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Final Engineering Report Appendices

Scajaquada Creek Sediment Remediation
Buffalo, New York 1
NYSDEC Site # 91514B

Appendix F: Design Change Forms
Appendix G: Clough Harbour Flood Control Report
Appendix H: Sediment and Seep Investigation Reports
Appendix I: Summary of MHF Analytical Results
Appendix J: Summary of Haul Road Sampling and Analytical Results
Appendix K: Summary of Perimeter Air Monitoring Results
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Appendix O: Permits
Appendix P: Project Photographs

Prepared by:

ThermoRetec Consulting Corporation
1001 West Seneca Street, Suite 204
Ithaca, New York 14850-3342

ThermoRetec Project No.: 3-2111-600

Prepared for:

National Fuel Gas Distribution Corporation
10 Lafayette Square
Buffalo, New York 14203

August 30, 2000

Appendix F

Appendix F

Design Change Forms

NYSDEC Site # 91514B
August 30, 2000

SCAJAQUADA CREEK SEDIMENT REMEDIATION
Summary of Design Changes
Each Design Change is attached

Design Change#	Title	Date
1	Location of Sheet Pile Wall	8/7/98
2	Dredging with up to 400 ft. exposed	8/13/98
3	Turbidity Readings	8/27/98
4	Modify 100 ft. requirement	10/16/98
5	Specification of Sand Capping Material	8/19/98
6	Erosion Protection at Storm Outfalls	11/3/98
7	Erosion Protection at Storm Outfalls	11/17/98
8	Work near West Avenue Bridge	12/21/98
9	Erosion Protection near Conrail	11/9/98
10	Repair Storm Damage to West Bank	12/8/98
11	(NOT PERFORMED)	
12	Construction of Aquatic Planting Beds	2/22/99
13	Construction of Erosion Control Swales Below Expressway Downspouts	3/24/99

DESIGN CHANGE SUMMARY
SCAJAQUADA CREEK SEDIMENT REMEDIATION

Design Change: Location of Sheetpile wall **Change No.:** 01
Date: 8/7/98

Proposed by	Name	Signature
~~A.~~ Philip	Mike Charles	

Description of Design Change: (use additional pages if necessary)

Move sheetpile wall ~~10'~~ closer to West Avenue.
from 0 – 10' range

Specification Section Affected: 02380

Drawings Affected: S-1, S-2A, S-3A, S-6

Reasons for Design Change: Request originally made by Darling (Sheetpile subcontractor) so that they may construct the wall from set-up on West Ave Bridge.

Impact of Design Change:

Constructability: Easier

Amount of Contaminated Sediment Removed:
Additional DNAPL Impacted material will be included in DNAPL Extraction Area.

Floodplain and Flooding Regulations:
None

Schedule:
None

Cost:
None

Approved By:	Name	Signature
RETEC:	JOHN T. FINK Mark Hofferbert	
National Fuel Gas:	DAVID BARTHOLD	
NYSDEC:	ABUL BARKAT	
Phillip:	Michael A Charles	

DESIGN CHANGE SUMMARY
SCAJAQUADA CREEK SEDIMENT REMEDIATION

Design Change: CONTINUE DREDGING WITH UP TO 400' EXPOSED. **Change No.:** +~~DS~~ 2

Date: 8/13/98

Proposed by	Name	Signature
PHILIP		

Description of Design Change: (use additional pages if necessary)

WITHIN STATION 16+00 TO 18+00, CONTRACTOR WILL HAVE THE ABILITY TO CONTINUE DREDGING WITH UP TO 400 LINEAR FEET OF DREDGED CREEK EXPOSED. ACCOMPLISH ADDITIONAL DEWATERING BY CUTTING A CHANNEL NEAR THE RAILROAD BRIDGE.

Specification Section Affected: 022 00 3.7 SAND CAPPING MATERIAL PLACEMENT E.

Drawings Affected: NONE

Reasons for Design Change: TO ALLOW DREDGING TO CONTINUE AS PLACEMENT OF CAP MATERIALS IS DONE.

Impact of Design Change:

Constructability: NONE.

Amount of Contaminated Sediment Removed: NONE

Floodplain and Flooding Regulations: NONE.

Schedule: POSITIVE IMPACT.

Cost: NONE.

Approved By:	Name	Signature
RETEC:	JOHN T. FINK	
National Fuel Gas:	DAVID J. BARTHOLD	
NYSDEC:	A. BARKEY	
Phillip:	JOHN H. LANIER	

DESIGN CHANGE SUMMARY
SCAJAQUADA CREEK SEDIMENT REMEDIATION

Design Change: TURBIDITY READINGS **Change No.:** ~~08~~ ~~DS~~ 10/22 03
Date: 8/27/98

Proposed by RETEC	**Name** DANIEL M SHEARER	**Signature**

Description of Design Change: (use additional pages if necessary)

ALLOW TURBITY LEVELS TO REACH A ~~READING~~ DIFFERENCE OF 17 ~~25~~ DS NTUS BEFORE ~~THE 20~~ DS TURBIDITY DIFFERENCES REQUIRE CORRECTIVE ACTION.

Specification Section Affected: WORK PLAN DOC, Sec. 1.4.1

Drawings Affected: NONE

Reasons for Design Change: WORDING IN WORK PLAN DOES NOT TAKE INTO ACCOUNT A BASE LEVEL ACCEPTABLE TURBIDITY.

Impact of Design Change:

Constructability:
NONE

Amount of Contaminated Sediment Removed:
NONE

Floodplain and Flooding Regulations:
NONE

Schedule:
NONE

Cost:
NONE

Approved By:	Name	Signature
RETEC:	JOHN T. FINN	
National Fuel Gas:	DAVID J. BARTHOLD	
NYSDEC:	ABUL BARKAT	
Phillip:	Michael A. Charles	

DESIGN CHANGE SUMMARY
SCAJAQUADA CREEK SEDIMENT REMEDIATION

Design Change: Modify 100-ft Requirement **Change No.: 4**

Date: Oct. 16, 1998

Description of Design Change: (use additional pages if necessary)
The requirement that dredging proceed no further than 100 feet ahead of capping is modified per the letter to Philip of Oct. 16 ,1998. This change will allow only "rough" dredging to proceed beyond the 100-foot limit between stations 0+00 and 7+00.

The following conditions are imposed:

- At no time shall the excavator dredge to within 6 inches of final dredged grade except in those areas within 100 feet of placed armor stone.
- Final survey of finished grades shall continue to be done immediately prior to GCL placement, as we have been doing.
- If environmental monitoring indicate exceedences of odor, sheen, turbidity or airborne COC, Technical Specifications 3.3.E, 3.4.H and 3.5.C will be reinstated.

Specification Section Affected: 02200 3.4 H.

Drawings Affected: None

Reasons for Design Change:
Allows more rapid completion of project.

Impact of Design Change:

Constructability: Allows more rapid completion and avoids foul weather which would adversely affect constructability.

Amount of Contaminated Sediment Removed: Not Affected.

Floodplain and Flooding Regulations: Not Affected.

Schedule: This change has the potential to shorten the overall project completion.

Cost: No change.

