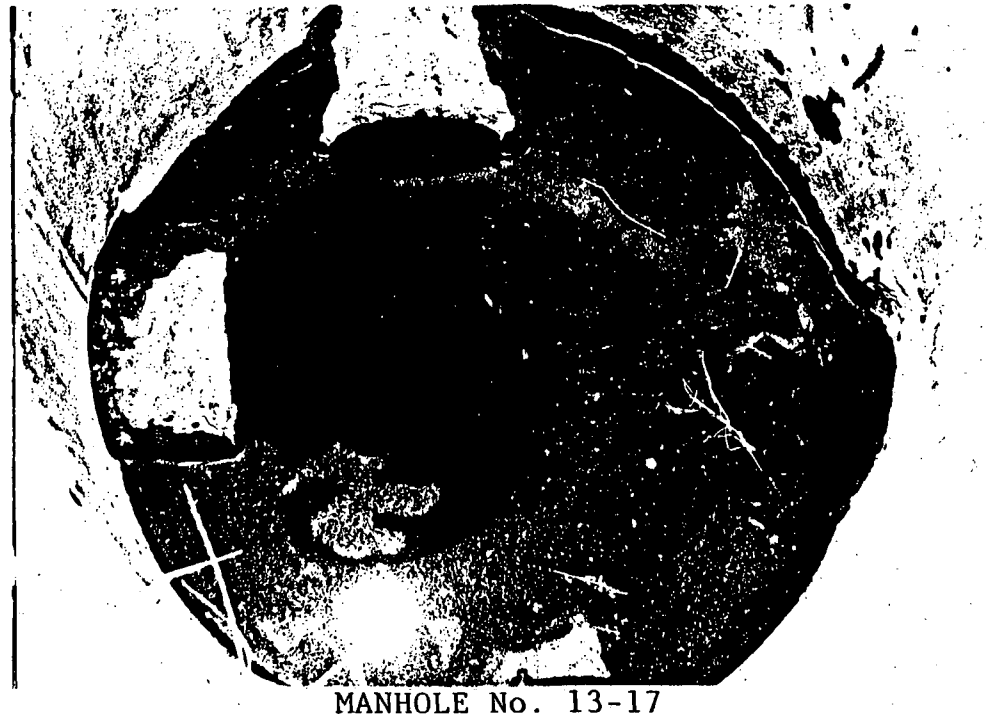


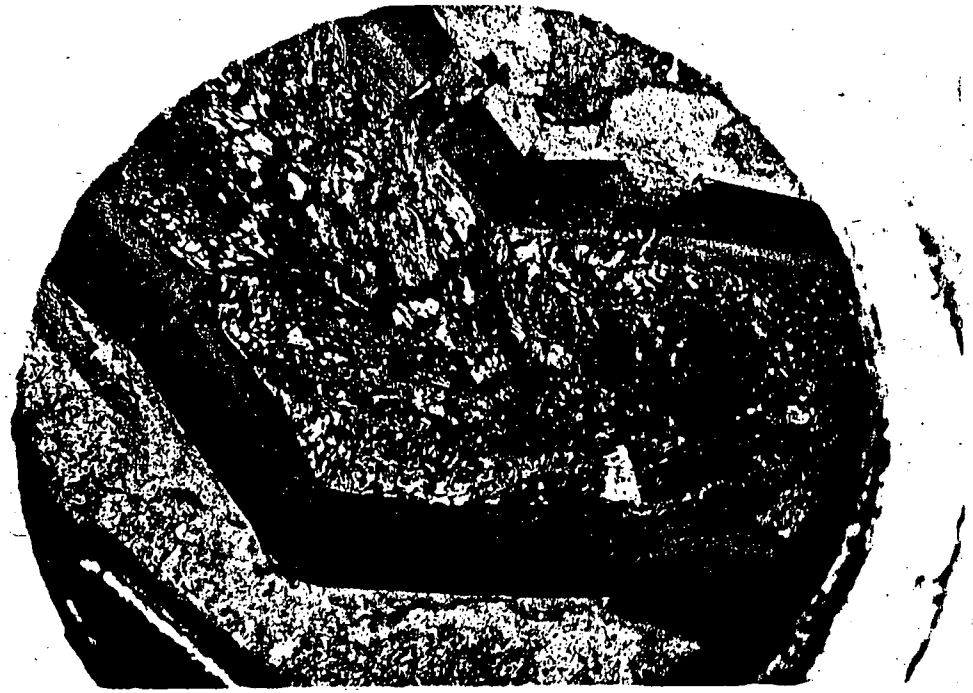
MANHOLE No. 13-14

MANHOLE No. 13-15



MANHOLE No. 13-17

MANHOLE No. 14



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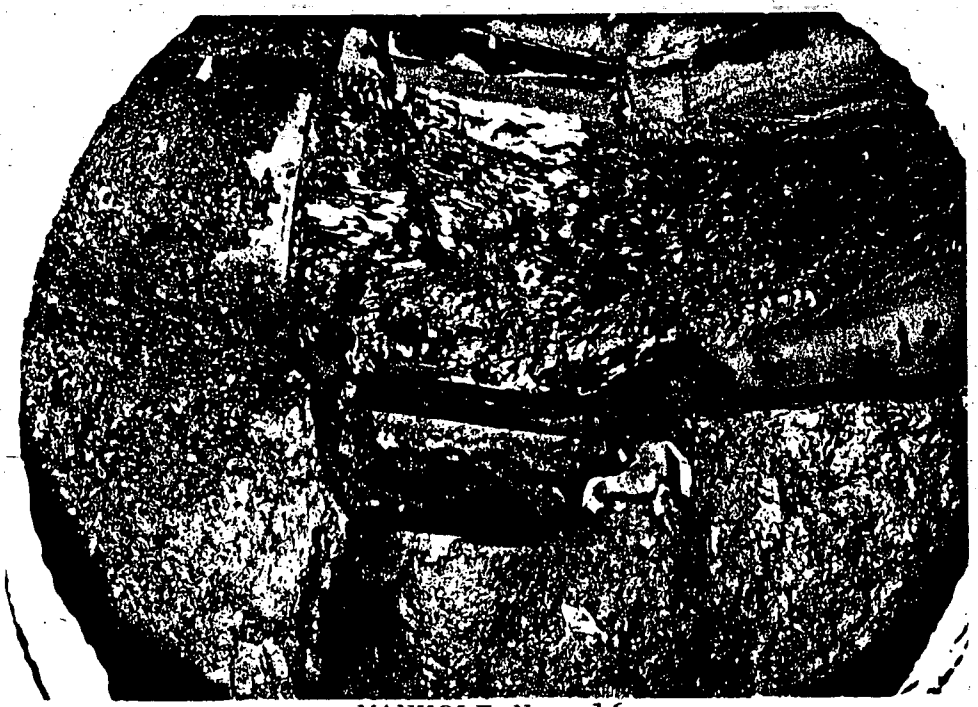
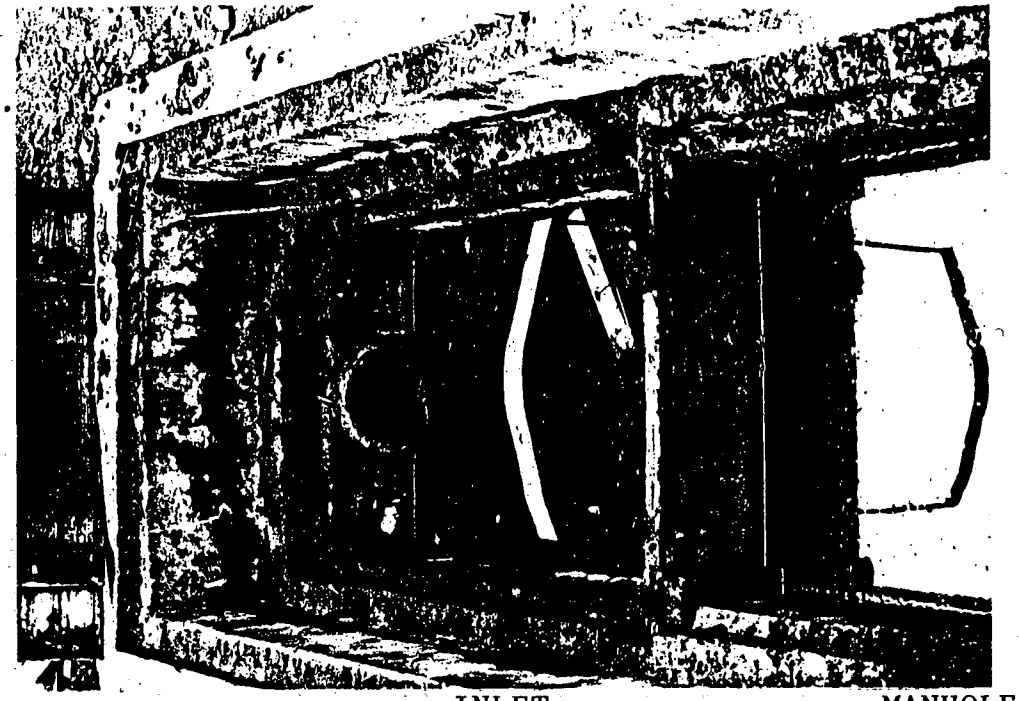


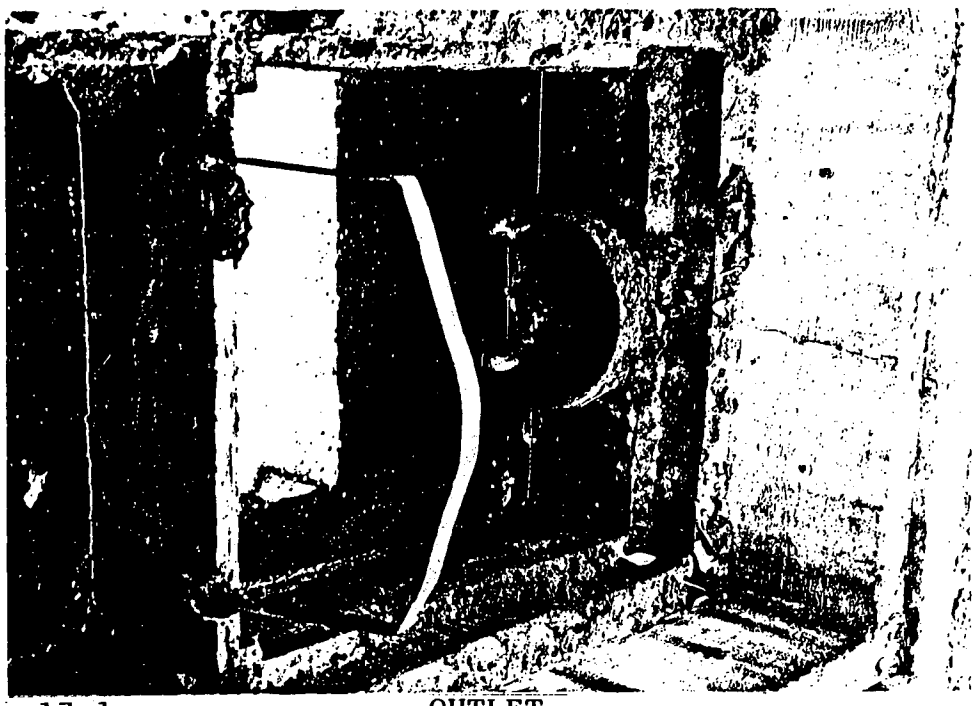
MANHOLE No. 16

MANHOLE No. 17



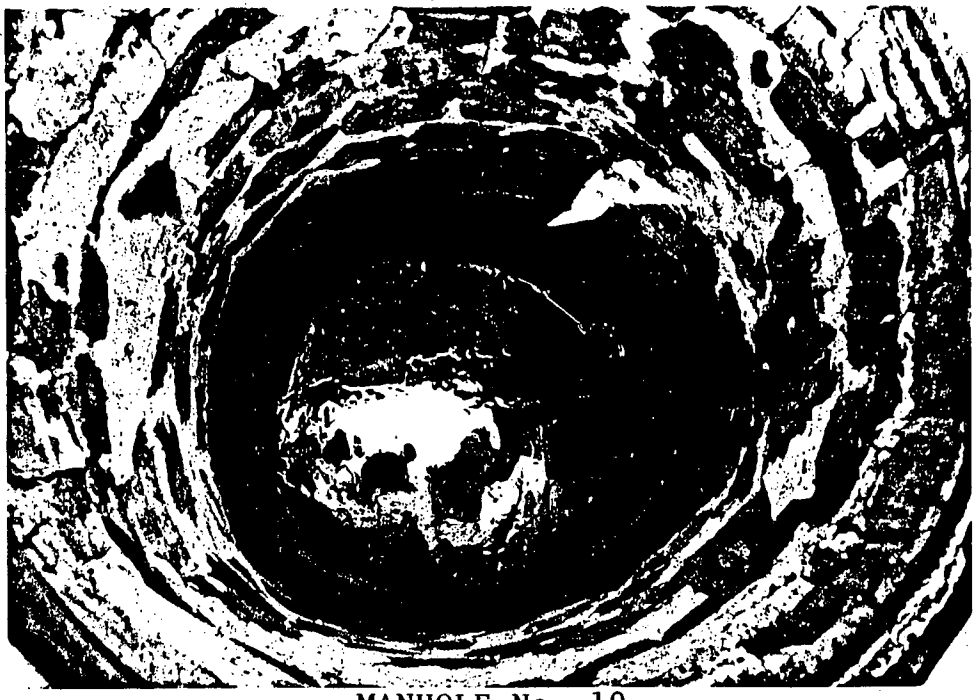
INLET

MANHOLE No. 17-1



OUTLET

MANHOLE No. 18



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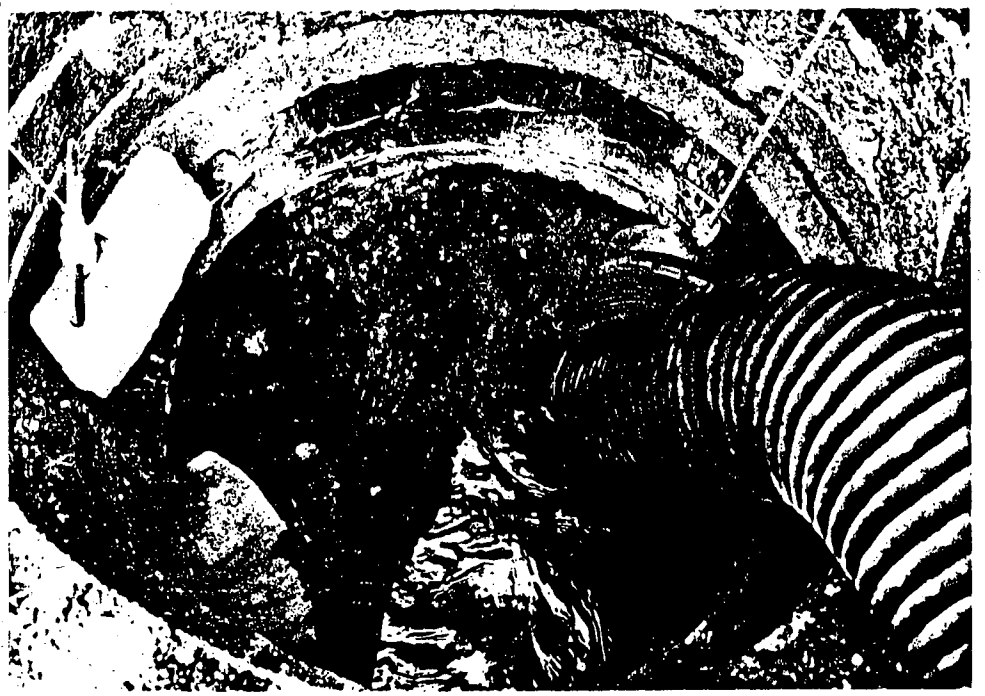
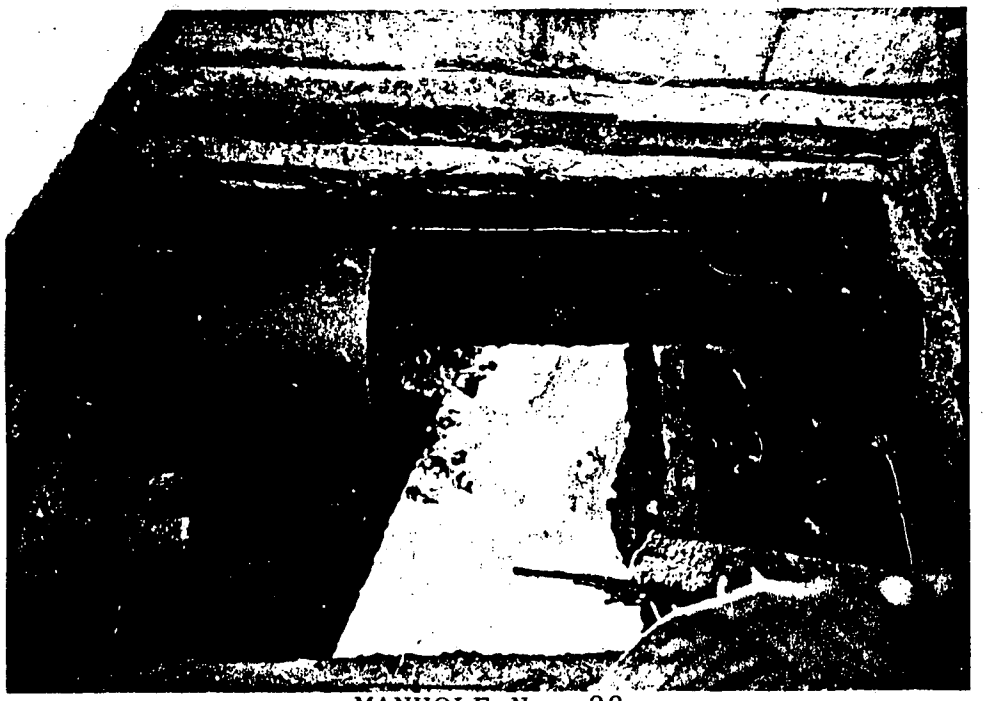


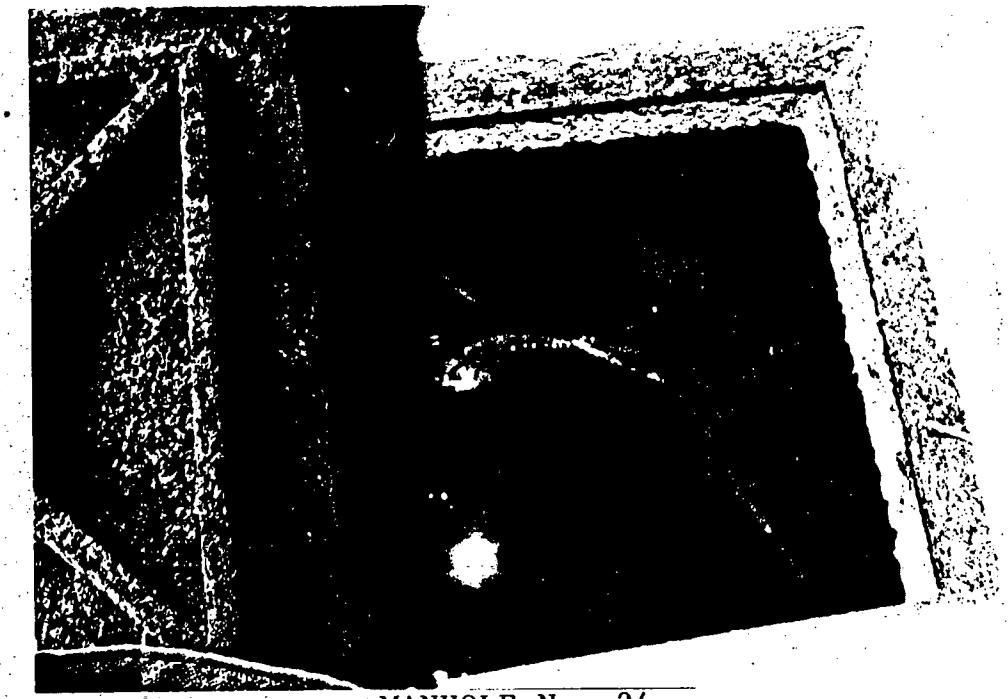
MANHOLE No. 20

MANHOLE No. 21



MANHOLE No. 22

MANHOLE No. 23



MANHOLE No. 24

APPENDIX C - INTERNAL INSPECTION REPORTS

CFM INCORPORATED
628 ROUTE 10, WHIPPANY, NEW JERSEY

INTERNAL INSPECTION LOG

SHEET 1 OF 1

DATE	TIME	WEATHER	JOB No.	MUNICIPALITY
7/23/83	1255 PM	Clear-90's	106	CLIFTON

VIDEO TAPE	INDEX	SUB-AREA	MINI-SYST	STREET
TV-16-5	142			GIVAUDAN

PIPE SIZE	MATERIAL	LENGTH	FLOW (GPD)	JNT.-SPACING	MH MAT.
18"	VCP	17'		3'	

MH No. 2 — FLOW DIRECTION → — CAMERA DIRECTION → — MH No. 1

DEPTH: | DEPTH:

DISTANCE FROM MH No. 2 OR STATION	RADIAL LOCATION (4 1 / 3 2)	ESTIMATED LEAKAGE RATE (GPM)	DESCRIPTION OF DEFECTS AND COMMENTS	VIDEO INDEX OR PHOTO No. 142
7			A	155
17			Entering M-H #1	169

CFM INCORPORATED
628 ROUTE 10, WHIPPANY, NEW JERSEY

INTERNAL INSPECTION LOG

SHEET 1 OF 1

DATE	TIME	WEATHER	JOB No.	MUNICIPALITY
7/23/83	12 PM	Clear - 90	106	Clifton

VIDEO TAPE	INDEX	SUB-AREA	MINI-SYST	STREET
TV-16-5	096			Grandan

PIPE SIZE	MATERIAL	LENGTH	FLOW (GPD)	JNT.-SPACING	MH MAT.
18"	VCP	38'		3'	

MH No. Pit 35 — FLOW DIRECTION → — CAMERA DIRECTION → — MH No. 2

DEPTH: | DEPTH:

DISTANCE FROM ~~MH~~ No. Pit 35 OR STATION	RADIAL LOCATION (4 1 / 3 2)	ESTIMATED LEAKAGE RATE (GPM)	DESCRIPTION OF DEFECTS AND COMMENTS	VIDEO INDEX OR PHOTO No. 096
✓ 3			Susp. Joint	103
✓ 24			Susp. Joint	124
✓ 26			A	128
✓ 29			Susp. Joint	132
38			Enter M-H #2	142

CFM INCORPORATED
628 ROUTE 10, WHIPPANY, NEW JERSEY

INTERNAL INSPECTION LOG

SHEET 1 OF 1

DATE	TIME	WEATHER	JOB No.	MUNICIPALITY
7/23/83	12:00 NOON	CLEAR - 90	106	CLIFTON

VIDEO TAPE	INDEX	SUB-AREA	MINI-SYST	STREET
TV-16-5	075			GIVAUDAN

PIPE SIZE	MATERIAL	LENGTH	FLOW (GPD)	JNT.-SPACING	MH MAT.
18"	VCP	19			

MH No. 3 — FLOW DIRECTION → — CAMERA DIRECTION → — MH No. Pit 35

DEPTH: 3 — DEPTH: Pit 35

DISTANCE FROM MH No. 3 OR STATION	RADIAL LOCATION (4 1 / 3 2)	ESTIMATED LEAKAGE RATE (GPM)	DESCRIPTION OF DEFECTS AND COMMENTS	VIDEO INDEX OR PHOTO No.
✓ 19			Entering Pit #35	096

ok plotted

G.P. 5-17-83

CFM INCORPORATED
628 ROUTE 10, WHIPPANY, NEW JERSEY

INTERNAL INSPECTION LOG

SHEET 1 OF 1

DATE	TIME	WEATHER	JOB No.	MUNICIPALITY
7/23/83	11:45 AM	Clear - 80's	106	Clifton

VIDEO TAPE	INDEX	SUB-AREA	MINI-SYST	STREET
TV-16-5	000			Givaudan

PIPE SIZE	MATERIAL	LENGTH	FLOW (GPD)	JNT.-SPACING	MH MAT.
18"	VCP	64'		3'	

MH No. 4 — FLOW DIRECTION → / CAMERA DIRECTION → — MH No. 3

DEPTH: — DEPTH:

DISTANCE FROM MH No. 4 OR STATION	RADIAL LOCATION (4 1 / 3 2)	ESTIMATED LEAKAGE RATE (GPM)	DESCRIPTION OF DEFECTS AND COMMENTS	VIDEO INDEX OR PHOTO No. 000
5			Manhole #4 to Low Spot (5" water)	016
15			A	025
21			A	031
24			out of Low Spot.	035
49			Slight Low Spot	059
57			A - out of Low Spot	068
64			Entering M-H #3	075
			Comment:	
			Could not Shoot from Pit 74	
			to M-H #4 - Pit 74 Has A	
			overflow pipe - Approx 10' to 15'	
			Deep.	

CFM INCORPORATED
628 ROUTE 10, WHIPPANY, NEW JERSEY

INTERNAL INSPECTION LOG

SHEET 1 OF 1

DATE	TIME	WEATHER	JOB No.	MUNICIPALITY
7/23/83	10:30 P.M.	HOT CLEAR	106	GIVAUDAN - CLIFTON

VIDEO TAPE	INDEX	SUB-AREA	MINI-SYST	STREET
TV-16-4	805			

PIPE SIZE	MATERIAL	LENGTH	FLOW (GPD)	JNT.-SPACING	MH MAT.
18"	VCP	265'		3'	

MH No. 6 — FLOW DIRECTION → — CAMERA DIRECTION → — MH No. PIT #74 Brick

DEPTH — DEPTH

DISTANCE FROM MH No. 6 OR STATION	RADIAL LOCATION (4 1 / 3 2)	ESTIMATED LEAKAGE RATE (GPM)	DESCRIPTION OF DEFECTS AND COMMENTS	VIDEO INDEX OR PHOTO No. 805
8	2		Chipped pipe - Right Side	812
11			A -	815
26			A -	823
47			A -	837
53			A -	840
62			A	845
97	4-1		PPT - Infiltration from PT - Build up	860
110	1-2		Spiral Crack	872
122			A	878
124			A	881
140			A	890
158			A	899
207	4-1		Linear Crack	916
205	4-1		End Linear Crack	919
208			A	922
217	4-1		Lin. Crack - Crown	926
219	4-1		Crack Ends	928
256			1' Section - This Section Settled	938
257	3-4		Minor Crack in 1' Section	946
265			End into Pit #74	951
			Also - End of Tape #4	
			Lime Build-up - Crown Section	
			Extending Half way down	
			both Sides	

1 - Clarence

CFM INCORPORATED
628 ROUTE 10, WHIPPANY, NEW JERSEY

INTERNAL INSPECTION LOG

SHEET ____ OF ____

DATE	TIME	WEATHER	JOB No.	MUNICIPALITY
7/23/83	9:45 am	Clear 80's	106	Clifton

VIDEO TAPE	INDEX	SUB-AREA	MINI-SYST	STREET
TV17-1	820			Givaudan

PIPE SIZE	MATERIAL	LENGTH	FLOW (GPD)	JNT.-SPACING	MH MAT.
12"	VCP	158'		3'	

MH No. 9-1 — FLOW DIRECTION → — CAMERA DIRECTION → — MH No. 9

DEPTH ____ DEPTH ____

DISTANCE FROM MH No. 9-1 OR STATION	RADIAL LOCATION (4 1 / 3 2)	ESTIMATED LEAKAGE RATE (GPM)	DESCRIPTION OF DEFECTS AND COMMENTS	VIDEO INDEX OR PHOTO No. 820
26	4-1		Fracture - Crown	839
36			A -	845
158			Center of M-H #9	890
			12" Fairly Clean - Slight	
			Buildup of Scale at the	
			Crown. Joints Look good	

CFM INCORPORATED
628 ROUTE 10, WHIPPANY, NEW JERSEY

INTERNAL INSPECTION LOG

SHEET ____ OF ____

DATE	TIME	WEATHER	JOB No.	MUNICIPALITY
7/23/83	8:40	CLEAR HOT		GIUAUDAN

VIDEO TAPE	INDEX	SUB-AREA	MINI-SYST	STREET
TV17-1	766			

PIPE SIZE	MATERIAL	LENGTH	FLOW (GPD)	JNT.-SPACING	MH MAT.

MH No. 9-2 — FLOW DIRECTION → — CAMERA DIRECTION → — MH No. 9-1

DEPTH ____ DEPTH ____

DISTANCE FROM MH No. ____ OR STATION	RADIAL LOCATION (4 1 / 3 2)	ESTIMATED LEAKAGE RATE (GPM)	DESCRIPTION OF DEFECTS AND COMMENTS	VIDEO INDEX OR PHOTO No.
5			DIS JT	771
7	1		CAMERA OVERTURNED	776
7	2		FRACTURE	
10.9	3		HORIZ CRACK	
31.5	2		CRACK	
40	4-3		BROKEN PIPE	815
45			3 FT FROM END BEND DOES NOT ALLOW CAMERA	822

CFM INCORPORATED
628 ROUTE 10, WHIPPANY, NEW JERSEY

INTERNAL INSPECTION LOG

SHEET 1 OF 1

DATE	TIME	WEATHER	JOB No.	MUNICIPALITY
7/25/83	3:55 p.m.	Clear. 80's	106	Clifton

VIDEO TAPE	INDEX	SUB-AREA	MINI-SYST	STREET
TV-76-5	424			Givaudan

PIPE SIZE	MATERIAL	LENGTH	FLOW (GPD)	JNT.-SPACING	MH MAT.
12"	VCP.	42		6'	

MH No. 9-2 — FLOW DIRECTION ← — CAMERA DIRECTION → — MH No. 9-3

DEPTH: Reverse

DISTANCE FROM MH No. ____ OR STATION	RADIAL LOCATION (4 1 / 3 2)	ESTIMATED LEAKAGE RATE (GPM)	DESCRIPTION OF DEFECTS AND COMMENTS	VIDEO INDEX OR PHOTO No. 424
6	1		Susp Joint - minor Crack	432
12			" "	436
18	1		" " - minor Crack	440
24			" "	444
30	1-3-4		Susp. Joint - Spiral Crack	447
36			Susp. Joint	451
42			End - M.H. 9-3	455

CFM INCORPORATED
628 ROUTE 10, WHIPPANY, NEW JERSEY

INTERNAL INSPECTION LOG

SHEET 1 OF 1

DATE	TIME	WEATHER	JOB No.	MUNICIPALITY
7/25/83	4:20 PM	Clear 80's	106	Clifton

VIDEO TAPE	INDEX	SUB-AREA	MINI-SYST	STREET
TV-16-5	455			Givaudan

PIPE SIZE	MATERIAL	LENGTH	FLOW (GPD)	JNT.-SPACING	MH MAT.
12"	V.C.P.	74'		4'	

MH No. 9-2 — FLOW DIRECTION ← — CAMERA DIRECTION → — MH No. C.O. 9-5

DEPTH: — Reverse — DEPTH:

DISTANCE FROM MH No. ____ OR STATION	RADIAL LOCATION (4 1 / 3 2)	ESTIMATED LEAKAGE RATE (GPM)	DESCRIPTION OF DEFECTS AND COMMENTS	VIDEO INDEX OR PHOTO No. 455
✓ 5	2-3-4		Spiral Crack	459
8	3-4		" " - Susp Joint	463
✓ 12	1-2 3-2		Spiral Crack - Linear Crack	467
✓ 17	2-3-4		" "	470
✓ 25	1-2-3-4		Fractured Pipe - Bad	477
29	2-3-4		Spiral Crack	485
✓ 33	2-3		" "	488
✓ 38	1-2		" "	491
✓ 42	1-2-3-4		" " - Susp. Joint	495
46			Susp. Joint - possible Spiral Crack	499
50	1-2-4		Spiral Crack - Linear Crack	502
54	1-2-3		1½" PPT-P-Dry - Spiral Crack	506
59	1-2-3-4		Spiral Crack	510
67	1-2-4		" "	515
71	1-2-4		" " - A	518
74			Break in Spot - Clean Out	521
			Comment:	
			15" V.C.P was Broken into	
			The Crown to made Room	
			for Cleaning & Pulling	
			of Cables - Piece Removed	
			12' infront of Pit	
			G.P.	

CFM INCORPORATED
628 ROUTE 10, WHIPPANY, NEW JERSEY

INTERNAL INSPECTION LOG

SHEET 1 OF 1

DATE	TIME	WEATHER	JOB No.	MUNICIPALITY
7/27/83	12:45 PM	CLEAR - 80's	106	CLIFTON

VIDEO TAPE	INDEX	SUB-AREA	MINI-SYST	STREET
TV-16-5	574			GIVAUDAN

PIPE SIZE	MATERIAL	LENGTH	FLOW (GPD)	JNT.-SPACING	MH MAT.
8"	VCP	43'		6'	

MH No. 9-3 — FLOW DIRECTION ← — CAMERA DIRECTION → — MH No. 9-4

DEPTH

Reverse - by Hand - Push Rods

DEPTH

DISTANCE FROM MH No. ____ OR STATION	RADIAL LOCATION (4 1 / 3 2)	ESTIMATED LEAKAGE RATE (GPM)	DESCRIPTION OF DEFECTS AND COMMENTS	VIDEO INDEX OR PHOTO No. 574
6			Slight Misaligned Joint	582
7			Low Spot 1 1/2" of water	585
11			Misaligned Joint	590
43			Bend - End As far as Rods	628
			Would go.	

Comments:
Reverse Set up. Camera pushed in toward MH #1 with 3' sections of Rod.

CFM INCORPORATED
628 ROUTE 10, WHIPPANY, NEW JERSEY

INTERNAL INSPECTION LOG

SHEET 1 OF 1

DATE	TIME	WEATHER	JOB No.	MUNICIPALITY
7/27/83	1:15 PM	Clear - 80's	106	Clifton

VIDEO TAPE	INDEX	SUB-AREA	MINI-SYST	STREET
TV-16-5	628			G. Audan

PIPE SIZE	MATERIAL	LENGTH	FLOW (GPD)	JNT.-SPACING	MH MAT.
8"	V.C.P.	10'		3'	

MH No. 9-3 — FLOW DIRECTION ← — CAMERA DIRECTION → — MH No. 9-6

DEPTH: | DEPTH:

Reverse - by Hand - Push Rods

DISTANCE FROM MH No. ____ OR STATION	RADIAL LOCATION (4 1 / 3 2)	ESTIMATED LEAKAGE RATE (GPM)	DESCRIPTION OF DEFECTS AND COMMENTS	VIDEO INDEX OR PHOTO No. 628
5			Serv. on Left	
6			Misaligned Joint BAD	633
7	1-2-4		Spiral Crack	635
8			A — Susp. Joint	635
10			Camera couldn't go any further	641
			with Push-Rods - Getting Hung	
			up on Something. Looks	
			Like different Size	

CFM INCORPORATED
628 ROUTE 10, WHIPPANY, NEW JERSEY

INTERNAL INSPECTION LOG

SHEET 1 OF 1

DATE	TIME	WEATHER	JOB No.	MUNICIPALITY
7/21/83	6:05 PM	Cloudy 90		Clifton

VIDEO TAPE	INDEX	SUB-AREA	MINI-SYST	STREET
TV-16-4	375			Givaudan

PIPE SIZE	MATERIAL	LENGTH	FLOW (GPD)	JNT.-SPACING	MH MAT.
18"	VCP	141		3'	

MH No. 10 — FLOW DIRECTION → — CAMERA DIRECTION → — MH No. 9

DEPTH: | DEPTH:

DISTANCE FROM MH No. 10 OR STATION	RADIAL LOCATION (4 1 / 3 2)	ESTIMATED LEAKAGE RATE (GPM)	DESCRIPTION OF DEFECTS AND COMMENTS	VIDEO INDEX OR PHOTO No. 375
88	1-2		Chipped Pipe	427
99			A	434
138	1-2-3-4		Spiral Crack - Completely Around	455
141			End - Into MH # 9	459

CFM INCORPORATED
628 ROUTE 10, WHIPPANY, NEW JERSEY

INTERNAL INSPECTION LOG

SHEET 1 OF 1

DATE	TIME	WEATHER	JOB No.	MUNICIPALITY
7/20/83	5:30 P.M.	Clear. 90°		Clifton

VIDEO TAPE	INDEX	SUB-AREA	MINI-SYST	STREET
TV-16-3	317			Givandan

PIPE SIZE	MATERIAL	LENGTH	FLOW (GPD)	JNT.-SPACING	MH MAT.
12"	VCP	358'		3'	

MH No. 10 — DEPTH

FLOW DIRECTION
CAMERA DIRECTION Reverse

CLEAN-out MH No. 10-1 — DEPTH

DISTANCE FROM MH No. ____ OR STATION	RADIAL LOCATION (4 1 / 3 2)	ESTIMATED LEAKAGE RATE (GPM)	DESCRIPTION OF DEFECTS AND COMMENTS	VIDEO INDEX OR PHOTO No. 317
138			Susp. J	353
158			Slightly wide Joint on Left	372
79			Low Spot 1"	387
109			End of Low Spot	407
147			Susp. Joint	433
153			Bend to the Right	439
170			PPT 2" Protrusion - Top Right - Dry	452
185			Serv. Conn. at Crown - Dry	467
187	1-2-3-4		Spiral Crack	470
197	1-2		Connection - Right Side - Running	479
233	1-2		Connection - Right Side - Running	516
236	1-2		" " " - Running	522
245	1-2		Minor Crack Base	533
272	1-2		Connection - Right Side - Not Running	565
276	1-2		Serv. Conn. - Right Side - Running	569
298			Susp. Joint	587
304			" "	591
307			A - Susp Joint	595
311	1-2-3-4		Spiral Crack	599
312			A	601
313	1-2		Serv. Conn. - Right Side - Running	604
316	1-2		Serv. Conn. "	607
353	2		Serv. Conn " Dry	626
358			Clean-Out M-H 10-1	633

CFM INCORPORATED
628 ROUTE 10, WHIPPANY, NEW JERSEY

INTERNAL INSPECTION LOG

SHEET 1 OF 1

DATE	TIME	WEATHER	JOB No.	MUNICIPALITY
7/21/83	5~~45~~ ~~84~~	Cloudy - 90		Clifton

VIDEO TAPE	INDEX	SUB-AREA	MINI-SYST	STREET
TV-16-4	282			Givaudan

PIPE SIZE	MATERIAL	LENGTH	FLOW (GPD)	JNT.-SPACING	MH MAT.
18"	VCP	121'		3'	Conc Bk.

MH No. 11 — FLOW DIRECTION → — CAMERA DIRECTION → — MH No. 10

DEPTH: | DEPTH:

DISTANCE FROM MH No. 11 OR STATION	RADIAL LOCATION (4 1 / 3 2)	ESTIMATED LEAKAGE RATE (GPM)	DESCRIPTION OF DEFECTS AND COMMENTS	VIDEO INDEX OR PHOTO No. 282
9			A	297
37			A	315
86	2		Minor Crack - Base	346
95			A	353
102	1-2		Minor Crack - Shear Crack - Susp. J.	358
114	4-1		Lin. Crack - Foot Long.	368
121			End - into M-H #10	375

CFM INCORPORATED
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INTERNAL INSPECTION LOG

SHEET 1 OF 1

DATE	TIME	WEATHER	JOB No.	MUNICIPALITY
9/3/83		HUMID 85°		CLIFTON

VIDEO TAPE	INDEX	SUB-AREA	MINI-SYST	STREET
TV16-1A	447			GIVAUDAN-EAST OF BLDG. 71

PIPE SIZE	MATERIAL	LENGTH	FLOW (GPD)	JNT.-SPACING	MH MAT.
18"	VCP	78'		3'	

MH No. 11-1 — FLOW DIRECTION → — CAMERA DIRECTION → — MH No. 11

DEPTH: _____ DEPTH: _____

DISTANCE FROM MH No. 11-1 OR STATION	RADIAL LOCATION (4 1 / 3 2)	ESTIMATED LEAKAGE RATE (GPM)	DESCRIPTION OF DEFECTS AND COMMENTS	VIDEO INDEX OR PHOTO No.
0			WATER LEVEL - 8"	450
15			1/2 PIPE OF SED.	460
28			MIS. JOINT; 1/2 PIPE - WATER & SED.	471
31			" "	472
40			" "	476
49			" " ; 1/3 PIPE - WATER, NO DIRT	480
55			" "	483
63			" "	487
78			MANHOLE 11	494

CFM INCORPORATED
628 ROUTE 10, WHIPPANY, NEW JERSEY

INTERNAL INSPECTION LOG

SHEET 1 OF 1

DATE	TIME	WEATHER	JOB No.	MUNICIPALITY
7/21/83	1000	HAZY ≈95°	106	CLIFTON

VIDEO TAPE	INDEX	SUB-AREA	MINI-SYST	STREET
TV.17-1	000			GIVAUDAN CORP.

PIPE SIZE	MATERIAL	LENGTH	FLOW (GPD)	JNT.-SPACING	MH MAT.
15"	VCP	103'		2'	

MH No. 11-2 — FLOW DIRECTION → — CAMERA DIRECTION → — MH No. 11-1

DEPTH: | DEPTH:

DISTANCE FROM MH No. 11-2 OR STATION	RADIAL LOCATION (4 1 / 3 2)	ESTIMATED LEAKAGE RATE (GPM)	DESCRIPTION OF DEFECTS AND COMMENTS	VIDEO INDEX OR PHOTO No.
25			MIS JOINT -	080
28			" " -	
31			" " - PIPE BENDS SLIGHTLY	104
40			LOW SPOT W=4½"	119
62			MIS. JOINT	144
74			" "	163
84			" " - 1/2 PIPE OF FLOW	180
103			MH 11-1	202
			ADD'L NOTES 8-8-83	
48	1	TRACE	LEAKING, MISAL. JOINT	125

CFM INCORPORATED
628 ROUTE 10, WHIPPANY, NEW JERSEY

INTERNAL INSPECTION LOG

SHEET 1 OF 1

DATE	TIME	WEATHER	JOB No.	MUNICIPALITY
7/25/83	1:45 pm	Clear - 80's	106	Clifton

VIDEO TAPE	INDEX	SUB-AREA	MINI-SYST	STREET
TV-16-5	310			Givandan

PIPE SIZE	MATERIAL	LENGTH	FLOW (GPD)	JNT.-SPACING	MH MAT.
18"	VCP	26		2'	

MH No. 11-3 — FLOW DIRECTION → — CAMERA DIRECTION → — MH No. 11-2

DEPTH: | DEPTH:

DISTANCE FROM MH No. ____ OR STATION	RADIAL LOCATION (4 1 / 3 2)	ESTIMATED LEAKAGE RATE (GPM)	DESCRIPTION OF DEFECTS AND COMMENTS	VIDEO INDEX OR PHOTO No. 310
✓ 3			A - Susp. Joint	317
✓ 5			A	320
✓ 7			Slight - A	322
✓ 13			A	327
✓ 17			A	331
✓ 23			A	336
26			End M-H #2	339
			A - stands for Misaligned Joint	

CFM INCORPORATED
628 ROUTE 10, WHIPPANY, NEW JERSEY

INTERNAL INSPECTION LOG

SHEET ____ OF ____

DATE	TIME	WEATHER	JOB No.	MUNICIPALITY
7/23/83	11:45	HOT CLEAR		GLOUCESTER

VIDEO TAPE	INDEX	SUB-AREA	MINI-SYST	STREET
TV17-1	890			

PIPE SIZE	MATERIAL	LENGTH	FLOW (GPD)	JNT.-SPACING	MH MAT.
10"	VCP	161			

MH No. 11-4 — FLOW DIRECTION → — CAMERA DIRECTION ← — MH No. 11-3

DEPTH: ____ DEPTH: ____

PACKER CANNOT PASS

DISTANCE FROM MH No. ____ OR STATION	RADIAL LOCATION (4 1 / 3 2)	ESTIMATED LEAKAGE RATE (GPM)	DESCRIPTION OF DEFECTS AND COMMENTS	VIDEO INDEX OR PHOTO No.
5			FIRST JT	~~891~~ 894
11	41		TAP	
12	1		MIS JT	907
26	2		BROKEN PIPE	920
29	1234		SHEAR CRACK PREVIOUS CRACK ENDS	925
34	14		TAP	934
36	14		TAP	938
37	41		MIS JT	940
43			MIS JT	944
59	14		TAP	
60			MIS JT OFFSET	958
62	14		TAP	963
87	14		TAP	
88			MIS JT	978
105			TAP	990
106			MIS JT	995
11~~8~~	114		TAP	1004
144			OFFSET	100~~2~~2
145			MIS JT	
146			TAP	100~~2~~9
161			END	10~~0~~40

CFM INCORPORATED
628 ROUTE 10, WHIPPANY, NEW JERSEY

INTERNAL INSPECTION LOG

SHEET ____ OF ____

DATE	TIME	WEATHER	JOB No.	MUNICIPALITY
7/22/83	4:00 PM	CLEAR HOT		GIVANDAN

VIDEO TAPE	INDEX	SUB-AREA	MINI-SYST	STREET
TV17-1	717			

PIPE SIZE	MATERIAL	LENGTH	FLOW (GPD)	JNT.-SPACING	MH MAT.
12"	VCP	38'			

MH No. 4-5 — FLOW DIRECTION → — CAMERA DIRECTION → — MH No. 11-3

DEPTH ____ DEPTH ____

DISTANCE FROM MH No. ____ OR STATION	RADIAL LOCATION (4 1 / 3 2)	ESTIMATED LEAKAGE RATE (GPM)	DESCRIPTION OF DEFECTS AND COMMENTS	VIDEO INDEX OR PHOTO No.
5'			DISPLACED JT	720
7			" "	726
10.3			" "	731
13.6			" "	735
16.3			" "	740
22.4			" "	747
25.7			" "	750
31.7	4 1		MINERAL DEPOSITS	757
33.5	4		PLASTIC SLEEVE BROKEN	
			ENDING INDEX	766
38'			MIDDLE OF MANHOLE	

CFM INCORPORATED
628 ROUTE 10, WHIPPANY, NEW JERSEY

INTERNAL INSPECTION LOG

SHEET 1 OF 1

DATE	TIME	WEATHER	JOB No.	MUNICIPALITY
7/23/83	2:00 PM	HOT CLEAR		GIVAUDAN

VIDEO TAPE	INDEX	SUB-AREA	MINI-SYST	STREET
TV17-1	1062			

PIPE SIZE	MATERIAL	LENGTH	FLOW (GPD)	JNT.-SPACING	MH MAT.
10"	VCP	163'			

MH No. 11-6 — FLOW DIRECTION → — CAMERA DIRECTION → — MH No. 11-5

DEPTH: | DEPTH:

OK FOR PACKER

DISTANCE FROM MH No. ____ OR STATION	RADIAL LOCATION (4 1 / 3 2)	ESTIMATED LEAKAGE RATE (GPM)	DESCRIPTION OF DEFECTS AND COMMENTS	VIDEO INDEX OR PHOTO No.
27			TAP	1062
30			TAP	1066
52			TAP	1074
58			TAP	
77			MIS JT	1093
78		1/4	TAP	
80			BAD MIS JT	1098
82			MIS JT	1100
84	4-1		HOLE IN PIPE (CLEAN-OUT)	1103
93			MIS JT	1110
103			TAP	1114
105			TAP	1117
128			MIS JT	1129
129			TAP	1131
131			TAP	1133
132			MIS JT	1135
138	4		CRACK	1139
147			MIS JT	1143
153			TAP (OBSTRUCTED)	1150
159	2		SHEAR CRACK	1156
163			END	1160

CFM INCORPORATED
628 ROUTE 10, WHIPPANY, NEW JERSEY

INTERNAL INSPECTION LOG

SHEET 1 OF 1

DATE	TIME	WEATHER	JOB No.	MUNICIPALITY
7/18/83	1430	LT RAIN 85°	106	CLIFTON

VIDEO TAPE	INDEX	SUB-AREA	MINI-SYST	STREET
TV16-1	783			GIVAUDAN CORP.

PIPE SIZE	MATERIAL	LENGTH	FLOW (GPD)	JNT.-SPACING	MH MAT.
12"	VCP	232'		3'	BLOCK

MH No. 11-7 — FLOW DIRECTION → — CAMERA DIRECTION → — MH No. 11-2

DEPTH: 11-7 | DEPTH: 11-2

DISTANCE FROM MH No. 11-7 OR STATION	RADIAL LOCATION (4 1 / 3 2)	ESTIMATED LEAKAGE RATE (GPM)	DESCRIPTION OF DEFECTS AND COMMENTS	VIDEO INDEX OR PHOTO No.
11			MIS. JOINT	794
16			" "	795
20	1-2		SHEAR CRACK	800
26			MIS JOINT	805
37	4-3		LIN CR (SIDE)	811
40			END L.C.	813
49			MIS. JOINT	818
			BEGIN TAPE # TV16-2	000
85	4		SHEAR CR.	046
87			MIS. JOINT	048
93			SUSP. JOINT (DEPOSITS)	066
111			MIS. "	082
120			" "	093
138			" " SUSP (DEPOSITS)	110
141	1		LIN. CRACK	113
144	1		END L.C. (MIS. JOINT)	120
153	4		MINOR CRACK MIS. JOINT	124
171	3		SHEAR CRACK	147
174			SUSP. JOINT	149
180	1	TRACE	MIS. JOINT	160
213			" "	193
232			MANHOLE 11-1	218
104	3-2		(ADD'L NOTE) SPIRAL CRACK	72

8-9-83

CFM INCORPORATED
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INTERNAL INSPECTION LOG

SHEET 1 OF 1

DATE	TIME	WEATHER	JOB No.	MUNICIPALITY
9/3/83		CLEAR 85°		CLIFTON

VIDEO TAPE	INDEX	SUB-AREA	MINI-SYST	STREET
TV16-1A	203		11	GIVAUDAN-BETW BLD. 57 & 75

PIPE SIZE	MATERIAL	LENGTH	FLOW (GPD)	JNT.-SPACING	MH MAT.
15"	VCP	44'		2'	

MH No. 11-8 — FLOW DIRECTION → — CAMERA DIRECTION → — MH No. 11-7

DEPTH: 11-8 | DEPTH: 11-7

DISTANCE FROM MH No. 11-8 OR STATION	RADIAL LOCATION (4 1 / 3 2)	ESTIMATED LEAKAGE RATE (GPM)	DESCRIPTION OF DEFECTS AND COMMENTS	VIDEO INDEX OR PHOTO No.
03			MIS. JOINT	209
05			" "	211
07			" "	215
15			LOW SPOT W=1.5"	228
21			MIS. JOINT	238
23			" " W=6"	242
27	4-1		MISSING PIPE W/SED=8"	248
29	4		MIS. JOINT SHEAR CR.	256
32			" "	261
33			" " PIPE BENDS SLIGHTLY	263
35			" " DIRT=6"	267
37			" "	269
39			" "	271
41			OPEN JOINT (1.5")	273
44			MANHOLE 11-7	276

CFM INCORPORATED
628 ROUTE 10, WHIPPANY, NEW JERSEY
for Bldgs. #52 to #57

INTERNAL INSPECTION LOG

SHEET 1 OF 1

DATE	TIME	WEATHER	JOB No.	MUNICIPALITY
7/22/83	3:45 PM.	Clear - 80's		Clifton

VIDEO TAPE	INDEX	SUB-AREA	MINI-SYST	STREET
TV-16-4	676			Givaudan

PIPE SIZE	MATERIAL	LENGTH	FLOW (GPD)	JNT.-SPACING	MH MAT.
10"	VCP	154'		2'	

~~MH No.~~ C.O. 11-9 — FLOW DIRECTION → — CAMERA DIRECTION → — MH No. 11-8

DEPTH: | DEPTH:

DISTANCE FROM MH No. 11-9 OR STATION	RADIAL LOCATION (4 1 / 3 2)	ESTIMATED LEAKAGE RATE (GPM)	DESCRIPTION OF DEFECTS AND COMMENTS	VIDEO INDEX OR PHOTO No. 676
2			A	681
14			A	692
22	1-4		Serv. Conn.-Crown-(wet)	700
23			A	703
24			Serv. Conn.-Crown (wet)	704
25			A	706
33			A - Susp. Joint	712
39			A	716
45	3		A - Susp Joint - Minor Crack	721
48	1		A - Serv. Conn.-Shear Crack to Conn.	724
58			Low Spot (3½ deep)	731
67			A	736
68			Low Spot (5" water)	737
69			A	740
70			A	742
72			Susp. J-(Serv. Conn. at Crown-Dry-at 73 Feet)	744
75			A - Serv. Conn. at Crown - Wet	748
79			Out of Low Spot.	750
83			A - Susp. Joint	753
89			A	757
92			Low Spot (3" water)	760
99	4-1		Serv. Conn. Crown - Minor Crack (Dry)	766
101			Serv. Conn. at Crown - wet	768
105			Susp. Joint	771

CFM INCORPORATED
628 ROUTE 10, WHIPPANY, NEW JERSEY

INTERNAL INSPECTION LOG

SHEET 2 OF 2

for Blgs. #52 to #57

DATE	TIME	WEATHER	JOB No.	MUNICIPALITY
7/22/83	4:05 pm	Clear. 80's		Clifton

VIDEO TAPE	INDEX	SUB-AREA	MINI-SYST	STREET
TV-16-4	771			

PIPE SIZE	MATERIAL	LENGTH	FLOW (GPD)	JNT.-SPACING	MH MAT.
10"	VCP	154		2"	

~~MH No.~~ C.O. 11-9 — DEPTH

FLOW DIRECTION →
CAMERA DIRECTION →

MH No. 11-8 — DEPTH

DISTANCE FROM ~~MH~~ No. C.O 11-9 OR STATION	RADIAL LOCATION (4 1 / 3 2)	ESTIMATED LEAKAGE RATE (GPM)	DESCRIPTION OF DEFECTS AND COMMENTS	VIDEO INDEX OR PHOTO No. 771
109			A –	774
111			Susp. Joint	775
117			Susp. Joint	780
119			Susp. Joint	781
121			Susp Joint	783
125			Serv. Conn. at Crown - Wet - A - Susp. J.	786
129			Susp. J	789
131			" "	790
139			" "	795
142			A	797
150			Susp. Joint - Serv. Conn. at Crown. Wet	802
154			End into M-H #8	805
			Bend prior to M-H #8	
			Low Spot 92' to 154' into	
			M-H #8	
			115' Had Flusher Came back	
			toward Camera to Draw out	
			water.	

CFM INCORPORATED
628 ROUTE 10, WHIPPANY, NEW JERSEY

INTERNAL INSPECTION LOG

SHEET 1 OF 1

DATE	TIME	WEATHER	JOB No.	MUNICIPALITY
7/19/83	1105	P.C. 90°	106	CLIFTON

VIDEO TAPE	INDEX	SUB-AREA	MINI-SYST	STREET
TV16-1	736			GIVAUDAN CORP

PIPE SIZE	MATERIAL	LENGTH	FLOW (GPD)	JNT.-SPACING	MH MAT.
12"	VCP	72'		3'	BLOCK

MH No. 11-10 — FLOW DIRECTION → — CAMERA DIRECTION → — MH No. 11-7

DEPTH: | DEPTH:

DISTANCE FROM MH No. 11-10 OR STATION	RADIAL LOCATION (4 1 / 3 2)	ESTIMATED LEAKAGE RATE (GPM)	DESCRIPTION OF DEFECTS AND COMMENTS	VIDEO INDEX OR PHOTO No.
11			MIS JOINT	743
23			SUSP. JOINT (OPEN	746
29			MIS. JOINT	751
35			" " DIP W=1"	753
38			" "	754
41			SUSP. JOINT (MIS)	758
42			DIP W= 2"	763
47			MIS JOINT	764
53			OPEN " (3/4")	768
59			SUSP. (DEPOSITS) IN JOINT	773
62			MIS.	776
72			MH. 11-7	781

CFM INCORPORATED
628 ROUTE 10, WHIPPANY, NEW JERSEY

INTERNAL INSPECTION LOG

SHEET 1 OF 1

DATE	TIME	WEATHER	JOB No.	MUNICIPALITY
7/18/83	1000	P.C. 90°	106	CLIFTON

VIDEO TAPE	INDEX	SUB-AREA	MINI-SYST	STREET
TV16-1	706			GIVAUDAN CORP

PIPE SIZE	MATERIAL	LENGTH	FLOW (GPD)	JNT.-SPACING	MH MAT.
12"	VCP	34'		3'	BLOCK

MH No. 11-11 — FLOW DIRECTION → — CAMERA DIRECTION → — MH No. 11-10

DEPTH: | DEPTH:

DISTANCE FROM MH No. 11-11 OR STATION	RADIAL LOCATION (4 1 / 3 2)	ESTIMATED LEAKAGE RATE (GPM)	DESCRIPTION OF DEFECTS AND COMMENTS	VIDEO INDEX OR PHOTO No.
05			MIS. JOINT	710
16			" "	720
19			" "	721
22			OPEN " ; PIPE BENDS DOWN	723
25			MIS "	726
28	1-2		MISSING PIPE; SHEAR CRACK	730
34			MANHOLE 11-10	735

CFM INCORPORATED
628 ROUTE 10, WHIPPANY, NEW JERSEY

INTERNAL INSPECTION LOG

SHEET 1 OF 2

DATE	TIME	WEATHER	JOB No.	MUNICIPALITY
7/22/83	1:35 P.M.	Clear 78°		Clifton

VIDEO TAPE	INDEX	SUB-AREA	MINI-SYST	STREET
TV-16-2	528			Givaudan

PIPE SIZE	MATERIAL	LENGTH	FLOW (GPD)	JNT.-SPACING	MH MAT.
10"	VCP	164'		3'	

~~MH No.~~ C.O. 11-12 — DEPTH

FLOW DIRECTION →
CAMERA DIRECTION →

MH No. 11-11 — DEPTH

DISTANCE FROM MH No. ____ OR STATION	RADIAL LOCATION (4 1 / 3 2)	ESTIMATED LEAKAGE RATE (GPM)	DESCRIPTION OF DEFECTS AND COMMENTS	VIDEO INDEX OR PHOTO No. 528
5			Clean out	534
6			AL	536
10			AL	539
13			AL	541
25			AL	550
28			AL	553
29			Conn. at Crown - Dry	555
30			A - Susp. Joint	556
31			Conn at Crown - Dry - Susp J.	559
32	1-2-4		Fractured Pipe	561
41			A	566
44			A	569
47	3-4		Shear Crack - A	573
51			A	575
53			A	577
54			A	580
56			Service Conn at Crown - Dry	582
57			A	584
58	3-4		Service Conn. at Crown - Running - Spiral Crack	586
59			A	589
61			A - Susp. Joint	590
65			A	592
68			A	594
71			A	597

CFM INCORPORATED
628 ROUTE 10, WHIPPANY, NEW JERSEY

INTERNAL INSPECTION LOG

SHEET 2 OF 2

DATE	TIME	WEATHER	JOB No.	MUNICIPALITY
7/22/83	2 pm	CLEAR - 78°		CLIFTON

VIDEO TAPE	INDEX	SUB-AREA	MINI-SYST	STREET
TV-16-4	597			GIVAUDAN

PIPE SIZE	MATERIAL	LENGTH	FLOW (GPD)	JNT.-SPACING	MH MAT.
10"	VCP	164'		3'	

~~MH No.~~ C.O. 11-12 — DEPTH

FLOW DIRECTION →
CAMERA DIRECTION →

MH No. 11-11 — DEPTH

DISTANCE FROM MH No. ____ OR STATION	RADIAL LOCATION (4 1 / 3 2)	ESTIMATED LEAKAGE RATE (GPM)	DESCRIPTION OF DEFECTS AND COMMENTS	VIDEO INDEX OR PHOTO No. 597
74			A	598
77			A - Low Spot (2" water)	600
80	2-3		A - Minor or Shear Crack	604
81	1-4		Serv. Conn - Minor Cracks - Wet	607
83	4-1		Serv. Conn - Dry - Minor Cracks - A	609
94			A	616
97			A	618
100	1-2-3-4		Fractured Pipe - Low Spot	621
107			A - Coming up out of LS	625
109	4-1		Conn. at Crown - Minor Cracks - Dry	629
110	4-1		Minor Cracks at Crown - A	630
111			Serv. Conn at Crown - Dry	634
118			A	638
121	3-4		A - Spiral Crack	641
125			A	644
134	1-4		Fractured Pipe - Serv. Conn. Dry	650
136	1-2		Serv. Conn. At Crown - Spiral Cracks	654
147	1-2-4		Fractured Pipe	662
150			A	665
156			A	668
160			A - Serv. Conn. Dry	671
164			End M-H 11	676

CFM INCORPORATED
628 ROUTE 10, WHIPPANY, NEW JERSEY

INTERNAL INSPECTION LOG

SHEET 1 OF 1

DATE	TIME	WEATHER	JOB No.	MUNICIPALITY
7/25/83	2:55 PM	Clear – 80's	106	Clifton

VIDEO TAPE	INDEX	SUB-AREA	MINI-SYST	STREET
TV-16-5	339			Givaudan

PIPE SIZE	MATERIAL	LENGTH	FLOW (GPD)	JNT.-SPACING	MH MAT.
18" + 12"	V.C.P.	63'			

MH No. 11-13 — FLOW DIRECTION → / CAMERA DIRECTION → — MH No. 11-11

DEPTH: — DEPTH:

DISTANCE FROM MH No. ____ OR STATION	RADIAL LOCATION (4 1 / 3 2)	ESTIMATED LEAKAGE RATE (GPM)	DESCRIPTION OF DEFECTS AND COMMENTS		VIDEO INDEX OR PHOTO No. 339
3			A	18" VCP.	344
5	3		Shear Crack – A.		348
10			A –		355
12	1-2		Shear Crack		357
14			Size Changes to 12" VCP.		365
–			Change Skid from 18" to 12"		
16			Susp Joint	12"	370
20			" " – A –		374
23			Susp. Joint		380
29			Changes back to 18" Clay Pipe		385
30	2-3		Minor Crack – Base	18"	389
33	4-1 3-2		Ln. Crack – Crown & Base		393
34	3-2		Ln. Crack		398
36	3-2		A – Ln. Crack Continues		401
46			Low Spot – (5" Deep) Mineral Deposits		409
63			End M.H. #11-11		424

Comments: Heavy Mineral Deposits –
18" VCP 14'
12" VCP. 15'
18" VCP. 34'
Finish Time – 3:25 PM.

CFM INCORPORATED
628 ROUTE 10, WHIPPANY, NEW JERSEY

INTERNAL INSPECTION LOG

SHEET 1 OF 1

DATE	TIME	WEATHER	JOB No.	MUNICIPALITY
7/19/83	0905	O.C. 90°	106	CLIFTON

VIDEO TAPE	INDEX	SUB-AREA	MINI-SYST	STREET
TV16-1	671			GIVAUDAN CORP

PIPE SIZE	MATERIAL	LENGTH	FLOW (GPD)	JNT.-SPACING	MH MAT.
10"	VCP	46'		3'	BLOCK

MH No. 11-14 — FLOW DIRECTION → — CAMERA DIRECTION → — MH No. 11-13

DEPTH: — DEPTH:

DISTANCE FROM MH No. 11-14 OR STATION	RADIAL LOCATION (4 1 / 3 2)	ESTIMATED LEAKAGE RATE (GPM)	DESCRIPTION OF DEFECTS AND COMMENTS	VIDEO INDEX OR PHOTO No.
5			SUSP. JOINT (OPEN)	675
9			MIS. "	677
11			" "	679
14			" "	681
17			" "	682
20			" " ; SUSP. (DEPOSITS, OPEN)	684
23			SUSP. JOINT (DEPOSITS)	691
32			OPEN JOINT	695
35			MIS. "	696
39	4-1		MULTIPLE CRACKS	700
41	CROWN		MIS. JOINT LINEAR CRACK	701
46			MANHOLE 11-13	706

CFM INCORPORATED
628 ROUTE 10, WHIPPANY, NEW JERSEY

INTERNAL INSPECTION LOG

SHEET 1 OF 1

DATE	TIME	WEATHER	JOB No.	MUNICIPALITY
7/18/83	1700	P.C. 90°	106	CLIFTON

VIDEO TAPE	INDEX	SUB-AREA	MINI-SYST	STREET
TV16-1	613			GIVAUDAN CORP.

PIPE SIZE	MATERIAL	LENGTH	FLOW (GPD)	JNT.-SPACING	MH MAT.
12"	VCP	66'		2'	BRICK

MH No. 11-15 — FLOW DIRECTION → — CAMERA DIRECTION → — MH No. 11-13

DEPTH: 11-15 | DEPTH: 11-13

DISTANCE FROM MH No. 11-15 OR STATION	RADIAL LOCATION (4 1 / 3 2)	ESTIMATED LEAKAGE RATE (GPM)	DESCRIPTION OF DEFECTS AND COMMENTS	VIDEO INDEX OR PHOTO No.
3	4-1		P.P. TAP DRY (PROTRUDES 1")	620
6	1		MIS. JOINT; SHEAR CRACK	624
12			" "	628
14			" "	630
18			" "	631
19			LOW SPOT W-1"	634
20			MIS JOINT	635
24	CROWN/4		LIN. CRACKS	640
26	"		MIS. JOINT; PPT-DRY; CONTINUE L.C.	643
28			END CRACKS	647
34			END LOW SPOT	650
36			MIS. JOINT	652
38			" " LOW SPOT W=1"	653
42			" "	657
60	1		MIS JOINT SPIRAL CRACK	668
66			MANHOLE 11-13	670
			ADD'L NOTES 8-8-83 2.	
09			PIPE HAS IRREGULAR SHAPE, POS-	625
			SIBLY ON VERGE OF COLLAPSE	
21			END EGG-SHAPED PIPE. 2	636

CFM INCORPORATED
628 ROUTE 10, WHIPPANY, NEW JERSEY

INTERNAL INSPECTION LOG

SHEET 1 OF 1

DATE	TIME	WEATHER	JOB No.	MUNICIPALITY
7/18/83	1645	P.C 94°	106	CLIFTON

VIDEO TAPE	INDEX	SUB-AREA	MINI-SYST	STREET
TV16-1	590			GIVAUDAN CORP

PIPE SIZE	MATERIAL	LENGTH	FLOW (GPD)	JNT.-SPACING	MH MAT.
~~10~~ 12"	VCP	22'			BRICK

MH No. 11-16 — FLOW DIRECTION → — CAMERA DIRECTION → — MH No. 11-15

DEPTH: | DEPTH:

DISTANCE FROM MH No. 16 OR STATION	RADIAL LOCATION (4 1 / 3 2)	ESTIMATED LEAKAGE RATE (GPM)	DESCRIPTION OF DEFECTS AND COMMENTS	VIDEO INDEX OR PHOTO No.
9			MIS. JOINT BDD	597
13	1-2		SHEAR CRACK ✓	601
16			MIS. JOINT	605
19	1-2		" " SHEAR CRACK	609
20	2		SPIRAL CRACK MIS. JOINT	610
21	1		" "	611
22			MANHOLE 11-15	612

CFM INCORPORATED
628 ROUTE 10, WHIPPANY, NEW JERSEY

INTERNAL INSPECTION LOG

SHEET 1 OF 7

DATE	TIME	WEATHER	JOB No.	MUNICIPALITY
7/25/83	8:35 AM	Cloudy - 70's	106	CLIFTON

VIDEO TAPE	INDEX	SUB-AREA	MINI-SYST	STREET
TV-16-5	169			GIVAUDAN

PIPE SIZE	MATERIAL	LENGTH	FLOW (GPD)	JNT.-SPACING	MH MAT.
8"	VCP	67'		5'	

MH No. 11-16 — FLOW DIRECTION ← — CAMERA DIRECTION ← — MH No. 11-18

DEPTH: | DEPTH:

DISTANCE FROM MH No. 11-16 OR STATION	RADIAL LOCATION (4 1 / 3 2)	ESTIMATED LEAKAGE RATE (GPM)	DESCRIPTION OF DEFECTS AND COMMENTS	VIDEO INDEX OR PHOTO No. 169
6			A - Susp. Joint	179
11			Susp. Joint	188
16	3		Shear Crack - A - Susp. Joint	199
21			A - Susp. Joint	205
27			A - Susp. Joint	212
31			Susp. Joint	219
36			A - Susp. Joint	226
42	4-1-2		A - Spiral Crack - Susp. J.	238
46	3-2		A - Susp. J. - Minor Cracks	248
51			Susp. Joint	257
62			Susp. Joint	276
66			Susp. Joint	282
67			Bend - Camera Won't go Thru. '45'	288

CFM INCORPORATED
628 ROUTE 10, WHIPPANY, NEW JERSEY

INTERNAL INSPECTION LOG

SHEET 1 OF 1

DATE	TIME	WEATHER	JOB No.	MUNICIPALITY
7/25/83	12 noon	Cloudy 70's	106	Clifton

VIDEO TAPE	INDEX	SUB-AREA	MINI-SYST	STREET
TV-16-5	288			Givaudan

PIPE SIZE	MATERIAL	LENGTH	FLOW (GPD)	JNT.-SPACING	MH MAT.
8"	V.C.P.	16'		3'	

MH No.	FLOW DIRECTION	MH No.
11-16	←	11-18
DEPTH	CAMERA DIRECTION →	DEPTH
	Reverse	

DISTANCE FROM MH No. ____ OR STATION	RADIAL LOCATION (4 1 / 3 2)	ESTIMATED LEAKAGE RATE (GPM)	DESCRIPTION OF DEFECTS AND COMMENTS	VIDEO INDEX OR PHOTO No. ~~288~~
16			A -	295
11	4-1		A - Susp. Joint-Lin Cracks	302
13			A - Susp. Joint-	305
15	4-1		Linear Cracks-Spiral Cracks-Hole in Crown	307
16			Bend in Pipe-Camera Can't go	310
			12:15 P.M. Finished	

CFM INCORPORATED
628 ROUTE 10, WHIPPANY, NEW JERSEY

INTERNAL INSPECTION LOG

SHEET 1 OF 1

DATE	TIME	WEATHER	JOB No.	MUNICIPALITY
7/28/83	5:05PM	HHH		GIVANDAN

VIDEO TAPE	INDEX	SUB-AREA	MINI-SYST	STREET
TV16-5	641			

PIPE SIZE	MATERIAL	LENGTH	FLOW (GPD)	JNT.-SPACING	MH MAT.
18"	VCP	235'		31	

MH No. 12 — FLOW DIRECTION → — CAMERA DIRECTION → — MH No. 11

DEPTH: 12 | DEPTH: 11

DISTANCE FROM MH No. ____ OR STATION	RADIAL LOCATION (4 1 / 3 2)	ESTIMATED LEAKAGE RATE (GPM)	DESCRIPTION OF DEFECTS AND COMMENTS	VIDEO INDEX OR PHOTO No.
				(641)
20			SUS MIS JT	13 (653)
32			" " "	22 (662)
38			mis jt.	27 (668)
56			mis jt.	42 (683)
62			mis jt	47 (688)
68			mis jt	51 (692)
108	14		MISSING PIPE CROWN; SPIRAL CRACK	76 (718)
110			SUS MIS JT	82 (722)
113			" " "	84 (725)
116			MIS JT	86 (727)
122			SUS JT	90 (730)
161	1		MINOR CRACK	111 (752)
180			SUS MIS JT	122 (763)
207			COMING OUT OF LOW SPOT	(779)
235			MH	(796)

GIL
U.P.
5-17-83

CFM INCORPORATED
628 ROUTE 10, WHIPPANY, NEW JERSEY

INTERNAL INSPECTION LOG

SHEET 1 OF 1

DATE	TIME	WEATHER	JOB No.	MUNICIPALITY
7/29/83	8:30 AM	Clear 90's	106	Clifton

VIDEO TAPE	INDEX	SUB-AREA	MINI-SYST	STREET
TV-16-6	000			Givaudan

PIPE SIZE	MATERIAL	LENGTH	FLOW (GPD)	JNT.-SPACING	MH MAT.
18"	V.C.P.	38'		3'	

MH No. MH13 — FLOW DIRECTION → / CAMERA DIRECTION → — MH No. 12

DEPTH: — DEPTH:

DISTANCE FROM MH No. ____ OR STATION	RADIAL LOCATION (4 1 / 3 2)	ESTIMATED LEAKAGE RATE (GPM)	DESCRIPTION OF DEFECTS AND COMMENTS	VIDEO INDEX OR PHOTO No.
3			Susp. Joint - Misaligned	008
8	4-1		Mis. Joint - Minor Crack in Crown	017
14			Misaligned Joint	021
17			Misaligned Joint	030
20			Misaligned + Susp. Joint	034
23			Misaligned Joint	038
26			Misaligned Joint	042
29			Misaligned Joint	046
38			M-H12 - End	057

CFM INCORPORATED
P.O. BOX 584 FAR HILLS, N.J. 07931 (201) 234-0234

INTERNAL INSPECTION LOG

SHEET 1 OF 2

DATE	TIME	WEATHER	JOB No.	MUNICIPALITY
9/3/83		HUMID 85°		CLIFTON

VIDEO TAPE	INDEX	SUB-AREA	MINI-SYST	STREET
TV16-1A	000			GIVAUDAN-BLDGS 72,67,50

PIPE SIZE	MATERIAL	LENGTH	FLOW (GPD)	JNT.-SPACING	MH MAT.
12"	VCP	170'		5'	

MH No. 13-1 — FLOW DIRECTION → / CAMERA DIRECTION → — MH No. 13

DEPTH: — DEPTH:

DISTANCE FROM MH No. 13-1 OR STATION	RADIAL LOCATION (4 1 / 3 2)	ESTIMATED LEAKAGE RATE (GPM)	DESCRIPTION OF DEFECTS AND COMMENTS	VIDEO INDEX OR PHOTO No.
6			MIS JOINT	020
11			" "	034
16			SUSP JOINT (OPEN)	041
21			MIS "	047
26			SUSP "	057
31			" "	
36			MIS "	063
41			OPEN JOINT	066
46			" "	073
51			MIS "	075
56	1		MINOR CRACK	080
61			OPEN JOINT	089
66			MIS JOINT	094
68			DIRT BUILD-UP IN PIPE	100
71			MIS JOINT	101
76			" "	106
81			SUSP JOINT (OPEN)	111
86			MIS "	117
91			SUSP "	124
96			MIS "	128
101			MIS "	135
106	4/3 1/2		MINOR CR 3/4 SPIRAL CR. 4/2	148
111			MIS JOINT	
116			" "	155

CFM INCORPORATED

P.O. BOX 584 FAR HILLS, N.J. 07931 (201) 234-0234

INTERNAL INSPECTION LOG

SHEET 2 OF 2.

DATE	TIME	WEATHER	JOB No.	MUNICIPALITY
9/3/83		HUMID 85°		CLIFTON

VIDEO TAPE	INDEX	SUB-AREA	MINI-SYST	STREET
TV16-1A	155			GIVAUDAN-BLDGS 72,67,50

PIPE SIZE	MATERIAL	LENGTH	FLOW (GPD)	JNT.-SPACING	MH MAT.
12"	VCP	170'		5'	

MH No. 13-1 — FLOW DIRECTION → — CAMERA DIRECTION → — MH No. 13

DEPTH: | DEPTH:

DISTANCE FROM MH No. 13-1 OR STATION	RADIAL LOCATION (4 1 / 3 2)	ESTIMATED LEAKAGE RATE (GPM)	DESCRIPTION OF DEFECTS AND COMMENTS	VIDEO INDEX OR PHOTO No.
121			MIS JOINT	160
126			" " ; LOW SPOT	164
131			" "	168
136			SUSP JOINT (OPEN)	174
141			" "	177
144			MIS "	182
154			" "	186
164			" "	196
170			MANHOLE 13	202

[illegible] 8-17-83

X

CFM INCORPORATED
628 ROUTE 10, WHIPPANY, NEW JERSEY

INTERNAL INSPECTION LOG

SHEET ____ OF ____

DATE	TIME	WEATHER	JOB No.	MUNICIPALITY
7/29/83	1:00PM	HHH		GIVAUDAN

VIDEO TAPE	INDEX	SUB-AREA	MINI-SYST	STREET
TV16-6	64			

PIPE SIZE	MATERIAL	LENGTH	FLOW (GPD)	JNT.-SPACING	MH MAT.
18"	VCP	26 ft.		2'	

MH No. 13-3 — FLOW DIRECTION → — CAMERA DIRECTION → — MH No. 13-2

DEPTH ____ DEPTH ____

DISTANCE FROM MH No. ____ OR STATION	RADIAL LOCATION (4 1 / 3 2)	ESTIMATED LEAKAGE RATE (GPM)	DESCRIPTION OF DEFECTS AND COMMENTS	VIDEO INDEX OR PHOTO No.
4	1234		FRACTURED	64
5			MIS JT CRACK	68
7	1234		Right side and Left side LINEAR CRACK — MIS. J	72
9	3-1-4		LINEAR CRACK ON Left CONTINUES LINEAR CRACK ON Right SHEAR CRACK Ends	75
11			LINEAR CRACKS CONTINUE MIS JT SHEAR CRACK CROWN	82
13			MIS JT CRACK CONTINUES	86
15			MIS JT FRACTURED PIPE	90
21	1234		CRACK CONT. SPIRAL CRACK MIS JT SHEAR CRACK	100
23	1-2		SPIRAL CRACK	104
26			CRACKS END @ MH	109
			17 FT - LINEAR CRACKS CONTINUE	
			PLOTTED on PLANE - AREA to SMALL	
			to get in ALL THE PROBLEM AREA	
			G.P.	

4

CFM INCORPORATED
628 ROUTE 10, WHIPPANY, NEW JERSEY

INTERNAL INSPECTION LOG

SHEET 1 OF 2

DATE	TIME	WEATHER	JOB No.	MUNICIPALITY
7/21/83	3:00 PM	CLEAR - 90's		CLIFTON

VIDEO TAPE	INDEX	SUB-AREA	MINI-SYST	STREET
TV-16-4	180			GIVAUDAN

PIPE SIZE	MATERIAL	LENGTH	FLOW (GPD)	JNT.-SPACING	MH MAT.
8"	VCP.	43'		5'	

CONC MH No. 13-4 — FLOW DIRECTION → — CAMERA DIRECTION → — MH No. 13-3

DEPTH: | DEPTH:

DISTANCE FROM MH No. ____ OR STATION	RADIAL LOCATION (4 1 / 3 2)	ESTIMATED LEAKAGE RATE (GPM)	DESCRIPTION OF DEFECTS AND COMMENTS	VIDEO INDEX OR PHOTO No. 180
✓ 7			A - Susp. Joint	191
✓ 11			Low Spot (2" of Water)	196
✓ 12			A - Joint	198
✓ 17			A - Joint	204
✓ 32			A - Susp J.	219
✓ 37			A -	224
✓ 40	1-2-3-4		Spiral Crack - Completely Around	228
✓ 42			A - Bend	233
43			Partially into Bend	238
			8" Skid would not make Turn.	
			See Sheet 2/2 for	
			Reverse	

CFM INCORPORATED
628 ROUTE 10, WHIPPANY, NEW JERSEY

INTERNAL INSPECTION LOG

SHEET 2 OF 2

DATE	TIME	WEATHER	JOB No.	MUNICIPALITY
7/21/83	5 P.M.	Clear 90's		Clifton

VIDEO TAPE	INDEX	SUB-AREA	MINI-SYST	STREET
TV-16-4	263			Gavaudan

PIPE SIZE	MATERIAL	LENGTH	FLOW (GPD)	JNT.-SPACING	MH MAT.
8"	VCP	14'		5'	

MH No. 13-3 — DEPTH

FLOW DIRECTION ←
CAMERA DIRECTION →
Reverse

MH No. Conc. 13-4 — DEPTH

DISTANCE FROM MH No. ____ OR STATION	RADIAL LOCATION (4 1 / 3 2)	ESTIMATED LEAKAGE RATE (GPM)	DESCRIPTION OF DEFECTS AND COMMENTS	VIDEO INDEX OR PHOTO No. 263
✓ 14'			Bend	282
			See Sheet 1/2	
			Video 180 To 238	

CFM INCORPORATED
628 ROUTE 10, WHIPPANY, NEW JERSEY

INTERNAL INSPECTION LOG

SHEET 2 OF 2

DATE	TIME	WEATHER	JOB No.	MUNICIPALITY
7/21/83	3:15 P.M.	Clear - 90°		Clifton

VIDEO TAPE	INDEX	SUB-AREA	MINI-SYST	STREET
TV-16-4	110			Givaudan

PIPE SIZE	MATERIAL	LENGTH	FLOW (GPD)	JNT.-SPACING	MH MAT.
8"	VCP.	49'		4'	Brick

CONC. MH No. 13-4 — FLOW DIRECTION ← — CAMERA DIRECTION → Reverse — MH No. 13-7

DEPTH: | DEPTH:

DISTANCE FROM MH No. _____ OR STATION	RADIAL LOCATION (4 1 / 3 2)	ESTIMATED LEAKAGE RATE (GPM)	DESCRIPTION OF DEFECTS AND COMMENTS	VIDEO INDEX OR PHOTO No.
			8" Skid	110
✓ 7			Susp J - A	129
✓ 12	4-1		SH Crack - Crown	136
17			Susp. J	142
22			" "	148
36			" "	162
42			A - Susp. J.	169
46			Susp. J.	173
49			Bend - See Sheet 1/2	180

CFM INCORPORATED
628 ROUTE 10, WHIPPANY, NEW JERSEY

INTERNAL INSPECTION LOG

SHEET 1 OF 2

DATE	TIME	WEATHER	JOB No.	MUNICIPALITY
7/21/83	2:55 p.m.	CLEAR - 90°		CLIFTON

VIDEO TAPE	INDEX	SUB-AREA	MINI-SYST	STREET
TV-16-4	098			GIVAUDAN

PIPE SIZE	MATERIAL	LENGTH	FLOW (GPD)	JNT.-SPACING	MH MAT.
8"	VCP	4'			BRICK

MH No. 13-7 — FLOW DIRECTION → — CAMERA DIRECTION → — MH No. 13-4

DEPTH: 8" SKID — DEPTH

DISTANCE FROM MH No. ____ OR STATION	RADIAL LOCATION (4 1 / 3 2)	ESTIMATED LEAKAGE RATE (GPM)	DESCRIPTION OF DEFECTS AND COMMENTS	VIDEO INDEX OR PHOTO No.
14			Bend in Line to the Left - Susp J	110
16			8" Camera Skid would not Go around bend. Reset for Reverse - See Sheet 2/2	116

CFM INCORPORATED
628 ROUTE 10, WHIPPANY, NEW JERSEY

INTERNAL INSPECTION LOG

SHEET 1 OF 1

DATE	TIME	WEATHER	JOB No.	MUNICIPALITY
7/21/83	3:55 PM	Clear - 90's°		Clifton

VIDEO TAPE	INDEX	SUB-AREA	MINI-SYST	STREET
TV-16-4	238			Givaudan

PIPE SIZE	MATERIAL	LENGTH	FLOW (GPD)	JNT.-SPACING	MH MAT.
8"	C.I.P.	14'			

conc. MH No. 13-4 — FLOW DIRECTION ← — CAMERA DIRECTION → — MH No. 13-5

DEPTH: Reverse

DISTANCE FROM MH No. ____ OR STATION	RADIAL LOCATION (4 1 / 3 2)	ESTIMATED LEAKAGE RATE (GPM)	DESCRIPTION OF DEFECTS AND COMMENTS	VIDEO INDEX OR PHOTO No. 238
14			M-H 13-5	263
			8" C.I.P. in Excellent Condition. Small Amount of Crustation	

CFM INCORPORATED
628 ROUTE 10, WHIPPANY, NEW JERSEY

INTERNAL INSPECTION LOG

SHEET 1 OF 1

DATE	TIME	WEATHER	JOB No.	MUNICIPALITY
7/20/83	9:30	Clear 85°		Clifton

VIDEO TAPE	INDEX	SUB-AREA	MINI-SYST	STREET
TV-16-2	223			GIVAUDAN

PIPE SIZE	MATERIAL	LENGTH	FLOW (GPD)	JNT.-SPACING	MH MAT.
8"	CI & VCP.	37'		?	

MH No. 13-8 — FLOW DIRECTION → — MH No. 13-7
CAMERA DIRECTION ←
DEPTH — DEPTH

Reverse Set-up

DISTANCE FROM MH No. 13-7 OR STATION	RADIAL LOCATION (4 1 / 3 2)	ESTIMATED LEAKAGE RATE (GPM)	DESCRIPTION OF DEFECTS AND COMMENTS 8" Sled 8" CI	VIDEO INDEX OR PHOTO No. 223
12			Change from C.I to 8" VCP	237
16			Susp Joint - Wide Joint OPW	241
16			Decay Around Joint	244
25			Susp Joint - Wide Joint	259
36	3		Short Crack	271
37			M-H 13-7 (37')	276

CFM INCORPORATED
628 ROUTE 10, WHIPPANY, NEW JERSEY

INTERNAL INSPECTION LOG

SHEET 1 OF 1

6" Skid

DATE	TIME	WEATHER	JOB No.	MUNICIPALITY
7/20/83	9:45	Clear 55°		Clifton

VIDEO TAPE	INDEX	SUB-AREA	MINI-SYST	STREET
TV-16-2	176			Givan Ave

PIPE SIZE	MATERIAL	LENGTH	FLOW (GPD)	JNT.-SPACING	MH MAT.
8" to 6"	VPC CIP	36'		12' C.I. - 2' VPC	

MH No. 13-8 → FLOW DIRECTION → MH No. 13-9

CAMERA DIRECTION ←

DEPTH: | DEPTH:

Reverse Set-up

DISTANCE FROM MH No. 13-8 OR STATION	RADIAL LOCATION (4 1 / 3 2)	ESTIMATED LEAKAGE RATE (GPM)	DESCRIPTION OF DEFECTS AND COMMENTS	VIDEO INDEX OR PHOTO No.
6			Change from 8" to 6" CIP	286
19			Joint	327
21			Change to 6" VPC	360
31	1		Susp. J. & Shear Crack	360
32	1		Shear Crack	363
34			Susp. Joint	370
36			MH 13-9	375

X

CFM INCORPORATED
628 ROUTE 10, WHIPPANY, NEW JERSEY

INTERNAL INSPECTION LOG

SHEET 1 OF 2

DATE	TIME	WEATHER	JOB No.	MUNICIPALITY
7/20/83	11:30	Clear 87°		CLIFTON

VIDEO TAPE	INDEX	SUB-AREA	MINI-SYST	STREET
TV-16-2	375			GIVAUDAN

PIPE SIZE	MATERIAL	LENGTH	FLOW (GPD)	JNT.-SPACING	MH MAT.
6"	C.I. & VCP	216'		6' VCP	

MH No. 13-11 — FLOW DIRECTION → — CAMERA DIRECTION → — MH No. 13-7

DEPTH: | DEPTH:

DISTANCE FROM MH No. _____ OR STATION	RADIAL LOCATION (4 1 / 3 2)	ESTIMATED LEAKAGE RATE (GPM)	DESCRIPTION OF DEFECTS AND COMMENTS	VIDEO INDEX OR PHOTO No.
22			Joint - Heavy Crust	425
42			Possible Joint - Heavy Crust	451
52			" " " "	467
57	4-1		Sheer Crack - 6" CI to 6" VCP	480
58			Low Spot	485
62			6" VCP back to 6" C.I. out of low spot	496
72			Possible Joint	518
80			" "	530
97			" "	569
110			" "	594
113			Low Spot	603
118			Out of Low Spot	610
130			Low Spot	632
143			Possible Joint	653
160			Low Spot	687
166			Out of Low Spot	697
168			Possible Joint	697
173			" "	705
183			" "	719
193			" "	733
198	4-1		Sheer Crack - Change to 6" VCP	742
200			Misaligned Joint	
207	V		Cracked Joint	750
				752

CFM INCORPORATED
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INTERNAL INSPECTION LOG

SHEET 1 OF 2

DATE	TIME	WEATHER	JOB No.	MUNICIPALITY
7/20/83	11:30	Clear 87°		Clifton

VIDEO TAPE	INDEX	SUB-AREA	MINI-SYST	STREET
TV-16-2	754			Givaudan

PIPE SIZE	MATERIAL	LENGTH	FLOW (GPD)	JNT.-SPACING	MH MAT.
6"	C.I. + VCP	216			

MH No. 13-11 — FLOW DIRECTION → / CAMERA DIRECTION → — MH No. 3-7

DEPTH: — DEPTH:

DISTANCE FROM MH No. ____ OR STATION	RADIAL LOCATION (4 1 / 3 2)	ESTIMATED LEAKAGE RATE (GPM)	DESCRIPTION OF DEFECTS AND COMMENTS	VIDEO INDEX OR PHOTO No.
204			Misaligned Joint Susp Joint	754
206	1-2		Shear Crack	757
210	1-2		Mis Joint - Pipe Drops - Shear	767
213	2-3		Mis Joint - Shear Crack	770
216			MH. 13-7	778
			ADD'L NOTES 8-9-83	
			FIRST 70' - AUDIO PORTION	
			EITHER VERY FAINT OR INAU-	
			DIBLE.	

C.P. 8-17-83

CFM INCORPORATED
628 ROUTE 10, WHIPPANY, NEW JERSEY

INTERNAL INSPECTION LOG

SHEET 1 OF 1

DATE	TIME	WEATHER	JOB No.	MUNICIPALITY
7/21/83	7:35 A.M.	Clear 80°		Clifton

VIDEO TAPE	INDEX	SUB-AREA	MINI-SYST	STREET
TV-16-3	633			Givaudan

PIPE SIZE	MATERIAL	LENGTH	FLOW (GPD)	JNT.-SPACING	MH MAT.
6"	C.I.P.	35'		10'	

Conc. MH No. 13-12 → FLOW DIRECTION → CAMERA DIRECTION → MH No. 13-11

DEPTH: | DEPTH:

DISTANCE FROM MH No. 13-12 OR STATION	RADIAL LOCATION (4 1 / 3 2)	ESTIMATED LEAKAGE RATE (GPM)	DESCRIPTION OF DEFECTS AND COMMENTS	VIDEO INDEX OR PHOTO No. 633
✓ 31			Joint	683
✓ 35			M.H 13-11	693

Comments:
Minor crustation in C.I. pipe. Showed one joint at 31' to prove lengths were 10' sections
C.P.

o.k. a.p. 5-17-53

CFM INCORPORATED
628 ROUTE 10, WHIPPANY, NEW JERSEY

INTERNAL INSPECTION LOG

SHEET 1 OF 2

DATE	TIME	WEATHER	JOB No.	MUNICIPALITY
7/21/83	12:10 p.m.	Clear 90°		Clifton

VIDEO TAPE	INDEX	SUB-AREA	MINI-SYST	STREET
TV-16-3 TV-16-4	816			Givaudan

PIPE SIZE	MATERIAL	LENGTH	FLOW (GPD)	JNT.-SPACING	MH MAT.
6"	VCP.	37'		3'	

MH No. 13-14 — FLOW DIRECTION → / CAMERA DIRECTION → — MH No. 13-11

DEPTH: — DEPTH:

DISTANCE FROM MH No. ____ OR STATION	RADIAL LOCATION (4 1 / 3 2)	ESTIMATED LEAKAGE RATE (GPM)	DESCRIPTION OF DEFECTS AND COMMENTS	VIDEO INDEX OR PHOTO No. 816
✓ 3			A. - Susp. J.	825
✓ 7	1-2		A - Minor Cracks - Right Side	832
✓ 8	1-2		" " Right Side	837
✓ 10			Susp. Joint	841
✓ 13			Mis-Joint	845
✓ 16			Susp. Joint	850
✓ 22			Mis Joint — Susp. Joint	858
✓ 28			Susp. Joint	870
✓ 31			" "	875
—			End of Tape 3	875
			Continued on Tape 4	000
✓ 34			Bad offset Joint	022
✓ 36			Low Spot (Bad)	0-28
✓ 36			Broken Pipe	037
			Pulling back and Setting up	
			for Reverse. 12:25 p.m.	
			See Sheet 2/2 for continuing	
			Portion of Tape #4	

CFM INCORPORATED
628 ROUTE 10, WHIPPANY, NEW JERSEY

INTERNAL INSPECTION LOG

SHEET 2 OF 2

DATE	TIME	WEATHER	JOB No.	MUNICIPALITY
7/21/83	1:15	CLEAR 90°		CLIFTON

VIDEO TAPE	INDEX	SUB-AREA	MINI-SYST	STREET
TV-16-4	037			GIVAUDAN

PIPE SIZE	MATERIAL	LENGTH	FLOW (GPD)	JNT.-SPACING	MH MAT.
6"	C.I.P. VCP.	16'		3' VCP.	

MH No. 13-11 — FLOW DIRECTION ← — CAMERA DIRECTION → — MH No. 13-14

DEPTH: Reverse

DISTANCE FROM MH No. ____ OR STATION	RADIAL LOCATION (4 1 / 3 2)	ESTIMATED LEAKAGE RATE (GPM)	DESCRIPTION OF DEFECTS AND COMMENTS	VIDEO INDEX OR PHOTO No. 037
✓ 8			CHANGES from 6" C.I to 6" VCP	067
✓ 9	1-2		A-Susp J. - CRACK on Right	075
12	4		CRACK on Left Side - LINEAR	086
✓ 16			BROKEN Pipe:	098
			Couldn't go ANY FURTHER	

ck printed O.K. a.p. 8-17-83

CFM INCORPORATED
628 ROUTE 10, WHIPPANY, NEW JERSEY

INTERNAL INSPECTION LOG

SHEET 1 OF 1

DATE	TIME	WEATHER	JOB No.	MUNICIPALITY
7/21/83	8:50 AM	Clear - 85°		Clifton

VIDEO TAPE	INDEX	SUB-AREA	MINI-SYST	STREET
TV-16-3	693			Givaudan

PIPE SIZE	MATERIAL	LENGTH	FLOW (GPD)	JNT.-SPACING	MH MAT.
6"	C.I.P. Lead Joints	27'		5'	

Tile MH No. 13-13 — FLOW DIRECTION → — CAMERA DIRECTION ← Reverse — MH No. Conc. 13-12

DEPTH: — DEPTH:

DISTANCE FROM MH No. 13-12 OR STATION	RADIAL LOCATION (4 1 / 3 2)	ESTIMATED LEAKAGE RATE (GPM)	DESCRIPTION OF DEFECTS AND COMMENTS	VIDEO INDEX OR PHOTO No. 693
✓ 27			M-H. 13-13	752
18			Joint	
			Comments: Moderate crustation inside 6" C.I.P. - Looks like 5' Lengths	
			Manhole 13-13 was made with VCP. Manhole 13-12 is Poured Conc. a.p.	

O.K. P. 8-17-83

CFM INCORPORATED
628 ROUTE 10, WHIPPANY, NEW JERSEY

INTERNAL INSPECTION LOG

SHEET 1 OF 1

DATE	TIME	WEATHER	JOB No.	MUNICIPALITY
7/21/83	start 9:50 A.M.	Clear 87°		Clifton

VIDEO TAPE	INDEX	SUB-AREA	MINI-SYST	STREET
TV-16-3	752			Givaudan

PIPE SIZE	MATERIAL	LENGTH	FLOW (GPD)	JNT.-SPACING	MH MAT.
6"	VCP	59		2'	Conc.

