SUBJECT: SUIL CONTAMINATION

201 Willowbrook Boulevard P.O. Box 290 Wayne, NJ 07470 201 785-0700

Woodward-Clyde Consultants

6 November 1984 84C4048-A

Mr. James B. Marean New York State Electric and Gas Corp. 87–89 Chenango Street Binghamton, New York 13902

Dear Mr. Marean:

212 926-2878 Telex 133-541

This report presents the results of our third investigation at the New York State Electric and Gas (NYSEG) Geneva Service Center. The work was performed on 21 September 1984 in accordance with our letter of proposal dated 11 September 1984. During the field investigation a WCC geologist observed, logged, measured organic vapor levels, and collected soil samples from 7 shallow auger borings. This work was initiated in order to assess the subsurface conditions along the alignment of a proposed sanitary sewer connection between the Geneva Service Center and the new city sanitary sewer line. Of particular concern was whether contaminants were present in the soils and what impact they would have during construction of the sewer line.

The boring locations were concentrated in the southern end of the alignment where it was thought they would most likely encounter contaminants. These locations were chosen based on inspection of an old air photo and conversations with plant personnel regarding areas of activity during operation of the former coal gasification facility. Figure 1 shows the boring locations (B-15 through B-21).

RESULTS

The soil types encountered were variable and included clays, silts, sands, gravels, and cobbles. In general, it is felt that the southern borings (B-15 through B-18) encountered predominantly fill material which included some bricks and coal. As expected, the northern borings, for the most part,



6 November 1984 84C4048-A

encountered in-place soils, with an occasional thin veneer of fill material. Copies of the boring logs are contained in Appendix A.

The laboratory test results indicate that the contamination seems to be limited to the area near borings B-15 through B-18. The highest levels were encountered in B-16 where the total concentration of tested compounds was approximately 2,250 ppm. Organic vapor readings taken on the air with in this boring reached a maximum of 0.5 ppm. The laboratory test results are contained in Appendix B.

RECOMMENDATIONS

We (WCC) do not foresee any major problem with construction of the sanitary sewer line as described above. However, we do recommend that certain procedures be followed to maximize worker safety and to minimize any future problems associated with the compounds detected.

We recommend that the ambient organic vapor levels be monitored during construction of the sanitary sewer line. If the levels exceed the prevailing OSHA codes, then precautions (respirators) should be taken. We feel that a conservative approach would be to assume that all readings are due to benzene and follow the applicable regulations for benzene. We believe this to be a reasonable assumption as benzene is probably the most volatile compound that will be encountered. Based on the limited data collected, we expect that the levels encountered will be well below the maximum and will not hinder construction.

In addition, we recommend that steps be taken to minimize physical contact of personnel with soils which may contain coal tars. The equipment required is inexpensive (gloves, boots, safety glasses, and coveralls). It is more important that instruction and supervision are provided to insure that simple precautions are taken.

6 November 1984 84C4048-A

> It may be to NYSEG's advantage to stockpile on-site any contaminated soils encountered during excavation. While we do not expect any of these soils to be classified as hazardous waste, they may fall under the category of industrial waste. It would be unfortunate to have to re-excavate this material if some action is taken at a later date. An alternative to stockpiling contaminated soils would be to have them properly disposed of at the time of excavation.

> If we can be of any further service or answer any questions, please do not hesitate to call.