Approved By:	Name	Signature
RETEC:	JOHN T. FINN	
National Fuel Gas:	DAVID J. BARTHOLD	
NYSDEC:		
Philip:		

DESIGN CHANGE SUMMARY
SCAJAQUADA CREEK SEDIMENT REMEDIATION

Design Change: Specification of Sand Capping Matl. **Change No.:** 05
Date: 8/ 19/ 98

Description of Design Change: (use additional pages if necessary)

Modify sand capping material specification to allow use of sand with more than 5% fines.

Specification Section Affected: 02200 2.1 Sand Capping Material

Drawings Affected: None

Reasons for Design Change:
Contractor had difficulty attaining the specified thickness and elevations of sand cap. Original sand used appeared to be sloughing at toe of slope.

Impact of Design Change: No impact to the function of the cap.

Constructability:
Should improve constructability

Amount of Contaminated Sediment Removed: No Impact.

Floodplain and Flooding Regulations: No Impact.

Schedule: No Impact.

Cost: Philip has provided a lump sum cost for the different sand material.

Approved By:	Name	Signature
RETEC:	JOHN T. FINN	
National Fuel Gas:	DAVID J. BARTHOLD	
NYSDEC:		
Philip:	JOHN LANIER	

DESIGN CHANGE SUMMARY
SCAJAQUADA CREEK SEDIMENT REMEDIATION

Design Change: Erosion Protection at Storm Outfalls **Change No.:** 06
Date: Nov. 3, 1998

Description of Design Change:
1. North Outfall. For the storm sewer outfall above the dredging zone on the east bank at about Station 6+00, place GCL and 18 inches of Armor Stone (Type 2, 6 inch) below the storm sewer outfall, extending from the pipe to the GCL below the outfall. Lap the GCL over any GCL at the edge of the cap.

2. South Outfall. For the storm sewer outfall on the east bank at about Station 5+20, which is within the dredging zone, excavate additional depth, as required, to expose the face of the concrete headwall and create a swale. Place GCL, min. 18 inches of sand, and 18 inches of Armor Stone (Type 2, 6 inch) below the storm sewer outfall, extending from the pipe a min. 10 feet west into the cap. Width of this armoring to cover sides of this outfall channel.

Specification Section Affected: None

Drawings Affected: S-2A and S-3A

Reasons for Design Change:
Protection of cap and bank from erosion.

Impact of Design Change:

Constructability: No impact.

Amount of Contaminated Sediment Removed: A few additional cubic yards will be excavated to form the swale and to allow for placement of cap with additional armoring at the Station 5+20 outfall.

Floodplain and Flooding Regulations: Not Affected.

Schedule: No significant change.

Cost: See Philip's request for change order compensation.

Approved By:	Name	Signature
RETEC:	JOAN T. FLYNN	
National Fuel Gas:	Tanya Alexander	
NYSDEC:	ABU-BARKAT	
Philip:		

DESIGN CHANGE SUMMARY
SCAJAQUADA CREEK SEDIMENT REMEDIATION

Design Change: Erosion Protection at Storm Outfalls **Change No.:** 07
Date: Nov. 17, 1998

Description of Design Change:
Repair of North Outfall. For the storm sewer outfall above the dredging zone on the east bank at about Station 6+00, place GCL and a combination of clean concrete pieces and 6 inch stone. Lap the GCL *over* any GCL at the edge of the cap. Place the concrete and stone approximately 6 feet wide and extending from the toe of the slope up to the outfall, approximately 30 feet.

(See attached sketch)

Specification Section Affected: None

Drawings Affected: S-2A and S-3A

Reasons for Design Change:
Protection of cap and bank from erosion. ~~Rip rap~~ CONCRETE ALSO required because 6 inch armor stone was not sufficient to maintain this steep slope during recent rainfall. ~~by itself.~~ (DS)

Impact of Design Change:

Constructability: No impact.

Amount of Contaminated Sediment Removed: None.

Floodplain and Flooding Regulations: Not Affected. The ~~Rip rap~~ material placed on the bank and at the toe of the slope will not be a significant impact. (DS)

Schedule: No significant change.

Cost: See Philip's request for change order compensation.
TO BE PERFORMED WITH EQUIPMENT ALREADY ONSITE. (DS)

Approved By:	Name	Signature
RETEC:	John T. Finn	
National Fuel Gas:		
NYSDEC:		
Philip:		

15 tons of Type II Stone @ $28/ton = $420
20 hrs w/marsh Excavator @ $180/hr = $3600
4 laborers x ~~18~~ 11 hrs @ $31/hr = ~~$2232~~ $1364
Supervisor x 20 hrs @ $58/hr = $1160

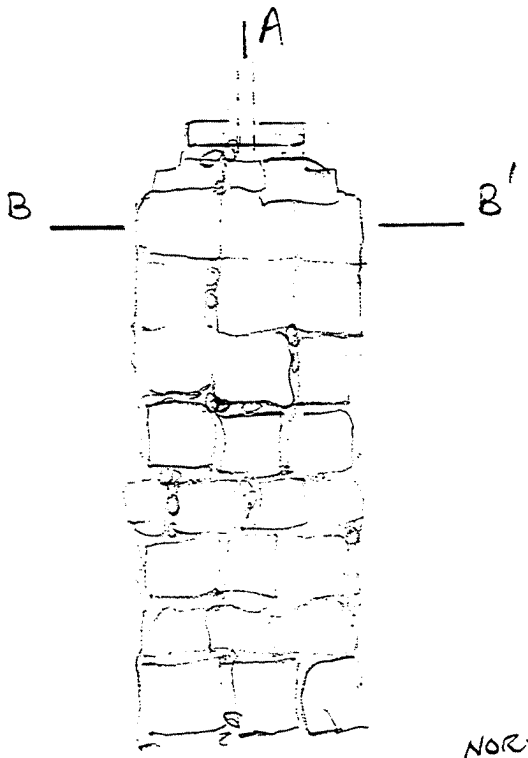
Philip signature
RETEC signature
DMS acceptance for $6544