MH No. 13-15 — FLOW DIRECTION → — CAMERA DIRECTION → — MH No. 13-14

DEPTH 30" — 6" Skid — DEPTH

DISTANCE FROM MH No. 13-15 OR STATION	RADIAL LOCATION (4 1 / 3 2)	ESTIMATED LEAKAGE RATE (GPM)	DESCRIPTION OF DEFECTS AND COMMENTS	VIDEO INDEX OR PHOTO No.
5			Susp. J	758
8			" " Heavy Deposits	762
10	2		Shear Crack	764
16	2		Shear Crack	770
21	3-4		Minor "	776
23			S. Susp. Joint	778
29	4		Minor Crack	785
44	1-4		Mis. Joint - Minor Crack	800
59			MH 13-14 at 59'	816
			Comments: 6" Skid	
			Riding on Left Side	
			of Pipe. Toward End 6"	
			from M-H 13-14 to 13-11, could not	
			Take the Excess water from pipe	
			with water Jet. - Pulled Camera	
			back and Reclenned. Started	
			Camera again at 11:30 A.M.	
			Finished - 11:45 A.M.	

Start 11:30 A.M.

CFM INCORPORATED
628 ROUTE 10, WHIPPANY, NEW JERSEY

INTERNAL INSPECTION LOG

SHEET 1 OF 1

DATE	TIME	WEATHER	JOB No.	MUNICIPALITY
7/27/83	8:15 a.m.	Clear - 70's	106	Clifton

VIDEO TAPE	INDEX	SUB-AREA	MINI-SYST	STREET
TV-16-5	521			Givaudan

PIPE SIZE	MATERIAL	LENGTH	FLOW (GPD)	JNT.-SPACING	MH MAT.
24" & 21"	V.C.P.	24" - 42' 21" - 13'		3'	

MH No. 14 — FLOW DIRECTION → — CAMERA DIRECTION → — MH No. 13

DEPTH: — DEPTH: —

DISTANCE FROM MH No. 14 OR STATION	RADIAL LOCATION (4 1 / 3 2)	ESTIMATED LEAKAGE RATE (GPM)	DESCRIPTION OF DEFECTS AND COMMENTS	VIDEO INDEX OR PHOTO No. 521
7			Slight Misalignment	530
29			" "	543
32			Susp. Joint	547
37			Susp. Joint - Misaligned Joint	551
42		= BEND	Susp. Joint - Misaligned - Pipe Size Change	554
—			Pipe Size Changes from 24" to 21"	—
44			Misaligned Joint	563
55			End at offset Y in MH 13	574

Comments:
Elbow in manhole at Joints
Leaking water to outside

24" VCP approx 42'
21" VCP approx 13'

CFM INCORPORATED
628 ROUTE 10, WHIPPANY, NEW JERSEY

INTERNAL INSPECTION LOG

SHEET 1 OF 1

DATE	TIME	WEATHER	JOB No.	MUNICIPALITY
7/18/83	1340	P.C. 90°	106	CLIFTON

VIDEO TAPE	INDEX	SUB-AREA	MINI-SYST	STREET
TV16-1	482			GIVAUDAN CORP.

PIPE SIZE	MATERIAL	LENGTH	FLOW (GPD)	JNT.-SPACING	MH MAT.
24"	VCP	140'		2'	BRICK

MH No. 15 — FLOW DIRECTION → — CAMERA DIRECTION → — MH No. 14

DEPTH — DEPTH

DISTANCE FROM MH No. 15 OR STATION	RADIAL LOCATION (4 1 / 3 2)	ESTIMATED LEAKAGE RATE (GPM)	DESCRIPTION OF DEFECTS AND COMMENTS	VIDEO INDEX OR PHOTO No.
50			SUSPECT JOINT (OPEN 1/2")	520
62			" " "	529
			AT 50' PIPE COLOR APPEARS	
			DARKER ABOVE WATER LINE IN-	
			DICATING POSSIBLE DECAY OR	
			DETERIORATION.	
90			DIP W=1 1/2"	551
112			MIS. JOINT	566
122			" "	575
140			MANHOLE 14	589

CFM INCORPORATED
628 ROUTE 10, WHIPPANY, NEW JERSEY

INTERNAL INSPECTION LOG

SHEET 1 OF 1

DATE	TIME	WEATHER	JOB No.	MUNICIPALITY
7/18/83	1245	P.C. 90°	106	CLIFTON

VIDEO TAPE	INDEX	SUB-AREA	MINI-SYST	STREET
TV16-1	439			GIVAUDAN CORP.

PIPE SIZE	MATERIAL	LENGTH	FLOW (GPD)	JNT.-SPACING	MH MAT.
24'	VCP	67'		3'	BLOCK

MH No. 16 — FLOW DIRECTION → — CAMERA DIRECTION → — MH No. 15

DEPTH: 16 — DEPTH: 15

DISTANCE FROM MH No. 16 OR STATION	RADIAL LOCATION (4 1 / 3 2)	ESTIMATED LEAKAGE RATE (GPM)	DESCRIPTION OF DEFECTS AND COMMENTS	VIDEO INDEX OR PHOTO No.
18	3		LINEAR CRACK (6 BOTTOM OF PIPE)	453
21	3		END " "	455
29			MIS. JOINT	460
67			MANHOLE 15	482

CFM INCORPORATED
628 ROUTE 10, WHIPPANY, NEW JERSEY

INTERNAL INSPECTION LOG

SHEET 1 OF 1

DATE	TIME	WEATHER	JOB No.	MUNICIPALITY
7/18/83	1220	P.C. 90°	106	CLIFTON

VIDEO TAPE	INDEX	SUB-AREA	MINI-SYST	STREET
TV16-1	402			GIVAUDAN CORP.

PIPE SIZE	MATERIAL	LENGTH	FLOW (GPD)	JNT.-SPACING	MH MAT.
18"	VCP	48'			BRICK

MH No. 17 — DEPTH

FLOW DIRECTION →
CAMERA DIRECTION →

MH No. 16 — DEPTH 5.0'

DISTANCE FROM MH No. 17 OR STATION	RADIAL LOCATION (4 1 / 3 2)	ESTIMATED LEAKAGE RATE (GPM)	DESCRIPTION OF DEFECTS AND COMMENTS	VIDEO INDEX OR PHOTO No.
40			MIS. JOINT	432
42	1		P.R.T. = 1½" DRY	433
48			MANHOLE 16	436

ok

CFM INCORPORATED
628 ROUTE 10, WHIPPANY, NEW JERSEY

INTERNAL INSPECTION LOG

SHEET 1 OF 1

DATE	TIME	WEATHER	JOB No.	MUNICIPALITY
7/22/83	10:40 AM	Clear - 70°		Clifton

VIDEO TAPE	INDEX	SUB-AREA	MINI-SYST	STREET
TV-16-4	459			Givaudan

PIPE SIZE	MATERIAL	LENGTH	FLOW (GPD)	JNT.-SPACING	MH MAT.
8"	VCP	62'		3'	

MH No. 17-1 — FLOW DIRECTION → — CAMERA DIRECTION → — MH No. 17

DEPTH: | DEPTH:

DISTANCE FROM MH No. ____ OR STATION	RADIAL LOCATION (4 1 / 3 2)	ESTIMATED LEAKAGE RATE (GPM)	DESCRIPTION OF DEFECTS AND COMMENTS	VIDEO INDEX OR PHOTO No. 459
5			Susp. Joint	466
8			A — Susp. Joint	471
14			Susp. Joint	479
17			A — Susp. Joint - Roots (Deposits?)	482
23			A — " " - Roots (Deposits)	490
26			Susp Joint (Deposits)	494
32			A —	500
36			A —	503
39			A — Susp. Joint	506
41			A — Susp. Joint	509
45			" "	512
48			A —	514
50			A — Susp. Joint	517
53			A — " "	520
57	2-3		Shear Crack	523
62			End - MH #17	528

A = Misaligned Joint

CFM INCORPORATED
628 ROUTE 10, WHIPPANY, NEW JERSEY

INTERNAL INSPECTION LOG

SHEET 1 OF 1

DATE	TIME	WEATHER	JOB No.	MUNICIPALITY
7/18/83	1125	P.C. 90°	106	CLIFTON

VIDEO TAPE	INDEX	SUB-AREA	MINI-SYST	STREET
TV16-1	305			GIVAUDAN CORP.

PIPE SIZE	MATERIAL	LENGTH	FLOW (GPD)	JNT.-SPACING	MH MAT.
18"	VCP	122'		2'	BRICK

MH No. 18 — DEPTH 4.4'

FLOW DIRECTION →
CAMERA DIRECTION →

MH No. 17 — DEPTH 4.8'

DISTANCE FROM MH No. 18 OR STATION	RADIAL LOCATION (4 1 / 3 2)	ESTIMATED LEAKAGE RATE (GPM)	DESCRIPTION OF DEFECTS AND COMMENTS	VIDEO INDEX OR PHOTO No.
20			DIP - W=1"	320
39			MIS. JOINT	335
65	4-1		LINEAR CRACK	352
67			END " "	356
80			MIS. JOINT	362
82	4-1		L.CRACK	365
87			DIP W=1½"	370
92			END CRACK	377
103			DIP W=2"	388
116			MIS JOINT.	398
117			END DIP	399
122			MANHOLE 17	401
			CONTRACTOR WAS UNABLE TO USE	
			18" SLED ON PIPE BECAUSE OF	
			PIPE BEND IN MH. VISIBILITY OF	
			PIPE CROWN WAS LESSENED BECAUSE	
			OF THIS.	

CFM INCORPORATED
628 ROUTE 10, WHIPPANY, NEW JERSEY

INTERNAL INSPECTION LOG

SHEET 1 OF 1

DATE	TIME	WEATHER	JOB No.	MUNICIPALITY
7/18/83	1055	CLEAR 90°	106	CLIFTON

VIDEO TAPE	INDEX	SUB-AREA	MINI-SYST	STREET
TV16-1	223			GIVAUDAN CORP.

PIPE SIZE	MATERIAL	LENGTH	FLOW (GPD)	JNT.-SPACING	MH MAT.
~~15"~~ 18"	VCP	86'		2'	BRICK

MH No. 19 — DEPTH 4.2'

FLOW DIRECTION →
CAMERA DIRECTION →

MH No. 18 — DEPTH ~~3.8~~ 4.4'

DISTANCE FROM MH No. 19 OR STATION	RADIAL LOCATION (4 1 / 3 2)	ESTIMATED LEAKAGE RATE (GPM)	DESCRIPTION OF DEFECTS AND COMMENTS	VIDEO INDEX OR PHOTO No.
3			MIS. JOINT	230
10			SUSP. JOINT } EVIDENCE OF INFIL-	236
12			" " TRATION	238
19			" " (MISALIGNED ALSO)	244
25			" "	249
30			MIS. JOINT	255
37			" "	262
50			" "	272
52			" "	275
56			" "	278
58			" " (ALSO-SLIGHT BEND AT-	280
64			" " JOINT)	285
70			" "	289
76			" "	294
86			MANHOLE 18	301

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INTERNAL INSPECTION LOG

SHEET 1 OF 2

DATE	TIME	WEATHER	JOB No.	MUNICIPALITY
9/3/83		HUMID 85°		CLIFTON

VIDEO TAPE	INDEX	SUB-AREA	MINI-SYST	STREET
TV16-1A	277			GIVAUDAN-EAST OF BLD. 32-28

PIPE SIZE	MATERIAL	LENGTH	FLOW (GPD)	JNT.-SPACING	MH MAT.
10"	VCP	128'		3'	

MH No. 19-1 — FLOW DIRECTION → — CAMERA DIRECTION → — MH No. 19

DEPTH: — DEPTH:

DISTANCE FROM MH No. 19-1 OR STATION	RADIAL LOCATION (4 1 / 3 2)	ESTIMATED LEAKAGE RATE (GPM)	DESCRIPTION OF DEFECTS AND COMMENTS	VIDEO INDEX OR PHOTO No.
03			MIS JOINT	284
10			" "	292
16	CROWN		MISSING PIPE (2"x2"); LIN. CRACK	298
17			END LIN. CR.	302
19	CROWN		MIS. JOINT; LIN. CR.	304
20	1		BROKEN PIPE (TAP) L. CRACK	311
21		DRIP	SADDLE CONN.	316
23	4		MIS. JOINT; POSS. CRACK	319
24			SADDLE CONN. DRY	322
27			OPEN JOINT	326
33			MIS. JOINT	333
35			SAG W = 3/4"	335
36			MIS. JOINT	337
37	CROWN		MISSING PIPE; FRAC. PIPE	339
39			END FRAC./CRUSHED PIPE	344
45	3, 2		SHEAR CRACKS	351
46	3-4-1		SPIRAL CRACK	353
47		DRY	OPEN JOINT; SAD. CONN w/ CRACK	356
49		DRY	SADDLE CONN.	361
53			SAG W = 1"	368
54	CROWN		HOLE IN PIPE W = 3"	370
72	CROWN	DRIP	P.P. TAP (2"); SPIRAL CRACK	388
74	CROWN	1/4	SADDLE CONN.	392
75	"	DRY	" "	397

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INTERNAL INSPECTION LOG

SHEET 2 OF 2

DATE	TIME	WEATHER	JOB No.	MUNICIPALITY
9/3/83		CLEAR 85°		CLIFTON

VIDEO TAPE	INDEX	SUB-AREA	MINI-SYST	STREET
	397			GIVAUDAN-EAST OF BLD 32-28

PIPE SIZE	MATERIAL	LENGTH	FLOW (GPD)	JNT.-SPACING	MH MAT.
10"	VCP	128'		3'	

MH No. 19-1 — FLOW DIRECTION → — CAMERA DIRECTION → — MH No. 19

DEPTH: | DEPTH:

DISTANCE FROM MH No. 19-1 OR STATION	RADIAL LOCATION (4 1 / 3 2)	ESTIMATED LEAKAGE RATE (GPM)	DESCRIPTION OF DEFECTS AND COMMENTS	VIDEO INDEX OR PHOTO No.
77			MIS JOINT	398
82			SAG W=1"	404
88			END SAG	408
97			SUSP. JOINT (DEPOSITS)	416
100	CROWN	DRY	MIS. JOINT; SADDLE CONN.	418
115			SAG W=3/4"	432
117			MIS. JOINT.	433
120			" " ; END SAG	435
123			" " ; 1' SECTION	441
124			OPEN JOINT	442
128			MANHOLE 19	447

CFM INCORPORATED
628 ROUTE 10, WHIPPANY, NEW JERSEY

INTERNAL INSPECTION LOG

SHEET 1 OF 1

DATE	TIME	WEATHER	JOB No.	MUNICIPALITY
7/18/83	0950	CLEAR 90°	106	CLIFTON

VIDEO TAPE	INDEX	SUB-AREA	MINI-SYST	STREET
TV16-1	130			GIVAUDAN CORP

PIPE SIZE	MATERIAL	LENGTH	FLOW (GPD)	JNT.-SPACING	MH MAT.
10"	VCP	82'		4'	BRICK

MH No. 20 — DEPTH 3.2'

FLOW DIRECTION →
CAMERA DIRECTION →

MH No. 19 — DEPTH 4.2'

DISTANCE FROM MH No. 20 OR STATION	RADIAL LOCATION (4 1 / 3 2)	ESTIMATED LEAKAGE RATE (GPM)	DESCRIPTION OF DEFECTS AND COMMENTS	VIDEO INDEX OR PHOTO No.
3	3-4-1		SPIRAL CRACK	139
7			MIS. JOINT	145
17			SUSP. JOINT (POSSIBLE ROOT INTRUSION)	157
26			MIS. JOINT	167
32	3		SHEAR CRACK, MIS. JOINT	174
76	2		MIS JOINT, SHEAR CRACK	215
82			MANHOLE 19	222

CFM INCORPORATED
628 ROUTE 10, WHIPPANY, NEW JERSEY

INTERNAL INSPECTION LOG

SHEET 1 OF 2

DATE	TIME	WEATHER	JOB No.	MUNICIPALITY
7/22/83	1000	CLEAR 80°	106	CLIFTON

VIDEO TAPE	INDEX	SUB-AREA	MINI-SYST	STREET
TV17-1	283			GIVAUDAN CORP

PIPE SIZE	MATERIAL	LENGTH	FLOW (GPD)	JNT.-SPACING	MH MAT.
10"	VCP	159'		2'	BRICK

MH No. 20-1 — FLOW DIRECTION → — CAMERA DIRECTION → — MH No. 20

DEPTH: | DEPTH:

DISTANCE FROM MH No. 20-1 OR STATION	RADIAL LOCATION (4 1 / 3 2)	ESTIMATED LEAKAGE RATE (GPM)	DESCRIPTION OF DEFECTS AND COMMENTS	VIDEO INDEX OR PHOTO No.
4 ✓			MIS JOINT	
6 ✓			" "	
8 ✓			SP. CRACK	
11			" "	295
25 ✓			BROKEN PIPE	313
26 ✓	4		S. CONN DRY	317
28 ✓			OPEN JOINT (1")	322
30 ✓			BROKEN PIPE	328
31 ✓	4-1		S. CONN HOLE IN CROWN	336
32 ✓			FRAC. PIPE	338
33 ✓			HOLE IN CROWN	
34 ✓	3-2		BROKEN PIPE DIP W=1"	349
41 ✓			HOLE IN CROWN	
45 ✓			" " "	364
52 ✓	4		" " " S. CONN (DRY)	371
55 ✓	4		" " "	373
56 ✓			CRACK IN PIPE	376
59 ✓			DIP IN PIPE	380
64 ✓			FRAC. PIPE	388
74 ✓			MIS. JOINT ; LOW SPOT	
77 ✓			" " ; BROKEN PIPE	
78 ✓	4		S. CONN C.O. HOLE	406
80 ✓	4		" "	408
82 ✓			C.O. HOLE	

CFM INCORPORATED
628 ROUTE 10, WHIPPANY, NEW JERSEY

INTERNAL INSPECTION LOG

SHEET 2 OF 2

DATE	TIME	WEATHER	JOB No.	MUNICIPALITY
7/22/83	1000	CLEAR 80°	106	CLIFTON

VIDEO TAPE	INDEX	SUB-AREA	MINI-SYST	STREET
TV17-1	410			GIVAUDAN CORP.

PIPE SIZE	MATERIAL	LENGTH	FLOW (GPD)	JNT.-SPACING	MH MAT.
10"	VCP	159'			BRICK

MH No. 20-1 — FLOW DIRECTION → — CAMERA DIRECTION → — MH No. 20

DEPTH:

DEPTH:

DISTANCE FROM MH No. 20-1 OR STATION	RADIAL LOCATION (4 1 / 3 2)	ESTIMATED LEAKAGE RATE (GPM)	DESCRIPTION OF DEFECTS AND COMMENTS	VIDEO INDEX OR PHOTO No.
84			C.O. HOLE	416
100			" "	425
104	4		FRAC. PIPE; S. CONN DRY	432
106	4		" " "	437
110			MINOR CRACK - PIPE EGG-SHAPED	440
119			MIS. JOINT	452
125			PROT. P. TAP CROWN PROT. = 2"	460
126		DRIP	PPT CROWN P~~ROT. 2.5~~"	466
128		"	" " 2½" MIS. JOINT	470
131	4		S. CONN	480
133			NEW PIPE SECTION MIS. JOINT	
137			SPIRAL CRACK LOW SPOT. W=1½"	492
145			W= 4"	
159			MANHOLE 20	506

CFM INCORPORATED
628 ROUTE 10, WHIPPANY, NEW JERSEY

INTERNAL INSPECTION LOG

SHEET 1 OF 1

DATE	TIME	WEATHER	JOB No.	MUNICIPALITY
7/18/83	0935	CLEAR 90°	106	CLIFTON

VIDEO TAPE	INDEX	SUB-AREA	MINI-SYST	STREET
TV16-1	~~070~~ 55"			GIVAUDAN CORP.

PIPE SIZE	MATERIAL	LENGTH	FLOW (GPD)	JNT.-SPACING	MH MAT.
~~8~~" 10	VCP	43'			BLOCK/BRICK

MH No.		MH No.
21	FLOW DIRECTION →	20
DEPTH 3.3	CAMERA DIRECTION →	DEPTH 3.2

DISTANCE FROM MH No. 21 OR STATION	RADIAL LOCATION (4 1 / 3 2)	ESTIMATED LEAKAGE RATE (GPM)	DESCRIPTION OF DEFECTS AND COMMENTS	VIDEO INDEX OR PHOTO No.
4	1		SHEAR CRACK · MIS. JOINT	071
10			DIP · WATER - 2"	080
13			JOINT MISAL.	085
23	3		MINOR CRACK	102
32	CROWN		LINEAR CRACK	115
37			END " "	120
43			MANHOLE 20	127
			TOTAL LENGTH 43 L.F.	

CFM INCORPORATED
628 ROUTE 10, WHIPPANY, NEW JERSEY

INTERNAL INSPECTION LOG

SHEET 1 OF 1

DATE	TIME	WEATHER	JOB No.	MUNICIPALITY
7/18/83	0905	CLEAR 90°	106	CLIFTON

VIDEO TAPE	INDEX	SUB-AREA	MINI-SYST	STREET
TV-16-1	000			GIVAUDAN CORP.

PIPE SIZE	MATERIAL	LENGTH	FLOW (GPD)	JNT.-SPACING	MH MAT.
8"	VCP	6			BLOCK

MH No. 22 — DEPTH 2.8'

FLOW DIRECTION →
CAMERA DIRECTION →

MH No. 21 — DEPTH 3.3

DISTANCE FROM MH No. 22 OR STATION	RADIAL LOCATION (4 1 / 3 2)	ESTIMATED LEAKAGE RATE (GPM)	DESCRIPTION OF DEFECTS AND COMMENTS	VIDEO INDEX OR PHOTO No.
6	4-1	-	COLLAPSED PIPE - CAMERA CANNOT PASS - MUST COMPLETE BY REVERSE SET-UP	012

CFM INCORPORATED
628 ROUTE 10, WHIPPANY, NEW JERSEY

INTERNAL INSPECTION LOG

SHEET 1 OF 1

DATE	TIME	WEATHER	JOB No.	MUNICIPALITY
7/18/	0925	CLEAR 90°	106	CLIFTON

VIDEO TAPE	INDEX	SUB-AREA	MINI-SYST	STREET
TV16-1	020			GIVAUDAN CORP

PIPE SIZE	MATERIAL	LENGTH	FLOW (GPD)	JNT.-SPACING	MH MAT.
8	VCP	17		3'	PRE./BRICK

MH No. 21 — FLOW DIRECTION ← — CAMERA DIRECTION → — MH No. 22

DEPTH 3.3' — REVERSE SET-UP — DEPTH 2.8'

DISTANCE FROM MH No. 21 OR STATION	RADIAL LOCATION (4 1 / 3 2)	ESTIMATED LEAKAGE RATE (GPM)	DESCRIPTION OF DEFECTS AND COMMENTS	VIDEO INDEX OR PHOTO No.
11			BROKEN PIPE- BADLY OFFSET	50
			TOTAL LENGTH- 17 L.F.	

CFM INCORPORATED
628 ROUTE 10, WHIPPANY, NEW JERSEY

INTERNAL INSPECTION LOG

SHEET 1 OF 4

DATE	TIME	WEATHER	JOB No.	MUNICIPALITY
7/20/83	2:30 PM	Clear 90°		Clifton

VIDEO TAPE	INDEX	SUB-AREA	MINI-SYST	STREET
TV-16-2	778			Colfax Ave

PIPE SIZE	MATERIAL	LENGTH	FLOW (GPD)	JNT.-SPACING	MH MAT.
8"	VCP	34'		3'	

MH No. 23 — DEPTH 3'

FLOW DIRECTION →
CAMERA DIRECTION →

MH No. 22 — DEPTH

DISTANCE FROM MH No. ____ OR STATION	RADIAL LOCATION (4 1 / 3 2)	ESTIMATED LEAKAGE RATE (GPM)	DESCRIPTION OF DEFECTS AND COMMENTS	VIDEO INDEX OR PHOTO No.
3	4-3		Shear Crack - Misa Joint	783
4	3		Sonal Crack	786
6	2		Mis Joint - Shear Crack	788
9			Mis - Joint	792
17	1-2		Minor Crack at Base - Misc J.	799
18			Crack - Linear Ends at 18'	801
20			Linear Crack at Crown - Ends at 20'	805
21	3		Linear Crack at Base	808
21	2		Linear Crack at Base + Crown	810
22			Misc & Suspect J - Crack Ends	812
26			Misa Joint + Suspect	814
27			Serv. Conn on Left - Dry	818
30	2		Mis-Joint - Shear Crack at Base	822
34			Bend A[illegible] 45° to 90° going	831
			to MANHOLE 22	
			End TV 16-2	
			8" Skid wouldn't go around	
			Bend - Pointed Camera from	
			M-H 22 up to M-H 23.	

CFM INCORPORATED
628 ROUTE 10, WHIPPANY, NEW JERSEY

INTERNAL INSPECTION LOG

SEE TV16-2 LOG

SHEET 2 OF 4

DATE	TIME	WEATHER	JOB No.	MUNICIPALITY
7/20/83	3:15 pm	Clear 90°		Clifton

VIDEO TAPE	INDEX	SUB-AREA	MINI-SYST	STREET
TV-16-3	000			Givaudan

PIPE SIZE	MATERIAL	LENGTH	FLOW (GPD)	JNT.-SPACING	MH MAT.
8"	VCP			2'	

MH No. 22 — FLOW DIRECTION ← — CAMERA DIRECTION → — MH No. 23

DEPTH: Reverse Set-up — DEPTH

DISTANCE FROM MH No. ____ OR STATION	RADIAL LOCATION (4 1 / 3 2)	ESTIMATED LEAKAGE RATE (GPM)	DESCRIPTION OF DEFECTS AND COMMENTS	VIDEO INDEX OR PHOTO No.
			Continuing from Tape #2	000
7	1		Hole in Crown of Pipe	019
8			Susp Joint	023
11	4-1		Minor Crack - Mis & Susp Joint	030
15			Roots - Mis Joint	039
17			Roots -	045
20			Roots	051
25			Mis Joint	057
28			" "	059
31			PPT 1½" to 2" - Dry	065
33	2		Crack at Base	070
35	4-1-2		Spiral Crack	075
38			Mis Joint	079
43	4-1		Broken Pipe - S.D. Mis-J.	087
45			Susp. J	091
55	3		Linear Crack on Left -	102
55			Alignment	104
60			Susp. J.	110
63			A	112
64	3		Lin. Crack	116
65			A	119
66	3		Lin. Crack Ends	121
70			Out of sw Set	127
73	2-3		Lin. Crack Base - Roots - A-Wide	134
80			A	142

Q.P. 8/17/83

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CFM INCORPORATED
628 ROUTE 10, WHIPPANY, NEW JERSEY

INTERNAL INSPECTION LOG

SHEET 3 OF 4

DATE	TIME	WEATHER	JOB No.	MUNICIPALITY
7/20/83	3:15	Clear 90°		Clifton

VIDEO TAPE	INDEX	SUB-AREA	MINI-SYST	STREET
TV-16-3	142			Givaudan

PIPE SIZE	MATERIAL	LENGTH	FLOW (GPD)	JNT.-SPACING	MH MAT.
8"	VCP.				

MH No. 22 — FLOW DIRECTION ← / CAMERA DIRECTION → — MH No. 23

DEPTH: — DEPTH:

DISTANCE FROM MH No. ____ OR STATION	RADIAL LOCATION (4 1 / 3 2)	ESTIMATED LEAKAGE RATE (GPM)	DESCRIPTION OF DEFECTS AND COMMENTS	VIDEO INDEX OR PHOTO No.
83			Susp. J - A	145
85	2		Lin Crack. Base - A - Susp. J.	150
90	4-3		PPT. 1" Inside Crown - Mineral Deposits - Minor Cracks	159
93	4-1 3-2		Lin Crack - Base & Crown	165
96			Alignment	170
97			Lin Crack Ends	172
101	3		Minor Cracks	178
103			Low Spot	180
104			Alignment	182
109	2		Minor Crack	188
117	2		Out of Low Spot - Lin. Crack	195
119	2		Minor Crack	199
121			Alignment	202
129			"	209
131	2		Lin. Crack - Base	213
136	3		" " "	220
140	3		End of Lin. Crack	227
146	3		Minor Crack - Base	235
156	2		Lin. Crack - Base	246
160			Crack Ends.	250
164	2		Alignment - Minor Cracks	255
167	1-3-4		Possible Connection - Minor Cracks	259
172			Alignment	268
177	2		Minor Crack - Alignment	273

153' - Lin. Crack Quad-2
video - 243

O.K. A.P. 8/17/83

CFM INCORPORATED
628 ROUTE 10, WHIPPANY, NEW JERSEY

INTERNAL INSPECTION LOG

SHEET 4 OF 4

DATE	TIME	WEATHER	JOB No.	MUNICIPALITY
7/20/83		CLEAR - 90°		Clifton

VIDEO TAPE	INDEX	SUB-AREA	MINI-SYST	STREET
TV-16-3	273			Givaudan

PIPE SIZE	MATERIAL	LENGTH	FLOW (GPD)	JNT.-SPACING	MH MAT.
8"	VCP	216'			

MH. No. 22 — FLOW DIRECTION ← / CAMERA DIRECTION → — MH No. 23

DEPTH: — DEPTH:

DISTANCE FROM MH No. ____ OR STATION	RADIAL LOCATION (4 1 / 3 2)	ESTIMATED LEAKAGE RATE (GPM)	DESCRIPTION OF DEFECTS AND COMMENTS	VIDEO INDEX OR PHOTO No.
180	3-2		Lin Crack at Base	278
183	3-2		" " Ends	282
189			Alignment	289
194			Alignment	293
200	3		Minor Crack-Base	299
202	2		Minor Crack-Base	303
210	2		Crack Continuing	307
215	2		Crack Ends	313
216			Bend - Degree?	317
			M-H 23 at 216' from MH22	

APPENDIX D - HYDROSTATIC TESTING REPORTS

CFM INCORPORATED
628 ROUTE 10, WHIPPANY, N.J. 07981

HYDROSTATIC TEST REPORT

JOB No. 106
CLIENT GIVAUDAN

DATE	TIME	WEATHER	CREW CHIEF	LOCATION
9-3-83	–	CLEAR 85°±	CC	DOWNSTREAM OF NEUT. FAC.

MH No. 9 | MH No. 5 | PIPE SIZE 18" | PIPE SHAPE CIRC.

FLOW DIRECTION →

LENGTH [ ] FEET

UNABLE TO PERFORM TEST DUE TO NEUTRALIZATION FACILITIES

MEASURED EXFILTRATION [ ] GALS. | TIME INTERVAL [ ] MIN. | RATE [ ] GPM

MH No. 5 | MH No. PIT 74 | PIPE SIZE 18" | PIPE SHAPE CIRC

FLOW DIRECTION →

LENGTH 255 FEET

MEASURED EXFILTRATION 5 GALS. | TIME INTERVAL 0.58 MIN. | RATE 8.6 GPM

MH No. PIT 74 | MH No. 3 | PIPE SIZE 18" | PIPE SHAPE CIRC

FLOW DIRECTION →

LENGTH 79 FEET

INCLUDES REACH FROM PIT 74 TO MH 4 TO MH 3

MEASURED EXFILTRATION 5 GALS. | TIME INTERVAL 0.93 MIN. | RATE 5.4 GPM

MH No. 3 | MH No. 1 | PIPE SIZE 18" | PIPE SHAPE CIRC

FLOW DIRECTION →

LENGTH 90 FEET

INCLUDES REACHES FROM MH 3 TO METER PIT TO MH 2 TO MH 1

MEASURED EXFILTRATION 0 GALS. | TIME INTERVAL 5 MIN. | RATE 0 GPM

CFM INCORPORATED
628 ROUTE 10, WHIPPANY, N.J. 07981

HYDROSTATIC TEST REPORT

JOB No. 106
CLIENT GIVAUDAN

DATE	TIME	WEATHER	CREW CHIEF	LOCATION
8-7-83	—	CLEAR 90° ±	AC	BLDGS. 93, 94, 95, 98

MH No.	MH No.	PIPE SIZE	PIPE SHAPE	LENGTH (FEET)	MEASURED EXFILTRATION (GALS.)	TIME INTERVAL (MIN.)	RATE (GPM)
10	9	18"	CIRC	141	5	0.58	8.6
9-3	9-2	12	CIRC	42	5	0.52	9.6
9-2	9-1	12"	CIRC	45	5	0.45	11.1
9-1	9	12"	CIRC	158	5	0.08	62.5

FLOW DIRECTION →

CFM INCORPORATED
628 ROUTE 10, WHIPPANY, N.J. 07981

HYDROSTATIC TEST REPORT

JOB No. 106
CLIENT GIVAUDAN

DATE	TIME	WEATHER	CREW CHIEF	LOCATION
7-29-83	—	CLEAR 90°±	AC	FRONT OF BLDG. 71

MH No. 11-2 | MH No. 11-1 | PIPE SIZE 15" | PIPE SHAPE CIRC

FLOW DIRECTION →

LENGTH 103 FEET

MEASURED EXFILTRATION 5 GALS. | TIME INTERVAL 0.17 MIN. | RATE 29.4 GPM

MH No. 11-1 | MH No. 11 | PIPE SIZE 18" | PIPE SHAPE CIRC.

FLOW DIRECTION →

LENGTH 78 FEET

MEASURED EXFILTRATION 5 GALS. | TIME INTERVAL 0.3 MIN. | RATE 16.7 GPM

MH No. 11 | MH No. 10 | PIPE SIZE 18" | PIPE SHAPE CIRC.

FLOW DIRECTION →

LENGTH 121 FEET

MEASURED EXFILTRATION 5 GALS. | TIME INTERVAL 0.08 MIN. | RATE 62.5 GPM

MH No. 10-1 | MH No. 10 | PIPE SIZE 12" | PIPE SHAPE CIRC

FLOW DIRECTION →

LENGTH 358 FEET

MEASURED EXFILTRATION 0.5 GALS. | TIME INTERVAL 0.25 MIN. | RATE 2.0 GPM

CFM INCORPORATED
628 ROUTE 10, WHIPPANY, N.J. 07981

HYDROSTATIC TEST REPORT

JOB No. 106
CLIENT GIVAUDAN

DATE	TIME	WEATHER	CREW CHIEF	LOCATION
7-26-83		CLEAR 85° ±	AC	BLDGS 58-64B & 68, 68A

MH No. 11-6 | MH No. 11-5 | PIPE SIZE 10" | PIPE SHAPE CIRC.

FLOW DIRECTION →

LENGTH 163 FEET

MEASURED EXFILTRATION 0.75 GALS. | TIME INTERVAL 0.5 MIN. | RATE 1.5 GPM

MH No. 11-5 | MH No. 11-3 | PIPE SIZE 10" | PIPE SHAPE CIRC

FLOW DIRECTION →

LENGTH 38 FEET

PIPE COULD NOT BE FILLED. EXFILTRATION RATE EXCEEDED FILLING RATE.

MEASURED EXFILTRATION CNM GALS. | TIME INTERVAL — MIN. | RATE >60 GPM

MH No. 11-4 | MH No. 11-3 | PIPE SIZE 10" | PIPE SHAPE CIRC.

FLOW DIRECTION →

LENGTH 161 FEET

PIPE COULD NOT BE FILLED. EXFILTRATION RATE EXCEEDED FILLING RATE.

MEASURED EXFILTRATION CNM GALS. | TIME INTERVAL — MIN. | RATE >60 GPM

MH No. 11-3 | MH No. 11-2 | PIPE SIZE 18" | PIPE SHAPE CIRC

FLOW DIRECTION →

LENGTH 26 FEET

MEASURED EXFILTRATION 0 GALS. | TIME INTERVAL 5.0 MIN. | RATE 0 GPM

CFM INCORPORATED
628 ROUTE 10, WHIPPANY, N.J. 07981

HYDROSTATIC TEST REPORT

JOB No. 106
CLIENT GIVAUDAN

DATE	TIME	WEATHER	CREW CHIEF	LOCATION
7-22-83		CLEAR 80° ±	AC	REAR OF BUILDING 200

MH No. 11-10 | MH No. 11-7 | PIPE SIZE 12" | PIPE SHAPE CIRC.

FLOW DIRECTION →

LENGTH 72 FEET

MEASURED EXFILTRATION 5 GALS. | TIME INTERVAL 1.03 MIN. | RATE 4.9 GPM

MH No. 11-9 | MH No. 11-8 | PIPE SIZE 10" | PIPE SHAPE CIRC

FLOW DIRECTION →

LENGTH 154 FEET

MEASURED EXFILTRATION 5 GALS. | TIME INTERVAL 0.17 MIN. | RATE 29.4 GPM

MH No. 11-8 | MH No. 11-7 | PIPE SIZE 18" | PIPE SHAPE CIRC

FLOW DIRECTION →

LENGTH 48 FEET

PIPE COULD NOT BE FILLED. EXFILTRATION RATE EXCEEDED FILLING RATE.

MEASURED EXFILTRATION CNM GALS. | TIME INTERVAL — MIN. | RATE >60 GPM

MH No. 11-7 | MH No. 11-2 | PIPE SIZE 12" | PIPE SHAPE CIRC

FLOW DIRECTION →

LENGTH 232 FEET

MEASURED EXFILTRATION 5 GALS. | TIME INTERVAL 0.57 MIN. | RATE 8.8 GPM

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HYDROSTATIC TEST REPORT

JOB No. 106
CLIENT GIVAUDAN

DATE	TIME	WEATHER	CREW CHIEF	LOCATION
7-21-83		CLEAR 85° ±	AC	

MH No. 11-14 MH No. 11-13 PIPE SIZE 10" PIPE SHAPE CIRC

FLOW DIRECTION

LENGTH 46 FEET

MEASURED EXFILTRATION 5 GALS. TIME INTERVAL 0.5 MIN. RATE 10 GPM

MH No. 11-12 MH No. 11-11 PIPE SIZE 10" PIPE SHAPE CIRC

FLOW DIRECTION

LENGTH 164 FEET

PIPE COULD NOT BE FILLED, EXFILTRATION RATE EXCEEDED FILLING RATE.

MEASURED EXFILTRATION CNM GALS. TIME INTERVAL MIN. RATE >60 GPM

MH No. 11-11 MH No. 11-10 PIPE SIZE 12" PIPE SHAPE CIRC.

FLOW DIRECTION

LENGTH 34 FEET

MEASURED EXFILTRATION 5 GALS. TIME INTERVAL 0.58 MIN. RATE 8.6 GPM

MH No. 11-19 MH No. 11-10 PIPE SIZE 6" PIPE SHAPE CIRC

FLOW DIRECTION

LENGTH 45 FEET

MEASURED EXFILTRATION 5 GALS. TIME INTERVAL 0.28 MIN. RATE 17.9 GPM

CFM INCORPORATED
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HYDROSTATIC TEST REPORT

JOB No. 106
CLIENT GIVAUDAN

DATE	TIME	WEATHER	CREW CHIEF	LOCATION
7-28-83		OVERCAST 85°±	AC	BUILDING 35

MH No. 11-18 | MH No. 11-16 | PIPE SIZE 8" | PIPE SHAPE CIRC

FLOW DIRECTION →

LENGTH 83 FEET

MEASURED EXFILTRATION 5 GALS. | TIME INTERVAL 0.21 MIN. | RATE 23.8 GPM

MH No. 11-16 | MH No. 11-15 | PIPE SIZE 12" | PIPE SHAPE CIRC

FLOW DIRECTION →

LENGTH 22 FEET

UNABLE TO PLUG LINE, COULD NOT TEST

MEASURED EXFILTRATION ____ GALS. | TIME INTERVAL ____ MIN. | RATE ____ GPM

MH No. 11-15 | MH No. 11-13 | PIPE SIZE 12" | PIPE SHAPE CIRC.

FLOW DIRECTION →

LENGTH 66 FEET

UNABLE TO PLUG LINE, COULD NOT TEST.

MEASURED EXFILTRATION ____ GALS. | TIME INTERVAL ____ MIN. | RATE ____ GPM

MH No. 11-13 | MH No. 11-11 | PIPE SIZE 18"/12" | PIPE SHAPE CIRC

FLOW DIRECTION →

LENGTH 53 FEET

MEASURED EXFILTRATION 5 GALS. | TIME INTERVAL 0.25 MIN. | RATE 20 GPM

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HYDROSTATIC TEST REPORT

JOB No. 106
CLIENT GIVAUDAN

DATE	TIME	WEATHER	CREW CHIEF	LOCATION
7-26-83		CLEAR 85° ±	AC	BUILDING 26

MH No. 13-3 | MH No. 13-2 | PIPE SIZE 18" | PIPE SHAPE CIRC

FLOW DIRECTION →

LENGTH 26 FEET

UNABLE TO PLUG PIPE, COULD NOT TEST.

MEASURED EXFILTRATION ____ GALS. | TIME INTERVAL ____ MIN. | RATE ____ GPM

MH No. 13-2 | MH No. 13 | PIPE SIZE 18" | PIPE SHAPE CIRC

FLOW DIRECTION →

LENGTH 300 FEET

UNABLE TO PLUG PIPE, COULD NOT TEST.

MEASURED EXFILTRATION ____ GALS. | TIME INTERVAL ____ MIN. | RATE ____ GPM

MH No. 13 | MH No. 12 | PIPE SIZE 18" | PIPE SHAPE CIRC

FLOW DIRECTION →

LENGTH 38 FEET

MEASURED EXFILTRATION 5 GALS. | TIME INTERVAL 0.45 MIN. | RATE 11.1 GPM

MH No. 12 | MH No. 11 | PIPE SIZE 18" | PIPE SHAPE CIRC

FLOW DIRECTION →

LENGTH 235 FEET

MEASURED EXFILTRATION 5 GALS. | TIME INTERVAL 0.25 MIN. | RATE 20 GPM

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HYDROSTATIC TEST REPORT

JOB No. 106
CLIENT GIVAUDAN

DATE	TIME	WEATHER	CREW CHIEF	LOCATION
7-25-83		OVERCAST 70°±	AC	BUILDING 39

MH No. 13-8 | MH No. 13-7 | PIPE SIZE 8" | PIPE SHAPE CIRC

FLOW DIRECTION →

LENGTH 37 FEET

PIPE COULD NOT BE FILLED. EXFILTRATION RATE EXCEEDED FILLING RATE.

MEASURED EXFILTRATION CNM GALS. | TIME INTERVAL — MIN. | RATE >60 GPM

MH No. 13-7 | MH No. 13-4 | PIPE SIZE 8" | PIPE SHAPE CIRC

FLOW DIRECTION →

LENGTH 54 FEET

MEASURED EXFILTRATION 1 GALS. | TIME INTERVAL 1.0 MIN. | RATE 1.0 GPM

MH No. 13-5 | MH No. 13-4 | PIPE SIZE 6" | PIPE SHAPE CIRC

FLOW DIRECTION →

LENGTH 14 FEET

MEASURED EXFILTRATION 0 GALS. | TIME INTERVAL — MIN. | RATE 0 GPM

MH No. 13-4 | MH No. 13-3 | PIPE SIZE 8" | PIPE SHAPE

FLOW DIRECTION →

LENGTH 57 FEET

MEASURED EXFILTRATION 5 GALS. | TIME INTERVAL 0.92 MIN. | RATE 5.4 GPM

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HYDROSTATIC TEST REPORT

JOB No. 106
CLIENT GIVAUDAN

DATE	TIME	WEATHER	CREW CHIEF	LOCATION
7-28-83		CLEAR 85°±	AC	BUILDING 7

MH No. 13-14 | MH No. 13-11 | PIPE SIZE 6" | PIPE SHAPE CIRC

FLOW DIRECTION →

LENGTH 46 FEET

PIPE COULD NOT BE FILLED. EXFILTRATION RATE EXCEEDED FILLING RATE.

MEASURED EXFILTRATION CNM GALS. | TIME INTERVAL MIN. | RATE > 60 GPM

MH No. 13-11 | MH No. 13-7 | PIPE SIZE 6" | PIPE SHAPE CIRC

FLOW DIRECTION →

LENGTH 216 FEET

MEASURED EXFILTRATION 5 GALS. | TIME INTERVAL 0.2 MIN. | RATE 25.0 GPM

MH No. 13-10 | MH No. 13-9 | PIPE SIZE 6" | PIPE SHAPE CIRC

FLOW DIRECTION →

LENGTH 32 FEET

MEASURED EXFILTRATION 1 GALS. | TIME INTERVAL 1.5 MIN. | RATE 0.7 GPM

MH No. 13-9 | MH No. 13-8 | PIPE SIZE 6"/8" | PIPE SHAPE CIRC

FLOW DIRECTION →

LENGTH 36 FEET

MEASURED EXFILTRATION 1 GALS. | TIME INTERVAL 0.75 MIN. | RATE 1.3 GPM

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HYDROSTATIC TEST REPORT

JOB No. 106
CLIENT GIVAUDAN

DATE	TIME	WEATHER	CREW CHIEF	LOCATION
7-28-83		CLEAR 85° ±	AC	

MH No. 13-17 | MH No. 13-13 | PIPE SIZE 6" | PIPE SHAPE CIRC

FLOW DIRECTION →

LENGTH 48 FEET

MEASURED EXFILTRATION 5 GALS. | TIME INTERVAL 3.67 MIN. | RATE 1.4 GPM

MH No. 13-13 | MH No. 13-12 | PIPE SIZE 6" | PIPE SHAPE CIRC

FLOW DIRECTION →

LENGTH 27 FEET

MEASURED EXFILTRATION 5 GALS. | TIME INTERVAL 6.9 MIN. | RATE 0.7 GPM

MH No. 13-12 | MH No. 13-11 | PIPE SIZE 6" | PIPE SHAPE CIRC

FLOW DIRECTION →

LENGTH 35 FEET

MEASURED EXFILTRATION 5 GALS. | TIME INTERVAL 4.9 MIN. | RATE 1.2 GPM

MH No. 13-15 | MH No. 13-14 | PIPE SIZE 6" | PIPE SHAPE CIRC

FLOW DIRECTION →

LENGTH 59 FEET

MEASURED EXFILTRATION 5 GALS. | TIME INTERVAL 0.47 MIN. | RATE 10.7 GPM

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HYDROSTATIC TEST REPORT

JOB No. 106
CLIENT GIVAUDAN

DATE	TIME	WEATHER	CREW CHIEF	LOCATION
7-21-83	—	CLEAR · 85° ±	AC	OPPOSITE BLDG. 50

MH No. 14 | MH No. 13 | PIPE SIZE 24"/21" | PIPE SHAPE CIRC.

FLOW DIRECTION →

LENGTH 55 FEET

COULD NOT TEST. PIPE CONN. SUCH THAT DOWNSTREAM LINE COULD NOT BE PLUGGED.

MEASURED EXFILTRATION ____ GALS. | TIME INTERVAL ____ MIN. | RATE ____ GPM

MH No. 13-1 | MH No. 13 | PIPE SIZE 12" | PIPE SHAPE CIRC

FLOW DIRECTION →

LENGTH 170 FEET

MEASURED EXFILTRATION 5 GALS. | TIME INTERVAL 0.77 MIN. | RATE 6.5 GPM

MH No. BLDG 26 | MH No. 13-2 | PIPE SIZE 6" | PIPE SHAPE CIRC

FLOW DIRECTION →

LENGTH 30 FEET

MEASURED EXFILTRATION 5 GALS. | TIME INTERVAL 0.23 MIN. | RATE 21.6 GPM

MH No. ____ | MH No. ____ | PIPE SIZE ____ | PIPE SHAPE ____

FLOW DIRECTION →

LENGTH ____ FEET

MEASURED EXFILTRATION ____ GALS. | TIME INTERVAL ____ MIN. | RATE ____ GPM

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HYDROSTATIC TEST REPORT

JOB No. 106
CLIENT GIVAUDAN

DATE	TIME	WEATHER	CREW CHIEF	LOCATION
7-21-83		CLEAR - 85°±	AC	WEST OF BLDG 72

MH No. 17-1 | MH No. 17 | PIPE SIZE 8" | PIPE SHAPE CIRC

FLOW DIRECTION →

LENGTH 62 FEET

MEASURED EXFILTRATION 5 GALS. | TIME INTERVAL 0.33 MIN. | RATE 15 GPM

MH No. 17 | MH No. 16 | PIPE SIZE 18" | PIPE SHAPE CIRC

FLOW DIRECTION →

LENGTH 48 FEET

MEASURED EXFILTRATION 5 GALS. | TIME INTERVAL 0.25 MIN. | RATE 20 GPM

MH No. 16 | MH No. 15 | PIPE SIZE 24" | PIPE SHAPE CIRC

FLOW DIRECTION →

LENGTH 67 FEET

MEASURED EXFILTRATION 5 GALS. | TIME INTERVAL 0.83 MIN. | RATE 6.0 GPM

MH No. 15 | MH No. 14 | PIPE SIZE 24" | PIPE SHAPE CIRC

FLOW DIRECTION →

LENGTH 140 FEET

MEASURED EXFILTRATION 5 GALS. | TIME INTERVAL 0.25 MIN. | RATE 20 GPM

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HYDROSTATIC TEST REPORT

JOB No. 106
CLIENT GIVAUDAN

DATE	TIME	WEATHER	CREW CHIEF	LOCATION
7-27-83	—	CLEAR 80°±	AC	BLDGS 87-22 & 32-28

MH No. 20-1 MH No. 20 PIPE SIZE 10" PIPE SHAPE CIRC

FLOW DIRECTION →

LENGTH 159 FEET

PIPE COULD NOT BE FILLED. EXFILTRATION RATE EXCEEDED FILLING RATE.

MEASURED EXFILTRATION CNM GALS. TIME INTERVAL — MIN. RATE >60 GPM

MH No. 19-1 MH No. 19 PIPE SIZE 10 PIPE SHAPE CIRC

FLOW DIRECTION →

LENGTH 128 FEET

PIPE COULD NOT BE FILLED. EXFILTRATION RATE EXCEEDED FILLING RATE.

MEASURED EXFILTRATION CNM GALS. TIME INTERVAL — MIN. RATE >60 GPM

MH No. MH No. PIPE SIZE PIPE SHAPE

FLOW DIRECTION →

LENGTH FEET

MEASURED EXFILTRATION GALS. TIME INTERVAL MIN. RATE GPM

MH No. MH No. PIPE SIZE PIPE SHAPE

FLOW DIRECTION →

LENGTH FEET

MEASURED EXFILTRATION GALS. TIME INTERVAL MIN. RATE GPM

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HYDROSTATIC TEST REPORT

JOB No. 106
CLIENT CIVAUDAN

DATE	TIME	WEATHER	CREW CHIEF	LOCATION
7-21-83	–	CLEAR 85°±	AC	PARALLEL TO ENT. DRIVE

MH No. 21 | MH No. 20 | PIPE SIZE 10" | PIPE SHAPE CIRC

FLOW DIRECTION →

LENGTH 43 FEET

MEASURED EXFILTRATION 5 GALS. | TIME INTERVAL 3.1 MIN. | RATE 1.6 GPM

MH No. 20 | MH No. 19 | PIPE SIZE 10" | PIPE SHAPE CIRC

FLOW DIRECTION →

LENGTH 82 FEET

MEASURED EXFILTRATION 5 GALS. | TIME INTERVAL 0.12 MIN. | RATE 41.7 GPM

MH No. 19 | MH No. 18 | PIPE SIZE 15"/18" | PIPE SHAPE CIRC

FLOW DIRECTION →

LENGTH 86 FEET

MEASURED EXFILTRATION 5 GALS. | TIME INTERVAL 0.18 MIN. | RATE 27.8 GPM

MH No. 18 | MH No. 17 | PIPE SIZE 18" | PIPE SHAPE CIRC

FLOW DIRECTION →

LENGTH 122 FEET

MEASURED EXFILTRATION 5 GALS. | TIME INTERVAL 0.35 MIN. | RATE 14.3 GPM

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HYDROSTATIC TEST REPORT

JOB No. 106
CLIENT GIVAUDAN

DATE	TIME	WEATHER	CREW CHIEF	LOCATION
7-27-83	—	CLEAR 80°±	AC	BLDG 9

MH No. 25 | MH No. 24 | PIPE SIZE 8" | PIPE SHAPE CIRC.

FLOW DIRECTION →

LENGTH 64 FEET

ACCESS TO MANHOLE NOT POSSIBLE DUE TO EXPLOSIVE ATMOSPHERE

MEASURED EXFILTRATION — GALS. | TIME INTERVAL — MIN. | RATE — GPM

MH No. 24 | MH No. 23 | PIPE SIZE 8" | PIPE SHAPE CIRC

FLOW DIRECTION →

LENGTH 169 FEET

PIPE COULD NOT BE FILLED. EXFILTRATION RATE EXCEEDED FILLING RATE.

MEASURED EXFILTRATION CNM GALS. | TIME INTERVAL — MIN. | RATE >60 GPM

MH No. 23 | MH No. 22 | PIPE SIZE 8" | PIPE SHAPE CIRC

FLOW DIRECTION →

LENGTH 250 FEET

PIPE COULD NOT BE FILLED. EXFILTRATION RATE EXCEEDED FILLING RATE.

MEASURED EXFILTRATION CNM GALS. | TIME INTERVAL — MIN. | RATE >60 GPM

MH No. 22 | MH No. 21 | PIPE SIZE 8" | PIPE SHAPE CIRC

FLOW DIRECTION →

LENGTH 17 FEET

PIPE COULD NOT BE FILLED. EXFILTRATION RATE EXCEEDED FILLING RATE.

MEASURED EXFILTRATION CNM GALS. | TIME INTERVAL — MIN. | RATE >60 GPM

APPENDIX E - CONNECTION INSPECTIONS

GIVAUDAN CORPORATION

CHEMICAL SEWER INVESTIGATION

BUILDING CONNECTION INVESTIGATION

Building #9

24-A 4' of pipe visible. Comes to either trap or tee. 2' sections - pipe in good condition. Alignment good.

Building #22

21-A 3" CI pipe in unlined trough. Any overflow from pipe is absorbed directly into ground. Pipe itself is in good shape. Pipe changes to 4" VCP going into MH 21. 4" pipe at 1st joint from MH is badly open and slopes downward $\pm$ 30°. At bottom of slope flow is ponding indicating possible absorption into ground.

20/21-C 8" VCP trough - joints are solid, cement. Various spiral cracks and low spots near center of trough. Empties into vertical pipe. Spaces around pipe mouth make exfiltration of waste possible.

20/21-A & B Boiling water being discharged into trough - could not examine entire area.

Building #23

20/21-D VCP trough with cement bench, joints open slightly, cracks (shear) near center. Area where flow enters pipe is eroded causing portion of discharge to seep into ground.

20/21-E Cement trough - flow stagnant - vertical exit pipe with exposed earth. 1" sediment cannot examine closely because of equipment no visible breaks. Lateral drain looks solid.

Building #24

20/21-F 4" wide cement trough. Seems solid except for 2" hole just before vertical drain. Exposed rocks and dirt indicate possible seepage into ground. No joints.

20/21-G 4" cement trough - area around vertical drain has 3" hole, vertical pipe connection has spiral crack and is slightly misaligned. ½" sediment; area around trough is badly decayed from acid spills.

PE - Possible exfiltration
CNE - Could not examine in whole or part

Building #25

20/21-H Heavy flow in cement trough. Opening at vertical drain indication of seepage. Upper portion of trough badly decayed. Cracks and decay present in most of trough.

20/21-I 1/3 VCP trough - joints open slightly 2/3 cement trough - break in wall at ½ way point - possible exfiltration; connection to vertical drain worn but no openings are visible.

Building #76

20/21-J & K Drains not active - plates over troughs cemented to floor in most cases. Troughs are dry and dusty indicating non-use.

Building #28

19/19-1-A VCP trough - joints sealed, tight connection to drain pipe in trough drains 1 tank. Overall, trough in good condition. Pipe is exposed & open outside bldg. Pipe slopes at joint & portion visible is misaligned.
19/19-1-B 8" rectangular cement trough connection to drain worn - possible exfiltration; no breaks or visible cracks; no flow.

Building #29

19/19-1-C VCP pipe all joints misaligned, opened slightly. Decay along bench of trough. Discharges entering worn area outside of pipe. Connection to drain in fair shape.

19/19-1-D VCP trough - worn condition joints sealed with cement. Connection to drain worn; no visible openings.

Building #30

19/19-1-E VCP trough - linear cracks throughout invert. Some pipe pieces missing. Joints not sealed. Connection to drain good.

19/19-1-F Plastic liner in trough - cannot examine trough itself. Discharges into liner spilling into area outside liner.

Building #31

19/19-1-G 8" cement trough (rectangular). No visible defects, however, cement badly worn in some areas. 1" sludge in open space at connection to drain.

19/19-1-H Same as G. 3/4" of sludge, worn drain connection

Building #32E

19/19-1-I 6" enclosed C.I.P. no visible defects or leakage.

Building #42

11/11-11/12-B 12" VCP rectangular trough joints not sealed (5' section). Linear cracks throughout. Drain connection good. No flow in line.

11/11-11/12-C 12" VC rectangular; downstream 1/3 and drain covered over. Open portion has linear cracks and open joints similar to "B". Vertical drain has linear crack.

Building #92

11/11-11/12-A 12" concrete trough. No longer in use, no visible defects. According to employee, any flow would be surface runoff (rain, etc.) not industrial waste.

Building #43

11/11-11/12-D 12" VC rectangular. No bell on joints. All J's open + ¼". No cracks visible; drain ok - cannot lift cover to Tamp pipe. Pipe has low spots.

11/11-11/12-E 12" VC rectangular pipe misaligned and joints open - cannot view drain - covered with 1" sediment. No cracks visible. Missing pieces of pipe in upstream portion. Low flow

Building #44

11/11-11/12-F & G 12" rectangular VC loose joints, linear cracks throughout each. Vertical drain pipes solid.

Building #45

11/11-11/12-H & I 12" rectangular VC "I" vertical drain has linear cracks. Joints are slightly open - some are partially sealed. "H" some misalignment, joints open. Light cracks along bottom. Drain ok

Building #46

11/11-11/12-J & K 12" VC rectangular misaligned. Joints partially sealed. Vertical drains have slight gaps at joints. Minor cracks at base.

Building #47

11/11-11/12-L & M 12" C.I. rectangular good condition, solid joints need seals. V.C. drain pipe of "M" similar conditions as "L".

Building #75

11/11-11/12-N (not shown on plan) Inactive 12" drain (C.I. rectangular). No flow. Vertical drain slightly misaligned.

Building #57

11/8-11/9-K & L 8" VC through joints open - pipe misaligned. Linear cracks at various points in trough.

Buildint #56 I & J

11/8-11/9 8" VC through misaligned throughout - various linear cracks. Joints not sealed, openings vary. Vertical drains clogged with debris.

Building #53

11/8-11/9-C & D Both 8" V.C. Troughs appear to be in good shape. Joints are tight and well aligned. Waste is flowing smoothly. Drains are ok also.

Building #52

11/8-11/9-A & B linear cracks along invert in two sections (8" VC Ø) some joints open. "B" pipe solid - no damage. Very slight misalignment. Drain in good shape.

Building #79

10/10-1-A Lead-lined trough; 12" - 1 open space between sections. Slight ponding due to debris at mouth of drain - drain looks solid.

10/10-1-B 12" VC trough - badly misaligned and open; multiple breaks and cracks at invert - area outside of trough near drain badly deteriorated. Cannot examine inside of drain because of pipes over trough.

Building #80

10/10-1-C 12" VC trough - misaligned, all joints open ± 1/8" - opening at drain - drain itself looks solid. Upper portion of trough filled with waste and debris.

10/10-1-D 12" VC trough - some joints slightly open; linear crack runs entire portion of visible pipe at invert. Cannot examine drain because of heavy flow and steam discharge.

Building #81

10/10-1-E Limited visibility due to gratings over 10" VC trough. Pipe examined had multiple cracks and breaks with small pieces of pipe missing. Joints open slightly.

10/10-1-F Pipe (12" VC trough) in fair condition. Some joints sealed with tar - others open slightly. Spiral cracks and light linear cracks found. Gratings over drain fastened, can't observe.

Building #82

10/10-1-G 12" VC trough - joints open, exfiltration observed. Multiple linear cracks in invert. Junction of trough and drain has slight opening. Visible portion of drain looks intact.

10/10-1-H 12" VC misaligned, joints open. Slight cracks at various points. Junction at drain looks worn, slight decay of area around drain.

Building #83B

10/10-1-I Dual 4" VC cleanout (vertical). Pieces of broken pipe observed at bottom of downstream C.O.; vertical pipes in good condition.

Building 83A

10/10-1-J & K Cannot locate either C.O.

Building #58

11/5-11/6-A Inactive 8" VC trough - joints tight - some sealed. Alignment good. Slight linear cracking. Drain pipe (Horizontal) sound.

11/5-11/6-B 8" VC trough - joints sound; some sealed. Multiple fractures in 2 sections before drain. Vertical drain has linear crack and slightly open joints. Linear cracks in upper portion of trough.

Building #59

11/5-11/6-C 8" VC trough - slightly misaligned - linear cracks throughout line. Lower sections have shear cracks at each end. Heavy steam discharge makes drain observation impossible.

11/5-11/6-D 8" VC trouble. Linear crack splits entire trough at invert leaving spaces of up to 1/8". Pipe poorly aligned. Junction at drain has opening and entire area around drain is deteriorated.

Building #60

11/5-11/6-R 8" VC trough in good condition. Small hole in 5th section from drain. Joints open slightly. No visible cracks or breaks. Drain joints misaligned.

11/5-11/6-F Lower portion and drain filled with opaque waste, cannot inspect. Upper portion of trough (8" V.C.) has joints open as much as 1/8". No cracks or breaks visible.

Building #61

11/5-11-6-G 8" VC trough - aligned well - joints open slightly with multiple linear cracks. Vertical drain junction worn, slightly open but drain itself in good shape.

11/5-11/6-H Misaligned 8" V.C. wide open joints and multiple pipe fractures. Drain aligned well. Linear cracks in most section.

Building #62

11/5-11/6-I 8" V.C. trough. Line in good condition. Joints tight, no visible breaks; drain connection ok.

11/5-11/6-J Limited access. Some joints open; pipe worn, filled with debris. Cannot observe drain (8" V.C.).

Building #63

11/5-11/6-K 8" V.C. trough. Heavy debris only small portion visible. Open joints, no visible cracks. Drain in good condition.

11/5-11/6-L 8" V.C. trough. Misaligned, open joints. Low spot causes backflow into open joint. Linear cracks throughout. Drain in good condition.

Building #64B

11/5-11/6-M Dual vertical C.O.'s pipes in good condition no visible defects.

Bulding #54

11/9-11/8-E 8" V.C. trough - slightly misaligned joints with minor linear cracks. Junction of vertical drain in good condition.

11/9-11/8-F 8" V.C. misaligned with joints open as much as ¼", drain worn but no visible breaks or cracks.

Building #36B

11/14-H 6" cement trough slightly worn but solid - no breaks or evidence of exfiltration.

11/14-J 8" V.C. trough, joints slightly open. Access difficulties at drains. No damaged or cracked sections.

11/14-I Not visible, located beneath floor.

Building #36A

11/14-A through G No evidence of system as shown on map, however, 8" V.C. trough runs along entire wall. This outlet is in good condition; all visible joints are sealed and the vertical drain is solid.

Building 36B

11/19-A Cannot inspect - line runs under floor

Building #26

13/2-A Could not lamp line due to ponded flow in MH. Opened trap and saw bare earth under broken pipe; any flow from building 26 or back flow from MH 13-2 would be absorbed into the ground at this point.

Building #200

13/3-A Lamped line at MH 4" V.C.P. all joints slightly misaligned but no evidence of leakage or structural damage.

13/2-B Unable to examine line due to excess steam in MH and in hot well.

Building #65

11/8-A Lamped line in MH 6" VCP, at 1st joint in from MH, pipe makes a sharp downward bend, leaving crown and sides of joint open at least ½" to 1".

Building #27

13/15-A-B-C & Abandoned Line D All 6" VCP. Line A changes from 3" VC to 6". Two joints before MH; all pipes misaligned with open joints. No visible breaks or damaged pipe in any line. No flow from any pipe.

Building #89

13/9-A & 13/10-A 10" cement troughs running along south and north walls respectively. Both are slightly worn but no damage is apparent in either. Connections to vertical drains are in good condition. Backed up flows, heat and fumes prevent lamping from outside pits.

Building #93

9/4-A-B-C-D Examined trough (12" Concrete) around walls of building. Trough worn, no visible damage. Clean-outs are filled with stagnant waste. Visible portion in good shape. Could not lamp connection to MH because of backed up flow.

Building #94

9/6-A Lamped line in MH 9-3. Line in fairly good shape; slight misalignment in some joints. No evidence of damage. Trough in building 94 (12" concrete) slightly decayed.

Building #95

9/5-A-B-C-D-E 4" vertical VCP cleanouts. Cannot examine due to piping and tubing permanently fixed to inside of C.O.'s from storage tanks. Was able to examine B - no damage evident, no joints visible.

9/7-A 4" V.C. vertical trap visible portion in good condition. Clean-outs sealed, unable to examine.

9/7-B 4" steel drain pipe above ground. No visible damage. Limited views of clean-outs because of connections from storage tanks.

Building #7

13/17-B 6" CIP pipe alignment good - moderate rust. No visible breaks - ½ pipe of flow ponded in line.

13/13-A 4" CIP - heavy sediment and ponded flow. Visible portion of pipe in fair condition. Moderage rust.

Building #7A

13/14-A Cannot examine - pit surcharged; no trace of pipe visible in building.

13/14-B & C C.O. pit has no flow going through pipe (6" V.C.) however, a flow depth of 2.5" was measured in a 90° V-notch weir in trough C. C.O. appeared to be in good condition. Trough C was slightly deteriorated.

13/14-D & E Vertical C.O.'s filled with water, could not examine.

Building #7

13/12-A 4" C.I.P. from tank light rust, aligned well no evidence of damage

13/13-A 6"C.I.P. cannot inspect fully because of sediment and ponded flow. Moderage pipe rust; portion of exterior visible in pit. No evidence of damage.

13/13-B Pipe has substantial amount of dirt - located at bottom of MH cannot examine.

Building #35/66

11/16-A Catch basin - 4" pipe (not 6") V.C.P. slight misalignment with possible fracture at 6th joint from C.B. 8" exit pipe has heavy roots at 2nd and 3rd joints with possible fracture at 3rd. All visible joints misaligned.

11/17-A through 35C 8" VC through with multiple cracks. Joints not sealed, most are open slightly. Junction with main line has joints open ± 1/8".

Cooling Tower #2

11/13-A Pit covered by full barrels; drain pipe visible inside builidng. V.C. 3" in good condition; no visible defects.

Building 72

13/1-A 4" C.I.P. lamped from MH. Light rust. Pipe aligned well no visible defects. Steam in line prevented more thorough examination.

18-A 10" VCP - could not examine. Heavy noxious, eye irritating fumes penetrated safety equipment. Inspected C.O. pit adjacent to stairs; pipes decayed but intact. No external damage.

Building #26

16-A Pipe not visible in MH 16 or in building. Heavy fumes - cannot enter. Same situation with 16-G. Clean-outs are all tarred shut. MH B exit pipe 2/3" full of dirt and debris. Lateral line E/G not visible. MH 16 junction of lateral has missing pipe with 2" wide x 8" long open gap with exposed earth.

16-C & D Exposed 3" steel pipe - 4" above floor. Possible leak at midway point - floor is eaten away. No other defects visible.

Building #75A

11/7-A Roof drain which is not connected to MH - water drains through pipes in loading dock onto blacktop.

Building #200

11/10-A & B Cleanouts too small to make observations. Pipe draining into MH (6" VCP) was lamped. All joints are badly misaligned, some open ± ½". Could not see point at which pipe splits into "Y" connection.

Hot Well 11/22 Could not see any pipes connecting.

11/22 & 11/10 Well filled to within 6" of rim - noxious vapors released when cover removed.

Building #68

11/3-11/4-A-B-C-D Unable to located cleanouts in building. Heavy machinery, high amounts of acid spills, and poor condition of floor area made attempt to find them - difficult.

SUMMARY OF TEST RESULTS

LOCATION: GIVAUDAN
125 Delawanna Avenue
LL-3 Clifton, NJ

DATE: 7-11-83

CUSTOMER: GIVAUDAN CORP.

COPIES TO: B. Turetsky

SYSTEM	TANK SIZE GALLONS	TANK SIZE DIAMETER INCHES	WATER INCHES	PUMP DISCHARGE PRESSURE TEST	LEAK LOKATOR RESULTS* LEVEL INCHES	LEAK LOKATOR RESULTS* GPH	LEAK LOKATOR RESULTS* CONCLUSION	COMMENTS - RECOMMENDATIONS
Tank #10314	10,000	96	0	N/A	126	-0.025	Tight	
Tank #4354	2,000	54	0	N/A	87	+0.009	Tight	

ADDITIONAL COMMENTS:

OTHER CHARGES: (i.e., pumpovers, overtime, parts, etc.)

LEVEL - INCHES FROM TANK BOTTOM TO TEST LEVEL
GPH - ABSOLUTE LEAK RATE (MEASURED LEAK RATE - TEMPERATURE COMPENSATION) IN GALLONS PER HOUR
CONCLUSION - NFPA 329 STANDARD OF ±0.05 GPH IS USED TO CERTIFY TIGHTNESS.

FINAL REPORT

ator

DATE OF TEST 7-11-83

CONTRACT NUMBER

UMMARY DATA

ER GIVAUDAN

ATION - IDENTIFICATION NUMBER BLDGS. 34 + 72

NAME

ADDRESS 125 DELAWANNA AVE.

CITY CLIFTON

STATE NJ

INSTALLATION AND TANK DATA (SEE LOCATION SCHEMATIC)

	NO.	SYSTEM PRODUCT	TANK NO.	CAPACITY GALLONS	DIAMETER (INCHES)	MATERIAL	APPROX. AGE (YEARS)	PUMP SYSTEM MAKE	PUMP SYSTEM SUCTION OR REMOTE	PUMP SYSTEM NO. OF NOZZLES	COVER GRADE (INCHES)	COVER TYPE	VAPOR RECOV.	TANK OPENINGS EXT.	TANK OPENINGS FILLS	TANK OPENINGS GAUGES	TANK OPENINGS OTHER
14	O	(BLDG 72) TOLUENE	1	10,300	96	S	?	X	S	X	127	grass	N	—	3"R	2"+6"	—
3																	
55	O	(BLDG) H_2O	1	2000	54	S	?	X	S	X	88	gravel	N	—	2"	—	—

4 GROUND WATER: DEPTH TO WATER TABLE _____ INCHES

5

WEATHER	TIME	TEMPERATURE	BAROMETRIC PRESSURE	COMMENTS
BEFORE TEST				
AFTER TEST				

TEST RESULTS SUMMARY — DETAILED TEST CHARTS ATTACHED

6

NO.	SYSTEM PRODUCT	TEST NO.	TEST LEVEL (INCHES)	TIME CLOCK START	TIME DURATION HRS.-MIN.	LEAK RATE CC/DIV	LEAK RATE CC/MIN	TEMPERATURE COMPENSATION TANK NO.	TEMPERATURE COMPENSATION Δ°F	TEMPERATURE COMPENSATION CC/MIN	ABSOLUTE LEAK RATE CC/MIN	ABSOLUTE LEAK RATE GPH	CHECK TEST Y or N	REMOTE LINE PRESSURE TEST	CONCLUSION
10314 O	TOLUENE	1	126	12:23	21	1.662	+.594	X	+.005	+2.177	-1.583	-.025	N	NA	TIGHT
34355 O	H_2O	1	87	10:30	16	.863	+.27	X	-.02	-.29	+.56	+.009	N	NA	TIGHT

7 OTHER INFORMATION

8 OTHER CONTRACTORS, OFFICIALS, CUSTOMER REPRESENTATIVES PRESENT

9 CERTIFICATION This is to certify that the above described tank systems were tested using the SUNMARK LEAK LOKATOR. Those indicated as "tight" meet the criteria established by the National Fire Protection Association Pamphlet 329.

TESTS CONDUCTED BY		CERTIFIED BY	
TEST VAN NO.	TANK TESTING SPECIALIST	SIGNATURE William Staats	DATE 7/11/8
LL-3	STAATS	NAME Bill Staats	TITLE Team Manag
	TANK TESTING SPECIALIST HENDERSON		

LEAK LOKATOR OFFICE USE ONLY

TRAVEL AND TEST TIME

10

SPECIALIST	LOCAL Y or N	TO SITE MILES	TO SITE TIME	FROM SITE MILES	FROM SITE TIME	ON SITE TIME	TOTAL TIME	COMMENTS
STAATS			2 1/4		3/4	6	9	
HENDERSON			3		3/4	6	9 3/4	

BILLING INFORMATION

11

TESTING CHARGE BASIC	ADD. SYSTEMS	ADD. TANKS	PUMP OVER	LINE TESTS	TOTAL	SUPPLIED PARTS NO.	ITEM	UNIT PRICE	TOTAL	ADDITIONAL CHARGES EXPLANATION	TOTAL	TOT BILLI

SUN-41383

Tokator

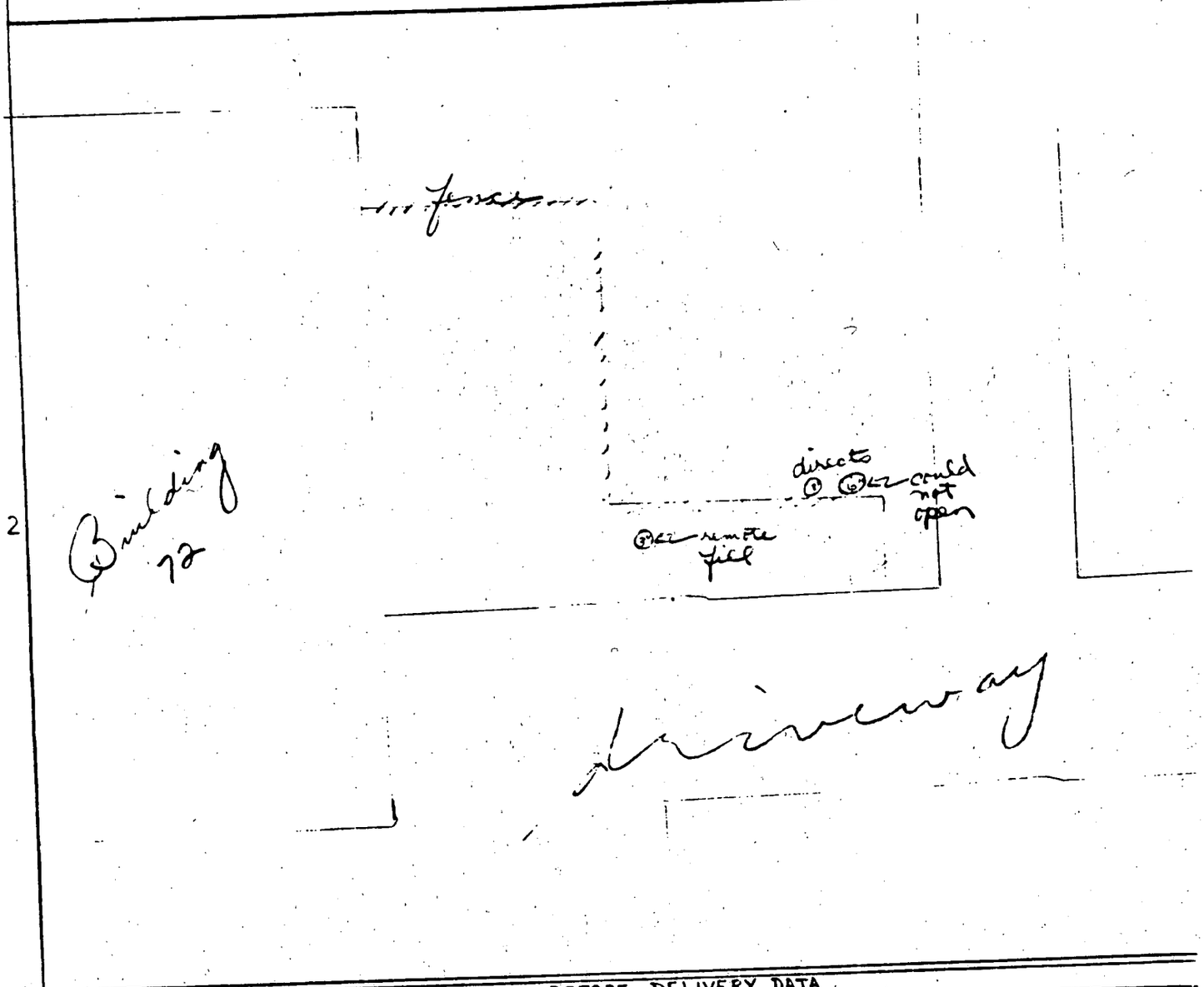
LOCATION DATA

DATE 7-11-83

STOMER GIVAUDAN

LOCATION - ID. BUILDING 72 | CITY CLIFTON | STATE NJ

SCHEMATIC



BEFORE DELIVERY DATA

SYSTEM			TANK NUMBER 1							TANK NUMBER 2						
NO.	PRODUCT	OPENING	GRADE	TOP OF RISER	PRODUCT LEVEL	PRODUCT GALLONS	PRODUCT °F	WATER	DROP TUBE	GRADE	TOP OF RISER	PRODUCT LEVEL	PRODUCT GALLONS	PRODUCT °F	WATER	DROP TUBE
0	TOLUENE	FILL	remote													
		GAUGE	127	138 1/2	91	98.77	X	1 1/4	none							
		OTHER														
3		FILL														
		GAUGE														
		OTHER														
		FILL														
		GAUGE														
		OTHER														
		FILL														
		GAUGE														
		OTHER														

SUN-413E3-1

TEST DATA SHEET 1-11-85

GIVAUDAN

I.D. BLDG. 72 | CITY CLIFTON | STATE NJ

NUMBER 0 | PRODUCT TOLUENE

TEST NUMBER 1

	TIME			NUMBER	LOCATION	DROP TUBE
ART	12:23	126	TEMPERATURE PROBE	19	2" gauge	none
ND			BALANCE AND SENSOR	1	[illegible]	none

CALIBRATION

OCATION gauge | METHOD solid rod

	1	2	3	4	5	6	AVERAGE
C'S ADDED (+) OR REMOVED	50	50	50	50	50	50	50
ECORDER READINGS START							
STOP							
Δ DIVISIONS	30	30.5	30.25	30	29.5	30.25	30.083

VERAGE CC'S PER DIVISION 1.662

LEAK RATE (LR) CALCULATION

$$LR = \frac{\pm \Delta \text{ DIVISIONS}}{\Delta \text{ MINUTE}} \times \text{CALIBRATION}, \quad \frac{CC}{\text{DIVISION}} = \frac{CC}{\text{MINUTE}} \quad \text{IN (+) OR OUT (-)}$$

$$LR = \frac{+7.5}{21} \times \frac{50}{30.083} = +.594$$

TEMPERATURE COMPENSATION (TC) CALCULATION

T 10,350 SYSTEM CAPACITY, GALLONS

°F +.005 ± TEMPERATURE DIFFERENTIAL, °F

TIME 60 TIME OF TEMP. DIFFERENTIAL, MINUTES

.00067 COEFFICIENT OF EXPANSION 1/°F

GRAVITY _____ TEMPERATURE, °F _____

$$TC = \frac{8785\ G_T\ C_E\ \Delta\ °F}{\Delta\ \text{TIME}} = \frac{CC}{\text{MINUTE}} \quad \text{IN (+) OR OUT (-)}$$

TC = +2.177

ABSOLUTE LEAK RATE (ALR) CALCULATION

$$\text{ABSOLUTE LEAK RATE} = \frac{+.594}{\text{LEAK RATE}} - \frac{2.177}{\text{TEMP. COMPENSATION}} = \frac{-1.583}{CC/MIN}$$

$$= \frac{}{CC/MIN} \times 0.015852^{*} = \frac{-.025}{GAL/HOUR}$$

☐ IF ALR > ± 0.05 GPH, A CHECK TEST WAS CONDUCTED WHICH CONFIRMS THE ABOVE RESULTS (CALCULATIONS ON CHART)

☐ SPECIAL CONDITIONS / INTERPRETATION / CONCLUSIONS _____

TEST NUMBER 2

Conditions and site preparation during this test are the same as TEST NUMBER 1 ☐ yes ☐ no, Explain _____

	TIME	LEVEL		NUMBER	LOCATION	DROP TUBE
TART			TEMPERATURE PROBE			
ND			BALANCE AND SENSOR			

CALIBRATION

OCATION | METHOD

	1	2	3	4	5	6	AVERAGE
C'S ADDED (+) OR REMOVED							
ECORDER READINGS START							
STOP							
Δ DIVISIONS							

VERAGE CC'S PER DIVISION

LEAK RATE (LR) CALCULATION

$$LR = \frac{\pm \Delta \text{ DIVISIONS}}{\Delta \text{ MINUTE}} \times \text{CALIBRATION}, \quad \frac{CC}{\text{DIVISION}} = \frac{CC}{\text{MINUTE}} \quad \text{IN (+) OR OUT (-)}$$

LR =

TEMPERATURE COMPENSATION (TC) CALCULATION

G_T _____ SYSTEM CAPACITY, GALLONS

Δ°F _____ ± TEMPERATURE DIFFERENTIAL, °F

Δ TIME _____ TIME OF TEMP. DIFFERENTIAL, MINUTES

C_E _____ COEFFICIENT OF EXPANSION 1/°F

GRAVITY _____ TEMPERATURE, °F _____

$$TC = \frac{8785\ G_T\ C_E\ \Delta\ °F}{\Delta\ \text{TIME}} = \frac{CC}{\text{MINUTE}} \quad \text{IN (+) OR OUT (-)}$$

TC =

ABSOLUTE LEAK RATE (ALR) CALCULATION

$$\text{ABSOLUTE LEAK RATE} = \frac{}{\text{LEAK RATE}} - \frac{}{\text{TEMP. COMPENSATION}} = \frac{}{CC/MIN}$$

$$= \frac{}{CC/MIN} \times 0.015852^{*} = \frac{}{GAL/HOUR}$$

☐ IF ALR > ± 0.05 GPH, A CHECK TEST WAS CONDUCTED WHICH CONFIRMS THE ABOVE RESULTS (CALCULATIONS ON CHART)

☐ SPECIAL CONDITIONS / INTERPRETATION / CONCLUSIONS _____

SVH-41363-3

* 60 MINUTES / HOUR ÷ 3785 CC / GALLON = 0.015852

CUSTOMER
0.

ID NO
72.

DATE
830711.

TEST LEVEL
126.

PRODUCT
0.

TIME START
1223.

ABSOLUTE LEAK RATE

LEAK RATE

CALIBRATIONS
30.
30.
30.5
30.25
30.25
29.5

AVG. =
30.083

CC'S -OR-=
50.000

CC'S/DIV. =
1.662

ΔDIV=
7.500

ΔCM=
21.000

CM/MIN=
1.000

L.R. =
0.594

TEMP. COMP.

CE=
0.00067

GAL. =
10300.

ΔTEMP
0.005

ΔTIME
60.

CONV. FACT=
3785.

T.C. =
2.177

ALR(CC'S/MIN.)=
-1.583

ALR(GPH)=
-0.025

lokator

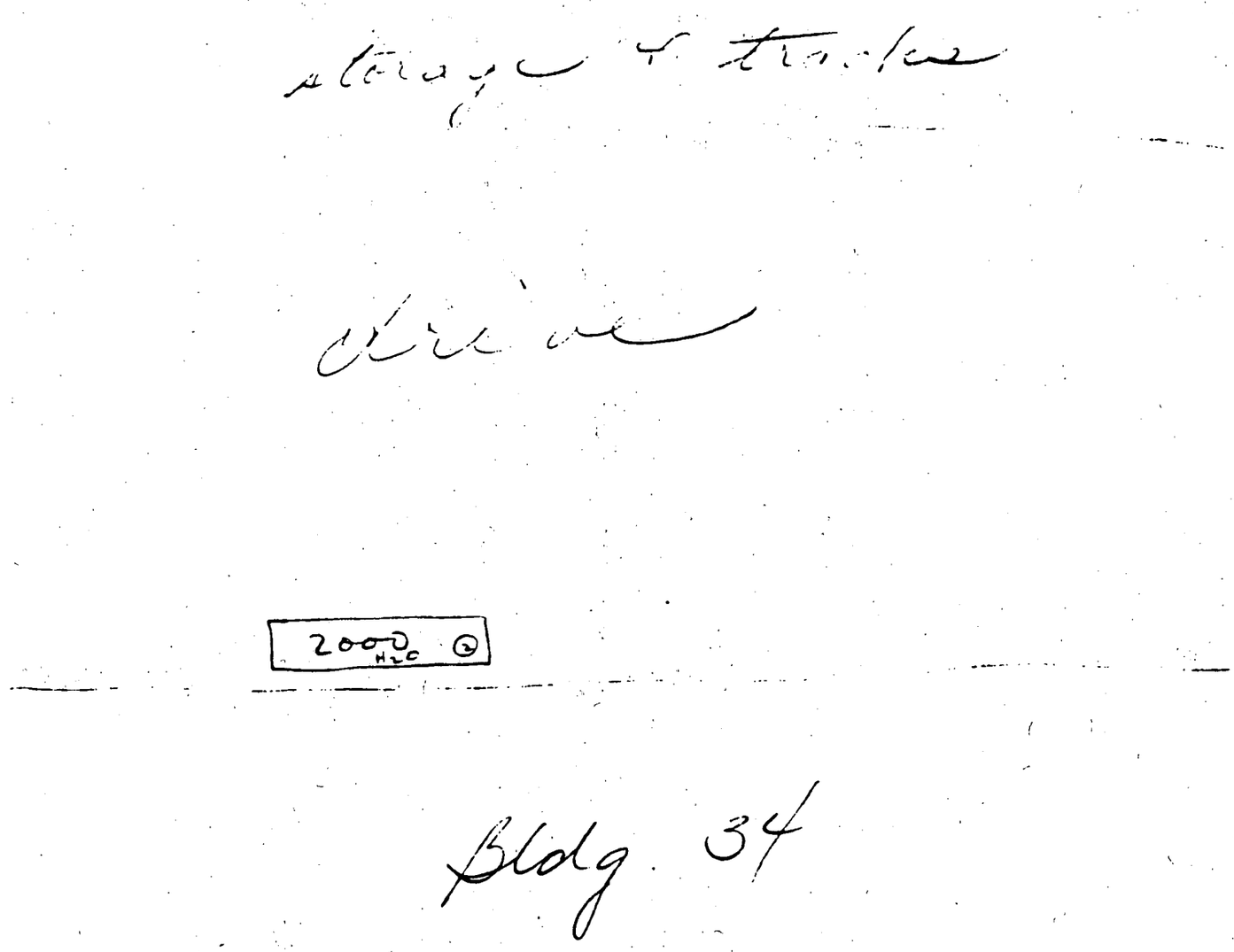
ST LOCATION DATA

DATE 7-11-83

CUSTOMER GIVAUDAN

1 LOCATION - ID. BLDG. 34 | CITY CLIFTON | STATE NJ

SCHEMATIC



BEFORE DELIVERY DATA

SYSTEM			TANK NUMBER 1							TANK NUMBER 2						
NO.	PRODUCT	OPENING	GRADE	TOP OF RISER	PRODUCT LEVEL	PRODUCT GALLONS	PRODUCT °F	WATER	DROP TUBE	GRADE	TOP OF RISER	PRODUCT LEVEL	PRODUCT GALLONS	PRODUCT °F	WATER	DROP TUBE
0	H_2O	FILL	88	91	88	2000	X	88	none							
		GAUGE														
		OTHER														
		FILL														
		GAUGE														
		OTHER														
		FILL														
		GAUGE														
		OTHER														
		FILL														
		GAUGE														
		OTHER														

3

SJIN-41383-1

TEST DATA SHEET

DATE 7-11-83

GTVAUDAN

...N-I.D. BLDG. 34	CITY CLIFTON	STATE NJ	
...EM NUMBER 0	PRODUCT H_2O		

TEST NUMBER 1

	TIME			NUMBER	LOCATION	DROP TUBE
START	10:30	87	TEMPERATURE PROBE	G	fill	none
END			BALANCE AND SENSOR	/	"	"

CALIBRATION

LOCATION fill METHOD solid rod

	1	2	3	4	5	6	AVERAGE
CC'S ADDED (+) OR REMOVED	25	25	25	25	25	25	25
RECORDER READINGS START							
STOP							
Δ DIVISIONS	31	30.5	28.5	28	28.25	27.5	28.958

AVERAGE CC'S PER DIVISION .863

LEAK RATE (LR) CALCULATION

$$LR = \frac{\pm \Delta \text{ DIVISIONS}}{\Delta \text{ MINUTE}} \times \text{CALIBRATION}, \quad \frac{CC}{\text{DIVISION}} = \frac{CC}{\text{MINUTE}} \quad \text{IN (+) OR OUT (-)}$$

$$LR = \frac{+5}{16} \times \frac{25}{28.958} = +.270$$

TEMPERATURE COMPENSATION (TC) CALCULATION

G_T 2000 SYSTEM CAPACITY, GALLONS

Δ°F -.02 ± TEMPERATURE DIFFERENTIAL, °F

Δ TIME 60 TIME OF TEMP. DIFFERENTIAL, MINUTES

C_E .000115 COEFFICIENT OF EXPANSION 1/°F

GRAVITY _____ TEMPERATURE, °F _____

$$TC = \frac{8785\ G_T\ C_E\ \Delta°F}{\Delta \text{ TIME}} = \frac{CC}{\text{MINUTE}} \quad \text{IN (+) OR OUT (-)}$$

TC = -.290

ABSOLUTE LEAK RATE (ALR) CALCULATION

$$\text{ABSOLUTE LEAK RATE} = \underset{\text{LEAK RATE}}{+.270} - \underset{\text{TEMP. COMPENSATION}}{-.290} = \underset{CC/MIN}{+.560}$$

$$= \underset{CC/MIN}{\_\_\_\_} \times 0.015852^{*} = \underset{GAL/HOUR}{+.009}$$

☐ IF ALR > ± 0.05 GPH, A CHECK TEST WAS CONDUCTED WHICH CONFIRMS THE ABOVE RESULTS (CALCULATIONS ON CHART)

☐ SPECIAL CONDITIONS / INTERPRETATION / CONCLUSIONS _____

TEST NUMBER 2

Conditions and site preparation during this test are the same as TEST NUMBER 1 ☐ yes ☐ no, Explain _____

	TIME	LEVEL		NUMBER	LOCATION	DROP TUBE
START			TEMPERATURE PROBE			
END			BALANCE AND SENSOR			

CALIBRATION

LOCATION METHOD

	1	2	3	4	5	6	AVERAGE
CC'S ADDED (+) OR REMOVED							
RECORDER READINGS START							
STOP							
Δ DIVISIONS							

AVERAGE CC'S PER DIVISION

LEAK RATE (LR) CALCULATION

$$LR = \frac{\pm \Delta \text{ DIVISIONS}}{\Delta \text{ MINUTE}} \times \text{CALIBRATION}, \quad \frac{CC}{\text{DIVISION}} = \frac{CC}{\text{MINUTE}} \quad \text{IN (+) OR OUT (-)}$$

LR =

TEMPERATURE COMPENSATION (TC) CALCULATION

G_T _____ SYSTEM CAPACITY, GALLONS

Δ°F _____ ± TEMPERATURE DIFFERENTIAL, °F

Δ TIME _____ TIME OF TEMP. DIFFERENTIAL, MINUTES

C_E _____ COEFFICIENT OF EXPANSION 1/°F

GRAVITY _____ TEMPERATURE, °F _____

$$TC = \frac{8785\ G_T\ C_E\ \Delta°F}{\Delta \text{ TIME}} = \frac{CC}{\text{MINUTE}} \quad \text{IN (+) OR OUT (-)}$$

TC =

ABSOLUTE LEAK RATE (ALR) CALCULATION

$$\text{ABSOLUTE LEAK RATE} = \underset{\text{LEAK RATE}}{\_\_\_\_} - \underset{\text{TEMP. COMPENSATION}}{\_\_\_\_} = \underset{CC/MIN}{\_\_\_\_}$$

$$= \underset{CC/MIN}{\_\_\_\_} \times 0.015852^{*} = \underset{GAL/HOUR}{\_\_\_\_}$$

☐ IF ALR > ± 0.05 GPH, A CHECK TEST WAS CONDUCTED WHICH CONFIRMS THE ABOVE RESULTS (CALCULATIONS ON CHART)

☐ SPECIAL CONDITIONS / INTERPRETATION / CONCLUSIONS _____

...N 41365-3

* 60 MINUTES / HOUR ÷ 8785 CC / GALLON = 0.015852

CUSTOMER
0.
ID NO
34.
DATE
830711.

TEST LEVEL
87.
PRODUCT
0.
TIME START
1030.

ABSOLUTE LEAK RATE

LEAK RATE

CALIBRATIONS
31.
30.5
28.5
28.
28.25
27.5
AVG. =
28.958
CC'S -DR-=
25.000
CC'S/DIV. =
0.863
ΔDIV=
5.000
ΔCM=
16.000
CM/MIN=
1.000

L.R. =
0.270

TEMP. COMP.

CE=
0.000115

GAL. =
2000.
ΔTEMP
-0.02
ΔTIME
60.
CONV. FACT=
3785.

T.C. =
-0.290

ALR(CC'S/MIN.)=
0.560

ALR(GPH)=
0.009

SUMMARY OF TEST RESULTS

LOCATION: GIVAUDAN
125 Delawanna Avenue
LL-3 Clifton, NJ

DATE: 7-15-83

CUSTOMER: GIVAUDAN

COPIES TO: B. Turetsky

SYSTEM	TANK SIZE		WATER INCHES	PUMP DISCHARGE PRESSURE TEST	LEAK LOKATOR RESULTS*			COMMENTS - RECOMMENDATIONS
	GALLONS	DIAMETER INCHES			LEVEL INCHES	GPH	CONCLUSION	
TU-611 1,2 Di-Chlorethan	8,000	96	---	N/A	102.5	+0.042	Tight	
Tank #10	20,000	120	All	N/A	158	+0.004	Tight	

ADDITIONAL COMMENTS:

OTHER CHARGES: (i.e., pumpovers, overtime, parts, etc.)

*LEVEL - INCHES FROM TANK BOTTOM TO TEST LEVEL
GPH - ABSOLUTE LEAK RATE (MEASURED LEAK RATE - TEMPERATURE COMPENSATION) IN GALLONS PER HOUR
CONCLUSION - NFPA 329 STANDARD OF ±0.05 GPH IS USED TO CERTIFY TIGHTNESS.

FINAL REPORT

RECEIVED AUG 03 1983 ENG. DEPT.
RECEIVED AUG 03 1983 ENG. DEPT.

Lokator

DATE OF TEST: 7-15-83

CONTRACT NUMBER:

SUMMARY DATA

CUSTOMER: GIVAUDAN

LOCATION-IDENTIFICATION NUMBER: BLDGS. 58 + 92

NAME: BILL TURETSKY

ADDRESS: 125 DELAWANNA AVE.