> > Very truly yours,

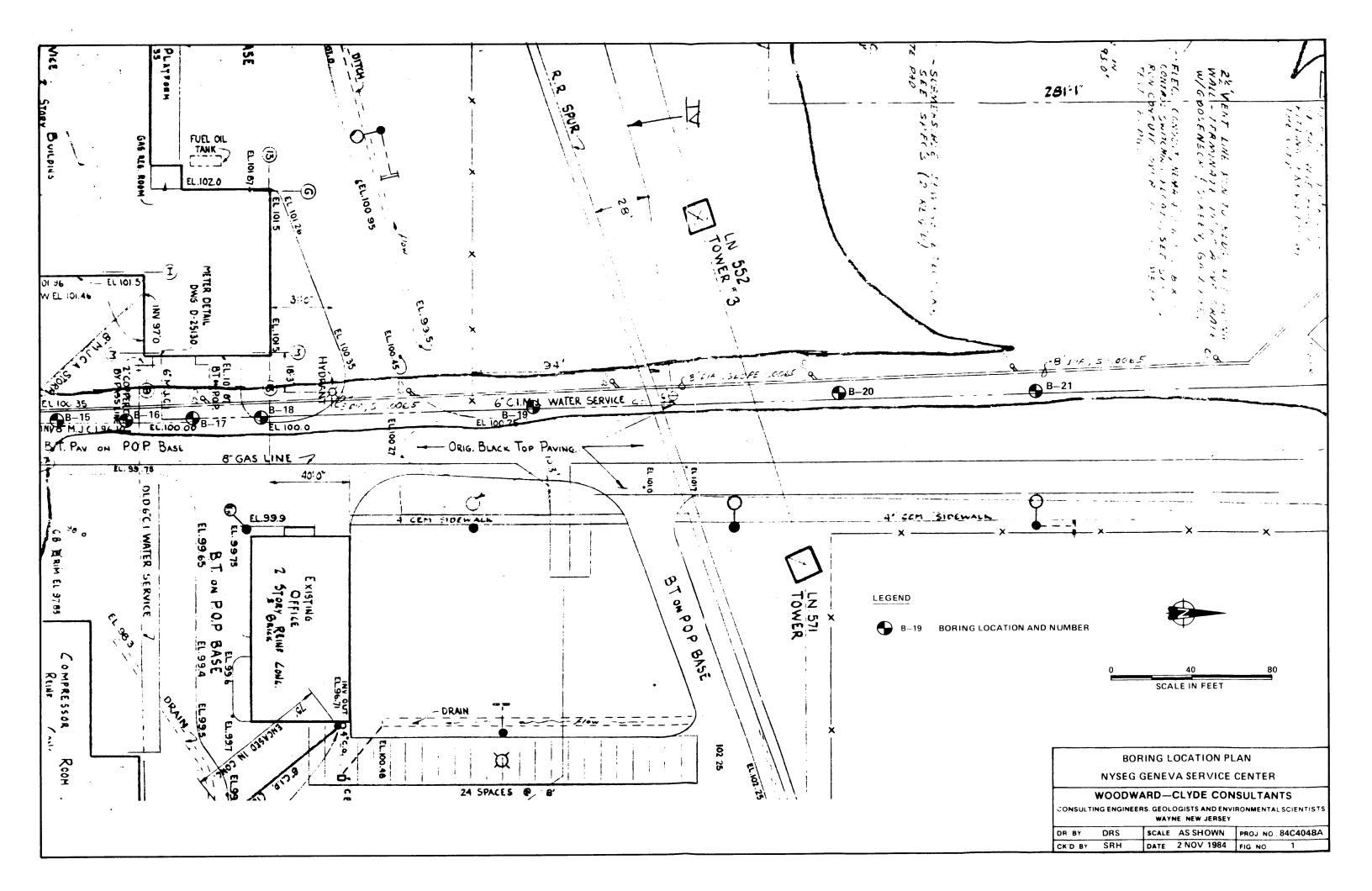
Steffan R. Helbig Assistant Project Geologist

Donald R. Ganser

Associate

SRH/DRG:js

D1035/206



APPENDIX A

BORING LOGS

LOG OF BORING 13-15

SHEET 1 OF 1

NYSEG					BARNATION AND BARNAT	The state of the s
Geneva, N.Y. 20' N of	2 Y	May	hole			8404048
NYSEG		•	_ _		O I S - A 1994	21 Sept. 1984
MISEG					AL SEPT. ITEM	21 3E PF. 1187
Power Auger					7 4	
	<u> </u>		 			_ -
CASING N/A	/#	4			www.box. 3,5'	
CASING HAMMER - WEIGHT - C	RO	₽	_			rtical
SAMPLER N/A						
SAMPLER HAMMER WEIGHT -	ORC	<u> </u>	· T		S. H.	elbig
DESCRIPTION		DEPTH, PT	Non Superior		REM	ARKS
Grass, Topsoil	4	1	4			
Brown SAND, Some Gravel, SI. Moist		- 2	0.0			
		1	4			
Brown Dense GRAVEL	I	-3.	4 ,			
with some Colobles (Bricks) SI. Moist		1	0.0	口		
	1	17] ,			
	ı	5]			
Brown Clayer SILT With		-	0.0			•
Some Gravel, Wet	1	16.	-{			
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WOODWARD-CLYDE CONSULTANTS