Total = ~~$7412~~ $6544.00

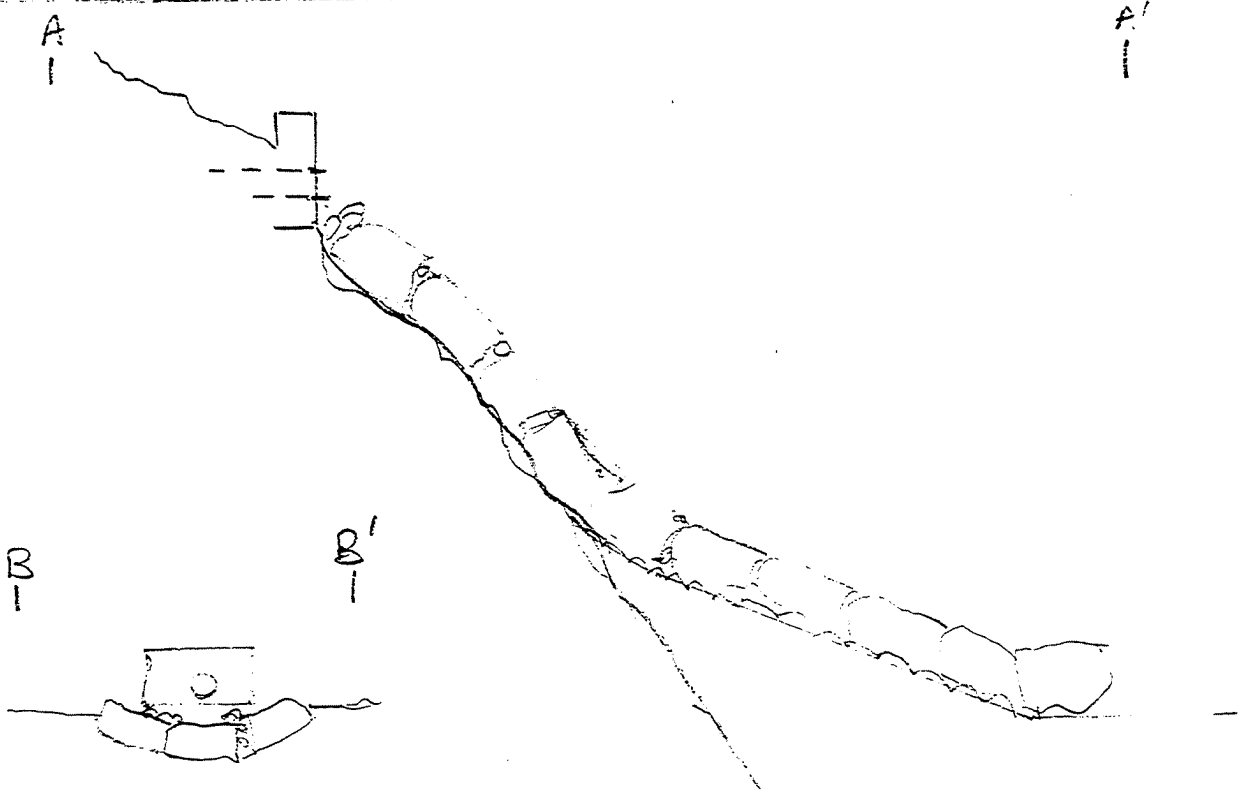
TOTAL P.01

REIEC

Project No. 3-211-600 Page 1 of 1
Client NATIONAL FUEL GAS Date 11/16/98
Site SCATTERGOOD CREEK By JTF
Subject NORTH OUTFALL App. J.T.F



NORTH OUTFALL
PLAN VIEW NOT TO SCALE



NORTH OUTFALL
SECTIONS NOT TO SCALE

DESIGN CHANGE SUMMARY
SCAJAQUADA CREEK SEDIMENT REMEDIATION

Design Change: Work Near West Ave. Bridge: **Change No.: 08**
Date: December 21, 1998

Description of Design Change:
Refer to the three drawings attached: Revised Dredging Plan, Cross Section A - A' and Cross Section B - B'.

Excavate additional material from the toe of the west bank between Station 0+55 and 2+55, as shown in the Revised Dredging Plan and Cross Section B- B'. Provide and place Type 2 ~~anchor stone~~ REMOVE ~~and sand bedding~~ beneath the GCL at the toe of the west bank and across the creek just north of the sheet pile barrier. When placing cap materials on the west bank from 0+55 to 2+55, place GCL up the slope to elevation 570 ft. MB

Remove partially installed sheet pile barrier. The used steel sheets shall be assumed contaminated and shall be staged within the excavation area or on heavy plastic on site. Re-install sheet pile barrier approximately 7 feet north of the NMPC electrical conduit bank (approximately Station 0+55).

Modify excavation from Station 0+00 (the West Ave. bridge) to Station 0+55 (revised location of the sheet pile wall). In the vicinity of the buried cables, remove as much debris and sediment as safely possible, and place cap materials. The material to be removed shall include rubble, debris and sediment in the creekbed and on the banks. Equipment shall not travel on top of the buried cables in the creek. Prior to GCL placement, ThermoRetec will collect and analyze four samples representative of the sediments remaining beneath the GCL which could not be safely excavated due to the electrical obstruction.

Specification Section Affected: None.

Drawings Affected: S-2A, S-3A and S-6

Reasons for Design Change: Electrical Conduit Obstruction and Seeps
(See letters to NYSDEC, December 17 and 19, 1998)

Impact of Design Change:

Constructability: This change will improve constructability and is required to avoid damage and injury from contacting the buried electrical cables.

Amount of Contaminated Sediment Removed: Maximum amount safely possible. Exact Quantity Unknown.

Floodplain and Flooding Regulations: Not Adversely Affected.

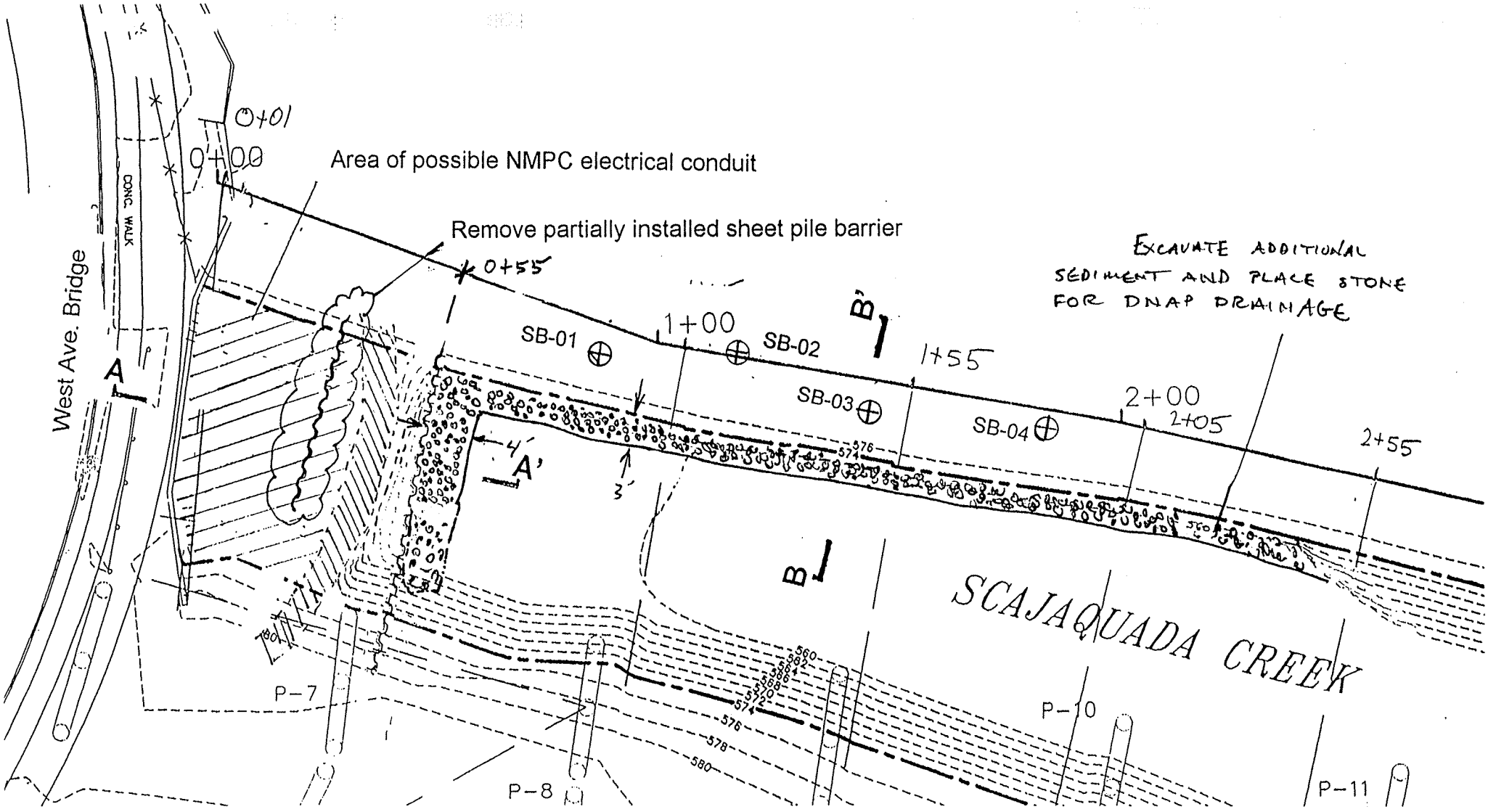
Schedule: ~~Not Adversely~~ MAY BE Affected. MB