CITY: CLIFTON

STATE: NJ

INSTALLATION AND TANK DATA (SEE LOCATION SCHEMATIC)

NO.	SYSTEM PRODUCT	TANK NO.	CAPACITY GALLONS	DIAMETER (INCHES)	MATERIAL	APPROX. AGE (YEARS)	PUMP SYSTEM MAKE	PUMP SYSTEM SUCTION OR REPRIME	PUMP SYSTEM NO. OF NOZZLES	COVER GRADE (INCHES)	COVER TYPE	TANK OPENINGS VAPOR RECOV.	TANK OPENINGS EXT.	TANK OPENINGS FILLS	TANK OPENINGS GAUGES	TANK OPENINGS OTHER
U 011	1,2-Dichloroethane	1	8022	96	S	5	X	R	X	130	DIRT	X	X	3	3	(2) 24" manwa
10	H_2O	1	20,000	120	S	20+	X	R	X	160	DIRT	X	X	3 1/2	2	—

GROUND WATER: DEPTH TO WATER TABLE _____ INCHES

WEATHER	TIME	TEMPERATURE	BAROMETRIC PRESSURE	COMMENTS
BEFORE TEST				
AFTER TEST				

TEST RESULTS SUMMARY — DETAILED TEST CHARTS ATTACHED

NO.	SYSTEM PRODUCT	TEST NO.	TEST LEVEL (INCHES)	TIME CLOCK START	TIME DURATION HRS.-MIN.	LEAK RATE CC/DIV	LEAK RATE CC/MIN	TEMPERATURE COMPENSATION TANK NO.	TEMPERATURE COMPENSATION Δ°F	TEMPERATURE COMPENSATION CC/MIN	ABSOLUTE LEAK RATE CC/MIN	ABSOLUTE LEAK RATE GPH	CHECK TEST Y OR N	REMOTE LINE PRESSURE TEST	CONCLUSION
U 011	1,2-Dichloroethane	1	102½	9:13	26	29.056	+7.823	X	+.015	+5.165	+2.658	+.042	N	—	TIGHT
0	H_2O	1	158	11:41	23	1.81	-.157	X	-.003	-.435	+.004	+.004	N	—	TIGHT

OTHER INFORMATION: — Filled system and submersible pump leaked so we went down to 97". (Pump leaks at 104")

OTHER CONTRACTORS, OFFICIALS, CUSTOMER REPRESENTATIVES PRESENT: Bill Turetsky confirmed that the chemical is 1,2-dichloroethane ∴ CE .00075 was used. JOYCE - See back of page 4.

CERTIFICATION: This is to certify that the above described tank systems were tested using the SUNMARK LEAK LOKATOR. Those indicated as "tight" meet the criteria established by the National Fire Protection Association Pamphlet 329.

TEST VAN NO.	TESTS CONDUCTED BY: TANK TESTING SPECIALIST	TANK TESTING SPECIALIST	CERTIFIED BY: SIGNATURE	DATE	NAME	TITLE
LL-3	STAATS	HENDERSON	William L Staats		Bill Staats	Team Manager

LEAK LOKATOR OFFICE USE ONLY

TRAVEL AND TEST TIME

SPECIALIST	LOCAL Y OR N	TO SITE MILES	TO SITE TIME	FROM SITE MILES	FROM SITE TIME	ON SITE TIME	TOTAL TIME	COMMENTS
STAATS	N		1/4		2 1/2	6	8 3/4	
HENDERSON	N		1/4		3 1/2	6	9 3/4	

BILLING INFORMATION

TESTING CHARGE BASIC	ADD. SYSTEMS	ADD. TANKS	PUMP OVER	LINE TESTS	TOTAL	SUPPLIED PARTS NO.	ITEM	UNIT PRICE	TOTAL	ADDITIONAL CHARGES EXPLANATION	TOTAL	TOTAL BILLING

N-41303

Veeder-Root

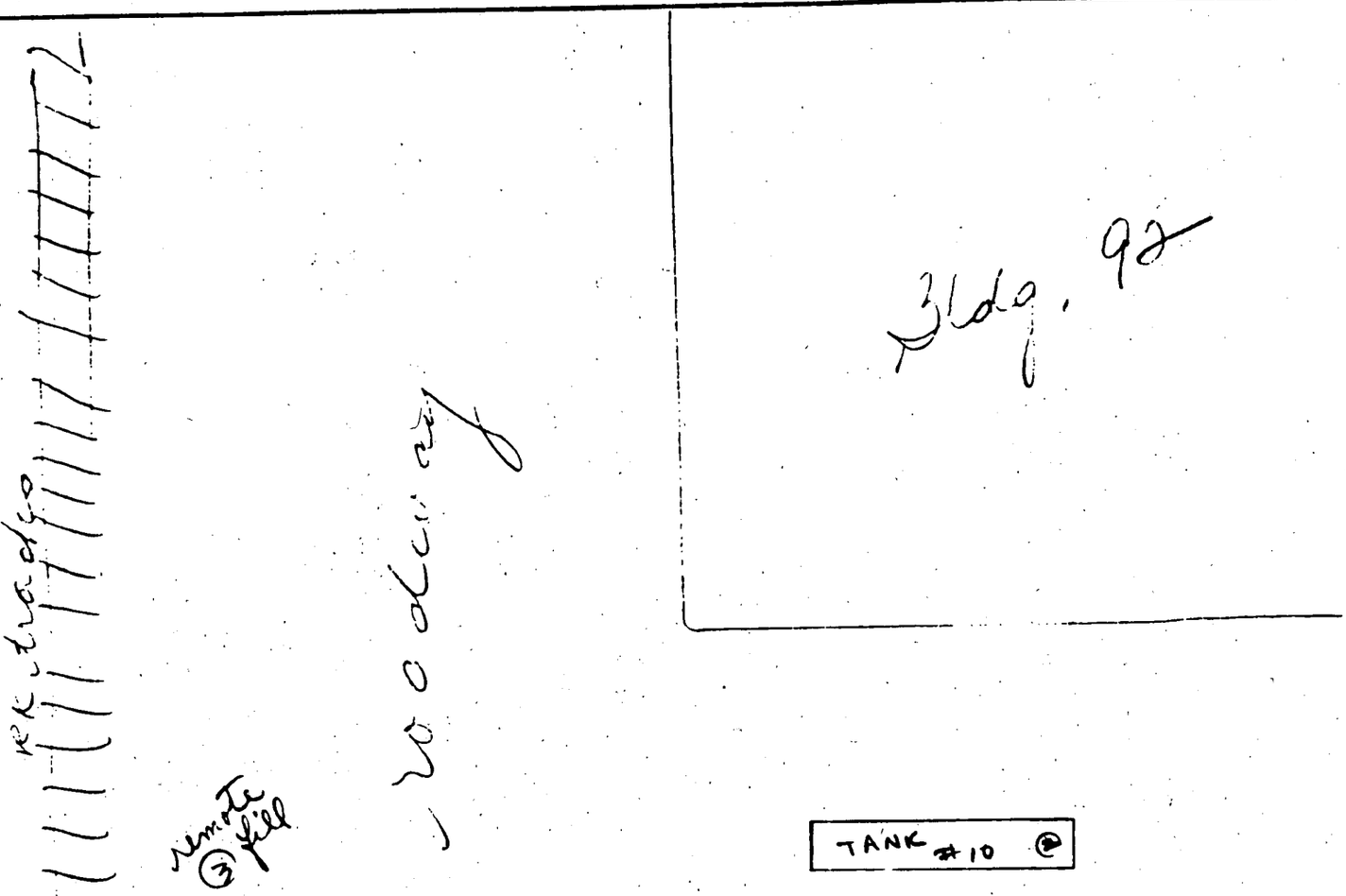
ST LOCATION DATA

DATE 7-15-83

CUSTOMER GIVAUDAN

LOCATION - ID. BLDG. 92 (SW CORNER) CITY CLIFTON STATE NJ

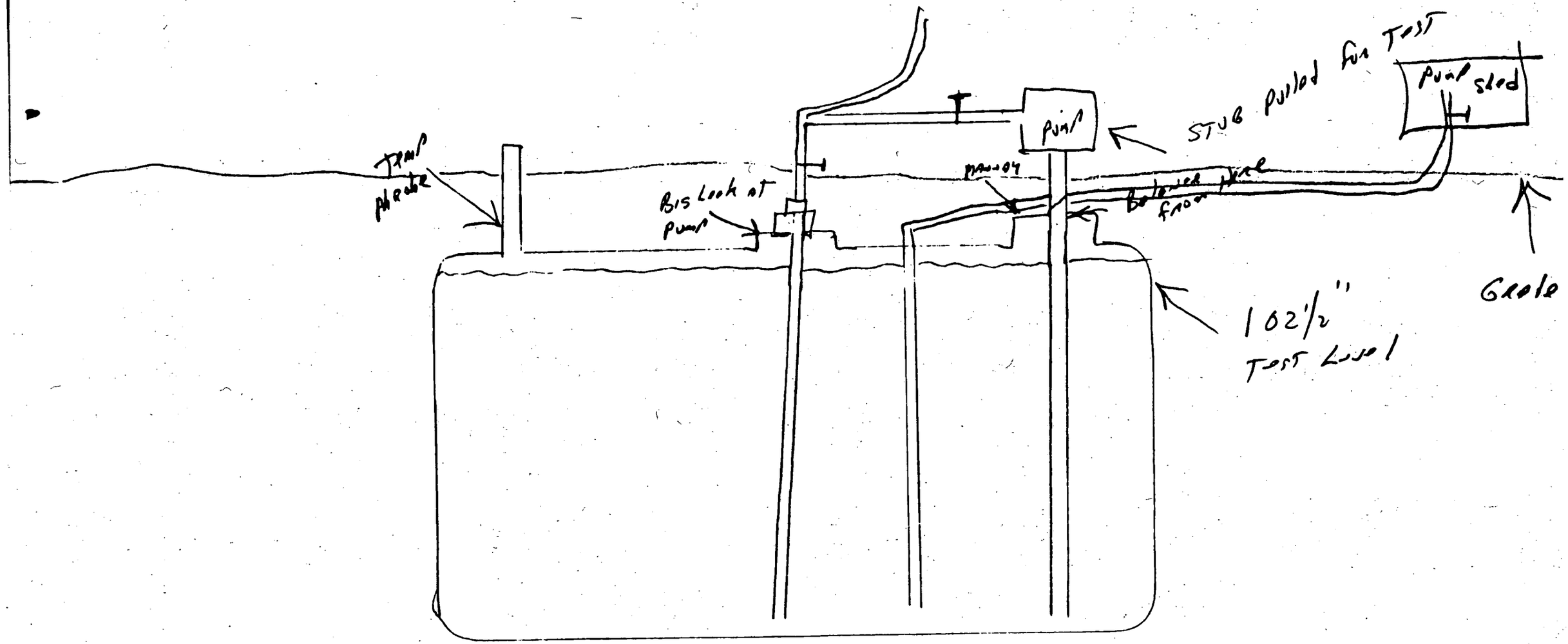
SCHEMATIC



BEFORE DELIVERY DATA

SYSTEM NO.	PRODUCT	OPENING	TANK NUMBER 1 GRADE	TOP OF RISER	PRODUCT LEVEL	PRODUCT GALLONS	°F	WATER	DROP TUBE	TANK NUMBER 2 GRADE	TOP OF RISER	PRODUCT LEVEL	PRODUCT GALLONS	°F	WATER	DROP TUBE
		FILL	remote													
	H_2O	GAUGE	158	160	158	20,000	X	158	none							
		OTHER														
		FILL														
		GAUGE														
		OTHER														
		FILL														
		GAUGE														
		OTHER														
		FILL														
		GAUGE														
		OTHER														

N-41363-1



No Lines Tested

Veeder-Root

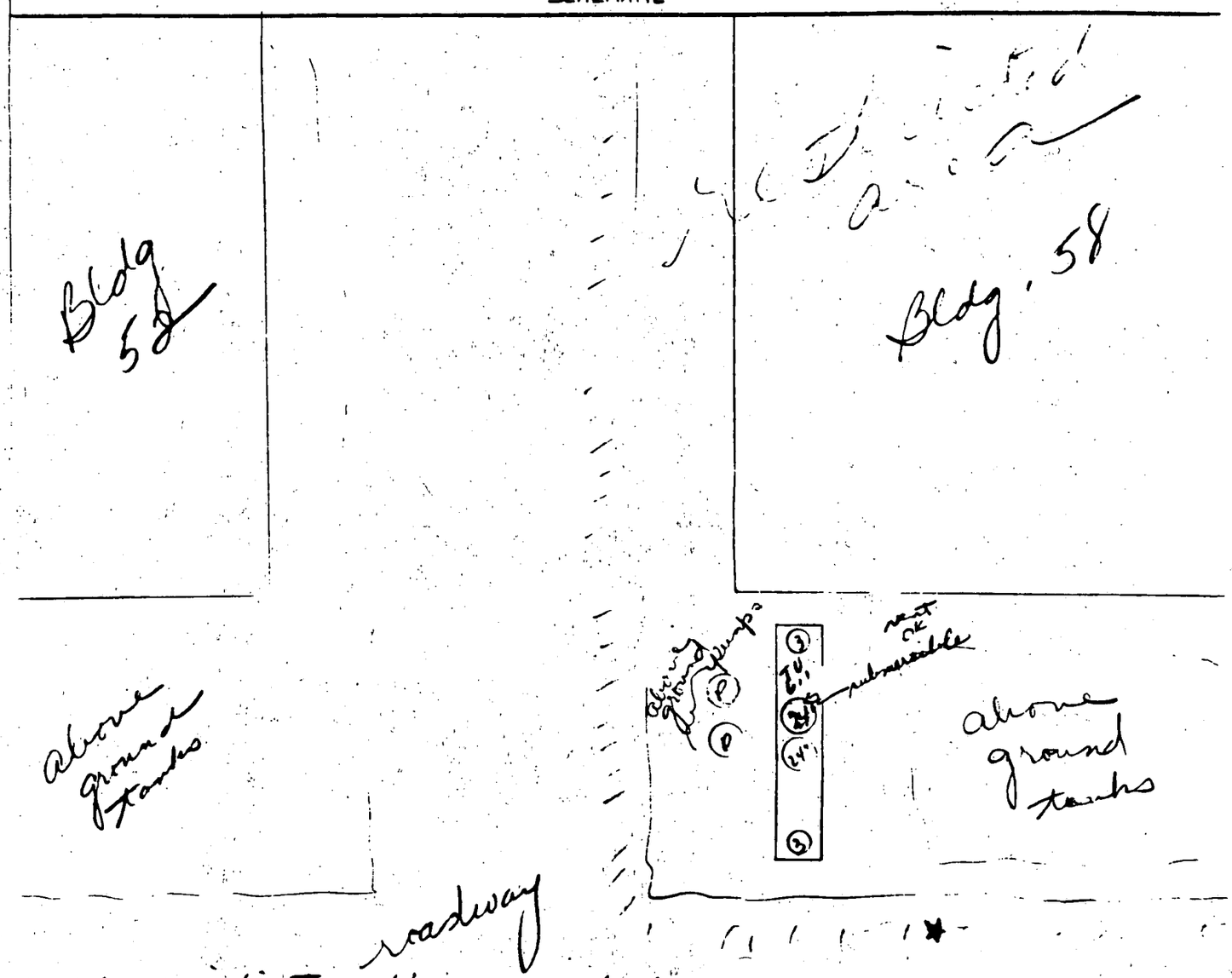
EST LOCATION DATA

DATE 7-15-83

CUSTOMER GIVAUDAN

LOCATION - I.D. BLDG. 58 | CITY CLIFTON | STATE NJ

SCHEMATIC



* ++++ indicates diapin area border

BEFORE DELIVERY DATA

SYSTEM NO.	PRODUCT	OPENING	TANK NUMBER 1 GRADE	TOP OF RISER	PRODUCT LEVEL	PRODUCT GALLONS	°F	WATER	DROP TUBE	TANK NUMBER 2 GRADE	TOP OF RISER	PRODUCT LEVEL	PRODUCT GALLONS	°F	WATER	DROP TUBE
	1,2 Dichloro-ethane	FILL	130	132	98 1/2	8022	X	16"	none							
		GAUGE														
		OTHER														
		FILL														
		GAUGE														
		OTHER														
		FILL														
		GAUGE														
		OTHER														
		FILL														
		GAUGE														
		OTHER														

Back

Sel

J-41563-1

TEST DATA SHEET

GIVAUDAN

STATION-I.D. BLDG. 58 (N.W. CORNER) CITY CLIFTON STATE NJ

SYSTEM NUMBER TU 611 PRODUCT 1,2-Dichloroethane

TEST NUMBER 1

	TIME			NUMBER	LOCATION	DROP TUBE
START	9:13	102 1/2	TEMPERATURE PROBE	R	fill	none
END		102 1/2	BALANCE AND SENSOR	1	fill	"

CALIBRATION

LOCATION gauge METHOD solid - cal

	1	2	3	4	5	6	AVERAGE
CC'S ADDED (+) OR REMOVED	500	500	500	500	500	500	500
RECORDER READINGS START							
STOP							
Δ DIVISIONS	17.5	17.5	17.25	17.25	16.5	17.25	17.2
AVERAGE CC'S PER DIVISION							29.0

LEAK RATE (LR) CALCULATION

$$LR = \frac{\pm \Delta \text{ DIVISIONS}}{\Delta \text{ MINUTE}} \times \text{CALIBRATION}, \quad \frac{CC}{DIVISION} = \frac{CC}{MINUTE} \quad \text{IN } (+) \text{ OR OUT } (-)$$

$$LR = \frac{+7}{26} \times \frac{500}{17.208} = +7.823$$

TEMPERATURE COMPENSATION (TC) CALCULATION

G_T 8022 SYSTEM CAPACITY, GALLONS

$\Delta °F$ +.015 ± TEMPERATURE DIFFERENTIAL, °F

Δ TIME 60 TIME OF TEMP. DIFFERENTIAL, MINUTES

C_E .0006804 COEFFICIENT OF EXPANSION 1/°F ✱ See NOTE on back

GRAVITY _____ TEMPERATURE _____

$$TC = \frac{8785\ G_T\ C_E\ \Delta °F}{\Delta \text{ TIME}} = \frac{CC}{MINUTE} \quad \text{IN } (+) \text{ OR OUT } (-)$$

$$TC = +5.165$$

ABSOLUTE LEAK RATE (ALR) CALCULATION

$$\text{ABSOLUTE LEAK RATE} = \frac{+7.823}{\text{LEAK RATE}} - \frac{+5.165}{\text{TEMP. COMPENSATION}} = \frac{+2.658}{CC/MIN}$$

$$= \frac{}{CC/MIN} \times 0.015852^{*} = \frac{+.042}{GAL/HOUR}$$

☐ IF ALR > ± 0.05 GPH, A CHECK TEST WAS CONDUCTED WHICH CONFIRMS THE ABOVE RESULTS (CALCULATIONS ON CHART)

☐ SPECIAL CONDITIONS / INTERPRETATION / CONCLUSIONS _____

TEST NUMBER 2

Conditions and site preparation during this test are the same as TEST NUMBER 1 ☐ yes ☐ no, Explain _____

	TIME	LEVEL		NUMBER	LOCATION	DROP TU
START			TEMPERATURE PROBE			
END			BALANCE AND SENSOR			

CALIBRATION

LOCATION METHOD

	1	2	3	4	5	6	AVER
CC'S ADDED (+) OR REMOVED							
RECORDER READINGS START							
STOP							
Δ DIVISIONS							
AVERAGE CC'S PER DIVISION							

LEAK RATE (LR) CALCULATION

$$LR = \frac{\pm \Delta \text{ DIVISIONS}}{\Delta \text{ MINUTE}} \times \text{CALIBRATION}, \quad \frac{CC}{DIVISION} = \frac{CC}{MINUTE} \quad \text{IN } (+) \text{ OR OUT } (-)$$

LR =

TEMPERATURE COMPENSATION (TC) CALCULATION

G_T _____ SYSTEM CAPACITY, GALLONS

$\Delta °F$ _____ ± TEMPERATURE DIFFERENTIAL, °F

Δ TIME _____ TIME OF TEMP. DIFFERENTIAL, MINUTES

C_E _____ COEFFICIENT OF EXPANSION 1/°F

GRAVITY _____ TEMPERATURE, °F _____

$$TC = \frac{8785\ G_T\ C_E\ \Delta °F}{\Delta \text{ TIME}} = \frac{CC}{MINUTE} \quad \text{IN } (+) \text{ OR}$$

TC =

ABSOLUTE LEAK RATE (ALR) CALCULATION

$$\text{ABSOLUTE LEAK RATE} = \frac{}{\text{LEAK RATE}} - \frac{}{\text{TEMP. COMPENSATION}} = \frac{}{CC/MIN}$$

$$= \frac{}{CC/MIN} \times 0.015852^{*} = \frac{}{GAL/HOUR}$$

☐ IF ALR > ± 0.05 GPH, A CHECK TEST WAS CONDUCTED WHICH CONFIRMS THE ABOVE RESULTS (CALCULATIONS ON CHART)

☐ SPECIAL CONDITIONS / INTERPRETATION / CONCLUSIONS _____

* 60 MINUTES / HOUR ÷ 3785 CC / GALLON = 0.015852

GUN-41983-3

TEST DATA SHEET

DATE: 7-15-83

OWNER: GIVAUDAN

LOCATION-I.D.: BLDG. 92 | CITY: CLIFTON | STATE: NJ

SYSTEM NUMBER: TANK #10 | PRODUCT: H_2O

TEST NUMBER 1

	TIME			NUMBER	LOCATION	DROP TUBE
START	11:41	158	TEMPERATURE PROBE	R	gauge	none
END			BALANCE AND SENSOR	1	Remote Fill	"

CALIBRATION

LOCATION: gauge | METHOD: solid rod

	1	2	3	4	5	6	AVERAGE
CC'S ADDED (+) OR REMOVED	50	50	50	50	50	50	50
RECORDER READINGS START							
STOP							
Δ DIVISIONS	28.25	27	28	27	27.75	27.75	27.62

AVERAGE CC'S PER DIVISION: 1.810

LEAK RATE (LR) CALCULATION

$$LR = \frac{\pm \Delta \text{ DIVISIONS}}{\Delta \text{ MINUTE}} \times \text{CALIBRATION}, \frac{CC}{DIVISION} = \frac{CC}{MINUTE} \quad \text{IN } (+) \text{ OR OUT } (-)$$

$$LR = \frac{-2}{23} \times \frac{50}{27.625} = -.157$$

TEMPERATURE COMPENSATION (TC) CALCULATION

20,000 SYSTEM CAPACITY, GALLONS

°F -.008 ± TEMPERATURE DIFFERENTIAL, °F

TIME 60 TIME OF TEMP. DIFFERENTIAL, MINUTES

.000115 COEFFICIENT OF EXPANSION 1/°F

GRAVITY _____ TEMPERATURE, °F _____

$$TC = \frac{3785\ G_T\ C_E\ \Delta °F}{\Delta \text{ TIME}} = \frac{CC}{MINUTE} \quad \text{IN } (+) \text{ OR OUT } (-)$$

$$TC = -.435$$

ABSOLUTE LEAK RATE (ALR) CALCULATION

$$\text{ABSOLUTE LEAK RATE} = \underset{\text{LEAK RATE}}{-.157} - \underset{\text{TEMP. COMPENSATION}}{-.435} = \underset{CC/MIN}{+.278}$$

$$= \underset{CC/MIN}{} \times 0.015852^{*} = \underset{GAL/HOUR}{+.004}$$

☐ IF ALR > ± 0.05 GPH, A CHECK TEST WAS CONDUCTED WHICH CONFIRMS THE ABOVE RESULTS (CALCULATIONS ON CHART)

SPECIAL CONDITIONS / INTERPRETATION / CONCLUSIONS _____

TEST NUMBER 2

Conditions and site preparation during this test are the same as TEST NUMBER 1 ☐ yes ☐ no, Explain _____

	TIME	LEVEL		NUMBER	LOCATION	DROP TUBE
START			TEMPERATURE PROBE			
END			BALANCE AND SENSOR			

CALIBRATION

LOCATION: | METHOD:

	1	2	3	4	5	6	AVERAGE
CC'S ADDED (+) OR REMOVED							
RECORDER READINGS START							
STOP							
Δ DIVISIONS							

AVERAGE CC'S PER DIVISION

LEAK RATE (LR) CALCULATION

$$LR = \frac{\pm \Delta \text{ DIVISIONS}}{\Delta \text{ MINUTE}} \times \text{CALIBRATION}, \frac{CC}{DIVISION} = \frac{CC}{MINUTE} \quad \text{IN } (+) \text{ OR OUT } (-)$$

LR =

TEMPERATURE COMPENSATION (TC) CALCULATION

_____ SYSTEM CAPACITY, GALLONS

°F _____ ± TEMPERATURE DIFFERENTIAL, °F

TIME _____ TIME OF TEMP. DIFFERENTIAL, MINUTES

_____ COEFFICIENT OF EXPANSION 1/°F

GRAVITY _____ TEMPERATURE, °F _____

$$TC = \frac{3785\ G_T\ C_E\ \Delta °F}{\Delta \text{ TIME}} = \frac{CC}{MINUTE} \quad \text{IN } (+) \text{ OR OUT } (-)$$

TC =

ABSOLUTE LEAK RATE (ALR) CALCULATION

$$\text{ABSOLUTE LEAK RATE} = \underset{\text{LEAK RATE}}{} - \underset{\text{TEMP. COMPENSATION}}{} = \underset{CC/MIN}{}$$

$$= \underset{CC/MIN}{} \times 0.015852^{*} = \underset{GAL/HOUR}{}$$

☐ IF ALR > ± 0.05 GPH, A CHECK TEST WAS CONDUCTED WHICH CONFIRMS THE ABOVE RESULTS (CALCULATIONS ON CHART)

SPECIAL CONDITIONS / INTERPRETATION / CONCLUSIONS _____

41363-3

* 60 MINUTES / HOUR ÷ 3785 CC / GALLON = 0.015852

SUMMARY OF TEST RESULTS

LOCATION: GIVUDAN
125 Delawanna Avenue
LL-3 Newark, NJ

DATE: 6-27-83

CUSTOMER: GIVUDAN

COPIES TO: B. Turetsky

SYSTEM	TANK SIZE		WATER INCHES	PUMP DISCHARGE PRESSURE TEST	LEAK LOKATOR RESULTS*			COMMENTS - RECOMMENDATIONS
	GALLONS	DIAMETER INCHES			LEVEL INCHES	GPH	CONCLUSION	
Toluene #TU-310	2,000	64	0	N/A	115.5	+0.032	Tight	
Tank #4355	2,000	64	All	N/A	87.0	+0.015	Tight	

ADDITIONAL COMMENTS:

OTHER CHARGES: (i.e., pumpovers, overtime, parts, etc.)

*LEVEL - INCHES FROM TANK BOTTOM TO TEST LEVEL
GPH - ABSOLUTE LEAK RATE (MEASURED LEAK RATE - TEMPERATURE COMPENSATION) IN GALLONS PER HOUR
CONCLUSION - NFPA 329 STANDARD OF ±0.05 GPH IS USED TO CERTIFY TIGHTNESS.

FINAL REPORT

33.0
80°

Leak Lokator

DATE OF TEST 6-27-83

CONTRACT NUMBER

TEST SUMMARY DATA

1 CUSTOMER GIVAUDAN

LOCATION-IDENTIFICATION NUMBER | NAME

2 ADDRESS 125 DELAWANNA | CITY CLIFTON | STATE NJ

INSTALLATION AND TANK DATA (SEE LOCATION SCHEMATIC)

	NO.	SYSTEM PRODUCT	TANK NO.	CAPACITY GALLONS	DIAMETER (INCHES)	MATERIAL	APPROX. AGE (YEARS)	PUMP SYSTEM MAKE	PUMP SYSTEM SUCTION OR PRESSURE	PUMP SYSTEM NO. OF MOTORS	COVER GRADE (INCHES)	COVER TYPE	TANK OPENINGS VAPOR RECOV.	TANK OPENINGS EXT.	TANK OPENINGS FILLS	TANK OPENINGS GAUGES	TANK OPENINGS OTHI
	TU 310	TOLUENE	1	2000	64	S	?	X	R	X	94.5	A	N	—	2"	—	—
3	4355	WATER	1	2000	54	S	2	X	R	X	86	DIET	N	—	2"	—	—

4 GROUND WATER: DEPTH TO WATER TABLE _____ INCHES

	WEATHER	TIME	TEMPERATURE	BAROMETRIC PRESSURE	COMMENTS
5	BEFORE TEST				HOT
	AFTER TEST				

TEST RESULTS SUMMARY — DETAILED TEST CHARTS ATTACHED

	NO.	SYSTEM PRODUCT	TEST NO.	TEST LEVEL (INCHES)	TIME CLOCK START	TIME DURATION HRS.-MIN.	LEAK RATE CC/DIV	LEAK RATE CC/MIN	TEMPERATURE COMPENSATION TANK NO.	TEMPERATURE COMPENSATION Δ°F	TEMPERATURE COMPENSATION CC/MIN	ABSOLUTE LEAK RATE CC/MIN	ABSOLUTE LEAK RATE GPH	CHECK TEST Y or N	REMOTE LINE PRESSURE TEST	CONCLUSION
	TU 310	TOLUENE	1	115½	9:04	15	1	+15.533	X	+.17	+13.512	+2.021	+.032	X	X	TIGHT
6	4355	WATER	2	87	10:35	21	1.053	+1.504	X	+.04	+.58	+.924	+.015	X	X	TIGH

7 OTHER INFORMATION

8 OTHER CONTRACTORS, OFFICIALS, CUSTOMER REPRESENTATIVES PRESENT

9 CERTIFICATION This is to certify that the above described tank systems were tested using the SUNMARK LEAK LOKATOR. Those indicated as "tight" meet the criteria established by the National Fire Protection Association Pamphlet 329.

TEST VAN NO.	TANK TESTING SPECIALIST	LEAK TESTING SPECIALIST	CERTIFIED BY SIGNATURE	NAME	TITLE	DATE
LL-3	STAATS	HENDERSON	W. F. Staats			6/27

LEAK LOKATOR OFFICE USE ONLY

TRAVEL AND TEST TIME

	SPECIALIST	LOCAL Y or N	TO SITE MILES	TO SITE TIME	FROM SITE MILES	FROM SITE TIME	ON SITE TIME	TOTAL TIME	COMMENTS
10	STAATS	Y		2½		2½	4	9	
	HENDERSON	Y		2½		2½	4	9	

BILLING INFORMATION

	TESTING CHARGE BASIC	ADD. SYSTEMS	ADD. TANKS	PUMP OVER	LINE TESTS	TOTAL	SUPPLIED PARTS NO.	ITEM	UNIT PRICE	TOTAL	ADDITIONAL CHARGES EXPLANATION	TOTAL	TOTAL BILLING
11													

SUN-41383

PAGE

leak locator

TEST LOCATION DATA

DATE 6-27-83

CUSTOMER GIVAUDAN

1 LOCATION - I.D.

CITY CLIFTON STATE NJ

SCHEMATIC

Building 46

TOLUENE 2000 ②

driveway

2

Buildway

① WATER

road

BEFORE DELIVERY DATA

SYSTEM			TANK NUMBER 1							TANK NUMBER 2						
NO.	PRODUCT	OPENING	GRADE	TOP OF RISER	PRODUCT LEVEL	PRODUCT GALLONS	PRODUCT °F	WATER	DROP TUBE	GRADE	TOP OF RISER	PRODUCT LEVEL	PRODUCT GALLONS	PRODUCT °F	WATER	DROP TUBE
TU 310	TOLUENE	FILL	94.5	134	115.5	2000	X	X	none							
		GAUGE														
		OTHER														
4355	WATER	FILL	86	88	87	2000	X	X	none							
		GAUGE														
3		OTHER														
		FILL														
		GAUGE														
		OTHER														
		FILL														
		GAUGE														
		OTHER														

BUN-41383-1

TEST DATA SHEET

6-27-85

1 CUSTOMER: GIVAUDAN
LOCATION-I.D.: BLDG. 35 CITY: CLIFTON STATE: NJ
2 SYSTEM NUMBER: 4355 PRODUCT: WATER

TEST NUMBER 1

	TIME			NUMBER	LOCATION	DROP TUBE
START	10:35	87"	TEMPERATURE PROBE	G	field	none
END			BALANCE AND SENSOR	1	"	"

CALIBRATION

LOCATION: field METHOD: solid rod

	1	2	3	4	5	6	AVERAGE
CC'S ADDED (+) OR REMOVED	25	25	25	25	25	25	25
RECORDER READINGS START							
STOP							
Δ DIVISIONS	23	24	23.75	24	24	23.75	23.7

AVERAGE CC'S PER DIVISION 1.05

LEAK RATE (LR) CALCULATION

$$LR = \frac{\pm \Delta \text{ DIVISIONS}}{\Delta \text{ MINUTE}} \times \text{CALIBRATION}, \quad \frac{CC}{DIVISION} = \frac{CC}{MINUTE} \quad \text{IN } (+) \text{ OR OUT } (-)$$

$$LR = \frac{+30}{21} \times \frac{25}{23.75} = +1.504$$

TEMPERATURE COMPENSATION (TC) CALCULATION

G_T 2000 SYSTEM CAPACITY, GALLONS

$\Delta°F$ +.04 ± TEMPERATURE DIFFERENTIAL, °F

Δ TIME 60 TIME OF TEMP. DIFFERENTIAL, MINUTES

C_E .000115 COEFFICIENT OF EXPANSION 1/°F

GRAVITY _____ TEMPERATURE, °F _____

$$TC = \frac{8785\ G_T\ C_E\ \Delta°F}{\Delta \text{ TIME}} = \frac{CC}{MINUTE} \quad \text{IN } (+) \text{ OR OUT } (-)$$

TC = +.580

ABSOLUTE LEAK RATE (ALR) CALCULATION

$$\text{ABSOLUTE LEAK RATE} = \underset{\text{LEAK RATE}}{+1.504} - \underset{\text{TEMP. COMPENSATION}}{+.580} = \underset{CC/MIN}{+.924}$$

$$= \frac{}{CC/MIN} \times 0.015852^{*} = \frac{+.015}{GAL/HOUR}$$

☐ IF ALR > ± 0.05 GPH, A CHECK TEST WAS CONDUCTED WHICH CONFIRMS THE ABOVE RESULTS (CALCULATIONS ON CHART)

☐ SPECIAL CONDITIONS / INTERPRETATION / CONCLUSIONS _____

TEST NUMBER 2

Conditions and site preparation during this test are the same as TEST NUMBER 1 ☐ yes ☐ no, Explain _____

	TIME	LEVEL		NUMBER	LOCATION	DROP TUBE
START			TEMPERATURE PROBE			
END			BALANCE AND SENSOR			

CALIBRATION

LOCATION: METHOD:

	1	2	3	4	5	6	AVERAGE
CC'S ADDED (+) OR REMOVED							
RECORDER READINGS START							
STOP							
Δ DIVISIONS							

AVERAGE CC'S PER DIVISION

LEAK RATE (LR) CALCULATION

$$LR = \frac{\pm \Delta \text{ DIVISIONS}}{\Delta \text{ MINUTE}} \times \text{CALIBRATION}, \quad \frac{CC}{DIVISION} = \frac{CC}{MINUTE} \quad \text{IN } (+) \text{ OR OUT } (-)$$

LR =

TEMPERATURE COMPENSATION (TC) CALCULATION

G_T _____ SYSTEM CAPACITY, GALLONS

$\Delta°F$ _____ ± TEMPERATURE DIFFERENTIAL, °F

Δ TIME _____ TIME OF TEMP. DIFFERENTIAL, MINUTES

C_E _____ COEFFICIENT OF EXPANSION 1/°F

GRAVITY _____ TEMPERATURE, °F _____

$$TC = \frac{8785\ G_T\ C_E\ \Delta°F}{\Delta \text{ TIME}} = \frac{CC}{MINUTE} \quad \text{IN } (+) \text{ OR OUT } (-)$$

TC =

ABSOLUTE LEAK RATE (ALR) CALCULATION

$$\text{ABSOLUTE LEAK RATE} = \underset{\text{LEAK RATE}}{\_\_\_} - \underset{\text{TEMP. COMPENSATION}}{\_\_\_} = \underset{CC/MIN}{\_\_\_}$$

$$= \frac{}{CC/MIN} \times 0.015852^{*} = \frac{}{GAL/HOUR}$$

☐ IF ALR > ± 0.05 GPH, A CHECK TEST WAS CONDUCTED WHICH CONFIRMS THE ABOVE RESULTS (CALCULATIONS ON CHART)

☐ SPECIAL CONDITIONS / INTERPRETATION / CONCLUSIONS _____

GUN-41363-3

* 60 MINUTES / HOUR ÷ 8785 CC / GALLON = 0.015852

...or

...MMARY DATA

DATE OF TEST: 6-10-83

CONTRACT NUMBER:

...ER: [illegible]VAUDAN

LOCATION - IDENTIFICATION NUMBER:

NAME: BILL TURETSKY

ADDRESS: [illegible] AVE

CITY: CLIFTON

STATE: NJ

INSTALLATION AND TANK DATA (SEE LOCATION SCHEMATIC)

NO.	SYSTEM PRODUCT	TANK NO.	CAPACITY GALLONS	DIAMETER (INCHES)	MATERIAL	APPROX. AGE (YEARS)	PUMP SYSTEM MAKE	PUMP SYSTEM SUCTION OR REMOTE	PUMP SYSTEM NO. OF NOZZLES	COVER GRADE (INCHES)	COVER TYPE	VAPOR RECOV.	TANK OPENINGS EXT.	TANK OPENINGS FILLS	TANK OPENINGS GAUGES	TANK OPENINGS OTHER
0	TU 531	1	5084	96	S	11	X	R	X	169	grate	N	—	3"	—	—
0	TU 533	1	5084	96	S	12	X	R	X	169	grate	N	X	3"	—	—

GROUND WATER: DEPTH TO WATER TABLE _____ INCHES

WEATHER	TIME	TEMPERATURE	BAROMETRIC PRESSURE	COMMENTS
BEFORE TEST				
AFTER TEST				

TEST RESULTS SUMMARY — DETAILED TEST CHARTS ATTACHED

NO.	SYSTEM PRODUCT	TEST NO.	TEST LEVEL (INCHES)	TIME CLOCK START	TIME DURATION HRS - MIN	LEAK RATE CC/DIV	LEAK RATE CC/MIN	TEMPERATURE COMPENSATION TANK NO.	TEMPERATURE COMPENSATION Δ°F	TEMPERATURE COMPENSATION CC/MIN	ABSOLUTE LEAK RATE CC/MIN	ABSOLUTE LEAK RATE GPH	CHECK TEST Y or N	REMOTE LINE PRESSURE TEST	CONCLUSION
0	TU 531	1	165	10:40	18	1.99	+4.091	X	+.069	12.545	+1.546	+.025	N	NA	TIGHT
	TU 533	1	163	8:40	19	1.855	+1.074	X	+.045	+1.66	-.586	-.009	N	NA	TIGHT

OTHER INFORMATION

OTHER CONTRACTORS, OFFICIALS CUSTOMER REPRESENTATIVES PRESENT

CERTIFICATION

This is to certify that the above described tank systems were tested using the SUNMARK LEAK LOKATOR. Those indicated as "tight" meet the criteria established by the National Fire Protection Association Pamphlet 329.

TESTS CONDUCTED BY		CERTIFIED BY	
TEST VAN NO.	TANK TESTING SPECIALIST: STAMS	SIGNATURE	DATE
CC-3	TANK TESTING SPECIALIST: [illegible]	NAME	TITLE

LEAK LOKATOR OFFICE USE ONLY

TRAVEL AND TEST TIME

SPECIALIST	LOCAL Y or N	TO SITE MILES	TO SITE TIME	FROM SITE MILES	FROM SITE TIME	ON SITE TIME	TOTAL TIME	COMMENTS
STAMS			1/2		2 1/2	6	9	
[illegible]			1/2		3 1/2	6	10	
[illegible]			2 1/2		2 1/2	6	11	

BILLING INFORMATION

TESTING CHARGE BASIC	ADD. SYSTEMS	ADD. TANKS	PUMP OVER	LINE TESTS	TOTAL	SUPPLIED PARTS NO.	ITEM	UNIT PRICE	TOTAL	ADDITIONAL CHARGES EXPLANATION	TOTAL	TOTAL BILLING
												↓

41393

okator

ST LOCATION DATA

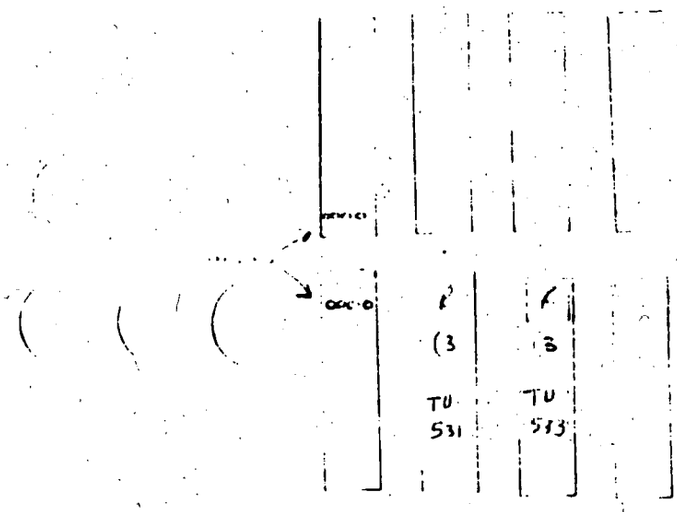
DATE [illegible]

CUSTOMER [illegible]

1 LOCATION – ID. | CITY [illegible] | STATE NJ

SCHEMATIC

2



BEFORE DELIVERY DATA

SYSTEM			TANK NUMBER 1							TANK NUMBER 2						
NO.	PRODUCT	OPENING	GRADE	TOP OF RISER	PRODUCT LEVEL	PRODUCT GALLONS	PRODUCT °F	WATER	DROP TUBE	GRADE	TOP OF RISER	PRODUCT LEVEL	PRODUCT GALLONS	PRODUCT °F	WATER	DROP TUBE
1	TU531	FILL	NA	168½	165	50[illegible]4	X	165	none							
		GAUGE														
		OTHER														
2	TU533	FILL	NA	16[illegible]1	163	50[illegible]4	X	163	none							
		GAUGE														
		OTHER														
		FILL														
		GAUGE														
		OTHER														
		FILL														
		GAUGE														
		OTHER														

3

TEST DATA SHEET

[illegible]

[illegible]	CITY CLIFTON	STATE NJ	
NUMBER TU 535	PRODUCT [illegible]		

TEST NUMBER 1

	TIME			NUMBER	LOCATION	DROP TUBE
START	8:40	1.3	TEMPERATURE PROBE	R	[illegible]	none
END			BALANCE AND SENSOR	2	"	"

CALIBRATION

LOCATION [illegible] METHOD [illegible]

	1	2	3	4	5	6	AVERAGE
CC'S ADDED (+) OR REMOVED	50	50	50	50	50	50	50
RECORDER READINGS START							
STOP							
Δ DIVISIONS	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	30.25	26.95

AVERAGE CC'S PER DIVISION 1.85

LEAK RATE (LR) CALCULATION

$$LR = \frac{\pm \Delta \text{ DIVISIONS}}{\Delta \text{ MINUTE}} \times \text{CALIBRATION}, \frac{CC}{DIVISION} = \frac{CC}{MINUTE} \quad \text{IN } (+) \text{ OR OUT } (-)$$

$$LR = \frac{-1}{1} \times \frac{50}{26.95} = +1.074$$

TEMPERATURE COMPENSATION (TC) CALCULATION

G_T [illegible] SYSTEM CAPACITY, GALLONS

$\Delta °F$ +.045 ± TEMPERATURE DIFFERENTIAL, °F

Δ TIME [illegible] TIME OF TEMP DIFFERENTIAL, MINUTES

C_E [illegible] COEFFICIENT OF EXPANSION 1/°F

GRAVITY _____ TEMPERATURE, °F _____

$$TC = \frac{8785\ G_T\ C_E\ \Delta °F}{\Delta \text{ TIME}} = \frac{CC}{MINUTE} \quad \text{IN } (+) \text{ OR OUT } (-)$$

$$TC = +1.660$$

ABSOLUTE LEAK RATE (ALR) CALCULATION

$$\text{ABSOLUTE LEAK RATE} = \frac{+1.074}{\text{LEAK RATE}} - \frac{+1.660}{\text{TEMP. COMPENSATION}} = \frac{-.586}{CC/MIN}$$

$$= \frac{}{CC/MIN} \times 0.015852^{*} = \frac{-.0104}{GAL/HOUR}$$

☐ IF ALR > ± 0.05 GPH, A CHECK TEST WAS CONDUCTED WHICH CONFIRMS THE ABOVE RESULTS (CALCULATIONS ON CHART)

☐ SPECIAL CONDITIONS / INTERPRETATION / CONCLUSIONS _____

TEST NUMBER 2

CONDITIONS AND CALIBRATION DURING THIS TEST ARE THE SAME AS TEST NUMBER 1 ☐ YES ☐ NO, EXPLAIN _____

	TIME	LEVEL		NUMBER	LOCATION	DROP TUBE
START			TEMPERATURE PROBE			
END			BALANCE AND SENSOR			

CALIBRATION

LOCATION _____ METHOD _____

	1	2	3	4	5	6	AVERAGE
CC'S ADDED (+) OR REMOVED							
RECORDER READINGS START							
STOP							
Δ DIVISIONS							

AVERAGE CC'S PER DIVISION

LEAK RATE (LR) CALCULATION

$$LR = \frac{\pm \Delta \text{ DIVISIONS}}{\Delta \text{ MINUTE}} \times \text{CALIBRATION}, \frac{CC}{DIVISION} = \frac{CC}{MINUTE} \quad \text{IN } (+) \text{ OR OUT } (-)$$

LR =

TEMPERATURE COMPENSATION (TC) CALCULATION

G_T _____ SYSTEM CAPACITY, GALLONS

$\Delta °F$ _____ ± TEMPERATURE DIFFERENTIAL, °F

Δ TIME _____ TIME OF TEMP. DIFFERENTIAL, MINUTES

C_E _____ COEFFICIENT OF EXPANSION 1/°F

GRAVITY _____ TEMPERATURE, °F _____

$$TC = \frac{8785\ G_T\ C_E\ \Delta °F}{\Delta \text{ TIME}} = \frac{CC}{MINUTE} \quad \text{IN } (+) \text{ OR OUT } (-)$$

TC =

ABSOLUTE LEAK RATE (ALR) CALCULATION

$$\text{ABSOLUTE LEAK RATE} = \frac{}{\text{LEAK RATE}} - \frac{}{\text{TEMP. COMPENSATION}} = \frac{}{CC/MIN}$$

$$= \frac{}{CC/MIN} \times 0.015852^{*} = \frac{}{GAL/HOUR}$$

☐ IF ALR > ± 0.05 GPH, A CHECK TEST WAS CONDUCTED WHICH CONFIRMS THE ABOVE RESULTS (CALCULATIONS ON CHART)

☐ SPECIAL CONDITIONS / INTERPRETATION / CONCLUSIONS _____

* 60 MINUTES / HOUR ÷ 8785 CC / GALLON = 0.015852

CUSTOMER
0.
ID NO
0.
DATE
830610.

TEST LEVEL
163.
PRODUCT
533.
TIME START
840.

ABSOLUTE LEAK RATE

LEAK RATE

CALIBRATIONS
27.
25.5
26.25
26.
27.
30.25
AVG. =
27.000
CC'S +OR-=
50.000
CC'S/DIV.=
1.852
ΔDIV=
11.000
ΔCM=
19.000
CM/MIN=
1.000

L.R. =
1.072

TEMP. COMP.

GAL. =
5084.
ΔTEMP
0.045
ΔTIME
60.
CE=
0.000115
CONV. FACT=
3785.

T.C. =
1.660

ALR(C
ALR(C'S/M IN.
-0.588

ALR(GPH)=
-0.009

SUMMARY OF TEST RESULTS

LOCATION: GIVUDAN, 125 Delawanna Ave.
LL-3 Clifton, NJ

DATE: 6-10-83

CUSTOMER: GIVUDAN CORP.

COPIES TO: Bill Turetsky

SYSTEM	TANK SIZE		WATER INCHES	PUMP DISCHARGE PRESSURE TEST	LEAK DOCTOR RESULTS*			COMMENTS - RECOMMENDATIONS
	GALLONS	DIAMETER INCHES			LEVEL INCHES	GPH	CONCLUSION	
Tolvene #531	5000	96"	All H_2O	N/A	165"	+0.025	Tight	
Tolvene #533	5000	96"	All H_2O	N/A	163"	-0.009	Tight	

ADDITIONAL COMMENTS:

OTHER CHARGES: (i.e., pumpovers, overtime, parts, etc.)

*LEVEL - INCHES FROM TANK BOTTOM TO TEST LEVEL
GPH - ABSOLUTE LEAK RATE (MEASURED LEAK RATE - TEMPERATURE COMPENSATION) IN GALLONS PER HOUR
CONCLUSION - NFPA 329 STANDARD OF ±0.05 GPH IS USED TO CERTIFY TIGHTNESS.

FINAL REPORT

TEST DATA SHEET

[illegible] | CITY [illegible] | STATE NJ

NUMBER [illegible] | PRODUCT [illegible]

TEST NUMBER 1

	TIME			NUMBER	LOCATION	DROP TUBE
START		165	TEMPERATURE PROBE	B	[illegible]	[illegible]
END			BALANCE AND SENSOR	[illegible]		11

CALIBRATION

LOCATION [illegible] | METHOD [illegible]

	1	2	3	4	5	6	AVERAGE
CC'S ADDED (+) OR REMOVED		50	50	50			50
RECORDER READINGS START							
STOP							
Δ DIVISIONS	24.25	26.25	25	25			25.1[illegible]
AVERAGE CC'S PER DIVISION							1.99[illegible]

LEAK RATE (LR) CALCULATION

$$LR = \frac{\pm \Delta \text{ DIVISIONS}}{\Delta \text{ MINUTE}} \times \text{CALIBRATION}, \quad \frac{CC}{\text{DIVISION}} = \frac{CC}{\text{MINUTE}} \quad \text{IN } (+) \text{ OR OUT } (-)$$

$$LR = +\frac{37}{18} \times \frac{50}{25.125} = +4.091$$

TEMPERATURE COMPENSATION (TC) CALCULATION

G_T [illegible] SYSTEM CAPACITY, GALLONS

$\Delta°F$ +[illegible] ± TEMPERATURE DIFFERENTIAL, °F

Δ TIME [illegible] TIME OF TEMP DIFFERENTIAL, MINUTES

C_E [illegible] COEFFICIENT OF EXPANSION 1/°F

GRAVITY _____ TEMPERATURE, °F _____

$$TC = \frac{8785\, G_T\, C_E\, \Delta°F}{\Delta \text{ TIME}} = \frac{CC}{\text{MINUTE}} \quad \text{IN } (+) \text{ OR OUT } (-)$$

$$TC = +2.545$$

ABSOLUTE LEAK RATE (ALR) CALCULATION

$$\text{ABSOLUTE LEAK RATE} = \frac{+4.091}{\text{LEAK RATE}} - \frac{+2.545}{\text{TEMP. COMPENSATION}} = \frac{+1.546}{CC/MIN}$$

$$= \frac{}{CC/MIN} \times 0.015852^{*} = \frac{+.025}{GAL/HOUR}$$

☐ IF ALR > ± 0.05 GPH, A CHECK TEST WAS CONDUCTED WHICH CONFIRMS THE ABOVE RESULTS (CALCULATIONS ON CHART)

☐ SPECIAL CONDITIONS / INTERPRETATION / CONCLUSIONS _____

TEST NUMBER 2

Conditions and site preparation during this test are the same as TEST NUMBER 1 ☐ yes ☐ no, Explain _____

	TIME	LEVEL		NUMBER	LOCATION	DROP TU
START			TEMPERATURE PROBE			
END			BALANCE AND SENSOR			

CALIBRATION

LOCATION | METHOD

	1	2	3	4	5	6	AVER
CC'S ADDED (+) OR REMOVED							
RECORDER READINGS START							
STOP							
Δ DIVISIONS							
AVERAGE CC'S PER DIVISION							

LEAK RATE (LR) CALCULATION

$$LR = \frac{\pm \Delta \text{ DIVISIONS}}{\Delta \text{ MINUTE}} \times \text{CALIBRATION}, \quad \frac{CC}{\text{DIVISION}} = \frac{CC}{\text{MINUTE}} \quad \text{IN } (+) \text{ OR OUT } (-)$$

LR =

TEMPERATURE COMPENSATION (TC) CALCULATION

G_T _____ SYSTEM CAPACITY, GALLONS

$\Delta°F$ _____ ± TEMPERATURE DIFFERENTIAL, °F

Δ TIME _____ TIME OF TEMP. DIFFERENTIAL, MINUTES

C_E _____ COEFFICIENT OF EXPANSION 1/°F

GRAVITY _____ TEMPERATURE, °F _____

$$TC = \frac{8785\, G_T\, C_E\, \Delta°F}{\Delta \text{ TIME}} = \frac{CC}{\text{MINUTE}} \quad \text{IN } (+) \text{ OR}$$

TC =

ABSOLUTE LEAK RATE (ALR) CALCULATION

$$\text{ABSOLUTE LEAK RATE} = \frac{}{\text{LEAK RATE}} - \frac{}{\text{TEMP. COMPENSATION}} = \frac{}{CC/MIN}$$

$$= \frac{}{CC/MIN} \times 0.015852^{*} = \frac{}{GAL/HOUR}$$

☐ IF ALR > ± 0.05 GPH, A CHECK TEST WAS CONDUCTED WHICH CONFIRMS THE ABOVE RESULTS (CALCULATIONS ON CHART)

☐ SPECIAL CONDITIONS / INTERPRETATION / CONCLUSIONS _____

* 60 MINUTES / HOUR ÷ 8785 CC / GALLON = 0.015852

SVN 41583-3

Appendix B
National Water Main Cleaning Co. Report

NATIONAL WATER MAIN CLEANING CO.
Specializing in today's needs for environmental protection.
875 Summer Avenue • Newark, NJ 07104-3684 • (973) 483-3200 • Fax (973) 483-5065

ERM
DELAWANNA AVENUE
CLIFTON, NEW JERSEY
CLOSED CIRCUIT TELEVISION INSPECTION OF SEWERS
TAPE #1

SALVATORE F. PERRI
PRESIDENT

A Carylon Company

National Watermain Cleaning Co.
875 N. Summer Avenue
Newark, NJ 07104
Tel: 800-242-7257, Fax: 973-483-5065

INSPECTION REPORT

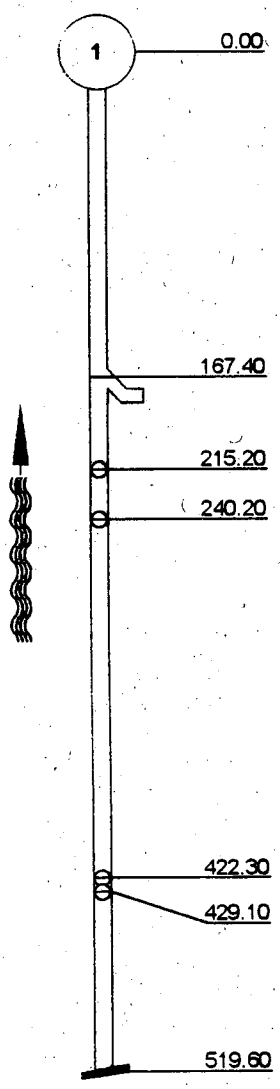
DATE:	WORK ORDER #:	WEATHER:	OPERATOR:	SECTION NUMBER:	SECTION NAME:
10/26/98	**ERMM01-003**	**DRY**	**RICH KARWOWSKI**	**1**	
PRESENT:	VEHICLE:	CAMERA:	PRESET:	CLEANED:	GRADE:
RON(ERM)	**TRUCK #30**	**MULTI-ANGLE**	**6'**	**LIGHT**	

CITY: **CLIFTON**	MAP #1:	SECT LENGTH: **519.6 FT**
STREET: **DELAWANNA AVE.**	MAP #2:	MH: **1**
LOCATION: **IN PLANT**	TAPE #: **1**	MH: **BLDG.**

INSPECT REASON: **GENERAL CONDITION**	PIPE SIZE: **10"**
SECTION TYPE: **PROCESS**	MATERIAL: **OTHER, SECT LENGTH:**
AREA:	LINER:

REMARK:

1:1175



POSITION	CODE	OBSERVATION	CNTR	PHOTO	GRADE
0.00	ST	Start of survey	00:00:00		0
167.40	BR	Major Branch, AT 9 o´clock	00:11:50		0
215.20	BR	Major Branch, AT 12 o´clock/CAPPED	00:15:35		0
240.20	BR	Major Branch, AT 12 o´clock	00:17:36		0
422.30	BR	Major Branch, AT 12 o´clock/CAPPED	00:29:54		0
429.10	BR	Major Branch, AT 12 o´clock	00:30:48		0
519.60	SA	Survey abandoned,CAMERA BLOCKED			0

National Watermain Cleaning Co.
875 N. Summer Avenue
Newark, NJ 07104
Tel: 800-242-7257, Fax: 973-483-5065

INSPECTION REPORT

DATE:	WORK ORDER #:	WEATHER:	OPERATOR:	SECTION NUMBER:	SECTION NAME:
10/26/98	ERMM01-003	DRY	RICH KARWOWSKI	2	
PRESENT:	VEHICLE:	CAMERA:	PRESET:	CLEANED:	GRADE:
RON(ERM)	TRUCK #30	MULTI-ANGLE	6'		

CITY: CLIFTON
STREET: DELAWANNA AVE.
LOCATION: IN PLANT

MAP #1:
MAP #2:
TAPE #: 1

SECT LENGTH: 72.2 FT
MH: BLDG/1A.
MH: 1

INSPECT REASON: GENERAL CONDITION
SECTION TYPE: PROCESS
AREA:

PIPE SIZE: 10"
MATERIAL: OTHER, SECT LENGTH:
LINER:

REMARK:

1:175 POSITION		CODE	OBSERVATION	CNTR	PHOTO	GRADE
BLDG/1A	0.00	ST	Start of survey/UPSTREAM	00:39:46		0
	72.20	SA	Survey abandoned,END OBSERVATION	00:44:54		0

National Watermain Cleaning Co.
875 N. Summer Avenue
Newark, NJ 07104
Tel: 800-242-7257, Fax: 973-483-5065

INSPECTION REPORT

DATE:	WORK ORDER #:	WEATHER:	OPERATOR:	SECTION NUMBER:	SECTION NAME:
10/26/98	ERMM01-003	DRY	RICH KARWOWSKI	3	
PRESENT:	VEHICLE:	CAMERA:	PRESET:	CLEANED:	GRADE:
RON(ERM)	TRUCK #30	MULTI-ANGLE	6'		

CITY: **CLIFTON**
STREET: **DELAWANNA AVE.**
LOCATION: **IN PLANT**

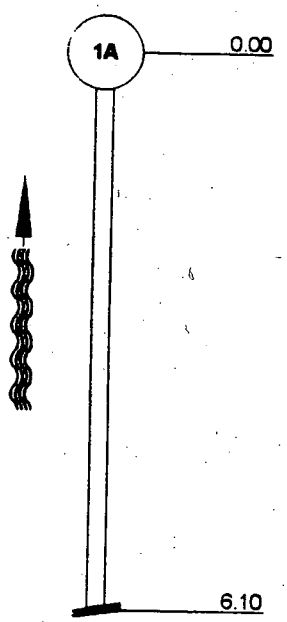
MAP #1:
MAP #2:
TAPE #: **1**

SECT LENGTH: **6.1 FT**
MH: **1A**
MH: **BLDG.**

INSPECT REASON: **GENERAL CONDITION**
SECTION TYPE: **PROCESS**
AREA:

PIPE SIZE: **10"**
MATERIAL: **OTHER, SECT LENGTH:**
LINER:

REMARK:



1:25 POSITION	CODE	OBSERVATION	CNTR	PHOTO	GRADE
0.00	ST	Start of survey,DOWNSTREAM	00:44:55		0
6.10	SA	Survey abandoned,INCLINE/UP	00:46:26		0

National Watermain Cleaning Co.
875 N. Summer Avenue
Newark, NJ 07104
Tel: 800-242-7257. Fax: 973-483-5065

INSPECTION REPORT

DATE:	WORK ORDER #:	WEATHER:	OPERATOR:	SECTION NUMBER:	SECTION NAME:
10/26/98	ERMM01-003	DRY	RICH KARWOWSKI	4	
PRESENT:	VEHICLE:	CAMERA:	PRESET:	CLEANED:	GRADE:
RON(ERM)	TRUCK #30	MULTI-ANGLE	6'		

CITY: CLIFTON	MAP #1:	SECT LENGTH: 27.8 FT
STREET: DELAWANNA AVE.	MAP #2:	MH: 1
LOCATION: IN PLANT	TAPE #: 1	MH: TIE IN

INSPECT REASON: GENERAL CONDITION	PIPE SIZE: 12"
SECTION TYPE: PROCESS	MATERIAL: OTHER, SECT LENGTH:
AREA:	LINER:

REMARK: possible grout

1:75 POSITION	CODE	OBSERVATION	CNTR	PHOTO	GRADE
3.00	ST	Start of survey,UPSTREAM	00:00:00		0
27.80	SA	Survey abandonedcamera blocked/hard material	00:00:00	4_2a	0

National Watermain Cleaning Co.
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Newark, NJ 07104
Tel: 800-242-7257, Fax: 973-483-5065

INSPECTION REPORT

DATE:	WORK ORDER #:	WEATHER:	OPERATOR:	SECTION NUMBER:	SECTION NAME:
10/26/98	ERMM01-003	DRY	RICH KARWOWSKI	5	
PRESENT:	VEHICLE:	CAMERA:	PRESET:	CLEANED:	GRADE:
RON(ERM)	TRUCK #30	MULTI-ANGLE	6'		

CITY: CLIFTON	MAP #1:	SECT LENGTH: 227.3 FT
STREET: DELAWANNA AVE.	MAP #2:	MH: 1
LOCATION: IN PLANT	TAPE #: 1	MH: TIE IN

INSPECT REASON: GENERAL CONDITION	PIPE SIZE: 12"
SECTION TYPE: PROCESS	MATERIAL: OTHER, SECT LENGTH:
AREA:	LINER:

REMARK:

1:525 POSITION	CODE	OBSERVATION	CNTR	PHOTO	GRADE
36.00	ST	Start of survey	00:49:37		0
227.30	SA	Survey abandoned,TIE IN	00:57:09		0

National Watermain Cleaning Co.
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Newark, NJ 07104
Tel: 800-242-7257, Fax: 973-483-5065

INSPECTION REPORT

DATE:	WORK ORDER #:	WEATHER:	OPERATOR:	SECTION NUMBER:	SECTION NAME:
10/26/98	ERMM01-003	DRY	RICH KARWOWSKI	5	
PRESENT:	**VEHICLE:**	**CAMERA:**	**PRESET:**	**CLEANED:**	**GRADE:**
RON(ERM)	TRUCK #30	MULTI-ANGLE	6'		

CITY: CLIFTON	MAP #1:	SECT LENGTH: 227.3 FT
STREET: DELAWANNA AVE.	MAP #2:	MH: 1
LOCATION: IN PLANT	TAPE #: 1	MH: TIE IN

INSPECT REASON: GENERAL CONDITION	PIPE SIZE: 12"
SECTION TYPE: PROCESS	MATERIAL: OTHER, SECT LENGTH:
AREA:	LINER:

REMARK:

1:525 POSITION	CODE	OBSERVATION	CNTR	PHOTO	GRADE
36.00	ST	Start of survey	00:49:37		0
227.30	SA	Survey abandoned,TIE IN	00:57:09		0

National Watermain Cleaning Co.
875 N. Summer Avenue
Newark, NJ 07104
Tel: 800-242-7257, Fax: 973-483-5065

INSPECTION REPORT

DATE:	WORK ORDER #:	WEATHER:	OPERATOR:	SECTION NUMBER:	SECTION NAME:
10/26/98	ERMM01-003	DRY	RICH KARWOWSKI	4	
PRESENT:	VEHICLE:	CAMERA:	PRESET:	CLEANED:	GRADE:
RON(ERM)	TRUCK #30	MULTI-ANGLE	6'		

CITY: CLIFTON	MAP #1:	SECT LENGTH: 27.8 FT
STREET: DELAWANNA AVE.	MAP #2:	MH: 1
LOCATION: IN PLANT	TAPE #: 1	MH: TIE IN

INSPECT REASON: GENERAL CONDITION	PIPE SIZE: 12"
SECTION TYPE: PROCESS	MATERIAL: OTHER, SECT LENGTH:
AREA:	LINER:

REMARK: possible grout

1:75 POSITION	CODE	OBSERVATION	CNTR	PHOTO	GRADE
3.00	ST	Start of survey,UPSTREAM	00:00:00		0
27.80	SA	Survey abandonedcamera blocked/hard material	00:00:00	4_2a	0

National Watermain Cleaning Co.
875 N. Summer Avenue
Newark, NJ 07104
Tel: 800-242-7257, Fax: 973-483-5065

INSPECTION REPORT

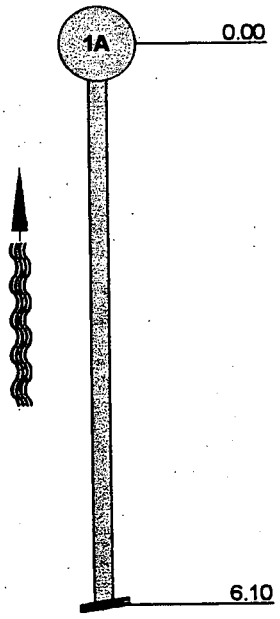
DATE:	WORK ORDER #:	WEATHER:	OPERATOR:	SECTION NUMBER:	SECTION NAME:
10/26/98	**ERMM01-003**	**DRY**	**RICH KARWOWSKI**	**3**	
PRESENT:	VEHICLE:	CAMERA:	PRESET:	CLEANED:	GRADE:
RON(ERM)	**TRUCK #30**	**MULTI-ANGLE**	**6'**		

CITY: **CLIFTON**	MAP #1:	SECT LENGTH: **6.1 FT**
STREET: **DELAWANNA AVE.**	MAP #2:	MH: **1A**
LOCATION: **IN PLANT**	TAPE #: **1**	MH: **BLDG.**

INSPECT REASON:	**GENERAL CONDITION**	PIPE SIZE:	**10"**
SECTION TYPE:	**PROCESS**	MATERIAL:	**OTHER, SECT LENGTH:**
AREA:		LINER:	

REMARK:

1:25 POSITION	CODE	OBSERVATION	CNTR	PHOTO	GRADE
0.00	ST	Start of survey,DOWNSTREAM	00:44:55		0
6.10	SA	Survey abandoned,INCLINE/UP	00:46:26		0



National Watermain Cleaning Co.
875 N. Summer Avenue
Newark, NJ 07104
Tel: 800-242-7257, Fax: 973-483-5065

INSPECTION REPORT

DATE:	WORK ORDER #:	WEATHER:	OPERATOR:	SECTION NUMBER:	SECTION NAME:
10/26/98	ERMM01-003	DRY	RICH KARWOWSKI	2	
PRESENT:	VEHICLE:	CAMERA:	PRESET:	CLEANED:	GRADE:
RON(ERM)	TRUCK #30	MULTI-ANGLE	6'		

CITY: CLIFTON	MAP #1:	SECT LENGTH: 72.2 FT
STREET: DELAWANNA AVE.	MAP #2:	MH: BLDG/1A.
LOCATION: IN PLANT	TAPE #: 1	MH: 1

INSPECT REASON: GENERAL CONDITION	PIPE SIZE: 10"
SECTION TYPE: PROCESS	MATERIAL: OTHER, SECT LENGTH:
AREA:	LINER:

REMARK:

1:175 POSITION	CODE	OBSERVATION	CNTR	PHOTO	GRADE
BLDG/1A 0.00	ST	Start of survey/UPSTREAM	00:39:46		0
72.20	SA	Survey abandoned,END OBSERVATION	00:44:54		0

National Watermain Cleaning Co.
875 N. Summer Avenue
Newark, NJ 07104
Tel: 800-242-7257, Fax: 973-483-5065

INSPECTION REPORT

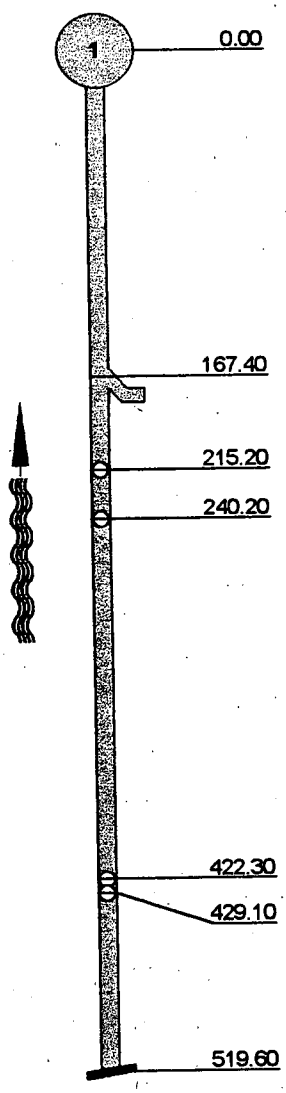
DATE:	WORK ORDER #:	WEATHER:	OPERATOR:	SECTION NUMBER:	SECTION NAME:
10/26/98	ERMM01-003	DRY	RICH KARWOWSKI	1	
PRESENT:	**VEHICLE:**	**CAMERA:**	**PRESET:**	**CLEANED:**	**GRADE:**
RON(ERM)	TRUCK #30	MULTI-ANGLE	6'	LIGHT	

CITY: CLIFTON	MAP #1:	SECT LENGTH: 519.6 FT
STREET: DELAWANNA AVE.	MAP #2:	MH: 1
LOCATION: IN PLANT	TAPE #: 1	MH: BLDG.

INSPECT REASON: GENERAL CONDITION	PIPE SIZE: 10"
SECTION TYPE: PROCESS	MATERIAL: OTHER, SECT LENGTH:
AREA:	LINER:

REMARK:

1:1175



POSITION	CODE	OBSERVATION	CNTR	PHOTO	GRADE
0.00	ST	Start of survey	00:00:00		0
167.40	BR	Major Branch, AT 9 o´clock	00:11:50		0
215.20	BR	Major Branch, AT 12 o´clock/CAPPED	00:15:35		0
240.20	BR	Major Branch, AT 12 o´clock	00:17:36		0
422.30	BR	Major Branch, AT 12 o´clock/CAPPED	00:29:54		0
429.10	BR	Major Branch, AT 12 o´clock	00:30:48		0
519.60	SA	Survey abandoned,CAMERA BLOCKED			0

Appendix C
Water Characterization, Transportation and Disposal Documentation

Reifsneider Transportation Inc

Environmental Services
223 FELLOWSHIP ROAD
P.O. BOX 756
EAGLE, PA 19480
(610) 458-9333 • FAX (610) 458-2577

NFA • F-[illegible] • Bulk Liquid Disposal

BILL OF LADING NO. 76013

TRANSPORTER E.P.A. I.D. NUMBER
PAR 000001107

GENERATORS E.P.A. I.D. NUMBER	TELEPHONE NO:	DATE: 2-2-99
CUSTOMER NAME: Givaudan Roure EWMI	ACCOUNT NO.	DISPOSAL SITE: Berks County
ADDRESS: Clifton NJ		ADDRESS: Reading Pa
		MANIFEST NO: 08052

TIME OF DEPARTURE	3:30	ALLOTTED TIME	
TIME OF ARRIVAL AT CUSTOMER	3:30 PM	DEMURRAGE TIME	N/A
TIME OF DEPARTURE FROM CUSTOMER	4:00 PM	REASON FOR DELAY	Pumped out Baker tank
TIME OF ARRIVAL AT DISPOSAL SITE	6/2 700		
TIME OF DEPARTURE FROM DISPOSAL SITE	925		
TOTAL TIME			STOCK IN MUD!

- ☐ MUNICIPAL
- ☒ INDUSTRIAL
- ☐ COMMERCIAL
- ☐ RESIDENTIAL
- ☐ RAW SEWAGE
- ☐ SEWAGE SLUDGE
- ☐ LEACHATE
- ☐ PRODUCTION WASTE
- ☐ SEPTIC TANK/CESSPOOL
- ☐ FOOD PROCESSING
- ☐ HOLDING TANK
- ☐ GREASE TRAP
- ☐ LAGOON/DIGESTOR
- ☐ WET WELL/PUMP STATION
- ☒ OTHER Sediment Basin Water
- ☐ PORTAL TO PORTAL
- RATE
- PH

VOLUME REMOVED: 1500 GALLONS 5500 OTHER ✓

WEIGHT:
GROSS WEIGHT _____ LBS.
TARE WEIGHT _____ LBS.
NET WEIGHT _____ LBS.

☐ HAZARDOUS WASTE ☐ HAZARDOUS MATERIAL
U.S.D.O.T. DESCRIPTION
PROPER SHIPPING NAME
HAZARD CLASS OR DIVISION
I.D. NUMBER
PACKING GROUP _____ WASTE NO. _____

MILEAGE:
ODOMETER AT DEPARTURE _____ ODOMETER AT DESTINATION _____

☒ VACUUM TRAILER ☐ MC 306 TRAILER ☐ MC 312 ☐ OTHER

NOTES/INSTRUCTIONS:

[signature]
Bob DeLucia

CUSTOMER SIGNATURE: Chris Cunningham	DRIVER NAME: Bob	
DISPOSAL SITE SIGNATURE:	TRACTOR NO: 422	TRAILER NO: 4764
	408	576

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Reifsneider Transportation Inc

Environmental Services
223 FELLOWSHIP ROAD
P.O. BOX 756
EAGLE, PA 19480
(610) 458-9333 • FAX (610) 458-2577

BILL OF LADING NO. 77126

TRANSPORTER E.P.A. I.D. NUMBER
PAR 000001107

GENERATORS E.P.A. I.D. NUMBER	TELEPHONE NO:	DATE: 2-12-99
CUSTOMER NAME: Givaudan-Roure Corp	ACCOUNT NO.	DISPOSAL SITE: Berks County
ADDRESS: 125 Delawanna Ave		ADDRESS: Reading Pa
Clifton NJ		MANIFEST NO: 08196

TIME OF DEPARTURE	0815	ALLOTTED TIME	
TIME OF ARRIVAL AT CUSTOMER	0845	DEMURRAGE TIME	
TIME OF DEPARTURE FROM CUSTOMER	1015	REASON FOR DELAY	Suck out
TIME OF ARRIVAL AT DISPOSAL SITE			Three (3) Frac Tank
TIME OF DEPARTURE FROM DISPOSAL SITE			Transfer to ST-23
TOTAL TIME			

- [ ] MUNICIPAL
- [x] INDUSTRIAL
- [ ] COMMERCIAL
- [ ] RESIDENTIAL

- [ ] RAW SEWAGE
- [ ] SEWAGE SLUDGE
- [ ] LEACHATE
- [ ] PRODUCTION WASTE
- [ ] SEPTIC TANK/CESSPOOL
- [ ] FOOD PROCESSING

- [ ] HOLDING TANK
- [ ] GREASE TRAP
- [ ] LAGOON/DIGESTOR
- [ ] WET WELL/PUMP STATION
- [x] OTHER Ground Water

- [ ] PORTAL TO PORTAL
- RATE
- PH

VOLUME REMOVED: — 0 — GALLONS _____ OTHER

WEIGHT:
GROSS WEIGHT _____ LBS.
TARE WEIGHT _____ LBS.
NET WEIGHT _____ LBS.

- [ ] HAZARDOUS WASTE
- [ ] HAZARDOUS MATERIAL

U.S.D.O.T. DESCRIPTION
PROPER SHIPPING NAME
HAZARD CLASS OR DIVISION
I.D. NUMBER
PACKING GROUP _____ WASTE NO. _____

MILEAGE:
ODOMETER AT DEPARTURE 341850 ODOMETER AT DESTINATION 341867

- [x] VACUUM TRAILER
- [ ] MC 306 TRAILER
- [ ] MC 312
- [ ] OTHER

NOTES/INSTRUCTIONS:

TOMER SIGNATURE:	DRIVER NAME: Lew Bindschuss	
DISPOSAL SITE SIGNATURE:	TRACTOR NO: 432	TRAILER NO: VT-29

To Reorder Call NEBS CUSTOM printing service TOLL FREE 1-800-888-6327 NEBS, Inc., Peterborough, NH 03458.

BERKS COUNTY WASTEWATER TREATMENT PLANT
HAULED LIQUID WASTE MANIFEST No. MFA 08051

Enviroclean Giv.

BY LIQUID WASTE HAULER

Name: Reifsneider Transportation, Inc. (Print)

Hauler Permit No.: BC007

Address: 223 Fellowship Rd. (Street)

Truck License Tag No.:

Eagle, PA (City, State) 19480 (Zip Code) 4/4/99

Waste Characteristics

Type	Source	Volume
1. Domestic Holding Tank	☐ Residential	gal.
	☐ Non-residential	
2. Domestic Septic Tank/ Cesspool	☐ Residential	gal.
	☐ Non-residential	
3. Miscellaneous	☐ Sludge	gal.
	☐ Portable Toilets	gal.
	☒ Other Sediment Basin Water	gal.

Note: Non-residential source wastes require prior approval for disposal.
Non-domestic wastes will not be accepted if mixed with domestic wastes in the same load.

*Certification Statement

TRUCK CAPACITY: 4000 gal.

"I hereby certify that the foregoing information is true and complete to the best of my knowledge and that no wastes other than those expressly indicated are included in the waste and that the above waste does not contain any RCRA hazardous wastes as defined in 40 CFR 261. I understand that failure to comply with conditions of any applicable industrial discharge permit or other legal requirements may result in immediate suspension of the Permit, and/or penalties as stipulated by the Permit and/or allowed by law."

Driver Name: Bob DeLucia Signature: Bob DeLucia Date: 3-11-99

BY LIQUID WASTE GENERATOR(S)

(PRINT)
THIS SECTION TO BE COMPLETED BY GENERATOR NO. 1 Gallons: 4000

Name: Givaudan-Roure Corporation Phone:

125 Delawanna Ave. (Address) Cliffon, NJ (City, State, Zip Code)

Holding ☐ Septic ☐ Sludge ☐ Other ☒

*Certification Statement (See above) Signature: [signature] Sediment Basin Water Pick-Up Date:

(PRINT)
THIS SECTION TO BE COMPLETED BY GENERATOR NO. 2 Gallons:

Name: Phone:

Address City, State, Zip Code

Holding ☐ Septic ☐ Sludge ☐ Other ☐

*Certification Statement (See above) Signature: Pick-Up Date:

(PRINT)
THIS SECTION TO BE COMPLETED BY GENERATOR NO. 3 Gallons:

Name: Phone:

Address City, State, Zip Code

Holding ☐ Septic ☐ Sludge ☐ Other ☐

*Certification Statement (See above) Signature: Pick-Up Date:

BY LIQUID WASTE RECEIVER

Date: 3-11-99 Time: 6:05 Truck Capacity: 6000 gal.

Volume Received: 4000 gal.

Sample ID #

pH VOC
LEL TOX
Odors NH_3
Color

Other Characteristics & Lab Work

COD BOD
TSS TKN

Name: Tim O'Donnell (Print) Signature:

SP9632 4/97

(WHITE - Office Copy) (YELLOW - Hauler Copy) (PINK - Customer Copy)

MFA Enviroclean - Givaudan Disposal

Reifsneider Transportation Inc

Environmental Services
223 FELLOWSHIP ROAD
P.O. BOX 756
EAGLE, PA 19480
(610) 458-9333 • FAX (610) 458-2577

BILL OF LADING NO. 78212

TRANSPORTER E.P.A. I.D. NUMBER
PAR 000001107

GENERATORS E.P.A. I.D. NUMBER: ~~Givaudan Roure~~	TELEPHONE NO:	DATE: 3-23-99
CUSTOMER NAME: Givaudan Roure EWMI	ACCOUNT NO.	DISPOSAL SITE: Berks County WTP
ADDRESS: Clifton NJ		ADDRESS: Reading Pa
		MANIFEST NO: 2496

TIME OF DEPARTURE	7:20 AM	ALLOTTED TIME	6.75 HR
TIME OF ARRIVAL AT CUSTOMER	8:00 AM	DEMURRAGE TIME	27 units
TIME OF DEPARTURE FROM CUSTOMER	2:00 PM	REASON FOR DELAY	
TIME OF ARRIVAL AT DISPOSAL SITE	5:00 PM	Vac out Baker tanks While	
TIME OF DEPARTURE FROM DISPOSAL SITE	16:50	Being Cleaned	
TOTAL TIME		Start 8 AM End 2 PM - to Berks	

- [ ] MUNICIPAL
- [x] INDUSTRIAL
- [ ] COMMERCIAL
- [ ] RESIDENTIAL
- [ ] RAW SEWAGE
- [ ] SEWAGE SLUDGE
- [ ] LEACHATE
- [ ] PRODUCTION WASTE
- [ ] SEPTIC TANK/CESSPOOL
- [ ] FOOD PROCESSING
- [ ] HOLDING TANK
- [ ] GREASE TRAP
- [ ] LAGOON/DIGESTOR
- [ ] WET WELL/PUMP STATION
- [x] OTHER Ground Basin Water
- [x] PORTAL TO PORTAL
- RATE
- PH

VOLUME REMOVED: 2500 GALLONS _____ OTHER

WEIGHT:
GROSS WEIGHT _____ LBS.
TARE WEIGHT _____ LBS.
NET WEIGHT _____ LBS.

- [ ] HAZARDOUS WASTE
- [ ] HAZARDOUS MATERIAL

U.S.D.O.T. DESCRIPTION
PROPER SHIPPING NAME _____
HAZARD CLASS OR DIVISION _____
I.D. NUMBER _____
PACKING GROUP _____ WASTE NO. _____

MILEAGE:
ODOMETER AT DEPARTURE _____ ODOMETER AT DESTINATION _____

- [x] VACUUM TRAILER
- [ ] MC 306 TRAILER
- [ ] MC 312
- [ ] OTHER _____

NOTES/INSTRUCTIONS:
1 foot of Sludge stuck to Bottom
3-23-99 5:10 PM 6000
2500

CUSTOMER SIGNATURE: [signature]	DRIVER NAME: Bob DeLucia	
DISPOSAL SITE SIGNATURE: [signature]	TRACTOR NO: 422	TRAILER NO: VT64

To Reorder Call NEBS CUSTOM printing service TOLL FREE 1-800-888-6327 NEBS, Inc., Peterborough, NH 03458. Ref. No: G 024800026

MEA - Envirodera - Givaudan

BERKS COUNTY WASTEWATER TREATMENT PLANT
HAULED LIQUID WASTE MANIFEST Bulk No. 2496

BY LIQUID WASTE HAULER

Name: Reifsneider Transportation, Inc.
Print

Address: 519 Royersford Road
Street

Royersford, PA 19468
City, State Zip Code

(610) 948-9377

Hauler Permit No.: BC007

Truck License Tag No.: PT 17769

Waste Characteristics

Type	Source	Volume
1. Domestic Holding Tank	☐ Residential	____ gal.
	☐ Non-residential	
2. Domestic Septic Tank/ Cesspool	☐ Residential	____ gal.
	☐ Non-residential	
3. Miscellaneous	☐ Sludge	____ gal.
	☐ Portable Toilets	____ gal.
	X Groundwater	2500 gal.
	☐ Other ____	____ gal.

Note: Non-residential source wastes require prior approval for disposal.
Non-domestic wastes will not be accepted if mixed with domestic wastes in the same load.

*Certification Statement

TRUCK CAPACITY: 6000 gal.

"I hereby certify that the foregoing information is true and complete to the best of my knowledge and that no wastes other than those expressly indicated are included in the waste and that the above waste does not contain any RCRA hazardous wastes as defined in 40 CFR 261. I understand that failure to comply with conditions of any applicable industrial discharge permit or other legal requirements may result in immediate suspension of the Permit, and/or penalties as stipulated by the Permit and/or allowed by law."

Driver Name: Bob DeLucia Signature: Bob DeLucia Date: ____

BY LIQUID WASTE GENERATOR(S)

(PRINT)
THIS SECTION TO BE COMPLETED BY GENERATOR NO. 1 Gallons: 2500

Name: Givaudan-Roure Corporation Phone: ____

125 Delawanna Avenue Clifton, NJ
Address City, State, Zip Code

Holding ☐ Septic ☐ Sludge ☐ Other ☒ Groundwater

*Certification Statement (See above) Signature: Edward F. Duncan Pick-Up Date: 3-23-99

(PRINT)
THIS SECTION TO BE COMPLETED BY GENERATOR NO. 2 Gallons: ____

Name: ____ Phone: ____

Address City, State, Zip Code

Holding ☐ Septic ☐ Sludge ☐ Other ☐

*Certification Statement (See above) Signature: ____ Pick-Up Date: ____

(PRINT)
THIS SECTION TO BE COMPLETED BY GENERATOR NO. 3 Gallons: ____

Name: ____ Phone: ____

Address City, State, Zip Code

Holding ☐ Septic ☐ Sludge ☐ Other ☐

*Certification Statement (See above) Signature: ____ Pick-Up Date: ____

BY LIQUID WASTE RECEIVER

Date: 3-23-99 Time: 5:10 Pm Truck Capacity: 6000 gal.

Volume Received: 2500 gal.

Sample ID #: ____

Other Characteristics & Lab Work ____

pH	____	VOC	____				
LEL	____	TOX	____				
Odors	____	NH_3	____	COD	____	BOD	____
Color	____			TSS	____	TKN	____

Name: ____
Print

Signature: [signature]

SP9632 4/97

(WHITE - Office Copy) (YELLOW - Hauler Copy) (PINK - Customer Copy)

Reifsneider Transportation Inc
an EarthCare company

MFA . . Fairvalle - Givaudan
BILL OF LADING NO. 80724

RCVD

Environmental Services
223 FELLOWSHIP ROAD
P.O. BOX 756
EAGLE, PA 19480
(610) 458-9333 • FAX (610) 458-2577

TRANSPORTER E.P.A. I.D. NUMBER
PAR 000035949

GENERATORS E.P.A. I.D. NUMBER	TELEPHONE NO:	DATE: 4-22-99
CUSTOMER NAME: Givaudan-Roure	ACCOUNT NO.	DISPOSAL SITE: Berks County
ADDRESS: Clifton NJ		ADDRESS: Reading Pa
		MANIFEST NO: 65866

TIME OF DEPARTURE	7:00	ALLOTTED TIME	
TIME OF ARRIVAL AT CUSTOMER	8:00	DEMURRAGE TIME	12 UNITS
TIME OF DEPARTURE FROM CUSTOMER	11:50	REASON FOR DELAY	On-site Clean out
TIME OF ARRIVAL AT DISPOSAL SITE	2:50		Baker tank take load to Berks
TIME OF DEPARTURE FROM DISPOSAL SITE	3:15		
TOTAL TIME	8:11		

☐ MUNICIPAL	☐ RAW SEWAGE	☐ HOLDING TANK	☒ PORTAL TO PORTAL
☒ INDUSTRIAL	☐ SEWAGE SLUDGE	☐ GREASE TRAP	RATE
☐ COMMERCIAL	☐ LEACHATE	☐ LAGOON/DIGESTOR	PH
☐ RESIDENTIAL	☐ PRODUCTION WASTE	☐ WET WELL/PUMP STATION	
	☐ SEPTIC TANK/CESSPOOL	☒ OTHER Decon Wash Water	
	☐ FOOD PROCESSING		

VOLUME REMOVED: 6000 GALLONS _____ OTHER

WEIGHT:
GROSS WEIGHT _____ LBS.
TARE WEIGHT _____ LBS.
NET WEIGHT _____ LBS.

☐ HAZARDOUS WASTE ☐ HAZARDOUS MATERIAL
U.S.D.O.T. DESCRIPTION
PROPER SHIPPING NAME _____
HAZARD CLASS OR DIVISION _____
I.D. NUMBER _____
PACKING GROUP _____ WASTE NO. _____

MILEAGE:
ODOMETER AT DEPARTURE _____ ODOMETER AT DESTINATION _____

☒ VACUUM TRAILER ☐ MC 306 TRAILER ☐ MC 312 ☐ OTHER _____

NOTES/INSTRUCTIONS:

CUSTOMER SIGNATURE:	DRIVER NAME: Bob D. [illegible]	
DISPOSAL SITE SIGNATURE:	TRACTOR NO: 422	TRAILER NO: VT64

Reorder Call NEBS CUSTOM printing service TOLL FREE 1-800-556-6207 NEBS, Inc. Peterborough, NH 03458

BERKS COUNTY WASTEWATER TREATMENT PLANT
HAULED LIQUID WASTE MANIFEST No. 6586

BY LIQUID WASTE HAULER

Name: Reifsneider Trans RCVD
Print

Address: Eagle Pa
Street

City, State Zip Code

Hauler Permit No.:

Truck License Tag No.: PT17769

Waste Characteristics

Type	Source	Volume
1. Domestic Holding Tank	☐ Residential	gal.
	☐ Non-residential	
2. Domestic Septic Tank/ Cesspool	☐ Residential	gal.
	☐ Non-residential	
3. Miscellaneous	☐ Sludge	gal.
	☐ Portable Toilets	gal.
	☐ Other Wash Water	6000 gal.

Note: Non-residential source wastes require prior approval for disposal.
Non-domestic wastes will not be accepted if mixed with domestic wastes in the same load.

*Certification Statement

TRUCK CAPACITY: 6000 gal.

"I hereby certify that the foregoing information is true and complete to the best of my knowledge and that no wastes other than those expressly indicated are included in the waste and that the above waste does not contain any RCRA hazardous wastes as defined in 40 CFR 261. I understand that failure to comply with conditions of any applicable industrial discharge permit or other legal requirements may result in immediate suspension of the Permit, and/or penalties as stipulated by the Permit and/or allowed by law."

Driver Name: Bob DeLucia Signature: Bob DeLucia Date:

BY LIQUID WASTE GENERATOR(S)

(PRINT)
THIS SECTION TO BE COMPLETED BY GENERATOR NO. 1 Gallons: 6000

Name: Giraudan Roure Phone:

Clifton NT
Address City, State, Zip Code

Holding ☐ Septic ☐ Sludge ☐ Other ☐

*Certification Statement (See above) Signature: [signature] Pick-Up Date: 4-22-99

(PRINT)
THIS SECTION TO BE COMPLETED BY GENERATOR NO. 2 Gallons:

Name: Phone:

Address City, State, Zip Code

Holding ☐ Septic ☐ Sludge ☐ Other ☐

*Certification Statement (See above) Signature: Pick-Up Date:

(PRINT)
THIS SECTION TO BE COMPLETED BY GENERATOR NO. 3 Gallons:

Name: Phone:

Address City, State, Zip Code

Holding ☐ Septic ☐ Sludge ☐ Other ☐

*Certification Statement (See above) Signature: Pick-Up Date:

BY LIQUID WASTE RECEIVER

Date: 4-22-99 Time: 2:50 Truck Capacity: 6000 gal.

Volume Received: 6000 gal.

Sample ID #:

Other Characteristics & Lab Work

pH		VOC		COD		BOD	
LEL		TOX		TSS		TKN	
Odors		NH_3					
Color							

Name: Print Signature: Roy Weaver

SP9632 4/97

(WHITE - Office Copy) (YELLOW - Hauler Copy) (PINK - Customer Copy)

HAULED LIQUID WASTE MANIFEST No. 6586

BY LIQUID WASTE HAULER

Name: Reifsnider Trans (Print)

Address: Eagle Pa (Street)

City, State _____ Zip Code _____

Hauler Permit No.: _____

Truck License Tag No.: PT17769

Type	Source	Volume
1. Domestic Holding Tank	☐ Residential	_____ gal.
	☐ Non-residential	
2. Domestic Septic Tank/ Cesspool	☐ Residential	_____ gal.
	☐ Non-residential	
(3.) Miscellaneous	☐ Sludge	_____ gal.
	☐ Portable Toilets	_____ gal.
	☐ Other Wash Water	6000 gal.

Note: Non-residential source wastes require prior approval for disposal.
Non-domestic wastes will not be accepted if mixed with domestic wastes in the same load.

*Certification Statement

TRUCK CAPACITY: 6000 gal.

"I hereby certify that the foregoing information is true and complete to the best of my knowledge and that no wastes other than those expressly indicated are included in the waste and that the above waste does not contain any RCRA hazardous wastes as defined in 40 CFR 261. I understand that failure to comply with conditions of any applicable industrial discharge permit or other legal requirements may result in immediate suspension of the Permit, and/or penalties as stipulated by the Permit and/or allowed by law."

Driver Name: Bob DeLucia Signature: Bob DeLucia Date: _____

BY LIQUID WASTE GENERATOR(S)

(PRINT)
THIS SECTION TO BE COMPLETED BY GENERATOR NO. 1

Gallons: 6000

Name: Giraudan Rouce Phone: _____

Address: Clifton NJ City, State, Zip Code _____

Holding ☐ Septic ☐ Sludge ☐ Other ☐

*Certification Statement (See above) Signature: [signature] Pick-Up Date: 4-22-99

(PRINT)
THIS SECTION TO BE COMPLETED BY GENERATOR NO. 2

Gallons: _____

Name: _____ Phone: _____

Address _____ City, State, Zip Code _____

Holding ☐ Septic ☐ Sludge ☐ Other ☐

*Certification Statement (See above) Signature: _____ Pick-Up Date: _____

(PRINT)
THIS SECTION TO BE COMPLETED BY GENERATOR NO. 3

Gallons: _____

Name: _____ Phone: _____

Address _____ City, State, Zip Code _____

Holding ☐ Septic ☐ Sludge ☐ Other ☐

*Certification Statement (See above) Signature: _____ Pick-Up Date: _____

BY LIQUID WASTE RECEIVER

Date: _____ Time: _____ Truck Capacity: _____ gal.

Volume Received: _____ gal.

Sample ID #: _____

Other Characteristics & Lab Work _____

pH		VOC					
LEL		TOX					
Odors		NH_3		COD		BOD	
Color				TSS		TKN	

Name: _____ (Print) Signature: _____

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Reifsneider Transportation Inc
an EarthCare company

Environmental Services
223 FELLOWSHIP ROAD
P.O. BOX 756
EAGLE, PA 19480
(610) 458-9333 • FAX (610) 458-2577

BILL OF LADING NO. 80724

TRANSPORTER E.P.A. I.D. NUMBER
PAR 000035949

GENERATORS E.P.A. I.D. NUMBER	TELEPHONE NO:	DATE: 4-22-99
CUSTOMER NAME: Giordano-Russo	ACCOUNT NO.	DISPOSAL SITE: Berks County
ADDRESS: Clifton NJ		ADDRESS: Reading Pa
		MANIFEST NO: 6556

TIME OF DEPARTURE	7:00	ALLOTTED TIME	
TIME OF ARRIVAL AT CUSTOMER	8:00	DEMURRAGE TIME	
TIME OF DEPARTURE FROM CUSTOMER	11:50	REASON FOR DELAY	On-site cleanout Baker truck take load to Berks
TIME OF ARRIVAL AT DISPOSAL SITE			
TIME OF DEPARTURE FROM DISPOSAL SITE			
TOTAL TIME			

- ☐ MUNICIPAL
- ☒ INDUSTRIAL
- ☐ COMMERCIAL
- ☐ RESIDENTIAL

- ☐ RAW SEWAGE
- ☐ SEWAGE SLUDGE
- ☐ LEACHATE
- ☐ PRODUCTION WASTE
- ☐ SEPTIC TANK/CESSPOOL
- ☐ FOOD PROCESSING

- ☐ HOLDING TANK
- ☐ GREASE TRAP
- ☐ LAGOON/DIGESTOR
- ☐ WET WELL/PUMP STATION
- ☒ OTHER Decon Wash Water

- ☒ PORTAL TO PORTAL
- RATE
- PH

VOLUME REMOVED: 6000 GALLONS _____ OTHER

WEIGHT:
GROSS WEIGHT _____ LBS.
TARE WEIGHT _____ LBS.
NET WEIGHT _____ LBS.