CONSULTING ENGINEERS, GEOLOGISTS AND ENVIRONMENTAL SCIENTISTS

LOG OF BORING B-16

SHEET 1 OF 1

NYSEG					BLOWN THEN AND BATTAN	
Geneva, N.Y. 53' N.	ऽ ६	Mar	shole	2	-	8404048
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Power Auge	7				5-81.	_
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CASING NA	3/1	ł			-	
CASING HAMMER - WEIGHT -	DRO	P '	_			lertical
SAMPLER N/A						
SAMPLER HAMMER WEIGHT -	DRO	<u> </u>	I - AI		2.1	telbig
DESCRIPTION	Į	DEPTH, FT	No.		REN	AARKS
Grass Topseil Brown Silty SAND, Minor Gravel, Cobbles, Occ. Coal S1. Moist.		2 - 3 -	0.0	V	1. Odor	
	l	4 -	0.5	J	(; C804)	
	-	-5-	 			
		67891011213145161718				

LOG OF BORING 3-17 SHEET 1 OF 1

NYSEG					BLOWINGS AND BATTON	
Geneva, N.Y. 85.5' N.	04	? M	unho	او		8404048
NYSEG		_	-		21 Sept. 1984	21 Sept. 1984
Power Auge	r				6,54.	Pages (BP71)
	A	•				
CASING N/A	1/1	4			10 3 15	
CASING HAMMER - WEIGHT -	DRO	P	_		STATE AND AND DESCRIPTION	rtical
SAMPLER N/A					- US	TICAL
SAMPLER HAMMER WEIGHT -	DRO	P			S.H	lbig
DESCRIPTION		DEPTH, FT	Nos dias		REM	ARKS
Grass, Dark Brown Topsoil		1				
		1.	0.0			
Brown Sandy GRAVEL	_	- 2]			
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LOG OF BORING B-18 SHEET 1 OF 1

Geneva, N.Y. 139,5' N		سی د	W = . 1 -	-1-	2.5×1745×145 24740		8404048
	-) · · ·	TUNN	910	GATE FRANTS		DATE PROPERTY
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Power Auge	7				7 +	<u> </u>	
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CASING N/A	5/	A			BUTTO LONG.	-51	
	DRO) P				700	rtical
SAMPLER N/A SAMPLER HAMMER WEIGHT -	DRO					S.He	
examples WEIGHT		/ +	10 -9			3.116	1019
DESCRIPTION		DEPTH. P	N N N N N N N N N N N N N N N N N N N			REM	ARKS
Grass, Topsoil	\dashv	1	4				
Brown Silty SAND, Minor		1	0.0		,	~ . ~ .	^
Gravel, tr. Clay, SI mois	27	La	<u>†</u>	• 5	ample	H-18	3
·		- 2	7				
Shark San L CONVE		- 3	4				
Black Sandy GRAVEL SI, moist			4	5	1. Odor	, 7	
		[7]	•	sample	13-18	B
Brown CLAY, tr. silt	- 1	-5	4 .	又			
Wet		!	10.0				•
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LOG OF BORING 8-19

SHEET _____ OF____

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Geneva, N.Y. 29' N 04	<u> </u>	= <u>~</u> \	<u> </u>	2		CLEVATION AND DATAM	• ••	8404048
NYSEG				-		21 5C1	pt. 198	4 21 Sept. 1984
Power Auge				-		-	- 5+	
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CASING N/A	N/	A					2	100P. 10 ID
CABING HAMMER - WEIGHT -	DR					22-22 velt vel 22		
SAMPLER N/A	<u></u>						<u> </u>	ertical
SAMPLER HAMMER WEIGHT -	DR	OP.					S.H	lelbig
DESCRIPTION			DEPTH, FT	And res			REM	IARKS
Grass, Topsoil, Dark Brow Organie, Bl. moist	~~	ŀ	, -					
Dense GRAVEL With som	,,	F	2 -		6	د دامید	.	A Sample
Colobles SI moist	1	. [3		حد	aprica	re Q	A Sawbis
Brown CLAY +r. Silt	1	-						
sl. moist		ť	4 -					
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LOG OF BORING 3-20