Cost: Philip to provide time and materials cost proposal.

Approved By:	Name	Signature
RETEC:	M Hoffebut for John Finn	
National Fuel Gas:	C. CEI FOR TANYA ALEXANDER	
NYSDEC:	ABUL BARKAT	
Philip:		

ALL WORK ASSOCIATED WITH THIS PROPOSED DESIGN CHANGE WILL BE PERFORMED BY PHILIP ON A TIME AND MATERIALS, COST PLUS BASIS. CLIENT WILL REVIEW AND APPROVED QUANTITIES EXPENDED ON A DAILY BASIS.

PATRICK M. BAKER
Patrick M. Baker
12/22/98



SCALE IN FEET

0 50' 100'

Locations and dimensions of utilities and structures are approximate. Field verify.

RETEC Engineering, P.C.

REVISED DREDGING PLAN AND SHEET PILE BARRIER LOCATION

~~T.T~~

December ~~17~~, 1998 REV. 12/18/98 ~~T.T~~.

Scajaquada Creek 3-2111 REV 12/21/98 MRH

Rev 12/22/98 MRH

REIEC

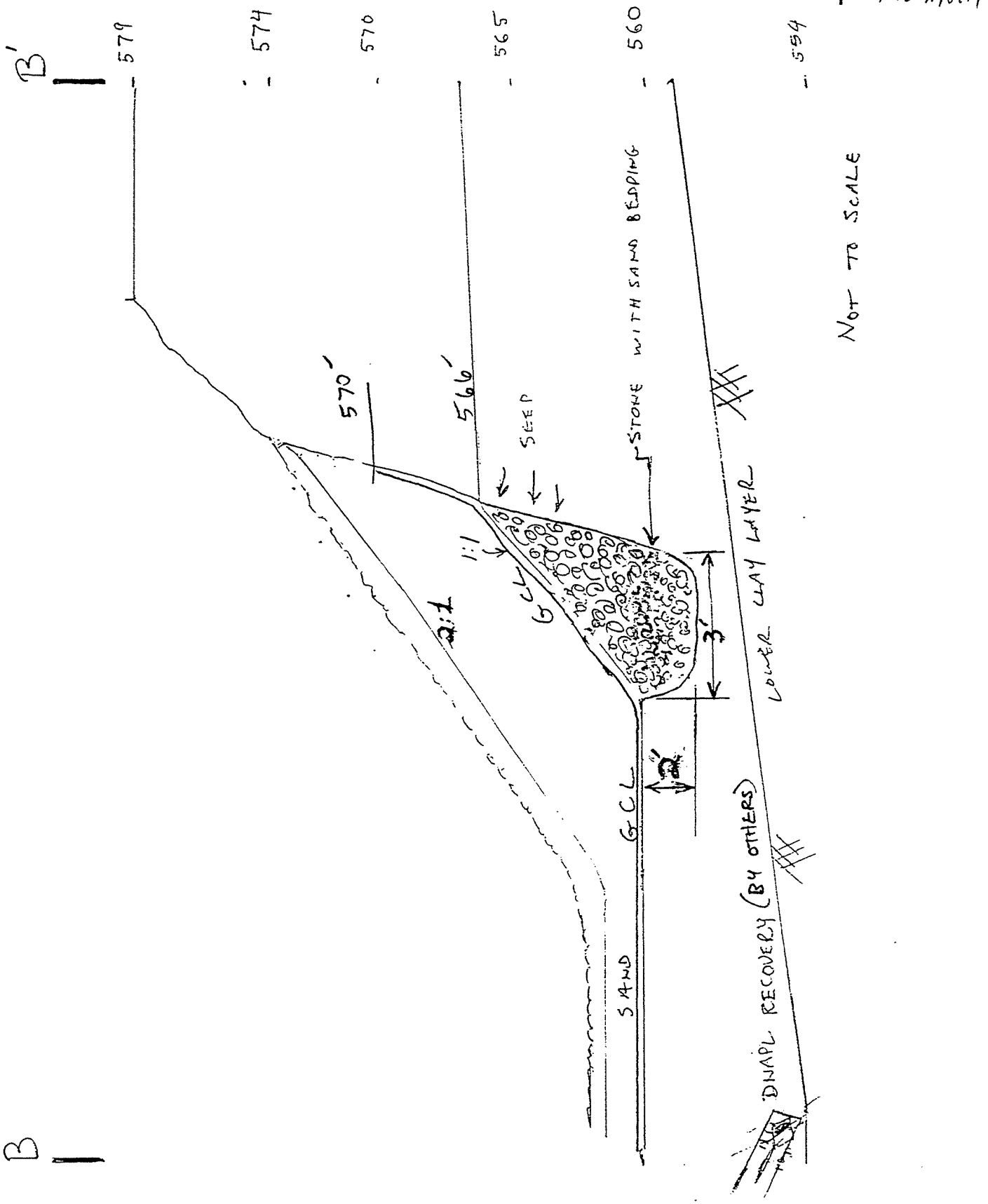
Project No. 3-2111 Page 01

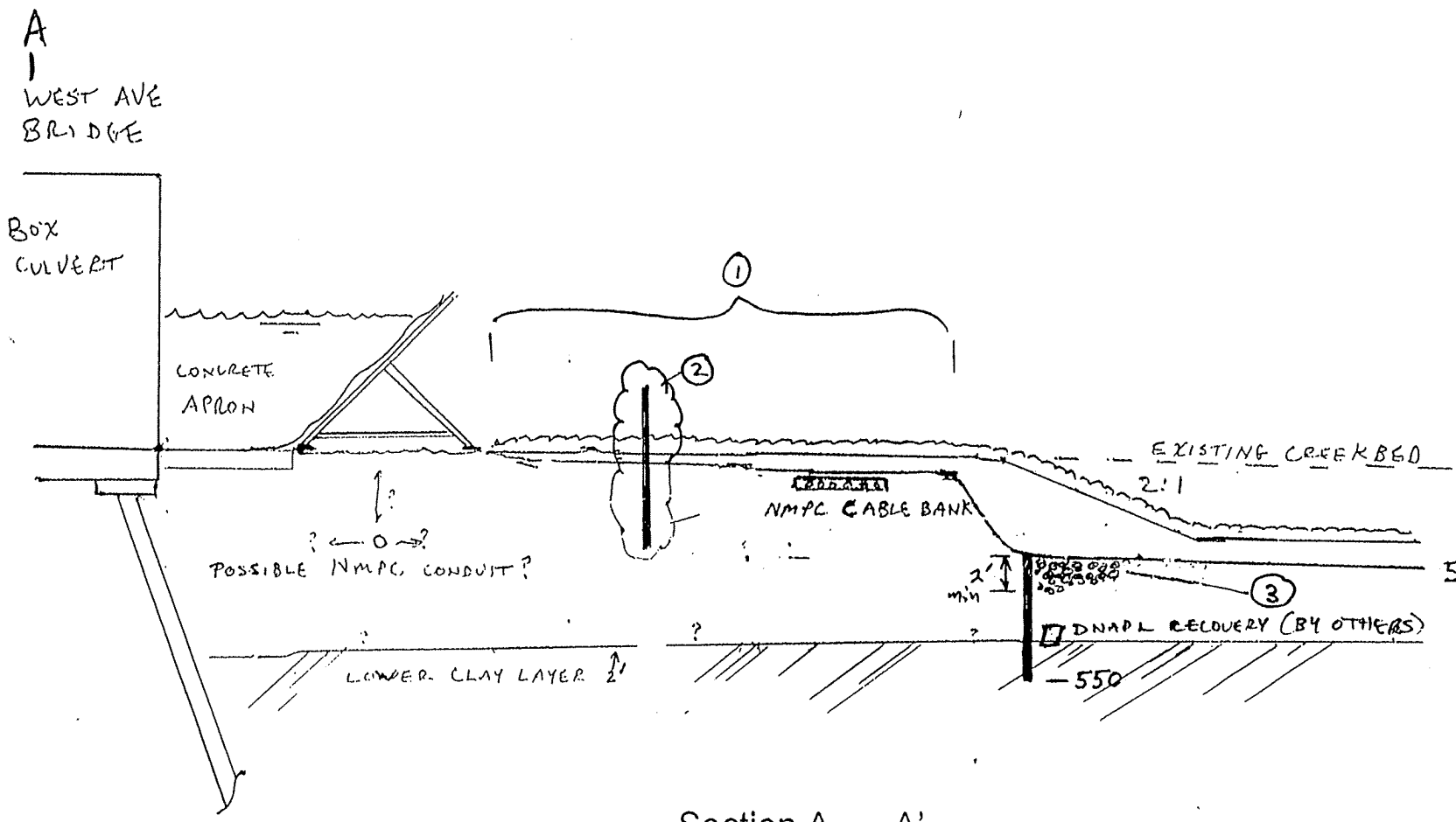
Client Date 12/15/98 /REVISED

Site SCAS. CREEK. By J.T.F.

Subject CROSS SECTION B-B' App.

Rev 12/21/98 MRH
Rev 12/22/98 MRH





Section A - A'

Approx. Scale 1" = 10'

NOTES

① Area of possible NMPC electrical conduit
Contractor to remove as much material as safely possible.
Clear area of sharp rubble and debris to allow for placement of cap.

② Remove partially installed sheet pile barrier

③ EXCAVATE ADDITIONAL SEDIMENT AND PLACE STONE 4'x2' FOR DNAPL DRAINAGE

REVISED

Project No. 3-2111-600
Client NATL FUEL GAS
Site SCAJAQUADA CREEK
Subject REVISED EXCAVATION - CROSS SECTION A-A'
By
App.
Date 12/17/98
Page 1 of 1

REV 12/21/98 MRM
REV 12/22/98 MRM
Rev. 12/29/98 JFL

DESIGN CHANGE SUMMARY
SCAJAQUADA CREEK SEDIMENT REMEDIATION

Design Change: Erosion Protection Near ConRail Bridge **Change No.:** 09

Date: Nov. 9, 1998

Description of Design Change:
Cover bare sediment in the undredged area beneath the Conrail Bridge. Move the vehicle bumper to the side. Place GCL, 2 inches of sand, and 6 inches of Armor Stone (Type 2, 6 inch) over the bare sediment. All work within the zone to be done by hand or small equipment so that the bridgeworks are not threatened, per Conrail.