☐ HAZARDOUS WASTE ☐ HAZARDOUS MATERIAL
U.S.D.O.T. DESCRIPTION
PROPER SHIPPING NAME
HAZARD CLASS OR DIVISION
I.D. NUMBER
PACKING GROUP _____ WASTE NO. _____

MILEAGE:
ODOMETER AT DEPARTURE _____ ODOMETER AT DESTINATION _____

☒ VACUUM TRAILER ☐ MC 306 TRAILER ☐ MC 312 ☐ OTHER

NOTES/INSTRUCTIONS:

CUSTOMER SIGNATURE:
DRIVER NAME: Bob D. Lucas
DISPOSAL SITE SIGNATURE:
TRACTOR NO: 422
TRAILER NO: VT 64

To Reorder Call NEBS CUSTOM printing service TOLL FREE 1-800-888-6327 NEBS, Inc., Peterborough, NH 03458. Ref. No. 310348

BERKS COUNTY WASTEWATER TREATMENT PLANT
HAULED LIQUID WASTE MANIFEST NO. 08193

BY LIQUID WASTE HAULER

B/L # 76985

Name: Reifsneider Transportation, Inc.
Print

Hauler Permit No.: BC-007

Address: 223 Fellowship Rd., PO Box 756
Street

Truck License Tag No.: TW-56892

Eagle, PA — City, State
19480 — Zip Code

Waste Characteristics	Type	Source	Volume
1. Domestic Holding Tank		☐ Residential	_____ gal.
		☐ Non-residential	
2. Domestic Septic Tank/ Cesspool		☐ Residential	_____ gal.
		☐ Non-residential	
3. Miscellaneous		☐ Sludge	_____ gal.
		☐ Portable Toilets	_____ gal.
		XX Other Groundwater	6,000 gal.

Note: Non-residential source wastes require prior approval for disposal.
- Non-domestic wastes will not be accepted if mixed with domestic wastes in the same load.

*Certification Statement

TRUCK CAPACITY: 7,000 gal.

"I hereby certify that the foregoing information is true and complete to the best of my knowledge and that no wastes other than those expressly indicated are included in the waste and that the above waste does not contain any RCRA hazardous wastes as defined in 40 CFR 261. I understand that failure to comply with conditions of any applicable industrial discharge permit or other legal requirements may result in immediate suspension of the Permit, and/or penalties as stipulated by the Permit and/or allowed by law."

Driver Name: John Kirk Signature: [signature] Date: 02/12/99

BY LIQUID WASTE GENERATOR(S)

(PRINT)
THIS SECTION TO BE COMPLETED BY GENERATOR NO. 1

Gallons: 6,000

Name: Givaudan-Roure Corporation Phone: _____

125 Delawanna Avenue — Address
Clifton, NJ — City, State, Zip Code

Holding ☐ Septic ☐ Sludge ☐ Other XX Groundwater

*Certification Statement (See above) Signature: John Mack Pick-Up Date: 02/12/99

(PRINT)
THIS SECTION TO BE COMPLETED BY GENERATOR NO. 2

Gallons: _____

Name: _____ Phone: _____

Address — City, State, Zip Code

Holding ☐ Septic ☐ Sludge ☐ Other ☐

*Certification Statement (See above) Signature: _____ Pick-Up Date: _____

(PRINT)
THIS SECTION TO BE COMPLETED BY GENERATOR NO. 3

Gallons: _____

Name: _____ Phone: _____

Address — City, State, Zip Code

Holding ☐ Septic ☐ Sludge ☐ Other ☐

*Certification Statement (See above) Signature: _____ Pick-Up Date: _____

BY LIQUID WASTE RECEIVER

Date: 02/12/99 Time: 10:35 Truck Capacity: 7,000 gal.

Volume Received: 6,000 gal.

Sample ID #: _____

Other Characteristics & Lab Work _____

pH		VOC					
LEL		TOX					
Odors		NH_3		COD		BOD	
Color				TSS		TKN	

Name: _____
Print

Signature: [signature]

SP9632 4/97

(WHITE - Office Copy) (YELLOW - Hauler Copy) (PINK - Customer Copy)

B.L. 76589

BERKS COUNTY WASTEWATER TREATMENT PLANT
HAULED LIQUID WASTE MANIFEST NO. 031921

BY LIQUID WASTE HAULER

Name: Reifsneider Transportation, Inc.
Print

Address: 223 Fellowship Rd., PO Box 756
Street

Eagle, PA — 19480
City, State — Zip Code

Hauler Permit No.: BC-007

Truck License Tag No.: TZ-06737

Waste Characteristics

Type	Source	Volume
1. Domestic Holding Tank	☐ Residential	____ gal.
	☐ Non-residential	
2. Domestic Septic Tank/ Cesspool	☐ Residential	____ gal.
	☐ Non-residential	
3. Miscellaneous	☐ Sludge	____ gal.
	☐ Portable Toilets	____ gal.
	XX Other Groundwater	5000 gal.

5:00 5:00

Note: Non-residential source wastes require prior approval for disposal.
Non-domestic wastes will not be accepted if mixed with domestic wastes in the same load.

*Certification Statement

TRUCK CAPACITY: ~~5,000~~ 7000 gal.

"I hereby certify that the foregoing information is true and complete to the best of my knowledge and that no wastes other than those expressly indicated are included in the waste and that the above waste does not contain any RCRA hazardous wastes as defined in 40 CFR 261. I understand that failure to comply with conditions of any applicable industrial discharge permit or other legal requirements may result in immediate suspension of the Permit, and/or penalties as stipulated by the Permit and/or allowed by law."

Driver Name: MARK A. WALKER Signature: Mark A Walker Date: 2-12-99

BY LIQUID WASTE GENERATOR(S)

(PRINT)
THIS SECTION TO BE COMPLETED BY GENERATOR NO. 1 Gallons: 5000

Name: Givaudan-Roure Corporation Phone: ____

125 Delawanna Avenue — Clifton, NJ
Address — City, State, Zip Code

Holding ☐ Septic ☐ Sludge ☐ Other XX Groundwater

*Certification Statement (See above) Signature: John Mark [illegible] Pick-Up Date: ____

(PRINT)
THIS SECTION TO BE COMPLETED BY GENERATOR NO. 2 Gallons: ____

Name: ____ Phone: ____

Address — City, State, Zip Code

Holding ☐ Septic ☐ Sludge ☐ Other ☐

*Certification Statement (See above) Signature: ____ Pick-Up Date: ____

(PRINT)
THIS SECTION TO BE COMPLETED BY GENERATOR NO. 3 Gallons: ____

Name: ____ Phone: ____

Address — City, State, Zip Code

Holding ☐ Septic ☐ Sludge ☐ Other ☐

*Certification Statement (See above) Signature: ____ Pick-Up Date: ____

BY LIQUID WASTE RECEIVER

Date: 2/12/99 Time: ____ Truck Capacity: 7000 gal.

Volume Received: 5000 gal.

Sample ID #: ____

Other Characteristics & Lab Work ____

pH		VOC					
LEL		TOX					
Odors		NH_3		COD		BOD	
Color				TSS		TKN	

Name: ____
Print

Signature: [illegible]

P9632 4/97

(WHITE - Office Copy) (YELLOW - Hauler Copy) (PINK - Customer Copy)

Reifsneider Transportation Inc

Environmental Services
223 FELLOWSHIP ROAD
P.O. BOX 756
EAGLE, PA 19480
(610) 458-9333 • FAX (610) 458-2577

BILL OF LADING NO. 76985

TRANSPORTER E.P.A. I.D. NUMBER
PAR 000001107

(1)

GENERATORS E.P.A. I.D. NUMBER	TELEPHONE NO:	DATE: 02/12/99
CUSTOMER NAME: Givaudan-Roure, Corp.	ACCOUNT NO.	DISPOSAL SITE: Berks County W.W.T.P.
ADDRESS: 125 Delawanna Ave.		ADDRESS: Reading, Pa.
Clifton, N.J.		MANIFEST NO: 08193

TIME OF DEPARTURE	05:00	ALLOTTED TIME	
TIME OF ARRIVAL AT CUSTOMER	7:15	DEMURRAGE TIME	N/A
TIME OF DEPARTURE FROM CUSTOMER	7:45	REASON FOR DELAY	
TIME OF ARRIVAL AT DISPOSAL SITE	10:35		
TIME OF DEPARTURE FROM DISPOSAL SITE	11:05		
TOTAL TIME	6hrs. 5min.		

☐ MUNICIPAL	☐ RAW SEWAGE	☐ HOLDING TANK	☐ PORTAL TO PORTAL
☒ INDUSTRIAL	☐ SEWAGE SLUDGE	☐ GREASE TRAP	RATE
☐ COMMERCIAL	☐ LEACHATE	☐ LAGOON/DIGESTOR	PH
☐ RESIDENTIAL	☐ PRODUCTION WASTE	☐ WET WELL/PUMP STATION	
	☐ SEPTIC TANK/CESSPOOL	☒ OTHER Sediment Basin Water	
	☐ FOOD PROCESSING		

VOLUME REMOVED: 6,000 GALLONS 43½" OTHER

WEIGHT:
GROSS WEIGHT _____ LBS.
TARE WEIGHT _____ LBS.
NET WEIGHT _____ LBS.

☐ HAZARDOUS WASTE ☐ HAZARDOUS MATERIAL
U.S.D.O.T. DESCRIPTION
PROPER SHIPPING NAME
HAZARD CLASS OR DIVISION
I.D. NUMBER
PACKING GROUP WASTE NO.

MILEAGE:
ODOMETER AT DEPARTURE _____ ODOMETER AT DESTINATION _____

☐ VACUUM TRAILER ☒ MC 306 TRAILER ☐ MC 312 ☐ OTHER

NOTES/INSTRUCTIONS:

CUSTOMER SIGNATURE:	DRIVER NAME:	
DISPOSAL SITE SIGNATURE:	TRACTOR NO: 407	TRAILER NO: ST-17

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BILL OF LADING NO. 76906

TRANSPORTER E.P.A. I.D. NUMBER
PAR 000001107

GENERATORS E.P.A. I.D. NUMBER	TELEPHONE NO:	DATE: 2-12-99
CUSTOMER NAME: Givaudan Roure	ACCOUNT NO.	DISPOSAL SITE: ON-site
ADDRESS: Clifton NJ		ADDRESS:
		MANIFEST NO:

TIME OF DEPARTURE	7:05 AM	ALLOTTED TIME	
TIME OF ARRIVAL AT CUSTOMER	7:40 am	DEMURRAGE TIME	6.5 HR.
TIME OF DEPARTURE FROM CUSTOMER	11:00 am	REASON FOR DELAY	
TIME OF ARRIVAL AT DISPOSAL SITE	Yard 1:30 Pm	Arrived 7:40 am start 7:50 End 11:00 am	
TIME OF DEPARTURE FROM DISPOSAL SITE	6.5		
TOTAL TIME			

- ☐ MUNICIPAL
- ☒ INDUSTRIAL
- ☐ COMMERCIAL
- ☐ RESIDENTIAL
- ☐ RAW SEWAGE
- ☐ SEWAGE SLUDGE
- ☐ LEACHATE
- ☐ PRODUCTION WASTE
- ☐ SEPTIC TANK/CESSPOOL
- ☐ FOOD PROCESSING
- ☐ HOLDING TANK
- ☐ GREASE TRAP
- ☐ LAGOON/DIGESTOR
- ☐ WET WELL/PUMP STATION
- ☐ OTHER DE-CON VAC Pits
- ☒ PORTAL TO PORTAL
- RATE
- PH

VOLUME REMOVED:
_____ GALLONS _____ OTHER

WEIGHT:
GROSS WEIGHT _____ LBS.
TARE WEIGHT _____ LBS.
NET WEIGHT _____ LBS.

☐ HAZARDOUS WASTE ☐ HAZARDOUS MATERIAL
U.S.D.O.T. DESCRIPTION
PROPER SHIPPING NAME _____
HAZARD CLASS OR DIVISION _____
I.D. NUMBER _____
PACKING GROUP _____ WASTE NO. _____

MILEAGE:
ODOMETER AT DEPARTURE _____ ODOMETER AT DESTINATION _____

☒ VACUUM TRAILER ☐ MC 306 TRAILER ☐ MC 312 ☐ OTHER _____

NOTES/INSTRUCTIONS:

Edward F. [illegible]

CUSTOMER SIGNATURE:

DRIVER NAME: Bob D. [illegible]

DISPOSAL SITE SIGNATURE:

TRACTOR NO: 422

TRAILER NO: VT64

To Reorder Call NEBS CUSTOM printing service TOLL FREE 1-800-888-6227 NEBS, Inc., Peterborough, NH 03458.

Ref. No: G 024800026

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BILL OF LADING NO. 77126

TRANSPORTER E.P.A. I.D. NUMBER
PAR 000001107

GENERATORS E.P.A. I.D. NUMBER	TELEPHONE NO:	DATE: 2-12-99
CUSTOMER NAME: Givaudan-Roure Corp	ACCOUNT NO.	DISPOSAL SITE: Berks County
ADDRESS: 125 Delawanna Ave		ADDRESS: Reading Pa
Clifton NJ		MANIFEST NO: 08196

TIME OF DEPARTURE	0815	ALLOTTED TIME	5 units
TIME OF ARRIVAL AT CUSTOMER	0845	DEMURRAGE TIME	
TIME OF DEPARTURE FROM CUSTOMER	1015	REASON FOR DELAY	Suck out
TIME OF ARRIVAL AT DISPOSAL SITE			Three (3) Frac Tank
TIME OF DEPARTURE FROM DISPOSAL SITE			Transfer to ST-23
TOTAL TIME			

- [ ] MUNICIPAL
- [x] INDUSTRIAL
- [ ] COMMERCIAL
- [ ] RESIDENTIAL
- [ ] RAW SEWAGE
- [ ] SEWAGE SLUDGE
- [ ] LEACHATE
- [ ] PRODUCTION WASTE
- [ ] SEPTIC TANK/CESSPOOL
- [ ] FOOD PROCESSING
- [ ] HOLDING TANK
- [ ] GREASE TRAP
- [ ] LAGOON/DIGESTOR
- [ ] WET WELL/PUMP STATION
- [x] OTHER Ground Water
- [ ] PORTAL TO PORTAL
- RATE
- PH

VOLUME REMOVED: — 0 — GALLONS _____ OTHER

WEIGHT:
GROSS WEIGHT _____ LBS.
TARE WEIGHT _____ LBS.
NET WEIGHT _____ LBS.

- [ ] HAZARDOUS WASTE
- [ ] HAZARDOUS MATERIAL

U.S.D.O.T. DESCRIPTION
PROPER SHIPPING NAME _____
HAZARD CLASS OR DIVISION _____
I.D. NUMBER _____
PACKING GROUP _____ WASTE NO. _____

MILEAGE:
ODOMETER AT DEPARTURE 341850 ODOMETER AT DESTINATION 341867

- [x] VACUUM TRAILER
- [ ] MC 306 TRAILER
- [ ] MC 312
- [ ] OTHER

NOTES/INSTRUCTIONS:

CUSTOMER SIGNATURE: [signature]	DRIVER NAME: Lew Bindschuse
DISPOSAL SITE SIGNATURE:	TRACTOR NO: 432 / TRAILER NO: VT-29

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Ref. No: G 024800026

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MFA - T2

BILL OF LADING NO. 76916

TRANSPORTER E.P.A. I.D. NUMBER
PAR 000001107

GENERATORS E.P.A. I.D. NUMBER	TELEPHONE NO:	DATE: 2-19-99
CUSTOMER NAME: Givaudan Roure	ACCOUNT NO.	DISPOSAL SITE: ON-SITE
ADDRESS: Clifton NJ		ADDRESS:
		MANIFEST NO:

TIME OF DEPARTURE	7:05 AM	ALLOTTED TIME	
TIME OF ARRIVAL AT CUSTOMER	8:00 AM	DEMURRAGE TIME	7.5 HR.
TIME OF DEPARTURE FROM CUSTOMER	11:30 AM	REASON FOR DELAY	Accident on NJ TP Backup
TIME OF ARRIVAL AT DISPOSAL SITE	2:30 PM		Decon - Vac out Pits
TIME OF DEPARTURE FROM DISPOSAL SITE			
TOTAL TIME			

☐ MUNICIPAL	☐ RAW SEWAGE	☐ HOLDING TANK	☒ PORTAL TO PORTAL
☒ INDUSTRIAL	☐ SEWAGE SLUDGE	☐ GREASE TRAP	RATE
☐ COMMERCIAL	☐ LEACHATE	☐ LAGOON/DIGESTOR	PH
☐ RESIDENTIAL	☐ PRODUCTION WASTE	☐ WET WELL/PUMP STATION	
	☐ SEPTIC TANK/CESSPOOL	☒ OTHER Decon waste Pits	
	☐ FOOD PROCESSING		

VOLUME REMOVED: _____ GALLONS _____ OTHER

WEIGHT:
GROSS WEIGHT _____ LBS.
TARE WEIGHT _____ LBS.
NET WEIGHT _____ LBS.

☐ HAZARDOUS WASTE ☐ HAZARDOUS MATERIAL
U.S.D.O.T. DESCRIPTION
PROPER SHIPPING NAME
HAZARD CLASS OR DIVISION
I.D. NUMBER
PACKING GROUP _____ WASTE NO.

MILEAGE:
ODOMETER AT DEPARTURE _____ ODOMETER AT DESTINATION _____

☒ VACUUM TRAILER ☐ MC 306 TRAILER ☐ MC 312 ☐ OTHER

NOTES/INSTRUCTIONS:

CUSTOMER SIGNATURE: Edward F. Duncan

DRIVER NAME: Bob D. Lucia

DISPOSAL SITE SIGNATURE:

TRACTOR NO: 422

TRAILER NO: VT64

To Reorder Call NEBS CUSTOM printing service TOLL FREE 1-800-468-6327 NEBS, Inc., Peterborough, NH 03458 Ref. No: G 001800026

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TRANS

BILL OF LADING NO. 76918

FUNDRECLAIM (IUPA)

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TRANSPORTER E.P.A. I.D. NUMBER
PAR 000001107

GENERATORS E.P.A. I.D. NUMBER	TELEPHONE NO:	DATE: 2-22-99
CUSTOMER NAME: Giuliani Rouse	ACCOUNT NO.	DISPOSAL SITE: ON-SITE
ADDRESS: Clifton NJ		ADDRESS: [illegible] NJ
		MANIFEST NO: [illegible]

TIME OF DEPARTURE	7:10 AM	ALLOTTED TIME	
TIME OF ARRIVAL AT CUSTOMER	7:45 AM	DEMURRAGE TIME	10.5 HR.
TIME OF DEPARTURE FROM CUSTOMER	3:15 PM	REASON FOR DELAY	
TIME OF ARRIVAL AT DISPOSAL SITE Yard	5:45 PM	ON Site Vac out Pitts	
TIME OF DEPARTURE FROM DISPOSAL SITE		Start 7:45 AM End 3:15 PM	
TOTAL TIME	10-35		

☐ MUNICIPAL	☐ RAW SEWAGE	☐ HOLDING TANK	☒ PORTAL TO PORTAL
☒ INDUSTRIAL	☐ SEWAGE SLUDGE	☐ GREASE TRAP	RATE
☐ COMMERCIAL	☐ LEACHATE	☐ LAGOON/DIGESTOR	PH
☐ RESIDENTIAL	☐ PRODUCTION WASTE	☐ WET WELL/PUMP STATION	
	☐ SEPTIC TANK/CESSPOOL	☒ OTHER DECON VAC out Pitts	
	☐ FOOD PROCESSING		

VOLUME REMOVED: [illegible] GALLONS _____ OTHER

WEIGHT:
GROSS WEIGHT _____ LBS.
TARE WEIGHT _____ LBS.
NET WEIGHT _____ LBS.

☐ HAZARDOUS WASTE ☐ HAZARDOUS MATERIAL
U.S.D.O.T. DESCRIPTION
PROPER SHIPPING NAME _____
HAZARD CLASS OR DIVISION _____
I.D. NUMBER _____
PACKING GROUP _____ WASTE NO. _____

MILEAGE:
ODOMETER AT DEPARTURE _____ ODOMETER AT DESTINATION _____

☒ VACUUM TRAILER ☐ MC 306 TRAILER ☐ MC 312 ☐ OTHER _____

NOTES/INSTRUCTIONS:

CUSTOMER SIGNATURE: Edward L. Duncan

DRIVER NAME: Bob Deluccia

DISPOSAL SITE SIGNATURE:

TRACTOR NO: 122

TRAILER NO: 164

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Ref. No: G 0024800025

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BILL OF LADING NO. 75109

TRANSPORTER E.P.A. I.D. NUMBER
PAR 000001107

GENERATORS E.P.A. I.D. NUMBER	TELEPHONE NO:	DATE 344305 2-23-99
CUSTOMER NAME: Givaudon-Roure Corp	ACCOUNT NO.	DISPOSAL SITE: 268
ADDRESS: 125 Delawanna Ave		ADDRESS:
Clifton NJ		MANIFEST NO:

TIME OF DEPARTURE	0700	ALLOTTED TIME	
TIME OF ARRIVAL AT CUSTOMER	0755	DEMURRAGE TIME	12 HR.
TIME OF DEPARTURE FROM CUSTOMER	1600	REASON FOR DELAY	ON Site
TIME OF ARRIVAL AT DISPOSAL SITE			
TIME OF DEPARTURE FROM DISPOSAL SITE			
TOTAL TIME Shop	1900		

- [ ] MUNICIPAL
- [x] INDUSTRIAL
- [ ] COMMERCIAL
- [ ] RESIDENTIAL

- [ ] RAW SEWAGE
- [ ] SEWAGE SLUDGE
- [ ] LEACHATE
- [ ] PRODUCTION WASTE
- [ ] SEPTIC TANK/CESSPOOL
- [ ] FOOD PROCESSING
- [ ] HOLDING TANK
- [ ] GREASE TRAP
- [ ] LAGOON/DIGESTOR
- [ ] WET WELL/PUMP STATION
- [ ] OTHER
- [x] PORTAL TO PORTAL

RATE
PH

VOLUME REMOVED: — 0 — GALLONS _____ OTHER

WEIGHT:
GROSS WEIGHT _____ LBS.
TARE WEIGHT _____ LBS.
NET WEIGHT _____ LBS.

- [ ] HAZARDOUS WASTE
- [ ] HAZARDOUS MATERIAL

U.S.D.O.T. DESCRIPTION
PROPER SHIPPING NAME
HAZARD CLASS OR DIVISION
I.D. NUMBER UTA TRANS
PACKING GROUP _____ WASTE NO. _____

MILEAGE:
ODOMETER AT DEPARTURE 344160 ODOMETER AT DESTINATION 344177

- [x] VACUUM TRAILER
- [ ] MC 306 TRAILER
- [ ] MC 312
- [ ] OTHER

NOTES/INSTRUCTIONS:

Edward F Duncan

CUSTOMER SIGNATURE:	DRIVER NAME: Lou Bradshaw	
DISPOSAL SITE SIGNATURE:	TRACTOR NO: 432	TRAILER NO: VT-64

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BILL OF LADING NO. 76920

TRANSPORTER E.P.A. I.D. NUMBER
PAR 000001107

GENERATORS E.P.A. I.D. NUMBER	TELEPHONE NO:	DATE: 2-24-99
CUSTOMER NAME: Givaudan Roure	ACCOUNT NO.	DISPOSAL SITE: ON-SITE
ADDRESS: Clifton NJ		ADDRESS:
		MANIFEST NO:

TIME OF DEPARTURE	7:20 AM	ALLOTTED TIME	
TIME OF ARRIVAL AT CUSTOMER	7:50 AM	DEMURRAGE TIME	TO 75 HR
TIME OF DEPARTURE FROM CUSTOMER	3:30 PM	REASON FOR DELAY	Vac out Pits
TIME OF ARRIVAL AT DISPOSAL SITE Yard	6:00 PM	On site	Start 750 am End
TIME OF DEPARTURE FROM DISPOSAL SITE			
TOTAL TIME			

- ☐ MUNICIPAL
- ☐ INDUSTRIAL
- ☐ COMMERCIAL
- ☐ RESIDENTIAL
- ☐ RAW SEWAGE
- ☐ SEWAGE SLUDGE
- ☐ LEACHATE
- ☐ PRODUCTION WASTE
- ☐ SEPTIC TANK/CESSPOOL
- ☐ FOOD PROCESSING
- ☐ HOLDING TANK
- ☐ GREASE TRAP
- ☐ LAGOON/DIGESTOR
- ☐ WET WELL/PUMP STATION
- ☒ OTHER DeCon Pit wash
- ☒ PORTAL TO PORTAL
- RATE
- PH

VOLUME REMOVED: _____ GALLONS _____ OTHER

WEIGHT:
GROSS WEIGHT _____ LBS.
TARE WEIGHT _____ LBS.
NET WEIGHT _____ LBS.

☐ HAZARDOUS WASTE ☐ HAZARDOUS MATERIAL
U.S.D.O.T. DESCRIPTION
PROPER SHIPPING NAME
HAZARD CLASS OR DIVISION
I.D. NUMBER
PACKING GROUP MFA TRANS WASTE NO.

MILEAGE:
ODOMETER AT DEPARTURE _____ ODOMETER AT DESTINATION _____ Envirn Givaudan

☒ VACUUM TRAILER ☐ MC 306 TRAILER ☐ MC 312 ☐ OTHER

NOTES/INSTRUCTIONS:

CUSTOMER SIGNATURE: Edward F. Duncan

DRIVER NAME: Bob D. Lucia

DISPOSAL SITE SIGNATURE:

TRACTOR NO: 422

TRAILER NO: VT64

To Reorder Call NEBS CUST® M printing service TOLL FREE 1-800-280-6027 NEBS, Inc., Peterborough, NH 03458.

Ref. No: G 024800026

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BILL OF LADING NO. 76922

TRANSPORTER E.P.A. I.D. NUMBER
PAR 000001107

GENERATORS E.P.A. I.D. NUMBER	TELEPHONE NO:	DATE:
		0-2-25-99

CUSTOMER NAME:	ACCOUNT NO.	DISPOSAL SITE:
Givaudan Roure		ON-SITE
ADDRESS: Clifton NJ		ADDRESS:
		MANIFEST NO:

TIME OF DEPARTURE	7:05 Am	ALLOTTED TIME	11.75 HR.
TIME OF ARRIVAL AT CUSTOMER	7:45 Am	DEMURRAGE TIME	
TIME OF DEPARTURE FROM CUSTOMER	4:30 Pm	REASON FOR DELAY	
TIME OF ARRIVAL AT DISPOSAL SITE	Yard 6:55 PM		ON SITE DECON PITS
TIME OF DEPARTURE FROM DISPOSAL SITE			Start 7:45 Am End 4:30 PM
TOTAL TIME	11-50		

- ☐ MUNICIPAL
- ☐ INDUSTRIAL
- ☐ COMMERCIAL
- ☐ RESIDENTIAL
- ☐ RAW SEWAGE
- ☐ SEWAGE SLUDGE
- ☐ LEACHATE
- ☐ PRODUCTION WASTE
- ☐ SEPTIC TANK/CESSPOOL
- ☐ FOOD PROCESSING
- ☐ HOLDING TANK
- ☐ GREASE TRAP
- ☐ LAGOON/DIGESTOR
- ☐ WET WELL/PUMP STATION
- ☐ OTHER Decon Waste Water
- ☒ PORTAL TO PORTAL
- RATE
- PH

VOLUME REMOVED:

_____ GALLONS _____ OTHER

WEIGHT:

GROSS WEIGHT _____ LBS.
TARE WEIGHT _____ LBS.
NET WEIGHT _____ LBS.

☐ HAZARDOUS WASTE ☐ HAZARDOUS MATERIAL

U.S.D.O.T. DESCRIPTION

PROPER SHIPPING NAME _____

HAZARD CLASS OR DIVISION _____

~~ID~~ NUMBER NFA

PACKING GROUP TRANS WASTE NO. _____

MILEAGE:

ODOMETER AT DEPARTURE _____ ODOMETER AT DESTINATION _____

☒ VACUUM TRAILER ☐ MC 306 TRAILER ☐ MC 312 ☐ OTHER _____

NOTES/INSTRUCTIONS:

Edward F. Duncan

CUSTOMER SIGNATURE:	DRIVER NAME: Bob DoPuccia	
DISPOSAL SITE SIGNATURE:	TRACTOR NO: 1122	TRAILER NO: VT64

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BILL OF LADING NO. 76924

TRANSPORTER E.P.A. I.D. NUMBER
PAR 000001107

GENERATORS E.P.A. I.D. NUMBER	TELEPHONE NO:	DATE: 2-26-99
CUSTOMER NAME: Giuaudan Roure	ACCOUNT NO.	DISPOSAL SITE: On-site
ADDRESS: Clifton NJ		ADDRESS:
		MANIFEST NO:

TIME OF DEPARTURE	7:05 pm	ALLOTTED TIME	
TIME OF ARRIVAL AT CUSTOMER	7:50 am	DEMURRAGE TIME	6.5 HR.
TIME OF DEPARTURE FROM CUSTOMER	11:00 am	REASON FOR DELAY	
TIME OF ARRIVAL AT DISPOSAL SITE		Decon Pits + Equipment	
TIME OF DEPARTURE FROM DISPOSAL SITE	1:00 HOP	half day	
TOTAL TIME	6.5 HR.		

- [ ] MUNICIPAL
- [x] INDUSTRIAL
- [ ] COMMERCIAL
- [ ] RESIDENTIAL

- [ ] RAW SEWAGE
- [ ] SEWAGE SLUDGE
- [ ] LEACHATE
- [ ] PRODUCTION WASTE
- [ ] SEPTIC TANK/CESSPOOL
- [ ] FOOD PROCESSING

- [ ] HOLDING TANK
- [ ] GREASE TRAP
- [ ] LAGOON/DIGESTOR
- [ ] WET WELL/PUMP STATION
- [x] OTHER Decon - Pits + equipment

- [x] PORTAL TO PORTAL
- RATE
- PH

VOLUME REMOVED: _____ GALLONS _____ OTHER

WEIGHT:
GROSS WEIGHT _____ LBS.
TARE WEIGHT _____ LBS.
NET WEIGHT _____ LBS.

- [ ] HAZARDOUS WASTE
- [ ] HAZARDOUS MATERIAL

U.S.D.O.T. DESCRIPTION
PROPER SHIPPING NAME
HAZARD CLASS OR DIVISION
I.D. NUMBER
PACKING GROUP _____ WASTE NO.

MILEAGE:
ODOMETER AT DEPARTURE _____ ODOMETER AT DESTINATION _____

- [x] VACUUM TRAILER
- [ ] MC 306 TRAILER
- [ ] MC 312
- [ ] OTHER

NOTES/INSTRUCTIONS:

CUSTOMER SIGNATURE: Edward F. Duncan

DRIVER NAME: Bob DeLuca

DISPOSAL SITE SIGNATURE:

TRACTOR NO: 122

TRAILER NO: VT 64

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BILL OF LADING NO. HFA 77303 Enviro Giveaway

TRANSPORTER E.P.A. I.D. NUMBER
PAR 000001107

GENERATORS E.P.A. I.D. NUMBER	TELEPHONE NO:	DATE: 3-2-99
CUSTOMER NAME: Giveaway Route	ACCOUNT NO.	DISPOSAL SITE: ON-SITE
ADDRESS: Clifton NJ		ADDRESS:
		MANIFEST NO:

TIME OF DEPARTURE	7:15 AM	ALLOTTED TIME	
TIME OF ARRIVAL AT CUSTOMER	7:50 AM	DEMURRAGE TIME	11-HR
TIME OF DEPARTURE FROM CUSTOMER	4:20 PM	REASON FOR DELAY	
TIME OF ARRIVAL AT DISPOSAL SITE SHOP	6:20 PM		Decon Pitts on site
TIME OF DEPARTURE FROM DISPOSAL SITE	11-05		
TOTAL TIME			

- ☐ MUNICIPAL
- ☒ INDUSTRIAL
- ☐ COMMERCIAL
- ☐ RESIDENTIAL

- ☐ RAW SEWAGE
- ☐ SEWAGE SLUDGE
- ☐ LEACHATE
- ☐ PRODUCTION WASTE
- ☐ SEPTIC TANK/CESSPOOL
- ☐ FOOD PROCESSING

- ☐ HOLDING TANK
- ☐ GREASE TRAP
- ☐ LAGOON/DIGESTOR
- ☐ WET WELL/PUMP STATION
- ☒ OTHER Decon Pitt Water

- ☒ PORTAL TO PORTAL
- RATE
- PH

VOLUME REMOVED:

_____ GALLONS _____ OTHER

WEIGHT:

GROSS WEIGHT _____ LBS.
TARE WEIGHT _____ LBS.
NET WEIGHT _____ LBS.

☐ HAZARDOUS WASTE ☐ HAZARDOUS MATERIAL

U.S.D.O.T. DESCRIPTION

PROPER SHIPPING NAME _____

HAZARD CLASS OR DIVISION _____

I.D. NUMBER _____

PACKING GROUP _____ WASTE NO. _____

MILEAGE:

ODOMETER AT DEPARTURE _____ ODOMETER AT DESTINATION _____

☒ VACUUM TRAILER ☐ MC 306 TRAILER ☐ MC 312 ☐ OTHER _____

NOTES/INSTRUCTIONS:

CUSTOMER SIGNATURE: Edward F. Duncan

DRIVER NAME: Bob D. Lucci

DISPOSAL SITE SIGNATURE:

TRACTOR NO: 422

TRAILER NO: VT64

To Reorder Call NEBS CUSTOM printing service TOLL FREE 1-800-[illegible] NEBS, Inc., Peterborough, NH [illegible]

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- Envir Grade

BILL OF LADING NO. 77305

TRANSPORTER E.P.A. I.D. NUMBER
PAR 000001107

GENERATORS E.P.A. I.D. NUMBER	TELEPHONE NO:	DATE: 3-3-99
CUSTOMER NAME: Giuaudan Roure	ACCOUNT NO.	DISPOSAL SITE: ON-SITE
ADDRESS: Clifton NJ		ADDRESS:
		MANIFEST NO:

TIME OF DEPARTURE	7:00 AM	ALLOTTED TIME	
TIME OF ARRIVAL AT CUSTOMER	7:40 AM	DEMURRAGE TIME	11.25 HR.
TIME OF DEPARTURE FROM CUSTOMER	4:00 PM	REASON FOR DELAY	
TIME OF ARRIVAL AT DISPOSAL SITE	Yard 6:20 PM		ON-site Decon Pitts
TIME OF DEPARTURE FROM DISPOSAL SITE			
TOTAL TIME	11-20		

- [ ] MUNICIPAL
- [x] INDUSTRIAL
- [ ] COMMERCIAL
- [ ] RESIDENTIAL
- [ ] RAW SEWAGE
- [ ] SEWAGE SLUDGE
- [ ] LEACHATE
- [ ] PRODUCTION WASTE
- [ ] SEPTIC TANK/CESSPOOL
- [ ] FOOD PROCESSING
- [ ] HOLDING TANK
- [ ] GREASE TRAP
- [ ] LAGOON/DIGESTOR
- [ ] WET WELL/PUMP STATION
- [ ] OTHER Decon Pitt Wash Water
- [x] PORTAL TO PORTAL
- RATE
- PH

VOLUME REMOVED: _____ GALLONS _____ OTHER

WEIGHT:
GROSS WEIGHT _____ LBS.
TARE WEIGHT _____ LBS.
NET WEIGHT _____ LBS.

- [ ] HAZARDOUS WASTE
- [ ] HAZARDOUS MATERIAL

U.S.D.O.T. DESCRIPTION
PROPER SHIPPING NAME _____
HAZARD CLASS OR DIVISION _____
I.D. NUMBER _____
PACKING GROUP _____ WASTE NO. _____

MILEAGE:
ODOMETER AT DEPARTURE _____ ODOMETER AT DESTINATION _____

- [x] VACUUM TRAILER
- [ ] MC 306 TRAILER
- [ ] MC 312
- [ ] OTHER

NOTES/INSTRUCTIONS:

CUSTOMER SIGNATURE: Edward F. Duncan	DRIVER NAME: Bob DeLucia	
DISPOSAL SITE SIGNATURE:	TRACTOR NO: 422	TRAILER NO: VT64

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BILL OF LADING NO. 77307

TRANSPORTER E.P.A. I.D. NUMBER
PAR 000001107

GENERATORS E.P.A. I.D. NUMBER	TELEPHONE NO:	DATE: 3-4-99
CUSTOMER NAME: Giuaudan Roure	ACCOUNT NO.	DISPOSAL SITE: ON-SITE
ADDRESS: Clifton NJ		ADDRESS:
		MANIFEST NO:

TIME OF DEPARTURE	7:45 AM	ALLOTTED TIME	
TIME OF ARRIVAL AT CUSTOMER	8:15 AM	DEMURRAGE TIME	[illegible]
TIME OF DEPARTURE FROM CUSTOMER	1:30 PM	REASON FOR DELAY	
TIME OF ARRIVAL AT DISPOSAL SITE	4:30 PM		
TIME OF DEPARTURE FROM DISPOSAL SITE			
TOTAL TIME	8 3/4		

- ☐ MUNICIPAL
- ☒ INDUSTRIAL
- ☐ COMMERCIAL
- ☐ RESIDENTIAL
- ☐ RAW SEWAGE
- ☐ SEWAGE SLUDGE
- ☐ LEACHATE
- ☐ PRODUCTION WASTE
- ☐ SEPTIC TANK/CESSPOOL
- ☐ FOOD PROCESSING
- ☐ HOLDING TANK
- ☐ GREASE TRAP
- ☐ LAGOON/DIGESTOR
- ☐ WET WELL/PUMP STATION
- ☐ OTHER DeCon Pitt water
- ☒ PORTAL TO PORTAL
- RATE
- PH

VOLUME REMOVED: _____ GALLONS _____ OTHER

WEIGHT:
GROSS WEIGHT _____ LBS.
TARE WEIGHT _____ LBS.
NET WEIGHT _____ LBS.

☐ HAZARDOUS WASTE ☐ HAZARDOUS MATERIAL
U.S.D.O.T. DESCRIPTION
PROPER SHIPPING NAME
HAZARD CLASS OR DIVISION
I.D. NUMBER
PACKING GROUP Favino Gi WASTE NO.

MILEAGE:
ODOMETER AT DEPARTURE _____ ODOMETER AT DESTINATION _____

☒ VACUUM TRAILER ☐ MC 306 TRAILER ☐ MC 312 ☐ OTHER

NOTES/INSTRUCTIONS:

Edward F Duncan

CUSTOMER SIGNATURE:	DRIVER NAME: Bob DeLucia	
DISPOSAL SITE SIGNATURE:	TRACTOR NO: 422	TRAILER NO: VT64

To Reorder Call NEBS CUSTOM printing service TOLL FREE 1-800-[illegible] NEBS, Inc., Peters Trough, NH [illegible]

Reifsneider Transportation Inc

HFA

TRANS

BILL OF LADING NO. 77313

Environmental Services
223 FELLOWSHIP ROAD
P.O. BOX 756
EAGLE, PA 19480
(610) 458-9333 • FAX (610) 458-2577

TRANSPORTER E.P.A. I.D. NUMBER
PAR 000001107

GENERATORS E.P.A. I.D. NUMBER	TELEPHONE NO:	DATE: 3-9-99
CUSTOMER NAME: Givaudan Roure	ACCOUNT NO.	DISPOSAL SITE: ON-SITE
ADDRESS: Clifton NJ		ADDRESS:
		MANIFEST NO:

TIME OF DEPARTURE	7:15 AM	ALLOTTED TIME	
TIME OF ARRIVAL AT CUSTOMER	7:50 AM	DEMURRAGE TIME	11.25 HR.
TIME OF DEPARTURE FROM CUSTOMER	4:15 PM	REASON FOR DELAY	
TIME OF ARRIVAL AT DISPOSAL SITE	6:30 PM	Pump out Pitts Decon	
TIME OF DEPARTURE FROM DISPOSAL SITE			
TOTAL TIME			

- [ ] MUNICIPAL
- [x] INDUSTRIAL
- [ ] COMMERCIAL
- [ ] RESIDENTIAL

- [ ] RAW SEWAGE
- [ ] SEWAGE SLUDGE
- [ ] LEACHATE
- [ ] PRODUCTION WASTE
- [ ] SEPTIC TANK/CESSPOOL
- [ ] FOOD PROCESSING

- [ ] HOLDING TANK
- [ ] GREASE TRAP
- [ ] LAGOON/DIGESTOR
- [ ] WET WELL/PUMP STATION
- [ ] OTHER Decon Work on site

- [x] PORTAL TO PORTAL
- RATE
- PH

VOLUME REMOVED: _____ GALLONS _____ OTHER

WEIGHT:
GROSS WEIGHT _____ LBS.
TARE WEIGHT _____ LBS.
NET WEIGHT _____ LBS.

- [ ] HAZARDOUS WASTE
- [ ] HAZARDOUS MATERIAL

U.S.D.O.T. DESCRIPTION
PROPER SHIPPING NAME
HAZARD CLASS OR DIVISION
I.D. NUMBER
PACKING GROUP _____ WASTE NO. _____

MILEAGE:
ODOMETER AT DEPARTURE _____ ODOMETER AT DESTINATION _____

- [x] VACUUM TRAILER
- [ ] MC 306 TRAILER
- [ ] MC 312
- [ ] OTHER

NOTES/INSTRUCTIONS:

CUSTOMER SIGNATURE: Edward F. Duncan

DRIVER NAME: Bob DoPuri

DISPOSAL SITE SIGNATURE:

TRACTOR NO: 422

TRAILER NO: VT64

To Reorder Call NEBS CUSTOM printing service TOLL FREE 1-800-498-8327 NEBS, Inc., Peterborough, NH 03458.

Reifsneider Transportation Inc

HFA

BILL OF LADING NO. 77315

Enviro Clean - Givaudan

Environmental Services
223 FELLOWSHIP ROAD
P.O. BOX 756
EAGLE, PA 19480
(610) 458-9333 • FAX (610) 458-2577

TRANSPORTER E.P.A. I.D. NUMBER
PAR 000001107

GENERATORS E.P.A. I.D. NUMBER	TELEPHONE NO:	DATE: 9-10-99
CUSTOMER NAME: Givaudan Roure	ACCOUNT NO.	DISPOSAL SITE: ON-SITE
ADDRESS: Clifton NJ		ADDRESS:
		MANIFEST NO:

TIME OF DEPARTURE	~~8:00~~ 7:25 AM	ALLOTTED TIME	
TIME OF ARRIVAL AT CUSTOMER	8:00 AM	DEMURRAGE TIME	11 HR.
TIME OF DEPARTURE FROM CUSTOMER	4:15 PM	REASON FOR DELAY	
TIME OF ARRIVAL AT DISPOSAL SITE YARD	6:30 PM		
TIME OF DEPARTURE FROM DISPOSAL SITE			
TOTAL TIME	11-05		

☐ MUNICIPAL	☐ RAW SEWAGE	☐ HOLDING TANK	☒ PORTAL TO PORTAL
☒ INDUSTRIAL	☐ SEWAGE SLUDGE	☐ GREASE TRAP	RATE
☐ COMMERCIAL	☐ LEACHATE	☐ LAGOON/DIGESTOR	PH
☐ RESIDENTIAL	☐ PRODUCTION WASTE	☐ WET WELL/PUMP STATION	
	☐ SEPTIC TANK/CESSPOOL	☐ OTHER De Con Pitt Washing	
	☐ FOOD PROCESSING		

VOLUME REMOVED:

— GALLONS _____ OTHER

WEIGHT:

GROSS WEIGHT _____ LBS.
TARE WEIGHT _____ LBS.
NET WEIGHT _____ LBS.

☐ HAZARDOUS WASTE ☐ HAZARDOUS MATERIAL

U.S.D.O.T. DESCRIPTION:

PROPER SHIPPING NAME _____

HAZARD CLASS OR DIVISION _____

I.D. NUMBER _____

PACKING GROUP _____ WASTE NO. _____

MILEAGE:

ODOMETER AT DEPARTURE _____ ODOMETER AT DESTINATION _____

☒ VACUUM TRAILER ☐ MC 306 TRAILER ☐ MC 312 ☐ OTHER _____

NOTES/INSTRUCTIONS:

CUSTOMER SIGNATURE: Edward F Duncan

DRIVER NAME: Bob DeLucia

DISPOSAL SITE SIGNATURE:

TRACTOR NO: 422

TRAILER NO: VT64

To Reorder Call NEBS CUSTOM printing service TOLL FREE 1-800-888-6327 NEBS, Inc., Peterborough, NH 03458.

Ref. No: G 024800026

Reifsneider Transportation Inc

...mental Services
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P.O. BOX 756
EAGLE, PA 19480
(610) 458-9333 • FAX (610) 458-2577

BILL OF LADING NO. 78126

TRANSPORTER E.P.A. I.D. NUMBER
PAR 000001107

GENERATORS E.P.A. I.D. NUMBER	TELEPHONE NO:	DATE: 3-10-99
CUSTOMER NAME: Givaudan-Roure Corp.	ACCOUNT NO.	DISPOSAL SITE: B.C.W.W.T.P 3
ADDRESS: 125 Delawanna Ave Clifton N.J.		ADDRESS: Reading PA
		MANIFEST NO: 09534

TIME OF DEPARTURE	0645	ALLOTTED TIME	
TIME OF ARRIVAL AT CUSTOMER	0720	DEMURRAGE TIME	2 UNITS
TIME OF DEPARTURE FROM CUSTOMER	0820	REASON FOR DELAY	See Below (35 min)
TIME OF ARRIVAL AT DISPOSAL SITE	1100		
TIME OF DEPARTURE FROM DISPOSAL SITE	1130		
TOTAL TIME	4:45		

- ☐ MUNICIPAL
- ☑ INDUSTRIAL
- ☐ COMMERCIAL
- ☐ RESIDENTIAL

- ☐ RAW SEWAGE
- ☐ SEWAGE SLUDGE
- ☐ LEACHATE
- ☐ PRODUCTION WASTE
- ☐ SEPTIC TANK/CESSPOOL
- ☐ FOOD PROCESSING

- ☐ HOLDING TANK
- ☐ GREASE TRAP
- ☐ LAGOON/DIGESTOR
- ☐ WET WELL/PUMP STATION
- ☒ OTHER Ground water

- ☐ PORTAL TO PORTAL
- RATE
- PH

VOLUME REMOVED: 6500 GALLONS _____ OTHER

WEIGHT:
GROSS WEIGHT _____ LBS.
TARE WEIGHT _____ LBS.
NET WEIGHT _____ LBS.

☐ HAZARDOUS WASTE ☐ HAZARDOUS MATERIAL
U.S.D.O.T. DESCRIPTION
PROPER SHIPPING NAME
HAZARD CLASS OR DIVISION
I.D. NUMBER
PACKING GROUP _____ WASTE NO. _____

MILEAGE:
ODOMETER AT DEPARTURE _____ ODOMETER AT DESTINATION _____

☐ VACUUM TRAILER ☒ MC 306 TRAILER ☐ MC 312 ☐ OTHER

NOTES/INSTRUCTIONS:

Valve on Baker tank 30-13 were 4" fitting is frozen solid tried to thaw with torch, Had to connect 2 lengths of 3" Hose and Pump out of top of Baker tank. Did not pull Prime unit 07:55

CUSTOMER SIGNATURE: [signature]	DRIVER NAME: [signature]	
DISPOSAL SITE SIGNATURE:	TRACTOR NO: 434	TRAILER NO: ST-59

BERKS COUNTY WASTEWATER TREATMENT PLANT
HAULED LIQUID WASTE MANIFEST

No. 09534

BY LIQUID WASTE HAULER

R-BOC 78126

Name: Reifsneider Transportation, Inc.
Print

Hauler Permit No.: BC-007

Address: 223 Fellowship Rd., PO Box 756
Street

Truck License Tag No.: XF-02195

Eagle, PA — City, State
19480 — Zip Code

Waste Characteristics

Type	Source	Volume
1. Domestic Holding Tank	☐ Residential	_____ gal.
	☐ Non-residential	
2. Domestic Septic Tank/ Cesspool	☐ Residential	_____ gal.
	☐ Non-residential	
3. Miscellaneous	☐ Sludge	_____ gal.
	☐ Portable Toilets	_____ gal.
	☒ Other ~~Groundwater~~	6500 gal.

Note: Non-residential source wastes require prior approval for disposal.
Non-domestic wastes will not be accepted if mixed with domestic wastes in the same load.

*Certification Statement

TRUCK CAPACITY: 9200 gal.

"I hereby certify that the foregoing information is true and complete to the best of my knowledge and that no wastes other than those expressly indicated are included in the waste and that the above waste does not contain any RCRA hazardous wastes as defined in 40 CFR 261. I understand that failure to comply with conditions of any applicable industrial discharge permit or other legal requirements may result in immediate suspension of the Permit, and/or penalties as stipulated by the Permit and/or allowed by law."

Driver Name: Jeff Caufield Signature: [signature] Date: 3-10-99

BY LIQUID WASTE GENERATOR(S)

(PRINT)
THIS SECTION TO BE COMPLETED BY GENERATOR NO. 1

Gallons: 6500

Name: Givaudan-Roure Corporation Phone: _____

125 Delawanna Avenue — Address
Clifton, NJ — City, State, Zip Code

Holding ☐ Septic ☐ Sludge ☐ Other ☒ Groundwater

*Certification Statement (See above) Signature: [signature] for Givaudan

Pick-Up Date: 3-10-99

(PRINT)
THIS SECTION TO BE COMPLETED BY GENERATOR NO. 2

Gallons: _____

Name: _____ Phone: _____

Address — City, State, Zip Code

Holding ☐ Septic ☐ Sludge ☐ Other ☐

*Certification Statement (See above) Signature: _____

Pick-Up Date: _____

(PRINT)
THIS SECTION TO BE COMPLETED BY GENERATOR NO. 3

Gallons: _____

Name: _____ Phone: _____

Address — City, State, Zip Code

Holding ☐ Septic ☐ Sludge ☐ Other ☐

*Certification Statement (See above) Signature: _____

Pick-Up Date: _____

BY LIQUID WASTE RECEIVER

Date: 3-10-99 Time: 11:00 am Truck Capacity: 9200 gal.

Volume Received: 6500 gal.

Sample ID #: _____

Other Characteristics & Lab Work _____

pH		VOC					
LEL		TOX					
Odors		NH_3		COD		BOD	
Color				TSS		TKN	

Name: Tim O'Donnell
Print

Signature: _____

SP9632 4/97

(WHITE - Office Copy) (YELLOW - Hauler Copy) (PINK - Customer Copy)

Reifsneider Transportation Inc

Environmental Services
223 FELLOWSHIP ROAD
P.O. BOX 756
EAGLE, PA 19480
(610) 458-9333 • FAX (610) 458-2577

BILL OF LADING NO. 77930

TRANSPORTER E.P.A. I.D. NUMBER
PAR 000001107

GENERATORS E.P.A. I.D. NUMBER	TELEPHONE NO:	DATE: 3-10-99
CUSTOMER NAME: Givaudan-Roure corp.	ACCOUNT NO.	DISPOSAL SITE: B.C.W.T.P.
ADDRESS: Clifton NJ		ADDRESS: Reading pa.
		MANIFEST NO: 09535

TIME OF DEPARTURE	850	ALLOTTED TIME	
TIME OF ARRIVAL AT CUSTOMER	925	DEMURRAGE TIME	4 UNITS
TIME OF DEPARTURE FROM CUSTOMER	1110	REASON FOR DELAY	Frost Tank Valve Froze.
TIME OF ARRIVAL AT DISPOSAL SITE	130		pump wouldn't prime. 3
TIME OF DEPARTURE FROM DISPOSAL SITE	200		
TOTAL TIME	510		

- [ ] MUNICIPAL
- [x] INDUSTRIAL
- [ ] COMMERCIAL
- [ ] RESIDENTIAL

- [ ] RAW SEWAGE
- [ ] SEWAGE SLUDGE
- [ ] LEACHATE
- [ ] PRODUCTION WASTE
- [ ] SEPTIC TANK/CESSPOOL
- [ ] FOOD PROCESSING

- [ ] HOLDING TANK
- [ ] GREASE TRAP
- [ ] LAGOON/DIGESTOR
- [ ] WET WELL/PUMP STATION
- [x] OTHER Ground water

- [ ] PORTAL TO PORTAL
- RATE
- PH

VOLUME REMOVED: 6000 44 GALLONS _____ OTHER

WEIGHT:
GROSS WEIGHT _____ LBS.
TARE WEIGHT _____ LBS.
NET WEIGHT _____ LBS.

- [ ] HAZARDOUS WASTE
- [ ] HAZARDOUS MATERIAL

U.S.D.O.T. DESCRIPTION
PROPER SHIPPING NAME _____
HAZARD CLASS OR DIVISION _____
I.D. NUMBER _____
PACKING GROUP _____ WASTE NO. _____

MILEAGE:
ODOMETER AT DEPARTURE _____ ODOMETER AT DESTINATION _____

- [ ] VACUUM TRAILER
- [x] MC 306 TRAILER
- [ ] MC 312
- [ ] OTHER _____

NOTES/INSTRUCTIONS:

John Mrak
TOMER SIGNATURE:

DRIVER NAME: Cindy Miller

DISPOSAL SITE SIGNATURE:

TRACTOR NO: 419

TRAILER NO: St26

To Reorder Call NEBS CUST 1 M printing service TOLL FREE 1-800-488-6327 NEBS, Inc., Peterborough, NH 03458.

Ref. No. 0024800025

BERKS COUNTY WASTEWATER TREATMENT PLANT
HAULED LIQUID WASTE MANIFEST NO. 09535

77930

BY LIQUID WASTE HAULER

Name: Reifsneider Transportation, Inc.
Print

Address: 223 Fellowship Rd., PO Box 756
Street

Eagle, PA — 19480
City, State — Zip Code

Hauler Permit No.: BC-007

Truck License Tag No.: XA 50205

Waste Characteristics

Type	Source	Volume
1. Domestic Holding Tank	☐ Residential	_____ gal.
	☐ Non-residential	
2. Domestic Septic Tank/ Cesspool	☐ Residential	_____ gal.
	☐ Non-residential	
3. Miscellaneous	☐ Sludge	_____ gal.
	☐ Portable Toilets	_____ gal.
	XX Other ~~Groundwater~~	6000 gal. 44"

Note: Non-residential source wastes require prior approval for disposal.
Non-domestic wastes will not be accepted if mixed with domestic wastes in the same load.

*Certification Statement

TRUCK CAPACITY: 7000 gal.

"I hereby certify that the foregoing information is true and complete to the best of my knowledge and that no wastes other than those expressly indicated are included in the waste and that the above waste does not contain any RCRA hazardous wastes as defined in 40 CFR 261. I understand that failure to comply with conditions of any applicable industrial discharge permit or other legal requirements may result in immediate suspension of the Permit, and/or penalties as stipulated by the Permit and/or allowed by law."

Driver Name: Andy Miller Signature: [signature] Date: 3-10-99

BY LIQUID WASTE GENERATOR(S)

(PRINT)
THIS SECTION TO BE COMPLETED BY GENERATOR NO. 1 — Gallons: 6000

Name: Givaudan-Roure Corporation — Phone: _____
125 Delawanna Avenue — Clifton, NJ
Address — City, State, Zip Code

Holding ☐ Septic ☐ Sludge ☐ Other XX Groundwater

*Certification Statement (See above) Signature: [signature] Pick-Up Date: 3-10-99

(PRINT)
THIS SECTION TO BE COMPLETED BY GENERATOR NO. 2 — Gallons: _____

Name: _____ Phone: _____
Address — City, State, Zip Code

Holding ☐ Septic ☐ Sludge ☐ Other ☐

*Certification Statement (See above) Signature: _____ Pick-Up Date: _____

(PRINT)
THIS SECTION TO BE COMPLETED BY GENERATOR NO. 3 — Gallons: _____

Name: _____ Phone: _____
Address — City, State, Zip Code

Holding ☐ Septic ☐ Sludge ☐ Other ☐

*Certification Statement (See above) Signature: _____ Pick-Up Date: _____

BY LIQUID WASTE RECEIVER

Date: 3-10-99 Time: 1300 PM Truck Capacity: 7000 gal.

Volume Received: 6000 44" gal.

Sample ID #: _____

Other Characteristics & Lab Work _____

pH		VOC			
LEL		TOX			
Odors		NH_3		COD		BOD	
Color				TSS		TKN	

Name: Tim O'Donnell
Print

Signature: _____

SP9632 4/97

(WHITE - Office Copy) (YELLOW - Hauler Copy) (PINK - Customer Copy)

BERKS COUNTY WASTEWATER TREATMENT PLANT
HAULED LIQUID WASTE MANIFEST No. 09536

BY LIQUID WASTE HAULER

R-BOL# 78129

Name: Reifsneider Transportation, Inc.
Print

Hauler Permit No.: BC-007

Address: 223 Fellowship Rd., PO Box 756
Street

Truck License Tag No.: XF-02195

Eagle, PA — City, State
19480 — Zip Code

Waste Characteristics

Type	Source	Volume
1. Domestic Holding Tank	☐ Residential ☐ Non-residential	_____ gal.
2. Domestic Septic Tank/ Cesspool	☐ Residential ☐ Non-residential	_____ gal.
3. Miscellaneous	☐ Sludge	_____ gal.
	☐ Portable Toilets	_____ gal.
	XX ☐ Other ~~Groundwater~~	6500 gal.

Note: Non-residential source wastes require prior approval for disposal.
Non-domestic wastes will not be accepted if mixed with domestic wastes in the same load.

*Certification Statement

TRUCK CAPACITY: 9200 gal.

"I hereby certify that the foregoing information is true and complete to the best of my knowledge and that no wastes other than those expressly indicated are included in the waste and that the above waste does not contain any RCRA hazardous wastes as defined in 40 CFR 261. I understand that failure to comply with conditions of any applicable industrial discharge permit or other legal requirements may result in immediate suspension of the Permit, and/or penalties as stipulated by the Permit and/or allowed by law."

Driver Name: Jeff Canfield Signature: [signature] Date: 3-11-99

BY LIQUID WASTE GENERATOR(S)

(PRINT)
THIS SECTION TO BE COMPLETED BY GENERATOR NO. 1 — Gallons: 6500

Name: Givaudan-Roure Corporation — Phone:
125 Delawanna Avenue — Clifton, NJ
Address — City, State, Zip Code

Holding ☐ Septic ☐ Sludge ☐ Other XX Groundwater

*Certification Statement (See above) Signature: (X) [signature]

Pick-Up Date: 3-11-99

(PRINT)
THIS SECTION TO BE COMPLETED BY GENERATOR NO. 2 — Gallons:

Name: — Phone:
Address — City, State, Zip Code

Holding ☐ Septic ☐ Sludge ☐ Other ☐

*Certification Statement (See above) Signature: — Pick-Up Date:

(PRINT)
THIS SECTION TO BE COMPLETED BY GENERATOR NO. 3 — Gallons:

Name: — Phone:
Address — City, State, Zip Code

Holding ☐ Septic ☐ Sludge ☐ Other ☐

*Certification Statement (See above) Signature: — Pick-Up Date:

BY LIQUID WASTE RECEIVER

Date: 3-11-99 Time: 1330 Truck Capacity: 9200 gal.

Volume Received: 6500 gal.

Sample ID #:

Other Characteristics & Lab Work

pH		VOC					
LEL		TOX					
Odors		NH_3		COD		BOD	
Color				TSS		TKN	

Name: Tim O'Donnell
Print

Signature:

SP9632 4/97

(WHITE - Office Copy) (YELLOW - Hauler Copy) (PINK - Customer Copy)

BERKS COUNTY WASTEWATER TREATMENT PLANT
HAULED LIQUID WASTE MANIFEST NO. 08044

BY LIQUID WASTE HAULER

77933

Name: Reifsneider Transportation, Inc.
Print

Hauler Permit No.: BC-007

Address: 223 Fellowship Rd., PO Box 756
Street

Truck License Tag No.: XA 502 05

Eagle, PA — 19480
City, State — Zip Code

Waste Characteristics

Type	Source	Volume
1. Domestic Holding Tank	☐ Residential ☐ Non-residential	_____ gal.
2. Domestic Septic Tank/ Cesspool	☐ Residential ☐ Non-residential	_____ gal.
3. Miscellaneous	☐ Sludge	_____ gal.
	☐ Portable Toilets	_____ gal.
	☒ Other Groundwater	6000 gal.

Note: Non-residential source wastes require prior approval for disposal.
Non-domestic wastes will not be accepted if mixed with domestic wastes in the same load.

*Certification Statement

TRUCK CAPACITY: 7000 gal.

"I hereby certify that the foregoing information is true and complete to the best of my knowledge and that no wastes other than those expressly indicated are included in the waste and that the above waste does not contain any RCRA hazardous wastes as defined in 40 CFR 261. I understand that failure to comply with conditions of any applicable industrial discharge permit or other legal requirements may result in immediate suspension of the Permit, and/or penalties as stipulated by the Permit and/or allowed by law."

Driver Name: Andy Miller Signature: Andy Miller Date: 3-11-99

BY LIQUID WASTE GENERATOR(S)

(PRINT)
THIS SECTION TO BE COMPLETED BY GENERATOR NO. 1

Name: Givaudan-Roure Corporation Phone: _____

125 Delawanna Avenue — Clifton, NJ
Address — City, State, Zip Code

*Certification Statement (See above) Signature: [signature]

Gallons: 6000
Holding ☐ Septic ☐ Sludge ☐ Other ☒ Groundwater
Pick-Up Date: 3-11-99

(PRINT)
THIS SECTION TO BE COMPLETED BY GENERATOR NO. 2

Name: _____ Phone: _____
Address — City, State, Zip Code

*Certification Statement (See above) Signature: _____

Gallons: _____
Holding ☐ Septic ☐ Sludge ☐ Other ☐
Pick-Up Date: _____

(PRINT)
THIS SECTION TO BE COMPLETED BY GENERATOR NO. 3

Name: _____ Phone: _____
Address — City, State, Zip Code

*Certification Statement (See above) Signature: _____

Gallons: _____
Holding ☐ Septic ☐ Sludge ☐ Other ☐
Pick-Up Date: _____

BY LIQUID WASTE RECEIVER

Date: 3-11-99 Time: _____ Truck Capacity: 7000 gal.

Volume Received: 6000 gal.

Sample ID #: _____

pH		VOC		Other Characteristics & Lab Work			
LEL		TOX					
Odors		NH_3		COD		BOD	
Color				TSS		TKN	

Name: Tim O'Donnell
Print

Signature: _____

9632 4/97

(WHITE - Office Copy) (YELLOW - Hauler Copy) (PINK - Customer Copy)

Reifsneider Transportation Inc

Environmental Services
223 FELLOWSHIP ROAD
P.O. BOX 756
EAGLE, PA 19480
(610) 458-9333 • FAX (610) 458-2577

BILL OF LADING NO. 77318

TRANSPORTER E.P.A. I.D. NUMBER
PAR 000001107

GENERATORS E.P.A. I.D. NUMBER	TELEPHONE NO:	DATE: 3-11-99
CUSTOMER NAME: Guardian Power	ACCOUNT NO.	DISPOSAL SITE: Berks County
ADDRESS: Clifton NJ		ADDRESS: Reading PA
		MANIFEST NO: 08051

TIME OF DEPARTURE		ALLOTTED TIME	
TIME OF ARRIVAL AT CUSTOMER	2:30 Pm	DEMURRAGE TIME	N/A
TIME OF DEPARTURE FROM CUSTOMER	2:45 Pm	REASON FOR DELAY	
TIME OF ARRIVAL AT DISPOSAL SITE	6:05 Pm	Empty Baker Tanks	
TIME OF DEPARTURE FROM DISPOSAL SITE	6:30		
TOTAL TIME	4		

☐ MUNICIPAL	☐ RAW SEWAGE	☒ HOLDING TANK	☐ PORTAL TO PORTAL
☒ INDUSTRIAL	☐ SEWAGE SLUDGE	☐ GREASE TRAP	RATE
☐ COMMERCIAL	☐ LEACHATE	☐ LAGOON/DIGESTOR	PH
☐ RESIDENTIAL	☐ PRODUCTION WASTE	☐ WET WELL/PUMP STATION	
	☐ SEPTIC TANK/CESSPOOL	☐ OTHER Waste Water Decon	
	☐ FOOD PROCESSING	Basin Water	

VOLUME REMOVED: 4000 / 4000 GALLONS _____ OTHER

WEIGHT:
GROSS WEIGHT _____ LBS.
TARE WEIGHT _____ LBS.
NET WEIGHT _____ LBS.

☐ HAZARDOUS WASTE ☐ HAZARDOUS MATERIAL
U.S.D.O.T. DESCRIPTION
PROPER SHIPPING NAME _____
HAZARD CLASS OR DIVISION _____
I.D. NUMBER _____
PACKING GROUP _____ WASTE NO. _____

MILEAGE:
ODOMETER AT DEPARTURE _____ ODOMETER AT DESTINATION _____

☒ VACUUM TRAILER ☐ MC 306 TRAILER ☐ MC 312 ☐ OTHER _____

NOTES/INSTRUCTIONS:

CUSTOMER SIGNATURE: Edward J. Duncan
DRIVER NAME: Bob DeSousa
DISPOSAL SITE SIGNATURE:
TRACTOR NO: #122
TRAILER NO: VT64

To Reorder Call NEBS CUST* M printing service TOLL FREE 1-800-225-6380 NEBS, Inc., Peterborough, NH 03458.

Douglassville Location:
1605 Benjamin Franklin Highway
Douglassville, PA 19518
Phone: (610) 327-8196
Fax: (610) 327-6864

NJ DEP Cert #77925
PA DEP Cert #06-409

Post-it® Fax Note 7671	Date 4/7	# of pages ▶
To. Greg	From CAS	
Co./Dept. EWMI	Co. BML	
Phone #	Phone #	
Fax #	Fax #	

eton Location:
7 Wall Street
eton, NJ 08540
(609) 924-5151
(609) 924-9692

EP Cert #11198

CERTIFICATE OF ANALYSIS

Client: Environmental Waste Minimization,
PO Box 158
Emmaus PA 18049-015

Attn: Greg Inman
Project: Giuaudan Roure

Date Received: *26-Mar-99*

Lab#: D991423-001
Sample ID: Banker Tank Wash Water
Sample Type: Water

Collect Date: 24-Mar-99
Collected By: Client

Report Date: *07-Apr-99*

Test		Result	Units	PQL	Method	Init	Time	Analysis Date
pH-sd								
	pH	9.04	s.u.	0.01	9045C	DAW	1630	3/29/99
Ignitability								
	Ignitability	NEG			ASTM	DAW	1130	3/29/99
Cn,RX-sd								
	Cyanide, reactive	< 1.	mg/l	1.	SW-846	DAW	1530	3/31/99
Sulfid,RX-sd								
	Sulfide, reactive	16.	mg/l	5.	SW-846	BJS	1530	3/31/99
BTEX-8260-sd								
	Benzene	< 0.001	mg/l	0.001	8260B	SDK	2000	4/1/99
	Toluene	0.007	mg/l	0.001	8260B	SDK	2000	4/1/99
	Ethyl benzene	< 0.001	mg/l	0.001	8260B	SDK	2000	4/1/99
	o-Xylene	< 0.001	mg/l	0.001	8260B	SDK	2000	4/1/99
	m,p-Xylene	0.001	mg/l	0.001	8260B	SDK	2000	4/1/99
TPH-418.1-sd								
	Total petroleum hydrocarbons	12.	mg/l	1.	418.1	MDJ	1420	3/30/99
TOX-sd								
	Total organic halogens (TOX)	< 1.	mg/L	1.	NYS	SS	1500	3/29/99
Solid,%								
	Percent Solids	0.6	%	0.1	ASTM D297	DAW	1430	3/29/99
PCB-8082-sd								
	Aroclor-1016	< 0.01	mg/l	0.01	8082	DMP	1929	3/29/99
	Aroclor-1221	< 0.01	mg/l	0.01	8082	DMP	1929	3/29/99
	Aroclor-1232	< 0.01	mg/l	0.01	8082	DMP	1929	3/29/99
	Aroclor-1242	< 0.01	mg/l	0.01	8082	DMP	1929	3/29/99
	Aroclor-1248	< 0.01	mg/l	0.01	8082	DMP	1929	3/29/99
	Aroclor-1254	< 0.01	mg/l	0.01	8082	DMP	1929	3/29/99
	Aroclor-1260	< 0.01	mg/l	0.01	8082	DMP	1929	3/29/99
TCLP Extract								
	TCLP extraction	DONE			1311	TWH	1500	3/29/99

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Princeton Location
267 Wall Street
Princeton, NJ 08540
Phone: (609) 924-5151
Fax: (609) 924-9692

NJ DEP Cert #11198

- CERTIFICATE OF ANALYSIS -

Client: Environmental Waste Minimization,
PO Box 158
Emmaus PA 18049-015

Attn: Greg Inman
Project: Giuaudan Roure

Date Received: *26-Mar-99*

Lab#: D991423-001
Sample ID: Banker Tank Wash Water
Sample Type: Water

Collect Date: 24-Mar-99
Collected By: Client

Report Date: *07-Apr-99*

Test		Result	Units	PQL	Method	Inst. Time	Analysis Date
TCLP-VOL							
	Benzene, TCLP	< 0.001	mg/L	0.001	8260B	SDK 2000	4/1/99
	Carbon tetrachloride, TCLP	< 0.001	mg/L	0.001	8260B	SDK 2000	4/1/99
	Chlorobenzene, TCLP	< 0.001	mg/L	0.001	8260B	SDK 2000	4/1/99
	Chloroform, TCLP	0.002	mg/L	0.001	8260B	SDK 2000	4/1/99
	1,4-Dichlorobenzene, TCLP	0.001	mg/L	0.001	8260B	SDK 2000	4/1/99
	1,2-Dichloroethane, TCLP	0.011	mg/L	0.001	8260B	SDK 2000	4/1/99
	1,1-Dichloroethylene, TCLP	< 0.001	mg/L	0.001	8260B	SDK 2000	4/1/99
	Methyl ethyl ketone, TCLP	0.020	mg/L	0.005	8260B	SDK 2000	4/1/99
	Tetrachloroethylene, TCLP	< 0.001	mg/L	0.001	8260B	SDK 2000	4/1/99
	Trichloroethylene, TCLP	< 0.001	mg/L	0.001	8260B	SDK 2000	4/1/99
	Vinyl Chloride, TCLP	< 0.001	mg/L	0.001	8260B	SDK 2000	4/1/99
TCLP-PEST							
	Chlordane, TCLP	< 0.01	mg/L	0.01	8081A	DMP 0512	3/31/99
	Endrin, TCLP	< 0.0009	mg/L	0.0009	8081A	DMP 0512	3/31/99
	Heptachlor, TCLP	< 0.0005	mg/L	0.0005	8081A	DMP 0512	3/31/99
	Heptachlor epoxide, TCLP	< 0.0005	mg/L	0.0005	8081A	DMP 0512	3/31/99
	Lindane, TCLP	< 0.0005	mg/L	0.0005	8081A	DMP 0512	3/31/99
	Methoxychlor, TCLP	< 0.005	mg/L	0.005	8081A	DMP 0512	3/31/99
	Toxaphene, TCLP	< 0.05	mg/L	0.05	8081A	DMP 0512	3/31/99
TCLP-HERBS							
	2,4-D, TCLP	< 0.01	mg/L	0.01	8321A	DMP 1237	4/5/99
	2,4,5-TP, TCLP	< 0.02	mg/L	0.02	8321A	DMP 1237	4/5/99
TCLP-RCRA7							
	Arsenic, TCLP	< 0.02	mg/L	0.02	6010B	BWB 1230	4/1/99
	Barium, TCLP	0.012	mg/L	0.005	6010B	BWB 1230	4/1/99
	Cadmium, TCLP	0.011	mg/L	0.005	6010B	BWB 1230	4/1/99
	Chromium, TCLP	< 0.005	mg/L	0.005	6010B	BWB 1230	4/1/99
	Lead, TCLP	0.03	mg/L	0.02	6010B	BWB 1230	4/1/99
	Selenium, TCLP	< 0.02	mg/L	0.02	6010B	BWB 1230	4/1/99

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NJ DEP Cert #11198

- CERTIFICATE OF ANALYSIS -

Client: Environmental Waste Minimization,
PO Box 158
Emmaus PA 18049-015

Attn: Greg Inman
Project: Giuaudan Roure

Lab#: D991423-001
Sample ID: Banker Tank Wash Water
Sample Type: Water
Collect Date: 24-Mar-99
Collected By: Client

Date Received: *26-Mar-99*
Report Date: *07-Apr-99*

Test Group	Test	Result	Units	PQL	Method	Inst / Time	Analysis Date
	Silver, TCLP	< 0.005	mg/L	0.005	6010B	BWB 1230	4/1/99
TCLP-HG							
	Mercury, TCLP	< 0.002	mg/L	0.002	7470A	TWH 1600	4/1/99
RCRA7-6010-							
	Arsenic	< 2.	mg/L	2.	6010B	BWB 1139	3/30/99
	Barium	13.	mg/L	0.	6010B	BWB 1139	3/30/99
	Cadmium	< 0.5	mg/L	0.5	6010B	BWB 1139	3/30/99
	Chromium	< 0.5	mg/L	0.5	6010B	BWB 1139	3/30/99
	Lead	< 2.	mg/L	2.	6010B	BWB 1139	3/30/99
	Selenium	< 2.	mg/L	2.	6010B	BWB 1139	3/30/99
	Silver	< 0.5	mg/L	0.5	6010B	BWB 1139	3/30/99
HG-7470A							
	Mercury	0.085	mg/L	0.034	7470A	TWH 1500	3/31/99
VOL-8260B-aq							
	Dichlorofluoromethane	< 1.	ug/L	1.	8260B	SDK 1326	4/6/99
	Chloromethane (Methyl Chloride)	< 1.	ug/L	1.	8260B	SDK 1326	4/6/99
	Vinyl chloride	< 1.	ug/L	1.	8260B	SDK 1326	4/6/99
	Bromomethane	< 1.	ug/L	1.	8260B	SDK 1326	4/6/99
	Chloroethane	< 1.	ug/L	1.	8260B	SDK 1326	4/6/99
	Trichlorofluoromethane	< 1.	ug/L	1.	8260B	SDK 1326	4/6/99
	1,1-Dichloroethene	< 1.	ug/L	1.	8260B	SDK 1326	4/6/99
	Acetone	6800.	ug/L	4000.	8260B	SDK 1326	4/6/99
	Methylene chloride (Dichloromethane)	< 1.	ug/L	1.	8260B	SDK 1326	4/6/99
	t-Butyl alcohol	< 10.	ug/L	10.	8260B	SDK 1326	4/6/99
	trans-1,2-dichloroethene	< 1.	ug/L	1.	8260B	SDK 1326	4/6/99
	Methyl tert-butyl ether (MTBE)	< 1.	ug/L	1.	8260B	SDK 1326	4/6/99
	1,1-Dichloroethane	< 1.	ug/L	1.	8260B	SDK 1326	4/6/99
	cis-1,2-Dichloroethene	< 1.	ug/L	1.	8260B	SDK 1326	4/6/99
	2,2-Dichloropropane	< 1.	ug/L	1.	8260B	SDK 1326	4/6/99
	2-Butanone (MEK)	< 10.	ug/L	10.	8260B	SDK 1326	4/6/99

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Client: Environmental Waste Minimization,
PO Box 158
Emmaus PA 18049-015

Attn: Greg Inman
Project: Giuaudan Roure

Date Received: *26-Mar-99*

Lab#: D991423-001
Sample ID: Banker Tank Wash Water
Sample Type: Water

Collect Date: 24-Mar-99
Collected By: Client

Report Date: *07-Apr-99*

Test Description	Result	Units	PQL	Method	Inst. Time	Analysis Date
Bromochloromethane	< 1.	ug/L	1.	8260B	SDK 1326	4/6/99
Chloroform	< 1.	ug/L	1.	8260B	SDK 1326	4/6/99
1,1,1-Trichloroethane	< 1.	ug/L	1.	8260B	SDK 1326	4/6/99
1,1-Dichloropropene	< 1.	ug/L	1.	8260B	SDK 1326	4/6/99
Carbon tetrachloride	< 1.	ug/L	1.	8260B	SDK 1326	4/6/99
Benzene	< 1.	ug/L	1.	8260B	SDK 1326	4/6/99
1,2-Dichloroethane	< 1.	ug/L	1.	8260B	SDK 1326	4/6/99
Trichloroethene	< 1.	ug/L	1.	8260B	SDK 1326	4/6/99
1,2-Dichloropropane	< 1.	ug/L	1.	8260B	SDK 1326	4/6/99
Dibromomethane	< 1.	ug/L	1.	8260B	SDK 1326	4/6/99
Bromodichloromethane	< 1.	ug/L	1.	8260B	SDK 1326	4/6/99
cis-1,3-Dichloropropene	< 1.	ug/L	1.	8260B	SDK 1326	4/6/99
4-Methyl-2-pentanone (MIBK)	< 10.	ug/L	10.	8260B	SDK 1326	4/6/99
Toluene	< 1.	ug/L	1.	8260B	SDK 1326	4/6/99
trans-1,3-dichloropropene	< 1.	ug/L	1.	8260B	SDK 1326	4/6/99
1,1,2-Trichloroethane	< 1.	ug/L	1.	8260B	SDK 1326	4/6/99
Tetrachloroethene	< 1.	ug/L	1.	8260B	SDK 1326	4/6/99
1,3-Dichloropropane	< 1.	ug/L	1.	8260B	SDK 1326	4/6/99
2-Hexanone	< 10.	ug/L	10.	8260B	SDK 1326	4/6/99
Dibromochloromethane	< 1.	ug/L	1.	8260B	SDK 1326	4/6/99
1,2-Dibromoethane	< 1.	ug/L	1.	8260B	SDK 1326	4/6/99
Chlorobenzene	< 1.	ug/L	1.	8260B	SDK 1326	4/6/99
1,1,1,2-Tetrachloroethane	< 1.	ug/L	1.	8260B	SDK 1326	4/6/99
Ethyl benzene	< 1.	ug/L	1.	8260B	SDK 1326	4/6/99
m,p-Xylene	< 1.	ug/L	1.	8260B	SDK 1326	4/6/99
o-Xylene	< 1.	ug/L	1.	8260B	SDK 1326	4/6/99
Styrene	< 1.	ug/L	1.	8260B	SDK 1326	4/6/99
Bromoform	< 1.	ug/L	1.	8260B	SDK 1326	4/6/99
Isopropylbenzene (Cumene)	< 1.	ug/L	1.	8260B	SDK 1326	4/6/99
Bromobenzene	< 1.	ug/L	1.	8260B	SDK 1326	4/6/99

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- CERTIFICATE OF ANALYSIS -

Client: Environmental Waste Minimization,
PO Box 158
Emmaus PA 18049-015

Lab#: D991423-001
Sample ID: Banker Tank Wash Water
Sample Type: Water

Attn: Greg Inman
Project: Giusudan Roure

Collect Date: 24-Mar-99
Collected By: Client

Date Received: *26-Mar-99*
Report Date: *07-Apr-99*

Test Group	Parameter	Result	Units	PQL	Method	Init - Time	Analysis Date
	1,1,2,2-Tetrachloroethane	< 1.	ug/L	1.	8260B	SDK 1326	4/6/99
	1,2,3-Trichloropropane	< 1.	ug/L	1.	8260B	SDK 1326	4/6/99
	N-Propylbenzene	< 1.	ug/L	1.	8260B	SDK 1326	4/6/99
	2-Chlorotoluene	< 1.	ug/L	1.	8260B	SDK 1326	4/6/99
	4-Chlorotoluene	< 1.	ug/L	1.	8260B	SDK 1326	4/6/99
	1,3,5-Trimethylbenzene	< 1.	ug/L	1.	8260B	SDK 1326	4/6/99
	tert-Butylbenzene	< 1.	ug/L	1.	8260B	SDK 1326	4/6/99
	1,2,4-Trimethylbenzene	< 1.	ug/L	1.	8260B	SDK 1326	4/6/99
	sec-Butylbenzene	< 1.	ug/L	1.	8260B	SDK 1326	4/6/99
	1,3-Dichlorobenzene	< 1.	ug/L	1.	8260B	SDK 1326	4/6/99
	p-Isopropyltoluene	< 1.	ug/L	1.	8260B	SDK 1326	4/6/99
	1,4-Dichlorobenzene	< 1.	ug/L	1.	8260B	SDK 1326	4/6/99
	1,2-Dichlorobenzene	< 1.	ug/L	1.	8260B	SDK 1326	4/6/99
	n-Butylbenzene	< 1.	ug/L	1.	8260B	SDK 1326	4/6/99
	1,2-Dibromo-3-chloropropane	< 1.	ug/L	1.	8260B	SDK 1326	4/6/99
	1,2,4-Trichlorobenzene	< 1.	ug/L	1.	8260B	SDK 1326	4/6/99
	Hexachloro-1,3-butadiene	< 1.	ug/L	1.	8260B	SDK 1326	4/6/99
	Naphthalene	< 1.	ug/L	1.	8260B	SDK 1326	4/6/99
	1,2,3-Trichlorobenzene	< 1.	ug/L	1.	8260B	SDK 1326	4/6/99
SV-8270C-aq							
	2-Methylphenol	< 10.	ug/L	10.	8270C	JAH 1309	3/30/99
	4-Methylphenol	< 10.	ug/L	10.	8270C	JAH 1309	3/30/99
	Benzoic acid	< 10.	ug/L	10.	8270C	JAH 1309	3/30/99
	Aniline	< 10.	ug/L	10.	8270C	JAH 1309	3/30/99
	Benzyl alcohol	< 10.	ug/L	10.	8270C	JAH 1309	3/30/99
	Naphthalene	< 10.	ug/L	10.	8270C	JAH 1309	3/30/99
	Phenol	< 10.	ug/L	10.	8270C	JAH 1309	3/30/99
	2-Chlorophenol	< 10.	ug/L	10.	8270C	JAH 1309	3/30/99
	1,3-Dichlorobenzene	< 10.	ug/L	10.	8270C	JAH 1309	3/30/99
	1,4-Dichlorobenzene	< 10.	ug/L	10.	8270C	JAH 1309	3/30/99

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Client: Environmental Waste Minimization,
PO Box 158
Emmaus PA 18049-015

Attn: Greg Inman
Project: Giuaudan Roure

Date Received: *26-Mar-99*

Lab#: D991423-001
Sample ID: Banker Tank Wash Water
Sample Type: Water

Collect Date: 24-Mar-99
Collected By: Client

Report Date: *07-Apr-99*

Test Group	Result	Units	POI	Method	Inst. Time	Analysis Date
1,2-Dichlorobenzene	< 10.	ug/L	10.	8270C	JAH 1309	3/30/99
Hexachloroethane	< 10.	ug/L	10.	8270C	JAH 1309	3/30/99
Nitrobenzene	< 10.	ug/L	10.	8270C	JAH 1309	3/30/99
Isophorone	< 10.	ug/L	10.	8270C	JAH 1309	3/30/99
1,2,4-Trichlorobenzene	< 10.	ug/L	10.	8270C	JAH 1309	3/30/99
N-Nitrosodimethylamine	< 10.	ug/L	10.	8270C	JAH 1309	3/30/99
Pyridine	13.	ug/L	10.	8270C	JAH 1309	3/30/99
bis(2-Chloroethyl)ether	< 10.	ug/L	10.	8270C	JAH 1309	3/30/99
bis(2-Chloroisopropyl)ether	< 10.	ug/L	10.	8270C	JAH 1309	3/30/99
N-Nitroso-Di-N-Propylamine	< 10.	ug/L	10.	8270C	JAH 1309	3/30/99
bis(2-Chloroethoxy)methane	< 10.	ug/L	10.	8270C	JAH 1309	3/30/99
2,4,5-Trichlorophenol	< 10.	ug/L	10.	8270C	JAH 1309	3/30/99
2-Methylnaphthalene	< 10.	ug/L	10.	8270C	JAH 1309	3/30/99
4-Chloroaniline	< 10.	ug/L	10.	8270C	JAH 1309	3/30/99
2-Nitroaniline	< 10.	ug/L	10.	8270C	JAH 1309	3/30/99
3-Nitroaniline	< 10.	ug/L	10.	8270C	JAH 1309	3/30/99
4-Nitroaniline	< 10.	ug/L	10.	8270C	JAH 1309	3/30/99
Acenaphthylene	< 10.	ug/L	10.	8270C	JAH 1309	3/30/99
2-Nitrophenol	< 10.	ug/L	10.	8270C	JAH 1309	3/30/99
2,4-Dimethylphenol	< 10.	ug/L	10.	8270C	JAH 1309	3/30/99
2,4-Dichlorophenol	< 10.	ug/L	10.	8270C	JAH 1309	3/30/99
Hexachloro-1,3-butadiene	< 10.	ug/L	10.	8270C	JAH 1309	3/30/99
Hexachlorocyclopentadiene	< 10.	ug/L	10.	8270C	JAH 1309	3/30/99
2-Chloronaphthalene	< 10.	ug/L	10.	8270C	JAH 1309	3/30/99
2,6-Dinitrotoluene	< 10.	ug/L	10.	8270C	JAH 1309	3/30/99
Dimethylphthalate	< 10.	ug/L	10.	8270C	JAH 1309	3/30/99
Dibenzofuran	< 10.	ug/L	10.	8270C	JAH 1309	3/30/99
Acenaphthene	< 10.	ug/L	10.	8270C	JAH 1309	3/30/99
Phenol	< 10.	ug/L	10.	8270C	JAH 1309	3/30/99
2,6-Dichlorophenol	< 10.	ug/L	10.	8270C	JAH 1309	3/30/99

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Client: Environmental Waste Minimization,
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Attn: Greg Inman
Project: Giusudan Roure

Date Received: *26-Mar-99*

Lab#: D991423-001
Sample ID: Banker Tank Wash Water
Sample Type: Water

Collect Date: 24-Mar-99
Collected By: Client

Report Date: *07-Apr-99*

Test Group	Result	Units	POL	Method	Init / Time	Analysis Date
4-Chloro-3-methylphenol	< 10.	ug/L	10.	8270C	JAH 1309	3/30/99
2,4,6-Trichlorophenol	< 10.	ug/L	10.	8270C	JAH 1309	3/30/99
2,4-Dinitrophenol	< 10.	ug/L	10.	8270C	JAH 1309	3/30/99
4-Nitrophenol	< 10.	ug/L	10.	8270C	JAH 1309	3/30/99
2,3,4,6-Tetrachorophenol	< 10.	ug/L	10.	8270C	JAH 1309	3/30/99
2-Methyl-4,6-Dinitrophenol	< 10.	ug/L	10.	8270C	JAH 1309	3/30/99
Pentachlorophenol	< 10.	ug/L	10.	8270C	JAH 1309	3/30/99
2,4-Dinitrotoluene	< 10.	ug/L	10.	8270C	JAH 1309	3/30/99
Hexachlorobenzene	< 10.	ug/L	10.	8270C	JAH 1309	3/30/99
Azobenzene	< 10.	ug/L	10.	8270C	JAH 1309	3/30/99
Diethylphthalate	34.	ug/L	10.	8270C	JAH 1309	3/30/99
4-Chlorophenyl-phenylether	< 10.	ug/L	10.	8270C	JAH 1309	3/30/99
N-Nitrosodiphenylamine	< 10.	ug/L	10.	8270C	JAH 1309	3/30/99
1,2-Diphenylhydrazine	< 10.	ug/L	10.	8270C	JAH 1309	3/30/99
4-Bromophenyl-phenylether	< 10.	ug/L	10.	8270C	JAH 1309	3/30/99
Benzidine	< 10.	ug/L	10.	8270C	JAH 1309	3/30/99
3,3'-Dichlorobenzidine	< 10.	ug/L	10.	8270C	JAH 1309	3/30/99
Phenanthrene	< 10.	ug/L	10.	8270C	JAH 1309	3/30/99
Anthracene	< 10.	ug/L	10.	8270C	JAH 1309	3/30/99
Carbazole	< 10.	ug/L	10.	8270C	JAH 1309	3/30/99
Fluoranthene	< 10.	ug/L	10.	8270C	JAH 1309	3/30/99
Pyrene	< 10.	ug/L	10.	8270C	JAH 1309	3/30/99
Benzo(a)anthracene	< 10.	ug/L	10.	8270C	JAH 1309	3/30/99
Chrysene	< 10.	ug/L	10.	8270C	JAH 1309	3/30/99
Di-n-butylphthalate	< 10.	ug/L	10.	8270C	JAH 1309	3/30/99
Butylbenzylphthalate	< 10.	ug/L	10.	8270C	JAH 1309	3/30/99
Benzo(b)fluoranthene	< 10.	ug/L	10.	8270C	JAH 1309	3/30/99
Benzo(k)fluoranthene	< 10.	ug/L	10.	8270C	JAH 1309	3/30/99
Benzo(a)pyrene	< 10.	ug/L	10.	8270C	JAH 1309	3/30/99
Indeno(1,2,3-cd)pyrene	< 10.	ug/L	10.	8270C	JAH 1309	3/30/99

This report is intended to be reproduced in its entirety only. The results in this report apply to only the sample(s) submitted and analyzed.

Douglassville Location:
1605 Benjamin Franklin Highway
Douglassville, PA 19518
Phone: (610) 327-8196
Fax: (610) 327-6864

NJ DEP Cert #77925
PA DEP Cert #06-409

Blue Marsh

LABORATORIES • INC

Professional testing for the critical decision

Princeton Location:
267 Wall Street
Princeton, NJ 08540
Phone: (609) 924-5151
Fax: (609) 924-9692

NJ DEP Cert #11198

- CERTIFICATE OF ANALYSIS -

Client: Environmental Waste Minimization,
PO Box 158
Emmaus PA 18049-015

Lab#: D991423-001
Sample ID: Banker Tank Wash Water
Sample Type: Water

Attn: Greg Inman
Project: Giuaudan Roure

Collect Date: 24-Mar-99
Collected By: Client

Date Received: *26-Mar-99*
Report Date: *07-Apr-99*

Test Group		Result	Units	PQL	Method	Init	Time	Analysis Date
	Dibenzo(a,h)anthracene	< 10.	ug/L	10.	8270C	JAH	1309	3/30/99
	Benzo(ghi)perylene	< 10.	ug/L	10.	8270C	JAH	1309	3/30/99
	DI-n-octylphthalate	< 10.	ug/L	10.	8270C	JAH	1309	3/30/99
	bis(2-Ethylhexyl)phthalate	20.	ug/L	10.	8270C	JAH	1309	3/30/99
TCLP-SEMIVO								
	o-Cresol, TCLP	< 0.01	mg/L	0.01	8270C	JAH	0055	3/31/99
	m-Cresol, TCLP	< 0.01	mg/L	0.01	8270C	JAH	0055	3/31/99
	p-Cresol, TCLP	< 0.01	mg/L	0.01	8270C	JAH	0055	3/31/99
	2,4-Dinitrotoluene, TCLP	< 0.01	mg/L	0.01	8270C	JAH	0055	3/31/99
	Hexachlorobenzene, TCLP	< 0.01	mg/L	0.01	8270C	JAH	0055	3/31/99
	Hexachloro-1,3-butadiene, TCLP	< 0.01	mg/L	0.01	8270C	JAH	0055	3/31/99
	Hexachloroethane, TCLP	< 0.01	mg/L	0.01	8270C	JAH	0055	3/31/99
	Nitrobenzene, TCLP	< 0.01	mg/L	0.01	8270C	JAH	0055	3/31/99
	Pentachlorophenol, TCLP	< 0.01	mg/L	0.01	8270C	JAH	0055	3/31/99
	Pyridine, TCLP	< 0.01	mg/L	0.01	8270C	JAH	0055	3/31/99
	2,4,5-Trichlorophenol, TCLP	< 0.01	mg/L	0.01	8270C	JAH	0055	3/31/99
	2,4,6-Trichlorophenol, TCLP	< 0.01	mg/L	0.01	8270C	JAH	0055	3/31/99

This report is intended to be reproduced in its entirety only. The results in this report apply to only the sample(s) submitted and analyzed.

Appendix D
Clean Fill Certification Documents

BRAEN STONE INDUSTRIES, INC.
P.O. BOX 8310 • HALEDON, NJ 07538
(973) 595-6250 FAX (973) 595-6920

November 5, 1998

Attn: Dave

Re: Material Certification
3/4", 3/8", QP/ST Crushed Stone
Givaudan Job
Clifton, NJ

Dear Dave,

This is to certify that the above referenced crushed stone aggregate being delivered to your site is mined and manufactured from a virgin Basalt trap rock deposit located here at our quarry; Block #2000, Lot #25 on Central Avenue, town of Haledon, Passaic County, New Jersey. This quarry has been in operation since the early 1900's, first operating under the name of Sowerbutt Standard, then being sold to and operated under Samuel Braen Sons from 1950 to 1977 when it was sold to the present company of Stone Industries, Inc. This material is taken from the lava rock formation known as the Watchung Mountain Basalt; about 195 million years ago during the Triassic geologic period, molten rock broke through the red shales and sandstones of the Brunswick formation and flowed onto the earth's surface forming the three Watchung Mountains.

The characteristics of the fill material change according to the size description but in general are of a course grained crushed stone aggregate, gray/brown in color, showing a minimum of three fractured faces, angular in particle shape from being crushed during processing, and of a specific gravity normally ranging above 2.90. The clean stone fill is considerably free of dirt and dust, but retaining some adherent fines; while the quarry process does contain dust from the crushing/blending process.

To the best of our knowledge, these materials contain no contaminates and/or hazardous substance/waste. These materials are checked visually daily and periodically by our quality control department for signs of contamination.

BRAEN STONE INDUSTRIES, INC.
P.O. BOX 8310 • HALEDON, NJ 07538
(973) 595-6250 FAX (973) 595-6920

The material is manufactured to meet New Jersey Department of Transportation specifications and residential standards.

If we can be of any further assistance, please contact us at the number listed above.

Very Truly Yours,
STONE INDUSTRIES, INC.