SHEET 1 OF 1

Power Auger CASING NA CASING HAMMER - WEIGHT - DROP 84C4048 84					The Miles and Server	
Power Auger Power Auger B Ft CABING N/A CABING N/A CABING HAMMER - WEIGHT - DROP EAMPLER HAMMER WEIGHT - DROP Coal Dust. Red -Brown SILT, Some F. Sand, tr. Clay, moist.			13-1	9	-	8404048
CASING NAMER - WEIGHT - DROP EAMPLER NAMER WEIGHT - DROP DESCRIPTION DESCRIPTION REMARKS Grass, Black Topsoil, Silt, poss. Coal Dust. Red - Brown SILT, Some f. Sand, tr. Clay, moist.	NYSEG			_		21 Sept. 1984
CASING NAMER - WEIGHT - DROP SAMPLER NAMER WEIGHT - DROP DESCRIPTION DESCRIPTION REMARKS Grass, Black Topeoil, Silt, poss, Coal Dust. Red - Brown SILT, Some f. Sand, tr. Clay, moist.	Dames Auges	•			G C	-
CASING NAMER - WEIGHT - DROP CASING HAMMER - WEIGHT - DROP CASING HAMMER WEIGHT - DROP DESCRIPTION DESCRIPTION REMARKS Grass, Black Topeoil, Silt, poss. Coal Dust. Red - Brown SILT, Some f. Sand, tr. Clay, moist.		-				Marie Green
CABING HAMMER - WEIGHT - DROP BAMPLER N/A BAMPLER HAMMER WEIGHT - DROP DESCRIPTION DESCRIPTION REMARKS Grass, Black Topeoil, Silt, poss. Coal Dust. Red - Brown SILT, Some f. Sand, tr. Clay, moist. 2- -3-	110 Macy	/A	ł		as search /	J j j
EAMPLER N/A EAMPLER HAMMER WEIGHT - DROP S. Helbig DESCRIPTION REMARKS Grass, Black Topeoil, Silt, poss. Coal Dust. Red-Brown SILT, Some f. Sand, tr. Clay, Moist. 23-						1. 1
DESCRIPTION DESCRIPTION DESCRIPTION REMARKS Coal Dust. Red-Brown SILT, Some f. Sand, tr. Clay, moist.						
Grass, Black Topeoil, Silt, poss, Coal Dust. Red-Brown SILT, Some f. Sand, tr. Clay, moist. 2- 4-		RO	p =		S.H	elbia
Red-Brown SILT, some f. Sand, tr. Clay, moist.		6.000	DEPTH, FT	Kalling Roading	REM	ARKS
- 6 7	Coal Dust.		1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17	0.0		

LOG OF BORING 13-21

SHEET 1 OF 1

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Geneva, N.Y. 100' N	0 f	13 -	20		8404048
NAZEC			-	21 Sept. 1984	21 Sept. 1984
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Power Auge	,			8 51	-
CASING NA	N/A	ł			
	DRO			COPPER AND LAND DESCRIPTION	1. 1
SAMPLER N/A					rtical
SAMPLER HAMMER WEIGHT -	DRO			5. He	elbig
DESCRIPTION	1	DEPTH, FT	Condings Roadings	REM	ARKS
Grass, Dark Brown Topsoil					
Red-Brown SILT, Some f. Sand, tr. Clay, Moist.		2-	0.0		
Brown Mottled CLAY, tr. Silt, moist		3 -			
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APPENDIX B LABORATORY DATA

710 Exchange Street Rochester, NY 14608 (716) 454-3760

85 Trinity Place Hackensack, NJ 07601 (201) 488-5242

LABORATORY REPORT

Job No. 42575 Date 10/30/84

Client

Mr. Steffan Helbig Woodward-Clyde Consultants 201 Willowbrook Boulevard Wayne, NJ 07470 Sample(s) Reference