Specification Section Affected: None

Drawings Affected: S-3B the area of the Conrail Bridge.

Reasons for Design Change:
Protection of bare sediments from erosion and transport of these contaminated sediments on the clean cap.

Impact of Design Change:

Constructability: No impact.

Amount of Contaminated Sediment Removed: No Impact

Floodplain and Flooding Regulations: Not Affected.

Schedule: No significant change.

Cost: See Philip's request for change order compensation. (PSC 11/5/98 Letter of Transmittal)
TIME & MATERIAL AS APPROVED BY SITE ENGINEER

Approved By:	Name	Signature
RETEC:	JOHN T. FINN	
National Fuel Gas:	Tonya Alexander	
NYSDEC:	ABUL BARIK	
Philip:	John Lanier	

2/20/99
Mike Charles
requested copy -
no work has been
done yet on this
change order
JW

DESIGN CHANGE SUMMARY
SCAJAQUADA CREEK SEDIMENT REMEDIATION

Design Change: Repair Storm Damage to West Bank **Change No.:** 10
Date: December 8, 1998

Description of Design Change: The following procedure which is acceptable as a one time alternate to the cap construction in the Technical Specifications :
From approximately Station 9 + 20 south to Station 6 - 50.

- Cut and remove exposed GCL that is more than 3 feet above the toe of the bank.
- Leave the stone and sand that washed down to the toe of the bank.
- Place Type 2 (6 inch) Armor Stone on the bank, up to elevation 574, to form a finished grade of approximately 3:1

Specification Section Affected: None

Drawings Affected: S-3A and S-3B

Reasons for Design Change:
The storm of November 10, 1998 caused sand and stone to be washed down to the toe of the bank. Replacement with Type 2 stone at a less steep slope will provide a protective barrier and resist further storm damage.

Impact of Design Change:

Constructability: No impact

Amount of Contaminated Sediment Removed: None

Floodplain and Flooding Regulations: Not Affected. This additional bank material in this limited reach of the creek will not be a significant impact.

Schedule: No significant change.