Thomas H. Lynch
Sales Representative

Appendix E
ERM-FAST Clean Fill
Analytical Results

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

SAMPLE NO.
CF-1

Lab Name: ERM-FAST Contract:

Project No.: 22329.00.01 Site: GIVAUDAN- Location: CLIFTON, NJ Group: TCLVOC

Matrix: (soil/water) SOIL Lab Sample ID: CF-1

Sample wt/vol: 10.1 (g/mL) G Lab File ID: SEP154.D

Level: (low/med) MED Date Received: 9/14/98

% Moisture: not dec. 7 Date Analyzed: 9/15/98

GC Column: SPB-5 ID: 0.25 (mm) Dilution Factor: 1.0

Soil Extract Volume: 25000 (uL) Soil Aliquot Volume: 100 (uL)

Concentration Units: (ug/L or ug/Kg) ug/Kg

CAS No.	Compound		Q
74-67-3	chloromethane	270	U
75-01-4	vinyl chloride	270	U
74-83-9	bromomethane	270	U
75-00-3	chloroethane	270	U
67-64-1	acetone	1700	B
75-34-3	1,1-dichloroethene	270	U
75-09-2	methylene chloride	370	B
75-15-0	carbon disulfide	270	U
107-06-2	trans-1,2-dichloroethene	270	U
75-35-4	1,1-dichloroethane	270	U
78-93-3	2-butanone	270	U
15-65-92	cis-1,2-dichloroethene	270	U
67-66-3	chloroform	270	U
71-55-6	1,1,1-trichloroethane	270	U
107-06-2	1,2-dichloroethane	270	U
71-43-2	benzene	270	U
56-23-5	carbon tetrachloride	270	U
75-27-4	bromodichloromethane	270	U
78-87-5	1,2-dichloropropane	270	U
79-01-6	trichloroethene	270	U
108-10-1	4-methyl-2-pentanone	270	U
10061-01-5	cis-1,3-dichloropropene	270	U
10061-02-6	trans-1,3-dichloropropene	270	U
108-88-3	toluene	270	U
79-00-5	1,1,2-trichloroethane	270	U
59-17-86	2-hexanone	270	U
124-48-1	dibromochloromethane	270	U
127-18-4	tetrachloroethene	270	U
108-90-7	chlorobenzene	270	U
100-41-4	ethylbenzene	270	U
108-38-3	m,p-xylene	530	U
75-25-2	bromoform	270	U
100-42-5	styrene	270	U

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

SAMPLE NO.
CF-1

Lab Name: ERM-FAST Contract:

Project No.: 22329.00.01 Site: GIVAUDAN- Location: CLIFTON, NJ Group: TCLVOC

Matrix: (soil/water) SOIL Lab Sample ID: CF-1

Sample wt/vol: 10.1 (g/mL) G Lab File ID: SEP154.D

Level: (low/med) MED Date Received: 9/14/98

% Moisture: not dec. 7 Date Analyzed: 9/15/98

GC Column: SPB-5 ID: 0.25 (mm) Dilution Factor: 1.0

Soil Extract Volume: 25000 (uL) Soil Aliquot Volume: 100 (uL)

Concentration Units: (ug/L or ug/Kg) ug/Kg

CAS No.	Compound		Q
95-47-6	o-xylene	270	U
79-34-5	1,1,2,2-tetrachloroethane	270	U

FORM I VOA 3/90

1E
VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

SAMPLE NO.
CF-1

Lab Name: ERM-FAST Contract:

Project No.: 2232 Site: GIVAUDA Location: CLIFTON, NJ Group: TCLVOC

Matrix: (soil/water) SOIL Lab Sample ID: CF-1

Sample wt/vol: 10.1 (g/mL) G Lab File ID: SEP154.D

Level: (low/med) MED Date Received: 9/14/98

% Moisture: not dec. 7 Date Analyzed: 9/15/98

GC Column: SPB-5 ID: 0.25 (mm) Dilution Factor: 1.0

Soil Extract Volume: 25000 (uL) Soil Aliquot Volume: 100 (uL)

Number TICs found: 0 Concentration Units: (ug/L or ug/Kg) ug/Kg

CAS Number	Compound Name	RT	Est. Conc.	Q
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1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

SAMPLE NO.
CF-2

Lab Name: ERM-FAST Contract:

Project No.: 22329.00.01 Site: GIVAUDAN- Location: CLIFTON, NJ Group: TCLVOC

Matrix: (soil/water) SOIL Lab Sample ID: CF-2

Sample wt/vol: 9.2 (g/mL) G Lab File ID: SEP155.D

Level: (low/med) MED Date Received: 9/14/98

% Moisture: not dec. 8 Date Analyzed: 9/15/98

GC Column: SPB-5 ID: 0.25 (mm) Dilution Factor: 1.0

Soil Extract Volume: 25000 (uL) Soil Aliquot Volume: 100 (uL)

Concentration Units: (ug/L or ug/Kg) ug/Kg

CAS No.	Compound		Q
74-67-3	chloromethane	300	U
75-01-4	vinyl chloride	300	U
74-83-9	bromomethane	300	U
75-00-3	chloroethane	300	U
67-64-1	acetone	1600	B
75-34-3	1,1-dichloroethene	300	U
75-09-2	methylene chloride	380	B
75-15-0	carbon disulfide	300	U
107-06-2	trans-1,2-dichloroethene	300	U
75-35-4	1,1-dichloroethane	300	U
78-93-3	2-butanone	300	U
15-65-92	cis-1,2-dichloroethene	300	U
67-66-3	chloroform	300	U
71-55-6	1,1,1-trichloroethane	300	U
107-06-2	1,2-dichloroethane	300	U
71-43-2	benzene	300	U
56-23-5	carbon tetrachloride	300	U
75-27-4	bromodichloromethane	300	U
78-87-5	1,2-dichloropropane	300	U
79-01-6	trichloroethene	300	U
108-10-1	4-methyl-2-pentanone	300	U
10061-01-5	cis-1,3-dichloropropene	300	U
10061-02-6	trans-1,3-dichloropropene	300	U
108-88-3	toluene	300	U
79-00-5	1,1,2-trichloroethane	300	U
59-17-86	2-hexanone	300	U
124-48-1	dibromochloromethane	300	U
127-18-4	tetrachloroethene	300	U
108-90-7	chlorobenzene	300	U
100-41-4	ethylbenzene	300	U
108-38-3	m,p-xylene	590	U
75-25-2	bromoform	300	U
100-42-5	styrene	300	U

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

SAMPLE NO.

CF-2

Lab Name: ERM-FAST Contract:

Project No.: 22329.00.01 Site: GIVAUDAN- Location: CLIFTON, NJ Group: TCLVOC

Matrix: (soil/water) SOIL Lab Sample ID: CF-2

Sample wt/vol: 9.2 (g/mL) G Lab File ID: SEP155.D

Level: (low/med) MED Date Received: 9/14/98

% Moisture: not dec. 8 Date Analyzed: 9/15/98

GC Column: SPB-5 ID: 0.25 (mm) Dilution Factor: 1.0

Soil Extract Volume: 25000 (uL) Soil Aliquot Volume: 100 (uL)

CAS No.	Compound	Concentration Units: (ug/L or ug/Kg) ug/Kg	Q
95-47-6	o-xylene	300	U
79-34-5	1,1,2,2-tetrachloroethane	300	U

1E
VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

SAMPLE NO.
CF-2

Lab Name: ERM-FAST Contract:

Project No.: 2232 Site: GIVAUDA Location: CLIFTON, NJ Group: TCLVOC

Matrix: (soil/water) SOIL Lab Sample ID: CF-2

Sample wt/vol: 9.2 (g/mL) G Lab File ID: SEP155.D

Level: (low/med) MED Date Received: 9/14/98

% Moisture: not dec. 8 Date Analyzed: 9/15/98

GC Column: SPB-5 ID: 0.25 (mm) Dilution Factor: 1.0

Soil Extract Volume: 25000 (uL) Soil Aliquot Volume: 100 (uL)

Number TICs found: 0 Concentration Units: (ug/L or ug/Kg) ug/Kg

CAS Number	Compound Name	RT	Est. Conc.	Q
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1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

SAMPLE NO.
CF-3

Lab Name: ERM-FAST Contract:

Project No.: 22329.00.01 Site: GIVAUDAN- Location: CLIFTON, NJ Group: TCLVOC

Matrix: (soil/water) SOIL Lab Sample ID: CF-3

Sample wt/vol: 8.9 (g/mL) G Lab File ID: SEP156.D

Level: (low/med) MED Date Received: 9/14/98

% Moisture: not dec. 8 Date Analyzed: 9/15/98

GC Column: SPB-5 ID: 0.25 (mm) Dilution Factor: 1.0

Soil Extract Volume: 25000 (uL) Soil Aliquot Volume: 100 (uL)

CAS No.	Compound	Concentration Units: (ug/L or ug/Kg) ug/Kg	Q
74-67-3	chloromethane	300	U
75-01-4	vinyl chloride	300	U
74-83-9	bromomethane	300	U
75-00-3	chloroethane	300	U
67-64-1	acetone	1200	B
75-34-3	1,1-dichloroethene	300	U
75-09-2	methylene chloride	400	B
75-15-0	carbon disulfide	300	U
107-06-2	trans-1,2-dichloroethene	300	U
75-35-4	1,1-dichloroethane	300	U
78-93-3	2-butanone	300	U
15-65-92	cis-1,2-dichloroethene	300	U
67-66-3	chloroform	300	U
71-55-6	1,1,1-trichloroethane	300	U
107-06-2	1,2-dichloroethane	300	U
71-43-2	benzene	300	U
56-23-5	carbon tetrachloride	300	U
75-27-4	bromodichloromethane	300	U
78-87-5	1,2-dichloropropane	300	U
79-01-6	trichloroethene	300	U
108-10-1	4-methyl-2-pentanone	300	U
10061-01-5	cis-1,3-dichloropropene	300	U
10061-02-6	trans-1,3-dichloropropene	300	U
108-88-3	toluene	300	U
79-00-5	1,1,2-trichloroethane	300	U
59-17-86	2-hexanone	300	U
124-48-1	dibromochloromethane	300	U
127-18-4	tetrachloroethene	300	U
108-90-7	chlorobenzene	300	U
100-41-4	ethylbenzene	300	U
108-38-3	m,p-xylene	610	U
75-25-2	bromoform	300	U
100-42-5	styrene	300	U

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

SAMPLE NO.

CF-3

Lab Name: ERM-FAST Contract:

Project No.: 22329.00.01 Site: GIVAUDAN- Location: CLIFTON, NJ Group: TCLVOC

Matrix: (soil/water) SOIL Lab Sample ID: CF-3

Sample wt/vol: 8.9 (g/mL) G Lab File ID: SEP156.D

Level: (low/med) MED Date Received: 9/14/98

% Moisture: not dec. 8 Date Analyzed: 9/15/98

GC Column: SPB-5 ID: 0.25 (mm) Dilution Factor: 1.0

Soil Extract Volume: 25000 (uL) Soil Aliquot Volume: 100 (uL)

Concentration Units: (ug/L or ug/Kg) ug/Kg

CAS No.	Compound		Q
95-47-6	o-xylene	300	U
79-34-5	1,1,2,2-tetrachloroethane	300	U

1E

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

SAMPLE NO.

CF-3

Lab Name: ERM-FAST Contract:

Project No.: 2232 Site: GIVAUDA Location: CLIFTON, NJ Group: TCLVOC

Matrix: (soil/water) SOIL Lab Sample ID: CF-3

Sample wt/vol: 8.9 (g/mL) G Lab File ID: SEP156.D

Level: (low/med) MED Date Received: 9/14/98

% Moisture: not dec. 8 Date Analyzed: 9/15/98

GC Column: SPB-5 ID: 0.25 (mm) Dilution Factor: 1.0

Soil Extract Volume: 25000 (uL) Soil Aliquot Volume: 100 (uL)

Number TICs found: 0 Concentration Units: (ug/L or ug/Kg) ug/Kg

CAS Number	Compound Name	RT	Est. Conc.	Q
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VOLATILE ORGANICS ANALYSIS DATA SHEET

SAMPLE NO.
CF-4

Lab Name: ERM-FAST Contract:

Project No.: 22329.00.01 Site: GIVAUDAN Location: CLIFTON, NJ Group: TCLVOC

Matrix: (soil/water) SOIL Lab Sample ID: TR198

Sample wt/vol: 10.6 (g/mL) G Lab File ID: SEP157.D

Level: (low/med) MED Date Received: 9/14/98

% Moisture: not dec. 12 Date Analyzed: 9/15/98

GC Column: SPB-5 ID: 0.25 (mm) Dilution Factor: 1.0

Soil Extract Volume: 25000 (uL) Soil Aliquot Volume: 100 (uL)

Concentration Units: (ug/L or ug/Kg) ug/Kg

CAS No.	Compound		Q
74-67-3	chloromethane	270	U
75-01-4	vinyl chloride	270	U
74-83-9	bromomethane	270	U
75-00-3	chloroethane	270	U
67-64-1	acetone	3200	B
75-34-3	1,1-dichloroethene	270	U
75-09-2	methylene chloride	680	B
75-15-0	carbon disulfide	270	U
107-06-2	trans-1,2-dichloroethene	270	U
75-35-4	1,1-dichloroethane	270	U
78-93-3	2-butanone	370	B
15-65-92	cis-1,2-dichloroethene	270	U
67-66-3	chloroform	270	U
71-55-6	1,1,1-trichloroethane	270	U
107-06-2	1,2-dichloroethane	270	U
71-43-2	benzene	270	U
56-23-5	carbon tetrachloride	270	U
75-27-4	bromodichloromethane	270	U
78-87-5	1,2-dichloropropane	270	U
79-01-6	trichloroethene	270	U
108-10-1	4-methyl-2-pentanone	270	U
10061-01-5	cis-1,3-dichloropropene	270	U
10061-02-6	trans-1,3-dichloropropene	270	U
108-88-3	toluene	270	U
79-00-5	1,1,2-trichloroethane	270	U
59-17-86	2-hexanone	270	U
124-48-1	dibromochloromethane	270	U
127-18-4	tetrachloroethene	270	U
108-90-7	chlorobenzene	270	U
100-41-4	ethylbenzene	270	U
108-38-3	m,p-xylene	540	U
75-25-2	bromoform	270	U
100-42-5	styrene	270	U

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

SAMPLE NO.
CF-4

Lab Name: ERM-FAST Contract:

Project No.: 22329.00.01 Site: GIVAUDAN Location: CLIFTON, NJ Group: TCLVOC

Matrix: (soil/water) SOIL Lab Sample ID: TR198

Sample wt/vol: 10.6 (g/mL) G Lab File ID: SEP157.D

Level: (low/med) MED Date Received: 9/14/98

% Moisture: not dec. 12 Date Analyzed: 9/15/98

GC Column: SPB-5 ID: 0.25 (mm) Dilution Factor: 1.0

Soil Extract Volume: 25000 (uL) Soil Aliquot Volume: 100 (uL)

Concentration Units: (ug/L or ug/Kg) ug/Kg

CAS No.	Compound		Q
95-47-6	o-xylene	270	U
79-34-5	1,1,2,2-tetrachloroethane	270	U

FORM I VOA 3/90

1E

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

SAMPLE NO.

CF-4

Lab Name: ERM-FAST Contract: _____

Project No.: 22329 Site: GIVAUDAI Location: CLIFTON, NJ Group: TCLVOC

Matrix: (soil/water) SOIL Lab Sample ID: TR198

Sample wt/vol: 10.6 (g/mL) G Lab File ID: SEP157.D

Level: (low/med) MED Date Received: 9/14/98

% Moisture: not dec. 12 Date Analyzed: 9/15/98

GC Column: SPB-5 ID: 0.25 (mm) Dilution Factor: 1.0

Soil Extract Volume: 25000 (uL) Soil Aliquot Volume: 100 (uL)

Number TICs found: 0 Concentration Units: (ug/L or ug/Kg) ug/Kg

CAS Number	Compound Name	RT	Est. Conc.	Q
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1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

SAMPLE NO.
CF-5

Lab Name: ERM-FAST Contract:

Project No.: 22329.00.01 Site: GIVAUDAN Location: CLIFTON, NJ Group: TCLVOC

Matrix: (soil/water) SOIL Lab Sample ID: TR199

Sample wt/vol: 11.0 (g/mL) G Lab File ID: SEP158.D

Level: (low/med) MED Date Received: 9/14/98

% Moisture: not dec. 7 Date Analyzed: 9/15/98

GC Column: SPB-5 ID: 0.25 (mm) Dilution Factor: 1.0

Soil Extract Volume: 25000 (uL) Soil Aliquot Volume: 100 (uL)

CAS No.	Compound	Concentration Units: (ug/L or ug/Kg) ug/Kg	Q
74-67-3	chloromethane	240	U
75-01-4	vinyl chloride	240	U
74-83-9	bromomethane	240	U
75-00-3	chloroethane	240	U
67-64-1	acetone	240	U
75-34-3	1,1-dichloroethene	240	U
75-09-2	methylene chloride	430	B
75-15-0	carbon disulfide	240	U
107-06-2	trans-1,2-dichloroethene	240	U
75-35-4	1,1-dichloroethane	240	U
78-93-3	2-butanone	240	U
15-65-92	cis-1,2-dichloroethene	240	U
67-66-3	chloroform	240	U
71-55-6	1,1,1-trichloroethane	240	U
107-06-2	1,2-dichloroethane	240	U
71-43-2	benzene	240	U
56-23-5	carbon tetrachloride	240	U
75-27-4	bromodichloromethane	240	U
78-87-5	1,2-dichloropropane	240	U
79-01-6	trichloroethene	240	U
108-10-1	4-methyl-2-pentanone	240	U
10061-01-5	cis-1,3-dichloropropene	240	U
10061-02-6	trans-1,3-dichloropropene	240	U
108-88-3	toluene	240	U
79-00-5	1,1,2-trichloroethane	240	U
59-17-86	2-hexanone	240	U
124-48-1	dibromochloromethane	240	U
127-18-4	tetrachloroethene	240	U
108-90-7	chlorobenzene	240	U
100-41-4	ethylbenzene	240	U
108-38-3	m,p-xylene	490	U
75-25-2	bromoform	240	U
100-42-5	styrene	240	U

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

SAMPLE NO.
CF-5

Lab Name: ERM-FAST Contract:

Project No.: 22329.00.01 Site: GIVAUDAN Location: CLIFTON, NJ Group: TCLVOC

Matrix: (soil/water) SOIL Lab Sample ID: TR199

Sample wt/vol: 11.0 (g/mL) G Lab File ID: SEP158.D

Level: (low/med) MED Date Received: 9/14/98

% Moisture: not dec. 7 Date Analyzed: 9/15/98

GC Column: SPB-5 ID: 0.25 (mm) Dilution Factor: 1.0

Soil Extract Volume: 25000 (uL) Soil Aliquot Volume: 100 (uL)

CAS No.	Compound	Concentration Units: (ug/L or ug/Kg) ug/Kg	Q
95-47-6	o-xylene	240	U
79-34-5	1,1,2,2-tetrachloroethane	240	U

FORM I VOA 3/90

1E

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

SAMPLE NO.

CF-5

Lab Name: ERM-FAST Contract: _____

Project No.: 22329 Site: GIVAUDAI Location: CLIFTON, NJ Group: TCLVOC

Matrix: (soil/water) SOIL Lab Sample ID: TR199

Sample wt/vol: 11.0 (g/mL) G Lab File ID: SEP158.D

Level: (low/med) MED Date Received: 9/14/98

% Moisture: not dec. 7 Date Analyzed: 9/15/98

GC Column: SPB-5 ID: 0.25 (mm) Dilution Factor: 1.0

Soil Extract Volume: 25000 (uL) Soil Aliquot Volume: 100 (uL)

Number TICs found: 0 Concentration Units: (ug/L or ug/Kg) ug/Kg

CAS Number	Compound Name	RT	Est. Conc.	Q
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VOLATILE ORGANICS ANALYSIS DATA SHEET

SAMPLE NO.
CF-6

Lab Name: ERM-FAST Contract:

Project No.: 22329.00.01 Site: GIVAUDAN Location: CLIFTON, NJ Group: TCLVOC

Matrix: (soil/water) SOIL Lab Sample ID: TR200

Sample wt/vol: 10.6 (g/mL) G Lab File ID: SEP159.D

Level: (low/med) MED Date Received: 9/14/98

% Moisture: not dec. 9 Date Analyzed: 9/15/98

GC Column: SPB-5 ID: 0.25 (mm) Dilution Factor: 1.0

Soil Extract Volume: 25000 (uL) Soil Aliquot Volume: 100 (uL)

Concentration Units: (ug/L or ug/Kg) ug/Kg

CAS No.	Compound		Q
74-67-3	chloromethane	260	U
75-01-4	vinyl chloride	260	U
74-83-9	bromomethane	260	U
75-00-3	chloroethane	260	U
67-64-1	acetone	1800	B
75-34-3	1,1-dichloroethene	260	U
75-09-2	methylene chloride	430	B
75-15-0	carbon disulfide	260	U
107-06-2	trans-1,2-dichloroethene	260	U
75-35-4	1,1-dichloroethane	260	U
78-93-3	2-butanone	260	U
15-65-92	cis-1,2-dichloroethene	260	U
67-66-3	chloroform	260	U
71-55-6	1,1,1-trichloroethane	260	U
107-06-2	1,2-dichloroethane	260	U
71-43-2	benzene	260	U
56-23-5	carbon tetrachloride	260	U
75-27-4	bromodichloromethane	260	U
78-87-5	1,2-dichloropropane	260	U
79-01-6	trichloroethene	260	U
108-10-1	4-methyl-2-pentanone	260	U
10061-01-5	cis-1,3-dichloropropene	260	U
10061-02-6	trans-1,3-dichloropropene	260	U
108-88-3	toluene	260	U
79-00-5	1,1,2-trichloroethane	260	U
59-17-86	2-hexanone	260	U
124-48-1	dibromochloromethane	260	U
127-18-4	tetrachloroethene	260	U
108-90-7	chlorobenzene	260	U
100-41-4	ethylbenzene	260	U
108-38-3	m,p-xylene	520	U
75-25-2	bromoform	260	U
100-42-5	styrene	260	U

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VOLATILE ORGANICS ANALYSIS DATA SHEET

SAMPLE NO.
CF-6

Lab Name: ERM-FAST Contract:

Project No.: 22329.00.01 Site: GIVAUDAN Location: CLIFTON, NJ Group: TCLVOC

Matrix: (soil/water) SOIL Lab Sample ID: TR200

Sample wt/vol: 10.6 (g/mL) G Lab File ID: SEP159.D

Level: (low/med) MED Date Received: 9/14/98

% Moisture: not dec. 9 Date Analyzed: 9/15/98

GC Column: SPB-5 ID: 0.25 (mm) Dilution Factor: 1.0

Soil Extract Volume: 25000 (uL) Soil Aliquot Volume: 100 (uL)

CAS No.	Compound	Concentration Units: (ug/L or ug/Kg) ug/Kg	Q
95-47-6	o-xylene	260	U
79-34-5	1,1,2,2-tetrachloroethane	260	U

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VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

SAMPLE NO.

CF-6

Lab Name: ERM-FAST Contract:

Project No.: 22329 Site: GIVAUDAI Location: CLIFTON, NJ Group: TCLVOC

Matrix: (soil/water) SOIL Lab Sample ID: TR200

Sample wt/vol: 10.6 (g/mL) G Lab File ID: SEP159.D

Level: (low/med) MED Date Received: 9/14/98

% Moisture: not dec. 9 Date Analyzed: 9/15/98

GC Column: SPB-5 ID: 0.25 (mm) Dilution Factor: 1.0

Soil Extract Volume: 25000 (uL) Soil Aliquot Volume: 100 (uL)

Number TICs found: 0 Concentration Units: (ug/L or ug/Kg) ug/Kg

CAS Number	Compound Name	RT	Est. Conc.	Q
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VOLATILE ORGANICS ANALYSIS DATA SHEET

SAMPLE NO.
CFA-1

Lab Name: ERM-FAST Contract:

Project No.: 22329.00.01 Site: GIVAUDAN Location: CLIFTON, NJ Group: TCLVOC

Matrix: (soil/water) SOIL Lab Sample ID: TR202

Sample wt/vol: 9.0 (g/mL) G Lab File ID: SEP175.D

Level: (low/med) MED Date Received: 9/15/98

% Moisture: not dec. 10 Date Analyzed: 9/17/98

GC Column: SPB-5 ID: 0.25 (mm) Dilution Factor: 1.0

Soil Extract Volume: 25000 (uL) Soil Aliquot Volume: 100 (uL)

Concentration Units: (ug/L or ug/Kg) ug/Kg

CAS No.	Compound		Q
74-67-3	chloromethane	310	U
75-01-4	vinyl chloride	310	U
74-83-9	bromomethane	310	U
75-00-3	chloroethane	310	U
67-64-1	acetone	2000	B
75-34-3	1,1-dichloroethene	310	U
75-09-2	methylene chloride	810	B
75-15-0	carbon disulfide	310	U
107-06-2	trans-1,2-dichloroethene	310	U
75-35-4	1,1-dichloroethane	310	U
78-93-3	2-butanone	310	U
15-65-92	cis-1,2-dichloroethene	310	U
67-66-3	chloroform	310	U
71-55-6	1,1,1-trichloroethane	310	U
107-06-2	1,2-dichloroethane	310	U
71-43-2	benzene	310	U
56-23-5	carbon tetrachloride	310	U
75-27-4	bromodichloromethane	310	U
78-87-5	1,2-dichloropropane	310	U
79-01-6	trichloroethene	310	U
108-10-1	4-methyl-2-pentanone	310	U
10061-01-5	cis-1,3-dichloropropene	310	U
10061-02-6	trans-1,3-dichloropropene	310	U
108-88-3	toluene	790	
79-00-5	1,1,2-trichloroethane	310	U
59-17-86	2-hexanone	310	U
124-48-1	dibromochloromethane	310	U
127-18-4	tetrachloroethene	310	U
108-90-7	chlorobenzene	310	U
100-41-4	ethylbenzene	460	
108-38-3	m,p-xylene	380	J
75-25-2	bromoform	310	U
100-42-5	styrene	310	U

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VOLATILE ORGANICS ANALYSIS DATA SHEET

SAMPLE NO.

CFA-1

Lab Name: ERM-FAST Contract:

Project No.: 22329.00.01 Site: GIVAUDAN Location: CLIFTON, NJ Group: TCLVOC

Matrix: (soil/water) SOIL Lab Sample ID: TR202

Sample wt/vol: 9.0 (g/mL) G Lab File ID: SEP175.D

Level: (low/med) MED Date Received: 9/15/98

% Moisture: not dec. 10 Date Analyzed: 9/17/98

GC Column: SPB-5 ID: 0.25 (mm) Dilution Factor: 1.0

Soil Extract Volume: 25000 (uL) Soil Aliquot Volume: 100 (uL)

CAS No.	Compound	Concentration Units: (ug/L or ug/Kg) ug/Kg	Q
95-47-6	o-xylene	310	U
79-34-5	1,1,2,2-tetrachloroethane	310	U

FORM I VOA

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1E
VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

SAMPLE NO.
CFA-1

Lab Name: ERM-FAST Contract:

Project No.: 22329 Site: GIVAUDAI Location: CLIFTON, NJ Group: TCLVOC

Matrix: (soil/water) SOIL Lab Sample ID: TR202

Sample wt/vol: 9.0 (g/mL) G Lab File ID: SEP175.D

Level: (low/med) MED Date Received: 9/15/98

% Moisture: not dec. 10 Date Analyzed: 9/17/98

GC Column: SPB-5 ID: 0.25 (mm) Dilution Factor: 1.0

Soil Extract Volume: 25000 (uL) Soil Aliquot Volume: 100 (uL)

Number TICs found: 10 Concentration Units: (ug/L or ug/Kg) ug/Kg

CAS Number	Compound Name	RT	Est. Conc.	Q
1.	UNK	3.43	4300	J
2.	UNK	11.05	2000	J
3.	UNK	11.59	1900	J
4.	UNK	11.88	20000	J
5.	UNK	12.02	3100	J
6.	UNK	12.36	6000	J
7.	UNK	13.04	6300	J
8.	UNK	16.10	5000	J
9.	UNK	21.63	26000	J
10.	UNK	21.89	33000	J
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VOLATILE ORGANICS ANALYSIS DATA SHEET

SAMPLE NO.
FCF-1

Lab Name: ERM-FAST Contract:

Project No.: 22329.00.01 Site: GIVAUDAN Location: CLIFTON, NJ Group: TCLVOC

Matrix: (soil/water) SOIL Lab Sample ID: TR230

Sample wt/vol: 10.8 (g/mL) G Lab File ID: SEP302.D

Level: (low/med) MED Date Received: 9/23/98

% Moisture: not dec. 15 Date Analyzed: 9/24/98

GC Column: SPB-5 ID: 0.25 (mm) Dilution Factor: 1.0

Soil Extract Volume: 25000 (uL) Soil Aliquot Volume: 100 (uL)

CAS No.	Compound	Concentration Units: (ug/L or ug/Kg) ug/Kg	Q
74-87-3	chloromethane	270	U
75-01-4	vinyl chloride	270	U
74-83-9	bromomethane	270	U
75-00-3	chloroethane	270	U
67-64-1	acetone	670	B
75-35-4	1,1-dichloroethene	270	U
75-09-2	methylene chloride	270	U
75-15-0	carbon disulfide	270	U
156-60-5	trans-1,2-dichloroethene	270	U
75-34-3	1,1-dichloroethane	270	U
78-93-3	2-butanone	550	U
156-59-2	cis-1,2-dichloroethene	270	U
67-66-3	chloroform	270	U
71-55-6	1,1,1-trichloroethane	270	U
107-06-2	1,2-dichloroethane	270	U
71-43-2	benzene	270	U
56-23-5	carbon tetrachloride	270	U
75-27-4	bromodichloromethane	270	U
78-87-5	1,2-dichloropropane	270	U
79-01-6	trichloroethene	270	U
108-10-1	4-methyl-2-pentanone	270	U
10061-01-5	cis-1,3-dichloropropene	270	U
10061-02-6	trans-1,3-dichloropropene	270	U
108-88-3	toluene	270	U
79-00-5	1,1,2-trichloroethane	270	U
591-78-6	2-hexanone	270	U
124-48-1	dibromochloromethane	270	U
127-18-4	tetrachloroethene	270	U
108-90-7	chlorobenzene	270	U
100-41-4	ethylbenzene	270	U
108-38-3	m,p-xylene	550	U
75-25-2	bromoform	270	U
100-42-5	styrene	270	U

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VOLATILE ORGANICS ANALYSIS DATA SHEET

SAMPLE NO.
FCF-1

Lab Name: ERM-FAST Contract:

Project No.: 22329.00.01 Site: GIVAUDAN Location: CLIFTON, NJ Group: TCLVOC

Matrix: (soil/water) SOIL Lab Sample ID: TR230

Sample wt/vol: 10.8 (g/mL) G Lab File ID: SEP302.D

Level: (low/med) MED Date Received: 9/23/98

% Moisture: not dec. 15 Date Analyzed: 9/24/98

GC Column: SPB-5 ID: 0.25 (mm) Dilution Factor: 1.0

Soil Extract Volume: 25000 (uL) Soil Aliquot Volume: 100 (uL)

CAS No.	Compound	Concentration Units: (ug/L or ug/Kg) ug/Kg	Q
95-47-6	o-xylene	270	U
79-34-5	1,1,2,2-tetrachloroethane	270	U

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1E

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

SAMPLE NO.

FCF-1

Lab Name: ERM-FAST Contract:

Project No.: 22329 Site: GIVAUDAI Location: CLIFTON, NJ Group: TCLVOC

Matrix: (soil/water) SOIL Lab Sample ID: TR230

Sample wt/vol: 10.8 (g/mL) G Lab File ID: SEP302.D

Level: (low/med) MED Date Received: 9/23/98

% Moisture: not dec. 15 Date Analyzed: 9/24/98

GC Column: SPB-5 ID: 0.25 (mm) Dilution Factor: 1.0

Soil Extract Volume: 25000 (uL) Soil Aliquot Volume: 100 (uL)

Number TICs found: 0

Concentration Units: (ug/L or ug/Kg) ug/Kg

CAS Number	Compound Name	RT	Est. Conc.	Q
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VOLATILE ORGANICS ANALYSIS DATA SHEET

SAMPLE NO.
FCF-2

Lab Name: ERM-FAST Contract:

Project No.: 22329.00.01 Site: GIVAUDAN Location: CLIFTON, NJ Group: TCLVOC

Matrix: (soil/water) SOIL Lab Sample ID: TR231

Sample wt/vol: 11.2 (g/mL) G Lab File ID: SEP303.D

Level: (low/med) MED Date Received: 9/23/98

% Moisture: not dec. 17 Date Analyzed: 9/24/98

GC Column: SPB-5 ID: 0.25 (mm) Dilution Factor: 1.0

Soil Extract Volume: 25000 (uL) Soil Aliquot Volume: 100 (uL)

CAS No.	Compound	Concentration Units: (ug/L or ug/Kg) ug/Kg	Q
74-87-3	chloromethane	270	U
75-01-4	vinyl chloride	270	U
74-83-9	bromomethane	270	U
75-00-3	chloroethane	270	U
67-64-1	acetone	310	B
75-35-4	1,1-dichloroethene	270	U
75-09-2	methylene chloride	270	U
75-15-0	carbon disulfide	270	U
156-60-5	trans-1,2-dichloroethene	270	U
75-34-3	1,1-dichloroethane	270	U
78-93-3	2-butanone	540	U
156-59-2	cis-1,2-dichloroethene	270	U
67-66-3	chloroform	270	U
71-55-6	1,1,1-trichloroethane	270	U
107-06-2	1,2-dichloroethane	270	U
71-43-2	benzene	270	U
56-23-5	carbon tetrachloride	270	U
75-27-4	bromodichloromethane	270	U
78-87-5	1,2-dichloropropane	270	U
79-01-6	trichloroethene	270	U
108-10-1	4-methyl-2-pentanone	270	U
10061-01-5	cis-1,3-dichloropropene	270	U
10061-02-6	trans-1,3-dichloropropene	270	U
108-88-3	toluene	270	U
79-00-5	1,1,2-trichloroethane	270	U
591-78-6	2-hexanone	270	U
124-48-1	dibromochloromethane	270	U
127-18-4	tetrachloroethene	270	U
108-90-7	chlorobenzene	270	U
100-41-4	ethylbenzene	270	U
108-38-3	m,p-xylene	540	U
75-25-2	bromoform	270	U
100-42-5	styrene	270	U

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VOLATILE ORGANICS ANALYSIS DATA SHEET

SAMPLE NO.
FCF-2

Lab Name: ERM-FAST Contract:

Project No.: 22329.00.01 Site: GIVAUDAN Location: CLIFTON, NJ Group: TCLVOC

Matrix: (soil/water) SOIL Lab Sample ID: TR231

Sample wt/vol: 11.2 (g/mL) G Lab File ID: SEP303.D

Level: (low/med) MED Date Received: 9/23/98

% Moisture: not dec. 17 Date Analyzed: 9/24/98

GC Column: SPB-5 ID: 0.25 (mm) Dilution Factor: 1.0

Soil Extract Volume: 25000 (uL) Soil Aliquot Volume: 100 (uL)

Concentration Units: (ug/L or ug/Kg) ug/Kg

CAS No.	Compound		Q
95-47-6	o-xylene	270	U
79-34-5	1,1,2,2-tetrachloroethane	270	U

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VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

SAMPLE NO.

FCF-2

Lab Name: ERM-FAST Contract:

Project No.: 22329 Site: GIVAUDAI Location: CLIFTON, NJ Group: TCLVOC

Matrix: (soil/water) SOIL Lab Sample ID: TR231

Sample wt/vol: 11.2 (g/mL) G Lab File ID: SEP303.D

Level: (low/med) MED Date Received: 9/23/98

% Moisture: not dec. 17 Date Analyzed: 9/24/98

GC Column: SPB-5 ID: 0.25 (mm) Dilution Factor: 1.0

Soil Extract Volume: 25000 (uL) Soil Aliquot Volume: 100 (uL)

Number TICs found: 0 Concentration Units: (ug/L or ug/Kg) ug/Kg

CAS Number	Compound Name	RT	Est. Conc.	Q
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VOLATILE ORGANICS ANALYSIS DATA SHEET

SAMPLE NO.

FCF-3

Lab Name: ERM-FAST Contract:

Project No.: 22329.00.01 Site: GIVAUDAN Location: CLIFTON, NJ Group: TCLVOC

Matrix: (soil/water) SOIL Lab Sample ID: TR232

Sample wt/vol: 10.8 (g/mL) G Lab File ID: SEP304.D

Level: (low/med) MED Date Received: 9/23/98

% Moisture: not dec. 9 Date Analyzed: 9/24/98

GC Column: SPB-5 ID: 0.25 (mm) Dilution Factor: 1.0

Soil Extract Volume: 25000 (uL) Soil Aliquot Volume: 100 (uL)

Concentration Units: (ug/L or ug/Kg) ug/Kg

CAS No.	Compound		Q
74-87-3	chloromethane	260	U
75-01-4	vinyl chloride	260	U
74-83-9	bromomethane	260	U
75-00-3	chloroethane	260	U
67-64-1	acetone	680	B
75-35-4	1,1-dichloroethene	260	U
75-09-2	methylene chloride	260	U
75-15-0	carbon disulfide	260	U
156-60-5	trans-1,2-dichloroethene	260	U
75-34-3	1,1-dichloroethane	260	U
78-93-3	2-butanone	510	U
156-59-2	cis-1,2-dichloroethene	260	U
67-66-3	chloroform	260	U
71-55-6	1,1,1-trichloroethane	260	U
107-06-2	1,2-dichloroethane	260	U
71-43-2	benzene	260	U
56-23-5	carbon tetrachloride	260	U
75-27-4	bromodichloromethane	260	U
78-87-5	1,2-dichloropropane	260	U
79-01-6	trichloroethene	260	U
108-10-1	4-methyl-2-pentanone	260	U
10061-01-5	cis-1,3-dichloropropene	260	U
10061-02-6	trans-1,3-dichloropropene	260	U
108-88-3	toluene	260	U
79-00-5	1,1,2-trichloroethane	260	U
591-78-6	2-hexanone	260	U
124-48-1	dibromochloromethane	260	U
127-18-4	tetrachloroethene	260	U
108-90-7	chlorobenzene	260	U
100-41-4	ethylbenzene	260	U
108-38-3	m,p-xylene	510	U
75-25-2	bromoform	260	U
100-42-5	styrene	260	U

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

SAMPLE NO.
FCF-3

Lab Name: ERM-FAST Contract:

Project No.: 22329.00.01 Site: GIVAUDAN Location: CLIFTON, NJ Group: TCLVOC

Matrix: (soil/water) SOIL Lab Sample ID: TR232

Sample wt/vol: 10.8 (g/mL) G Lab File ID: SEP304.D

Level: (low/med) MED Date Received: 9/23/98

% Moisture: not dec. 9 Date Analyzed: 9/24/98

GC Column: SPB-5 ID: 0.25 (mm) Dilution Factor: 1.0

Soil Extract Volume: 25000 (uL) Soil Aliquot Volume: 100 (uL)

CAS No.	Compound	Concentration Units: (ug/L or ug/Kg) ug/Kg	Q
95-47-6	o-xylene	260	U
79-34-5	1,1,2,2-tetrachloroethane	260	U

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1E

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

SAMPLE NO.

FCF-3

Lab Name: ERM-FAST Contract: _____

Project No.: 22329 Site: GIVAUDAI Location: CLIFTON, NJ Group: TCLVOC

Matrix: (soil/water) SOIL Lab Sample ID: TR232

Sample wt/vol: 10.8 (g/mL) G Lab File ID: SEP304.D

Level: (low/med) MED Date Received: 9/23/98

% Moisture: not dec. 9 Date Analyzed: 9/24/98

GC Column: SPB-5 ID: 0.25 (mm) Dilution Factor: 1.0

Soil Extract Volume: 25000 (uL) Soil Aliquot Volume: 100 (uL)

Number TICs found: 0 Concentration Units: (ug/L or ug/Kg) ug/Kg

CAS Number	Compound Name	RT	Est. Conc.	Q
1.				
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VOLATILE ORGANICS ANALYSIS DATA SHEET

SAMPLE NO.
FCF-4

Lab Name: ERM-FAST Contract:

Project No.: 22329.00.01 Site: GIVAUDAN Location: CLIFTON, NJ Group: TCLVOC

Matrix: (soil/water) SOIL Lab Sample ID: TR233

Sample wt/vol: 12.0 (g/mL) G Lab File ID: SEP305.D

Level: (low/med) MED Date Received: 9/23/98

% Moisture: not dec. 7 Date Analyzed: 9/24/98

GC Column: SPB-5 ID: 0.25 (mm) Dilution Factor: 1.0

Soil Extract Volume: 25000 (uL) Soil Aliquot Volume: 100 (uL)

Concentration Units: (ug/L or ug/Kg) ug/Kg

CAS No.	Compound		Q
74-87-3	chloromethane	220	U
75-01-4	vinyl chloride	220	U
74-83-9	bromomethane	220	U
75-00-3	chloroethane	220	U
67-64-1	acetone	690	B
75-35-4	1,1-dichloroethene	220	U
75-09-2	methylene chloride	220	U
75-15-0	carbon disulfide	220	U
156-60-5	trans-1,2-dichloroethene	220	U
75-34-3	1,1-dichloroethane	220	U
78-93-3	2-butanone	450	U
156-59-2	cis-1,2-dichloroethene	220	U
67-66-3	chloroform	220	U
71-55-6	1,1,1-trichloroethane	220	U
107-06-2	1,2-dichloroethane	220	U
71-43-2	benzene	220	U
56-23-5	carbon tetrachloride	220	U
75-27-4	bromodichloromethane	220	U
78-87-5	1,2-dichloropropane	220	U
79-01-6	trichloroethene	220	U
108-10-1	4-methyl-2-pentanone	220	U
10061-01-5	cis-1,3-dichloropropene	220	U
10061-02-6	trans-1,3-dichloropropene	220	U
108-88-3	toluene	220	U
79-00-5	1,1,2-trichloroethane	220	U
591-78-6	2-hexanone	220	U
124-48-1	dibromochloromethane	220	U
127-18-4	tetrachloroethene	220	U
108-90-7	chlorobenzene	220	U
100-41-4	ethylbenzene	220	U
108-38-3	m,p-xylene	450	U
75-25-2	bromoform	220	U
100-42-5	styrene	220	U

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

SAMPLE NO.
FCF-4

Lab Name: ERM-FAST Contract:

Project No.: 22329.00.01 Site: GIVAUDAN Location: CLIFTON, NJ Group: TCLVOC

Matrix: (soil/water) SOIL Lab Sample ID: TR233

Sample wt/vol: 12.0 (g/mL) G Lab File ID: SEP305.D

Level: (low/med) MED Date Received: 9/23/98

% Moisture: not dec. 7 Date Analyzed: 9/24/98

GC Column: SPB-5 ID: 0.25 (mm) Dilution Factor: 1.0

Soil Extract Volume: 25000 (uL) Soil Aliquot Volume: 100 (uL)

Concentration Units: (ug/L or ug/Kg) ug/Kg

CAS No.	Compound		Q
95-47-6	o-xylene	220	U
79-34-5	1,1,2,2-tetrachloroethane	220	U

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VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

SAMPLE NO.

FCF-4

Lab Name: ERM-FAST Contract: _____

Project No.: 22329 Site: GIVAUDAI Location: CLIFTON, NJ Group: TCLVOC

Matrix: (soil/water) SOIL Lab Sample ID: TR233

Sample wt/vol: 12.0 (g/mL) G Lab File ID: SEP305.D

Level: (low/med) MED Date Received: 9/23/98

% Moisture: not dec. 7 Date Analyzed: 9/24/98

GC Column: SPB-5 ID: 0.25 (mm) Dilution Factor: 1.0

Soil Extract Volume: 25000 (uL) Soil Aliquot Volume: 100 (uL)

Number TICs found: 0 Concentration Units: (ug/L or ug/Kg) ug/Kg

CAS Number	Compound Name	RT	Est. Conc.	Q
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VOLATILE ORGANICS ANALYSIS DATA SHEET

SAMPLE NO.
FCF-5

Lab Name: ERM-FAST Contract:

Project No.: 22329.00.01 Site: GIVAUDAN Location: CLIFTON, NJ Group: TCLVOC

Matrix: (soil/water) SOIL Lab Sample ID: TR234

Sample wt/vol: 9.3 (g/mL) G Lab File ID: SEP307.D

Level: (low/med) MED Date Received: 9/23/98

% Moisture: not dec. 7 Date Analyzed: 9/24/98

GC Column: SPB-5 ID: 0.25 (mm) Dilution Factor: 1.0

Soil Extract Volume: 25000 (uL) Soil Aliquot Volume: 100 (uL)

Concentration Units: (ug/L or ug/Kg) ug/Kg

CAS No.	Compound		Q
74-87-3	chloromethane	290	U
75-01-4	vinyl chloride	290	U
74-83-9	bromomethane	290	U
75-00-3	chloroethane	290	U
67-64-1	acetone	1300	B
75-35-4	1,1-dichloroethene	290	U
75-09-2	methylene chloride	290	U
75-15-0	carbon disulfide	290	U
156-60-5	trans-1,2-dichloroethene	290	U
75-34-3	1,1-dichloroethane	290	U
78-93-3	2-butanone	580	U
156-59-2	cis-1,2-dichloroethene	290	U
67-66-3	chloroform	290	U
71-55-6	1,1,1-trichloroethane	290	U
107-06-2	1,2-dichloroethane	290	U
71-43-2	benzene	290	U
56-23-5	carbon tetrachloride	290	U
75-27-4	bromodichloromethane	290	U
78-87-5	1,2-dichloropropane	290	U
79-01-6	trichloroethene	290	U
108-10-1	4-methyl-2-pentanone	290	U
10061-01-5	cis-1,3-dichloropropene	290	U
10061-02-6	trans-1,3-dichloropropene	290	U
108-88-3	toluene	290	U
79-00-5	1,1,2-trichloroethane	290	U
591-78-6	2-hexanone	290	U
124-48-1	dibromochloromethane	290	U
127-18-4	tetrachloroethene	290	U
108-90-7	chlorobenzene	290	U
100-41-4	ethylbenzene	290	U
108-38-3	m,p-xylene	580	U
75-25-2	bromoform	290	U
100-42-5	styrene	290	U

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VOLATILE ORGANICS ANALYSIS DATA SHEET

SAMPLE NO.
FCF-5

Lab Name: ERM-FAST Contract:

Project No.: 22329.00.01 Site: GIVAUDAN Location: CLIFTON, NJ Group: TCLVOC

Matrix: (soil/water) SOIL Lab Sample ID: TR234

Sample wt/vol: 9.3 (g/mL) G Lab File ID: SEP307.D

Level: (low/med) MED Date Received: 9/23/98

% Moisture: not dec. 7 Date Analyzed: 9/24/98

GC Column: SPB-5 ID: 0.25 (mm) Dilution Factor: 1.0

Soil Extract Volume: 25000 (uL) Soil Aliquot Volume: 100 (uL)

Concentration Units: (ug/L or ug/Kg) ug/Kg

CAS No.	Compound		Q
95-47-6	o-xylene	290	U
79-34-5	1,1,2,2-tetrachloroethane	290	U

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VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

SAMPLE NO.

FCF-5

Lab Name: ERM-FAST Contract:

Project No.: 22329 Site: GIVAUDAI Location: CLIFTON, NJ Group: TCLVOC

Matrix: (soil/water) SOIL Lab Sample ID: TR234

Sample wt/vol: 9.3 (g/mL) G Lab File ID: SEP307.D

Level: (low/med) MED Date Received: 9/23/98

% Moisture: not dec. 7 Date Analyzed: 9/24/98

GC Column: SPB-5 ID: 0.25 (mm) Dilution Factor: 1.0

Soil Extract Volume: 25000 (uL) Soil Aliquot Volume: 100 (uL)

Number TICs found: 0 Concentration Units: (ug/L or ug/Kg) ug/Kg

CAS Number	Compound Name	RT	Est. Conc.	Q
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VOLATILE ORGANICS ANALYSIS DATA SHEET

SAMPLE NO.
FCF-6

Lab Name: ERM-FAST Contract:

Project No.: 22329.00.01 Site: GIVAUDAN Location: CLIFTON, NJ Group: TCLVOC

Matrix: (soil/water) SOIL Lab Sample ID: TR235

Sample wt/vol: 11.8 (g/mL) G Lab File ID: SEP308.D

Level: (low/med) MED Date Received: 9/23/98

% Moisture: not dec. 6 Date Analyzed: 9/24/98

GC Column: SPB-5 ID: 0.25 (mm) Dilution Factor: 1.0

Soil Extract Volume: 25000 (uL) Soil Aliquot Volume: 100 (uL)

Concentration Units: (ug/L or ug/Kg) ug/Kg

CAS No.	Compound		Q
74-87-3	chloromethane	220	U
75-01-4	vinyl chloride	220	U
74-83-9	bromomethane	220	U
75-00-3	chloroethane	220	U
67-64-1	acetone	760	B
75-35-4	1,1-dichloroethene	220	U
75-09-2	methylene chloride	220	U
75-15-0	carbon disulfide	220	U
156-60-5	trans-1,2-dichloroethene	220	U
75-34-3	1,1-dichloroethane	220	U
78-93-3	2-butanone	450	U
156-59-2	cis-1,2-dichloroethene	220	U
67-66-3	chloroform	220	U
71-55-6	1,1,1-trichloroethane	220	U
107-06-2	1,2-dichloroethane	220	U
71-43-2	benzene	220	U
56-23-5	carbon tetrachloride	220	U
75-27-4	bromodichloromethane	220	U
78-87-5	1,2-dichloropropane	220	U
79-01-6	trichloroethene	220	U
108-10-1	4-methyl-2-pentanone	220	U
10061-01-5	cis-1,3-dichloropropene	220	U
10061-02-6	trans-1,3-dichloropropene	220	U
108-88-3	toluene	220	U
79-00-5	1,1,2-trichloroethane	220	U
591-78-6	2-hexanone	220	U
124-48-1	dibromochloromethane	220	U
127-18-4	tetrachloroethene	220	U
108-90-7	chlorobenzene	220	U
100-41-4	ethylbenzene	220	U
108-38-3	m,p-xylene	450	U
75-25-2	bromoform	220	U
100-42-5	styrene	220	U

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

SAMPLE NO.
FCF-6

Lab Name: ERM-FAST Contract:

Project No.: 22329.00.01 Site: GIVAUDAN Location: CLIFTON, NJ Group: TCLVOC

Matrix: (soil/water) SOIL Lab Sample ID: TR235

Sample wt/vol: 11.8 (g/mL) G Lab File ID: SEP308.D

Level: (low/med) MED Date Received: 9/23/98

% Moisture: not dec. 6 Date Analyzed: 9/24/98

GC Column: SPB-5 ID: 0.25 (mm) Dilution Factor: 1.0

Soil Extract Volume: 25000 (uL) Soil Aliquot Volume: 100 (uL)

CAS No.	Compound	Concentration Units: (ug/L or ug/Kg) ug/Kg	Q
95-47-6	o-xylene	220	U
79-34-5	1,1,2,2-tetrachloroethane	220	U

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VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

SAMPLE NO.

FCF-6

Lab Name: ERM-FAST Contract: _____

Project No.: 22329 Site: GIVAUDAI Location: CLIFTON, NJ Group: TCLVOC

Matrix: (soil/water) SOIL Lab Sample ID: TR235

Sample wt/vol: 11.8 (g/mL) G Lab File ID: SEP308.D

Level: (low/med) MED Date Received: 9/23/98

% Moisture: not dec. 6 Date Analyzed: 9/24/98

GC Column: SPB-5 ID: 0.25 (mm) Dilution Factor: 1.0

Soil Extract Volume: 25000 (uL) Soil Aliquot Volume: 100 (uL)

Number TICs found: 0 Concentration Units: (ug/L or ug/Kg) ug/Kg

CAS Number	Compound Name	RT	Est. Conc.	Q
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VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

NECF-1

Lab Name: ERM-FAST Contract: GIVAUDAN

Lab Code: Case No.: 22329.00. SAS No.: SDG No.:

Matrix: (soil/water) SOIL Lab Sample ID: TR-670

Sample wt/vol: 7.2 (g/ml) G Lab File ID: ROCT183.D

Level: (low/med) MED Date Received: 10/21/98

% Moisture: not dec. 11 Date Analyzed: 10/27/98

GC Column: SPB-5 ID: 0.25 (mm) Dilution Factor: 1.0

Soil Extract Volume: 25000 (uL) Soil Aliquot Volume: 100 (uL)

CONCENTRATION UNITS:

CAS NO.	COMPOUND	(ug/L or ug/Kg) UG/KG	Q
74-87-3	chloromethane	390	U
75-01-4	vinyl chloride	390	U
74-83-9	bromomethane	390	U
75-00-3	chloroethane	390	U
67-64-1	acetone	1400	B
75-35-4	1,1-dichloroethene	390	U
75-09-2	methylene chloride	390	U
75-15-0	carbon disulfide	390	U
156-60-5	trans-1,2-dichloroethene	390	U
75-34-3	1,1-dichloroethane	390	U
78-93-3	2-butanone	2600	B
156-59-2	cis-1,2-dichloroethene	390	U
67-66-3	chloroform	390	U
71-55-6	1,1,1-trichloroethane	390	U
107-06-2	1,2-dichloroethane	390	U
71-43-2	benzene	390	U
56-23-5	carbon tetrachloride	390	U
75-27-4	bromodichloromethane	390	U
78-87-5	1,2-dichloropropane	390	U
79-01-6	trichloroethene	390	U
108-10-1	4-methyl-2-pentanone	390	U
10061-01-5	cis-1,3-dichloropropene	390	U
10061-02-6	trans-1,3-dichloropropene	390	U
108-88-3	toluene	390	U
79-00-5	1,1,2-trichloroethane	390	U
591-78-6	2-hexanone	390	U
124-48-1	dibromochloromethane	390	U
127-18-4	tetrachloroethene	390	U
108-90-7	chlorobenzene	390	U
100-41-4	ethylbenzene	390	U
108-38-3	m,p-xylene	780	U
75-25-2	bromoform	390	U
100-42-5	styrene	390	U
95-47-6	o-xylene	390	U
79-34-5	1,1,2,2-tetrachloroethane	390	U

1E

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

NECF-1

Lab Name: ERM-FAST Contract: GIVAUDAN

Lab Code: _____ Case No.: 22329.00. SAS No.: _____ SDG No.: _____

Matrix: (soil/water) SOIL Lab Sample ID: TR-670

Sample wt/vol: 7.2 (g/ml) G Lab File ID: ROCT183.D

Level: (low/med) MED Date Received: 10/21/98

% Moisture: not dec. 11 Date Analyzed: 10/27/98

GC Column: SPB-5 ID: 0.25 (mm) Dilution Factor: 1.0

Soil Extract Volume: 25000 (uL) Soil Aliquot Volume: 100 (uL)

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

Number TICs found: 2

CAS NO.	COMPOUND NAME	RT	EST. CONC.	Q
1.	unknown	4.22	17000	J
2.	unknown	11.01	3700	J

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VOLATILE ORGANICS ANALYSIS DATA SHEET

SAMPLE NO.
NECF-2

Lab Name: ERM-FAST Contract:

Project No.: 22329.00.01 Site: GIVAUDAN Location: CLIFTON, NJ Group: TCLVOC

Matrix: (soil/water) SOIL Lab Sample ID: TR741

Sample wt/vol: 8.9 (g/mL) G Lab File ID: OCT421.D

Level: (low/med) MED Date Received: 11/3/98

% Moisture: not dec. 5 Date Analyzed: 11/3/98

GC Column: SPB-5 ID: 0.25 (mm) Dilution Factor: 1.0

Soil Extract Volume: 25000 (uL) Soil Aliquot Volume: 100 (uL)

Concentration Units: (ug/L or ug/Kg) ug/Kg

CAS No.	Compound		Q
74-87-3	chloromethane	300	U
75-01-4	vinyl chloride	300	U
74-83-9	bromomethane	300	U
75-00-3	chloroethane	300	U
67-64-1	acetone	510	B
75-35-4	1,1-dichloroethene	300	U
75-09-2	methylene chloride	300	U
75-15-0	carbon disulfide	300	U
156-60-5	trans-1,2-dichloroethene	300	U
75-34-3	1,1-dichloroethane	300	U
78-93-3	2-butanone	590	U
156-59-2	cis-1,2-dichloroethene	300	U
67-66-3	chloroform	300	U
71-55-6	1,1,1-trichloroethane	300	U
107-06-2	1,2-dichloroethane	300	U
71-43-2	benzene	300	U
56-23-5	carbon tetrachloride	300	U
75-27-4	bromodichloromethane	300	U
78-87-5	1,2-dichloropropane	300	U
79-01-6	trichloroethene	300	U
108-10-1	4-methyl-2-pentanone	300	U
10061-01-5	cis-1,3-dichloropropene	300	U
10061-02-6	trans-1,3-dichloropropene	300	U
108-88-3	toluene	300	U
79-00-5	1,1,2-trichloroethane	300	U
591-78-6	2-hexanone	300	U
124-48-1	dibromochloromethane	300	U
127-18-4	tetrachloroethene	300	U
108-90-7	chlorobenzene	300	U
100-41-4	ethylbenzene	300	U
108-38-3	m,p-xylene	590	U
75-25-2	bromoform	300	U
100-42-5	styrene	300	U

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

SAMPLE NO.
NECF-2

Lab Name: ERM-FAST Contract:

Project No.: 22329.00.01 Site: GIVAUDAN Location: CLIFTON, NJ Group: TCLVOC

Matrix: (soil/water) SOIL Lab Sample ID: TR741

Sample wt/vol: 8.9 (g/mL) G Lab File ID: OCT421.D

Level: (low/med) MED Date Received: 11/3/98

% Moisture: not dec. 5 Date Analyzed: 11/3/98

GC Column: SPB-5 ID: 0.25 (mm) Dilution Factor: 1.0

Soil Extract Volume: 25000 (uL) Soil Aliquot Volume: 100 (uL)

CAS No.	Compound	Concentration Units: (ug/L or ug/Kg) ug/Kg	Q
95-47-6	o-xylene	300	U
79-34-5	1,1,2,2-tetrachloroethane	300	U

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VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

SAMPLE NO.

NECF-2

Lab Name: ERM-FAST Contract:

Project No.: 22329 Site: GIVAUDAI Location: CLIFTON, NJ Group: TCLVOC

Matrix: (soil/water) SOIL Lab Sample ID: TR741

Sample wt/vol: 8.9 (g/mL) G Lab File ID: OCT421.D

Level: (low/med) MED Date Received: 11/3/98

% Moisture: not dec. 5 Date Analyzed: 11/3/98

GC Column: SPB-5 ID: 0.25 (mm) Dilution Factor: 1.0

Soil Extract Volume: 25000 (uL) Soil Aliquot Volume: 100 (uL)

Number TICs found: 0 Concentration Units: (ug/L or ug/Kg) ug/Kg

CAS Number	Compound Name	RT	Est. Conc.	Q
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VOLATILE ORGANICS ANALYSIS DATA SHEET

SAMPLE NO.
NECF-3

Lab Name: ERM-FAST Contract:

Project No.: 22329.00.01 Site: GIVAUDAN Location: CLIFTON, NJ Group: TCLVOC

Matrix: (soil/water) SOIL Lab Sample ID: TR742

Sample wt/vol: 10.5 (g/mL) G Lab File ID: OCT422.D

Level: (low/med) MED Date Received: 11/3/98

% Moisture: not dec. 6 Date Analyzed: 11/3/98

GC Column: SPB-5 ID: 0.25 (mm) Dilution Factor: 1.0

Soil Extract Volume: 25000 (uL) Soil Aliquot Volume: 100 (uL)

Concentration Units: (ug/L or ug/Kg) ug/Kg

CAS No.	Compound		Q
74-87-3	chloromethane	250	U
75-01-4	vinyl chloride	250	U
74-83-9	bromomethane	250	U
75-00-3	chloroethane	250	U
67-64-1	acetone	460	B
75-35-4	1,1-dichloroethene	250	U
75-09-2	methylene chloride	250	U
75-15-0	carbon disulfide	250	U
156-60-5	trans-1,2-dichloroethene	250	U
75-34-3	1,1-dichloroethane	250	U
78-93-3	2-butanone	510	U
156-59-2	cis-1,2-dichloroethene	250	U
67-66-3	chloroform	250	U
71-55-6	1,1,1-trichloroethane	250	U
107-06-2	1,2-dichloroethane	250	U
71-43-2	benzene	250	U
56-23-5	carbon tetrachloride	250	U
75-27-4	bromodichloromethane	250	U
78-87-5	1,2-dichloropropane	250	U
79-01-6	trichloroethene	250	U
108-10-1	4-methyl-2-pentanone	250	U
10061-01-5	cis-1,3-dichloropropene	250	U
10061-02-6	trans-1,3-dichloropropene	250	U
108-88-3	toluene	250	U
79-00-5	1,1,2-trichloroethane	250	U
591-78-6	2-hexanone	250	U
124-48-1	dibromochloromethane	250	U
127-18-4	tetrachloroethene	250	U
108-90-7	chlorobenzene	250	U
100-41-4	ethylbenzene	250	U
108-38-3	m,p-xylene	510	U
75-25-2	bromoform	250	U
100-42-5	styrene	250	U

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

SAMPLE NO.

NECF-3

Lab Name: ERM-FAST Contract:

Project No.: 22329.00.01 Site: GIVAUDAN Location: CLIFTON, NJ Group: TCLVOC

Matrix: (soil/water) SOIL Lab Sample ID: TR742

Sample wt/vol: 10.5 (g/mL) G Lab File ID: OCT422.D

Level: (low/med) MED Date Received: 11/3/98

% Moisture: not dec. 6 Date Analyzed: 11/3/98

GC Column: SPB-5 ID: 0.25 (mm) Dilution Factor: 1.0

Soil Extract Volume: 25000 (uL) Soil Aliquot Volume: 100 (uL)

Concentration Units: (ug/L or ug/Kg) ug/Kg

CAS No.	Compound		Q
95-47-6	o-xylene	250	U
79-34-5	1,1,2,2-tetrachloroethane	250	U

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1E
VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

SAMPLE NO.
NECF-3

Lab Name: ERM-FAST Contract:

Project No.: 22329 Site: GIVAUDAI Location: CLIFTON, NJ Group: TCLVOC

Matrix: (soil/water) SOIL Lab Sample ID: TR742

Sample wt/vol: 10.5 (g/mL) G Lab File ID: OCT422.D

Level: (low/med) MED Date Received: 11/3/98

% Moisture: not dec. 6 Date Analyzed: 11/3/98

GC Column: SPB-5 ID: 0.25 (mm) Dilution Factor: 1.0

Soil Extract Volume: 25000 (uL) Soil Aliquot Volume: 100 (uL)

Number TICs found: 0 Concentration Units: (ug/L or ug/Kg) ug/Kg

CAS Number	Compound Name	RT	Est. Conc.	Q
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VOLATILE ORGANICS ANALYSIS DATA SHEET

SAMPLE NO.
NECF-4

Lab Name: ERM-FAST Contract:

Project No.: 22329.00.01 Site: GIVAUDAN- Location: CLIFTON, NJ Group: TCLVOC

Matrix: (soil/water) SOIL Lab Sample ID: TR743

Sample wt/vol: 8.6 (g/mL) G Lab File ID: OCT423.D

Level: (low/med) MED Date Received: 11/3/98

% Moisture: not dec. 5 Date Analyzed: 11/3/98

GC Column: SPB-5 ID: 0.25 (mm) Dilution Factor: 1.0

Soil Extract Volume: 25000 (uL) Soil Aliquot Volume: 100 (uL)

CAS No.	Compound	Concentration Units: (ug/L or ug/Kg) ug/Kg	Q
74-87-3	chloromethane	310	U
75-01-4	vinyl chloride	310	U
74-83-9	bromomethane	310	U
75-00-3	chloroethane	310	U
67-64-1	acetone	450	B
75-35-4	1,1-dichloroethene	310	U
75-09-2	methylene chloride	310	U
75-15-0	carbon disulfide	310	U
156-60-5	trans-1,2-dichloroethene	310	U
75-34-3	1,1-dichloroethane	310	U
78-93-3	2-butanone	610	U
156-59-2	cis-1,2-dichloroethene	310	U
67-66-3	chloroform	310	U
71-55-6	1,1,1-trichloroethane	310	U
107-06-2	1,2-dichloroethane	310	U
71-43-2	benzene	310	U
56-23-5	carbon tetrachloride	310	U
75-27-4	bromodichloromethane	310	U
78-87-5	1,2-dichloropropane	310	U
79-01-6	trichloroethene	310	U
108-10-1	4-methyl-2-pentanone	310	U
10061-01-5	cis-1,3-dichloropropene	310	U
10061-02-6	trans-1,3-dichloropropene	310	U
108-88-3	toluene	310	U
79-00-5	1,1,2-trichloroethane	310	U
591-78-6	2-hexanone	310	U
124-48-1	dibromochloromethane	310	U
127-18-4	tetrachloroethene	310	U
108-90-7	chlorobenzene	310	U
100-41-4	ethylbenzene	310	U
108-38-3	m,p-xylene	610	U
75-25-2	bromoform	310	U
100-42-5	styrene	310	U

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VOLATILE ORGANICS ANALYSIS DATA SHEET

SAMPLE NO.

NECF-4

Lab Name: ERM-FAST Contract:

Project No.: 22329.00.01 Site: GIVAUDAN Location: CLIFTON, NJ Group: TCLVOC

Matrix: (soil/water) SOIL Lab Sample ID: TR743

Sample wt/vol: 8.6 (g/mL) G Lab File ID: OCT423.D

Level: (low/med) MED Date Received: 11/3/98

% Moisture: not dec. 5 Date Analyzed: 11/3/98

GC Column: SPB-5 ID: 0.25 (mm) Dilution Factor: 1.0

Soil Extract Volume: 25000 (uL) Soil Aliquot Volume: 100 (uL)

Concentration Units: (ug/L or ug/Kg) ug/Kg

CAS No.	Compound		Q
95-47-6	o-xylene	310	U
79-34-5	1,1,2,2-tetrachloroethane	310	U

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VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

SAMPLE NO.
NECF-4

Lab Name: ERM-FAST Contract:

Project No.: 22329 Site: GIVAUDAI Location: CLIFTON, NJ Group: TCLVOC

Matrix: (soil/water) SOIL Lab Sample ID: TR743

Sample wt/vol: 8.6 (g/mL) G Lab File ID: OCT423.D

Level: (low/med) MED Date Received: 11/3/98

% Moisture: not dec. 5 Date Analyzed: 11/3/98

GC Column: SPB-5 ID: 0.25 (mm) Dilution Factor: 1.0

Soil Extract Volume: 25000 (uL) Soil Aliquot Volume: 100 (uL)

Number TICs found: 0 Concentration Units: (ug/L or ug/Kg) ug/Kg

CAS Number	Compound Name	RT	Est. Conc.	Q
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VOLATILE ORGANICS ANALYSIS DATA SHEET

SAMPLE NO.
NECF-5

Lab Name: ERM-FAST Contract:

Project No.: 22329.00.01 Site: GIVAUDAN Location: CLIFTON, NJ Group: TCLVOC

Matrix: (soil/water) SOIL Lab Sample ID: TR744

Sample wt/vol: 10.4 (g/mL) G Lab File ID: OCT424.D

Level: (low/med) MED Date Received: 11/3/98

% Moisture: not dec. 4 Date Analyzed: 11/3/98

GC Column: SPB-5 ID: 0.25 (mm) Dilution Factor: 1.0

Soil Extract Volume: 25000 (uL) Soil Aliquot Volume: 100 (uL)

Concentration Units: (ug/L or ug/Kg) ug/Kg

CAS No.	Compound		Q
74-87-3	chloromethane	250	U
75-01-4	vinyl chloride	250	U
74-83-9	bromomethane	250	U
75-00-3	chloroethane	250	U
67-64-1	acetone	400	B
75-35-4	1,1-dichloroethene	250	U
75-09-2	methylene chloride	250	U
75-15-0	carbon disulfide	250	U
156-60-5	trans-1,2-dichloroethene	250	U
75-34-3	1,1-dichloroethane	250	U
78-93-3	2-butanone	260	JB
156-59-2	cis-1,2-dichloroethene	250	U
67-66-3	chloroform	250	U
71-55-6	1,1,1-trichloroethane	250	U
107-06-2	1,2-dichloroethane	250	U
71-43-2	benzene	250	U
56-23-5	carbon tetrachloride	250	U
75-27-4	bromodichloromethane	250	U
78-87-5	1,2-dichloropropane	250	U
79-01-6	trichloroethene	250	U
108-10-1	4-methyl-2-pentanone	250	U
10061-01-5	cis-1,3-dichloropropene	250	U
10061-02-6	trans-1,3-dichloropropene	250	U
108-88-3	toluene	250	U
79-00-5	1,1,2-trichloroethane	250	U
591-78-6	2-hexanone	250	U
124-48-1	dibromochloromethane	250	U
127-18-4	tetrachloroethene	250	U
108-90-7	chlorobenzene	250	U
100-41-4	ethylbenzene	250	U
108-38-3	m,p-xylene	500	U
75-25-2	bromoform	250	U
100-42-5	styrene	250	U

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VOLATILE ORGANICS ANALYSIS DATA SHEET

SAMPLE NO.

NECF-5

Lab Name: ERM-FAST Contract:

Project No.: 22329.00.01 Site: GIVAUDAN Location: CLIFTON, NJ Group: TCLVOC

Matrix: (soil/water) SOIL Lab Sample ID: TR744

Sample wt/vol: 10.4 (g/mL) G Lab File ID: OCT424.D

Level: (low/med) MED Date Received: 11/3/98

% Moisture: not dec. 4 Date Analyzed: 11/3/98

GC Column: SPB-5 ID: 0.25 (mm) Dilution Factor: 1.0

Soil Extract Volume: 25000 (uL) Soil Aliquot Volume: 100 (uL)

Concentration Units: (ug/L or ug/Kg) ug/Kg

CAS No.	Compound		Q
95-47-6	o-xylene	250	U
79-34-5	1,1,2,2-tetrachloroethane	250	U

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VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

SAMPLE NO.
NECF-5

Lab Name: ERM-FAST Contract:

Project No.: 22329 Site: GIVAUDAI Location: CLIFTON, NJ Group: TCLVOC

Matrix: (soil/water) SOIL Lab Sample ID: TR744

Sample wt/vol: 10.4 (g/mL) G Lab File ID: OCT424.D

Level: (low/med) MED Date Received: 11/3/98

% Moisture: not dec. 4 Date Analyzed: 11/3/98

GC Column: SPB-5 ID: 0.25 (mm) Dilution Factor: 1.0

Soil Extract Volume: 25000 (uL) Soil Aliquot Volume: 100 (uL)

Number TICs found: 0 Concentration Units: (ug/L or ug/Kg) ug/Kg

CAS Number	Compound Name	RT	Est. Conc.	Q
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VOLATILE ORGANICS ANALYSIS DATA SHEET

SAMPLE NO.
NECF-6

Lab Name: ERM-FAST Contract:

Project No.: 22329.00.01 Site: GIVAUDAN Location: CLIFTON, NJ Group: TCLVOC

Matrix: (soil/water) SOIL Lab Sample ID: TR745

Sample wt/vol: 11.7 (g/mL) G Lab File ID: OCT425.D

Level: (low/med) MED Date Received: 11/3/98

% Moisture: not dec. 5 Date Analyzed: 11/3/98

GC Column: SPB-5 ID: 0.25 (mm) Dilution Factor: 1.0

Soil Extract Volume: 25000 (uL) Soil Aliquot Volume: 100 (uL)

Concentration Units: (ug/L or ug/Kg) ug/Kg

CAS No.	Compound		Q
74-87-3	chloromethane	230	U
75-01-4	vinyl chloride	230	U
74-83-9	bromomethane	230	U
75-00-3	chloroethane	230	U
67-64-1	acetone	300	B
75-35-4	1,1-dichloroethene	230	U
75-09-2	methylene chloride	230	U
75-15-0	carbon disulfide	230	U
156-60-5	trans-1,2-dichloroethene	230	U
75-34-3	1,1-dichloroethane	230	U
78-93-3	2-butanone	450	U
156-59-2	cis-1,2-dichloroethene	230	U
67-66-3	chloroform	230	U
71-55-6	1,1,1-trichloroethane	230	U
107-06-2	1,2-dichloroethane	230	U
71-43-2	benzene	230	U
56-23-5	carbon tetrachloride	230	U
75-27-4	bromodichloromethane	230	U
78-87-5	1,2-dichloropropane	230	U
79-01-6	trichloroethene	230	U
108-10-1	4-methyl-2-pentanone	230	U
10061-01-5	cis-1,3-dichloropropene	230	U
10061-02-6	trans-1,3-dichloropropene	230	U
108-88-3	toluene	230	U
79-00-5	1,1,2-trichloroethane	230	U
591-78-6	2-hexanone	230	U
124-48-1	dibromochloromethane	230	U
127-18-4	tetrachloroethene	230	U
108-90-7	chlorobenzene	230	U
100-41-4	ethylbenzene	230	U
108-38-3	m,p-xylene	450	U
75-25-2	bromoform	230	U
100-42-5	styrene	230	U

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VOLATILE ORGANICS ANALYSIS DATA SHEET

SAMPLE NO.

NECF-6

Lab Name: ERM-FAST Contract:

Project No.: 22329.00.01 Site: GIVAUDAN Location: CLIFTON, NJ Group: TCLVOC

Matrix: (soil/water) SOIL Lab Sample ID: TR745

Sample wt/vol: 11.7 (g/mL) G Lab File ID: OCT425.D

Level: (low/med) MED Date Received: 11/3/98

% Moisture: not dec. 5 Date Analyzed: 11/3/98

GC Column: SPB-5 ID: 0.25 (mm) Dilution Factor: 1.0

Soil Extract Volume: 25000 (uL) Soil Aliquot Volume: 100 (uL)

Concentration Units: (ug/L or ug/Kg) ug/Kg

CAS No.	Compound		Q
95-47-6	o-xylene	230	U
79-34-5	1,1,2,2-tetrachloroethane	230	U

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VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

SAMPLE NO.

NECF-6

Lab Name: ERM-FAST Contract: _____

Project No.: 22329 Site: GIVAUDAI Location: CLIFTON, NJ Group: TCLVOC

Matrix: (soil/water) SOIL Lab Sample ID: TR745

Sample wt/vol: 11.7 (g/mL) G Lab File ID: OCT425.D

Level: (low/med) MED Date Received: 11/3/98

% Moisture: not dec. 5 Date Analyzed: 11/3/98

GC Column: SPB-5 ID: 0.25 (mm) Dilution Factor: 1.0

Soil Extract Volume: 25000 (uL) Soil Aliquot Volume: 100 (uL)

Number TICs found: 0 Concentration Units: (ug/L or ug/Kg) ug/Kg

CAS Number	Compound Name	RT	Est. Conc.	Q
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VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

NECF-7 RE

Lab Name: ERM-FAST Contract: GIVAUDAN

Lab Code: Case No.: 22329.00. SAS No.: SDG No.:

Matrix: (soil/water) SOIL Lab Sample ID: TR 746

Sample wt/vol: 11.0 (g/ml) G Lab File ID: ROCT291.D

Level: (low/med) MED Date Received: 11/04/98

% Moisture: not dec. 4 Date Analyzed: 11/04/98

GC Column: SPB-5 ID: 0.25 (mm) Dilution Factor: 1.0

Soil Extract Volume: 25000 (uL) Soil Aliquot Volume: 100 (uL)

CONCENTRATION UNITS:

CAS NO.	COMPOUND (ug/L or ug/Kg)	UG/KG	Q
74-87-3	chloromethane	240	U
75-01-4	vinyl chloride	240	U
74-83-9	bromomethane	240	U
75-00-3	chloroethane	240	U
67-64-1	acetone	240	U
75-35-4	1,1-dichloroethene	240	U
75-09-2	methylene chloride	240	U
75-15-0	carbon disulfide	240	U
156-60-5	trans-1,2-dichloroethene	240	U
75-34-3	1,1-dichloroethane	240	U
78-93-3	2-butanone	630	B
156-59-2	cis-1,2-dichloroethene	240	U
67-66-3	chloroform	240	U
71-55-6	1,1,1-trichloroethane	240	U
107-06-2	1,2-dichloroethane	240	U
71-43-2	benzene	240	U
56-23-5	carbon tetrachloride	240	U
75-27-4	bromodichloromethane	240	U
78-87-5	1,2-dichloropropane	240	U
79-01-6	trichloroethene	240	U
108-10-1	4-methyl-2-pentanone	240	U
10061-01-5	cis-1,3-dichloropropene	240	U
10061-02-6	trans-1,3-dichloropropene	240	U
108-88-3	toluene	240	U
79-00-5	1,1,2-trichloroethane	240	U
591-78-6	2-hexanone	240	U
124-48-1	dibromochloromethane	240	U
127-18-4	tetrachloroethene	240	U
108-90-7	chlorobenzene	240	U
100-41-4	ethylbenzene	240	U
108-38-3	m,p-xylene	480	U
75-25-2	bromoform	240	U
100-42-5	styrene	240	U
95-47-6	o-xylene	240	U
79-34-5	1,1,2,2-tetrachloroethane	240	U

1E

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

NECF-7 RE

Lab Name: ERM-FAST Contract: GIVAUDAN

Lab Code: Case No.: 22329.00. SAS No.: SDG No.:

Matrix: (soil/water) SOIL Lab Sample ID: TR 746

Sample wt/vol: 11.0 (g/ml) G Lab File ID: ROCT291.D

Level: (low/med) MED Date Received: 11/04/98

% Moisture: not dec. 4 Date Analyzed: 11/04/98

GC Column: SPB-5 ID: 0.25 (mm) Dilution Factor: 1.0

Soil Extract Volume: 25000 (uL) Soil Aliquot Volume: 100 (uL)

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

Number TICs found: 1

CAS NO.	COMPOUND NAME	RT	EST. CONC.	Q
1.	unknown	3.72	11000	J

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VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

NECF-7A RE

Lab Name: ERM-FAST Contract: GIVAUDAN

Lab Code: Case No.: 22329.00. SAS No.: SDG No.:

Matrix: (soil/water) SOIL Lab Sample ID: TR 747

Sample wt/vol: 10.9 (g/ml) G Lab File ID: ROCT292.D

Level: (low/med) MED Date Received: 11/04/98

% Moisture: not dec. 4 Date Analyzed: 11/04/98

GC Column: SPB-5 ID: 0.25 (mm) Dilution Factor: 1.0

Soil Extract Volume: 25000 (uL) Soil Aliquot Volume: 100 (uL)

CONCENTRATION UNITS:

CAS NO.	COMPOUND	(ug/L or ug/Kg) UG/KG	Q
74-87-3	chloromethane	240	U
75-01-4	vinyl chloride	240	U
74-83-9	bromomethane	240	U
75-00-3	chloroethane	240	U
67-64-1	acetone	240	U
75-35-4	1,1-dichloroethene	240	U
75-09-2	methylene chloride	240	U
75-15-0	carbon disulfide	240	U
156-60-5	trans-1,2-dichloroethene	240	U
75-34-3	1,1-dichloroethane	240	U
78-93-3	2-butanone	240	U
156-59-2	cis-1,2-dichloroethene	240	U
67-66-3	chloroform	240	U
71-55-6	1,1,1-trichloroethane	240	U
107-06-2	1,2-dichloroethane	240	U
71-43-2	benzene	240	U
56-23-5	carbon tetrachloride	240	U
75-27-4	bromodichloromethane	240	U
78-87-5	1,2-dichloropropane	240	U
79-01-6	trichloroethene	240	U
108-10-1	4-methyl-2-pentanone	240	U
10061-01-5	cis-1,3-dichloropropene	240	U
10061-02-6	trans-1,3-dichloropropene	240	U
108-88-3	toluene	240	U
79-00-5	1,1,2-trichloroethane	240	U
591-78-6	2-hexanone	240	U
124-48-1	dibromochloromethane	240	U
127-18-4	tetrachloroethene	240	U
108-90-7	chlorobenzene	240	U
100-41-4	ethylbenzene	240	U
108-38-3	m,p-xylene	480	U
75-25-2	bromoform	240	U
100-42-5	styrene	240	U
95-47-6	o-xylene	240	U
79-34-5	1,1,2,2-tetrachloroethane	240	U

1E

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

NECF-7A RE

Lab Name: ERM-FAST Contract: GIVAUDAN

Lab Code: Case No.: 22329.00. SAS No.: SDG No.:

Matrix: (soil/water) SOIL Lab Sample ID: TR 747

Sample wt/vol: 10.9 (g/ml) G Lab File ID: ROCT292.D

Level: (low/med) MED Date Received: 11/04/98

% Moisture: not dec. 4 Date Analyzed: 11/04/98

GC Column: SPB-5 ID: 0.25 (mm) Dilution Factor: 1.0

Soil Extract Volume: 25000 (uL) Soil Aliquot Volume: 100 (uL)

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

Number TICs found: 2

CAS NO.	COMPOUND NAME	RT	EST. CONC.	Q
1.	unknown	1.78	180000	J
2.	unknown	3.72	11000	J

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

NECF-8 RE

Lab Name: ERM-FAST Contract: GIVAUDAN

Lab Code: Case No.: 22329.00. SAS No.: SDG No.:

Matrix: (soil/water) SOIL Lab Sample ID: TR 748

Sample wt/vol: 10.9 (g/ml) G Lab File ID: ROCT293.D

Level: (low/med) MED Date Received: 11/04/98

% Moisture: not dec. 4 Date Analyzed: 11/04/98

GC Column: SPB-5 ID: 0.25 (mm) Dilution Factor: 1.0

Soil Extract Volume: 25000 (uL) Soil Aliquot Volume: 100 (uL)

CONCENTRATION UNITS:

CAS NO.	COMPOUND	(ug/L or ug/Kg) UG/KG	Q
74-87-3	chloromethane	240	U
75-01-4	vinyl chloride	240	U
74-83-9	bromomethane	240	U
75-00-3	chloroethane	240	U
67-64-1	acetone	240	U
75-35-4	1,1-dichloroethene	240	U
75-09-2	methylene chloride	240	U
75-15-0	carbon disulfide	240	U
156-60-5	trans-1,2-dichloroethene	240	U
75-34-3	1,1-dichloroethane	240	U
78-93-3	2-butanone	460	B
156-59-2	cis-1,2-dichloroethene	240	U
67-66-3	chloroform	240	U
71-55-6	1,1,1-trichloroethane	240	U
107-06-2	1,2-dichloroethane	240	U
71-43-2	benzene	240	U
56-23-5	carbon tetrachloride	240	U
75-27-4	bromodichloromethane	240	U
78-87-5	1,2-dichloropropane	240	U
79-01-6	trichloroethene	240	U
108-10-1	4-methyl-2-pentanone	240	U
10061-01-5	cis-1,3-dichloropropene	240	U
10061-02-6	trans-1,3-dichloropropene	240	U
108-88-3	toluene	240	U
79-00-5	1,1,2-trichloroethane	240	U
591-78-6	2-hexanone	240	U
124-48-1	dibromochloromethane	240	U
127-18-4	tetrachloroethene	240	U
108-90-7	chlorobenzene	240	U
100-41-4	ethylbenzene	240	U
108-38-3	m,p-xylene	480	U
75-25-2	bromoform	240	U
100-42-5	styrene	240	U
95-47-6	o-xylene	240	U
79-34-5	1,1,2,2-tetrachloroethane	240	U

1E

VOLATILE ORGANICS ANALYSIS DATA SHEET

TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

NECF-8 RE

Lab Name: ERM-FAST Contract: GIVAUDAN

Lab Code: Case No.: 22329.00. SAS No.: SDG No.:

Matrix: (soil/water) SOIL Lab Sample ID: TR 748

Sample wt/vol: 10.9 (g/ml) G Lab File ID: ROCT293.D

Level: (low/med) MED Date Received: 11/04/98

% Moisture: not dec. 4 Date Analyzed: 11/04/98

GC Column: SPB-5 ID: 0.25 (mm) Dilution Factor: 1.0

Soil Extract Volume: 25000 (uL) Soil Aliquot Volume: 100 (uL)

CONCENTRATION UNITS:

(ug/L or ug/Kg) UG/KG

Number TICs found: 1

CAS NO.	COMPOUND NAME	RT	EST. CONC.	Q
1.	unknown	3.72	12000	J

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

NECF-9

Lab Name: ERM-FAST Contract: GIVAUDAN

Lab Code: Case No.: 22329.00. SAS No.: SDG No.:

Matrix: (soil/water) SOIL Lab Sample ID: TR 749

Sample wt/vol: 9.1 (g/ml) G Lab File ID: ROCT296.D

Level: (low/med) MED Date Received: 11/04/98

% Moisture: not dec. 5 Date Analyzed: 11/05/98

GC Column: SPB-5 ID: 0.25 (mm) Dilution Factor: 1.0

Soil Extract Volume: 25000 (uL) Soil Aliquot Volume: 100 (uL)

CONCENTRATION UNITS:

CAS NO.	COMPOUND (ug/L or ug/Kg)	UG/KG	Q
74-87-3	chloromethane	290	U
75-01-4	vinyl chloride	290	U
74-83-9	bromomethane	290	U
75-00-3	chloroethane	290	U
67-64-1	acetone	290	U
75-35-4	1,1-dichloroethene	290	U
75-09-2	methylene chloride	290	U
75-15-0	carbon disulfide	290	U
156-60-5	trans-1,2-dichloroethene	290	U
75-34-3	1,1-dichloroethane	290	U
78-93-3	2-butanone	290	U
156-59-2	cis-1,2-dichloroethene	290	U
67-66-3	chloroform	290	U
71-55-6	1,1,1-trichloroethane	290	U
107-06-2	1,2-dichloroethane	290	U
71-43-2	benzene	290	U
56-23-5	carbon tetrachloride	290	U
75-27-4	bromodichloromethane	290	U
78-87-5	1,2-dichloropropane	290	U
79-01-6	trichloroethene	290	U
108-10-1	4-methyl-2-pentanone	290	U
10061-01-5	cis-1,3-dichloropropene	290	U
10061-02-6	trans-1,3-dichloropropene	290	U
108-88-3	toluene	290	U
79-00-5	1,1,2-trichloroethane	290	U
591-78-6	2-hexanone	290	U
124-48-1	dibromochloromethane	290	U
127-18-4	tetrachloroethene	290	U
108-90-7	chlorobenzene	290	U
100-41-4	ethylbenzene	290	U
108-38-3	m,p-xylene	580	U
75-25-2	bromoform	290	U
100-42-5	styrene	290	U
95-47-6	o-xylene	290	U
79-34-5	1,1,2,2-tetrachloroethane	290	U

1E

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

NECF-9

Lab Name: ERM-FAST Contract: GIVAUDAN

Lab Code: Case No.: 22329.00. SAS No.: SDG No.:

Matrix: (soil/water) SOIL Lab Sample ID: TR 749

Sample wt/vol: 9.1 (g/ml) G Lab File ID: ROCT296.D

Level: (low/med) MED Date Received: 11/04/98

% Moisture: not dec. 5 Date Analyzed: 11/05/98

GC Column: SPB-5 ID: 0.25 (mm) Dilution Factor: 1.0

Soil Extract Volume: 25000 (uL) Soil Aliquot Volume: 100 (uL)

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

Number TICs found: 1

CAS NO.	COMPOUND NAME	RT	EST. CONC.	Q
1.	unknown	3.72	12000	J

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

NECF-10

Lab Name: ERM-FAST Contract: GIVAUDAN

Lab Code: Case No.: 22329.00. SAS No.: SDG No.:

Matrix: (soil/water) SOIL Lab Sample ID: TR 750

Sample wt/vol: 9.1 (g/ml) G Lab File ID: ROCT297.D

Level: (low/med) MED Date Received: 11/04/98

% Moisture: not dec. 5 Date Analyzed: 11/05/98

GC Column: SPB-5 ID: 0.25 (mm) Dilution Factor: 1.0

Soil Extract Volume: 25000 (uL) Soil Aliquot Volume: 100 (uL)

CONCENTRATION UNITS:

CAS NO.	COMPOUND	(ug/L or ug/Kg) UG/KG	Q
74-87-3	chloromethane	290	U
75-01-4	vinyl chloride	290	U
74-83-9	bromomethane	290	U
75-00-3	chloroethane	290	U
67-64-1	acetone	290	U
75-35-4	1,1-dichloroethene	290	U
75-09-2	methylene chloride	290	U
75-15-0	carbon disulfide	290	U
156-60-5	trans-1,2-dichloroethene	290	U
75-34-3	1,1-dichloroethane	290	U
78-93-3	2-butanone	660	B
156-59-2	cis-1,2-dichloroethene	290	U
67-66-3	chloroform	290	U
71-55-6	1,1,1-trichloroethane	290	U
107-06-2	1,2-dichloroethane	290	U
71-43-2	benzene	290	U
56-23-5	carbon tetrachloride	290	U
75-27-4	bromodichloromethane	290	U
78-87-5	1,2-dichloropropane	290	U
79-01-6	trichloroethene	290	U
108-10-1	4-methyl-2-pentanone	290	U
10061-01-5	cis-1,3-dichloropropene	290	U
10061-02-6	trans-1,3-dichloropropene	290	U
108-88-3	toluene	290	U
79-00-5	1,1,2-trichloroethane	290	U
591-78-6	2-hexanone	290	U
124-48-1	dibromochloromethane	290	U
127-18-4	tetrachloroethene	290	U
108-90-7	chlorobenzene	290	U
100-41-4	ethylbenzene	290	U
108-38-3	m,p-xylene	580	U
75-25-2	bromoform	290	U
100-42-5	styrene	290	U
95-47-6	o-xylene	290	U
79-34-5	1,1,2,2-tetrachloroethane	290	U

1E

VOLATILE ORGANICS ANALYSIS DATA SHEET

TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

NECF-10

Lab Name: ERM-FAST Contract: GIVAUDAN

Lab Code: _____ Case No.: 22329.00. SAS No.: _____ SDG No.: _____

Matrix: (soil/water) SOIL Lab Sample ID: TR 750

Sample wt/vol: 9.1 (g/ml) G Lab File ID: ROCT297.D

Level: (low/med) MED Date Received: 11/04/98

% Moisture: not dec. 5 Date Analyzed: 11/05/98

GC Column: SPB-5 ID: 0.25 (mm) Dilution Factor: 1.0

Soil Extract Volume: 25000 (uL) Soil Aliquot Volume: 100 (uL)

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

Number TICs found: 1

CAS NO.	COMPOUND NAME	RT	EST. CONC.	Q
1.	unknown	3.72	9500	J

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

NECF-11

Lab Name: ERM-FAST Contract: GIVAUDAN

Lab Code: Case No.: 22329.00. SAS No.: SDG No.:

Matrix: (soil/water) SOIL Lab Sample ID: TR 751

Sample wt/vol: 10.3 (g/ml) G Lab File ID: ROCT298.D

Level: (low/med) MED Date Received: 11/04/98

% Moisture: not dec. 4 Date Analyzed: 11/05/98

GC Column: SPB-5 ID: 0.25 (mm) Dilution Factor: 1.0

Soil Extract Volume: 25000 (uL) Soil Aliquot Volume: 100 (uL)

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

CAS NO.	COMPOUND		Q
74-87-3	chloromethane	250	U
75-01-4	vinyl chloride	250	U
74-83-9	bromomethane	250	U
75-00-3	chloroethane	250	U
67-64-1	acetone	250	U
75-35-4	1,1-dichloroethene	250	U
75-09-2	methylene chloride	250	U
75-15-0	carbon disulfide	250	U
156-60-5	trans-1,2-dichloroethene	250	U
75-34-3	1,1-dichloroethane	250	U
78-93-3	2-butanone	510	B
156-59-2	cis-1,2-dichloroethene	250	U
67-66-3	chloroform	250	U
71-55-6	1,1,1-trichloroethane	250	U
107-06-2	1,2-dichloroethane	250	U
71-43-2	benzene	250	U
56-23-5	carbon tetrachloride	250	U
75-27-4	bromodichloromethane	250	U
78-87-5	1,2-dichloropropane	250	U
79-01-6	trichloroethene	250	U
108-10-1	4-methyl-2-pentanone	250	U
10061-01-5	cis-1,3-dichloropropene	250	U
10061-02-6	trans-1,3-dichloropropene	250	U
108-88-3	toluene	250	U
79-00-5	1,1,2-trichloroethane	250	U
591-78-6	2-hexanone	250	U
124-48-1	dibromochloromethane	250	U
127-18-4	tetrachloroethene	250	U
108-90-7	chlorobenzene	250	U
100-41-4	ethylbenzene	250	U
108-38-3	m,p-xylene	510	U
75-25-2	bromoform	250	U
100-42-5	styrene	250	U
95-47-6	o-xylene	250	U
79-34-5	1,1,2,2-tetrachloroethane	250	U

1E

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

NECF-11

Lab Name: ERM-FAST Contract: GIVAUDAN

Lab Code: _____ Case No.: 22329.00. SAS No.: _____ SDG No.: _____

Matrix: (soil/water) SOIL Lab Sample ID: TR 751

Sample wt/vol: 10.3 (g/ml) G Lab File ID: ROCT298.D

Level: (low/med) MED Date Received: 11/04/98

% Moisture: not dec. 4 Date Analyzed: 11/05/98

GC Column: SPB-5 ID: 0.25 (mm) Dilution Factor: 1.0

Soil Extract Volume: 25000 (uL) Soil Aliquot Volume: 100 (uL)

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

Number TICs found: 1

CAS NO.	COMPOUND NAME	RT	EST. CONC.	Q
1.	unknown	3.72	10000	J

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

NECF-12

Lab Name: ERM-FAST Contract: GIVAUDAN

Lab Code: Case No.: 22329.00 SAS No.: SDG No.:

Matrix: (soil/water) SOIL Lab Sample ID: TR 752

Sample wt/vol: 8.4 (g/ml) G Lab File ID: ROCT299.D

Level: (low/med) MED Date Received: 11/04/98

% Moisture: not dec. 6 Date Analyzed: 11/05/98

GC Column: SPB-5 ID: 0.25 (mm) Dilution Factor: 1.0

Soil Extract Volume: 25000 (uL) Soil Aliquot Volume: 100 (uL)

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

CAS NO.	COMPOUND		Q
74-87-3	chloromethane	310	U
75-01-4	vinyl chloride	310	U
74-83-9	bromomethane	310	U
75-00-3	chloroethane	310	U
67-64-1	acetone	310	
75-35-4	1,1-dichloroethene	310	U
75-09-2	methylene chloride	310	U
75-15-0	carbon disulfide	310	U
156-60-5	trans-1,2-dichloroethene	310	U
75-34-3	1,1-dichloroethane	310	U
78-93-3	2-butanone	670	B
156-59-2	cis-1,2-dichloroethene	310	U
67-66-3	chloroform	310	U
71-55-6	1,1,1-trichloroethane	310	U
107-06-2	1,2-dichloroethane	310	U
71-43-2	benzene	310	U
56-23-5	carbon tetrachloride	310	U
75-27-4	bromodichloromethane	310	U
78-87-5	1,2-dichloropropane	310	U
79-01-6	trichloroethene	310	U
108-10-1	4-methyl-2-pentanone	310	U
10061-01-5	cis-1,3-dichloropropene	310	U
10061-02-6	trans-1,3-dichloropropene	310	U
108-88-3	toluene	310	U
79-00-5	1,1,2-trichloroethane	310	U
591-78-6	2-hexanone	310	U
124-48-1	dibromochloromethane	310	U
127-18-4	tetrachloroethene	310	U
108-90-7	chlorobenzene	310	U
100-41-4	ethylbenzene	310	U
108-38-3	m,p-xylene	630	U
75-25-2	bromoform	310	U
100-42-5	styrene	310	U
95-47-6	o-xylene	310	U
79-34-5	1,1,2,2-tetrachloroethane	310	U

1E

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

NECF-12

Lab Name: ERM-FAST Contract: GIVAUDAN

Lab Code: Case No.: 22329.00. SAS No.: SDG No.:

Matrix: (soil/water) SOIL Lab Sample ID: TR 752

Sample wt/vol: 8.4 (g/ml) G Lab File ID: ROCT299.D

Level: (low/med) MED Date Received: 11/04/98

% Moisture: not dec. 6 Date Analyzed: 11/05/98

GC Column: SPB-5 ID: 0.25 (mm) Dilution Factor: 1.0

Soil Extract Volume: 25000 (uL) Soil Aliquot Volume: 100 (uL)

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

Number TICs found: 1

CAS NO.	COMPOUND NAME	RT	EST. CONC.	Q
1.	unknown	3.72	14000	J

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

NECF-13

Lab Name: ERM-FAST Contract: GIVAUDAN

Lab Code: Case No.: 22329.00. SAS No.: SDG No.:

Matrix: (soil/water) SOIL Lab Sample ID: TR-753

Sample wt/vol: 9.8 (g/ml) G Lab File ID: RNOV003.D

Level: (low/med) MED Date Received: 11/03/98

% Moisture: not dec. 5 Date Analyzed: 11/05/98

GC Column: SPB-5 ID: 0.25 (mm) Dilution Factor: 1.0

Soil Extract Volume: 25000 (uL) Soil Aliquot Volume: 100 (uL)

CONCENTRATION UNITS:

CAS NO.	COMPOUND	(ug/L or ug/Kg) UG/KG	Q
74-87-3	chloromethane	270	U
75-01-4	vinyl chloride	270	U
74-83-9	bromomethane	270	U
75-00-3	chloroethane	270	U
67-64-1	acetone	400	
75-35-4	1,1-dichloroethene	270	U
75-09-2	methylene chloride	270	U
75-15-0	carbon disulfide	270	U
156-60-5	trans-1,2-dichloroethene	270	U
75-34-3	1,1-dichloroethane	270	U
78-93-3	2-butanone	630	B
156-59-2	cis-1,2-dichloroethene	270	U
67-66-3	chloroform	270	U
71-55-6	1,1,1-trichloroethane	270	U
107-06-2	1,2-dichloroethane	270	U
71-43-2	benzene	270	U
56-23-5	carbon tetrachloride	270	U
75-27-4	bromodichloromethane	270	U
78-87-5	1,2-dichloropropane	270	U
79-01-6	trichloroethene	270	U
108-10-1	4-methyl-2-pentanone	270	U
10061-01-5	cis-1,3-dichloropropene	270	U
10061-02-6	trans-1,3-dichloropropene	270	U
108-88-3	toluene	270	U
79-00-5	1,1,2-trichloroethane	270	U
591-78-6	2-hexanone	270	U
124-48-1	dibromochloromethane	270	U
127-18-4	tetrachloroethene	270	U
108-90-7	chlorobenzene	270	U
100-41-4	ethylbenzene	270	U
108-38-3	m,p-xylene	530	U
75-25-2	bromoform	270	U
100-42-5	styrene	270	U
95-47-6	o-xylene	270	U
79-34-5	1,1,2,2-tetrachloroethane	270	U

1E

VOLATILE ORGANICS ANALYSIS DATA SHEET

TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

NECF-13

Lab Name: ERM-FAST Contract: GIVAUDAN

Lab Code: Case No.: 22329.00. SAS No.: SDG No.:

Matrix: (soil/water) SOIL Lab Sample ID: TR-753

Sample wt/vol: 9.8 (g/ml) G Lab File ID: RNOV003.D

Level: (low/med) MED Date Received: 11/03/98

% Moisture: not dec. 5 Date Analyzed: 11/05/98

GC Column: SPB-5 ID: 0.25 (mm) Dilution Factor: 1.0

Soil Extract Volume: 25000 (uL) Soil Aliquot Volume: 100 (uL)

CONCENTRATION UNITS:

(ug/L or ug/Kg) UG/KG

Number TICs found: 1

CAS NO.	COMPOUND NAME	RT	EST. CONC.	Q
1.	unknown	3.71	16000	J

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

NECF-14

Lab Name: ERM-FAST Contract: GIVAUDAN

Lab Code: Case No.: 22329.00. SAS No.: SDG No.:

Matrix: (soil/water) SOIL Lab Sample ID: TR-754

Sample wt/vol: 11.5 (g/ml) G Lab File ID: RNOV004.D

Level: (low/med) MED Date Received: 11/03/98

% Moisture: not dec. 5 Date Analyzed: 11/05/98

GC Column: SPB-5 ID: 0.25 (mm) Dilution Factor: 1.0

Soil Extract Volume: 25000 (uL) Soil Aliquot Volume: 100 (uL)

CONCENTRATION UNITS:

CAS NO.	COMPOUND	(ug/L or ug/Kg) UG/KG	Q
74-87-3	chloromethane	230	U
75-01-4	vinyl chloride	230	U
74-83-9	bromomethane	230	U
75-00-3	chloroethane	230	U
67-64-1	acetone	1000	
75-35-4	1,1-dichloroethene	230	U
75-09-2	methylene chloride	230	U
75-15-0	carbon disulfide	230	U
156-60-5	trans-1,2-dichloroethene	230	U
75-34-3	1,1-dichloroethane	230	U
78-93-3	2-butanone	670	B
156-59-2	cis-1,2-dichloroethene	230	U
67-66-3	chloroform	230	U
71-55-6	1,1,1-trichloroethane	230	U
107-06-2	1,2-dichloroethane	230	U
71-43-2	benzene	230	U
56-23-5	carbon tetrachloride	230	U
75-27-4	bromodichloromethane	230	U
78-87-5	1,2-dichloropropane	230	U
79-01-6	trichloroethene	230	U
108-10-1	4-methyl-2-pentanone	230	U
10061-01-5	cis-1,3-dichloropropene	230	U
10061-02-6	trans-1,3-dichloropropene	230	U
108-88-3	toluene	230	U
79-00-5	1,1,2-trichloroethane	230	U
591-78-6	2-hexanone	230	U
124-48-1	dibromochloromethane	230	U
127-18-4	tetrachloroethene	230	U
108-90-7	chlorobenzene	230	U
100-41-4	ethylbenzene	230	U
108-38-3	m,p-xylene	460	U
75-25-2	bromoform	230	U
100-42-5	styrene	230	U
95-47-6	o-xylene	230	U
79-34-5	1,1,2,2-tetrachloroethane	230	U

1E

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

NECF-14

Lab Name: ERM-FAST Contract: GIVAUDAN

Lab Code: _____ Case No.: 22329.00. SAS No.: _____ SDG No.: _____

Matrix: (soil/water) SOIL Lab Sample ID: TR-754

Sample wt/vol: 11.5 (g/ml) G Lab File ID: RNOV004.D

Level: (low/med) MED Date Received: 11/03/98

% Moisture: not dec. 5 Date Analyzed: 11/05/98

GC Column: SPB-5 ID: 0.25 (mm) Dilution Factor: 1.0

Soil Extract Volume: 25000 (uL) Soil Aliquot Volume: 100 (uL)

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

Number TICs found: 1

CAS NO.	COMPOUND NAME	RT	EST. CONC.	Q
1.	unknown	3.72	7700	J

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

NECF-15

Lab Name: ERM-FAST Contract: GIVAUDAN

Lab Code: Case No.: 22329.00. SAS No.: SDG No.:

Matrix: (soil/water) SOIL Lab Sample ID: TR-755

Sample wt/vol: 12.0 (g/ml) G Lab File ID: RNOV005.D

Level: (low/med) MED Date Received: 11/03/98

% Moisture: not dec. 6 Date Analyzed: 11/05/98

GC Column: SPB-5 ID: 0.25 (mm) Dilution Factor: 1.0

Soil Extract Volume: 25000 (uL) Soil Aliquot Volume: 100 (uL)

CONCENTRATION UNITS:

CAS NO.	COMPOUND	(ug/L or ug/Kg) UG/KG	Q
74-87-3	chloromethane	220	U
75-01-4	vinyl chloride	220	U
74-83-9	bromomethane	220	U
75-00-3	chloroethane	220	U
67-64-1	acetone	220	U
75-35-4	1,1-dichloroethene	220	U
75-09-2	methylene chloride	220	U
75-15-0	carbon disulfide	220	U
156-60-5	trans-1,2-dichloroethene	220	U
75-34-3	1,1-dichloroethane	220	U
78-93-3	2-butanone	400	B
156-59-2	cis-1,2-dichloroethene	220	U
67-66-3	chloroform	220	U
71-55-6	1,1,1-trichloroethane	220	U
107-06-2	1,2-dichloroethane	220	U
71-43-2	benzene	220	U
56-23-5	carbon tetrachloride	220	U
75-27-4	bromodichloromethane	220	U
78-87-5	1,2-dichloropropane	220	U
79-01-6	trichloroethene	220	U
108-10-1	4-methyl-2-pentanone	220	U
10061-01-5	cis-1,3-dichloropropene	220	U
10061-02-6	trans-1,3-dichloropropene	220	U
108-88-3	toluene	220	U
79-00-5	1,1,2-trichloroethane	220	U
591-78-6	2-hexanone	220	U
124-48-1	dibromochloromethane	220	U
127-18-4	tetrachloroethene	220	U
108-90-7	chlorobenzene	220	U
100-41-4	ethylbenzene	220	U
108-38-3	m,p-xylene	440	U
75-25-2	bromoform	220	U
100-42-5	styrene	220	U
95-47-6	o-xylene	220	U
79-34-5	1,1,2,2-tetrachloroethane	220	U

1E

VOLATILE ORGANICS ANALYSIS DATA SHEET

TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

NECF-15

Lab Name: ERM-FAST Contract: GIVAUDAN

Lab Code: _____ Case No.: 22329.00. SAS No.: _____ SDG No.: _____

Matrix: (soil/water) SOIL Lab Sample ID: TR-755

Sample wt/vol: 12.0 (g/ml) G Lab File ID: RNOV005.D

Level: (low/med) MED Date Received: 11/03/98

% Moisture: not dec. 6 Date Analyzed: 11/05/98

GC Column: SPB-5 ID: 0.25 (mm) Dilution Factor: 1.0

Soil Extract Volume: 25000 (uL) Soil Aliquot Volume: 100 (uL)

CONCENTRATION UNITS:

(ug/L or ug/Kg) UG/KG

Number TICs found: 1

CAS NO.	COMPOUND NAME	RT	EST. CONC.	Q
1.	unknown	3.72	10000	J

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

NECF-16

Lab Name: ERM-FAST Contract: GIVAUDAN

Lab Code: Case No.: 22329.00. SAS No.: SDG No.:

Matrix: (soil/water) SOIL Lab Sample ID: TR-756

Sample wt/vol: 11.0 (g/ml) G Lab File ID: RNOV006.D

Level: (low/med) MED Date Received: 11/03/98

% Moisture: not dec. 3 Date Analyzed: 11/05/98

GC Column: SPB-5 ID: 0.25 (mm) Dilution Factor: 1.0

Soil Extract Volume: 25000 (uL) Soil Aliquot Volume: 100 (uL)

CONCENTRATION UNITS:

CAS NO.	COMPOUND	(ug/L or ug/Kg) UG/KG	Q
74-87-3	chloromethane	230	U
75-01-4	vinyl chloride	230	U
74-83-9	bromomethane	230	U
75-00-3	chloroethane	230	U
67-64-1	acetone	1200	
75-35-4	1,1-dichloroethene	230	U
75-09-2	methylene chloride	230	U
75-15-0	carbon disulfide	230	U
156-60-5	trans-1,2-dichloroethene	230	U
75-34-3	1,1-dichloroethane	230	U
78-93-3	2-butanone	650	B
156-59-2	cis-1,2-dichloroethene	230	U
67-66-3	chloroform	230	U
71-55-6	1,1,1-trichloroethane	230	U
107-06-2	1,2-dichloroethane	230	U
71-43-2	benzene	230	U
56-23-5	carbon tetrachloride	230	U
75-27-4	bromodichloromethane	230	U
78-87-5	1,2-dichloropropane	230	U
79-01-6	trichloroethene	230	U
108-10-1	4-methyl-2-pentanone	230	U
10061-01-5	cis-1,3-dichloropropene	230	U
10061-02-6	trans-1,3-dichloropropene	230	U
108-88-3	toluene	230	U
79-00-5	1,1,2-trichloroethane	230	U
591-78-6	2-hexanone	230	U
124-48-1	dibromochloromethane	230	U
127-18-4	tetrachloroethene	230	U
108-90-7	chlorobenzene	230	U
100-41-4	ethylbenzene	230	U
108-38-3	m,p-xylene	470	U
75-25-2	bromoform	230	U
100-42-5	styrene	230	U
95-47-6	o-xylene	230	U
79-34-5	1,1,2,2-tetrachloroethane	230	U

1E

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

NECF-16

Lab Name: ERM-FAST Contract: GIVAUDAN

Lab Code: _____ Case No.: 22329.00. SAS No.: _____ SDG No.: _____

Matrix: (soil/water) SOIL Lab Sample ID: TR-756

Sample wt/vol: 11.0 (g/ml) G Lab File ID: RNOV006.D

Level: (low/med) MED Date Received: 11/03/98

% Moisture: not dec. 3 Date Analyzed: 11/05/98

GC Column: SPB-5 ID: 0.25 (mm) Dilution Factor: 1.0

Soil Extract Volume: 25000 (uL) Soil Aliquot Volume: 100 (uL)

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

Number TICs found: 1

CAS NO.	COMPOUND NAME	RT	EST. CONC.	Q
1.	unknown	3.72	10000	J

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

NECF-17

Lab Name: ERM-FAST Contract: GIVAUDAN

Lab Code: Case No.: 22329.00. SAS No.: SDG No.:

Matrix: (soil/water) SOIL Lab Sample ID: TR-757

Sample wt/vol: 9.4 (g/ml) G Lab File ID: RNOV007.D

Level: (low/med) MED Date Received: 11/03/98

% Moisture: not dec. 3 Date Analyzed: 11/05/98

GC Column: SPB-5 ID: 0.25 (mm) Dilution Factor: 1.0

Soil Extract Volume: 25000 (uL) Soil Aliquot Volume: 100 (uL)

CONCENTRATION UNITS:

CAS NO.	COMPOUND	(ug/L or ug/Kg) UG/KG	Q
74-87-3	chloromethane	280	U
75-01-4	vinyl chloride	280	U
74-83-9	bromomethane	280	U
75-00-3	chloroethane	280	U
67-64-1	acetone	280	U
75-35-4	1,1-dichloroethene	280	U
75-09-2	methylene chloride	280	U
75-15-0	carbon disulfide	280	U
156-60-5	trans-1,2-dichloroethene	280	U
75-34-3	1,1-dichloroethane	280	U
78-93-3	2-butanone	1100	B
156-59-2	cis-1,2-dichloroethene	280	U
67-66-3	chloroform	280	U
71-55-6	1,1,1-trichloroethane	280	U
107-06-2	1,2-dichloroethane	280	U
71-43-2	benzene	280	U
56-23-5	carbon tetrachloride	280	U
75-27-4	bromodichloromethane	280	U
78-87-5	1,2-dichloropropane	280	U
79-01-6	trichloroethene	280	U
108-10-1	4-methyl-2-pentanone	280	U
10061-01-5	cis-1,3-dichloropropene	280	U
10061-02-6	trans-1,3-dichloropropene	280	U
108-88-3	toluene	280	U
79-00-5	1,1,2-trichloroethane	280	U
591-78-6	2-hexanone	280	U
124-48-1	dibromochloromethane	280	U
127-18-4	tetrachloroethene	280	U
108-90-7	chlorobenzene	280	U
100-41-4	ethylbenzene	280	U
108-38-3	m,p-xylene	550	U
75-25-2	bromoform	280	U
100-42-5	styrene	280	U
95-47-6	o-xylene	280	U
79-34-5	1,1,2,2-tetrachloroethane	280	U

1E

VOLATILE ORGANICS ANALYSIS DATA SHEET

TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

NECF-17

Lab Name: ERM-FAST Contract: GIVAUDAN

Lab Code: Case No.: 22329.00. SAS No.: SDG No.:

Matrix: (soil/water) SOIL Lab Sample ID: TR-757

Sample wt/vol: 9.4 (g/ml) G Lab File ID: RNOV007.D

Level: (low/med) MED Date Received: 11/03/98

% Moisture: not dec. 3 Date Analyzed: 11/05/98

GC Column: SPB-5 ID: 0.25 (mm) Dilution Factor: 1.0

Soil Extract Volume: 25000 (uL) Soil Aliquot Volume: 100 (uL)

CONCENTRATION UNITS:

(ug/L or ug/Kg) UG/KG

Number TICs found: 1

CAS NO.	COMPOUND NAME	RT	EST. CONC.	Q
1.	unknown	3.72	9700	J

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

NECF-18

Lab Name: ERM-FAST Contract: GIVAUDAN

Lab Code: Case No.: 22329.00. SAS No.: SDG No.:

Matrix: (soil/water) SOIL Lab Sample ID: TR-758

Sample wt/vol: 8.6 (g/ml) G Lab File ID: RNOV008.D

Level: (low/med) MED Date Received: 11/03/98

% Moisture: not dec. 6 Date Analyzed: 11/05/98

GC Column: SPB-5 ID: 0.25 (mm) Dilution Factor: 1.0

Soil Extract Volume: 25000 (uL) Soil Aliquot Volume: 100 (uL)

CONCENTRATION UNITS:

CAS NO.	COMPOUND	(ug/L or ug/Kg) UG/KG	Q
74-87-3	chloromethane	310	U
75-01-4	vinyl chloride	310	U
74-83-9	bromomethane	310	U
75-00-3	chloroethane	310	U
67-64-1	acetone	310	U
75-35-4	1,1-dichloroethene	310	U
75-09-2	methylene chloride	310	U
75-15-0	carbon disulfide	310	U
156-60-5	trans-1,2-dichloroethene	310	U
75-34-3	1,1-dichloroethane	310	U
78-93-3	2-butanone	960	B
156-59-2	cis-1,2-dichloroethene	310	U
67-66-3	chloroform	310	U
71-55-6	1,1,1-trichloroethane	310	U
107-06-2	1,2-dichloroethane	310	U
71-43-2	benzene	310	U
56-23-5	carbon tetrachloride	310	U
75-27-4	bromodichloromethane	310	U
78-87-5	1,2-dichloropropane	310	U
79-01-6	trichloroethene	310	U
108-10-1	4-methyl-2-pentanone	310	U
10061-01-5	cis-1,3-dichloropropene	310	U
10061-02-6	trans-1,3-dichloropropene	310	U
108-88-3	toluene	310	U
79-00-5	1,1,2-trichloroethane	310	U
591-78-6	2-hexanone	310	U
124-48-1	dibromochloromethane	310	U
127-18-4	tetrachloroethene	310	U
108-90-7	chlorobenzene	310	U
100-41-4	ethylbenzene	310	U
108-38-3	m,p-xylene	620	U
75-25-2	bromoform	310	U
100-42-5	styrene	310	U
95-47-6	o-xylene	310	U
79-34-5	1,1,2,2-tetrachloroethane	310	U

1E

VOLATILE ORGANICS ANALYSIS DATA SHEET

TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

NECF-18

Lab Name: ERM-FAST Contract: GIVAUDAN

Lab Code: Case No.: 22329.00. SAS No.: SDG No.:

Matrix: (soil/water) SOIL Lab Sample ID: TR-758

Sample wt/vol: 8.6 (g/ml) G Lab File ID: RNOV008.D

Level: (low/med) MED Date Received: 11/03/98

% Moisture: not dec. 6 Date Analyzed: 11/05/98

GC Column: SPB-5 ID: 0.25 (mm) Dilution Factor: 1.0

Soil Extract Volume: 25000 (uL) Soil Aliquot Volume: 100 (uL)

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

Number TICs found: 1

CAS NO.	COMPOUND NAME	RT	EST. CONC.	Q
1.	unknown	3.72	11000	J

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

NECF-19

Lab Name: ERM-FAST Contract: GIVAUDAN

Lab Code: Case No.: 22329.00. SAS No.: SDG No.:

Matrix: (soil/water) SOIL Lab Sample ID: TR-769

Sample wt/vol: 10.2 (g/ml) G Lab File ID: RNOV010.D

Level: (low/med) MED Date Received: 11/04/98

% Moisture: not dec. 5 Date Analyzed: 11/05/98

GC Column: SPB-5 ID: 0.25 (mm) Dilution Factor: 1.0

Soil Extract Volume: 25000 (uL) Soil Aliquot Volume: 100 (uL)

CONCENTRATION UNITS:

CAS NO.	COMPOUND	(ug/L or ug/Kg) UG/KG	Q
74-87-3	chloromethane	260	U
75-01-4	vinyl chloride	260	U
74-83-9	bromomethane	260	U
75-00-3	chloroethane	260	U
67-64-1	acetone	260	U
75-35-4	1,1-dichloroethene	260	U
75-09-2	methylene chloride	260	U
75-15-0	carbon disulfide	260	U
156-60-5	trans-1,2-dichloroethene	260	U
75-34-3	1,1-dichloroethane	260	U
78-93-3	2-butanone	650	B
156-59-2	cis-1,2-dichloroethene	260	U
67-66-3	chloroform	260	U
71-55-6	1,1,1-trichloroethane	260	U
107-06-2	1,2-dichloroethane	260	U
71-43-2	benzene	260	U
56-23-5	carbon tetrachloride	260	U
75-27-4	bromodichloromethane	260	U
78-87-5	1,2-dichloropropane	260	U
79-01-6	trichloroethene	260	U
108-10-1	4-methyl-2-pentanone	260	U
10061-01-5	cis-1,3-dichloropropene	260	U
10061-02-6	trans-1,3-dichloropropene	260	U
108-88-3	toluene	260	U
79-00-5	1,1,2-trichloroethane	260	U
591-78-6	2-hexanone	260	U
124-48-1	dibromochloromethane	260	U
127-18-4	tetrachloroethene	260	U
108-90-7	chlorobenzene	260	U
100-41-4	ethylbenzene	260	U
108-38-3	m,p-xylene	520	U
75-25-2	bromoform	260	U
100-42-5	styrene	260	U
95-47-6	o-xylene	260	U
79-34-5	1,1,2,2-tetrachloroethane	260	U

1E

VOLATILE ORGANICS ANALYSIS DATA SHEET

TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

NECF-19

Lab Name: ERM-FAST Contract: GIVAUDAN

Lab Code: Case No.: 22329.00. SAS No.: SDG No.:

Matrix: (soil/water) SOIL Lab Sample ID: TR-769

Sample wt/vol: 10.2 (g/ml) G Lab File ID: RNOV010.D

Level: (low/med) MED Date Received: 11/04/98

% Moisture: not dec. 5 Date Analyzed: 11/05/98

GC Column: SPB-5 ID: 0.25 (mm) Dilution Factor: 1.0

Soil Extract Volume: 25000 (uL) Soil Aliquot Volume: 100 (uL)

CONCENTRATION UNITS:

(ug/L or ug/Kg) UG/KG

Number TICs found: 1

CAS NO.	COMPOUND NAME	RT	EST. CONC.	Q
1.	unknown	3.72	8500	J

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

NECF-20

Lab Name: ERM-FAST Contract: GIVAUDAN

Lab Code: Case No.: 22329.00. SAS No.: SDG No.:

Matrix: (soil/water) SOIL Lab Sample ID: TR-770

Sample wt/vol: 8.9 (g/ml) G Lab File ID: RNOV011.D

Level: (low/med) MED Date Received: 11/04/98

% Moisture: not dec. 5 Date Analyzed: 11/05/98

GC Column: SPB-5 ID: 0.25 (mm) Dilution Factor: 1.0

Soil Extract Volume: 25000 (uL) Soil Aliquot Volume: 100 (uL)

CONCENTRATION UNITS:

CAS NO.	COMPOUND (ug/L or ug/Kg)	UG/KG	Q
74-87-3	chloromethane	300	U
75-01-4	vinyl chloride	300	U
74-83-9	bromomethane	300	U
75-00-3	chloroethane	300	U
67-64-1	acetone	300	U
75-35-4	1,1-dichloroethene	300	U
75-09-2	methylene chloride	300	U
75-15-0	carbon disulfide	300	U
156-60-5	trans-1,2-dichloroethene	300	U
75-34-3	1,1-dichloroethane	300	U
78-93-3	2-butanone	810	B
156-59-2	cis-1,2-dichloroethene	300	U
67-66-3	chloroform	300	U
71-55-6	1,1,1-trichloroethane	300	U
107-06-2	1,2-dichloroethane	300	U
71-43-2	benzene	300	U
56-23-5	carbon tetrachloride	300	U
75-27-4	bromodichloromethane	300	U
78-87-5	1,2-dichloropropane	300	U
79-01-6	trichloroethene	300	U
108-10-1	4-methyl-2-pentanone	300	U
10061-01-5	cis-1,3-dichloropropene	300	U
10061-02-6	trans-1,3-dichloropropene	300	U
108-88-3	toluene	300	U
79-00-5	1,1,2-trichloroethane	300	U
591-78-6	2-hexanone	300	U
124-48-1	dibromochloromethane	300	U
127-18-4	tetrachloroethene	300	U
108-90-7	chlorobenzene	300	U
100-41-4	ethylbenzene	300	U
108-38-3	m,p-xylene	590	U
75-25-2	bromoform	300	U
100-42-5	styrene	300	U
95-47-6	o-xylene	300	U
79-34-5	1,1,2,2-tetrachloroethane	300	U

1E

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

NECF-20

Lab Name: ERM-FAST Contract: GIVAUDAN

Lab Code: Case No.: 22329.00. SAS No.: SDG No.:

Matrix: (soil/water) SOIL Lab Sample ID: TR-770

Sample wt/vol: 8.9 (g/ml) G Lab File ID: RNOV011.D

Level: (low/med) MED Date Received: 11/04/98

% Moisture: not dec. 5 Date Analyzed: 11/05/98

GC Column: SPB-5 ID: 0.25 (mm) Dilution Factor: 1.0

Soil Extract Volume: 25000 (uL) Soil Aliquot Volume: 100 (uL)

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

Number TICs found: 1

CAS NO.	COMPOUND NAME	RT	EST. CONC.	Q
1.	unknown	3.72	9600	J

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

NECF-21

Lab Name: ERM-FAST Contract: GIVAUDAN

Lab Code: Case No.: 22329.00. SAS No.: SDG No.:

Matrix: (soil/water) SOIL Lab Sample ID: TR-771

Sample wt/vol: 8.2 (g/ml) G Lab File ID: RNOV012.D

Level: (low/med) MED Date Received: 11/04/98

% Moisture: not dec. 5 Date Analyzed: 11/05/98

GC Column: SPB-5 ID: 0.25 (mm) Dilution Factor: 1.0

Soil Extract Volume: 25000 (uL) Soil Aliquot Volume: 100 (uL)

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

CAS NO.	COMPOUND		Q
74-87-3	chloromethane	320	U
75-01-4	vinyl chloride	320	U
74-83-9	bromomethane	320	U
75-00-3	chloroethane	320	U
67-64-1	acetone	320	U
75-35-4	1,1-dichloroethene	320	U
75-09-2	methylene chloride	320	U
75-15-0	carbon disulfide	320	U
156-60-5	trans-1,2-dichloroethene	320	U
75-34-3	1,1-dichloroethane	320	U
78-93-3	2-butanone	1200	B
156-59-2	cis-1,2-dichloroethene	320	U
67-66-3	chloroform	320	U
71-55-6	1,1,1-trichloroethane	320	U
107-06-2	1,2-dichloroethane	320	U
71-43-2	benzene	320	U
56-23-5	carbon tetrachloride	320	U
75-27-4	bromodichloromethane	320	U
78-87-5	1,2-dichloropropane	320	U
79-01-6	trichloroethene	320	U
108-10-1	4-methyl-2-pentanone	320	U
10061-01-5	cis-1,3-dichloropropene	320	U
10061-02-6	trans-1,3-dichloropropene	320	U
108-88-3	toluene	320	U
79-00-5	1,1,2-trichloroethane	320	U
591-78-6	2-hexanone	320	U
124-48-1	dibromochloromethane	320	U
127-18-4	tetrachloroethene	320	U
108-90-7	chlorobenzene	320	U
100-41-4	ethylbenzene	320	U
108-38-3	m,p-xylene	640	U
75-25-2	bromoform	320	U
100-42-5	styrene	320	U
95-47-6	o-xylene	320	U
79-34-5	1,1,2,2-tetrachloroethane	320	U

1E

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

NECF-21

Lab Name: ERM-FAST Contract: GIVAUDAN

Lab Code: _____ Case No.: 22329.00. SAS No.: _____ SDG No.: _____

Matrix: (soil/water) SOIL Lab Sample ID: TR-771

Sample wt/vol: 8.2 (g/ml) G Lab File ID: RNOV012.D

Level: (low/med) MED Date Received: 11/04/98

% Moisture: not dec. 5 Date Analyzed: 11/05/98

GC Column: SPB-5 ID: 0.25 (mm) Dilution Factor: 1.0

Soil Extract Volume: 25000 (uL) Soil Aliquot Volume: 100 (uL)

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

Number TICs found: 1

CAS NO.	COMPOUND NAME	RT	EST. CONC.	Q
1.	unknown	3.72	12000	J

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

NECF-22

Lab Name: ERM-FAST Contract: GIVAUDAN

Lab Code: Case No.: 22329.00. SAS No.: SDG No.:

Matrix: (soil/water) SOIL Lab Sample ID: TR-775

Sample wt/vol: 9.1 (g/ml) G Lab File ID: RNOV013.D

Level: (low/med) MED Date Received: 11/04/98

% Moisture: not dec. 7 Date Analyzed: 11/05/98

GC Column: SPB-5 ID: 0.25 (mm) Dilution Factor: 1.0

Soil Extract Volume: 25000 (uL) Soil Aliquot Volume: 100 (uL)

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

CAS NO.	COMPOUND		Q
74-87-3	chloromethane	300	U
75-01-4	vinyl chloride	300	U
74-83-9	bromomethane	300	U
75-00-3	chloroethane	300	U
67-64-1	acetone	300	U
75-35-4	1,1-dichloroethene	300	U
75-09-2	methylene chloride	300	U
75-15-0	carbon disulfide	300	U
156-60-5	trans-1,2-dichloroethene	300	U
75-34-3	1,1-dichloroethane	300	U
78-93-3	2-butanone	920	B
156-59-2	cis-1,2-dichloroethene	300	U
67-66-3	chloroform	300	U
71-55-6	1,1,1-trichloroethane	300	U
107-06-2	1,2-dichloroethane	300	U
71-43-2	benzene	300	U
56-23-5	carbon tetrachloride	300	U
75-27-4	bromodichloromethane	300	U
78-87-5	1,2-dichloropropane	300	U
79-01-6	trichloroethene	300	U
108-10-1	4-methyl-2-pentanone	300	U
10061-01-5	cis-1,3-dichloropropene	300	U
10061-02-6	trans-1,3-dichloropropene	300	U
108-88-3	toluene	300	U
79-00-5	1,1,2-trichloroethane	300	U
591-78-6	2-hexanone	300	U
124-48-1	dibromochloromethane	300	U
127-18-4	tetrachloroethene	300	U
108-90-7	chlorobenzene	300	U
100-41-4	ethylbenzene	300	U
108-38-3	m,p-xylene	590	U
75-25-2	bromoform	300	U
100-42-5	styrene	300	U
95-47-6	o-xylene	300	U
79-34-5	1,1,2,2-tetrachloroethane	300	U

1E

VOLATILE ORGANICS ANALYSIS DATA SHEET

TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

NECF-22

Lab Name: ERM-FAST Contract: GIVAUDAN

Lab Code: _____ Case No.: 22329.00. SAS No.: _____ SDG No.: _____

Matrix: (soil/water) SOIL Lab Sample ID: TR-775

Sample wt/vol: 9.1 (g/ml) G Lab File ID: RNOV013.D

Level: (low/med) MED Date Received: 11/04/98

% Moisture: not dec. 7 Date Analyzed: 11/05/98

GC Column: SPB-5 ID: 0.25 (mm) Dilution Factor: 1.0

Soil Extract Volume: 25000 (uL) Soil Aliquot Volume: 100 (uL)

CONCENTRATION UNITS:

(ug/L or ug/Kg) UG/KG

Number TICs found: 1

CAS NO.	COMPOUND NAME	RT	EST. CONC.	Q
1.	unknown	3.72	11000	J

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

NECF-23

Lab Name: ERM-FAST Contract: GIVAUDAN

Lab Code: Case No.: 22329.00. SAS No.: SDG No.:

Matrix: (soil/water) SOIL Lab Sample ID: TR-777

Sample wt/vol: 8.7 (g/ml) G Lab File ID: RNOV015.D

Level: (low/med) MED Date Received: 11/05/98

% Moisture: not dec. 3 Date Analyzed: 11/05/98

GC Column: SPB-5 ID: 0.25 (mm) Dilution Factor: 1.0

Soil Extract Volume: 25000 (uL) Soil Aliquot Volume: 100 (uL)

CONCENTRATION UNITS:

CAS NO.	COMPOUND (ug/L or ug/Kg)	UG/KG	Q
74-87-3	chloromethane	300	U
75-01-4	vinyl chloride	300	U
74-83-9	bromomethane	300	U
75-00-3	chloroethane	300	U
67-64-1	acetone	950	
75-35-4	1,1-dichloroethene	300	U
75-09-2	methylene chloride	300	U
75-15-0	carbon disulfide	300	U
156-60-5	trans-1,2-dichloroethene	300	U
75-34-3	1,1-dichloroethane	300	U
78-93-3	2-butanone	600	B
156-59-2	cis-1,2-dichloroethene	300	U
67-66-3	chloroform	300	U
71-55-6	1,1,1-trichloroethane	300	U
107-06-2	1,2-dichloroethane	300	U
71-43-2	benzene	300	U
56-23-5	carbon tetrachloride	300	U
75-27-4	bromodichloromethane	300	U
78-87-5	1,2-dichloropropane	300	U
79-01-6	trichloroethene	300	U
108-10-1	4-methyl-2-pentanone	300	U
10061-01-5	cis-1,3-dichloropropene	300	U
10061-02-6	trans-1,3-dichloropropene	300	U
108-88-3	toluene	300	U
79-00-5	1,1,2-trichloroethane	300	U
591-78-6	2-hexanone	300	U
124-48-1	dibromochloromethane	300	U
127-18-4	tetrachloroethene	300	U
108-90-7	chlorobenzene	300	U
100-41-4	ethylbenzene	300	U
108-38-3	m,p-xylene	590	U
75-25-2	bromoform	300	U
100-42-5	styrene	300	U
95-47-6	o-xylene	300	U
79-34-5	1,1,2,2-tetrachloroethane	300	U

1E

VOLATILE ORGANICS ANALYSIS DATA SHEET

TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

NECF-23

Lab Name: ERM-FAST Contract: GIVAUDAN

Lab Code: Case No.: 22329.00. SAS No.: SDG No.:

Matrix: (soil/water) SOIL Lab Sample ID: TR-777

Sample wt/vol: 8.7 (g/ml) G Lab File ID: RNOV015.D

Level: (low/med) MED Date Received: 11/05/98

% Moisture: not dec. 3 Date Analyzed: 11/05/98

GC Column: SPB-5 ID: 0.25 (mm) Dilution Factor: 1.0

Soil Extract Volume: 25000 (uL) Soil Aliquot Volume: 100 (uL)

CONCENTRATION UNITS:

(ug/L or ug/Kg) UG/KG

Number TICs found: 1

CAS NO.	COMPOUND NAME	RT	EST. CONC.	Q
1.	unknown	3.72	11000	J

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

NECF-24

Lab Name: ERM-FAST Contract: GIVAUDAN

Lab Code: Case No.: 22329.00. SAS No.: SDG No.:

Matrix: (soil/water) SOIL Lab Sample ID: TR-778

Sample wt/vol: 8.3 (g/ml) G Lab File ID: RNOV016.D

Level: (low/med) MED Date Received: 11/05/98

% Moisture: not dec. 3 Date Analyzed: 11/05/98

GC Column: SPB-5 ID: 0.25 (mm) Dilution Factor: 1.0

Soil Extract Volume: 25000 (uL) Soil Aliquot Volume: 100 (uL)

CONCENTRATION UNITS:

CAS NO.	COMPOUND	(ug/L or ug/Kg) UG/KG	Q
74-87-3	chloromethane	310	U
75-01-4	vinyl chloride	310	U
74-83-9	bromomethane	310	U
75-00-3	chloroethane	310	U
67-64-1	acetone	310	U
75-35-4	1,1-dichloroethene	310	U
75-09-2	methylene chloride	310	U
75-15-0	carbon disulfide	310	U
156-60-5	trans-1,2-dichloroethene	310	U
75-34-3	1,1-dichloroethane	310	U
78-93-3	2-butanone	810	B
156-59-2	cis-1,2-dichloroethene	310	U
67-66-3	chloroform	310	U
71-55-6	1,1,1-trichloroethane	310	U
107-06-2	1,2-dichloroethane	310	U
71-43-2	benzene	310	U
56-23-5	carbon tetrachloride	310	U
75-27-4	bromodichloromethane	310	U
78-87-5	1,2-dichloropropane	310	U
79-01-6	trichloroethene	310	U
108-10-1	4-methyl-2-pentanone	310	U
10061-01-5	cis-1,3-dichloropropene	310	U
10061-02-6	trans-1,3-dichloropropene	310	U
108-88-3	toluene	310	U
79-00-5	1,1,2-trichloroethane	310	U
591-78-6	2-hexanone	310	U
124-48-1	dibromochloromethane	310	U
127-18-4	tetrachloroethene	310	U
108-90-7	chlorobenzene	310	U
100-41-4	ethylbenzene	310	U
108-38-3	m,p-xylene	620	U
75-25-2	bromoform	310	U
100-42-5	styrene	310	U
95-47-6	o-xylene	310	U
79-34-5	1,1,2,2-tetrachloroethane	310	U

1E

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

NECF-24

Lab Name: ERM-FAST Contract: GIVAUDAN

Lab Code: _____ Case No.: 22329.00. SAS No.: _____ SDG No.: _____

Matrix: (soil/water) SOIL Lab Sample ID: TR-778

Sample wt/vol: 8.3 (g/ml) G Lab File ID: RNOV016.D

Level: (low/med) MED Date Received: 11/05/98

% Moisture: not dec. 3 Date Analyzed: 11/05/98

GC Column: SPB-5 ID: 0.25 (mm) Dilution Factor: 1.0

Soil Extract Volume: 25000 (uL) Soil Aliquot Volume: 100 (uL)

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

Number TICs found: 1

CAS NO.	COMPOUND NAME	RT	EST. CONC.	Q
1.	unknown	3.72	11000	J

1B
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

SAMPLE NO.
CF-1

Lab Name: ERM-FAST Contract:

Project No.: 22329.00.01 Site: GIVAUDAN Location: CLIFTON, NJ Group: TCLSVOC

Matrix: (soil/water) SOIL Lab Sample ID: TR195

Sample wt/vol: 10.0 (g/mL) G Lab File ID: SEP168.D

Level: (low/med) LOW Date Received: 9/14/98

% Moisture: 7 decanted: (Y/N): N Date Extracted: 9/15/98

Concentrated Extract Volume: 1000 (uL) Date Analyzed: 9/16/98

Injection Volume: 1.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: 7

CAS No.	Compound	Concentration Units: (ug/L or ug/Kg) ug/Kg	Q
108-95-2	Phenol	270	U
111-44-4	bis(2-Chloroethyl)ether	270	U
95-57-8	2-Chlorophenol	270	U
541-73-1	1,3-Dichlorobenzene	270	U
106-46-7	1,4-Dichlorobenzene	270	U
95-50-1	1,2-Dichlorobenzene	270	U
108-60-1	bis(2-chloroisopropyl)ether	270	U
95-48-7	2-Methylphenol	270	U
621-64-7	N-Nitroso-di-n-propylamine	270	U
67-72-1	Hexachloroethane	270	U
106-44-5	4-Methylphenol	270	U
98-95-3	Nitrobenzene	270	U
78-59-1	Isophorone	270	U
88-75-5	2-Nitrophenol	270	U
105-67-9	2,4-Dimethylphenol	270	U
111-91-1	bis(2-Chloroethoxy)methane	270	U
120-83-2	2,4-Dichlorophenol	270	U
120-82-1	1,2,4-Trichlorobenzene	270	U
91-20-3	Naphthalene	270	U
87-68-3	Hexachlorobutadiene	270	U
106-47-8	4-Chloroaniline	270	U
59-50-7	4-Chloro-3-methylphenol	270	U
91-57-6	2-Methylnaphthalene	270	U
77-47-4	Hexachlorocyclopentadiene	270	U
88-06-2	2,4,6-Trichlorophenol	270	U
95-95-4	2,4,5-Trichlorophenol	270	U
91-58-7	2-Chloronaphthalene	270	U
88-74-4	2-Nitroaniline	270	U
131-11-3	Dimethylphthalate	270	U
208-96-8	Acenaphthylene	270	U
606-20-2	2,6-Dinitrotoluene	270	U
83-32-9	Acenaphthene	270	U
99-09-2	3-Nitroaniline	270	U

1B
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

SAMPLE NO.
CF-1

Lab Name: ERM-FAST Contract:

Project No.: 22329.00.01 Site: GIVAUDAN Location: CLIFTON, NJ Group: TCLSVOC

Matrix: (soil/water) SOIL Lab Sample ID: TR195

Sample wt/vol: 10.0 (g/mL) G Lab File ID: SEP168.D

Level: (low/med) LOW Date Received: 9/14/98

% Moisture: 7 decanted: (Y/N): N Date Extracted: 9/15/98

Concentrated Extract Volume: 1000 (uL) Date Analyzed: 9/16/98

Injection Volume: 1.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: 7

CAS No.	Compound	Concentration Units: (ug/L or ug/Kg) ug/Kg	Q
51-28-5	2,4-Dinitrophenol	5400	U
132-64-9	Dibenzofuran	270	U
100-02-7	4-Nitrophenol	270	U
121-14-2	2,4-Dinitrotoluene	270	U
84-66-2	Diethylphthalate	270	U
86-73-7	Fluorene	270	U
7005-72-3	4-Chlorophenyl-phenylether	270	U
100-01-6	4-Nitroaniline	270	U
534-52-1	4,6-Dinitro-2-methylphenol	540	U
86-30-6	N-Nitrosodiphenylamine	270	U
101-55-3	4-Bromophenyl-phenylether	270	U
118-74-1	Hexachlorobenzene	270	U
87-86-5	Pentachlorophenol	270	U
85-01-8	Phenanthrene	270	U
120-12-7	Anthracene	270	U
84-74-2	Di-n-butylphthalate	270	U
206-44-0	Fluoranthene	270	U
129-00-0	Pyrene	270	U
85-68-7	Butylbenzylphthalate	270	U
91-94-1	3,3'-Dichlorobenzidine	270	U
56-55-3	Benzo[a]anthracene	270	U
218-01-9	Chrysene	270	U
117-81-7	bis(2-Ethylhexyl)phthalate	270	U
117-84-0	Di-n-octylphthalate	270	U
205-99-2	Benzo[b]fluoranthene	270	U
207-08-9	Benzo[k]fluoranthene	270	U
50-32-8	Benzo[a]pyrene	270	U
193-39-5	Indeno[1,2,3-cd]pyrene	270	U
53-70-3	Dibenz[a,h]anthracene	270	U
191-24-2	Benzo[g,h,i]perylene	270	U

1B
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

SAMPLE NO.
CF-2

Lab Name: ERM-FAST Contract:

Project No.: 22329.00.01 Site: GIVAUDAN Location: CLIFTON, NJ Group: TCLSVOC

Matrix: (soil/water) SOIL Lab Sample ID: TR196

Sample wt/vol: 10.0 (g/mL) G Lab File ID: SEP169.D

Level: (low/med) LOW Date Received: 9/14/98

% Moisture: 8 decanted: (Y/N): N Date Extracted: 9/15/98

Concentrated Extract Volume: 1000 (uL) Date Analyzed: 9/16/98

Injection Volume: 1.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: 7

CAS No.	Compound	Concentration Units: (ug/L or ug/Kg) ug/Kg	Q
108-95-2	Phenol	270	U
111-44-4	bis(2-Chloroethyl)ether	270	U
95-57-8	2-Chlorophenol	270	U
541-73-1	1,3-Dichlorobenzene	270	U
106-46-7	1,4-Dichlorobenzene	270	U
95-50-1	1,2-Dichlorobenzene	270	U
108-60-1	bis(2-chloroisopropyl)ether	270	U
95-48-7	2-Methylphenol	270	U
621-64-7	N-Nitroso-di-n-propylamine	270	U
67-72-1	Hexachloroethane	270	U
106-44-5	4-Methylphenol	270	U
98-95-3	Nitrobenzene	270	U
78-59-1	Isophorone	270	U
88-75-5	2-Nitrophenol	270	U
105-67-9	2,4-Dimethylphenol	270	U
111-91-1	bis(2-Chloroethoxy)methane	270	U
120-83-2	2,4-Dichlorophenol	270	U
120-82-1	1,2,4-Trichlorobenzene	270	U
91-20-3	Naphthalene	270	U
87-68-3	Hexachlorobutadiene	270	U
106-47-8	4-Chloroaniline	270	U
59-50-7	4-Chloro-3-methylphenol	270	U
91-57-6	2-Methylnaphthalene	270	U
77-47-4	Hexachlorocyclopentadiene	270	U
88-06-2	2,4,6-Trichlorophenol	270	U
95-95-4	2,4,5-Trichlorophenol	270	U
91-58-7	2-Chloronaphthalene	270	U
88-74-4	2-Nitroaniline	270	U
131-11-3	Dimethylphthalate	270	U
208-96-8	Acenaphthylene	270	U
606-20-2	2,6-Dinitrotoluene	270	U
83-32-9	Acenaphthene	270	U
99-09-2	3-Nitroaniline	270	U

1B
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

SAMPLE NO.
CF-2

Lab Name: ERM-FAST Contract:

Project No.: 22329.00.01 Site: GIVAUDAN Location: CLIFTON, NJ Group: TCLSVOC

Matrix: (soil/water) SOIL Lab Sample ID: TR196

Sample wt/vol: 10.0 (g/mL) G Lab File ID: SEP169.D

Level: (low/med) LOW Date Received: 9/14/98

% Moisture: 8 decanted: (Y/N): N Date Extracted: 9/15/98

Concentrated Extract Volume: 1000 (uL) Date Analyzed: 9/16/98

Injection Volume: 1.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: 7

CAS No.	Compound	Concentration Units: (ug/L or ug/Kg) ug/Kg	Q
51-28-5	2,4-Dinitrophenol	5400	U
132-64-9	Dibenzofuran	270	U
100-02-7	4-Nitrophenol	270	U
121-14-2	2,4-Dinitrotoluene	270	U
84-66-2	Diethylphthalate	270	U
86-73-7	Fluorene	270	U
7005-72-3	4-Chlorophenyl-phenylether	270	U
100-01-6	4-Nitroaniline	270	U
534-52-1	4,6-Dinitro-2-methylphenol	540	U
86-30-6	N-Nitrosodiphenylamine	270	U
101-55-3	4-Bromophenyl-phenylether	270	U
118-74-1	Hexachlorobenzene	270	U
87-86-5	Pentachlorophenol	270	U
85-01-8	Phenanthrene	270	U
120-12-7	Anthracene	270	U
84-74-2	Di-n-butylphthalate	270	U
206-44-0	Fluoranthene	270	U
129-00-0	Pyrene	270	U
85-68-7	Butylbenzylphthalate	270	U
91-94-1	3,3'-Dichlorobenzidine	270	U
56-55-3	Benzo[a]anthracene	270	U
218-01-9	Chrysene	270	U
117-81-7	bis(2-Ethylhexyl)phthalate	270	U
117-84-0	Di-n-octylphthalate	270	U
205-99-2	Benzo[b]fluoranthene	270	U
207-08-9	Benzo[k]fluoranthene	270	U
50-32-8	Benzo[a]pyrene	270	U
193-39-5	Indeno[1,2,3-cd]pyrene	270	U
53-70-3	Dibenz[a,h]anthracene	270	U
191-24-2	Benzo[g,h,i]perylene	270	U

1B
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

SAMPLE NO.
CF-3

Lab Name: ERM-FAST Contract:

Project No.: 22329.00.01 Site: GIVAUDAN Location: CLIFTON, NJ Group: TCLSVOC

Matrix: (soil/water) SOIL Lab Sample ID: TR197

Sample wt/vol: 10.0 (g/mL) G Lab File ID: SEP170.D

Level: (low/med) LOW Date Received: 9/14/98

% Moisture: 8 decanted: (Y/N): N Date Extracted: 9/15/98

Concentrated Extract Volume: 1000 (uL) Date Analyzed: 9/16/98

Injection Volume: 1.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: 7

CAS No.	Compound	Concentration Units: (ug/L or ug/Kg) ug/Kg	Q
108-95-2	Phenol	270	U
111-44-4	bis(2-Chloroethyl)ether	270	U
95-57-8	2-Chlorophenol	270	U
541-73-1	1,3-Dichlorobenzene	270	U
106-46-7	1,4-Dichlorobenzene	270	U
95-50-1	1,2-Dichlorobenzene	270	U
108-60-1	bis(2-chloroisopropyl)ether	270	U
95-48-7	2-Methylphenol	270	U
621-64-7	N-Nitroso-di-n-propylamine	270	U
67-72-1	Hexachloroethane	270	U
106-44-5	4-Methylphenol	270	U
98-95-3	Nitrobenzene	270	U
78-59-1	Isophorone	270	U
88-75-5	2-Nitrophenol	270	U
105-67-9	2,4-Dimethylphenol	270	U
111-91-1	bis(2-Chloroethoxy)methane	270	U
120-83-2	2,4-Dichlorophenol	270	U
120-82-1	1,2,4-Trichlorobenzene	270	U
91-20-3	Naphthalene	270	U
87-68-3	Hexachlorobutadiene	270	U
106-47-8	4-Chloroaniline	270	U
59-50-7	4-Chloro-3-methylphenol	270	U
91-57-6	2-Methylnaphthalene	270	U
77-47-4	Hexachlorocyclopentadiene	270	U
88-06-2	2,4,6-Trichlorophenol	270	U
95-95-4	2,4,5-Trichlorophenol	270	U
91-58-7	2-Chloronaphthalene	270	U
88-74-4	2-Nitroaniline	270	U
131-11-3	Dimethylphthalate	270	U
208-96-8	Acenaphthylene	270	U
606-20-2	2,6-Dinitrotoluene	270	U
83-32-9	Acenaphthene	270	U
99-09-2	3-Nitroaniline	270	U

1B
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

SAMPLE NO.
CF-3

Lab Name: ERM-FAST Contract:

Project No.: 22329.00.01 Site: GIVAUDAN Location: CLIFTON, NJ Group: TCLSVOC

Matrix: (soil/water) SOIL Lab Sample ID: TR197

Sample wt/vol: 10.0 (g/mL) G Lab File ID: SEP170.D

Level: (low/med) LOW Date Received: 9/14/98

% Moisture: 8 decanted: (Y/N): N Date Extracted: 9/15/98

Concentrated Extract Volume: 1000 (uL) Date Analyzed: 9/16/98

Injection Volume: 1.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: 7

CAS No.	Compound	Concentration Units: (ug/L or ug/Kg) ug/Kg	Q
51-28-5	2,4-Dinitrophenol	5400	U
132-64-9	Dibenzofuran	270	U
100-02-7	4-Nitrophenol	270	U
121-14-2	2,4-Dinitrotoluene	270	U
84-66-2	Diethylphthalate	270	U
86-73-7	Fluorene	270	U
7005-72-3	4-Chlorophenyl-phenylether	270	U
100-01-6	4-Nitroaniline	270	U
534-52-1	4,6-Dinitro-2-methylphenol	540	U
86-30-6	N-Nitrosodiphenylamine	270	U
101-55-3	4-Bromophenyl-phenylether	270	U
118-74-1	Hexachlorobenzene	270	U
87-86-5	Pentachlorophenol	270	U
85-01-8	Phenanthrene	270	U
120-12-7	Anthracene	270	U
84-74-2	Di-n-butylphthalate	270	U
206-44-0	Fluoranthene	270	U
129-00-0	Pyrene	270	U
85-68-7	Butylbenzylphthalate	270	U
91-94-1	3,3'-Dichlorobenzidine	270	U
56-55-3	Benzo[a]anthracene	270	U
218-01-9	Chrysene	270	U
117-81-7	bis(2-Ethylhexyl)phthalate	270	U
117-84-0	Di-n-octylphthalate	270	U
205-99-2	Benzo[b]fluoranthene	270	U
207-08-9	Benzo[k]fluoranthene	270	U
50-32-8	Benzo[a]pyrene	270	U
193-39-5	Indeno[1,2,3-cd]pyrene	270	U
53-70-3	Dibenz[a,h]anthracene	270	U
191-24-2	Benzo[g,h,i]perylene	270	U

1B
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

SAMPLE NO.
CF-4

Lab Name: ERM-FAST Contract:

Project No.: 22329.00.01 Site: GIVAUDAN Location: CLIFTON, NJ Group: TCLSVOC

Matrix: (soil/water) SOIL Lab Sample ID: TR198

Sample wt/vol: 10.0 (g/mL) G Lab File ID: SEP171.D

Level: (low/med) LOW Date Received: 9/14/98

% Moisture: 12 decanted: (Y/N): N Date Extracted: 9/15/98

Concentrated Extract Volume: 1000 (uL) Date Analyzed: 9/16/98

Injection Volume: 1.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: 7

CAS No.	Compound	Concentration Units: (ug/L or ug/Kg) ug/Kg	Q
108-95-2	Phenol	280	U
111-44-4	bis(2-Chloroethyl)ether	280	U
95-57-8	2-Chlorophenol	280	U
541-73-1	1,3-Dichlorobenzene	280	U
106-46-7	1,4-Dichlorobenzene	280	U
95-50-1	1,2-Dichlorobenzene	280	U
108-60-1	bis(2-chloroisopropyl)ether	280	U
95-48-7	2-Methylphenol	280	U
621-64-7	N-Nitroso-di-n-propylamine	280	U
67-72-1	Hexachloroethane	280	U
106-44-5	4-Methylphenol	280	U
98-95-3	Nitrobenzene	280	U
78-59-1	Isophorone	280	U
88-75-5	2-Nitrophenol	280	U
105-67-9	2,4-Dimethylphenol	280	U
111-91-1	bis(2-Chloroethoxy)methane	280	U
120-83-2	2,4-Dichlorophenol	280	U
120-82-1	1,2,4-Trichlorobenzene	280	U
91-20-3	Naphthalene	280	U
87-68-3	Hexachlorobutadiene	280	U
106-47-8	4-Chloroaniline	280	U
59-50-7	4-Chloro-3-methylphenol	280	U
91-57-6	2-Methylnaphthalene	280	U
77-47-4	Hexachlorocyclopentadiene	280	U
88-06-2	2,4,6-Trichlorophenol	280	U
95-95-4	2,4,5-Trichlorophenol	280	U
91-58-7	2-Chloronaphthalene	280	U
88-74-4	2-Nitroaniline	280	U
131-11-3	Dimethylphthalate	280	U
208-96-8	Acenaphthylene	280	U
606-20-2	2,6-Dinitrotoluene	280	U
83-32-9	Acenaphthene	280	U
99-09-2	3-Nitroaniline	280	U

1B
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

SAMPLE NO.
CF-4

Lab Name: ERM-FAST Contract:

Project No.: 22329.00.01 Site: GIVAUDAN Location: CLIFTON, NJ Group: TCLSVOC

Matrix: (soil/water) SOIL Lab Sample ID: TR198

Sample wt/vol: 10.0 (g/mL) G Lab File ID: SEP171.D

Level: (low/med) LOW Date Received: 9/14/98

% Moisture: 12 decanted: (Y/N): N Date Extracted: 9/15/98

Concentrated Extract Volume: 1000 (uL) Date Analyzed: 9/16/98

Injection Volume: 1.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: 7

CAS No.	Compound	Concentration Units: (ug/L or ug/Kg) ug/Kg	Q
51-28-5	2,4-Dinitrophenol	5700	U
132-64-9	Dibenzofuran	280	U
100-02-7	4-Nitrophenol	280	U
121-14-2	2,4-Dinitrotoluene	280	U
84-66-2	Diethylphthalate	280	U
86-73-7	Fluorene	280	U
7005-72-3	4-Chlorophenyl-phenylether	280	U
100-01-6	4-Nitroaniline	280	U
534-52-1	4,6-Dinitro-2-methylphenol	570	U
86-30-6	N-Nitrosodiphenylamine	280	U
101-55-3	4-Bromophenyl-phenylether	280	U
118-74-1	Hexachlorobenzene	280	U
87-86-5	Pentachlorophenol	280	U
85-01-8	Phenanthrene	280	U
120-12-7	Anthracene	280	U
84-74-2	Di-n-butylphthalate	280	U
206-44-0	Fluoranthene	280	U
129-00-0	Pyrene	280	U
85-68-7	Butylbenzylphthalate	280	U
91-94-1	3,3'-Dichlorobenzidine	280	U
56-55-3	Benzo[a]anthracene	280	U
218-01-9	Chrysene	280	U
117-81-7	bis(2-Ethylhexyl)phthalate	280	U
117-84-0	Di-n-octylphthalate	280	U
205-99-2	Benzo[b]fluoranthene	280	U
207-08-9	Benzo[k]fluoranthene	280	U
50-32-8	Benzo[a]pyrene	280	U
193-39-5	Indeno[1,2,3-cd]pyrene	280	U
53-70-3	Dibenz[a,h]anthracene	280	U
191-24-2	Benzo[g,h,i]perylene	280	U

1B
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

SAMPLE NO.
CF-5

Lab Name: ERM-FAST Contract:

Project No.: 22329.00.01 Site: GIVAUDAN Location: CLIFTON, NJ Group: TCLSVOC

Matrix: (soil/water) SOIL Lab Sample ID: TR199

Sample wt/vol: 10.0 (g/mL) G Lab File ID: SEP172.D

Level: (low/med) LOW Date Received: 9/14/98

% Moisture: 7 decanted: (Y/N): N Date Extracted: 9/15/98

Concentrated Extract Volume: 1000 (uL) Date Analyzed: 9/16/98

Injection Volume: 1.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: 7

CAS No.	Compound	Concentration Units: (ug/L or ug/Kg) ug/Kg	Q
108-95-2	Phenol	270	U
111-44-4	bis(2-Chloroethyl)ether	270	U
95-57-8	2-Chlorophenol	270	U
541-73-1	1,3-Dichlorobenzene	270	U
106-46-7	1,4-Dichlorobenzene	270	U
95-50-1	1,2-Dichlorobenzene	270	U
108-60-1	bis(2-chloroisopropyl)ether	270	U
95-48-7	2-Methylphenol	270	U
621-64-7	N-Nitroso-di-n-propylamine	270	U
67-72-1	Hexachloroethane	270	U
106-44-5	4-Methylphenol	270	U
98-95-3	Nitrobenzene	270	U
78-59-1	Isophorone	270	U
88-75-5	2-Nitrophenol	270	U
105-67-9	2,4-Dimethylphenol	270	U
111-91-1	bis(2-Chloroethoxy)methane	270	U
120-83-2	2,4-Dichlorophenol	270	U
120-82-1	1,2,4-Trichlorobenzene	270	U
91-20-3	Naphthalene	270	U
87-68-3	Hexachlorobutadiene	270	U
106-47-8	4-Chloroaniline	270	U
59-50-7	4-Chloro-3-methylphenol	270	U
91-57-6	2-Methylnaphthalene	270	U
77-47-4	Hexachlorocyclopentadiene	270	U
88-06-2	2,4,6-Trichlorophenol	270	U
95-95-4	2,4,5-Trichlorophenol	270	U
91-58-7	2-Chloronaphthalene	270	U
88-74-4	2-Nitroaniline	270	U
131-11-3	Dimethylphthalate	270	U
208-96-8	Acenaphthylene	270	U
606-20-2	2,6-Dinitrotoluene	270	U
83-32-9	Acenaphthene	270	U
99-09-2	3-Nitroaniline	270	U

1B
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

SAMPLE NO.
CF-5

Lab Name: ERM-FAST Contract:

Project No.: 22329.00.01 Site: GIVAUDAN Location: CLIFTON, NJ Group: TCLSVOC

Matrix: (soil/water) SOIL Lab Sample ID: TR199

Sample wt/vol: 10.0 (g/mL) G Lab File ID: SEP172.D

Level: (low/med) LOW Date Received: 9/14/98

% Moisture: 7 decanted: (Y/N): N Date Extracted: 9/15/98

Concentrated Extract Volume: 1000 (uL) Date Analyzed: 9/16/98

Injection Volume: 1.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: 7

CAS No.	Compound	Concentration Units: (ug/L or ug/Kg) ug/Kg	Q
51-28-5	2,4-Dinitrophenol	5400	U
132-64-9	Dibenzofuran	270	U
100-02-7	4-Nitrophenol	270	U
121-14-2	2,4-Dinitrotoluene	270	U
84-66-2	Diethylphthalate	270	U
86-73-7	Fluorene	270	U
7005-72-3	4-Chlorophenyl-phenylether	270	U
100-01-6	4-Nitroaniline	270	U
534-52-1	4,6-Dinitro-2-methylphenol	540	U
86-30-6	N-Nitrosodiphenylamine	270	U
101-55-3	4-Bromophenyl-phenylether	270	U
118-74-1	Hexachlorobenzene	270	U
87-86-5	Pentachlorophenol	270	U
85-01-8	Phenanthrene	270	U
120-12-7	Anthracene	270	U
84-74-2	Di-n-butylphthalate	270	U
206-44-0	Fluoranthene	270	U
129-00-0	Pyrene	270	U
85-68-7	Butylbenzylphthalate	270	U
91-94-1	3,3'-Dichlorobenzidine	270	U
56-55-3	Benzo[a]anthracene	270	U
218-01-9	Chrysene	270	U
117-81-7	bis(2-Ethylhexyl)phthalate	270	U
117-84-0	Di-n-octylphthalate	270	U
205-99-2	Benzo[b]fluoranthene	270	U
207-08-9	Benzo[k]fluoranthene	270	U
50-32-8	Benzo[a]pyrene	270	U
193-39-5	Indeno[1,2,3-cd]pyrene	270	U
53-70-3	Dibenz[a,h]anthracene	270	U
191-24-2	Benzo[g,h,i]perylene	270	U

1B
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

SAMPLE NO.
CF-6

Lab Name: ERM-FAST Contract:

Project No.: 22329.00.01 Site: GIVAUDAN Location: CLIFTON, NJ Group: TCLSVOC

Matrix: (soil/water) SOIL Lab Sample ID: TR200

Sample wt/vol: 10.0 (g/mL) G Lab File ID: SEP173.D

Level: (low/med) LOW Date Received: 9/14/98

% Moisture: 9 decanted: (Y/N): N Date Extracted: 9/15/98

Concentrated Extract Volume: 1000 (uL) Date Analyzed: 9/16/98

Injection Volume: 1.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: 7

CAS No.	Compound	Concentration Units: (ug/L or ug/Kg) ug/Kg	Q
108-95-2	Phenol	270	U
111-44-4	bis(2-Chloroethyl)ether	270	U
95-57-8	2-Chlorophenol	270	U
541-73-1	1,3-Dichlorobenzene	270	U
106-46-7	1,4-Dichlorobenzene	270	U
95-50-1	1,2-Dichlorobenzene	270	U
108-60-1	bis(2-chloroisopropyl)ether	270	U
95-48-7	2-Methylphenol	270	U
621-64-7	N-Nitroso-di-n-propylamine	270	U
67-72-1	Hexachloroethane	270	U
106-44-5	4-Methylphenol	270	U
98-95-3	Nitrobenzene	270	U
78-59-1	Isophorone	270	U
88-75-5	2-Nitrophenol	270	U
105-67-9	2,4-Dimethylphenol	270	U
111-91-1	bis(2-Chloroethoxy)methane	270	U
120-83-2	2,4-Dichlorophenol	270	U
120-82-1	1,2,4-Trichlorobenzene	270	U
91-20-3	Naphthalene	270	U
87-68-3	Hexachlorobutadiene	270	U
106-47-8	4-Chloroaniline	270	U
59-50-7	4-Chloro-3-methylphenol	270	U
91-57-6	2-Methylnaphthalene	270	U
77-47-4	Hexachlorocyclopentadiene	270	U
88-06-2	2,4,6-Trichlorophenol	270	U
95-95-4	2,4,5-Trichlorophenol	270	U
91-58-7	2-Chloronaphthalene	270	U
88-74-4	2-Nitroaniline	270	U
131-11-3	Dimethylphthalate	270	U
208-96-8	Acenaphthylene	270	U
606-20-2	2,6-Dinitrotoluene	270	U
83-32-9	Acenaphthene	270	U
99-09-2	3-Nitroaniline	270	U

1B
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

SAMPLE NO.
CF-6

Lab Name: ERM-FAST Contract:

Project No.: 22329.00.01 Site: GIVAUDAN Location: CLIFTON, NJ Group: TCLSVOC

Matrix: (soil/water) SOIL Lab Sample ID: TR200

Sample wt/vol: 10.0 (g/mL) G Lab File ID: SEP173.D

Level: (low/med) LOW Date Received: 9/14/98

% Moisture: 9 decanted: (Y/N): N Date Extracted: 9/15/98

Concentrated Extract Volume: 1000 (uL) Date Analyzed: 9/16/98

Injection Volume: 1.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: 7

CAS No.	Compound	Concentration Units: (ug/L or ug/Kg) ug/Kg	Q
51-28-5	2,4-Dinitrophenol	5500	U
132-64-9	Dibenzofuran	270	U
100-02-7	4-Nitrophenol	270	U
121-14-2	2,4-Dinitrotoluene	270	U
84-66-2	Diethylphthalate	270	U
86-73-7	Fluorene	270	U
7005-72-3	4-Chlorophenyl-phenylether	270	U
100-01-6	4-Nitroaniline	270	U
534-52-1	4,6-Dinitro-2-methylphenol	550	U
86-30-6	N-Nitrosodiphenylamine	270	U
101-55-3	4-Bromophenyl-phenylether	270	U
118-74-1	Hexachlorobenzene	270	U
87-86-5	Pentachlorophenol	270	U
85-01-8	Phenanthrene	270	U
120-12-7	Anthracene	270	U
84-74-2	Di-n-butylphthalate	270	U
206-44-0	Fluoranthene	270	U
129-00-0	Pyrene	270	U
85-68-7	Butylbenzylphthalate	270	U
91-94-1	3,3'-Dichlorobenzidine	270	U
56-55-3	Benzo[a]anthracene	270	U
218-01-9	Chrysene	270	U
117-81-7	bis(2-Ethylhexyl)phthalate	270	U
117-84-0	Di-n-octylphthalate	270	U
205-99-2	Benzo[b]fluoranthene	270	U
207-08-9	Benzo[k]fluoranthene	270	U
50-32-8	Benzo[a]pyrene	270	U
193-39-5	Indeno[1,2,3-cd]pyrene	270	U
53-70-3	Dibenz[a,h]anthracene	270	U
191-24-2	Benzo[g,h,i]perylene	270	U

1B
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

SAMPLE NO.
CFA-1

Lab Name: ERM-FAST Contract:

Project No.: 22329.00.01 Site: GIVAUDAN Location: CLIFTON, NJ Group: TCLSVOC

Matrix: (soil/water) SOIL Lab Sample ID: TR202

Sample wt/vol: 10.0 (g/mL) G Lab File ID: SEP177.D

Level: (low/med) LOW Date Received: 9/15/98

% Moisture: 10 decanted: (Y/N): N Date Extracted: 9/16/98

Concentrated Extract Volume: 1000 (uL) Date Analyzed: 9/16/98

Injection Volume: 1.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: 7

CAS No.	Compound	Concentration Units: (ug/L or ug/Kg) ug/Kg	Q
108-95-2	Phenol	280	U
111-44-4	bis(2-Chloroethyl)ether	280	U
95-57-8	2-Chlorophenol	280	U
541-73-1	1,3-Dichlorobenzene	280	U
106-46-7	1,4-Dichlorobenzene	280	U
95-50-1	1,2-Dichlorobenzene	280	U
108-60-1	bis(2-chloroisopropyl)ether	280	U
95-48-7	2-Methylphenol	280	U
621-64-7	N-Nitroso-di-n-propylamine	280	U
67-72-1	Hexachloroethane	280	U
106-44-5	4-Methylphenol	280	U
98-95-3	Nitrobenzene	280	U
78-59-1	Isophorone	280	U
88-75-5	2-Nitrophenol	280	U
105-67-9	2,4-Dimethylphenol	280	U
111-91-1	bis(2-Chloroethoxy)methane	280	U
120-83-2	2,4-Dichlorophenol	280	U
120-82-1	1,2,4-Trichlorobenzene	280	U
91-20-3	Naphthalene	280	U
87-68-3	Hexachlorobutadiene	280	U
106-47-8	4-Chloroaniline	280	U
59-50-7	4-Chloro-3-methylphenol	280	U
91-57-6	2-Methylnaphthalene	280	U
77-47-4	Hexachlorocyclopentadiene	280	U
88-06-2	2,4,6-Trichlorophenol	280	U
95-95-4	2,4,5-Trichlorophenol	280	U
91-58-7	2-Chloronaphthalene	280	U
88-74-4	2-Nitroaniline	280	U
131-11-3	Dimethylphthalate	280	U
208-96-8	Acenaphthylene	280	U
606-20-2	2,6-Dinitrotoluene	280	U
83-32-9	Acenaphthene	280	U
99-09-2	3-Nitroaniline	280	U

1B
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

SAMPLE NO.
CFA-1

Lab Name: ERM-FAST Contract:

Project No.: 22329.00.01 Site: GIVAUDAN Location: CLIFTON, NJ Group: TCLSVOC

Matrix: (soil/water) SOIL Lab Sample ID: TR202

Sample wt/vol: 10.0 (g/mL) G Lab File ID: SEP177.D

Level: (low/med) LOW Date Received: 9/15/98

% Moisture: 10 decanted: (Y/N): N Date Extracted: 9/16/98

Concentrated Extract Volume: 1000 (uL) Date Analyzed: 9/16/98

Injection Volume: 1.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: 7

CAS No.	Compound	Concentration Units: (ug/L or ug/Kg) ug/Kg	Q
51-28-5	2,4-Dinitrophenol	5600	U
132-64-9	Dibenzofuran	280	U
100-02-7	4-Nitrophenol	280	U
121-14-2	2,4-Dinitrotoluene	280	U
84-66-2	Diethylphthalate	280	U
86-73-7	Fluorene	280	U
7005-72-3	4-Chlorophenyl-phenylether	280	U
100-01-6	4-Nitroaniline	280	U
534-52-1	4,6-Dinitro-2-methylphenol	560	U
86-30-6	N-Nitrosodiphenylamine	280	U
101-55-3	4-Bromophenyl-phenylether	280	U
118-74-1	Hexachlorobenzene	280	U
87-86-5	Pentachlorophenol	280	U
85-01-8	Phenanthrene	280	U
120-12-7	Anthracene	280	U
84-74-2	Di-n-butylphthalate	280	U
206-44-0	Fluoranthene	280	U
129-00-0	Pyrene	280	U
85-68-7	Butylbenzylphthalate	280	U
91-94-1	3,3'-Dichlorobenzidine	280	U
56-55-3	Benzo[a]anthracene	280	U
218-01-9	Chrysene	280	U
117-81-7	bis(2-Ethylhexyl)phthalate	280	U
117-84-0	Di-n-octylphthalate	280	U
205-99-2	Benzo[b]fluoranthene	280	U
207-08-9	Benzo[k]fluoranthene	280	U
50-32-8	Benzo[a]pyrene	280	U
193-39-5	Indeno[1,2,3-cd]pyrene	280	U
53-70-3	Dibenz[a,h]anthracene	280	U
191-24-2	Benzo[g,h,i]perylene	280	U

1B
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

SAMPLE NO.
FCF-1

Lab Name: ERM-FAST Contract:

Project No.: 22329.00.01 Site: GIVAUDAN Location: CLIFTON, NJ Group: TCLSVOC

Matrix: (soil/water) SOIL Lab Sample ID: TR230

Sample wt/vol: 10.0 (g/mL) G Lab File ID: SEP295.D

Level: (low/med) LOW Date Received: 9/23/98

% Moisture: 15 decanted: (Y/N): N Date Extracted: 9/24/98

Concentrated Extract Volume: 1000 (uL) Date Analyzed: 9/24/98

Injection Volume: 1.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: 7

CAS No.	Compound	Concentration Units: (ug/L or ug/Kg) ug/Kg	Q
108-95-2	Phenol	290	U
111-44-4	bis(2-Chloroethyl)ether	290	U
95-57-8	2-Chlorophenol	290	U
541-73-1	1,3-Dichlorobenzene	290	U
106-46-7	1,4-Dichlorobenzene	290	U
95-50-1	1,2-Dichlorobenzene	290	U
108-60-1	bis(2-chloroisopropyl)ether	290	U
95-48-7	2-Methylphenol	290	U
621-64-7	N-Nitroso-di-n-propylamine	290	U
67-72-1	Hexachloroethane	290	U
106-44-5	4-Methylphenol	290	U
98-95-3	Nitrobenzene	290	U
78-59-1	Isophorone	290	U
88-75-5	2-Nitrophenol	290	U
105-67-9	2,4-Dimethylphenol	290	U
111-91-1	bis(2-Chloroethoxy)methane	290	U
120-83-2	2,4-Dichlorophenol	290	U
120-82-1	1,2,4-Trichlorobenzene	290	U
91-20-3	Naphthalene	290	U
87-68-3	Hexachlorobutadiene	290	U
106-47-8	4-Chloroaniline	290	U
59-50-7	4-Chloro-3-methylphenol	290	U
91-57-6	2-Methylnaphthalene	290	U
77-47-4	Hexachlorocyclopentadiene	290	U
88-06-2	2,4,6-Trichlorophenol	290	U
95-95-4	2,4,5-Trichlorophenol	290	U
91-58-7	2-Chloronaphthalene	290	U
88-74-4	2-Nitroaniline	290	U
131-11-3	Dimethylphthalate	290	U
208-96-8	Acenaphthylene	290	U
606-20-2	2,6-Dinitrotoluene	290	U
83-32-9	Acenaphthene	290	U
99-09-2	3-Nitroaniline	290	U

1B
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

SAMPLE NO.
FCF-1

Lab Name: ERM-FAST Contract:

Project No.: 22329.00.01 Site: GIVAUDAN Location: CLIFTON, NJ Group: TCLSVOC

Matrix: (soil/water) SOIL Lab Sample ID: TR230

Sample wt/vol: 10.0 (g/mL) G Lab File ID: SEP295.D

Level: (low/med) LOW Date Received: 9/23/98

% Moisture: 15 decanted: (Y/N): N Date Extracted: 9/24/98

Concentrated Extract Volume: 1000 (uL) Date Analyzed: 9/24/98

Injection Volume: 1.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: 7

CAS No.	Compound	Concentration Units: (ug/L or ug/Kg) ug/Kg	Q
51-28-5	2,4-Dinitrophenol	5900	U
132-64-9	Dibenzofuran	290	U
100-02-7	4-Nitrophenol	290	U
121-14-2	2,4-Dinitrotoluene	290	U
84-66-2	Diethylphthalate	290	U
86-73-7	Fluorene	290	U
7005-72-3	4-Chlorophenyl-phenylether	290	U
100-01-6	4-Nitroaniline	290	U
534-52-1	4,6-Dinitro-2-methylphenol	590	U
86-30-6	N-Nitrosodiphenylamine	290	U
101-55-3	4-Bromophenyl-phenylether	290	U
118-74-1	Hexachlorobenzene	290	U
87-86-5	Pentachlorophenol	290	U
85-01-8	Phenanthrene	290	U
120-12-7	Anthracene	290	U
84-74-2	Di-n-butylphthalate	290	U
206-44-0	Fluoranthene	960	
129-00-0	Pyrene	960	
85-68-7	Butylbenzylphthalate	290	U
91-94-1	3,3'-Dichlorobenzidine	290	U
56-55-3	Benzo[a]anthracene	580	
218-01-9	Chrysene	600	
117-81-7	bis(2-Ethylhexyl)phthalate	290	U
117-84-0	Di-n-octylphthalate	290	U
205-99-2	Benzo[b]fluoranthene	740	
207-08-9	Benzo[k]fluoranthene	450	
50-32-8	Benzo[a]pyrene	690	
193-39-5	Indeno[1,2,3-cd]pyrene	440	
53-70-3	Dibenz[a,h]anthracene	290	U
191-24-2	Benzo[g,h,i]perylene	500	

1B
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

SAMPLE NO.
FCF-2

Lab Name: ERM-FAST Contract:

Project No.: 22329.00.01 Site: GIVAUDAN Location: CLIFTON, NJ Group: TCLSVOC

Matrix: (soil/water) SOIL Lab Sample ID: TR231

Sample wt/vol: 10.0 (g/mL) G Lab File ID: SEP292.D

Level: (low/med) LOW Date Received: 9/23/98

% Moisture: 17 decanted: (Y/N): N Date Extracted: 9/24/98

Concentrated Extract Volume: 1000 (uL) Date Analyzed: 9/24/98

Injection Volume: 1.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: 7

CAS No.	Compound	Concentration Units: (ug/L or ug/Kg) ug/Kg	Q
108-95-2	Phenol	300	U
111-44-4	bis(2-Chloroethyl)ether	300	U
95-57-8	2-Chlorophenol	300	U
541-73-1	1,3-Dichlorobenzene	300	U
106-46-7	1,4-Dichlorobenzene	300	U
95-50-1	1,2-Dichlorobenzene	300	U
108-60-1	bis(2-chloroisopropyl)ether	300	U
95-48-7	2-Methylphenol	300	U
621-64-7	N-Nitroso-di-n-propylamine	300	U
67-72-1	Hexachloroethane	300	U
106-44-5	4-Methylphenol	300	U
98-95-3	Nitrobenzene	300	U
78-59-1	Isophorone	300	U
88-75-5	2-Nitrophenol	300	U
105-67-9	2,4-Dimethylphenol	300	U
111-91-1	bis(2-Chloroethoxy)methane	300	U
120-83-2	2,4-Dichlorophenol	300	U
120-82-1	1,2,4-Trichlorobenzene	300	U
91-20-3	Naphthalene	300	U
87-68-3	Hexachlorobutadiene	300	U
106-47-8	4-Chloroaniline	300	U
59-50-7	4-Chloro-3-methylphenol	300	U
91-57-6	2-Methylnaphthalene	300	U
77-47-4	Hexachlorocyclopentadiene	300	U
88-06-2	2,4,6-Trichlorophenol	300	U
95-95-4	2,4,5-Trichlorophenol	300	U
91-58-7	2-Chloronaphthalene	300	U
88-74-4	2-Nitroaniline	300	U
131-11-3	Dimethylphthalate	300	U
208-96-8	Acenaphthylene	300	U
606-20-2	2,6-Dinitrotoluene	300	U
83-32-9	Acenaphthene	300	U
99-09-2	3-Nitroaniline	300	U

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SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

SAMPLE NO.
FCF-2

Lab Name: ERM-FAST Contract:

Project No.: 22329.00.01 Site: GIVAUDAN Location: CLIFTON, NJ Group: TCLSVOC

Matrix: (soil/water) SOIL Lab Sample ID: TR231

Sample wt/vol: 10.0 (g/mL) G Lab File ID: SEP292.D

Level: (low/med) LOW Date Received: 9/23/98

% Moisture: 17 decanted: (Y/N): N Date Extracted: 9/24/98

Concentrated Extract Volume: 1000 (uL) Date Analyzed: 9/24/98

Injection Volume: 1.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: 7

CAS No.	Compound	Concentration Units: (ug/L or ug/Kg) ug/Kg	Q
51-28-5	2,4-Dinitrophenol	6000	U
132-64-9	Dibenzofuran	300	U
100-02-7	4-Nitrophenol	300	U
121-14-2	2,4-Dinitrotoluene	300	U
84-66-2	Diethylphthalate	300	U
86-73-7	Fluorene	300	U
7005-72-3	4-Chlorophenyl-phenylether	300	U
100-01-6	4-Nitroaniline	300	U
534-52-1	4,6-Dinitro-2-methylphenol	600	U
86-30-6	N-Nitrosodiphenylamine	300	U
101-55-3	4-Bromophenyl-phenylether	300	U
118-74-1	Hexachlorobenzene	300	U
87-86-5	Pentachlorophenol	300	U
85-01-8	Phenanthrene	300	U
120-12-7	Anthracene	300	U
84-74-2	Di-n-butylphthalate	300	U
206-44-0	Fluoranthene	300	U
129-00-0	Pyrene	300	U
85-68-7	Butylbenzylphthalate	300	U
91-94-1	3,3'-Dichlorobenzidine	300	U
56-55-3	Benzo[a]anthracene	300	U
218-01-9	Chrysene	300	U
117-81-7	bis(2-Ethylhexyl)phthalate	300	U
117-84-0	Di-n-octylphthalate	300	U
205-99-2	Benzo[b]fluoranthene	300	U
207-08-9	Benzo[k]fluoranthene	300	U
50-32-8	Benzo[a]pyrene	300	U
193-39-5	Indeno[1,2,3-cd]pyrene	300	U
53-70-3	Dibenz[a,h]anthracene	300	U
191-24-2	Benzo[g,h,i]perylene	300	U

1B
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

SAMPLE NO.
FCF-3

Lab Name: ERM-FAST Contract:

Project No.: 22329.00.01 Site: GIVAUDAN Location: CLIFTON, NJ Group: TCLSVOC

Matrix: (soil/water) SOIL Lab Sample ID: TR232

Sample wt/vol: 10.0 (g/mL) G Lab File ID: SEP294.D

Level: (low/med) LOW Date Received: 9/23/98

% Moisture: 9 decanted: (Y/N): N Date Extracted: 9/24/98

Concentrated Extract Volume: 1000 (uL) Date Analyzed: 9/24/98

Injection Volume: 1.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: 7

Concentration Units: (ug/L or ug/Kg) ug/Kg

CAS No.	Compound		Q
108-95-2	Phenol	270	U
111-44-4	bis(2-Chloroethyl)ether	270	U
95-57-8	2-Chlorophenol	270	U
541-73-1	1,3-Dichlorobenzene	270	U
106-46-7	1,4-Dichlorobenzene	270	U
95-50-1	1,2-Dichlorobenzene	270	U
108-60-1	bis(2-chloroisopropyl)ether	270	U
95-48-7	2-Methylphenol	270	U
621-64-7	N-Nitroso-di-n-propylamine	270	U
67-72-1	Hexachloroethane	270	U
106-44-5	4-Methylphenol	270	U
98-95-3	Nitrobenzene	270	U
78-59-1	Isophorone	270	U
88-75-5	2-Nitrophenol	270	U
105-67-9	2,4-Dimethylphenol	270	U
111-91-1	bis(2-Chloroethoxy)methane	270	U
120-83-2	2,4-Dichlorophenol	270	U
120-82-1	1,2,4-Trichlorobenzene	270	U
91-20-3	Naphthalene	270	U
87-68-3	Hexachlorobutadiene	270	U
106-47-8	4-Chloroaniline	270	U
59-50-7	4-Chloro-3-methylphenol	270	U
91-57-6	2-Methylnaphthalene	270	U
77-47-4	Hexachlorocyclopentadiene	270	U
88-06-2	2,4,6-Trichlorophenol	270	U
95-95-4	2,4,5-Trichlorophenol	270	U
91-58-7	2-Chloronaphthalene	270	U
88-74-4	2-Nitroaniline	270	U
131-11-3	Dimethylphthalate	270	U
208-96-8	Acenaphthylene	270	U
606-20-2	2,6-Dinitrotoluene	270	U
83-32-9	Acenaphthene	270	U
99-09-2	3-Nitroaniline	270	U

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SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

SAMPLE NO.
FCF-3

Lab Name: ERM-FAST Contract:

Project No.: 22329.00.01 Site: GIVAUDAN Location: CLIFTON, NJ Group: TCLSVOC

Matrix: (soil/water) SOIL Lab Sample ID: TR232

Sample wt/vol: 10.0 (g/mL) G Lab File ID: SEP294.D

Level: (low/med) LOW Date Received: 9/23/98

% Moisture: 9 decanted: (Y/N): N Date Extracted: 9/24/98

Concentrated Extract Volume: 1000 (uL) Date Analyzed: 9/24/98

Injection Volume: 1.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: 7

CAS No.	Compound	Concentration Units: (ug/L or ug/Kg) ug/Kg	Q
51-28-5	2,4-Dinitrophenol	5500	U
132-64-9	Dibenzofuran	270	U
100-02-7	4-Nitrophenol	270	U
121-14-2	2,4-Dinitrotoluene	270	U
84-66-2	Diethylphthalate	270	U
86-73-7	Fluorene	270	U
7005-72-3	4-Chlorophenyl-phenylether	270	U
100-01-6	4-Nitroaniline	270	U
534-52-1	4,6-Dinitro-2-methylphenol	550	U
86-30-6	N-Nitrosodiphenylamine	270	U
101-55-3	4-Bromophenyl-phenylether	270	U
118-74-1	Hexachlorobenzene	270	U
87-86-5	Pentachlorophenol	270	U
85-01-8	Phenanthrene	340	
120-12-7	Anthracene	270	U
84-74-2	Di-n-butylphthalate	270	U
206-44-0	Fluoranthene	730	
129-00-0	Pyrene	600	
85-68-7	Butylbenzylphthalate	270	U
91-94-1	3,3'-Dichlorobenzidine	270	U
56-55-3	Benzo[a]anthracene	340	
218-01-9	Chrysene	380	
117-81-7	bis(2-Ethylhexyl)phthalate	270	U
117-84-0	Di-n-octylphthalate	270	U
205-99-2	Benzo[b]fluoranthene	330	
207-08-9	Benzo[k]fluoranthene	320	
50-32-8	Benzo[a]pyrene	350	
193-39-5	Indeno[1,2,3-cd]pyrene	260	J
53-70-3	Dibenz[a,h]anthracene	270	U
191-24-2	Benzo[g,h,i]perylene	260	J

1B
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

SAMPLE NO.
FCF-4

Lab Name: ERM-FAST Contract:

Project No.: 22329.00.01 Site: GIVAUDAN Location: CLIFTON, NJ Group: TCLSVOC

Matrix: (soil/water) SOIL Lab Sample ID: TR233

Sample wt/vol: 10.0 (g/mL) G Lab File ID: SEP298.D

Level: (low/med) LOW Date Received: 9/23/98

% Moisture: 7 decanted: (Y/N): N Date Extracted: 9/24/98

Concentrated Extract Volume: 3000 (uL) Date Analyzed: 9/24/98

Injection Volume: 1.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: 7

CAS No.	Compound	Concentration Units: (ug/L or ug/Kg) ug/Kg	Q
108-95-2	Phenol	810	U
111-44-4	bis(2-Chloroethyl)ether	810	U
95-57-8	2-Chlorophenol	810	U
541-73-1	1,3-Dichlorobenzene	810	U
106-46-7	1,4-Dichlorobenzene	810	U
95-50-1	1,2-Dichlorobenzene	810	U
108-60-1	bis(2-chloroisopropyl)ether	810	U
95-48-7	2-Methylphenol	810	U
621-64-7	N-Nitroso-di-n-propylamine	810	U
67-72-1	Hexachloroethane	810	U
106-44-5	4-Methylphenol	810	U
98-95-3	Nitrobenzene	810	U
78-59-1	Isophorone	810	U
88-75-5	2-Nitrophenol	810	U
105-67-9	2,4-Dimethylphenol	810	U
111-91-1	bis(2-Chloroethoxy)methane	810	U
120-83-2	2,4-Dichlorophenol	810	U
120-82-1	1,2,4-Trichlorobenzene	810	U
91-20-3	Naphthalene	810	U
87-68-3	Hexachlorobutadiene	810	U
106-47-8	4-Chloroaniline	810	U
59-50-7	4-Chloro-3-methylphenol	810	U
91-57-6	2-Methylnaphthalene	810	U
77-47-4	Hexachlorocyclopentadiene	810	U
88-06-2	2,4,6-Trichlorophenol	810	U
95-95-4	2,4,5-Trichlorophenol	810	U
91-58-7	2-Chloronaphthalene	810	U
88-74-4	2-Nitroaniline	810	U
131-11-3	Dimethylphthalate	810	U
208-96-8	Acenaphthylene	810	U
606-20-2	2,6-Dinitrotoluene	810	U
83-32-9	Acenaphthene	810	U
99-09-2	3-Nitroaniline	810	U

1B
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

SAMPLE NO.
FCF-4

Lab Name: ERM-FAST Contract:

Project No.: 22329.00.01 Site: GIVAUDAN Location: CLIFTON, NJ Group: TCLSVOC

Matrix: (soil/water) SOIL Lab Sample ID: TR233

Sample wt/vol: 10.0 (g/mL) G Lab File ID: SEP298.D

Level: (low/med) LOW Date Received: 9/23/98

% Moisture: 7 decanted: (Y/N): N Date Extracted: 9/24/98

Concentrated Extract Volume: 3000 (uL) Date Analyzed: 9/24/98

Injection Volume: 1.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: 7

CAS No.	Compound	Concentration Units: (ug/L or ug/Kg) ug/Kg	Q
51-28-5	2,4-Dinitrophenol	16000	U
132-64-9	Dibenzofuran	810	U
100-02-7	4-Nitrophenol	810	U
121-14-2	2,4-Dinitrotoluene	810	U
84-66-2	Diethylphthalate	810	U
86-73-7	Fluorene	810	U
7005-72-3	4-Chlorophenyl-phenylether	810	U
100-01-6	4-Nitroaniline	810	U
534-52-1	4,6-Dinitro-2-methylphenol	1600	U
86-30-6	N-Nitrosodiphenylamine	810	U
101-55-3	4-Bromophenyl-phenylether	810	U
118-74-1	Hexachlorobenzene	810	U
87-86-5	Pentachlorophenol	810	U
85-01-8	Phenanthrene	810	U
120-12-7	Anthracene	810	U
84-74-2	Di-n-butylphthalate	810	U
206-44-0	Fluoranthene	440	J
129-00-0	Pyrene	510	J
85-68-7	Butylbenzylphthalate	810	U
91-94-1	3,3'-Dichlorobenzidine	810	U
56-55-3	Benzo[a]anthracene	810	U
218-01-9	Chrysene	810	U
117-81-7	bis(2-Ethylhexyl)phthalate	810	U
117-84-0	Di-n-octylphthalate	810	U
205-99-2	Benzo[b]fluoranthene	810	U
207-08-9	Benzo[k]fluoranthene	810	U
50-32-8	Benzo[a]pyrene	810	U
193-39-5	Indeno[1,2,3-cd]pyrene	810	U
53-70-3	Dibenz[a,h]anthracene	810	U
191-24-2	Benzo[g,h,i]perylene	810	U

1B
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

SAMPLE NO.
FCF-5

Lab Name: ERM-FAST Contract:

Project No.: 22329.00.01 Site: GIVAUDAN Location: CLIFTON, NJ Group: TCLSVOC

Matrix: (soil/water) SOIL Lab Sample ID: TR234

Sample wt/vol: 10.0 (g/mL) G Lab File ID: SEP296.D

Level: (low/med) LOW Date Received: 9/23/98

% Moisture: 7 decanted: (Y/N): N Date Extracted: 9/24/98

Concentrated Extract Volume: 1000 (uL) Date Analyzed: 9/24/98

Injection Volume: 1.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: 7

CAS No.	Compound	Concentration Units: (ug/L or ug/Kg) ug/Kg	Q
108-95-2	Phenol	270	U
111-44-4	bis(2-Chloroethyl)ether	270	U
95-57-8	2-Chlorophenol	270	U
541-73-1	1,3-Dichlorobenzene	270	U
106-46-7	1,4-Dichlorobenzene	270	U
95-50-1	1,2-Dichlorobenzene	270	U
108-60-1	bis(2-chloroisopropyl)ether	270	U
95-48-7	2-Methylphenol	270	U
621-64-7	N-Nitroso-di-n-propylamine	270	U
67-72-1	Hexachloroethane	270	U
106-44-5	4-Methylphenol	270	U
98-95-3	Nitrobenzene	270	U
78-59-1	Isophorone	270	U
88-75-5	2-Nitrophenol	270	U
105-67-9	2,4-Dimethylphenol	270	U
111-91-1	bis(2-Chloroethoxy)methane	270	U
120-83-2	2,4-Dichlorophenol	270	U
120-82-1	1,2,4-Trichlorobenzene	270	U
91-20-3	Naphthalene	270	U
87-68-3	Hexachlorobutadiene	270	U
106-47-8	4-Chloroaniline	270	U
59-50-7	4-Chloro-3-methylphenol	270	U
91-57-6	2-Methylnaphthalene	270	U
77-47-4	Hexachlorocyclopentadiene	270	U
88-06-2	2,4,6-Trichlorophenol	270	U
95-95-4	2,4,5-Trichlorophenol	270	U
91-58-7	2-Chloronaphthalene	270	U
88-74-4	2-Nitroaniline	270	U
131-11-3	Dimethylphthalate	270	U
208-96-8	Acenaphthylene	270	U
606-20-2	2,6-Dinitrotoluene	270	U
83-32-9	Acenaphthene	270	U
99-09-2	3-Nitroaniline	270	U

1B
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

SAMPLE NO.
FCF-5

Lab Name: ERM-FAST Contract:

Project No.: 22329.00.01 Site: GIVAUDAN Location: CLIFTON, NJ Group: TCLSVOC

Matrix: (soil/water) SOIL Lab Sample ID: TR234

Sample wt/vol: 10.0 (g/mL) G Lab File ID: SEP296.D

Level: (low/med) LOW Date Received: 9/23/98

% Moisture: 7 decanted: (Y/N): N Date Extracted: 9/24/98

Concentrated Extract Volume: 1000 (uL) Date Analyzed: 9/24/98

Injection Volume: 1.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: 7

CAS No.	Compound	Concentration Units: (ug/L or ug/Kg) ug/Kg	Q
51-28-5	2,4-Dinitrophenol	5400	U
132-64-9	Dibenzofuran	270	U
100-02-7	4-Nitrophenol	270	U
121-14-2	2,4-Dinitrotoluene	270	U
84-66-2	Diethylphthalate	270	U
86-73-7	Fluorene	270	U
7005-72-3	4-Chlorophenyl-phenylether	270	U
100-01-6	4-Nitroaniline	270	U
534-52-1	4,6-Dinitro-2-methylphenol	540	U
86-30-6	N-Nitrosodiphenylamine	270	U
101-55-3	4-Bromophenyl-phenylether	270	U
118-74-1	Hexachlorobenzene	270	U
87-86-5	Pentachlorophenol	270	U
85-01-8	Phenanthrene	270	U
120-12-7	Anthracene	270	U
84-74-2	Di-n-butylphthalate	270	U
206-44-0	Fluoranthene	480	
129-00-0	Pyrene	450	
85-68-7	Butylbenzylphthalate	270	U
91-94-1	3,3'-Dichlorobenzidine	270	U
56-55-3	Benzo[a]anthracene	280	
218-01-9	Chrysene	290	
117-81-7	bis(2-Ethylhexyl)phthalate	190	J
117-84-0	Di-n-octylphthalate	270	U
205-99-2	Benzo[b]fluoranthene	370	
207-08-9	Benzo[k]fluoranthene	210	J
50-32-8	Benzo[a]pyrene	310	
193-39-5	Indeno[1,2,3-cd]pyrene	190	J
53-70-3	Dibenz[a,h]anthracene	270	U
191-24-2	Benzo[g,h,i]perylene	200	J

1B
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

SAMPLE NO.
FCF-6

Lab Name: ERM-FAST Contract:

Project No.: 22329.00.01 Site: GIVAUDAN Location: CLIFTON, NJ Group: TCLSVOC

Matrix: (soil/water) SOIL Lab Sample ID: TR235

Sample wt/vol: 10.0 (g/mL) G Lab File ID: SEP297.D

Level: (low/med) LOW Date Received: 9/23/98

% Moisture: 6 decanted: (Y/N): N Date Extracted: 9/24/98

Concentrated Extract Volume: 1000 (uL) Date Analyzed: 9/24/98

Injection Volume: 1.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: 7

CAS No.	Compound	Concentration Units: (ug/L or ug/Kg) ug/Kg	Q
108-95-2	Phenol	270	U
111-44-4	bis(2-Chloroethyl)ether	270	U
95-57-8	2-Chlorophenol	270	U
541-73-1	1,3-Dichlorobenzene	270	U
106-46-7	1,4-Dichlorobenzene	270	U
95-50-1	1,2-Dichlorobenzene	270	U
108-60-1	bis(2-chloroisopropyl)ether	270	U
95-48-7	2-Methylphenol	270	U
621-64-7	N-Nitroso-di-n-propylamine	270	U
67-72-1	Hexachloroethane	270	U
106-44-5	4-Methylphenol	270	U
98-95-3	Nitrobenzene	270	U
78-59-1	Isophorone	270	U
88-75-5	2-Nitrophenol	270	U
105-67-9	2,4-Dimethylphenol	270	U
111-91-1	bis(2-Chloroethoxy)methane	270	U
120-83-2	2,4-Dichlorophenol	270	U
120-82-1	1,2,4-Trichlorobenzene	270	U
91-20-3	Naphthalene	270	U
87-68-3	Hexachlorobutadiene	270	U
106-47-8	4-Chloroaniline	270	U
59-50-7	4-Chloro-3-methylphenol	270	U
91-57-6	2-Methylnaphthalene	270	U
77-47-4	Hexachlorocyclopentadiene	270	U
88-06-2	2,4,6-Trichlorophenol	270	U
95-95-4	2,4,5-Trichlorophenol	270	U
91-58-7	2-Chloronaphthalene	270	U
88-74-4	2-Nitroaniline	270	U
131-11-3	Dimethylphthalate	270	U
208-96-8	Acenaphthylene	270	U
606-20-2	2,6-Dinitrotoluene	270	U
83-32-9	Acenaphthene	270	U
99-09-2	3-Nitroaniline	270	U

1B
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

SAMPLE NO.
FCF-6

Lab Name: ERM-FAST Contract:

Project No.: 22329.00.01 Site: GIVAUDAN Location: CLIFTON, NJ Group: TCLSVOC

Matrix: (soil/water) SOIL Lab Sample ID: TR235

Sample wt/vol: 10.0 (g/mL) G Lab File ID: SEP297.D

Level: (low/med) LOW Date Received: 9/23/98

% Moisture: 6 decanted: (Y/N): N Date Extracted: 9/24/98

Concentrated Extract Volume: 1000 (uL) Date Analyzed: 9/24/98

Injection Volume: 1.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: 7

CAS No.	Compound	Concentration Units: (ug/L or ug/Kg) ug/Kg	Q
51-28-5	2,4-Dinitrophenol	5300	U
132-64-9	Dibenzofuran	270	U
100-02-7	4-Nitrophenol	270	U
121-14-2	2,4-Dinitrotoluene	270	U
84-66-2	Diethylphthalate	270	U
86-73-7	Fluorene	270	U
7005-72-3	4-Chlorophenyl-phenylether	270	U
100-01-6	4-Nitroaniline	270	U
534-52-1	4,6-Dinitro-2-methylphenol	530	U
86-30-6	N-Nitrosodiphenylamine	270	U
101-55-3	4-Bromophenyl-phenylether	270	U
118-74-1	Hexachlorobenzene	270	U
87-86-5	Pentachlorophenol	270	U
85-01-8	Phenanthrene	140	J
120-12-7	Anthracene	270	U
84-74-2	Di-n-butylphthalate	270	U
206-44-0	Fluoranthene	480	
129-00-0	Pyrene	470	
85-68-7	Butylbenzylphthalate	270	U
91-94-1	3,3'-Dichlorobenzidine	270	U
56-55-3	Benzo[a]anthracene	250	J
218-01-9	Chrysene	290	
117-81-7	bis(2-Ethylhexyl)phthalate	880	
117-84-0	Di-n-octylphthalate	270	U
205-99-2	Benzo[b]fluoranthene	340	
207-08-9	Benzo[k]fluoranthene	230	J
50-32-8	Benzo[a]pyrene	280	
193-39-5	Indeno[1,2,3-cd]pyrene	180	J
53-70-3	Dibenz[a,h]anthracene	270	U
191-24-2	Benzo[g,h,i]perylene	200	J

1B

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

NECF-1

Lab Name: ERM-FAST Contract: GIVAUDAN

Lab Code: Case No.: 22329.00. SAS No.: SDG No.:

Matrix: (soil/water) SOIL Lab Sample ID: TR 670

Sample wt/vol: 10 (g/ml) G Lab File ID: RNOV070.D

Level: (low/med) LOW Date Received: 10/26/98

% Moisture: 11 decanted:(Y/N) N Date Extracted: 10/27/98

Concentrated Extract Volume: 1000 (uL) Date Analyzed: 11/12/98

Injection Volume: 1.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: 7

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
108-95-2	Phenol	280	U
111-44-4	bis(2-Chloroethyl)ether	280	U
95-57-8	2-Chlorophenol	280	U
541-73-1	1,3-Dichlorobenzene	280	U
106-46-7	1,4-Dichlorobenzene	280	U
95-50-1	1,2-Dichlorobenzene	280	U
108-60-1	bis(2-chloroisopropyl)ether	280	U
95-48-7	2-Methylphenol	280	U
621-64-7	N-Nitroso-di-n-propylamine	280	U
67-72-1	Hexachloroethane	280	U
106-44-5	4-Methylphenol	280	U
98-95-3	Nitrobenzene	280	U
78-59-1	Isophorone	280	U
88-75-5	2-Nitrophenol	280	U
105-67-9	2,4-Dimethylphenol	280	U
111-91-1	bis(2-Chloroethoxy)methane	280	U
120-83-2	2,4-Dichlorophenol	280	U
120-82-1	1,2,4-Trichlorobenzene	280	U
91-20-3	Naphthalene	280	U
87-68-3	Hexachlorobutadiene	280	U
106-47-8	4-Chloroaniline	280	U
59-50-7	4-Chloro-3-methylphenol	280	U
91-57-6	2-Methylnaphthalene	280	U
77-47-4	Hexachlorocyclopentadiene	280	U
88-06-2	2,4,6-Trichlorophenol	280	U
95-95-4	2,4,5-Trichlorophenol	280	U
91-58-7	2-Chloronaphthalene	280	U
88-74-4	2-Nitroaniline	280	U
131-11-3	Dimethylphthalate	280	U
208-96-8	Acenaphthylene	280	U
606-20-2	2,6-Dinitrotoluene	280	U
83-32-9	Acenaphthene	280	U
99-09-2	3-Nitroaniline	280	U
51-28-5	2,4-Dinitrophenol	5600	U
132-64-9	Dibenzofuran	280	U
100-02-7	4-Nitrophenol	280	U
121-14-2	2,4-Dinitrotoluene	280	U

1C

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

NECF-1

Lab Name: ERM-FAST Contract: GIVAUDAN

Lab Code: Case No.: 22329.00. SAS No.: SDG No.:

Matrix: (soil/water) SOIL Lab Sample ID: TR 670

Sample wt/vol: 10 (g/ml) G Lab File ID: RNOV070.D

Level: (low/med) LOW Date Received: 10/26/98

% Moisture: 11 decanted:(Y/N) N Date Extracted: 10/27/98

Concentrated Extract Volume: 1000 (uL) Date Analyzed: 11/12/98

Injection Volume: 1.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: 7

CONCENTRATION UNITS:

CAS NO.	COMPOUND	(ug/L or ug/Kg) UG/KG	Q
84-66-2	Diethylphthalate	280	U
86-73-7	Fluorene	280	U
7005-72-3	4-Chlorophenyl-phenylether	280	U
100-01-6	4-Nitroaniline	280	U
534-52-1	4,6-Dinitro-2-methylphenol	560	U
86-30-6	N-Nitrosodiphenylamine	280	U
101-55-3	4-Bromophenyl-phenylether	280	U
118-74-1	Hexachlorobenzene	280	U
87-86-5	Pentachlorophenol	280	U
85-01-8	Phenanthrene	280	U
120-12-7	Anthracene	280	U
84-74-2	Di-n-butylphthalate	280	U
206-44-0	Fluoranthene	280	U
129-00-0	Pyrene	280	U
85-68-7	Butylbenzylphthalate	280	U
91-94-1	3,3'-Dichlorobenzidine	280	U
56-55-3	Benzo[a]anthracene	280	U
218-01-9	Chrysene	280	U
117-81-7	bis(2-Ethylhexyl)phthalate	280	U
117-84-0	Di-n-octylphthalate	280	U
205-99-2	Benzo[b]fluoranthene	280	U
207-08-9	Benzo[k]fluoranthene	280	U
50-32-8	Benzo[a]pyrene	280	U
193-39-5	Indeno[1,2,3-cd]pyrene	280	U
53-70-3	Dibenz[a,h]anthracene	280	U
191-24-2	Benzo[g,h,i]perylene	280	U

1B

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

NECF-2

Lab Name: ERM-FAST Contract: GIVAUDAN

Lab Code: Case No.: 22329.00. SAS No.: SDG No.:

Matrix: (soil/water) SOIL Lab Sample ID: TR 741

Sample wt/vol: 10 (g/ml) G Lab File ID: RNOV038.D

Level: (low/med) LOW Date Received: 11/03/98

% Moisture: 5 decanted:(Y/N) N Date Extracted: 11/03/98

Concentrated Extract Volume: 1000 (uL) Date Analyzed: 11/05/98

Injection Volume: 1.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: 7

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

CAS NO.	COMPOUND		Q
108-95-2	Phenol	260	U
111-44-4	bis(2-Chloroethyl)ether	260	U
95-57-8	2-Chlorophenol	260	U
541-73-1	1,3-Dichlorobenzene	260	U
106-46-7	1,4-Dichlorobenzene	260	U
95-50-1	1,2-Dichlorobenzene	260	U
108-60-1	bis(2-chloroisopropyl)ether	260	U
95-48-7	2-Methylphenol	260	U
621-64-7	N-Nitroso-di-n-propylamine	260	U
67-72-1	Hexachloroethane	260	U
106-44-5	4-Methylphenol	260	U
98-95-3	Nitrobenzene	260	U
78-59-1	Isophorone	260	U
88-75-5	2-Nitrophenol	260	U
105-67-9	2,4-Dimethylphenol	260	U
111-91-1	bis(2-Chloroethoxy)methane	260	U
120-83-2	2,4-Dichlorophenol	260	U
120-82-1	1,2,4-Trichlorobenzene	260	U
91-20-3	Naphthalene	260	U
87-68-3	Hexachlorobutadiene	260	U
106-47-8	4-Chloroaniline	260	U
59-50-7	4-Chloro-3-methylphenol	260	U
91-57-6	2-Methylnaphthalene	260	U
77-47-4	Hexachlorocyclopentadiene	260	U
88-06-2	2,4,6-Trichlorophenol	260	U
95-95-4	2,4,5-Trichlorophenol	260	U
91-58-7	2-Chloronaphthalene	260	U
88-74-4	2-Nitroaniline	260	U
131-11-3	Dimethylphthalate	260	U
208-96-8	Acenaphthylene	260	U
606-20-2	2,6-Dinitrotoluene	260	U
83-32-9	Acenaphthene	260	U
99-09-2	3-Nitroaniline	260	U
51-28-5	2,4-Dinitrophenol	5300	U
132-64-9	Dibenzofuran	260	U
100-02-7	4-Nitrophenol	260	U
121-14-2	2,4-Dinitrotoluene	260	U

1C

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

NECF-2

Lab Name: ERM-FAST Contract: GIVAUDAN

Lab Code: Case No.: 22329.00. SAS No.: SDG No.:

Matrix: (soil/water) SOIL Lab Sample ID: TR 741

Sample wt/vol: 10 (g/ml) G Lab File ID: RNOV038.D

Level: (low/med) LOW Date Received: 11/03/98

% Moisture: 5 decanted:(Y/N) N Date Extracted: 11/03/98

Concentrated Extract Volume: 1000 (uL) Date Analyzed: 11/05/98

Injection Volume: 1.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: 7

CONCENTRATION UNITS:

CAS NO.	COMPOUND	(ug/L or ug/Kg) UG/KG	Q
84-66-2	Diethylphthalate	260	U
86-73-7	Fluorene	260	U
7005-72-3	4-Chlorophenyl-phenylether	260	U
100-01-6	4-Nitroaniline	260	U
534-52-1	4,6-Dinitro-2-methylphenol	530	U
86-30-6	N-Nitrosodiphenylamine	260	U
101-55-3	4-Bromophenyl-phenylether	260	U
118-74-1	Hexachlorobenzene	260	U
87-86-5	Pentachlorophenol	260	U
85-01-8	Phenanthrene	260	U
120-12-7	Anthracene	260	U
84-74-2	Di-n-butylphthalate	260	U
206-44-0	Fluoranthene	260	U
129-00-0	Pyrene	260	U
85-68-7	Butylbenzylphthalate	260	U
91-94-1	3,3'-Dichlorobenzidine	260	U
56-55-3	Benzo[a]anthracene	260	U
218-01-9	Chrysene	260	U
117-81-7	bis(2-Ethylhexyl)phthalate	260	U
117-84-0	Di-n-octylphthalate	260	U
205-99-2	Benzo[b]fluoranthene	260	U
207-08-9	Benzo[k]fluoranthene	260	U
50-32-8	Benzo[a]pyrene	260	U
193-39-5	Indeno[1,2,3-cd]pyrene	260	U
53-70-3	Dibenz[a,h]anthracene	260	U
191-24-2	Benzo[g,h,i]perylene	260	U

1B

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

NECF-3

Lab Name: ERM-FAST Contract: GIVAUDAN

Lab Code: Case No.: 22329.00. SAS No.: SDG No.:

Matrix: (soil/water) SOIL Lab Sample ID: TR 742

Sample wt/vol: 10 (g/ml) G Lab File ID: RNOV039.D

Level: (low/med) LOW Date Received: 11/03/98

% Moisture: 6 decanted:(Y/N) N Date Extracted: 11/03/98

Concentrated Extract Volume: 1000 (uL) Date Analyzed: 11/05/98

Injection Volume: 1.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: 7

CONCENTRATION UNITS:

CAS NO.	COMPOUND	(ug/L or ug/Kg) UG/KG	Q
108-95-2	Phenol	270	U
111-44-4	bis(2-Chloroethyl)ether	270	U
95-57-8	2-Chlorophenol	270	U
541-73-1	1,3-Dichlorobenzene	270	U
106-46-7	1,4-Dichlorobenzene	270	U
95-50-1	1,2-Dichlorobenzene	270	U
108-60-1	bis(2-chloroisopropyl)ether	270	U
95-48-7	2-Methylphenol	270	U
621-64-7	N-Nitroso-di-n-propylamine	270	U
67-72-1	Hexachloroethane	270	U
106-44-5	4-Methylphenol	270	U
98-95-3	Nitrobenzene	270	U
78-59-1	Isophorone	270	U
88-75-5	2-Nitrophenol	270	U
105-67-9	2,4-Dimethylphenol	270	U
111-91-1	bis(2-Chloroethoxy)methane	270	U
120-83-2	2,4-Dichlorophenol	270	U
120-82-1	1,2,4-Trichlorobenzene	270	U
91-20-3	Naphthalene	270	U
87-68-3	Hexachlorobutadiene	270	U
106-47-8	4-Chloroaniline	270	U
59-50-7	4-Chloro-3-methylphenol	270	U
91-57-6	2-Methylnaphthalene	270	U
77-47-4	Hexachlorocyclopentadiene	270	U
88-06-2	2,4,6-Trichlorophenol	270	U
95-95-4	2,4,5-Trichlorophenol	270	U
91-58-7	2-Chloronaphthalene	270	U
88-74-4	2-Nitroaniline	270	U
131-11-3	Dimethylphthalate	270	U
208-96-8	Acenaphthylene	270	U
606-20-2	2,6-Dinitrotoluene	270	U
83-32-9	Acenaphthene	270	U
99-09-2	3-Nitroaniline	270	U
51-28-5	2,4-Dinitrophenol	5300	U
132-64-9	Dibenzofuran	270	U
100-02-7	4-Nitrophenol	270	U
121-14-2	2,4-Dinitrotoluene	270	U

1C

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

NECF-3

Lab Name: ERM-FAST Contract: GIVAUDAN

Lab Code: Case No.: 22329.00. SAS No.: SDG No.:

Matrix: (soil/water) SOIL Lab Sample ID: TR 742

Sample wt/vol: 10 (g/ml) G Lab File ID: RNOV039.D

Level: (low/med) LOW Date Received: 11/03/98

% Moisture: 6 decanted:(Y/N) N Date Extracted: 11/03/98

Concentrated Extract Volume: 1000 (uL) Date Analyzed: 11/05/98

Injection Volume: 1.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: 7

CONCENTRATION UNITS:

CAS NO.	COMPOUND	(ug/L or ug/Kg) UG/KG	Q
84-66-2	Diethylphthalate	270	U
86-73-7	Fluorene	270	U
7005-72-3	4-Chlorophenyl-phenylether	270	U
100-01-6	4-Nitroaniline	270	U
534-52-1	4,6-Dinitro-2-methylphenol	530	U
86-30-6	N-Nitrosodiphenylamine	270	U
101-55-3	4-Bromophenyl-phenylether	270	U
118-74-1	Hexachlorobenzene	270	U
87-86-5	Pentachlorophenol	270	U
85-01-8	Phenanthrene	270	U
120-12-7	Anthracene	270	U
84-74-2	Di-n-butylphthalate	270	U
206-44-0	Fluoranthene	270	U
129-00-0	Pyrene	270	U
85-68-7	Butylbenzylphthalate	270	U
91-94-1	3,3'-Dichlorobenzidine	270	U
56-55-3	Benzo[a]anthracene	270	U
218-01-9	Chrysene	270	U
117-81-7	bis(2-Ethylhexyl)phthalate	270	U
117-84-0	Di-n-octylphthalate	270	U
205-99-2	Benzo[b]fluoranthene	270	U
207-08-9	Benzo[k]fluoranthene	270	U
50-32-8	Benzo[a]pyrene	270	U
193-39-5	Indeno[1,2,3-cd]pyrene	270	U
53-70-3	Dibenz[a,h]anthracene	270	U
191-24-2	Benzo[g,h,i]perylene	270	U

1B

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

NECF-4

Lab Name: ERM-FAST Contract: GIVAUDAN

Lab Code: Case No.: 22329.00. SAS No.: SDG No.:

Matrix: (soil/water) SOIL Lab Sample ID: TR 743

Sample wt/vol: 10 (g/ml) G Lab File ID: RNOV040.D

Level: (low/med) LOW Date Received: 11/03/98

% Moisture: 5 decanted:(Y/N) N Date Extracted: 11/03/98

Concentrated Extract Volume: 1000 (uL) Date Analyzed: 11/05/98

Injection Volume: 1.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: 7

CONCENTRATION UNITS:

CAS NO.	COMPOUND	(ug/L or ug/Kg) UG/KG	Q
108-95-2	Phenol	260	U
111-44-4	bis(2-Chloroethyl)ether	260	U
95-57-8	2-Chlorophenol	260	U
541-73-1	1,3-Dichlorobenzene	260	U
106-46-7	1,4-Dichlorobenzene	260	U
95-50-1	1,2-Dichlorobenzene	260	U
108-60-1	bis(2-chloroisopropyl)ether	260	U
95-48-7	2-Methylphenol	260	U
621-64-7	N-Nitroso-di-n-propylamine	260	U
67-72-1	Hexachloroethane	260	U
106-44-5	4-Methylphenol	260	U
98-95-3	Nitrobenzene	260	U
78-59-1	Isophorone	260	U
88-75-5	2-Nitrophenol	260	U
105-67-9	2,4-Dimethylphenol	260	U
111-91-1	bis(2-Chloroethoxy)methane	260	U
120-83-2	2,4-Dichlorophenol	260	U
120-82-1	1,2,4-Trichlorobenzene	260	U
91-20-3	Naphthalene	260	U
87-68-3	Hexachlorobutadiene	260	U
106-47-8	4-Chloroaniline	260	U
59-50-7	4-Chloro-3-methylphenol	260	U
91-57-6	2-Methylnaphthalene	260	U
77-47-4	Hexachlorocyclopentadiene	260	U
88-06-2	2,4,6-Trichlorophenol	260	U
95-95-4	2,4,5-Trichlorophenol	260	U
91-58-7	2-Chloronaphthalene	260	U
88-74-4	2-Nitroaniline	260	U
131-11-3	Dimethylphthalate	260	U
208-96-8	Acenaphthylene	260	U
606-20-2	2,6-Dinitrotoluene	260	U
83-32-9	Acenaphthene	260	U
99-09-2	3-Nitroaniline	260	U
51-28-5	2,4-Dinitrophenol	5300	U
132-64-9	Dibenzofuran	260	U
100-02-7	4-Nitrophenol	260	U
121-14-2	2,4-Dinitrotoluene	260	U

1C

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

NECF-4

Lab Name: ERM-FAST Contract: GIVAUDAN

Lab Code: Case No.: 22329.00. SAS No.: SDG No.:

Matrix: (soil/water) SOIL Lab Sample ID: TR 743

Sample wt/vol: 10 (g/ml) G Lab File ID: RNOV040.D

Level: (low/med) LOW Date Received: 11/03/98

% Moisture: 5 decanted:(Y/N) N Date Extracted: 11/03/98

Concentrated Extract Volume: 1000 (uL) Date Analyzed: 11/05/98

Injection Volume: 1.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: 7

CONCENTRATION UNITS:

CAS NO.	COMPOUND	(ug/L or ug/Kg) UG/KG	Q
84-66-2	Diethylphthalate	260	U
86-73-7	Fluorene	260	U
7005-72-3	4-Chlorophenyl-phenylether	260	U
100-01-6	4-Nitroaniline	260	U
534-52-1	4,6-Dinitro-2-methylphenol	530	U
86-30-6	N-Nitrosodiphenylamine	260	U
101-55-3	4-Bromophenyl-phenylether	260	U
118-74-1	Hexachlorobenzene	260	U
87-86-5	Pentachlorophenol	260	U
85-01-8	Phenanthrene	260	U
120-12-7	Anthracene	260	U
84-74-2	Di-n-butylphthalate	260	U
206-44-0	Fluoranthene	260	U
129-00-0	Pyrene	260	U
85-68-7	Butylbenzylphthalate	260	U
91-94-1	3,3'-Dichlorobenzidine	260	U
56-55-3	Benzo[a]anthracene	260	U
218-01-9	Chrysene	260	U
117-81-7	bis(2-Ethylhexyl)phthalate	260	U
117-84-0	Di-n-octylphthalate	260	U
205-99-2	Benzo[b]fluoranthene	260	U
207-08-9	Benzo[k]fluoranthene	260	U
50-32-8	Benzo[a]pyrene	260	U
193-39-5	Indeno[1,2,3-cd]pyrene	260	U
53-70-3	Dibenz[a,h]anthracene	260	U
191-24-2	Benzo[g,h,i]perylene	260	U

1B
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

SAMPLE NO.
NECF-5

Lab Name: ERM-FAST Contract:

Project No.: 22329.00.01 Site: GIVAUDAN Location: CLIFTON, NJ Group: TCLSVOC

Matrix: (soil/water) SOIL Lab Sample ID: TR744

Sample wt/vol: 10.0 (g/mL) G Lab File ID: NOV042.D

Level: (low/med) LOW Date Received: 11/3/98

% Moisture: 4 decanted: (Y/N): N Date Extracted: 11/3/98

Concentrated Extract Volume: 1000 (uL) Date Analyzed: 11/9/98

Injection Volume: 1.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: 7

CAS No.	Compound	Concentration Units: (ug/L or ug/Kg) ug/Kg	Q
108-95-2	Phenol	260	U
111-44-4	bis(2-Chloroethyl)ether	260	U
95-57-8	2-Chlorophenol	260	U
541-73-1	1,3-Dichlorobenzene	260	U
106-46-7	1,4-Dichlorobenzene	260	U
95-50-1	1,2-Dichlorobenzene	260	U
108-60-1	bis(2-chloroisopropyl)ether	260	U
95-48-7	2-Methylphenol	260	U
621-64-7	N-Nitroso-di-n-propylamine	260	U
67-72-1	Hexachloroethane	260	U
106-44-5	4-Methylphenol	260	U
98-95-3	Nitrobenzene	260	U
78-59-1	Isophorone	260	U
88-75-5	2-Nitrophenol	260	U
105-67-9	2,4-Dimethylphenol	260	U
111-91-1	bis(2-Chloroethoxy)methane	260	U
120-83-2	2,4-Dichlorophenol	260	U
120-82-1	1,2,4-Trichlorobenzene	260	U
91-20-3	Naphthalene	260	U
87-68-3	Hexachlorobutadiene	260	U
106-47-8	4-Chloroaniline	260	U
59-50-7	4-Chloro-3-methylphenol	260	U
91-57-6	2-Methylnaphthalene	260	U
77-47-4	Hexachlorocyclopentadiene	260	U
88-06-2	2,4,6-Trichlorophenol	260	U
95-95-4	2,4,5-Trichlorophenol	260	U
91-58-7	2-Chloronaphthalene	260	U
88-74-4	2-Nitroaniline	260	U
131-11-3	Dimethylphthalate	260	U
208-96-8	Acenaphthylene	260	U
606-20-2	2,6-Dinitrotoluene	260	U
83-32-9	Acenaphthene	260	U
99-09-2	3-Nitroaniline	260	U

1B
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

SAMPLE NO.
NECF-5

Lab Name: ERM-FAST Contract:

Project No.: 22329.00.01 Site: GIVAUDAN Location: CLIFTON, NJ Group: TCLSVOC

Matrix: (soil/water) SOIL Lab Sample ID: TR744

Sample wt/vol: 10.0 (g/mL) G Lab File ID: NOV042.D

Level: (low/med) LOW Date Received: 11/3/98

% Moisture: 4 decanted: (Y/N): N Date Extracted: 11/3/98

Concentrated Extract Volume: 1000 (uL) Date Analyzed: 11/9/98

Injection Volume: 1.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: 7

CAS No.	Compound	Concentration Units: (ug/L or ug/Kg) ug/Kg	Q
51-28-5	2,4-Dinitrophenol	5200	U
132-64-9	Dibenzofuran	260	U
100-02-7	4-Nitrophenol	260	U
121-14-2	2,4-Dinitrotoluene	260	U
84-66-2	Diethylphthalate	260	U
86-73-7	Fluorene	260	U
7005-72-3	4-Chlorophenyl-phenylether	260	U
100-01-6	4-Nitroaniline	260	U
534-52-1	4,6-Dinitro-2-methylphenol	520	U
86-30-6	N-Nitrosodiphenylamine	260	U
101-55-3	4-Bromophenyl-phenylether	260	U
118-74-1	Hexachlorobenzene	260	U
87-86-5	Pentachlorophenol	260	U
85-01-8	Phenanthrene	260	U
120-12-7	Anthracene	260	U
84-74-2	Di-n-butylphthalate	260	U
206-44-0	Fluoranthene	260	U
129-00-0	Pyrene	260	U
85-68-7	Butylbenzylphthalate	260	U
91-94-1	3,3'-Dichlorobenzidine	260	U
56-55-3	Benzo[a]anthracene	260	U
218-01-9	Chrysene	260	U
117-81-7	bis(2-Ethylhexyl)phthalate	260	U
117-84-0	Di-n-octylphthalate	260	U
205-99-2	Benzo[b]fluoranthene	260	U
207-08-9	Benzo[k]fluoranthene	260	U
50-32-8	Benzo[a]pyrene	260	U
193-39-5	Indeno[1,2,3-cd]pyrene	260	U
53-70-3	Dibenz[a,h]anthracene	260	U
191-24-2	Benzo[g,h,i]perylene	260	U

1B

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

NECF-6

Lab Name: ERM-FAST Contract: GIVAUDAN

Lab Code: Case No.: 22329.00. SAS No.: SDG No.:

Matrix: (soil/water) SOIL Lab Sample ID: TR 745

Sample wt/vol: 10 (g/ml) G Lab File ID: RNOV073.D

Level: (low/med) LOW Date Received: 11/03/98

% Moisture: 5 decanted:(Y/N) N Date Extracted: 11/03/98

Concentrated Extract Volume: 1000 (uL) Date Analyzed: 11/12/98

Injection Volume: 1.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: 7

CONCENTRATION UNITS:

CAS NO.	COMPOUND	(ug/L or ug/Kg) UG/KG	Q
108-95-2	Phenol	260	U
111-44-4	bis(2-Chloroethyl)ether	260	U
95-57-8	2-Chlorophenol	260	U
541-73-1	1,3-Dichlorobenzene	260	U
106-46-7	1,4-Dichlorobenzene	260	U
95-50-1	1,2-Dichlorobenzene	260	U
108-60-1	bis(2-chloroisopropyl)ether	260	U
95-48-7	2-Methylphenol	260	U
621-64-7	N-Nitroso-di-n-propylamine	260	U
67-72-1	Hexachloroethane	260	U
106-44-5	4-Methylphenol	260	U
98-95-3	Nitrobenzene	260	U
78-59-1	Isophorone	260	U
88-75-5	2-Nitrophenol	260	U
105-67-9	2,4-Dimethylphenol	260	U
111-91-1	bis(2-Chloroethoxy)methane	260	U
120-83-2	2,4-Dichlorophenol	260	U
120-82-1	1,2,4-Trichlorobenzene	260	U
91-20-3	Naphthalene	260	U
87-68-3	Hexachlorobutadiene	260	U
106-47-8	4-Chloroaniline	260	U
59-50-7	4-Chloro-3-methylphenol	260	U
91-57-6	2-Methylnaphthalene	260	U
77-47-4	Hexachlorocyclopentadiene	260	U
88-06-2	2,4,6-Trichlorophenol	260	U
95-95-4	2,4,5-Trichlorophenol	260	U
91-58-7	2-Chloronaphthalene	260	U
88-74-4	2-Nitroaniline	260	U
131-11-3	Dimethylphthalate	260	U
208-96-8	Acenaphthylene	260	U
606-20-2	2,6-Dinitrotoluene	260	U
83-32-9	Acenaphthene	260	U
99-09-2	3-Nitroaniline	260	U
51-28-5	2,4-Dinitrophenol	5300	U
132-64-9	Dibenzofuran	260	U
100-02-7	4-Nitrophenol	260	U
121-14-2	2,4-Dinitrotoluene	260	U

1C

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

NECF-6

Lab Name: ERM-FAST Contract: GIVAUDAN

Lab Code: Case No.: 22329.00. SAS No.: SDG No.:

Matrix: (soil/water) SOIL Lab Sample ID: TR 745

Sample wt/vol: 10 (g/ml) G Lab File ID: RNOV073.D

Level: (low/med) LOW Date Received: 11/03/98

% Moisture: 5 decanted:(Y/N) N Date Extracted: 11/03/98

Concentrated Extract Volume: 1000 (uL) Date Analyzed: 11/12/98

Injection Volume: 1.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: 7

CONCENTRATION UNITS:

CAS NO.	COMPOUND	(ug/L or ug/Kg) UG/KG	Q
84-66-2	Diethylphthalate	260	U
86-73-7	Fluorene	260	U
7005-72-3	4-Chlorophenyl-phenylether	260	U
100-01-6	4-Nitroaniline	260	U
534-52-1	4,6-Dinitro-2-methylphenol	530	U
86-30-6	N-Nitrosodiphenylamine	260	U
101-55-3	4-Bromophenyl-phenylether	260	U
118-74-1	Hexachlorobenzene	260	U
87-86-5	Pentachlorophenol	260	U
85-01-8	Phenanthrene	260	U
120-12-7	Anthracene	260	U
84-74-2	Di-n-butylphthalate	260	U
206-44-0	Fluoranthene	260	U
129-00-0	Pyrene	260	U
85-68-7	Butylbenzylphthalate	260	U
91-94-1	3,3'-Dichlorobenzidine	260	U
56-55-3	Benzo[a]anthracene	260	U
218-01-9	Chrysene	260	U
117-81-7	bis(2-Ethylhexyl)phthalate	260	U
117-84-0	Di-n-octylphthalate	260	U
205-99-2	Benzo[b]fluoranthene	260	U
207-08-9	Benzo[k]fluoranthene	260	U
50-32-8	Benzo[a]pyrene	260	U
193-39-5	Indeno[1,2,3-cd]pyrene	260	U
53-70-3	Dibenz[a,h]anthracene	260	U
191-24-2	Benzo[g,h,i]perylene	260	U

1B

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

NECF-7

Lab Name: ERM-FAST Contract: GIVAUDAN

Lab Code: Case No.: 22329.00. SAS No.: SDG No.:

Matrix: (soil/water) SOIL Lab Sample ID: TR 746

Sample wt/vol: 10 (g/ml) G Lab File ID: RNOV042.D

Level: (low/med) LOW Date Received: 11/03/98

% Moisture: 4 decanted:(Y/N) N Date Extracted: 11/03/98

Concentrated Extract Volume: 1000 (uL) Date Analyzed: 11/05/98

Injection Volume: 1.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: 7

CONCENTRATION UNITS:

CAS NO.	COMPOUND	(ug/L or ug/Kg) UG/KG	Q
108-95-2	Phenol	260	U
111-44-4	bis(2-Chloroethyl)ether	260	U
95-57-8	2-Chlorophenol	260	U
541-73-1	1,3-Dichlorobenzene	260	U
106-46-7	1,4-Dichlorobenzene	260	U
95-50-1	1,2-Dichlorobenzene	260	U
108-60-1	bis(2-chloroisopropyl)ether	260	U
95-48-7	2-Methylphenol	260	U
621-64-7	N-Nitroso-di-n-propylamine	260	U
67-72-1	Hexachloroethane	260	U
106-44-5	4-Methylphenol	260	U
98-95-3	Nitrobenzene	260	U
78-59-1	Isophorone	260	U
88-75-5	2-Nitrophenol	260	U
105-67-9	2,4-Dimethylphenol	260	U
111-91-1	bis(2-Chloroethoxy)methane	260	U
120-83-2	2,4-Dichlorophenol	260	U
120-82-1	1,2,4-Trichlorobenzene	260	U
91-20-3	Naphthalene	260	U
87-68-3	Hexachlorobutadiene	260	U
106-47-8	4-Chloroaniline	260	U
59-50-7	4-Chloro-3-methylphenol	260	U
91-57-6	2-Methylnaphthalene	260	U
77-47-4	Hexachlorocyclopentadiene	260	U
88-06-2	2,4,6-Trichlorophenol	260	U
95-95-4	2,4,5-Trichlorophenol	260	U
91-58-7	2-Chloronaphthalene	260	U
88-74-4	2-Nitroaniline	260	U
131-11-3	Dimethylphthalate	260	U
208-96-8	Acenaphthylene	260	U
606-20-2	2,6-Dinitrotoluene	260	U
83-32-9	Acenaphthene	260	U
99-09-2	3-Nitroaniline	260	U
51-28-5	2,4-Dinitrophenol	5200	U
132-64-9	Dibenzofuran	260	U
100-02-7	4-Nitrophenol	260	U
121-14-2	2,4-Dinitrotoluene	260	U

1C

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

NECF-7

Lab Name: ERM-FAST Contract: GIVAUDAN

Lab Code: Case No.: 22329.00. SAS No.: SDG No.:

Matrix: (soil/water) SOIL Lab Sample ID: TR 746

Sample wt/vol: 10 (g/ml) G Lab File ID: RNOV042.D

Level: (low/med) LOW Date Received: 11/03/98

% Moisture: 4 decanted:(Y/N) N Date Extracted: 11/03/98

Concentrated Extract Volume: 1000 (uL) Date Analyzed: 11/05/98

Injection Volume: 1.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: 7

CONCENTRATION UNITS:

CAS NO.	COMPOUND	(ug/L or ug/Kg) UG/KG	Q
84-66-2	Diethylphthalate	260	U
86-73-7	Fluorene	260	U
7005-72-3	4-Chlorophenyl-phenylether	260	U
100-01-6	4-Nitroaniline	260	U
534-52-1	4,6-Dinitro-2-methylphenol	520	U
86-30-6	N-Nitrosodiphenylamine	260	U
101-55-3	4-Bromophenyl-phenylether	260	U
118-74-1	Hexachlorobenzene	260	U
87-86-5	Pentachlorophenol	260	U
85-01-8	Phenanthrene	260	U
120-12-7	Anthracene	260	U
84-74-2	Di-n-butylphthalate	260	U
206-44-0	Fluoranthene	260	U
129-00-0	Pyrene	260	U
85-68-7	Butylbenzylphthalate	260	U
91-94-1	3,3'-Dichlorobenzidine	260	U
56-55-3	Benzo[a]anthracene	260	U
218-01-9	Chrysene	260	U
117-81-7	bis(2-Ethylhexyl)phthalate	260	U
117-84-0	Di-n-octylphthalate	260	U
205-99-2	Benzo[b]fluoranthene	260	U
207-08-9	Benzo[k]fluoranthene	260	U
50-32-8	Benzo[a]pyrene	260	U
193-39-5	Indeno[1,2,3-cd]pyrene	260	U
53-70-3	Dibenz[a,h]anthracene	260	U
191-24-2	Benzo[g,h,i]perylene	260	U

1B

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

NECF-7A

Lab Name: ERM-FAST Contract: GIVAUDAN

Lab Code: Case No.: 22329.00. SAS No.: SDG No.:

Matrix: (soil/water) SOIL Lab Sample ID: TR 747

Sample wt/vol: 10 (g/ml) G Lab File ID: RNOV043.D

Level: (low/med) LOW Date Received: 11/03/98

% Moisture: 4 decanted:(Y/N) N Date Extracted: 11/03/98

Concentrated Extract Volume: 1000 (uL) Date Analyzed: 11/05/98

Injection Volume: 1.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: 7

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
108-95-2	Phenol	260	U
111-44-4	bis(2-Chloroethyl)ether	260	U
95-57-8	2-Chlorophenol	260	U
541-73-1	1,3-Dichlorobenzene	260	U
106-46-7	1,4-Dichlorobenzene	260	U
95-50-1	1,2-Dichlorobenzene	260	U
108-60-1	bis(2-chloroisopropyl)ether	260	U
95-48-7	2-Methylphenol	260	U
621-64-7	N-Nitroso-di-n-propylamine	260	U
67-72-1	Hexachloroethane	260	U
106-44-5	4-Methylphenol	260	U
98-95-3	Nitrobenzene	260	U
78-59-1	Isophorone	260	U
88-75-5	2-Nitrophenol	260	U
105-67-9	2,4-Dimethylphenol	260	U
111-91-1	bis(2-Chloroethoxy)methane	260	U
120-83-2	2,4-Dichlorophenol	260	U
120-82-1	1,2,4-Trichlorobenzene	260	U
91-20-3	Naphthalene	260	U
87-68-3	Hexachlorobutadiene	260	U
106-47-8	4-Chloroaniline	260	U
59-50-7	4-Chloro-3-methylphenol	260	U
91-57-6	2-Methylnaphthalene	260	U
77-47-4	Hexachlorocyclopentadiene	260	U
88-06-2	2,4,6-Trichlorophenol	260	U
95-95-4	2,4,5-Trichlorophenol	260	U
91-58-7	2-Chloronaphthalene	260	U
88-74-4	2-Nitroaniline	260	U
131-11-3	Dimethylphthalate	260	U
208-96-8	Acenaphthylene	260	U
606-20-2	2,6-Dinitrotoluene	260	U
83-32-9	Acenaphthene	260	U
99-09-2	3-Nitroaniline	260	U
51-28-5	2,4-Dinitrophenol	5200	U
132-64-9	Dibenzofuran	260	U
100-02-7	4-Nitrophenol	260	U
121-14-2	2,4-Dinitrotoluene	260	U

1C

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

NECF-7A

Lab Name: ERM-FAST Contract: GIVAUDAN

Lab Code: Case No.: 22329.00. SAS No.: SDG No.:

Matrix: (soil/water) SOIL Lab Sample ID: TR 747

Sample wt/vol: 10 (g/ml) G Lab File ID: RNOV043.D

Level: (low/med) LOW Date Received: 11/03/98

% Moisture: 4 decanted:(Y/N) N Date Extracted: 11/03/98

Concentrated Extract Volume: 1000 (uL) Date Analyzed: 11/05/98

Injection Volume: 1.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: 7

CONCENTRATION UNITS:

CAS NO.	COMPOUND	(ug/L or ug/Kg) UG/KG	Q
84-66-2	Diethylphthalate	260	U
86-73-7	Fluorene	260	U
7005-72-3	4-Chlorophenyl-phenylether	260	U
100-01-6	4-Nitroaniline	260	U
534-52-1	4,6-Dinitro-2-methylphenol	520	U
86-30-6	N-Nitrosodiphenylamine	260	U
101-55-3	4-Bromophenyl-phenylether	260	U
118-74-1	Hexachlorobenzene	260	U
87-86-5	Pentachlorophenol	260	U
85-01-8	Phenanthrene	260	U
120-12-7	Anthracene	260	U
84-74-2	Di-n-butylphthalate	260	U
206-44-0	Fluoranthene	260	U
129-00-0	Pyrene	260	U
85-68-7	Butylbenzylphthalate	260	U
91-94-1	3,3'-Dichlorobenzidine	260	U
56-55-3	Benzo[a]anthracene	260	U
218-01-9	Chrysene	260	U
117-81-7	bis(2-Ethylhexyl)phthalate	260	U
117-84-0	Di-n-octylphthalate	260	U
205-99-2	Benzo[b]fluoranthene	260	U
207-08-9	Benzo[k]fluoranthene	260	U
50-32-8	Benzo[a]pyrene	260	U
193-39-5	Indeno[1,2,3-cd]pyrene	260	U
53-70-3	Dibenz[a,h]anthracene	260	U
191-24-2	Benzo[g,h,i]perylene	260	U

1B
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

SAMPLE NO.
NECF-8

Lab Name: ERM-FAST Contract:

Project No.: 22329.00.01 Site: GIVAUDAN Location: CLIFTON, NJ Group: TCLSVOC

Matrix: (soil/water) SOIL Lab Sample ID: TR748

Sample wt/vol: 10.0 (g/mL) G Lab File ID: NOV045.D

Level: (low/med) LOW Date Received: 11/3/98

% Moisture: 4 decanted: (Y/N): N Date Extracted: 11/3/98

Concentrated Extract Volume: 1000 (uL) Date Analyzed: 11/9/98

Injection Volume: 1.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: 7

CAS No.	Compound	Concentration Units: (ug/L or ug/Kg) ug/Kg	Q
108-95-2	Phenol	260	U
111-44-4	bis(2-Chloroethyl)ether	260	U
95-57-8	2-Chlorophenol	260	U
541-73-1	1,3-Dichlorobenzene	260	U
106-46-7	1,4-Dichlorobenzene	260	U
95-50-1	1,2-Dichlorobenzene	260	U
108-60-1	bis(2-chloroisopropyl)ether	260	U
95-48-7	2-Methylphenol	260	U
621-64-7	N-Nitroso-di-n-propylamine	260	U
67-72-1	Hexachloroethane	260	U
106-44-5	4-Methylphenol	260	U
98-95-3	Nitrobenzene	260	U
78-59-1	Isophorone	260	U
88-75-5	2-Nitrophenol	260	U
105-67-9	2,4-Dimethylphenol	260	U
111-91-1	bis(2-Chloroethoxy)methane	260	U
120-83-2	2,4-Dichlorophenol	260	U
120-82-1	1,2,4-Trichlorobenzene	260	U
91-20-3	Naphthalene	260	U
87-68-3	Hexachlorobutadiene	260	U
106-47-8	4-Chloroaniline	260	U
59-50-7	4-Chloro-3-methylphenol	260	U
91-57-6	2-Methylnaphthalene	260	U
77-47-4	Hexachlorocyclopentadiene	260	U
88-06-2	2,4,6-Trichlorophenol	260	U
95-95-4	2,4,5-Trichlorophenol	260	U
91-58-7	2-Chloronaphthalene	260	U
88-74-4	2-Nitroaniline	260	U
131-11-3	Dimethylphthalate	260	U
208-96-8	Acenaphthylene	260	U
606-20-2	2,6-Dinitrotoluene	260	U
83-32-9	Acenaphthene	260	U
99-09-2	3-Nitroaniline	260	U

1B
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

SAMPLE NO.
NECF-8

Lab Name: ERM-FAST Contract:

Project No.: 22329.00.01 Site: GIVAUDAN Location: CLIFTON, NJ Group: TCLSVOC

Matrix: (soil/water) SOIL Lab Sample ID: TR748

Sample wt/vol: 10.0 (g/mL) G Lab File ID: NOV045.D

Level: (low/med) LOW Date Received: 11/3/98

% Moisture: 4 decanted: (Y/N): N Date Extracted: 11/3/98

Concentrated Extract Volume: 1000 (uL) Date Analyzed: 11/9/98

Injection Volume: 1.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: 7

CAS No.	Compound	Concentration Units: (ug/L or ug/Kg) ug/Kg	Q
51-28-5	2,4-Dinitrophenol	5200	U
132-64-9	Dibenzofuran	260	U
100-02-7	4-Nitrophenol	260	U
121-14-2	2,4-Dinitrotoluene	260	U
84-66-2	Diethylphthalate	260	U
86-73-7	Fluorene	260	U
7005-72-3	4-Chlorophenyl-phenylether	260	U
100-01-6	4-Nitroaniline	260	U
534-52-1	4,6-Dinitro-2-methylphenol	520	U
86-30-6	N-Nitrosodiphenylamine	260	U
101-55-3	4-Bromophenyl-phenylether	260	U
118-74-1	Hexachlorobenzene	260	U
87-86-5	Pentachlorophenol	260	U
85-01-8	Phenanthrene	260	U
120-12-7	Anthracene	260	U
84-74-2	Di-n-butylphthalate	260	U
206-44-0	Fluoranthene	260	U
129-00-0	Pyrene	260	U
85-68-7	Butylbenzylphthalate	260	U
91-94-1	3,3'-Dichlorobenzidine	260	U
56-55-3	Benzo[a]anthracene	260	U
218-01-9	Chrysene	260	U
117-81-7	bis(2-Ethylhexyl)phthalate	260	U
117-84-0	Di-n-octylphthalate	260	U
205-99-2	Benzo[b]fluoranthene	260	U
207-08-9	Benzo[k]fluoranthene	260	U
50-32-8	Benzo[a]pyrene	260	U
193-39-5	Indeno[1,2,3-cd]pyrene	260	U
53-70-3	Dibenz[a,h]anthracene	260	U
191-24-2	Benzo[g,h,i]perylene	260	U

1B
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

NECF-9

Lab Name: ERM-FAST Contract: GIVAUDAN

Lab Code: Case No.: 22329.00. SAS No.: SDG No.:

Matrix: (soil/water) SOIL Lab Sample ID: TR 749

Sample wt/vol: 10 (g/ml) G Lab File ID: RNOV045.D

Level: (low/med) LOW Date Received: 11/03/98

% Moisture: 5 decanted:(Y/N) N Date Extracted: 11/03/98

Concentrated Extract Volume: 1000 (uL) Date Analyzed: 11/05/98

Injection Volume: 1.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: 7

CONCENTRATION UNITS:

CAS NO.	COMPOUND	(ug/L or ug/Kg) UG/KG	Q
108-95-2	Phenol	260	U
111-44-4	bis(2-Chloroethyl)ether	260	U
95-57-8	2-Chlorophenol	260	U
541-73-1	1,3-Dichlorobenzene	260	U
106-46-7	1,4-Dichlorobenzene	260	U
95-50-1	1,2-Dichlorobenzene	260	U
108-60-1	bis(2-chloroisopropyl)ether	260	U
95-48-7	2-Methylphenol	260	U
621-64-7	N-Nitroso-di-n-propylamine	260	U
67-72-1	Hexachloroethane	260	U
106-44-5	4-Methylphenol	260	U
98-95-3	Nitrobenzene	260	U
78-59-1	Isophorone	260	U
88-75-5	2-Nitrophenol	260	U
105-67-9	2,4-Dimethylphenol	260	U
111-91-1	bis(2-Chloroethoxy)methane	260	U
120-83-2	2,4-Dichlorophenol	260	U
120-82-1	1,2,4-Trichlorobenzene	260	U
91-20-3	Naphthalene	260	U
87-68-3	Hexachlorobutadiene	260	U
106-47-8	4-Chloroaniline	260	U
59-50-7	4-Chloro-3-methylphenol	260	U
91-57-6	2-Methylnaphthalene	260	U
77-47-4	Hexachlorocyclopentadiene	260	U
88-06-2	2,4,6-Trichlorophenol	260	U
95-95-4	2,4,5-Trichlorophenol	260	U
91-58-7	2-Chloronaphthalene	260	U
88-74-4	2-Nitroaniline	260	U
131-11-3	Dimethylphthalate	260	U
208-96-8	Acenaphthylene	260	U
606-20-2	2,6-Dinitrotoluene	260	U
83-32-9	Acenaphthene	260	U
99-09-2	3-Nitroaniline	260	U
51-28-5	2,4-Dinitrophenol	5300	U
132-64-9	Dibenzofuran	260	U
100-02-7	4-Nitrophenol	260	U
121-14-2	2,4-Dinitrotoluene	260	U

1C

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

NECF-9

Lab Name: ERM-FAST Contract: GIVAUDAN

Lab Code: Case No.: 22329.00. SAS No.: SDG No.:

Matrix: (soil/water) SOIL Lab Sample ID: TR 749

Sample wt/vol: 10 (g/ml) G Lab File ID: RNOV045.D

Level: (low/med) LOW Date Received: 11/03/98

% Moisture: 5 decanted:(Y/N) N Date Extracted: 11/03/98

Concentrated Extract Volume: 1000 (uL) Date Analyzed: 11/05/98

Injection Volume: 1.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: 7

CONCENTRATION UNITS:

CAS NO.	COMPOUND	(ug/L or ug/Kg) UG/KG	Q
84-66-2	Diethylphthalate	260	U
86-73-7	Fluorene	260	U
7005-72-3	4-Chlorophenyl-phenylether	260	U
100-01-6	4-Nitroaniline	260	U
534-52-1	4,6-Dinitro-2-methylphenol	530	U
86-30-6	N-Nitrosodiphenylamine	260	U
101-55-3	4-Bromophenyl-phenylether	260	U
118-74-1	Hexachlorobenzene	260	U
87-86-5	Pentachlorophenol	260	U
85-01-8	Phenanthrene	260	U
120-12-7	Anthracene	260	U
84-74-2	Di-n-butylphthalate	260	U
206-44-0	Fluoranthene	260	U
129-00-0	Pyrene	260	U
85-68-7	Butylbenzylphthalate	260	U
91-94-1	3,3'-Dichlorobenzidine	260	U
56-55-3	Benzo[a]anthracene	260	U
218-01-9	Chrysene	260	U
117-81-7	bis(2-Ethylhexyl)phthalate	260	U
117-84-0	Di-n-octylphthalate	260	U
205-99-2	Benzo[b]fluoranthene	260	U
207-08-9	Benzo[k]fluoranthene	260	U
50-32-8	Benzo[a]pyrene	260	U
193-39-5	Indeno[1,2,3-cd]pyrene	260	U
53-70-3	Dibenz[a,h]anthracene	260	U
191-24-2	Benzo[g,h,i]perylene	260	U

1B

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

NECF-10

Lab Name: ERM-FAST Contract: GIVAUDAN

Lab Code: Case No.: 22329.00. SAS No.: SDG No.:

Matrix: (soil/water) SOIL Lab Sample ID: TR 750

Sample wt/vol: 10 (g/ml) G Lab File ID: RNOV046.D

Level: (low/med) LOW Date Received: 11/03/98

% Moisture: 5 decanted:(Y/N) N Date Extracted: 11/03/98

Concentrated Extract Volume: 1000 (uL) Date Analyzed: 11/05/98

Injection Volume: 1.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: 7

CONCENTRATION UNITS:

CAS NO.	COMPOUND	(ug/L or ug/Kg) UG/KG	Q
108-95-2	Phenol	260	U
111-44-4	bis(2-Chloroethyl)ether	260	U
95-57-8	2-Chlorophenol	260	U
541-73-1	1,3-Dichlorobenzene	260	U
106-46-7	1,4-Dichlorobenzene	260	U
95-50-1	1,2-Dichlorobenzene	260	U
108-60-1	bis(2-chloroisopropyl)ether	260	U
95-48-7	2-Methylphenol	260	U
621-64-7	N-Nitroso-di-n-propylamine	260	U
67-72-1	Hexachloroethane	260	U
106-44-5	4-Methylphenol	260	U
98-95-3	Nitrobenzene	260	U
78-59-1	Isophorone	260	U
88-75-5	2-Nitrophenol	260	U
105-67-9	2,4-Dimethylphenol	260	U
111-91-1	bis(2-Chloroethoxy)methane	260	U
120-83-2	2,4-Dichlorophenol	260	U
120-82-1	1,2,4-Trichlorobenzene	260	U
91-20-3	Naphthalene	260	U
87-68-3	Hexachlorobutadiene	260	U
106-47-8	4-Chloroaniline	260	U
59-50-7	4-Chloro-3-methylphenol	260	U
91-57-6	2-Methylnaphthalene	260	U
77-47-4	Hexachlorocyclopentadiene	260	U
88-06-2	2,4,6-Trichlorophenol	260	U
95-95-4	2,4,5-Trichlorophenol	260	U
91-58-7	2-Chloronaphthalene	260	U
88-74-4	2-Nitroaniline	260	U
131-11-3	Dimethylphthalate	260	U
208-96-8	Acenaphthylene	260	U
606-20-2	2,6-Dinitrotoluene	260	U
83-32-9	Acenaphthene	260	U
99-09-2	3-Nitroaniline	260	U
51-28-5	2,4-Dinitrophenol	5300	U
132-64-9	Dibenzofuran	260	U
100-02-7	4-Nitrophenol	260	U
121-14-2	2,4-Dinitrotoluene	260	U

1C

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

NECF-10

Lab Name: ERM-FAST Contract: GIVAUDAN

Lab Code: Case No.: 22329.00. SAS No.: SDG No.:

Matrix: (soil/water) SOIL Lab Sample ID: TR 750

Sample wt/vol: 10 (g/ml) G Lab File ID: RNOV046.D

Level: (low/med) LOW Date Received: 11/03/98

% Moisture: 5 decanted:(Y/N) N Date Extracted: 11/03/98

Concentrated Extract Volume: 1000 (uL) Date Analyzed: 11/05/98

Injection Volume: 1.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: 7

CONCENTRATION UNITS:

CAS NO.	COMPOUND	(ug/L or ug/Kg) UG/KG	Q
84-66-2	Diethylphthalate	260	U
86-73-7	Fluorene	260	U
7005-72-3	4-Chlorophenyl-phenylether	260	U
100-01-6	4-Nitroaniline	260	U
534-52-1	4,6-Dinitro-2-methylphenol	530	U
86-30-6	N-Nitrosodiphenylamine	260	U
101-55-3	4-Bromophenyl-phenylether	260	U
118-74-1	Hexachlorobenzene	260	U
87-86-5	Pentachlorophenol	260	U
85-01-8	Phenanthrene	260	U
120-12-7	Anthracene	260	U
84-74-2	Di-n-butylphthalate	260	U
206-44-0	Fluoranthene	260	U
129-00-0	Pyrene	260	U
85-68-7	Butylbenzylphthalate	260	U
91-94-1	3,3'-Dichlorobenzidine	260	U
56-55-3	Benzo[a]anthracene	260	U
218-01-9	Chrysene	260	U
117-81-7	bis(2-Ethylhexyl)phthalate	260	U
117-84-0	Di-n-octylphthalate	260	U
205-99-2	Benzo[b]fluoranthene	260	U
207-08-9	Benzo[k]fluoranthene	260	U
50-32-8	Benzo[a]pyrene	260	U
193-39-5	Indeno[1,2,3-cd]pyrene	260	U
53-70-3	Dibenz[a,h]anthracene	260	U
191-24-2	Benzo[g,h,i]perylene	260	U

1B

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

NECF-11

Lab Name: ERM-FAST Contract: GIVAUDAN

Lab Code: Case No.: 22329.00. SAS No.: SDG No.:

Matrix: (soil/water) SOIL Lab Sample ID: TR 751

Sample wt/vol: 10 (g/ml) G Lab File ID: RNOV049.D

Level: (low/med) LOW Date Received: 11/03/98

% Moisture: 4 decanted:(Y/N) N Date Extracted: 11/03/98

Concentrated Extract Volume: 1000 (uL) Date Analyzed: 11/06/98

Injection Volume: 1.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: 7

CONCENTRATION UNITS:

CAS NO.	COMPOUND	(ug/L or ug/Kg) UG/KG	Q
108-95-2	Phenol	260	U
111-44-4	bis(2-Chloroethyl)ether	260	U
95-57-8	2-Chlorophenol	260	U
541-73-1	1,3-Dichlorobenzene	260	U
106-46-7	1,4-Dichlorobenzene	260	U
95-50-1	1,2-Dichlorobenzene	260	U
108-60-1	bis(2-chloroisopropyl)ether	260	U
95-48-7	2-Methylphenol	260	U
621-64-7	N-Nitroso-di-n-propylamine	260	U
67-72-1	Hexachloroethane	260	U
106-44-5	4-Methylphenol	260	U
98-95-3	Nitrobenzene	260	U
78-59-1	Isophorone	260	U
88-75-5	2-Nitrophenol	260	U
105-67-9	2,4-Dimethylphenol	260	U
111-91-1	bis(2-Chloroethoxy)methane	260	U
120-83-2	2,4-Dichlorophenol	260	U
120-82-1	1,2,4-Trichlorobenzene	260	U
91-20-3	Naphthalene	260	U
87-68-3	Hexachlorobutadiene	260	U
106-47-8	4-Chloroaniline	260	U
59-50-7	4-Chloro-3-methylphenol	260	U
91-57-6	2-Methylnaphthalene	260	U
77-47-4	Hexachlorocyclopentadiene	260	U
88-06-2	2,4,6-Trichlorophenol	260	U
95-95-4	2,4,5-Trichlorophenol	260	U
91-58-7	2-Chloronaphthalene	260	U
88-74-4	2-Nitroaniline	260	U
131-11-3	Dimethylphthalate	260	U
208-96-8	Acenaphthylene	260	U
606-20-2	2,6-Dinitrotoluene	260	U
83-32-9	Acenaphthene	260	U
99-09-2	3-Nitroaniline	260	U
51-28-5	2,4-Dinitrophenol	5200	U
132-64-9	Dibenzofuran	260	U
100-02-7	4-Nitrophenol	260	U
121-14-2	2,4-Dinitrotoluene	260	U

1C

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

NECF-11

Lab Name: ERM-FAST Contract: GIVAUDAN

Lab Code: Case No.: 22329.00. SAS No.: SDG No.:

Matrix: (soil/water) SOIL Lab Sample ID: TR 751

Sample wt/vol: 10 (g/ml) G Lab File ID: RNOV049.D

Level: (low/med) LOW Date Received: 11/03/98

% Moisture: 4 decanted:(Y/N) N Date Extracted: 11/03/98

Concentrated Extract Volume: 1000 (uL) Date Analyzed: 11/06/98

Injection Volume: 1.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: 7

CONCENTRATION UNITS:

CAS NO.	COMPOUND	(ug/L or ug/Kg) UG/KG	Q
84-66-2	Diethylphthalate	260	U
86-73-7	Fluorene	260	U
7005-72-3	4-Chlorophenyl-phenylether	260	U
100-01-6	4-Nitroaniline	260	U
534-52-1	4,6-Dinitro-2-methylphenol	520	U
86-30-6	N-Nitrosodiphenylamine	260	U
101-55-3	4-Bromophenyl-phenylether	260	U
118-74-1	Hexachlorobenzene	260	U
87-86-5	Pentachlorophenol	260	U
85-01-8	Phenanthrene	260	U
120-12-7	Anthracene	260	U
84-74-2	Di-n-butylphthalate	260	U
206-44-0	Fluoranthene	260	U
129-00-0	Pyrene	260	U
85-68-7	Butylbenzylphthalate	260	U
91-94-1	3,3'-Dichlorobenzidine	260	U
56-55-3	Benzo[a]anthracene	260	U
218-01-9	Chrysene	260	U
117-81-7	bis(2-Ethylhexyl)phthalate	260	U
117-84-0	Di-n-octylphthalate	260	U
205-99-2	Benzo[b]fluoranthene	260	U
207-08-9	Benzo[k]fluoranthene	260	U
50-32-8	Benzo[a]pyrene	260	U
193-39-5	Indeno[1,2,3-cd]pyrene	260	U
53-70-3	Dibenz[a,h]anthracene	260	U
191-24-2	Benzo[g,h,i]perylene	260	U

1B

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

NECF-12

Lab Name: ERM-FAST Contract: GIVAUDAN

Lab Code: Case No.: 22329.00. SAS No.: SDG No.:

Matrix: (soil/water) SOIL Lab Sample ID: TR 752

Sample wt/vol: 10 (g/ml) G Lab File ID: RNOV048.D

Level: (low/med) LOW Date Received: 11/03/98

% Moisture: 6 decanted:(Y/N) N Date Extracted: 11/03/98

Concentrated Extract Volume: 1000 (uL) Date Analyzed: 11/06/98

Injection Volume: 1.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: 7

CONCENTRATION UNITS:

CAS NO.	COMPOUND	(ug/L or ug/Kg) UG/KG	Q
108-95-2	Phenol	270	U
111-44-4	bis(2-Chloroethyl)ether	270	U
95-57-8	2-Chlorophenol	270	U
541-73-1	1,3-Dichlorobenzene	270	U
106-46-7	1,4-Dichlorobenzene	270	U
95-50-1	1,2-Dichlorobenzene	270	U
108-60-1	bis(2-chloroisopropyl)ether	270	U
95-48-7	2-Methylphenol	270	U
621-64-7	N-Nitroso-di-n-propylamine	270	U
67-72-1	Hexachloroethane	270	U
106-44-5	4-Methylphenol	270	U
98-95-3	Nitrobenzene	270	U
78-59-1	Isophorone	270	U
88-75-5	2-Nitrophenol	270	U
105-67-9	2,4-Dimethylphenol	270	U
111-91-1	bis(2-Chloroethoxy)methane	270	U
120-83-2	2,4-Dichlorophenol	270	U
120-82-1	1,2,4-Trichlorobenzene	270	U
91-20-3	Naphthalene	270	U
87-68-3	Hexachlorobutadiene	270	U
106-47-8	4-Chloroaniline	270	U
59-50-7	4-Chloro-3-methylphenol	270	U
91-57-6	2-Methylnaphthalene	270	U
77-47-4	Hexachlorocyclopentadiene	270	U
88-06-2	2,4,6-Trichlorophenol	270	U
95-95-4	2,4,5-Trichlorophenol	270	U
91-58-7	2-Chloronaphthalene	270	U
88-74-4	2-Nitroaniline	270	U
131-11-3	Dimethylphthalate	270	U
208-96-8	Acenaphthylene	270	U
606-20-2	2,6-Dinitrotoluene	270	U
83-32-9	Acenaphthene	270	U
99-09-2	3-Nitroaniline	270	U
51-28-5	2,4-Dinitrophenol	5300	U
132-64-9	Dibenzofuran	270	U
100-02-7	4-Nitrophenol	270	U
121-14-2	2,4-Dinitrotoluene	270	U

1C

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

NECF-12

Lab Name: ERM-FAST Contract: GIVAUDAN

Lab Code: Case No.: 22329.00. SAS No.: SDG No.:

Matrix: (soil/water) SOIL Lab Sample ID: TR 752

Sample wt/vol: 10 (g/ml) G Lab File ID: RNOV048.D

Level: (low/med) LOW Date Received: 11/03/98

% Moisture: 6 decanted:(Y/N) N Date Extracted: 11/03/98

Concentrated Extract Volume: 1000 (uL) Date Analyzed: 11/06/98

Injection Volume: 1.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: 7

CONCENTRATION UNITS:

CAS NO.	COMPOUND	(ug/L or ug/Kg) UG/KG	Q
84-66-2	Diethylphthalate	270	U
86-73-7	Fluorene	270	U
7005-72-3	4-Chlorophenyl-phenylether	270	U
100-01-6	4-Nitroaniline	270	U
534-52-1	4,6-Dinitro-2-methylphenol	530	U
86-30-6	N-Nitrosodiphenylamine	270	U
101-55-3	4-Bromophenyl-phenylether	270	U
118-74-1	Hexachlorobenzene	270	U
87-86-5	Pentachlorophenol	270	U
85-01-8	Phenanthrene	270	U
120-12-7	Anthracene	270	U
84-74-2	Di-n-butylphthalate	270	U
206-44-0	Fluoranthene	270	U
129-00-0	Pyrene	270	U
85-68-7	Butylbenzylphthalate	270	U
91-94-1	3,3'-Dichlorobenzidine	270	U
56-55-3	Benzo[a]anthracene	270	U
218-01-9	Chrysene	270	U
117-81-7	bis(2-Ethylhexyl)phthalate	270	U
117-84-0	Di-n-octylphthalate	270	U
205-99-2	Benzo[b]fluoranthene	270	U
207-08-9	Benzo[k]fluoranthene	270	U
50-32-8	Benzo[a]pyrene	270	U
193-39-5	Indeno[1,2,3-cd]pyrene	270	U
53-70-3	Dibenz[a,h]anthracene	270	U
191-24-2	Benzo[g,h,i]perylene	270	U

1B
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

NECF-13

Lab Name: ERM-FAST Contract: GIVAUDAN

Lab Code: Case No.: 22329.00. SAS No.: SDG No.:

Matrix: (soil/water) SOIL Lab Sample ID: TR 753

Sample wt/vol: 10 (g/ml) G Lab File ID: RNOV047.D

Level: (low/med) LOW Date Received: 11/03/98

% Moisture: 5 decanted:(Y/N) N Date Extracted: 11/03/98

Concentrated Extract Volume: 1000 (uL) Date Analyzed: 11/05/98

Injection Volume: 1.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: 7

CONCENTRATION UNITS:

CAS NO.	COMPOUND	(ug/L or ug/Kg) UG/KG	Q
108-95-2	Phenol	260	U
111-44-4	bis(2-Chloroethyl)ether	260	U
95-57-8	2-Chlorophenol	260	U
541-73-1	1,3-Dichlorobenzene	260	U
106-46-7	1,4-Dichlorobenzene	260	U
95-50-1	1,2-Dichlorobenzene	260	U
108-60-1	bis(2-chloroisopropyl)ether	260	U
95-48-7	2-Methylphenol	260	U
621-64-7	N-Nitroso-di-n-propylamine	260	U
67-72-1	Hexachloroethane	260	U
106-44-5	4-Methylphenol	260	U
98-95-3	Nitrobenzene	260	U
78-59-1	Isophorone	260	U
88-75-5	2-Nitrophenol	260	U
105-67-9	2,4-Dimethylphenol	260	U
111-91-1	bis(2-Chloroethoxy)methane	260	U
120-83-2	2,4-Dichlorophenol	260	U
120-82-1	1,2,4-Trichlorobenzene	260	U
91-20-3	Naphthalene	260	U
87-68-3	Hexachlorobutadiene	260	U
106-47-8	4-Chloroaniline	260	U
59-50-7	4-Chloro-3-methylphenol	260	U
91-57-6	2-Methylnaphthalene	260	U
77-47-4	Hexachlorocyclopentadiene	260	U
88-06-2	2,4,6-Trichlorophenol	260	U
95-95-4	2,4,5-Trichlorophenol	260	U
91-58-7	2-Chloronaphthalene	260	U
88-74-4	2-Nitroaniline	260	U
131-11-3	Dimethylphthalate	260	U
208-96-8	Acenaphthylene	260	U
606-20-2	2,6-Dinitrotoluene	260	U
83-32-9	Acenaphthene	260	U
99-09-2	3-Nitroaniline	260	U
51-28-5	2,4-Dinitrophenol	5300	U
132-64-9	Dibenzofuran	260	U
100-02-7	4-Nitrophenol	260	U
121-14-2	2,4-Dinitrotoluene	260	U

1C

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

NECF-13

Lab Name: ERM-FAST Contract: GIVAUDAN

Lab Code: Case No.: 22329.00. SAS No.: SDG No.:

Matrix: (soil/water) SOIL Lab Sample ID: TR 753

Sample wt/vol: 10 (g/ml) G Lab File ID: RNOV047.D

Level: (low/med) LOW Date Received: 11/03/98

% Moisture: 5 decanted:(Y/N) N Date Extracted: 11/03/98

Concentrated Extract Volume: 1000 (uL) Date Analyzed: 11/05/98

Injection Volume: 1.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: 7

CONCENTRATION UNITS:

CAS NO.	COMPOUND	(ug/L or ug/Kg) UG/KG	Q
84-66-2	Diethylphthalate	260	U
86-73-7	Fluorene	260	U
7005-72-3	4-Chlorophenyl-phenylether	260	U
100-01-6	4-Nitroaniline	260	U
534-52-1	4,6-Dinitro-2-methylphenol	530	U
86-30-6	N-Nitrosodiphenylamine	260	U
101-55-3	4-Bromophenyl-phenylether	260	U
118-74-1	Hexachlorobenzene	260	U
87-86-5	Pentachlorophenol	260	U
85-01-8	Phenanthrene	260	U
120-12-7	Anthracene	260	U
84-74-2	Di-n-butylphthalate	260	U
206-44-0	Fluoranthene	260	U
129-00-0	Pyrene	260	U
85-68-7	Butylbenzylphthalate	310	
91-94-1	3,3'-Dichlorobenzidine	260	U
56-55-3	Benzo[a]anthracene	260	U
218-01-9	Chrysene	260	U
117-81-7	bis(2-Ethylhexyl)phthalate	260	U
117-84-0	Di-n-octylphthalate	260	U
205-99-2	Benzo[b]fluoranthene	260	U
207-08-9	Benzo[k]fluoranthene	260	U
50-32-8	Benzo[a]pyrene	260	U
193-39-5	Indeno[1,2,3-cd]pyrene	260	U
53-70-3	Dibenz[a,h]anthracene	260	U
191-24-2	Benzo[g,h,i]perylene	260	U

1B
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

SAMPLE NO.
NECF-14

Lab Name: ERM-FAST Contract:

Project No.: 22329.00.01 Site: GIVAUDAN Location: CLIFTON, NJ Group: TCLSVOC

Matrix: (soil/water) SOIL Lab Sample ID: TR754

Sample wt/vol: 10.0 (g/mL) G Lab File ID: NOV026.D

Level: (low/med) LOW Date Received: 11/3/98

% Moisture: 5 decanted: (Y/N): N Date Extracted: 11/5/98

Concentrated Extract Volume: 1000 (uL) Date Analyzed: 11/6/98

Injection Volume: 1.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: 7

CAS No.	Compound	Concentration Units: (ug/L or ug/Kg) ug/Kg	Q
108-95-2	Phenol	260	U
111-44-4	bis(2-Chloroethyl)ether	260	U
95-57-8	2-Chlorophenol	260	U
541-73-1	1,3-Dichlorobenzene	260	U
106-46-7	1,4-Dichlorobenzene	260	U
95-50-1	1,2-Dichlorobenzene	260	U
108-60-1	bis(2-chloroisopropyl)ether	260	U
95-48-7	2-Methylphenol	260	U
621-64-7	N-Nitroso-di-n-propylamine	260	U
67-72-1	Hexachloroethane	260	U
106-44-5	4-Methylphenol	260	U
98-95-3	Nitrobenzene	260	U
78-59-1	Isophorone	260	U
88-75-5	2-Nitrophenol	260	U
105-67-9	2,4-Dimethylphenol	260	U
111-91-1	bis(2-Chloroethoxy)methane	260	U
120-83-2	2,4-Dichlorophenol	260	U
120-82-1	1,2,4-Trichlorobenzene	260	U
91-20-3	Naphthalene	260	U
87-68-3	Hexachlorobutadiene	260	U
106-47-8	4-Chloroaniline	260	U
59-50-7	4-Chloro-3-methylphenol	260	U
91-57-6	2-Methylnaphthalene	260	U
77-47-4	Hexachlorocyclopentadiene	260	U
88-06-2	2,4,6-Trichlorophenol	260	U
95-95-4	2,4,5-Trichlorophenol	260	U
91-58-7	2-Chloronaphthalene	260	U
88-74-4	2-Nitroaniline	260	U
131-11-3	Dimethylphthalate	260	U
208-96-8	Acenaphthylene	260	U
606-20-2	2,6-Dinitrotoluene	260	U
83-32-9	Acenaphthene	260	U
99-09-2	3-Nitroaniline	260	U

1B
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

SAMPLE NO.
NECF-14

Lab Name: ERM-FAST Contract:

Project No.: 22329.00.01 Site: GIVAUDAN Location: CLIFTON, NJ Group: TCLSVOC

Matrix: (soil/water) SOIL Lab Sample ID: TR754

Sample wt/vol: 10.0 (g/mL) G Lab File ID: NOV026.D

Level: (low/med) LOW Date Received: 11/3/98

% Moisture: 5 decanted: (Y/N): N Date Extracted: 11/5/98

Concentrated Extract Volume: 1000 (uL) Date Analyzed: 11/6/98

Injection Volume: 1.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: 7

CAS No.	Compound	Concentration Units: (ug/L or ug/Kg) ug/Kg	Q
51-28-5	2,4-Dinitrophenol	5300	U
132-64-9	Dibenzofuran	260	U
100-02-7	4-Nitrophenol	260	U
121-14-2	2,4-Dinitrotoluene	260	U
84-66-2	Diethylphthalate	260	U
86-73-7	Fluorene	260	U
7005-72-3	4-Chlorophenyl-phenylether	260	U
100-01-6	4-Nitroaniline	260	U
534-52-1	4,6-Dinitro-2-methylphenol	530	U
86-30-6	N-Nitrosodiphenylamine	260	U
101-55-3	4-Bromophenyl-phenylether	260	U
118-74-1	Hexachlorobenzene	260	U
87-86-5	Pentachlorophenol	260	U
85-01-8	Phenanthrene	260	U
120-12-7	Anthracene	260	U
84-74-2	Di-n-butylphthalate	260	U
206-44-0	Fluoranthene	260	U
129-00-0	Pyrene	260	U
85-68-7	Butylbenzylphthalate	260	U
91-94-1	3,3'-Dichlorobenzidine	260	U
56-55-3	Benzo[a]anthracene	260	U
218-01-9	Chrysene	260	U
117-81-7	bis(2-Ethylhexyl)phthalate	260	U
117-84-0	Di-n-octylphthalate	260	U
205-99-2	Benzo[b]fluoranthene	260	U
207-08-9	Benzo[k]fluoranthene	260	U
50-32-8	Benzo[a]pyrene	260	U
193-39-5	Indeno[1,2,3-cd]pyrene	260	U
53-70-3	Dibenz[a,h]anthracene	260	U
191-24-2	Benzo[g,h,i]perylene	260	U

1B
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

SAMPLE NO.
NECF-15

Lab Name: ERM-FAST Contract:

Project No.: 22329.00.01 Site: GIVAUDAN Location: CLIFTON, NJ Group: TCLSVOC

Matrix: (soil/water) SOIL Lab Sample ID: TR755

Sample wt/vol: 10.0 (g/mL) G Lab File ID: NOV012.D

Level: (low/med) LOW Date Received: 11/3/98

% Moisture: 6 decanted: (Y/N): N Date Extracted: 11/5/98

Concentrated Extract Volume: 1000 (uL) Date Analyzed: 11/5/98

Injection Volume: 1.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: 7

CAS No.	Compound	Concentration Units: (ug/L or ug/Kg) ug/Kg	Q
108-95-2	Phenol	270	U
111-44-4	bis(2-Chloroethyl)ether	270	U
95-57-8	2-Chlorophenol	270	U
541-73-1	1,3-Dichlorobenzene	270	U
106-46-7	1,4-Dichlorobenzene	270	U
95-50-1	1,2-Dichlorobenzene	270	U
108-60-1	bis(2-chloroisopropyl)ether	270	U
95-48-7	2-Methylphenol	270	U
621-64-7	N-Nitroso-di-n-propylamine	270	U
67-72-1	Hexachloroethane	270	U
106-44-5	4-Methylphenol	270	U
98-95-3	Nitrobenzene	270	U
78-59-1	Isophorone	270	U
88-75-5	2-Nitrophenol	270	U
105-67-9	2,4-Dimethylphenol	270	U
111-91-1	bis(2-Chloroethoxy)methane	270	U
120-83-2	2,4-Dichlorophenol	270	U
120-82-1	1,2,4-Trichlorobenzene	270	U
91-20-3	Naphthalene	270	U
87-68-3	Hexachlorobutadiene	270	U
106-47-8	4-Chloroaniline	270	U
59-50-7	4-Chloro-3-methylphenol	270	U
91-57-6	2-Methylnaphthalene	270	U
77-47-4	Hexachlorocyclopentadiene	270	U
88-06-2	2,4,6-Trichlorophenol	270	U
95-95-4	2,4,5-Trichlorophenol	270	U
91-58-7	2-Chloronaphthalene	270	U
88-74-4	2-Nitroaniline	270	U
131-11-3	Dimethylphthalate	270	U
208-96-8	Acenaphthylene	270	U
606-20-2	2,6-Dinitrotoluene	270	U
83-32-9	Acenaphthene	270	U
99-09-2	3-Nitroaniline	270	U

1B
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

SAMPLE NO.
NECF-15

Lab Name: ERM-FAST Contract:

Project No.: 22329.00.01 Site: GIVAUDAN Location: CLIFTON, NJ Group: TCLSVOC

Matrix: (soil/water) SOIL Lab Sample ID: TR755

Sample wt/vol: 10.0 (g/mL) G Lab File ID: NOV012.D

Level: (low/med) LOW Date Received: 11/3/98

% Moisture: 6 decanted: (Y/N): N Date Extracted: 11/5/98

Concentrated Extract Volume: 1000 (uL) Date Analyzed: 11/5/98

Injection Volume: 1.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: 7

CAS No.	Compound	Concentration Units: (ug/L or ug/Kg) ug/Kg	Q
51-28-5	2,4-Dinitrophenol	5300	U
132-64-9	Dibenzofuran	270	U
100-02-7	4-Nitrophenol	270	U
121-14-2	2,4-Dinitrotoluene	270	U
84-66-2	Diethylphthalate	270	U
86-73-7	Fluorene	270	U
7005-72-3	4-Chlorophenyl-phenylether	270	U
100-01-6	4-Nitroaniline	270	U
534-52-1	4,6-Dinitro-2-methylphenol	530	U
86-30-6	N-Nitrosodiphenylamine	270	U
101-55-3	4-Bromophenyl-phenylether	270	U
118-74-1	Hexachlorobenzene	270	U
87-86-5	Pentachlorophenol	270	U
85-01-8	Phenanthrene	270	U
120-12-7	Anthracene	270	U
84-74-2	Di-n-butylphthalate	270	U
206-44-0	Fluoranthene	270	U
129-00-0	Pyrene	270	U
85-68-7	Butylbenzylphthalate	270	U
91-94-1	3,3'-Dichlorobenzidine	270	U
56-55-3	Benzo[a]anthracene	270	U
218-01-9	Chrysene	270	U
117-81-7	bis(2-Ethylhexyl)phthalate	270	U
117-84-0	Di-n-octylphthalate	270	U
205-99-2	Benzo[b]fluoranthene	270	U
207-08-9	Benzo[k]fluoranthene	270	U
50-32-8	Benzo[a]pyrene	270	U
193-39-5	Indeno[1,2,3-cd]pyrene	270	U
53-70-3	Dibenz[a,h]anthracene	270	U
191-24-2	Benzo[g,h,i]perylene	270	U

1B

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

SAMPLE NO.

NECF-16

Lab Name: ERM-FAST Contract:

Project No.: 22329.00.01 Site: GIVAUDAN Location: CLIFTON, NJ Group: TCLSVOC

Matrix: (soil/water) SOIL Lab Sample ID: TR756

Sample wt/vol: 10.0 (g/mL) G Lab File ID: NOV013.D

Level: (low/med) LOW Date Received: 11/3/98

% Moisture: 3 decanted: (Y/N): N Date Extracted: 11/5/98

Concentrated Extract Volume: 1000 (uL) Date Analyzed: 11/5/98

Injection Volume: 1.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: 7

Concentration Units: (ug/L or ug/Kg) ug/Kg

CAS No.	Compound		Q
108-95-2	Phenol	260	U
111-44-4	bis(2-Chloroethyl)ether	260	U
95-57-8	2-Chlorophenol	260	U
541-73-1	1,3-Dichlorobenzene	260	U
106-46-7	1,4-Dichlorobenzene	260	U
95-50-1	1,2-Dichlorobenzene	260	U
108-60-1	bis(2-chloroisopropyl)ether	260	U
95-48-7	2-Methylphenol	260	U
621-64-7	N-Nitroso-di-n-propylamine	260	U
67-72-1	Hexachloroethane	260	U
106-44-5	4-Methylphenol	260	U
98-95-3	Nitrobenzene	260	U
78-59-1	Isophorone	260	U
88-75-5	2-Nitrophenol	260	U
105-67-9	2,4-Dimethylphenol	260	U
111-91-1	bis(2-Chloroethoxy)methane	260	U
120-83-2	2,4-Dichlorophenol	260	U
120-82-1	1,2,4-Trichlorobenzene	260	U
91-20-3	Naphthalene	260	U
87-68-3	Hexachlorobutadiene	260	U
106-47-8	4-Chloroaniline	260	U
59-50-7	4-Chloro-3-methylphenol	260	U
91-57-6	2-Methylnaphthalene	260	U
77-47-4	Hexachlorocyclopentadiene	260	U
88-06-2	2,4,6-Trichlorophenol	260	U
95-95-4	2,4,5-Trichlorophenol	260	U
91-58-7	2-Chloronaphthalene	260	U
88-74-4	2-Nitroaniline	260	U
131-11-3	Dimethylphthalate	260	U
208-96-8	Acenaphthylene	260	U
606-20-2	2,6-Dinitrotoluene	260	U
83-32-9	Acenaphthene	260	U
99-09-2	3-Nitroaniline	260	U

1B
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

SAMPLE NO.
NECF-16

Lab Name: ERM-FAST Contract:

Project No.: 22329.00.01 Site: GIVAUDAN Location: CLIFTON, NJ Group: TCLSVOC

Matrix: (soil/water) SOIL Lab Sample ID: TR756

Sample wt/vol: 10.0 (g/mL) G Lab File ID: NOV013.D

Level: (low/med) LOW Date Received: 11/3/98

% Moisture: 3 decanted: (Y/N): N Date Extracted: 11/5/98

Concentrated Extract Volume: 1000 (uL) Date Analyzed: 11/5/98

Injection Volume: 1.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: 7

CAS No.	Compound	Concentration Units: (ug/L or ug/Kg) ug/Kg	Q
51-28-5	2,4-Dinitrophenol	5200	U
132-64-9	Dibenzofuran	260	U
100-02-7	4-Nitrophenol	260	U
121-14-2	2,4-Dinitrotoluene	260	U
84-66-2	Diethylphthalate	260	U
86-73-7	Fluorene	260	U
7005-72-3	4-Chlorophenyl-phenylether	260	U
100-01-6	4-Nitroaniline	260	U
534-52-1	4,6-Dinitro-2-methylphenol	520	U
86-30-6	N-Nitrosodiphenylamine	260	U
101-55-3	4-Bromophenyl-phenylether	260	U
118-74-1	Hexachlorobenzene	260	U
87-86-5	Pentachlorophenol	260	U
85-01-8	Phenanthrene	260	U
120-12-7	Anthracene	260	U
84-74-2	Di-n-butylphthalate	260	U
206-44-0	Fluoranthene	260	U
129-00-0	Pyrene	260	U
85-68-7	Butylbenzylphthalate	260	U
91-94-1	3,3'-Dichlorobenzidine	260	U
56-55-3	Benzo[a]anthracene	260	U
218-01-9	Chrysene	260	U
117-81-7	bis(2-Ethylhexyl)phthalate	260	U
117-84-0	Di-n-octylphthalate	260	U
205-99-2	Benzo[b]fluoranthene	260	U
207-08-9	Benzo[k]fluoranthene	260	U
50-32-8	Benzo[a]pyrene	260	U
193-39-5	Indeno[1,2,3-cd]pyrene	260	U
53-70-3	Dibenz[a,h]anthracene	260	U
191-24-2	Benzo[g,h,i]perylene	260	U

1B

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

SAMPLE NO.

NECF-17

Lab Name: ERM-FAST Contract:

Project No.: 22329.00.01 Site: GIVAUDAN Location: CLIFTON, NJ Group: TCLSVOC

Matrix: (soil/water) SOIL Lab Sample ID: TR757

Sample wt/vol: 10.0 (g/mL) G Lab File ID: NOV014.D

Level: (low/med) LOW Date Received: 11/3/98

% Moisture: 3 decanted: (Y/N): N Date Extracted: 11/5/98

Concentrated Extract Volume: 1000 (uL) Date Analyzed: 11/5/98

Injection Volume: 1.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: 7

CAS No.	Compound	Concentration Units: (ug/L or ug/Kg) ug/Kg	Q
108-95-2	Phenol	260	U
111-44-4	bis(2-Chloroethyl)ether	260	U
95-57-8	2-Chlorophenol	260	U
541-73-1	1,3-Dichlorobenzene	260	U
106-46-7	1,4-Dichlorobenzene	260	U
95-50-1	1,2-Dichlorobenzene	260	U
108-60-1	bis(2-chloroisopropyl)ether	260	U
95-48-7	2-Methylphenol	260	U
621-64-7	N-Nitroso-di-n-propylamine	260	U
67-72-1	Hexachloroethane	260	U
106-44-5	4-Methylphenol	260	U
98-95-3	Nitrobenzene	260	U
78-59-1	Isophorone	260	U
88-75-5	2-Nitrophenol	260	U
105-67-9	2,4-Dimethylphenol	260	U
111-91-1	bis(2-Chloroethoxy)methane	260	U
120-83-2	2,4-Dichlorophenol	260	U
120-82-1	1,2,4-Trichlorobenzene	260	U
91-20-3	Naphthalene	260	U
87-68-3	Hexachlorobutadiene	260	U
106-47-8	4-Chloroaniline	260	U
59-50-7	4-Chloro-3-methylphenol	260	U
91-57-6	2-Methylnaphthalene	260	U
77-47-4	Hexachlorocyclopentadiene	260	U
88-06-2	2,4,6-Trichlorophenol	260	U
95-95-4	2,4,5-Trichlorophenol	260	U
91-58-7	2-Chloronaphthalene	260	U
88-74-4	2-Nitroaniline	260	U
131-11-3	Dimethylphthalate	260	U
208-96-8	Acenaphthylene	260	U
606-20-2	2,6-Dinitrotoluene	260	U
83-32-9	Acenaphthene	260	U
99-09-2	3-Nitroaniline	260	U

1B
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

SAMPLE NO.
NECF-17

Lab Name: ERM-FAST Contract:

Project No.: 22329.00.01 Site: GIVAUDAN Location: CLIFTON, NJ Group: TCLSVOC

Matrix: (soil/water) SOIL Lab Sample ID: TR757

Sample wt/vol: 10.0 (g/mL) G Lab File ID: NOV014.D

Level: (low/med) LOW Date Received: 11/3/98

% Moisture: 3 decanted: (Y/N): N Date Extracted: 11/5/98

Concentrated Extract Volume: 1000 (uL) Date Analyzed: 11/5/98

Injection Volume: 1.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: 7

CAS No.	Compound	Concentration Units: (ug/L or ug/Kg) ug/Kg	Q
51-28-5	2,4-Dinitrophenol	5200	U
132-64-9	Dibenzofuran	260	U
100-02-7	4-Nitrophenol	260	U
121-14-2	2,4-Dinitrotoluene	260	U
84-66-2	Diethylphthalate	260	U
86-73-7	Fluorene	260	U
7005-72-3	4-Chlorophenyl-phenylether	260	U
100-01-6	4-Nitroaniline	260	U
534-52-1	4,6-Dinitro-2-methylphenol	520	U
86-30-6	N-Nitrosodiphenylamine	260	U
101-55-3	4-Bromophenyl-phenylether	260	U
118-74-1	Hexachlorobenzene	260	U
87-86-5	Pentachlorophenol	260	U
85-01-8	Phenanthrene	260	U
120-12-7	Anthracene	260	U
84-74-2	Di-n-butylphthalate	260	U
206-44-0	Fluoranthene	260	U
129-00-0	Pyrene	260	U
85-68-7	Butylbenzylphthalate	260	U
91-94-1	3,3'-Dichlorobenzidine	260	U
56-55-3	Benzo[a]anthracene	260	U
218-01-9	Chrysene	260	U
117-81-7	bis(2-Ethylhexyl)phthalate	260	U
117-84-0	Di-n-octylphthalate	260	U
205-99-2	Benzo[b]fluoranthene	260	U
207-08-9	Benzo[k]fluoranthene	260	U
50-32-8	Benzo[a]pyrene	260	U
193-39-5	Indeno[1,2,3-cd]pyrene	260	U
53-70-3	Dibenz[a,h]anthracene	260	U
191-24-2	Benzo[g,h,i]perylene	260	U

1B
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

SAMPLE NO.
NECF-18

Lab Name: ERM-FAST Contract:

Project No.: 22329.00.01 Site: GIVAUDAN Location: CLIFTON, NJ Group: TCLSVOC

Matrix: (soil/water) SOIL Lab Sample ID: TR758

Sample wt/vol: 10.0 (g/mL) G Lab File ID: NOV016.D

Level: (low/med) LOW Date Received: 11/3/98

% Moisture: 6 decanted: (Y/N): N Date Extracted: 11/5/98

Concentrated Extract Volume: 1000 (uL) Date Analyzed: 11/5/98

Injection Volume: 1.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: 7

CAS No.	Compound	Concentration Units: (ug/L or ug/Kg) ug/Kg	Q
108-95-2	Phenol	270	U
111-44-4	bis(2-Chloroethyl)ether	270	U
95-57-8	2-Chlorophenol	270	U
541-73-1	1,3-Dichlorobenzene	270	U
106-46-7	1,4-Dichlorobenzene	270	U
95-50-1	1,2-Dichlorobenzene	270	U
108-60-1	bis(2-chloroisopropyl)ether	270	U
95-48-7	2-Methylphenol	270	U
621-64-7	N-Nitroso-di-n-propylamine	270	U
67-72-1	Hexachloroethane	270	U
106-44-5	4-Methylphenol	270	U
98-95-3	Nitrobenzene	270	U
78-59-1	Isophorone	270	U
88-75-5	2-Nitrophenol	270	U
105-67-9	2,4-Dimethylphenol	270	U
111-91-1	bis(2-Chloroethoxy)methane	270	U
120-83-2	2,4-Dichlorophenol	270	U
120-82-1	1,2,4-Trichlorobenzene	270	U
91-20-3	Naphthalene	270	U
87-68-3	Hexachlorobutadiene	270	U
106-47-8	4-Chloroaniline	270	U
59-50-7	4-Chloro-3-methylphenol	270	U
91-57-6	2-Methylnaphthalene	270	U
77-47-4	Hexachlorocyclopentadiene	270	U
88-06-2	2,4,6-Trichlorophenol	270	U
95-95-4	2,4,5-Trichlorophenol	270	U
91-58-7	2-Chloronaphthalene	270	U
88-74-4	2-Nitroaniline	270	U
131-11-3	Dimethylphthalate	270	U
208-96-8	Acenaphthylene	270	U
606-20-2	2,6-Dinitrotoluene	270	U
83-32-9	Acenaphthene	270	U
99-09-2	3-Nitroaniline	270	U

1B
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

SAMPLE NO.
NECF-18

Lab Name: ERM-FAST Contract:

Project No.: 22329.00.01 Site: GIVAUDAN Location: CLIFTON, NJ Group: TCLSVOC

Matrix: (soil/water) SOIL Lab Sample ID: TR758

Sample wt/vol: 10.0 (g/mL) G Lab File ID: NOV016.D

Level: (low/med) LOW Date Received: 11/3/98

% Moisture: 6 decanted: (Y/N): N Date Extracted: 11/5/98

Concentrated Extract Volume: 1000 (uL) Date Analyzed: 11/5/98

Injection Volume: 1.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: 7

CAS No.	Compound	Concentration Units: (ug/L or ug/Kg) ug/Kg	Q
51-28-5	2,4-Dinitrophenol	5300	U
132-64-9	Dibenzofuran	270	U
100-02-7	4-Nitrophenol	270	U
121-14-2	2,4-Dinitrotoluene	270	U
84-66-2	Diethylphthalate	270	U
86-73-7	Fluorene	270	U
7005-72-3	4-Chlorophenyl-phenylether	270	U
100-01-6	4-Nitroaniline	270	U
534-52-1	4,6-Dinitro-2-methylphenol	530	U
86-30-6	N-Nitrosodiphenylamine	270	U
101-55-3	4-Bromophenyl-phenylether	270	U
118-74-1	Hexachlorobenzene	270	U
87-86-5	Pentachlorophenol	270	U
85-01-8	Phenanthrene	270	U
120-12-7	Anthracene	270	U
84-74-2	Di-n-butylphthalate	270	U
206-44-0	Fluoranthene	270	U
129-00-0	Pyrene	270	U
85-68-7	Butylbenzylphthalate	270	U
91-94-1	3,3'-Dichlorobenzidine	270	U
56-55-3	Benzo[a]anthracene	270	U
218-01-9	Chrysene	270	U
117-81-7	bis(2-Ethylhexyl)phthalate	270	U
117-84-0	Di-n-octylphthalate	270	U
205-99-2	Benzo[b]fluoranthene	270	U
207-08-9	Benzo[k]fluoranthene	270	U
50-32-8	Benzo[a]pyrene	270	U
193-39-5	Indeno[1,2,3-cd]pyrene	270	U
53-70-3	Dibenz[a,h]anthracene	270	U
191-24-2	Benzo[g,h,i]perylene	270	U

1B
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

SAMPLE NO.
NECF-19

Lab Name: ERM-FAST Contract:

Project No.: 22329.00.01 Site: GIVAUDAN Location: CLIFTON, NJ Group: TCLSVOC

Matrix: (soil/water) SOIL Lab Sample ID: TR769

Sample wt/vol: 10.0 (g/mL) G Lab File ID: NOV017.D

Level: (low/med) LOW Date Received: 11/4/98

% Moisture: 5 decanted: (Y/N): N Date Extracted: 11/5/98

Concentrated Extract Volume: 1000 (uL) Date Analyzed: 11/5/98

Injection Volume: 1.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: 7

CAS No.	Compound	Concentration Units: (ug/L or ug/Kg) ug/Kg	Q
108-95-2	Phenol	260	U
111-44-4	bis(2-Chloroethyl)ether	260	U
95-57-8	2-Chlorophenol	260	U
541-73-1	1,3-Dichlorobenzene	260	U
106-46-7	1,4-Dichlorobenzene	260	U
95-50-1	1,2-Dichlorobenzene	260	U
108-60-1	bis(2-chloroisopropyl)ether	260	U
95-48-7	2-Methylphenol	260	U
621-64-7	N-Nitroso-di-n-propylamine	260	U
67-72-1	Hexachloroethane	260	U
106-44-5	4-Methylphenol	260	U
98-95-3	Nitrobenzene	260	U
78-59-1	Isophorone	260	U
88-75-5	2-Nitrophenol	260	U
105-67-9	2,4-Dimethylphenol	260	U
111-91-1	bis(2-Chloroethoxy)methane	260	U
120-83-2	2,4-Dichlorophenol	260	U
120-82-1	1,2,4-Trichlorobenzene	260	U
91-20-3	Naphthalene	260	U
87-68-3	Hexachlorobutadiene	260	U
106-47-8	4-Chloroaniline	260	U
59-50-7	4-Chloro-3-methylphenol	260	U
91-57-6	2-Methylnaphthalene	260	U
77-47-4	Hexachlorocyclopentadiene	260	U
88-06-2	2,4,6-Trichlorophenol	260	U
95-95-4	2,4,5-Trichlorophenol	260	U
91-58-7	2-Chloronaphthalene	260	U
88-74-4	2-Nitroaniline	260	U
131-11-3	Dimethylphthalate	260	U
208-96-8	Acenaphthylene	260	U
606-20-2	2,6-Dinitrotoluene	260	U
83-32-9	Acenaphthene	260	U
99-09-2	3-Nitroaniline	260	U

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SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

SAMPLE NO.
NECF-19

Lab Name: ERM-FAST Contract:

Project No.: 22329.00.01 Site: GIVAUDAN Location: CLIFTON, NJ Group: TCLSVOC

Matrix: (soil/water) SOIL Lab Sample ID: TR769

Sample wt/vol: 10.0 (g/mL) G Lab File ID: NOV017.D

Level: (low/med) LOW Date Received: 11/4/98

% Moisture: 5 decanted: (Y/N): N Date Extracted: 11/5/98

Concentrated Extract Volume: 1000 (uL) Date Analyzed: 11/5/98

Injection Volume: 1.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: 7

CAS No.	Compound	Concentration Units: (ug/L or ug/Kg) ug/Kg	Q
51-28-5	2,4-Dinitrophenol	5300	U
132-64-9	Dibenzofuran	260	U
100-02-7	4-Nitrophenol	260	U
121-14-2	2,4-Dinitrotoluene	260	U
84-66-2	Diethylphthalate	260	U
86-73-7	Fluorene	260	U
7005-72-3	4-Chlorophenyl-phenylether	260	U
100-01-6	4-Nitroaniline	260	U
534-52-1	4,6-Dinitro-2-methylphenol	530	U
86-30-6	N-Nitrosodiphenylamine	260	U
101-55-3	4-Bromophenyl-phenylether	260	U
118-74-1	Hexachlorobenzene	260	U
87-86-5	Pentachlorophenol	260	U
85-01-8	Phenanthrene	260	U
120-12-7	Anthracene	260	U
84-74-2	Di-n-butylphthalate	260	U
206-44-0	Fluoranthene	260	U
129-00-0	Pyrene	260	U
85-68-7	Butylbenzylphthalate	260	U
91-94-1	3,3'-Dichlorobenzidine	260	U
56-55-3	Benzo[a]anthracene	260	U
218-01-9	Chrysene	260	U
117-81-7	bis(2-Ethylhexyl)phthalate	260	U
117-84-0	Di-n-octylphthalate	260	U
205-99-2	Benzo[b]fluoranthene	260	U
207-08-9	Benzo[k]fluoranthene	260	U
50-32-8	Benzo[a]pyrene	260	U
193-39-5	Indeno[1,2,3-cd]pyrene	260	U
53-70-3	Dibenz[a,h]anthracene	260	U
191-24-2	Benzo[g,h,i]perylene	260	U

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SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

SAMPLE NO.