NYS Electric & Gas Geneva Service Center

Date Samples (x) received () collected by General Testing 9/21/84

P.O. #	·		ANALYTICA (mg/l unless st		
Sample Description			***************************************		
	P	henol			
Date(s) Collected Time(s)		/21/84 :00 am-2	:30 pm		
			•		
		(ug/g)			
B-15		0.75			
B-16		30			•
B-17		0.14			
B-18a		0.14			
B-18b		0.06			
B-19		0.04			
B-20		<,04			
n 24		<.04			
B-21		 04			
		1			
Analytical procedures in accordance for the Examination of Water and Was Methods for Chemical Analysis of \((<)\) indicates lowest detectable concused. Data on quality control perform	stewater, 15th Edition and Water and Wastes, EPA. Pentration with procedure	(X	aves of	Sem	
is available upon request.			· <i>U</i>	Lal	boratory Director

water and wastewater testing specialists

general testing corporation

710 Exchange Street Rochester, NY 14608 (716) 454-3780

85 Trinity Place Hackensack, NJ 07601 (201) 488-5242

LABORATORY REPORT

Job No. 42575 Date 10/30/84

Client

Mr. Steffan Helbig Woodward-Clyde Consultants 201 Willowbrook Boulevard Wayne, NJ 07470

N Y S G e n

NYS Electric & Gas Geneva Service Center

QC Data - B-19

Sample(s) Reference

Date Samples (x) received () collected by General Testing 9/21/84

P.O. #		ANALYTICA (mg/l unless sta	ated otherwise)	
Sample Description	Duplicate	Spiked Re Amount Added	coveries % Recovery	
Dale(s) Collected Time(s)	9/21/84 1:15 pm			
Phenol	<.04	-	*	
* Average recovery	this run	105.7%		
	_			
Analytical procedures in accordance with Standard Methods for the Examination of Water and Wastewater, 15th Edition and Methods for Chemical Analysis of Water and Wastes, EPA. (<) indicates lowest detectable concentration with procedure used. Data on quality control performed with above sample(s) in available upon manual.	X	live of	Deme	ratory Director
is available upon request.			Lauui	atory Director

710 Exchange Street Rochester, NY 14608 (716) 454-3760 85 Trinity Place Hackensack, NJ 07601 (201) 488-5242

LABORATORY REPORT

Job No. 42575 Date 10/30/84

Client

Mr. Steffan Helbig Woodward-Clyde Consultants 201 Willowbrook Boulevard Wayne, NJ 07470 Sample(s) Reference

Priority Pollutant Data
7 Purgeable Aromatics

NYS Electric & Gas

Date Samples (x) received () collected by General Testing 9/21/84

P.O. #		ANALYTICA	L RESULTS,	ug/kg
Sample Description				
Analysis * by GC Method 602	B-15	B-16	B-17	B-18a
Date(s) Collected Time(s) Collected Date Analyzed	9/21/84 10:00 am 10/10/84	9/21/84 10:30 am 10/11/84	9/21/84 11:00 am 10/11/84	9/21/84 11:30 an 10/11/84
Benzene	30	5300	63	50
Toluene	12	4800	26	13
Ethylbenzene	<5	210	11	8.1
Chlorobenzene	<50	<500	<50	<50
1,4-Dichlorobenzene	<50	<500	<50	<50
1,3-Dichlorobenzene	<50	<500	<50	<50
1,2-Dichlorobenzene	<50	<500	<50	<50
Additional Compounds eluting but not on 602 list				
p-Xylene *	4.6	2600	48	59
m-Xylene *				
o-Xylene	3.3	710	27	23
Styrene	<5	490	18	19
n-Propylbenzene * Elute together	< 5	86	17	15
Analytical procedures in accordance with Standard Methods for the Examination of Water and Wastewater, 15th Edition and Methods for Chemical Analysis of Water and Wastes, EPA (<) indicates lowest detectable concentration with procedure used. Data on quality control performed with above sample(s is available upon request. * EPA 40 CFR, Part 136, 12/79.		aves	Bemer Labo	oratory Director

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85 Trinity Place Hackensack, NJ 07601 (201) 488-5242

LABORATORY REPORT

Job No.

42575

Date

10/30/84

Client

Mr. Steffan Helbig Woodward-Clyde Consultants 201 Will-owbrook Boulevard

Priority Pollutant Data 7 Purgeable Aromatics

Sample(s) Reference

NYS Electric & Gas

Wayne, NJ 07470

Date Samples (x) received () collected by General Testing 9/21/84

(<) indicates lowest detectable concentration with procedure used. Data on quality control performed with above sample(s)

is available upon request. EPA 40 CFR, Part 136, 12/79.