Cost: No impact

Longreach w/ operator	2 day	× $1880/day	= $3760
Supervision	2 day	× $696/day	= $1,392
Labor, per man	1 men × 1 hrs	× $31/hr	= $31
Type II stone	510 ton	× $28/ton	= $14,280
Survey crew	6 hrs	× $120/hr	= $720

Total = $20,183

NOT Approved for payment, See Letter of 12/9/98
NOT ACCEPTABLE, SEE TABLE 1 12/22/99

Philip Services Rep: X Edwin J. Sullivan

RETEC Representative X

DESIGN CHANGE SUMMARY
SCAJAQUADA CREEK SEDIMENT REMEDIATION

Design Change: Repair Storm Damage to West Bank **Change No.:** 10
Date: December 8, 1998

Description of Design Change: The following procedure which is acceptable as a one time alternate to the cap construction in the Technical Specifications
From approximately Station 9+20 south to Station 8 + 60

- Cut and remove exposed GCL that is more than 3 feet above the toe of the bank.
- Leave the stone and sand that washed down to the toe of the bank.
- Place Type 2 (6 inch) Armor Stone on the bank, up to elevation 574, to form a finished grade of approximately 3:1

Specification Section Affected: None

Drawings Affected: S 3A and S-3B

Reasons for Design Change:
The storm of November 10, 1998 caused sand and stone to be washed down to the toe of the bank. Replacement with Type 2 stone at a less steep slope will provide a protective barrier and resist further storm damage.

Impact of Design Change:

Constructability: No impact.

Amount of Contaminated Sediment Removed: None.

Floodplain and Flooding Regulations: Not Affected. This additional bank material in this limited reach of the creek will not be a significant impact.

Schedule: No significant change.

12/31/98

Longreach Excavator w/operator	1 day	x $1880/day	= $1880
Supervision	1 day	x $696/day	= $696
Type II Stone	174 tons	x $28/ton	= $4872
Survey Crew	1 hrs	x $120/hr	= $120

Michael A. Charles, Philip — Total = $7568.00

JOHN T. FINN

NOT APPROVED FOR RETEC PAYMENT. SEE RETEC LETTER OF 12/8/98
QUANTITES OF TIME AND MATERIALS NOT APPROVED AS ACCURATE
SEE RETEC TABLE.
1/7/99

DESIGN CHANGE SUMMARY
SCAJAQUADA CREEK SEDIMENT REMEDIATION

Design Change: Repair Storm Damage to West Bank **Change No.:** 10

Date: December 8, 1998

20' south of P-22

Description of Design Change: The following procedure which is acceptable as a one-time alternate to the cap construction in the Technical Specifications :
From approximately Station 5+20 south to Station 6+50: SW request Barry establish

- Cut and remove exposed GCL that is more than 3 feet above the toe of the bank.
- Leave the stone and sand that washed down to the toe of the bank.
- Place Type 2 (6-inch) Armor Stone on the bank up to elevation 574, to form a finished grade of approximately 3:1) deleted in field 3:1 extends into middle of channel

4 to 6" angular only

Specification Section Affected: None

Drawings Affected: S-3A and S-3B

Reasons for Design Change:
The storm of November 10, 1998 caused sand and stone to be washed down to the toe of the bank. Replacement with Type 2 stone at a less steep slope will provide a protective barrier and resist further storm damage.

Impact of Design Change:

Constructability: No impact.

Amount of Contaminated Sediment Removed: None.

Floodplain and Flooding Regulations: Not Affected. This additional bank material in this limited reach of the creek will not be a significant impact.

Schedule: No significant change.

Cost: No Impact

Approved By:

	Name	Signature
RETEC:	JOHN T. FINN	
National Fuel Gas:		
NYSDEC:		
Philip:		

Matches P-14 to P-12 along west side

P-17 to P-18 same

No. of P-18 covered w rock 574+

Fence D3681 moved NOW

4:00 PM 12/9/98 Steve Wise 4:10 Steve Wise fine

Videos from creek bus. trash burned under wind stock

3:10 Tenteen 6" rock ext. 3:20 Barry walk - SEC Cl. St. re-started the for what Hugo's working

RETEC-PC

December 8, 1998

RETEC Engineering, P.C.
1001 West Seneca Street
Suite 204
Ithaca, NY 14850-3342
(607) 277-5716
FAX (607) 277-9057

Mr. Pat Baker
Philip Services Corporation
495 Commerce Drive
Suite 7
Amherst, NY 14228

RE: Reconstruction of Cap on the West Bank
Scajaquada Creek Sediment Remediation

Dear Pat:

The storm of November 10 resulted in erosion damage to the cap materials that Philip had placed on the west bank of the site, from approximately Station 9+20 south to Station 6+50. This work was not accepted as complete and is now in a damaged state which still fails to conform with the Contract requirements.

Before acceptance of the eroded areas can be given, corrective work must be performed. Please proceed with the construction of the cap along the west bank that was damaged during the November 10 storm. The following procedure which is acceptable as a one-time alternate to the cap construction in the Technical Specifications (see attached Design Change Form):

- Cut and remove exposed GCL that is more than 3 feet above the toe of the bank.
- Leave the stone and sand that washed down to the toe of the bank.
- Place Type 2 (6-inch) Armor Stone on the bank, up to elevation 574, to form a finished grade of approximately 3:1.

We have determined that this reconstruction is to be done by Philip as a repair from storm damage which is the sponsibility of the Contractor in accordance with the following contract provisions:

- Article IV, paragraph 1. The surroundings and local conditions included stormwater flow on the site which could cause erosion of the work, as occurred during the November 10 storm.
- Article V, paragraph 4. The Contractor, at its expense, shall reexecute any such work that fails to conform to the Contract requirements.
- Technical Specifications Section 01010, 1.5.2 and Section 01505 3.2 and 3.3 require the Contractor to conduct stormwater management and control erosion.
- As contributing factors to the erosion damage, note that the GCL was placed up the entire bank, which very likely reduced the friction between the cap materials and the bank surface. The specifications call for GCL to be placed only 3 feet up the bank. In addition, the bank was excavated at a slope more steep than the specified 1:1 slope.

Please call me or RETEC field staff with questions.

Sincerely,
RETEC ENGINEERING, P.C.

John T. Finn, P.E.
Senior Engineer

Attachment: Design Change Form
cc:
Tanya Alexander - NFG
Mark Hofferbert, John Lynch, Site Office - RETEC

DESIGN CHANGE SUMMARY
SCAJAQUADA CREEK SEDIMENT REMEDIATION

Design Change No. 12
Construction of Aquatic Planting Beds
February 22, 1999

Description of Design Change:

PROVIDE 4

Place topsoil or topsoil blend as per the Technical Specifications in the following sections of Appendix B of the Site Restoration Plan dated January 7, 1999 :

Section 02936
- Part 1
- Part 2 (A and B only)
- Part 3.1
- Part 3.2 (A.3 and B.1)
- Part 3.3
- Part 3.4

Drawings 1,2, and 3

Reasons for Design Change:

Work and materials are beyond Philip's original scope of work.

Impact of Design Change:

This work is to be conducted pursuant to the site-wide aquatic restoration as per the Technical Specifications and intent of the Site Restoration Plan dated January 7, 1999.

Schedule: Work to be completed on or before Friday February 26, 1999

Cost: As per Philip's time and materials cost proposal dated 2/24/99

Approved By:	Name	Signature	Date
RETEC:	John T. Finn		
National Fuel Gas:			
NYSDEC:			
Philip:	Tommy Breaux	Tommy Breaux	2/24/99

FIELD USE

DESIGN CHANGE SUMMARY
SCAJAQUADA CREEK SEDIMENT REMEDIATION

Construction of Erosion Control Swales Below Expressway Downspouts

Date: March 24, 1999 | **Change No.: 13**

Description of Design Change:

Refer to the two attached plan view drawings.