NECF-20

Lab Name: ERM-FAST Contract:

Project No.: 22329.00.01 Site: GIVAUDAN Location: CLIFTON, NJ Group: TCLSVOC

Matrix: (soil/water) SOIL Lab Sample ID: TR770

Sample wt/vol: 10.0 (g/mL) G Lab File ID: NOV020.D

Level: (low/med) LOW Date Received: 11/4/98

% Moisture: 5 decanted: (Y/N): N Date Extracted: 11/5/98

Concentrated Extract Volume: 1000 (uL) Date Analyzed: 11/5/98

Injection Volume: 1.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: 7

CAS No.	Compound	Concentration Units: (ug/L or ug/Kg) ug/Kg	Q
108-95-2	Phenol	260	U
111-44-4	bis(2-Chloroethyl)ether	260	U
95-57-8	2-Chlorophenol	260	U
541-73-1	1,3-Dichlorobenzene	260	U
106-46-7	1,4-Dichlorobenzene	260	U
95-50-1	1,2-Dichlorobenzene	260	U
108-60-1	bis(2-chloroisopropyl)ether	260	U
95-48-7	2-Methylphenol	260	U
621-64-7	N-Nitroso-di-n-propylamine	260	U
67-72-1	Hexachloroethane	260	U
106-44-5	4-Methylphenol	260	U
98-95-3	Nitrobenzene	260	U
78-59-1	Isophorone	260	U
88-75-5	2-Nitrophenol	260	U
105-67-9	2,4-Dimethylphenol	260	U
111-91-1	bis(2-Chloroethoxy)methane	260	U
120-83-2	2,4-Dichlorophenol	260	U
120-82-1	1,2,4-Trichlorobenzene	260	U
91-20-3	Naphthalene	260	U
87-68-3	Hexachlorobutadiene	260	U
106-47-8	4-Chloroaniline	260	U
59-50-7	4-Chloro-3-methylphenol	260	U
91-57-6	2-Methylnaphthalene	260	U
77-47-4	Hexachlorocyclopentadiene	260	U
88-06-2	2,4,6-Trichlorophenol	260	U
95-95-4	2,4,5-Trichlorophenol	260	U
91-58-7	2-Chloronaphthalene	260	U
88-74-4	2-Nitroaniline	260	U
131-11-3	Dimethylphthalate	260	U
208-96-8	Acenaphthylene	260	U
606-20-2	2,6-Dinitrotoluene	260	U
83-32-9	Acenaphthene	260	U
99-09-2	3-Nitroaniline	260	U

1B
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

SAMPLE NO.
NECF-20

Lab Name: ERM-FAST Contract:

Project No.: 22329.00.01 Site: GIVAUDAN Location: CLIFTON, NJ Group: TCLSVOC

Matrix: (soil/water) SOIL Lab Sample ID: TR770

Sample wt/vol: 10.0 (g/mL) G Lab File ID: NOV020.D

Level: (low/med) LOW Date Received: 11/4/98

% Moisture: 5 decanted: (Y/N): N Date Extracted: 11/5/98

Concentrated Extract Volume: 1000 (uL) Date Analyzed: 11/5/98

Injection Volume: 1.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: 7

CAS No.	Compound	Concentration Units: (ug/L or ug/Kg) ug/Kg	Q
51-28-5	2,4-Dinitrophenol	5300	U
132-64-9	Dibenzofuran	260	U
100-02-7	4-Nitrophenol	260	U
121-14-2	2,4-Dinitrotoluene	260	U
84-66-2	Diethylphthalate	260	U
86-73-7	Fluorene	260	U
7005-72-3	4-Chlorophenyl-phenylether	260	U
100-01-6	4-Nitroaniline	260	U
534-52-1	4,6-Dinitro-2-methylphenol	530	U
86-30-6	N-Nitrosodiphenylamine	260	U
101-55-3	4-Bromophenyl-phenylether	260	U
118-74-1	Hexachlorobenzene	260	U
87-86-5	Pentachlorophenol	260	U
85-01-8	Phenanthrene	260	U
120-12-7	Anthracene	260	U
84-74-2	Di-n-butylphthalate	260	U
206-44-0	Fluoranthene	260	U
129-00-0	Pyrene	260	U
85-68-7	Butylbenzylphthalate	260	U
91-94-1	3,3'-Dichlorobenzidine	260	U
56-55-3	Benzo[a]anthracene	260	U
218-01-9	Chrysene	260	U
117-81-7	bis(2-Ethylhexyl)phthalate	260	U
117-84-0	Di-n-octylphthalate	260	U
205-99-2	Benzo[b]fluoranthene	260	U
207-08-9	Benzo[k]fluoranthene	260	U
50-32-8	Benzo[a]pyrene	260	U
193-39-5	Indeno[1,2,3-cd]pyrene	260	U
53-70-3	Dibenz[a,h]anthracene	260	U
191-24-2	Benzo[g,h,i]perylene	260	U

1B

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

SAMPLE NO.

NECF-21

Lab Name: ERM-FAST Contract:

Project No.: 22329.00.01 Site: GIVAUDAN Location: CLIFTON, NJ Group: TCLSVOC

Matrix: (soil/water) SOIL Lab Sample ID: TR771

Sample wt/vol: 10.0 (g/mL) G Lab File ID: NOV018.D

Level: (low/med) LOW Date Received: 11/4/98

% Moisture: 5 decanted: (Y/N): N Date Extracted: 11/5/98

Concentrated Extract Volume: 1000 (uL) Date Analyzed: 11/5/98

Injection Volume: 1.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: 7

CAS No.	Compound	Concentration Units: (ug/L or ug/Kg) ug/Kg	Q
108-95-2	Phenol	260	U
111-44-4	bis(2-Chloroethyl)ether	260	U
95-57-8	2-Chlorophenol	260	U
541-73-1	1,3-Dichlorobenzene	260	U
106-46-7	1,4-Dichlorobenzene	260	U
95-50-1	1,2-Dichlorobenzene	260	U
108-60-1	bis(2-chloroisopropyl)ether	260	U
95-48-7	2-Methylphenol	260	U
621-64-7	N-Nitroso-di-n-propylamine	260	U
67-72-1	Hexachloroethane	260	U
106-44-5	4-Methylphenol	260	U
98-95-3	Nitrobenzene	260	U
78-59-1	Isophorone	260	U
88-75-5	2-Nitrophenol	260	U
105-67-9	2,4-Dimethylphenol	260	U
111-91-1	bis(2-Chloroethoxy)methane	260	U
120-83-2	2,4-Dichlorophenol	260	U
120-82-1	1,2,4-Trichlorobenzene	260	U
91-20-3	Naphthalene	260	U
87-68-3	Hexachlorobutadiene	260	U
106-47-8	4-Chloroaniline	260	U
59-50-7	4-Chloro-3-methylphenol	260	U
91-57-6	2-Methylnaphthalene	260	U
77-47-4	Hexachlorocyclopentadiene	260	U
88-06-2	2,4,6-Trichlorophenol	260	U
95-95-4	2,4,5-Trichlorophenol	260	U
91-58-7	2-Chloronaphthalene	260	U
88-74-4	2-Nitroaniline	260	U
131-11-3	Dimethylphthalate	260	U
208-96-8	Acenaphthylene	260	U
606-20-2	2,6-Dinitrotoluene	260	U
83-32-9	Acenaphthene	260	U
99-09-2	3-Nitroaniline	260	U

1B
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

SAMPLE NO.
NECF-21

Lab Name: ERM-FAST Contract:

Project No.: 22329.00.01 Site: GIVAUDAN Location: CLIFTON, NJ Group: TCLSVOC

Matrix: (soil/water) SOIL Lab Sample ID: TR771

Sample wt/vol: 10.0 (g/mL) G Lab File ID: NOV018.D

Level: (low/med) LOW Date Received: 11/4/98

% Moisture: 5 decanted: (Y/N): N Date Extracted: 11/5/98

Concentrated Extract Volume: 1000 (uL) Date Analyzed: 11/5/98

Injection Volume: 1.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: 7

CAS No.	Compound	Concentration Units: (ug/L or ug/Kg) ug/Kg	Q
51-28-5	2,4-Dinitrophenol	5300	U
132-64-9	Dibenzofuran	260	U
100-02-7	4-Nitrophenol	260	U
121-14-2	2,4-Dinitrotoluene	260	U
84-66-2	Diethylphthalate	260	U
86-73-7	Fluorene	260	U
7005-72-3	4-Chlorophenyl-phenylether	260	U
100-01-6	4-Nitroaniline	260	U
534-52-1	4,6-Dinitro-2-methylphenol	530	U
86-30-6	N-Nitrosodiphenylamine	260	U
101-55-3	4-Bromophenyl-phenylether	260	U
118-74-1	Hexachlorobenzene	260	U
87-86-5	Pentachlorophenol	260	U
85-01-8	Phenanthrene	260	U
120-12-7	Anthracene	260	U
84-74-2	Di-n-butylphthalate	260	U
206-44-0	Fluoranthene	260	U
129-00-0	Pyrene	260	U
85-68-7	Butylbenzylphthalate	260	U
91-94-1	3,3'-Dichlorobenzidine	260	U
56-55-3	Benzo[a]anthracene	260	U
218-01-9	Chrysene	260	U
117-81-7	bis(2-Ethylhexyl)phthalate	260	U
117-84-0	Di-n-octylphthalate	260	U
205-99-2	Benzo[b]fluoranthene	260	U
207-08-9	Benzo[k]fluoranthene	260	U
50-32-8	Benzo[a]pyrene	260	U
193-39-5	Indeno[1,2,3-cd]pyrene	260	U
53-70-3	Dibenz[a,h]anthracene	260	U
191-24-2	Benzo[g,h,i]perylene	260	U

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SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

SAMPLE NO.
NECF-22

Lab Name: ERM-FAST Contract:

Project No.: 22329.00.01 Site: GIVAUDAN Location: CLIFTON, NJ Group: TCLSVOC

Matrix: (soil/water) SOIL Lab Sample ID: TR775

Sample wt/vol: 10.0 (g/mL) G Lab File ID: NOV019.D

Level: (low/med) LOW Date Received: 11/4/98

% Moisture: 7 decanted: (Y/N): N Date Extracted: 11/5/98

Concentrated Extract Volume: 1000 (uL) Date Analyzed: 11/5/98

Injection Volume: 1.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: 7

CAS No.	Compound	Concentration Units: (ug/L or ug/Kg) ug/Kg	Q
108-95-2	Phenol	270	U
111-44-4	bis(2-Chloroethyl)ether	270	U
95-57-8	2-Chlorophenol	270	U
541-73-1	1,3-Dichlorobenzene	270	U
106-46-7	1,4-Dichlorobenzene	270	U
95-50-1	1,2-Dichlorobenzene	270	U
108-60-1	bis(2-chloroisopropyl)ether	270	U
95-48-7	2-Methylphenol	270	U
621-64-7	N-Nitroso-di-n-propylamine	270	U
67-72-1	Hexachloroethane	270	U
106-44-5	4-Methylphenol	270	U
98-95-3	Nitrobenzene	270	U
78-59-1	Isophorone	270	U
88-75-5	2-Nitrophenol	270	U
105-67-9	2,4-Dimethylphenol	270	U
111-91-1	bis(2-Chloroethoxy)methane	270	U
120-83-2	2,4-Dichlorophenol	270	U
120-82-1	1,2,4-Trichlorobenzene	270	U
91-20-3	Naphthalene	270	U
87-68-3	Hexachlorobutadiene	270	U
106-47-8	4-Chloroaniline	270	U
59-50-7	4-Chloro-3-methylphenol	270	U
91-57-6	2-Methylnaphthalene	270	U
77-47-4	Hexachlorocyclopentadiene	270	U
88-06-2	2,4,6-Trichlorophenol	270	U
95-95-4	2,4,5-Trichlorophenol	270	U
91-58-7	2-Chloronaphthalene	270	U
88-74-4	2-Nitroaniline	270	U
131-11-3	Dimethylphthalate	270	U
208-96-8	Acenaphthylene	270	U
606-20-2	2,6-Dinitrotoluene	270	U
83-32-9	Acenaphthene	270	U
99-09-2	3-Nitroaniline	270	U

1B
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

SAMPLE NO.
NECF-22

Lab Name: ERM-FAST Contract:

Project No.: 22329.00.01 Site: GIVAUDAN Location: CLIFTON, NJ Group: TCLSVOC

Matrix: (soil/water) SOIL Lab Sample ID: TR775

Sample wt/vol: 10.0 (g/mL) G Lab File ID: NOV019.D

Level: (low/med) LOW Date Received: 11/4/98

% Moisture: 7 decanted: (Y/N): N Date Extracted: 11/5/98

Concentrated Extract Volume: 1000 (uL) Date Analyzed: 11/5/98

Injection Volume: 1.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: 7

CAS No.	Compound	Concentration Units: (ug/L or ug/Kg) ug/Kg	Q
51-28-5	2,4-Dinitrophenol	5400	U
132-64-9	Dibenzofuran	270	U
100-02-7	4-Nitrophenol	270	U
121-14-2	2,4-Dinitrotoluene	270	U
84-66-2	Diethylphthalate	270	U
86-73-7	Fluorene	270	U
7005-72-3	4-Chlorophenyl-phenylether	270	U
100-01-6	4-Nitroaniline	270	U
534-52-1	4,6-Dinitro-2-methylphenol	540	U
86-30-6	N-Nitrosodiphenylamine	270	U
101-55-3	4-Bromophenyl-phenylether	270	U
118-74-1	Hexachlorobenzene	270	U
87-86-5	Pentachlorophenol	270	U
85-01-8	Phenanthrene	270	U
120-12-7	Anthracene	270	U
84-74-2	Di-n-butylphthalate	270	U
206-44-0	Fluoranthene	270	U
129-00-0	Pyrene	270	U
85-68-7	Butylbenzylphthalate	270	U
91-94-1	3,3'-Dichlorobenzidine	270	U
56-55-3	Benzo[a]anthracene	270	U
218-01-9	Chrysene	270	U
117-81-7	bis(2-Ethylhexyl)phthalate	270	U
117-84-0	Di-n-octylphthalate	270	U
205-99-2	Benzo[b]fluoranthene	270	U
207-08-9	Benzo[k]fluoranthene	270	U
50-32-8	Benzo[a]pyrene	270	U
193-39-5	Indeno[1,2,3-cd]pyrene	270	U
53-70-3	Dibenz[a,h]anthracene	270	U
191-24-2	Benzo[g,h,i]perylene	270	U

1B

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

NECF-23

Lab Name: ERM-FAST Contract: GIVAUDAN

Lab Code: Case No.: 22329.00. SAS No.: SDG No.:

Matrix: (soil/water) SOIL Lab Sample ID: TR 777

Sample wt/vol: 10 (g/ml) G Lab File ID: RNOV071.D

Level: (low/med) LOW Date Received: 11/05/98

% Moisture: 3 decanted:(Y/N) N Date Extracted: 11/06/98

Concentrated Extract Volume: 1000 (uL) Date Analyzed: 11/12/98

Injection Volume: 1.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: 7

CONCENTRATION UNITS:

CAS NO.	COMPOUND	(ug/L or ug/Kg) UG/KG	Q
108-95-2	Phenol	260	U
111-44-4	bis(2-Chloroethyl)ether	260	U
95-57-8	2-Chlorophenol	260	U
541-73-1	1,3-Dichlorobenzene	260	U
106-46-7	1,4-Dichlorobenzene	260	U
95-50-1	1,2-Dichlorobenzene	260	U
108-60-1	bis(2-chloroisopropyl)ether	260	U
95-48-7	2-Methylphenol	260	U
621-64-7	N-Nitroso-di-n-propylamine	260	U
67-72-1	Hexachloroethane	260	U
106-44-5	4-Methylphenol	260	U
98-95-3	Nitrobenzene	260	U
78-59-1	Isophorone	260	U
88-75-5	2-Nitrophenol	260	U
105-67-9	2,4-Dimethylphenol	260	U
111-91-1	bis(2-Chloroethoxy)methane	260	U
120-83-2	2,4-Dichlorophenol	260	U
120-82-1	1,2,4-Trichlorobenzene	260	U
91-20-3	Naphthalene	260	U
87-68-3	Hexachlorobutadiene	260	U
106-47-8	4-Chloroaniline	260	U
59-50-7	4-Chloro-3-methylphenol	260	U
91-57-6	2-Methylnaphthalene	260	U
77-47-4	Hexachlorocyclopentadiene	260	U
88-06-2	2,4,6-Trichlorophenol	260	U
95-95-4	2,4,5-Trichlorophenol	260	U
91-58-7	2-Chloronaphthalene	260	U
88-74-4	2-Nitroaniline	260	U
131-11-3	Dimethylphthalate	260	U
208-96-8	Acenaphthylene	260	U
606-20-2	2,6-Dinitrotoluene	260	U
83-32-9	Acenaphthene	260	U
99-09-2	3-Nitroaniline	260	U
51-28-5	2,4-Dinitrophenol	5200	U
132-64-9	Dibenzofuran	260	U
100-02-7	4-Nitrophenol	260	U
121-14-2	2,4-Dinitrotoluene	260	U

1C

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

NECF-23

Lab Name: ERM-FAST Contract: GIVAUDAN

Lab Code: Case No.: 22329.00. SAS No.: SDG No.:

Matrix: (soil/water) SOIL Lab Sample ID: TR 777

Sample wt/vol: 10 (g/ml) G Lab File ID: RNOV071.D

Level: (low/med) LOW Date Received: 11/05/98

% Moisture: 3 decanted:(Y/N) N Date Extracted: 11/06/98

Concentrated Extract Volume: 1000 (uL) Date Analyzed: 11/12/98

Injection Volume: 1.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: 7

CONCENTRATION UNITS:

CAS NO.	COMPOUND	(ug/L or ug/Kg) UG/KG	Q
84-66-2	Diethylphthalate	260	U
86-73-7	Fluorene	260	U
7005-72-3	4-Chlorophenyl-phenylether	260	U
100-01-6	4-Nitroaniline	260	U
534-52-1	4,6-Dinitro-2-methylphenol	520	U
86-30-6	N-Nitrosodiphenylamine	260	U
101-55-3	4-Bromophenyl-phenylether	260	U
118-74-1	Hexachlorobenzene	260	U
87-86-5	Pentachlorophenol	260	U
85-01-8	Phenanthrene	260	U
120-12-7	Anthracene	260	U
84-74-2	Di-n-butylphthalate	260	U
206-44-0	Fluoranthene	260	U
129-00-0	Pyrene	260	U
85-68-7	Butylbenzylphthalate	260	U
91-94-1	3,3'-Dichlorobenzidine	260	U
56-55-3	Benzo[a]anthracene	260	U
218-01-9	Chrysene	260	U
117-81-7	bis(2-Ethylhexyl)phthalate	260	U
117-84-0	Di-n-octylphthalate	260	U
205-99-2	Benzo[b]fluoranthene	260	U
207-08-9	Benzo[k]fluoranthene	260	U
50-32-8	Benzo[a]pyrene	260	U
193-39-5	Indeno[1,2,3-cd]pyrene	260	U
53-70-3	Dibenz[a,h]anthracene	260	U
191-24-2	Benzo[g,h,i]perylene	260	U

1B

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

NECF-24

Lab Name: ERM-FAST Contract: GIVAUDAN

Lab Code: Case No.: 22329.00. SAS No.: SDG No.:

Matrix: (soil/water) SOIL Lab Sample ID: TR 778

Sample wt/vol: 10 (g/ml) G Lab File ID: RNOV072.D

Level: (low/med) LOW Date Received: 11/05/98

% Moisture: 3 decanted:(Y/N) N Date Extracted: 11/06/98

Concentrated Extract Volume: 1000 (uL) Date Analyzed: 11/12/98

Injection Volume: 1.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: 7

CONCENTRATION UNITS:

CAS NO.	COMPOUND	(ug/L or ug/Kg) UG/KG	Q
108-95-2	Phenol	260	U
111-44-4	bis(2-Chloroethyl)ether	260	U
95-57-8	2-Chlorophenol	260	U
541-73-1	1,3-Dichlorobenzene	260	U
106-46-7	1,4-Dichlorobenzene	260	U
95-50-1	1,2-Dichlorobenzene	260	U
108-60-1	bis(2-chloroisopropyl)ether	260	U
95-48-7	2-Methylphenol	260	U
621-64-7	N-Nitroso-di-n-propylamine	260	U
67-72-1	Hexachloroethane	260	U
106-44-5	4-Methylphenol	260	U
98-95-3	Nitrobenzene	260	U
78-59-1	Isophorone	260	U
88-75-5	2-Nitrophenol	260	U
105-67-9	2,4-Dimethylphenol	260	U
111-91-1	bis(2-Chloroethoxy)methane	260	U
120-83-2	2,4-Dichlorophenol	260	U
120-82-1	1,2,4-Trichlorobenzene	260	U
91-20-3	Naphthalene	260	U
87-68-3	Hexachlorobutadiene	260	U
106-47-8	4-Chloroaniline	260	U
59-50-7	4-Chloro-3-methylphenol	260	U
91-57-6	2-Methylnaphthalene	260	U
77-47-4	Hexachlorocyclopentadiene	260	U
88-06-2	2,4,6-Trichlorophenol	260	U
95-95-4	2,4,5-Trichlorophenol	260	U
91-58-7	2-Chloronaphthalene	260	U
88-74-4	2-Nitroaniline	260	U
131-11-3	Dimethylphthalate	260	U
208-96-8	Acenaphthylene	260	U
606-20-2	2,6-Dinitrotoluene	260	U
83-32-9	Acenaphthene	260	U
99-09-2	3-Nitroaniline	260	U
51-28-5	2,4-Dinitrophenol	5200	U
132-64-9	Dibenzofuran	260	U
100-02-7	4-Nitrophenol	260	U
121-14-2	2,4-Dinitrotoluene	260	U

1C

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

NECF-24

Lab Name: ERM-FAST Contract: GIVAUDAN

Lab Code: Case No.: 22329.00. SAS No.: SDG No.:

Matrix: (soil/water) SOIL Lab Sample ID: TR 778

Sample wt/vol: 10 (g/ml) G Lab File ID: RNOV072.D

Level: (low/med) LOW Date Received: 11/05/98

% Moisture: 3 decanted:(Y/N) N Date Extracted: 11/06/98

Concentrated Extract Volume: 1000 (uL) Date Analyzed: 11/12/98

Injection Volume: 1.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: 7

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

CAS NO.	COMPOUND		Q
84-66-2	Diethylphthalate	260	U
86-73-7	Fluorene	260	U
7005-72-3	4-Chlorophenyl-phenylether	260	U
100-01-6	4-Nitroaniline	260	U
534-52-1	4,6-Dinitro-2-methylphenol	520	U
86-30-6	N-Nitrosodiphenylamine	260	U
101-55-3	4-Bromophenyl-phenylether	260	U
118-74-1	Hexachlorobenzene	260	U
87-86-5	Pentachlorophenol	260	U
85-01-8	Phenanthrene	260	U
120-12-7	Anthracene	260	U
84-74-2	Di-n-butylphthalate	260	U
206-44-0	Fluoranthene	260	U
129-00-0	Pyrene	260	U
85-68-7	Butylbenzylphthalate	260	U
91-94-1	3,3'-Dichlorobenzidine	260	U
56-55-3	Benzo[a]anthracene	260	U
218-01-9	Chrysene	260	U
117-81-7	bis(2-Ethylhexyl)phthalate	260	U
117-84-0	Di-n-octylphthalate	260	U
205-99-2	Benzo[b]fluoranthene	260	U
207-08-9	Benzo[k]fluoranthene	260	U
50-32-8	Benzo[a]pyrene	260	U
193-39-5	Indeno[1,2,3-cd]pyrene	260	U
53-70-3	Dibenz[a,h]anthracene	260	U
191-24-2	Benzo[g,h,i]perylene	260	U

XRF

• need FORM I for all 3 fractions

VOC, SVOC, metals

[illegible]	[illegible]	[illegible]
TR195a	CF-01	9/14/98
~~CF-1~~	~~CF-01~~	~~9/14/98~~
~~CF-2~~	~~CF-02~~	~~9/14/98~~
TR196	CF-02	9/14/98
~~CF-3~~	~~CF-03~~	~~9/14/98~~
TR197	CF-03	9/14/98
TR198	CF-04	9/14/98
~~CF-4~~	~~CF-04~~	~~9/14/98~~
TR199	CF-05	9/14/98
~~CF-5~~	~~CF-05~~	~~9/14/98~~
TR200	CF-06	9/14/98
~~CF-6~~	~~CF-06~~	~~9/14/98~~
~~CFA-1~~	~~CFA-01~~	~~9/15/98~~
TR202	CFA-01	9/15/98
~~CFG-1 (0-6) T.R. 470~~	~~CFG-01 (0-0.5)~~	~~10/8/98~~
~~TR470~~	~~CFG-01 (0-0.5)~~	~~10/8/98~~
~~CFG-1 (6-12) T.R. 471~~	~~CFG-01 (0.5-1)~~	~~10/8/98~~
~~TR471~~	~~CFG-01 (0.5-1)~~	~~10/8/98~~
~~TR472~~	~~CFG-02 (0-0.5)~~	~~10/8/98~~
~~CFG-2 (0-6) T.R. 472~~	~~CFG-02 (0-0.5)~~	~~10/8/98~~
~~CFG-2 (6-12) T.R. 473~~	~~CFG-02 (0.5-1)~~	~~10/8/98~~
~~TR473~~	~~CFG-02 (0.5-1)~~	~~10/8/98~~
TR230	FCF-01	9/23/98
TR231	FCF-02	9/23/98
TR232	FCF-03	9/23/98
TR233	FCF-04	9/23/98
TR234	FCF-05	9/23/98
TR235	FCF-06	9/23/98
TR670	NECF-01	10/26/98
TR741	NECF-02	11/3/98
~~NECF-2~~	~~NECF-02~~	~~11/3/98~~
TR742	NECF-03	11/3/98
TR743	NECF-04	11/3/98
~~NECF-4~~	~~NECF-04~~	~~11/3/98~~
TR744	NECF-05	11/3/98
TR745	NECF-06	11/3/98
TR746	NECF-07	11/3/98
TR747	NECF-07A	11/3/98
~~NECF-7A~~	~~NECF-07A~~	~~11/3/98~~
TR748	NECF-08	11/3/98
~~NECF-8~~	~~NECF-08~~	~~11/3/98~~
TR749	NECF-09	11/3/98
TR750	NECF-10	11/3/98
~~NECF-10~~	~~NECF-10~~	~~11/3/98~~
TR751	NECF-11	11/3/98
TR752	NECF-12	11/3/98

VA

need

Do not Print

need

need

• FAST has all "TR" samples

• Please send to George Pfeiffer via inter office or hand deliver by Monday 11/22.

9/14 - XRF missing

TR753	NECF-13	11/3/98
TR754	NECF-14	11/3/98
TR755	NECF-15	11/3/98
TR756	NECF-16	11/3/98
TR757	NECF-17	11/3/98
~~NECF-17~~	~~NECF-17~~	~~11/3/98~~
TR758	NECF-18	11/3/98
TR769	NECF-19	11/4/98
TR770	NECF-20	11/4/98
~~NECF-20~~	~~NECF-20~~	~~11/4/98~~
TR771	NECF-21	11/4/98
TR775	NECF-22	11/4/98
TR777	NECF-23	11/5/98
TR778	NECF-24	11/5/98
~~NECF-24~~	~~NECF-24~~	~~11/5/98~~

Print

1C
TAL Metals Analysis Data Sheet

SAMPLE NO.

FCF-1

Name: ERM-FAST, EXTON, PA

Project No.: 22329.00.01

Client/Site: GIVAUDAN

Location: Clifton,NJ

Matrix: (soil/water) SOIL

Method: ERM-FAST XRF

Lab Sample ID: TR230

Lab File ID: 650/725

Operator Initials: WKW

Date Received: 9/23/98

Date Prepared 9/24/98

Date Analyzed 9/24/98

ELEMENT	Concentration Units: mg/Kg	Q
Potassium	14000	
Calcium	2800	
Vanadium	110	
Chromium	55	U
Manganese	330	
Iron	27000	
Cobalt	130	
Nickel	60	U
Copper	25	
Zinc	67	
Arsenic	10	U
Selenium	7.0	U
Mercury	10	U
Thallium	6.6	
Lead	70	
Silver	4.0	U
Cadmium	1.0	U
Antimony	5.0	U
Barium	300	

NA = Not Analyzed.
U = Analyzed but not detected. The numeric value represents the quantitation limit.

1C
TAL Metals Analysis Data Sheet

SAMPLE NO.

FCF-2

Name: ERM-FAST, EXTON, PA Project No.: 22329.00.01

Client/Site: GIVAUDAN Location: Clifton,NJ

Matrix: (soil/water) SOIL Method: ERM-FAST XRF Lab Sample ID: TR231

Lab File ID: 651/726

Operator Initials: WKW

Date Received: 9/23/98

Date Prepared 9/24/98

Date Analyzed 9/24/98

ELEMENT	Concentration Units: mg/Kg	Q
Potassium	14000	
Calcium	2000	
Vanadium	170	
Chromium	55	U
Manganese	240	
Iron	24000	
Cobalt	150	
Nickel	60	U
Copper	20	U
Zinc	38	
Arsenic	14	
Selenium	7.0	U
Mercury	10	U
Thallium	2.0	U
Lead	10	U
Silver	4.0	U
Cadmium	1.0	U
Antimony	5.0	U
Barium	350	

NA = Not Analyzed.
U = Analyzed but not detected. The numeric value represents the quantitation limit.

FORM I Metals

1C
TAL Metals Analysis Data Sheet

SAMPLE NO.

FCF-3

Name: ERM-FAST, EXTON, PA

Project No.: 22329.00.01

Client/Site: GIVAUDAN

Location: Clifton,NJ

Matrix: (soil/water) SOIL

Method: ERM-FAST XRF

Lab Sample ID: TR232

Lab File ID: 652/727

Operator Initials: WKW

Date Received: 9/23/98

Date Prepared 9/24/98

Date Analyzed 9/24/98

ELEMENT	Concentration Units: mg/Kg	Q
Potassium	14000	
Calcium	3300	
Vanadium	130	
Chromium	69	
Manganese	420	
Iron	25000	
Cobalt	180	
Nickel	60	U
Copper	39	
Zinc	180	
Arsenic	10	U
Selenium	7.0	U
Mercury	10	U
Thallium	4.6	
Lead	180	
Silver	4.0	U
Cadmium	1.0	U
Antimony	5.0	U
Barium	250	

NA = Not Analyzed.
U = Analyzed but not detected. The numeric value represents the quantitation limit.

FORM I Metals

1C
TAL Metals Analysis Data Sheet

SAMPLE NO.

FCF-4

Name: ERM-FAST, EXTON, PA Project No.: 22329.00.01

Client/Site: GIVAUDAN Location: Clifton,NJ

Matrix: (soil/water) SOIL Method: ERM-FAST XRF Lab Sample ID: TR233

Lab File ID: 654/729

Operator Initials: WKW

Date Received: 9/23/98

Date Prepared 9/24/98

Date Analyzed 9/24/98

ELEMENT	Concentration Units: mg/Kg	Q
Potassium	14000	
Calcium	5900	
Vanadium	150	
Chromium	55	U
Manganese	320	
Iron	25000	
Cobalt	180	
Nickel	60	U
Copper	55	
Zinc	200	
Arsenic	10	U
Selenium	7.0	U
Mercury	10	U
Thallium	5.3	
Lead	270	
Silver	4.0	U
Cadmium	1.3	
Antimony	5.0	U
Barium	280	

NA = Not Analyzed.
U = Analyzed but not detected. The numeric value represents the quantitation limit.

1C
TAL Metals Analysis Data Sheet

SAMPLE NO.

FCF-5

Name: ERM-FAST, EXTON, PA

Project No.: 22329.00.01

Client/Site: GIVAUDAN

Location: Clifton,NJ

Matrix: (soil/water) SOIL

Method: ERM-FAST XRF

Lab Sample ID: TR234

Lab File ID: 655/730

Operator Initials: WKW

Date Received: 9/23/98

Date Prepared 9/24/98

Date Analyzed 9/24/98

ELEMENT	Concentration Units: mg/Kg	Q
Potassium	14000	
Calcium	6700	
Vanadium	150	
Chromium	55	U
Manganese	290	
Iron	25000	
Cobalt	190	
Nickel	60	U
Copper	140	
Zinc	180	
Arsenic	10	U
Selenium	7.0	U
Mercury	10	U
Thallium	4.5	
Lead	260	
Silver	4.0	U
Cadmium	1.0	U
Antimony	5.0	U
Barium	190	

NA = Not Analyzed.
U = Analyzed but not detected. The numeric value represents the quantitation limit.

1C
TAL Metals Analysis Data Sheet

SAMPLE NO.

FCF-6

Name: ERM-FAST, EXTON, PA Project No.: 22329.00.01

Client/Site: GIVAUDAN Location: Clifton,NJ

Matrix: (soil/water) SOIL Method: ERM-FAST XRF Lab Sample ID: TR235

Lab File ID: 656/731

Operator Initials: WKW

Date Received: 9/23/98

Date Prepared 9/24/98

Date Analyzed 9/24/98

ELEMENT	Concentration Units: mg/Kg	Q
Potassium	13000	
Calcium	5400	
Vanadium	120	
Chromium	55	U
Manganese	340	
Iron	24000	
Cobalt	110	
Nickel	60	U
Copper	42	
Zinc	180	
Arsenic	10	U
Selenium	7.0	U
Mercury	10	U
Thallium	2.0	U
Lead	230	
Silver	4.0	U
Cadmium	1.1	
Antimony	5.0	U
Barium	210	

NA = Not Analyzed.
U = Analyzed but not detected. The numeric value represents the quantitation limit.

1C
TAL Metals Analysis Data Sheet

SAMPLE NO.

NECF-1

Name: ERM-FAST, EXTON, PA

Project No.: 22329.00.01

Client/Site: GIVAUDAN

Location: Clifton,NJ

Matrix: (soil/water) SOIL

Method: ERM-FAST XRF

Lab Sample ID: TR670

Lab File ID: 222/215

Operator Initials: WKW

Date Received: 10/26/98

Date Prepared 10/26/98

Date Analyzed 10/26/98

ELEMENT	Concentration Units: mg/Kg	Q
Potassium	9100	
Calcium	6200	
Vanadium	45	
Chromium	55	U
Manganese	320	
Iron	17000	
Cobalt	20	U
Nickel	60	U
Copper	20	U
Zinc	24	
Arsenic	10	U
Selenium	7.0	U
Mercury	10	U
Thallium	2.0	U
Lead	10	U
Silver	4.0	U
Cadmium	1.0	U
Antimony	5.0	U
Barium	160	

NA = Not Analyzed.
U = Analyzed but not detected. The numeric value represents the quantitation limit.

FORM I Metals

1C
TAL Metals Analysis Data Sheet

SAMPLE NO.

NECF-2

Name: ERM-FAST, EXTON, PA

Project No.: 22329.00.01

Client/Site: GIVAUDAN

Location: Clifton,NJ

Matrix: (soil/water) SOIL

Method: ERM-FAST XRF

Lab Sample ID: TR741

Lab File ID: 260/274

Operator Initials: WKW

Date Received: 11/3/98

Date Prepared 11/3/98

Date Analyzed 11/3/98

ELEMENT	Concentration Units: mg/Kg	Q
Potassium	13000	
Calcium	7600	
Vanadium	33	
Chromium	55	U
Manganese	500	
Iron	19000	
Cobalt	20	U
Nickel	60	U
Copper	29	
Zinc	21	
Arsenic	10	U
Selenium	7.0	U
Mercury	10	U
Thallium	2.0	U
Lead	13	
Silver	4.0	U
Cadmium	2.1	
Antimony	5.0	U
Barium	350	

NA = Not Analyzed.
U = Analyzed but not detected. The numeric value represents the quantitation limit.

1C
TAL Metals Analysis Data Sheet

SAMPLE NO.

NECF-3

Lab Name: ERM-FAST, EXTON, PA Project No.: 22329.00.01

Client/Site: GIVAUDAN Location: Clifton,NJ

Matrix: (soil/water) SOIL Method: ERM-FAST XRF Lab Sample ID: TR742

Lab File ID: 261/275

Operator Initials: WKW

Date Received: 11/3/98

Date Prepared 11/3/98

Date Analyzed 11/3/98

ELEMENT	Concentration Units: mg/Kg	Q
Potassium	12000	
Calcium	8000	
Vanadium	51	
Chromium	55	U
Manganese	430	
Iron	20000	
Cobalt	20	U
Nickel	60	U
Copper	31	
Zinc	33	
Arsenic	10	U
Selenium	7.0	U
Mercury	10	U
Thallium	2.0	U
Lead	10	U
Silver	4.0	U
Cadmium	1.0	U
Antimony	5.0	U
Barium	320	

NA = Not Analyzed.
U = Analyzed but not detected. The numeric value represents the quantitation limit.

FORM I Metals

1C
TAL Metals Analysis Data Sheet

SAMPLE NO.

NECF-4

Name: ERM-FAST, EXTON, PA Project No.: 22329.00.01

Client/Site: GIVAUDAN Location: Clifton,NJ

Matrix: (soil/water) SOIL Method: ERM-FAST XRF Lab Sample ID: TR743

Lab File ID: 262/276

Operator Initials: WKW

Date Received: 11/3/98

Date Prepared 11/3/98

Date Analyzed 11/3/98

ELEMENT	Concentration Units: mg/Kg	Q
Potassium	10000	
Calcium	8000	
Vanadium	41	
Chromium	55	U
Manganese	400	
Iron	18000	
Cobalt	20	U
Nickel	60	U
Copper	20	U
Zinc	14	
Arsenic	14	
Selenium	7.0	U
Mercury	10	U
Thallium	2.0	U
Lead	10	U
Silver	4.0	U
Cadmium	1.1	
Antimony	5.0	U
Barium	300	

NA = Not Analyzed.
U = Analyzed but not detected. The numeric value represents the quantitation limit.

FORM I Metals

1C
TAL Metals Analysis Data Sheet

SAMPLE NO.

NECF-5

) Name: ERM-FAST, EXTON, PA Project No.: 22329.00.01

Client/Site: GIVAUDAN Location: Clifton,NJ

Matrix: (soil/water) SOIL Method: ERM-FAST XRF Lab Sample ID: TR744

Lab File ID: 263/277

Operator Initials: WKW

Date Received: 11/3/98

Date Prepared 11/3/98

Date Analyzed 11/3/98

ELEMENT	Concentration Units: mg/Kg	Q
Potassium	13000	
Calcium	8300	
Vanadium	16	U
Chromium	55	U
Manganese	520	
Iron	19000	
Cobalt	20	U
Nickel	60	U
Copper	39	
Zinc	41	
Arsenic	10	U
Selenium	7.0	U
Mercury	10	U
Thallium	2.0	U
Lead	10	U
Silver	4.0	U
Cadmium	1.0	U
Antimony	5.0	U
Barium	280	

NA = Not Analyzed.
U = Analyzed but not detected. The numeric value represents the quantitation limit.

FORM I Metals

1C
TAL Metals Analysis Data Sheet

SAMPLE NO.

NECF-6

Name: ERM-FAST, EXTON, PA Project No.: 22329.00.01

Client/Site: GIVAUDAN Location: Clifton,NJ

Matrix: (soil/water) SOIL Method: ERM-FAST XRF Lab Sample ID: TR745

Lab File ID: 264/302

Operator Initials: TG

Date Received: 11/3/98

Date Prepared 11/3/98

Date Analyzed 11/3,4/98

ELEMENT	Concentration Units: mg/Kg	Q
Potassium	12000	
Calcium	8100	
Vanadium	36	
Chromium	55	U
Manganese	420	
Iron	19000	
Cobalt	20	U
Nickel	60	U
Copper	36	
Zinc	30	
Arsenic	10	U
Selenium	7.0	U
Mercury	10	U
Thallium	2.0	U
Lead	10	U
Silver	4.0	U
Cadmium	1.0	U
Antimony	5.0	U
Barium	280	

NA = Not Analyzed.
U = Analyzed but not detected. The numeric value represents the quantitation limit.

1C
TAL Metals Analysis Data Sheet

SAMPLE NO.

NECF-7

Name: ERM-FAST, EXTON, PA Project No.: 22329.00.01

Client/Site: GIVAUDAN Location: Clifton,NJ

Matrix: (soil/water) SOIL Method: ERM-FAST XRF Lab Sample ID: TR746

Lab File ID: 266/304

Operator Initials: TG

Date Received: 11/3/98

Date Prepared 11/3/98

Date Analyzed 11/3,4/98

ELEMENT	Concentration Units: mg/Kg	Q
Potassium	14000	
Calcium	7100	
Vanadium	49	
Chromium	55	U
Manganese	520	
Iron	21000	
Cobalt	20	U
Nickel	60	U
Copper	20	
Zinc	37	
Arsenic	13	
Selenium	7.0	U
Mercury	10	U
Thallium	2.0	U
Lead	10	U
Silver	4.0	U
Cadmium	1.0	U
Antimony	5.0	U
Barium	250	

NA = Not Analyzed.
U = Analyzed but not detected. The numeric value represents the quantitation limit.

FORM I Metals

1C
TAL Metals Analysis Data Sheet

SAMPLE NO.

NECF-7A

Name: ERM-FAST, EXTON, PA

Project No.: 22329.00.01

Client/Site: GIVAUDAN

Location: Clifton,NJ

Matrix: (soil/water) SOIL

Method: ERM-FAST XRF

Lab Sample ID: TR747

Lab File ID: 267/305

Operator Initials: TG

Date Received: 11/3/98

Date Prepared 11/3/98

Date Analyzed 11/3,4/98

ELEMENT	Concentration Units: mg/Kg	Q
Potassium	11000	
Calcium	6800	
Vanadium	49	
Chromium	55	U
Manganese	550	
Iron	20000	
Cobalt	20	U
Nickel	60	U
Copper	20	U
Zinc	29	
Arsenic	17	
Selenium	7.0	U
Mercury	10	U
Thallium	2.0	U
Lead	10	U
Silver	4.0	U
Cadmium	1.1	
Antimony	5.0	U
Barium	280	

NA = Not Analyzed.
U = Analyzed but not detected. The numeric value represents the quantitation limit.

1C
TAL Metals Analysis Data Sheet

SAMPLE NO.

NECF-8

Name: ERM-FAST, EXTON, PA Project No.: 22329.00.01

Client/Site: GIVAUDAN Location: Clifton,NJ

Matrix: (soil/water) SOIL Method: ERM-FAST XRF Lab Sample ID: TR748

Lab File ID: 268/306

Operator Initials: TG

Date Received: 11/3/98

Date Prepared 11/3/98

Date Analyzed 11/3,4/98

ELEMENT	Concentration Units: mg/Kg	Q
Potassium	12000	
Calcium	8000	
Vanadium	46	
Chromium	55	U
Manganese	480	
Iron	19000	
Cobalt	20	U
Nickel	60	U
Copper	24	
Zinc	25	
Arsenic	10	U
Selenium	7.0	U
Mercury	10	U
Thallium	2.0	U
Lead	10	U
Silver	4.0	U
Cadmium	1.5	
Antimony	5.0	U
Barium	270	

NA = Not Analyzed.
U = Analyzed but not detected. The numeric value represents the quantitation limit.

FORM I Metals

1C
TAL Metals Analysis Data Sheet

SAMPLE NO.

NECF-9

Name: ERM-FAST, EXTON, PA

Project No.: 22329.00.01

Client/Site: GIVAUDAN

Location: Clifton,NJ

Matrix: (soil/water) SOIL

Method: ERM-FAST XRF

Lab Sample ID: TR749

Lab File ID: 269/307

Operator Initials: TG

Date Received: 11/3/98

Date Prepared 11/3/98

Date Analyzed 11/3,4/98

ELEMENT	Concentration Units: mg/Kg	Q
Potassium	9100	
Calcium	8800	
Vanadium	55	
Chromium	55	U
Manganese	310	
Iron	16000	
Cobalt	20	U
Nickel	60	U
Copper	21	
Zinc	21	
Arsenic	18	
Selenium	7.0	U
Mercury	10	U
Thallium	2.0	U
Lead	10	U
Silver	4.0	U
Cadmium	1.0	U
Antimony	5.0	U
Barium	210	

NA = Not Analyzed.
U = Analyzed but not detected. The numeric value represents the quantitation limit.

1C
TAL Metals Analysis Data Sheet

SAMPLE NO.

NECF-10

Name: ERM-FAST, EXTON, PA

Project No.: 22329.00.01

Client/Site: GIVAUDAN

Location: Clifton,NJ

Matrix: (soil/water) SOIL

Method: ERM-FAST XRF

Lab Sample ID: TR750

Lab File ID: 270/308

Operator Initials: TG

Date Received: 11/3/98

Date Prepared 11/3/98

Date Analyzed 11/3,4/98

ELEMENT	Concentration Units: mg/Kg	Q
Potassium	10000	
Calcium	8800	
Vanadium	52	
Chromium	55	U
Manganese	340	
Iron	17000	
Cobalt	20	U
Nickel	60	U
Copper	22	
Zinc	25	
Arsenic	10	U
Selenium	7.0	U
Mercury	10	U
Thallium	2.0	U
Lead	10	U
Silver	4.0	U
Cadmium	1.2	
Antimony	5.0	U
Barium	250	

NA = Not Analyzed.
U = Analyzed but not detected. The numeric value represents the quantitation limit.

1C
TAL Metals Analysis Data Sheet

SAMPLE NO.

NECF-11

Name: ERM-FAST, EXTON, PA Project No.: 22329.00.01

Client/Site: GIVAUDAN Location: Clifton,NJ

Matrix: (soil/water) SOIL Method: ERM-FAST XRF Lab Sample ID: TR751

Lab File ID: 271/309

Operator Initials: TG

Date Received: 11/3/98

Date Prepared 11/3/98

Date Analyzed 11/3,4/98

ELEMENT	Concentration Units: mg/Kg	Q
Potassium	9100	
Calcium	9500	
Vanadium	53	
Chromium	55	U
Manganese	320	
Iron	16000	
Cobalt	20	U
Nickel	60	U
Copper	20	U
Zinc	23	
Arsenic	10	U
Selenium	7.0	U
Mercury	10	U
Thallium	2.0	U
Lead	10	U
Silver	4.0	U
Cadmium	1.0	U
Antimony	5.0	U
Barium	260	

NA = Not Analyzed.
U = Analyzed but not detected. The numeric value represents the quantitation limit.

1C
TAL Metals Analysis Data Sheet

SAMPLE NO.

NECF-12

Name: ERM-FAST, EXTON, PA Project No.: 22329.00.01

Client/Site: GIVAUDAN Location: Clifton,NJ

Matrix: (soil/water) SOIL Method: ERM-FAST XRF Lab Sample ID: TR752

Lab File ID: 272/310

Operator Initials: TG

Date Received: 11/3/98

Date Prepared 11/3/98

Date Analyzed 11/3,4/98

ELEMENT	Concentration Units: mg/Kg	Q
Potassium	11000	
Calcium	7300	
Vanadium	49	
Chromium	55	U
Manganese	290	
Iron	17000	
Cobalt	20	U
Nickel	60	U
Copper	35	
Zinc	23	
Arsenic	13	
Selenium	7.0	U
Mercury	10	U
Thallium	2.0	U
Lead	10	U
Silver	4.0	U
Cadmium	1.0	U
Antimony	5.0	U
Barium	230	

NA = Not Analyzed.
U = Analyzed but not detected. The numeric value represents the quantitation limit.

1C
TAL Metals Analysis Data Sheet

SAMPLE NO.
NECF-13

Name: ERM-FAST, EXTON, PA Project No.: 22329.00.01

Client/Site: GIVAUDAN Location: Clifton,NJ

Matrix: (soil/water) SOIL Method: ERM-FAST XRF Lab Sample ID: TR753

Lab File ID: 273/311

Operator Initials: TG

Date Received: 11/3/98

Date Prepared 11/3/98

Date Analyzed 11/3,4/98

ELEMENT	Concentration Units: mg/Kg	Q
Potassium	10000	
Calcium	8800	
Vanadium	43	
Chromium	55	U
Manganese	380	
Iron	18000	
Cobalt	20	U
Nickel	60	U
Copper	20	U
Zinc	25	
Arsenic	10	U
Selenium	7.0	U
Mercury	10	U
Thallium	2.0	U
Lead	10	U
Silver	4.0	U
Cadmium	1.0	U
Antimony	5.0	U
Barium	240	

NA = Not Analyzed.
U = Analyzed but not detected. The numeric value represents the quantitation limit.

FORM I Metals

1C
TAL Metals Analysis Data Sheet

SAMPLE NO.

NECF-14

Name: ERM-FAST, EXTON, PA Project No.: 22329.00.01

Client/Site: GIVAUDAN Location: Clifton,NJ

Matrix: (soil/water) SOIL Method: ERM-FAST XRF Lab Sample ID: TR754

Lab File ID: 274/312

Operator Initials: TG

Date Received: 11/3/98

Date Prepared 11/3/98

Date Analyzed 11/3,4/98

ELEMENT	Concentration Units: mg/Kg	Q
Potassium	8800	
Calcium	8100	
Vanadium	55	
Chromium	55	U
Manganese	280	
Iron	16000	
Cobalt	20	U
Nickel	60	U
Copper	20	U
Zinc	25	
Arsenic	10	U
Selenium	7.0	U
Mercury	10	U
Thallium	2.0	U
Lead	10	U
Silver	4.0	U
Cadmium	1.0	U
Antimony	5.0	U
Barium	250	

NA = Not Analyzed.
U = Analyzed but not detected. The numeric value represents the quantitation limit.

FORM I Metals

1C
TAL Metals Analysis Data Sheet

SAMPLE NO.

NECF-15

Name: ERM-FAST, EXTON, PA Project No.: 22329.00.01

Client/Site: GIVAUDAN Location: Clifton,NJ

Matrix: (soil/water) SOIL Method: ERM-FAST XRF Lab Sample ID: TR755

Lab File ID: 275/313

Operator Initials: TG

Date Received: 11/3/98

Date Prepared 11/3/98

Date Analyzed 11/3,4/98

ELEMENT	Concentration Units: mg/Kg	Q
Potassium	9700	
Calcium	8000	
Vanadium	51	
Chromium	55	U
Manganese	300	
Iron	17000	
Cobalt	20	U
Nickel	60	U
Copper	20	U
Zinc	26	
Arsenic	10	U
Selenium	7.0	U
Mercury	10	U
Thallium	2.0	U
Lead	18	
Silver	4.0	U
Cadmium	1.0	U
Antimony	5.0	U
Barium	210	

NA = Not Analyzed.
U = Analyzed but not detected. The numeric value represents the quantitation limit.

1C
TAL Metals Analysis Data Sheet

SAMPLE NO.

NECF-16

Name: ERM-FAST, EXTON, PA Project No.: 22329.00.01

Client/Site: GIVAUDAN Location: Clifton,NJ

Matrix: (soil/water) SOIL Method: ERM-FAST XRF Lab Sample ID: TR756

Lab File ID: 277/314

Operator Initials: TG

Date Received: 11/3/98

Date Prepared 11/3/98

Date Analyzed 11/3,4/98

ELEMENT	Concentration Units: mg/Kg	Q
Potassium	12000	
Calcium	9600	
Vanadium	66	
Chromium	55	U
Manganese	390	
Iron	20000	
Cobalt	20	U
Nickel	60	U
Copper	27	
Zinc	24	
Arsenic	11	
Selenium	7.0	U
Mercury	10	U
Thallium	2.0	U
Lead	10	U
Silver	4.0	U
Cadmium	1.0	U
Antimony	5.0	U
Barium	270	

NA = Not Analyzed.
U = Analyzed but not detected. The numeric value represents the quantitation limit.

FORM I Metals

1C
TAL Metals Analysis Data Sheet

SAMPLE NO.

NECF-17

Name: ERM-FAST, EXTON, PA Project No.: 22329.00.01

Client/Site: GIVAUDAN Location: Clifton,NJ

Matrix: (soil/water) SOIL Method: ERM-FAST XRF Lab Sample ID: TR757

Lab File ID: 278/315

Operator Initials: TG

Date Received: 11/3/98

Date Prepared 11/3/98

Date Analyzed 11/3,4/98

ELEMENT	Concentration Units: mg/Kg	Q
Potassium	14000	
Calcium	8300	
Vanadium	54	
Chromium	55	U
Manganese	400	
Iron	22000	
Cobalt	20	U
Nickel	60	U
Copper	24	
Zinc	31	
Arsenic	10	U
Selenium	7.0	U
Mercury	10	U
Thallium	2.0	U
Lead	10	U
Silver	4.0	U
Cadmium	1.0	U
Antimony	5.0	U
Barium	260	

NA = Not Analyzed.
U = Analyzed but not detected. The numeric value represents the quantitation limit.

1C
TAL Metals Analysis Data Sheet

SAMPLE NO.

NECF-18

Name: ERM-FAST, EXTON, PA

Project No.: 22329.00.01

Client/Site: GIVAUDAN

Location: Clifton,NJ

Matrix: (soil/water) SOIL

Method: ERM-FAST XRF

Lab Sample ID: TR758

Lab File ID: 279/316

Operator Initials: TG

Date Received: 11/3/98

Date Prepared 11/3/98

Date Analyzed 11/3,4/98

ELEMENT	Concentration Units: mg/Kg	Q
Potassium	8500	
Calcium	7100	
Vanadium	47	
Chromium	55	U
Manganese	300	
Iron	16000	
Cobalt	20	U
Nickel	60	U
Copper	20	U
Zinc	27	
Arsenic	14	
Selenium	7.0	U
Mercury	10	U
Thallium	2.0	U
Lead	10	U
Silver	4.0	U
Cadmium	1.0	U
Antimony	5.0	U
Barium	220	

NA = Not Analyzed.
U = Analyzed but not detected. The numeric value represents the quantitation limit.

FORM I Metals

1C
TAL Metals Analysis Data Sheet

SAMPLE NO.

NECF-19

) Name: ERM-FAST, EXTON, PA Project No.: 22329.00.01

Client/Site: GIVAUDAN Location: Clifton,NJ

Matrix: (soil/water) SOIL Method: ERM-FAST XRF Lab Sample ID: TR769

Lab File ID: 303/336

Operator Initials: TG

Date Received: 11/4/98

Date Prepared 11/4/98

Date Analyzed 11/4,5/98

ELEMENT	Concentration Units: mg/Kg	Q
Potassium	9000	
Calcium	9700	
Vanadium	38	
Chromium	55	U
Manganese	400	
Iron	16000	
Cobalt	20	U
Nickel	60	U
Copper	23	
Zinc	25	
Arsenic	11	
Selenium	7.0	U
Mercury	10	U
Thallium	2.0	U
Lead	13	
Silver	4.0	U
Cadmium	1.0	U
Antimony	5.0	U
Barium	220	

NA = Not Analyzed.
U = Analyzed but not detected. The numeric value represents the quantitation limit.

1C
TAL Metals Analysis Data Sheet

SAMPLE NO.

NECF-20

Name: ERM-FAST, EXTON, PA Project No.: 22329.00.01

Client/Site: GIVAUDAN Location: Clifton,NJ

Matrix: (soil/water) SOIL Method: ERM-FAST XRF Lab Sample ID: TR770

Lab File ID: 304/337

Operator Initials: TG

Date Received: 11/4/98

Date Prepared 11/4/98

Date Analyzed 11/4,5/98

ELEMENT	Concentration Units: mg/Kg	Q
Potassium	9300	
Calcium	11000	
Vanadium	55	
Chromium	55	U
Manganese	350	
Iron	16000	
Cobalt	20	U
Nickel	60	U
Copper	20	U
Zinc	28	
Arsenic	24	
Selenium	7.0	U
Mercury	10	U
Thallium	2.0	U
Lead	10	U
Silver	4.0	U
Cadmium	2.6	
Antimony	6.1	
Barium	250	

NA = Not Analyzed.
U = Analyzed but not detected. The numeric value represents the quantitation limit.

FORM I Metals

1C
TAL Metals Analysis Data Sheet

SAMPLE NO.

NECF-21

Name: ERM-FAST, EXTON, PA Project No.: 22329.00.01

Client/Site: GIVAUDAN Location: Clifton,NJ

Matrix: (soil/water) SOIL Method: ERM-FAST XRF Lab Sample ID: TR771

Lab File ID: 305/339

Operator Initials: TG

Date Received: 11/4/98

Date Prepared 11/4/98

Date Analyzed 11/4,5/98

ELEMENT	Concentration Units: mg/Kg	Q
Potassium	9700	
Calcium	7900	
Vanadium	64	
Chromium	55	U
Manganese	530	
Iron	24000	
Cobalt	20	U
Nickel	60	U
Copper	27	
Zinc	35	
Arsenic	10	U
Selenium	7.0	U
Mercury	10	U
Thallium	2.0	U
Lead	13	
Silver	4.0	U
Cadmium	1.0	U
Antimony	5.0	U
Barium	240	

NA = Not Analyzed.
U = Analyzed but not detected. The numeric value represents the quantitation limit.

FORM I Metals

1C
TAL Metals Analysis Data Sheet

SAMPLE NO.

NECF-22

Name: ERM-FAST, EXTON, PA Project No.: 22329.00.01

Client/Site: GIVAUDAN Location: Clifton,NJ

Matrix: (soil/water) SOIL Method: ERM-FAST XRF Lab Sample ID: TR775

Lab File ID: 311/343

Operator Initials: TG

Date Received: 11/4/98

Date Prepared 11/5/98

Date Analyzed 11/5/98

ELEMENT	Concentration Units: mg/Kg	Q
Potassium	12000	
Calcium	21000	
Vanadium	50	
Chromium	55	U
Manganese	410	
Iron	21000	
Cobalt	20	U
Nickel	60	U
Copper	20	U
Zinc	110	
Arsenic	10	U
Selenium	7.0	U
Mercury	10	U
Thallium	2.0	U
Lead	370	
Silver	4.0	U
Cadmium	1.0	U
Antimony	5.0	U
Barium	300	

NA = Not Analyzed.
U = Analyzed but not detected. The numeric value represents the quantitation limit.

1C
TAL Metals Analysis Data Sheet

SAMPLE NO.

NECF-23

Lab Name: ERM-FAST, EXTON, PA Project No.: 22329.00.01

Client/Site: GIVAUDAN Location: Clifton,NJ

Matrix: (soil/water) SOIL Method: ERM-FAST XRF Lab Sample ID: TR777

Lab File ID: 314/344

Operator Initials: TG

Date Received: 11/5/98

Date Prepared 11/5/98

Date Analyzed 11/5/98

ELEMENT	Concentration Units: mg/Kg	Q
Potassium	8700	
Calcium	7700	
Vanadium	46	
Chromium	55	U
Manganese	450	
Iron	18000	
Cobalt	20	U
Nickel	60	U
Copper	22	
Zinc	26	
Arsenic	17	
Selenium	7.0	U
Mercury	10	U
Thallium	2.0	U
Lead	10	U
Silver	4.0	U
Cadmium	1.0	U
Antimony	5.0	U
Barium	250	

NA = Not Analyzed.
U = Analyzed but not detected. The numeric value represents the quantitation limit.

1C
TAL Metals Analysis Data Sheet

SAMPLE NO.

NECF-24

Name: ERM-FAST, EXTON, PA Project No.: 22329.00.01

Client/Site: GIVAUDAN Location: Clifton,NJ

Matrix: (soil/water) SOIL Method: ERM-FAST XRF Lab Sample ID: TR778

Lab File ID: 315/345

Operator Initials: TG

Date Received: 11/5/98

Date Prepared 11/5/98

Date Analyzed 11/5/98

ELEMENT	Concentration Units: mg/Kg	Q
Potassium	10000	
Calcium	8600	
Vanadium	44	
Chromium	55	U
Manganese	460	
Iron	19000	
Cobalt	20	U
Nickel	60	U
Copper	23	
Zinc	33	
Arsenic	27	
Selenium	7.0	U
Mercury	10	U
Thallium	2.0	U
Lead	10	U
Silver	4.0	U
Cadmium	1.0	U
Antimony	5.0	U
Barium	230	

NA = Not Analyzed.
U = Analyzed but not detected. The numeric value represents the quantitation limit.

FORM I Metals

Appendix F
21 December 1999 MITU Pilot Study Report

REPORT

Givaudan Roure Corporation

Pilot Treatment of Soil Using Mobile Injection Treatment Unit

21 December 1999

Environmental Resources Management
855 Springdale Drive
Exton, Pennsylvania 19341

Environmental
Resources
Management

8700 Indian Creek Parkway
Suite 330
Overland Park, Kansas 66210
(913) 661-0770
(913) 661-0839 (Fax)

3 December 1999
Reference: 22329.00.01

Ms. Maria Franco-Spera
Case Manager
Bureau of State Case Management
New Jersey Department of
Environmental Protection
401 East State Street, CN048
Trenton, New Jersey 08625

ERM

RE: Pilot Treatment of Soil Using Mobile Injection Treatment Unit
Givaudan Roure Corporation
Clifton, New Jersey

Dear Maria:

On behalf of our client, Givaudan Roure Corporation (Givaudan Roure), Environmental Resources Management (ERM) has prepared the following summary report for the treatment of soil using the Mobile Injection Treatment Unit (MITU) operated by CBA Environmental, Hegis, PA. The purpose of this report is to provide the New Jersey Department of Environmental Protection (Department) with the results of the pilot treatment activities and to document the removal of hazardous constituents of concern from soils, and delisting of the soils as hazardous waste.

REGULATORY BACKGROUND

Except for soils excavated from the chemical sewer adjacent to the north side of former Maintenance Building (Building 50), impacted soils were classified as non-hazardous.

Soils excavated from the chemical sewers adjacent to the former Maintenance Building (Building 50) were impacted by operations inside the building, including parts cleaning and degreasing (Figure 1). Constituents of concern detected in the soil by laboratory analysis included chlorinated hydrocarbons, such as carbon tetrachloride (CT) and tetrachloroethene (PCE) that were historically used as degreasing agents. Historical drawings from Building 50 indicated that drains (floor, sinks) discharged to the chemical sewer located to the

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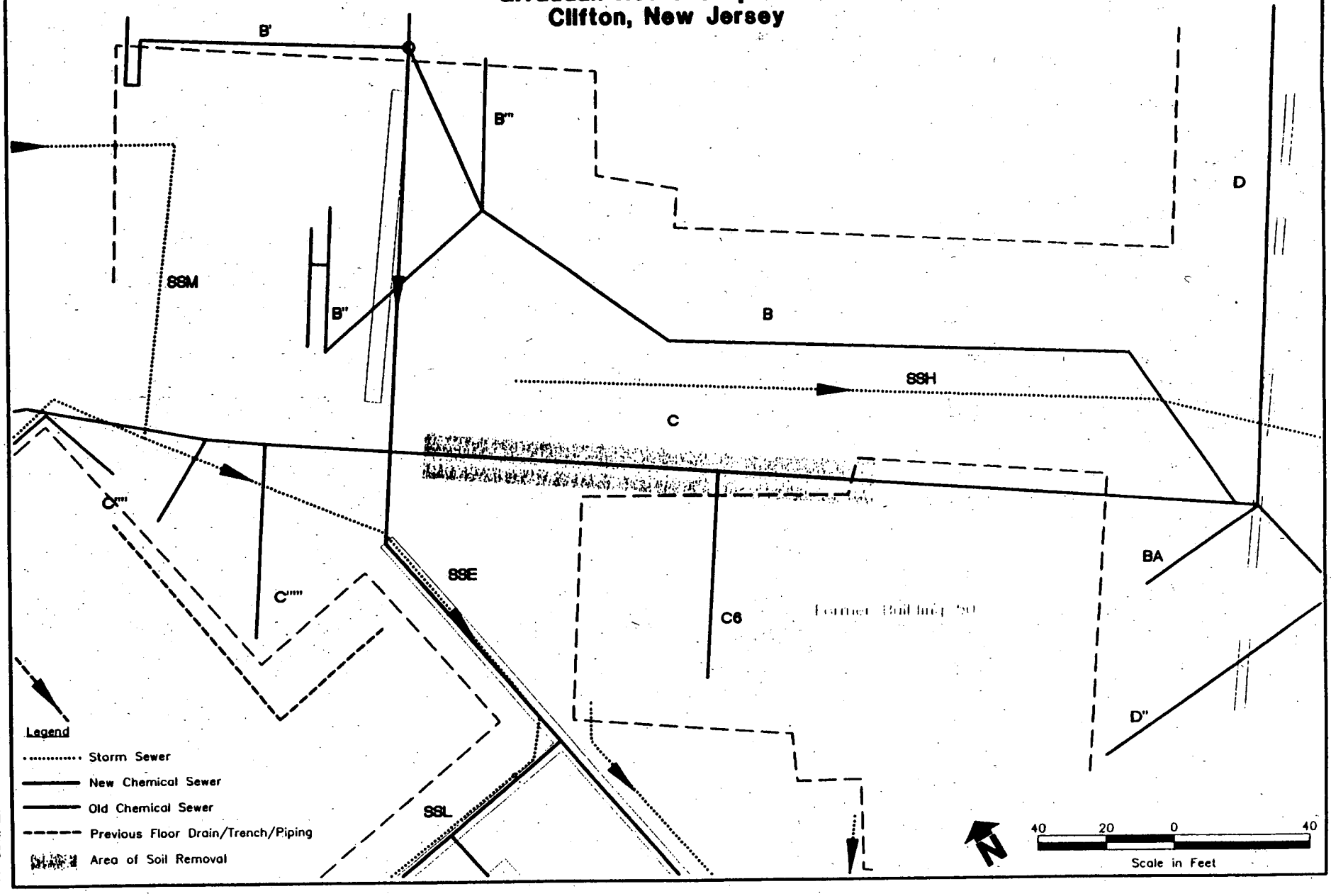
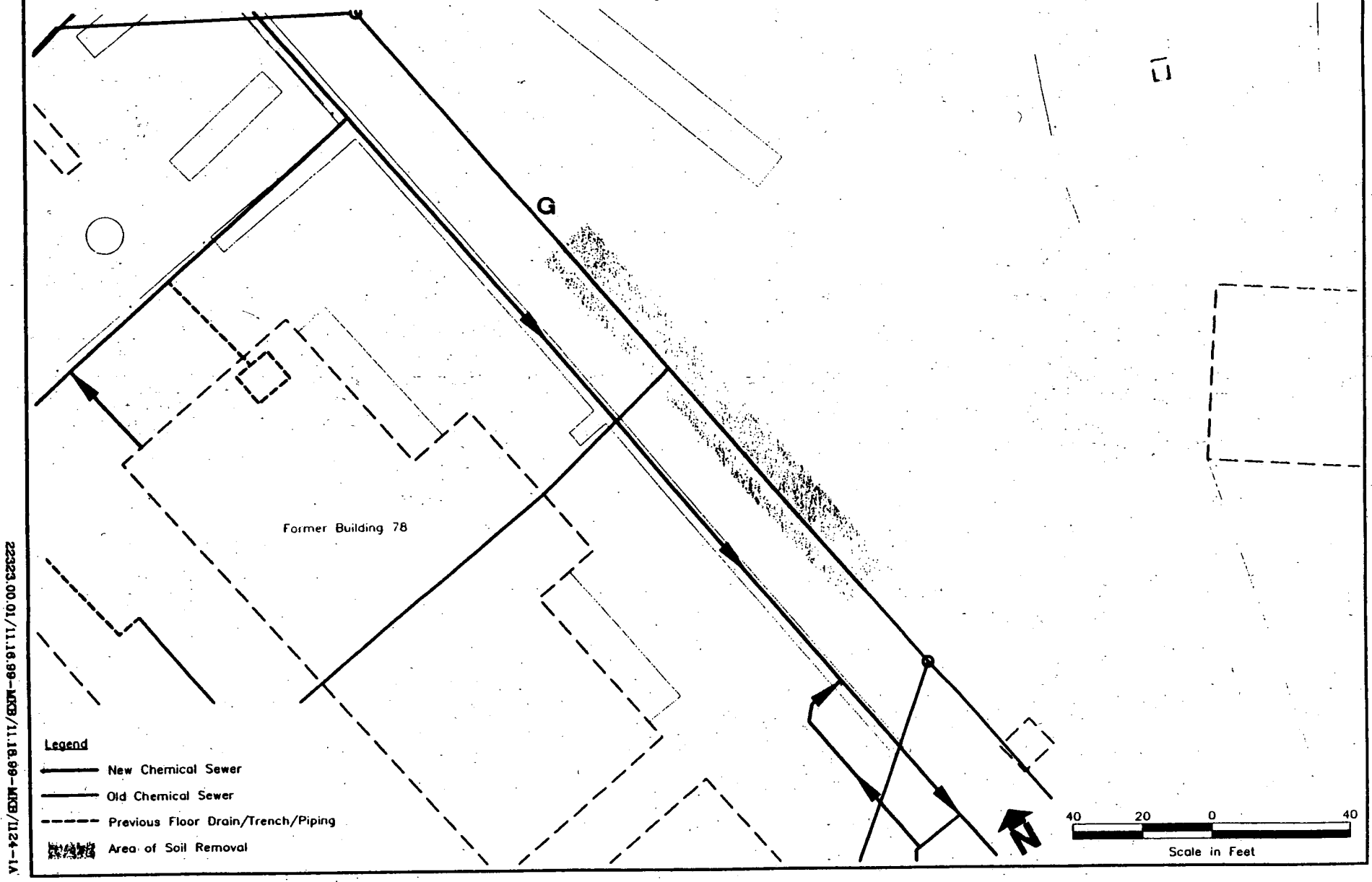
Figure 1-A
Location of Soil Removed for MITU Treatment Study (VOCs)
Givaudan Roure Corporation
Clifton, New Jersey



22323.00.01/11.16.99-MKB/11.18.99-MKB/1123-1A

Figure 1-B
Location of Soil Removed for MITU Treatment Study (SVOCs)
Givaudan Roure Corporation
Clifton, New Jersey



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223223.00.01/11.18.99-MKB/11.18.99-MKB/1124-1A

immediately adjacent to the north side of Building 50. The detection of CT and PCE in the soils excavated from the chemical sewer in this area was consistent with the use of these constituents in Building 50 for maintenance activities. On this basis, soils excavated from the chemical sewer in front of Building 50 were classified as F001 and F002 listed hazardous waste under 40 CFR Part 261.31. This classification was extended to include soils excavated from locations located downstream of Building 50 that contained common degreasing solvents such as CT or PCE.

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On 26 May 1998, the US EPA promulgated the Phase IV, Part 2 Land Disposal Restrictions (effective date 24 August 1998) addressing numerous issues including alternative Land Disposal Restriction (LDR) treatment standards for contaminated soil. Under the Phase IV LDR's, generators of contaminated soil may choose to meet one of three alternatives:

(1) meet the treatment standards in Part 268.40 for the hazardous characteristic or contaminating listed waste;

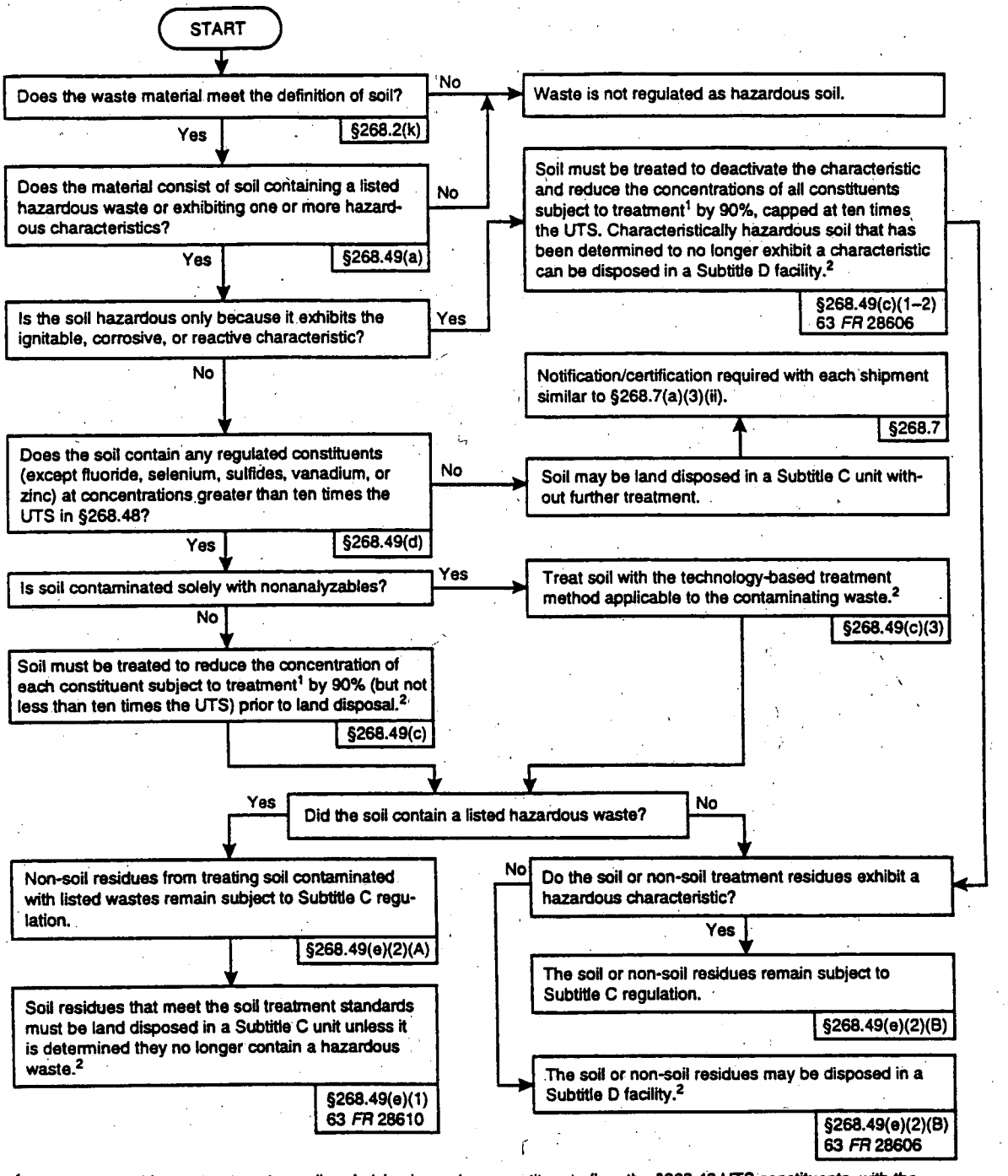
(2) obtain a treatability variance; or

(3) meet new alternative standards found in Part 268.49.

Figure 2, excerpted from *Hazardous Waste Consultant* (August 1998), provides a detailed summary of the criteria used to evaluate the feasibility of treatment of soils containing hazardous waste. Under the logic flow diagram, soil residues from treating soils that meet treatment standards must be disposed in a Subtitle C landfill unless it is determined that they no longer contain a hazardous waste.

Based on the new Phase IV LDR's, Givaudan Roure and ERM proposed to treat all excavated soils to less than the more stringent of the Residential Direct Contact (RDCSCC) or Impact to Ground Water Soil Cleanup Criteria (IGWSCC) promulgated by the Department and most recently revised in July 1996. Under this proposal, treated soils would be returned to the excavations as clean fill. This approach is consistent with the new Phase IV LDR's and Department policies on soil remediation. This proposal was presented to the Department in the Soil Treatment Plan and Soil Reuse Proposal (ERM, 2 November 1998), and approved by the Department on 6 November 1998.

FIGURE 2
Requirements for Hazardous Soil Under Alternative LDR Treatment Standards



[1]Constituents subject to treatment are all underlying hazardous constituents (i.e., the §268.48 UTS constituents, with the exception of fluoride, selenium, sulfides, vanadium, and zinc) present in the soil at a level ten times the UTS.

[2]Generators and TSD facilities must comply with the notification, certification, and recordkeeping requirements in §268.7.

UTS = universal treatment standards.

Note: The alternate standards are not available for soils used to produce products that are used in a manner constituting disposal.

Source: Elsevier Science Inc.; adapted from 63 *FR* 28751.

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TREATMENT METHODOLOGY

A discussion of the treatment methods, including the selection criteria, post excavation and post treatment sampling criteria, is provided in the following sections.

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Soil Treatment Method

Three types of solid media were generated during the sewer excavation:

- Soil;
- Cobbles; and
- Debris including vitrified clay pipe and bricks.

As an initial step in the process of evaluating candidate treatment technologies, performance criteria were established to meet two primary goals:

- compliance with RCRA requirements for treatment of contaminated soil under the Phase IV Land Disposal Restrictions effective in August 1998.
- compliance with the most stringent cleanup standard established under the Soil Cleanup Criteria developed by the Department and most recently revised in July 1996. These criteria are nearly an order of magnitude less than the standards established by the US EPA.

With these performance criteria in mind, ERM evaluated several technologies capable of addressing these media and identified the use of the MITU owned and operated by CBA Environmental Services, Hegins, PA. This unit uses hot air to promote volatilization of organic constituents in in-situ or ex-situ soils, and recovery of the resultant vapor phase through activated carbon canisters. Thus, it provides a measure of flexibility for treating impacted soils identified during the excavation activities. A detailed discussion of the treatment unit and technology was provided in the November 1998 Soil Treatment Plan.

Excavation of soil was started on 17 August 1999. The soils excavated from the chemical sewer adjacent to Building 50 which were identified as hazardous waste were stored in covered roll-off containers and labeled with the date of accumulation. Soils identified as non-hazardous waste stockpiled on asphalt, covered, and labeled with the date of accumulation.

Treatment with the MITU began on 17 November 1999. The soils stored in the roll-off containers were emptied and segregated into piles (approximately 100 cubic yard lots), identified by location of excavation, and treated using the MITU. The soils from the roll-offs were treated first, within the 90-day accumulation period for hazardous waste. Table 1 provides a tabulated summary of the soil samples collected and analyzed as part of the treatment process.

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To confirm the removal of impacted soil to less than the more stringent of the RDCSCC/IGWSCC, post-excavation samples were collected from sewer excavations consistent with the *Technical Requirements for Site Remediation* (NJDEP, 1998). Samples were collected from the bottom of the sewer excavation at a rate of one sample per 50 linear feet and from sidewalls at a rate of one per 30 feet. Each sample was analyzed for Target Compound List volatile organic compounds (VOCs), semi-volatile organic compounds (SVOCs), and Target Analyte List metals. As necessary, additional soil was removed until the target cleanup level was achieved, as confirmed by post excavation samples.

Post-Excavation and Post-Treatment Sampling

Treated soils and debris were sampled at a rate of one sample per 100-ton lots and analyzed for VOCs, SVOCs, and metals. If post-treatment samples detected organic constituents of concern at concentrations greater than the more stringent of the RDCSCC/IGWSCC the stockpile was retreated.

After the performance criteria were achieved for a given soil lot, the treatment residue (soil and debris) was stockpiled and identified as clean fill and returned to the excavations as backfill. By meeting the performance criteria discussed above, the soils met or exceeded the US EPA requirements for land disposal, Department criteria for hazardous waste (ID 27), and Department criteria for soil remediation and unrestricted use of soil (Soil Cleanup Criteria).

Analysis of initial post treatment samples indicated that SVOCs, and particularly polynuclear aromatic hydrocarbons (PAH's), were not being removed. Modifications were made to the MITU unit to generate more heat and retreatment of the soil conducted. Retesting of the soil specifically focused on PAHs. The results of this retreatment and retesting are included in the following sections.

DISCUSSION OF RESULTS

Analysis of MITU Process

The MITU technology is reliant on three physical properties of constituents of concern to be effective:

- vapor pressure,
- heat of vaporization, and
- boiling point.

The vapor pressure of a constituent can be used to qualitatively estimate it's relative tendency to volatilize and partition into the gaseous phase and may differ by several orders of magnitude for organic compounds. For example, lighter molecular weight organic constituents such as CT and PCE, have relatively high vapor pressures (90 and 20 millimeters of mercury (mmHg), respectively, measured at standard temperature of 25 degrees Celsius, (°C) and therefore are considered to be relatively volatile. As a comparison, the vapor pressure of water measured at 25 °C is 24 mmHg. Therefore, CT is nearly five times more volatile than water while PCE is approximately equal to that of water. Conversely, heavier molecular weight organic constituents such as naphthalene and benzo(a)pyrene have much lower vapor pressures (0.23 and $5.6(10^{-9})$ mmHg, respectively) and thus are not considered as volatile. The vapor pressure of a constituent will increase with an increase in temperature and thus, the tendency for the constituent to volatilize will also increase.

The heat of vaporization is is defined as the quantity of heat required to convert a unit mass of liquid into a vapor without a rise in temperature (under constant pressure). The boiling point is defined as the temperature at which the vapor pressure of a liquid is equal to the pressure of the atmosphere on the liquid. Lighter weight VOCs typically have much lower boiling points than heavier molecular weight SVOCs. For example, the boiling point for CT is approximately 90 °C; the boiling points for naphthalene and benzo(a)pyrene are approximately 300 °C. The boiling point of a constituent is dependent on atmospheric pressure. For the purpose of this evaluation, it has been assumed the atmospheric pressure during the treatment was consistent at 1 atmosphere. It is recognized that the heat of vaporization may be an important physical property in the application of this technology, however, it is difficult to quantify the heat of vaporization outside the laboratory due to variability of field conditions. Therefore; for the purpose of this

evaluation, it is assumed that the vapor pressure and boiling point will be used as a comparison for the relative effectiveness of the technology.

Approximately 3,470 cubic yards (4,690 tons) of impacted soil were treated using the MITU technology. To assess the effectiveness of the treatment and to document the removal of hazardous constituents from the soil, 113 soil samples (an average of one sample per 30 tons of soil) were collected and analyzed by ERM-FAST for VOCs, SVOCs, and metals. Table 1 provides a summary of the analytical results evaluated on a pass/fail basis relative to the more stringent of the RDCSCC/IGWSCC. Analytical data sheets from ERM-FAST are provided in Attachment 1.

A review of the analytical results indicated that soils treated using the MITU technology did not contain VOCs at concentrations exceeding target cleanup levels, but SVOCs (in particular, PAH's) remained in the soil at concentrations greater than the target cleanup levels. This finding can be summarized by the following:

- The VOC constituents generally have vapor pressures at least three to four orders of magnitude greater than the SVOC constituents. The MITU technology is based on the principle that the agitation of the soil by the MITU and addition of heated air accelerates the partitioning of VOCs, in particular those with high vapor pressures, from the soil to the air and then the VOCs are volatilized by the heated air supplied by the MITU. The propensity of SVOCs (with lower vapor pressures) to adhere to soils means that the agitation of soils to release SVOCs to the air (as gaseous phase) has little or no impact on the volatilization of SVOCs.
- The maximum temperature of the heated air at the engine exhaust (source of hot air for injection) was 120 to 150 degrees °C and decreased to less than 100 °C at the air/soil contact. The maximum temperature of the soil recorded by ERM during the retreatment of soil was 21 °C after application of the hot air injection for 30 minutes. Based on these observations, the temperature beneath the treatment hood and that of the heated soil did not increase to greater than standard temperature (25 °C). Therefore, no measurable increases in vapor pressures were experienced and no subsequent increased volatilization of sorbed organic constituents from soil to the vapor phase realized.

CONCLUSIONS

Based on the analytical results obtained during the soil treatment, ERM derives the following conclusions:

- The MITU is effective at removing VOCs from soil; however, contrary to claims of the vendor, it is not effective at removing SVOCs.
- The relatively high vapor pressures of the VOC constituents of concern (up to five times greater than water) implies that VOC constituents of concern would move to the vapor phase under ambient temperature significantly faster than water.
- The applying heated air appeared to have a minimal impact on the constituents of concern. The temperature increase observed in the soil was not sufficient to move VOCs to the vapor phase (applied temperature at the soil treatment interface does not exceed the boiling point of the VOC constituent of concern). This suggests the impact of temperature is at best limited to marginally increasing the vapor pressure of a constituent of concern and thus accelerating volatilization only somewhat.
- Approximately 3,470 cubic yards (4,690 tons) of soil were treated using the MITU. Of this, only approximately 600 cubic yards was successfully treated to remove hazardous constituents of concern to below target levels, as indicated by post treatment sampling. Under the Phase IV LDR's, this soil was delisted as a hazardous waste and reused as clean fill on the site.

Based on the data generated during the initial stages of the soil treatment using the MITU technology, ERM concluded that the MITU would not effectively achieve the remedial objective of removal of organic constituents (specifically SVOCs) to less than the target cleanup levels and recommended to Givaudan Roure that the soil treatment using the MITU technology be terminated. Except for the soil that was successfully treated and reused as backfill, the excavated soils were removed off-site for thermal treatment and recycling. These data are being provided to the department in a separate report.

Please review the information provided herein, and if you have any questions or require additional information, please call Gene Thomas at

Givaudan Roure at (973) 365-8280. Gene can also be contacted by e-mail at gene.thomas@roche.com or me at (913) 661-0770 .

Sincerely,

Mike Eversman, P.G.
ERM Project Manager

ERM

ME/
cc: R. Wroblewski
G. Thomas, Givaudan Roure
D. Johnson, Givaudan Roure

Table 1
Summary of Soil Treatment Screening Evaluation

Sample Tracking Number	Pile/Sample	Volume of Soil (cubic yards)	Screening of Results			
			VOC's	SVOC's	Metals	Volume of Clean
	Batch 1 Cycle 1	600				0
T001	TB-11/16/98		Pass	NS	NS	
T002	R-1		Pass	Pass	Pass	
T003	R-2		Pass	**F-PAH**	Pass	
T004	R-3		Pass	Pass	Pass	
T005	R-4		Pass	Pass	**F-Cd (R)**	
T006	R-5		Pass	**F-PAH**	**F-Cd (R)**	
T007	TB-11/17/98		Pass	NS	NS	
T008	R-6		Pass	Pass	**F-Cd (R)**	
T009	R-7		Pass	**F-PAH**	Pass	
T010	R-8		**F-carbon tet**	**F-PAH**	Pass	
781	test-1		NS	Pass	NS	
782	test-2		NS	Pass	NS	
783	test-3		NS	Pass	NS	
T-011	test-1a		NS	Pass	NS	
T-012	test-2a		NS	Pass	NS	
T-013	test-3a		NS	Pass	NS	
T-014	TB-11/23/98		NA	NS	NS	
	Baatch 1 Cycle 2	600				0
T-015	R-9		Pass	Pass	Pass	
T-016	R-10		Pass	Pass	Pass	
T-017	R-11		Pass	Pass	Pass	
T-018	R-12		Pass	Pass	Pass	
T-019	R-13		Pass	Pass	Pass	
T-020	R-14		Pass	Pass	Pass	

Sample Tracking Number	Pile/Sample	Volume of Soil (cubic yards)	Screening of Results			Volume of Clean
			VOC's	SVOC's	Metals	
T-021	R-15		Pass	Pass	Pass	
T-022	R-16		Pass	Pass	Pass	
T-023	R-17		Pass	**F-PAH**	Pass	
T-024	R-18		Pass	Pass	**F-Cd (R)**	
T-025	TB-11/24/98		NA	NA	NA	
T-026	R-19 MSMSD		Pass	Pass	**F-Cd (R)**	
T-027	R-20		Pass	Pass	Pass	
T-028	R-20A		Pass	Pass	Pass	
T-029	R-21		Pass	Pass	Pass	
T-030	R-22		Pass	Pass	**F-Cd (R)**	
T-031	R-23		Pass	Pass	Pass	
T-032	R-24		Pass	Pass	Pass	
T-033	tb-11/30/98		NA	NA	NA	
T-034	R-25		Pass	Pass	**F-Cd (R)**	
T-035	R-26		Pass	Pass	Pass	
T-036	R-27		Pass	Pass	Pass	
T-037	R-28		Pass	**F-PAH**	Pass	
T-038	R-29		Pass	Pass	**F-Cd (R)**	
	Batch 1 Cycle 3	600				600
T-061	R-30		NS	Pass	NS	
T-062	R-31		NS	Pass	NS	
T-063	R-32		NS	Pass	NS	
T-064	R-33		NS	Pass	NS	
T-065	R-34		NS	Pass	NS	
T-066	R-35		NS	Pass	NS	
T-067	R-36		NS	Pass	NS	
T-068	R-37		NS	Pass	NS	
	Batch 2 Cycle 1	240				0

Sample Tracking Number	Pile/Sample	Volume of Soil (cubic yards)	Screening of Results			Volume of Clean
			VOC's	SVOC's	Metals	
T-039	TG-1	0	NS	F-PAH	NS	
T-040	TG-2		NS	F-PAH	NS	
T-041	TG-3		NS	F-PAH	NS	
T-042	TG-4		NS	Pass	NS	
T-043	TG-5		NS	F-PAH	NS	
T-044	TG-6		NS	F-PAH	NS	
T-045	TG-7		NS	F-PAH	NS	
T-046	TG-8		NS	F-PAH	NS	
T-047	TG-9		NS	F-PAH	NS	
T-048	TG-10		NS	F-PAH	NS	
T-049	TG-11		NS	F-PAH	NS	
T-050	TG-12		NS	F-PAH	NS	
	Batch 2 Cycle 2	240				
T-051	TG-13		NS	F-PAH	NS	
T-052	TG-13A		NS	F-PAH	NS	
T-053	TG-14		NS	F-PAH	NS	
T-054	TG-15		NS	F-PAH	NS	
T-055	TG-16		NS	F-PAH	NS	
T-056	TG-17		NS	F-PAH	NS	
T-057	TG-18		NS	F-PAH	NS	
T-058	TG-19		NS	F-PAH	NS	
T-059	TG-20		NS	F-PAH	NS	
T-060	TG-21		NS	F-PAH	NS	
	Batch 2 Cycle 3	240				
T-069	TG-22		NS	F-PAH	NS	
T-070	TG-23		NS	F-PAH	NS	
T-071	TG-24		NS	F-PAH	NS	
T-072	TG-25		NS	Pass	NS	
T-073	TG-26		NS	F-PAH	NS	

Sample Tracking Number	Pile/Sample	Volume of Soil (cubic yards)	Screening of Results			Volume of Clean
			VOC's	SVOC's	Metals	
T-074	TG-27		NS	F-PAH	NS	
T-075	TG-28		NS	F-PAH	NS	
T-076	TG-29		NS	F-PAH	NS	
	Batch 2 Cycle 4	240				
T-077	TG-30 MS		NS	F-PAH	NS	
T-078	TG-31		NS	F-PAH	NS	
T-079	TG-31A		NS	F-PAH	NS	
T-080	TG-32		NS	F-PAH	NS	
T-081	TG-33		NS	F-PAH	NS	
T-082	TG-34		NS	F-PAH	NS	
T-083	TG-35		NS	F-PAH	NS	
T-084	TG-36		NS	F-PAH	NS	
	Batch 2 Cycle 5	240				
T-085	TG-37		NS	F-PAH	NS	
T-086	TG-38		NS	F-PAH	NS	
T-087	TG-39		NS	F-PAH	NS	
T-088	TG-40		NS	F-PAH	NS	
T-089	TG-41		NS	F-PAH	NS	
T-090	TG-42		NS	F-PAH	NS	
T-091	TG-42A		NS	F-PAH	NS	
T-092	TG-43		NS	F-PAH	NS	
	Batch 2 Cycle 6	240				
T-093	TG-44		NS	F-PAH	NS	
T-094	TG-45 MS		NS	F-PAH	NS	
T-095	TG-46		NS	F-PAH	NS	
T-096	TG-47		NS	F-PAH	NS	
T-097	TG-48		NS	F-PAH	NS	

Sample Tracking Number	Pile/Sample	Volume of Soil (cubic yards)	Screening of Results			Volume of Clean
			VOC's	SVOC's	Metals	
T-098	TG-49		NS	F-PAH	NS	
T-099	TG-50		NS	F-PAH	NS	
T-100	TG-51		NS	F-PAH	NS	
	Post Treatment Test	20				
T-101	TGTEST-1		NS	F-PAH	NS	
T-102	TGTEST-2		NS	F-PAH	NS	
T-103	TGTEST-3		NS	F-PAH	NS	
T-104	TGTEST-4		NS	F-PAH	NS	
T-105	TGTEST-5		NS	F-PAH	NS	
T-106	TGTEST-6		NS	F-PAH	NS	
T-107	TGTEST-7		NS	F-PAH	NS	
T-108	TGTEST-8		NS	F-PAH	NS	
T-109	TGTEST-9		NS	F-PAH	NS	
T-110	TGTEST-10		NS	F-PAH	NS	
T-111	TGTEST-11		NS	F-PAH	NS	
T-112	TGTEST-12		NS	F-PAH	NS	
T-113	TGTEST-13		NS	F-PAH	NS	