.O. #		ANALYTICA	L RESULTS,	ug/kg
Sample Description			, Marie - St. Marie II even di dicentative manie P	
Analysis * by GC Method 602	B-18b	B-19	B-20	B-21
Date(s) Collected	9/21/84	9/21/84	9/21/84	9/21/84
Time(s) Collected	12:45 pm	1:15 pm	2:15 pm	2:30 pm
Date Analyzed	10/11/84	10/11/84	10/12/84	10/12/84
Benzene	<5	<5	<5	<5
Belizene				~5
Toluene	<5	<5	<5	내다 다음 ? 노름하는 1
Ethylbenzene	K 5	<5	<5	<5
Emyloenzene			256	<50
Chlorobenzene	<50	<50	< 50	\$20
1.4-Dichlorobenzene	<50	<50	<50	<50
			<50	<50
1,3-Dichlorobenzene	<50	<50	< 30	(1970) NOV
1,2-Dichlorobenzene	<50	<50	< 50	<50
•				
Additional Compounds eluting but not on 602 list				
not on 602 list				
p-Xylene	< 5	< 5	< 5	< 5
PAyene				
m-Xylene	<5	<5	< 5	<5
o-Xylene	<5	<5	< 5	<5
	_	- -	1.5	<5
Styrene	<5	<5	<5	()
n-Propylbenzene	<5	<5	<5	<5
Tritopyibonzone				

1/84

2-

water and wastewater testing specialists

general testing corporation

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85 Trinity Place Hackensack, NJ 07601 (201) 488-5242

LABORATORY REPORT

10/30/84 42575 _ Date _ Job No. _

Client

Mr. Steffan Helbig Woodward-Clyde Consultants 201 Willowbrook Boulevard Wayne, NJ 07470

Sample(s) Reference

Priority Pollutant Data 7 Purgeable Aromatics

> NYS Electric & Gas QC Data - B-19

Date Samples (x) received () collected by General Testing 9/21/84

P.O. #		ANALYTIC	AL RESULTS,	ug/kg
Sample Description Analysis * by GC Method 602	Duplicate	Spiked Re Amount Added	covery % Recovery	
Date(s) Collected Time(s) Collected Date Analyzed	9/21/84 1:15 pm 10/12/84			
Benzene	<5	41	95%	
Toluene	<5	40	110%	
Ethylbenzene	<5	41	98%	
Chlorobenzene	< 50	-	-	
1,4-Dichlorobenzene *	<50	127	109%	
1,3-Dichlorobenzene *				
1,2-Dichlorobenzene	<50	66	106X	
Additional Compounds eluting not on 602 list	but		·	
• p-Xylene *	<5	-	107%	
m-Xylene *		76	JUFA	a 140 kusa ka musuus Bara a 20 ka suud m
o-Xylene	<5	47	110%	
Styrene	<5	45	112%	
n-Propylbenzene * Elute	<5 together	40	100%	
Analytical procedures in accordance wifor the Examination of Water and Wastews Methods for Chemical Analysis of Wate (<) indicates lowest detectable concentrused. Data on quality control performed is available upon request. * EPA 40 CFR, Part 136, 12/79.	ater, 15th Edition and er and Wastes, EPA. ration with procedure	aved	Bem	Catory Directo

710 Exchange Street Rochester, NY 14608 (716) 454-3760

85 Trinity Place Hackensack, NJ 07601 (201) 488-5242

LABORATORY REPORT

42575 Job No.

10/30/84 Date

Client

Mr. Steffan Helbig Woodward-Clyde Consultants 201 Willowbrook Boulevard Wayne, NJ 07470