Construct armored drainage swales under expressway downspouts ---

Excavate swales below downspouts at 9 locations shown.

Provide 2.0% minimum slope towards creek.

Extend finished swales so that water will discharge over existing fiber rolls.

Provide 4 foot wide swale bottom plus 3:1 (or flatter) side slopes.

Place Mirifi 600X geofabric throughout swale.

Armor swale below downspouts with concrete slab, approximate dimensions 4' x 4' x 4 inches. Swale depth shall accommodate minimum 8 inches clearance between bottom of downspouts and top of slab.

Armor remainder of swale with NYSDOT Medium Stone Fill; hand place stone as necessary to provide interlocking, density and uniformity of grade.

Relocate clean excavated soil as directed by the Engineer.

Specifications Affected: None.

Reasons for Design Change:
Protection of the remedial cap against erosion.

Impact of Design Change:

Constructability: Not affected.
Amount of Contaminated Sediment Removed: Not affected.
Floodplain and Flooding Regulations: Not affected.
Schedule: This work is to be completed by April 1, 1999.

Cost: This work is in addition to the lump-sum contracted work. All work associated with this design change will be reimbursed on a Time and Materials basis. Time and materials quantities and values are to be based on standard rates previously established and shall be confirmed by RETEC and NFG per applications for payment submitted by Philip after each day of work.

Approved By:	Name	Signature	Date
RETEC:			
National Fuel Gas:			
NYSDEC:			
Philip:	Michael H. Clarke		3-29-99

DESIGN CHANGE SUMMARY
SCAJAQUADA CREEK SEDIMENT REMEDIATION

Construction of Erosion Control Swales Below Expressway Downspouts

Date: March 24, 1999	**Change No.:** 13

Description of Design Change:

Refer to the two attached plan view drawings.

Construct armored drainage swales under expressway downspouts —

Excavate swales below downspouts at 9 locations shown.

Provide 2.0% minimum slope towards creek.

Extend finished swales so that water will discharge over existing fiber rolls.

Provide 4 foot wide swale bottom plus 3:1 (or flatter) side slopes.

Place Mirafi 600X geofabric throughout swale.

Armor swale below downspouts with concrete slab, approximate dimensions 4' x 4' x 4 inches. Swale depth shall accommodate minimum 8 inches clearance between bottom of downspouts and top of slab.

Armor remainder of swale with NYSDOT Medium Stone Fill; hand place stone as necessary to provide interlocking, density and uniformity of grade.

Relocate clean excavated soil as directed by the Engineer.

Specifications Affected: None.

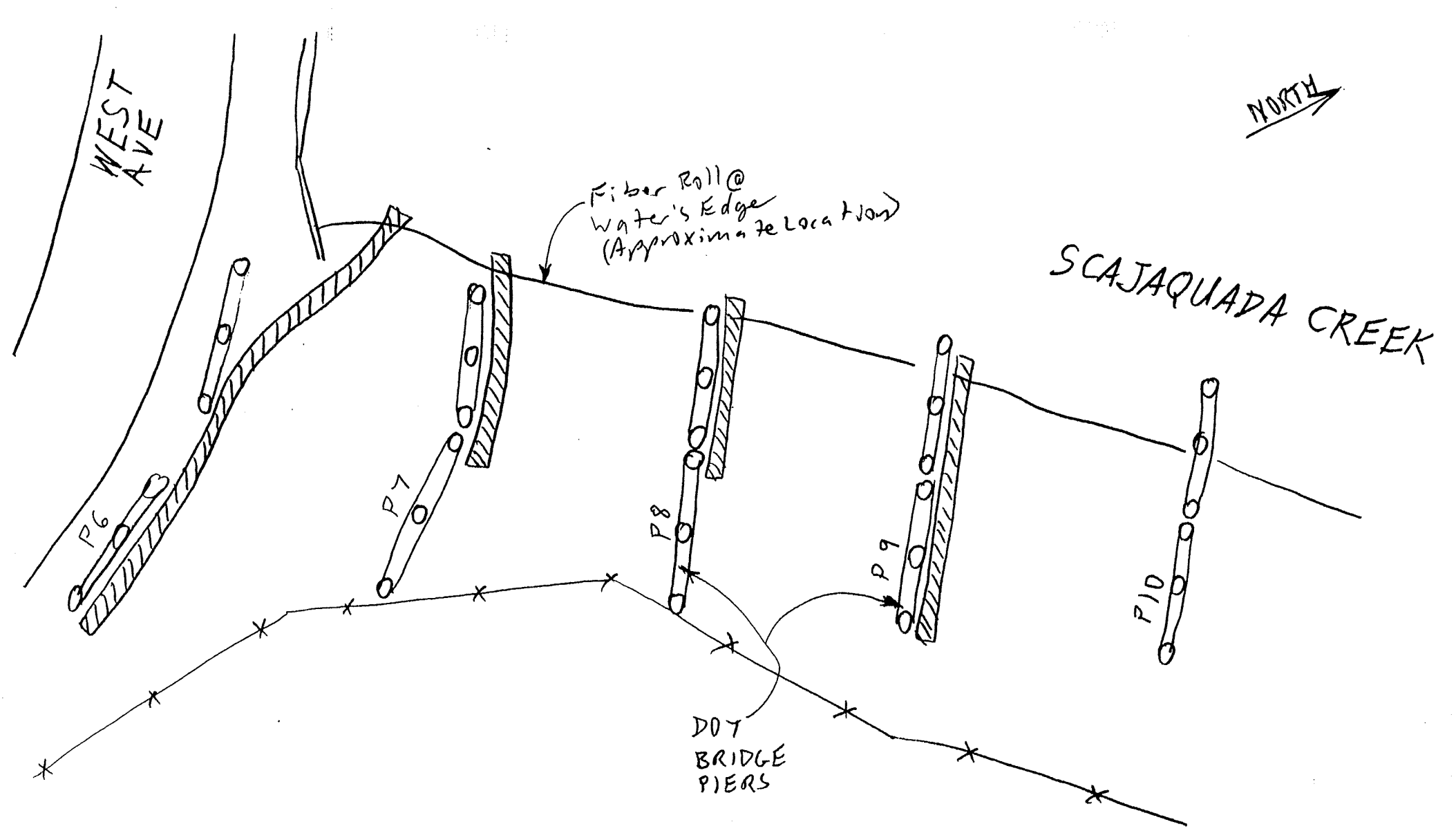
Reasons for Design Change:
Protection of the Remedial cap against erosion.

Impact of Design Change:

Constructability: Not affected.
Amount of Contaminated Sediment Removed: Not affected.
Floodplain and Flooding Regulations: Not affected.
Schedule: This work is to be completed by April 1, 1999.