Sample(s) Reference

Priority Pollutant Data Base/Neutral Compounds Polynuclear Aromatic Hydrocarbons

NYS Electric & Gas

Date Samples (x) received () collected by General Testing 9/21/84

P.O. #	ANALYTICAL RESULTS, ug/g			
Sample Description				
Analysis * by GC Method 610 (in order of elution)	B-15	B-16	B-17	B-18a
Date(s) Collected	9/21/84	9/21/84	9/21/84	9/21/84
Time(s)Collected	10:00 am	35		11:30 am
Date Extracted	10/1/84			10/1/84
Date Analyzed	10/16/84	10/16/84	10/16/84	10/16/84
Naphthalene	1.3	99	<1	<1
Acenaphthylene	<1	46	<1	<1
Acenaphthene	<1	16	<1	<1
Fluorene	<1	130	<1	<1
Phenanthrene *	<1	410	1.2	<1
Anthracene *	4 F			- 1
Fluoranthene Pyrene	1.5 1.1	230	2.8 2.2	<1 <1
Benzo (a) anthracene	20	200 390	6. 8	<1
Chrysene	51	130	14	<1
Benzo (b) fluoranthene *				
Benzo (k) fluoranthene ★	12	210	6.5	<1
Benzo (a) pyrene	1.0	210	3.1	<1
Dibenzo (a,h) anthracene ★	<1	94	1.1	<1
Indeno (1,2,3-cd) pyrene *			_	
Benzo (g,h,i) perylene	<1	61	<1	<1
* Elute together				
Applytical properture is a second with the control of the control		\wedge	~ <i>~</i> ·	
Analytical procedures in accordance with Standard Metho for the Examination of Water and Wastewater, 15th Edition a Methods for Chemical Analysis of Water and Wastes, EF	and PA.	1 . [4		
(<) indicates lowest detectable concentration with procedused. Data on quality control performed with above sample	ure 👗	west	Jeme	
is available upon request. * EPA 40 CEP Port 136, 1370	7(3)	- 0 P	Labor	atory Director

10-1 0-2 10-3 10-4 **)-5** Э-6 10-7 7-8)-9 10-10 10-11 12 · - 13 10-14 15 16

* EPA 40 CFR, Part 136, 12/79.

1/84

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85 Trinity Place Hackensack, NJ 07601 (201) 488-5242

LABORATORY REPORT

Job No.

42575

10/30/84

Client

Mr. Steffan Helbig Woodward-Clyde Consultants 201 Willowbrook Boulevard

Wayne, NJ 07470

Sample(s) Reference

Priority Pollutant Data Base/Neutral Compounds

Polynuclear Aromatic Hydrocarbons

NYS Electric & Gas

Date Samples (x) received () collected by General Testing 9/21/84

P.O. #		ANALYTICAL RESULTS, ug/g		
Sample Description			- 00	2.24
Analysis * by GC Method 610 (in order of elution)	B-18b	B-19	B-20	B-21
Date(s)Collected	9/21/84	9/21/84	9/21/84	9/21/84
Time(s)Collected	12:45 pm	1:15 pm	2:15 pm	2:30 pm
Date Extracted	10/1/84	10/1/84	10/1/84	10/1/84
Date Analyzed	10/16/84	10/16/84	10/16/84	10/16/84
		-4	<1	<1
Naphthalene	<1	<1	<1	< 1*
Acenaphthylene	<1	<1 <1	<1 <1	~ 1
Acenaphthene	<1	<1 <1	<1	c1
Fiuorene	<1	<1 <1	< 1	<1
Phenanthrene	<1 <1	<1	<1	<1
Anthracene	* 1	<1 <1	<1	<1
Fluoranthene	<1	<1	<1	<1
Pyrene (c) anthroppe	4.3	18	3.0	17
Benzo (a) anthracene Chrysene	14	66	9.3	110
Benzo (b) fluoranthene	<1	<1	<1	<1
Benzo (k) fluoranthene	<1	<1	<1	<1
Benzo (a) pyrene	<1	1.4	<1	<1
Dibenzo (a,h) anthracene	(1	<1	<1	<1
Indeno (1,2,3-cd) pyrene	<1	<1	<1	<1
Benzo (g,h,i) perylene	<1	<1	<1	<1
	و			
Analytical procedures in accordance with Standard Method for the Examination of Water and Wastewater, 15th Edition ar		$\left(\cdot \right)$		

Methods for Chemical Analysis of Water and Wastes, EPA. (<) indicates lowest detectable concentration with procedure used. Data on quality control performed with above sample(s) is available upon request. EPA 40 CFR, Part 136, 12/79.

Den Den Laboratory Director

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15 ب، 10-16

710 Exchange Street Rochester, NY 14608 (716) 454-3760 85 Trinity Place Hackensack, NJ 07601 (201) 488-5242

LABORATORY REPORT

Job No. ____42575

Date 10/30/84

Client
Mr. Steffan Helbig
Woodward-Clyde Consultants
201 Wil-lowbrook Boulevard
Wayne, NJ 07470

Sample(s) Reference

Priority Pollutant Data

Base/Neutral Compounds

Polynuclear Aromatic Hydroc

Polynuclear Aromatic Hydrocarbons NYS Electric & Gas

QC Data

Date Samples (x) received () collected by General Testing 9/21/84

	ANALYTICAL RESULTS, ug/g 				
······································					
Sample Description		- (2)	Spiked R		
Analysis * by GC Method 610	B-16 (1)			% Pacovery	
(in order of elution)	Duplicate	8	Added	Recovery	
Date(s) Collected	9/21/84	9/21/84			
Time(s)Collected	10:30 am	10:30 am			
Date Extracted	10/1/84	10/1/84			
	10/17/84	10/17/84			
Date Analyzed					
Naphthalene	69	110	12.4	105%	
Acenaphthylene	30	58	13.4	96%	
Acenaphthene Acenaphthene	12	9.0	1.3	115%	
Fluorene	90	150	1.3	115%	
Phenanthrene *			15.7	92%	
	320	480	13.1		
Anthracene *	190	270	1.3	115%	
Fluoranthene	160	220	2.0	81%	
Pyrene	140	500	-	-	
Benzo (a) anthracene	100	160	-	-	
Chrysene Renzo (b) fluoranthene *			- 4	180%	
Benzo (b) fluoranthene * Benzo (k) fluoranthene *	160	330	3.1		
	200	420	1.8	70%	
Benzo (a) pyrene Dibenzo (a.h) anthracene				_	
Indeno (1,2,3-cd) pyrene *	80	110	-	-	
Benzo (g,h,i) perylene	84	120	4.1	86%	
Delico Mitth borthorn					
		;			
★ Elute together					
		-			
Analytical procedures in accordance with Standar	ard Methods	\nearrow /		•	
for the Examination of Water and Wastewater, 15th I	Edition and	, \ _ / \			
Methods for Chemical Analysis of Water and Wa	astes, EPA.	hi. H	TITI	m	
(<) indicates lowest detectable concentration with		wear.	H		
used. Data on quality control performed with above is available upon request.	e Sampie(s)	~	Lat	boratory Director	

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EPA 40 CFR, Part 136, 12/79.

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GENERAL TESTING CORP.

CHAIN OF CUSTODY RECORD

Sampling F	Place: <u>Ge</u>	neva '	Service	e Cente	×
, -				neva ity	
	Bor (wa	et) C:	ity	State
Sample Sou				Hauler	Disposal Site
		_Other			
Shipper Na	ame:				
Shipper Ad	ddress:Stre		City	State	Zip .
	Sile Telephone # (State	21p
Collector	's Name: <	Q . 2	Hallais	: 14	11/1/11
001100001	's Name: Stef	Print	T WE TRIES	Si	gnatire
Field Info	ormation:				

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•	letter RD		~ 100	hann-	9/1/84 / 4:16 Am
for ()	AUG ACIP	. 17			11/1/1/1/1/1/1/1/1/1/1/1/1/1/1/1/1/1/1/1
	<u> </u>		sign.	Testing	
3. sign.					
for for sign.					
for					
	for Laboratory		for		
	Shipment:				
	-			C10	Number of
Sample	Sample Location	Date .	Time .	Sample Type	Number of Containers
				- 1	1
B-15	Co mposite	218970	10:00	Soil	<u> </u>
13-16	M	l1	10.30	u	4
				u\	,
B-17	u 	VI.	11:00		4
13-18A	201	h	11:30	u	4
					1
B-18B	5.0'	ч	12:45	И	4
n 10				lı	1
B-19	Composite	4	1:15		4
3-19 04	W	h	1:45	u	4
	. 1				1
B-90	ll	4	2:15	11	4
13-21	11	1.	2: 30	l1	4