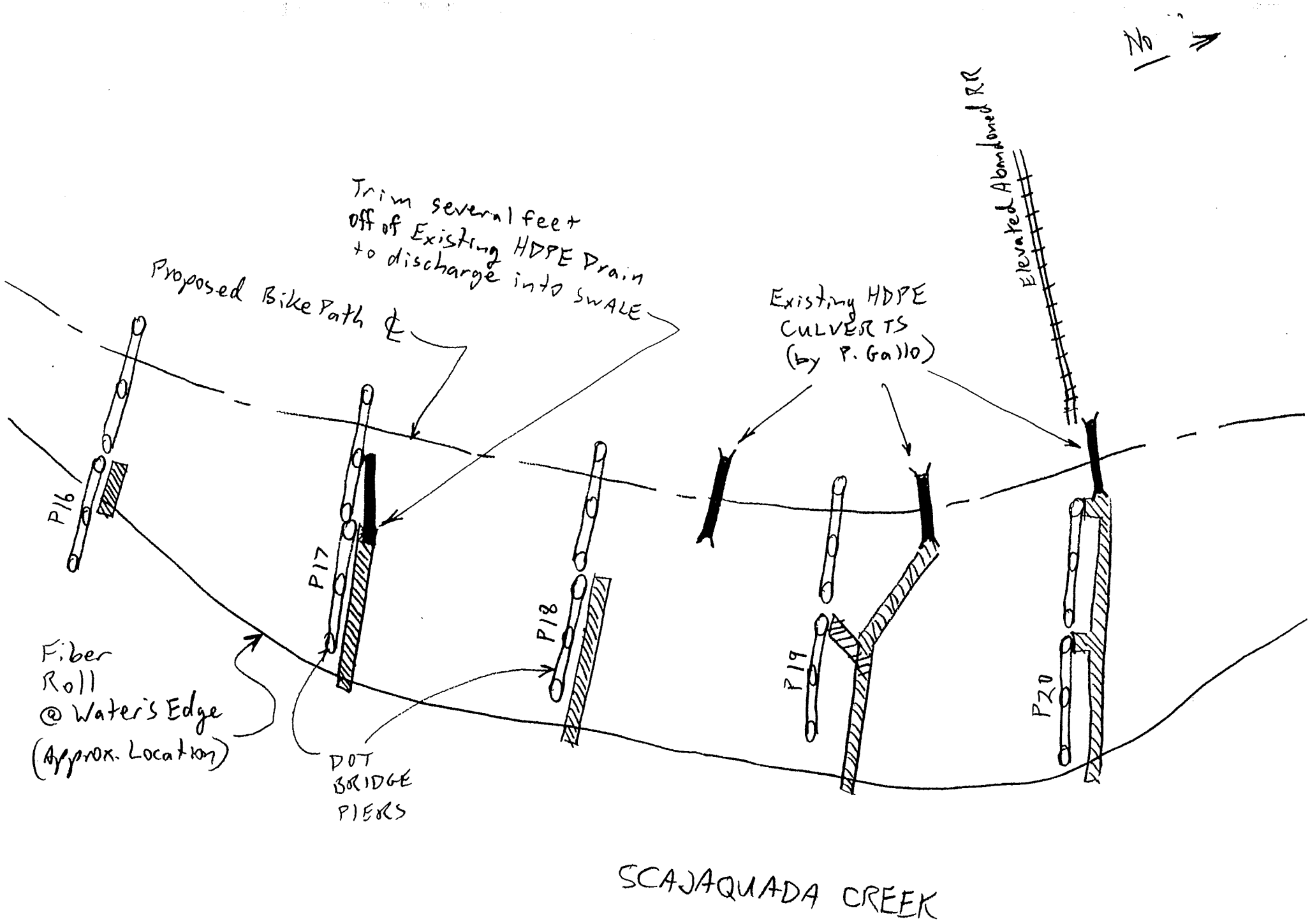
Cost: This work is to addition to the lump-sum contracted work. All work associated with this design change will be reimbursed on a Time and Materials basis. Time and materials quantities and values are to be based on standard rates previously established and shall be confirmed by RETEC and NFG per applications for payment submitted by Philip after each day of work.

Approved By:	Name	Signature	Date
RETEC:	T. Figo		3/29/99
National Fuel Gas:	Tanya B. Alexander		3/29/99
NYSDEC:	ABDUL BARKAT		3/30/99
Philip:			3-30-99



▨ = Proposed Swale

DC - 13
MRH - RETEC
3/19/99



DC-13
MRH-RETEC
3/19/99

Appendix G

Appendix G

Clough Harbour Flood Control Report

NYSDEC Site # 91514B
August 30, 2000

CLOUGH, HARBOUR
& ASSOCIATES LLP
ENGINEERS, SURVEYORS, PLANNERS
& LANDSCAPE ARCHITECTS

295 MAIN STREET • SUITE 900
BUFFALO, NY 14203
TEL. 716-847-6310 • FAX: 716-847-0123
www.cha-llp.com

March 5, 1999

Mr. John Finn, P.E.
RETEC
1001 W. Seneca St.
Suite 204
Ithaca, New York 14850-3329

RE: SCAJAQUADA CREEK REMEDIATION PROJECT
RESULTS OF EVALUATION OF AS-BUILT STREAM CONDITIONS
CHA Project No. 5187

Dear Mr. Finn:

Clough, Harbour & Associates, LLP (CHA) is pleased to provide the results of the analysis we performed for evaluating as-built stream conditions.

CHA performed the analysis using the HECRAS hydraulic model initially developed for this project. This analysis was performed to evaluate the effects of as-built conditions. It is our understanding that the presence of a Niagara Mohawk underground power conduit prevented deeper excavation in an area approximately 55 feet upstream of the West Avenue Bridge. We revised the model based on the following:

- An initial site visit to observe the conditions of the stream channel on February 26, 1999.
- Evaluation of as-built survey cross sections of Scajaquada Creek, cross sections provided by RETEC.
- Added cross sections from the downstream reach surveyed on February 26, 1999 in the model to reflect the as-built conditions.
- Recomputed the hydraulic model to analyze the impacts on water surface elevations of as-built data versus design.
- Design and as-built cross sections were assumed to be the same accept for those cross sections provided RETEC.

The results of the analysis are summarized on Table 1. This table presents a comparison of existing, proposed (design) and as-built conditions. As you can see in the table, the effect of the as-built conditions ranges from –0.06 feet to +0.06 feet in comparison with the interim effective model, depending on the location of the cross section.

The effect of proposed conditions ranges from –0.12 feet to +0.01 feet in comparison with the interim effective model, depending on the location of the cross section. These effects were identified in our initial study dated June 12, 1998.

Based on our review of the data including existing, proposed and as-built, we believe the range of effects (-0.06 feet to +0.06 feet) of the as-built conditions on the base flood elevation (without floodway) appear to be small and within the level of accuracy of the analysis.

Given the above results, CHA does not recommend revisions to the as-built stream channel based on a review of the results of the hydraulic analysis. Hydraulically, the effects are minor and almost negligible, given their magnitude. You should be aware that the nature of the as-built condition of the stream bottom immediately upstream of the West Avenue Bridge might result in sediment eventually filling the low and uneven areas. The long-term impacts of the natural filling of these low and uneven areas are unknown at this time.

Please be advised that CHA can not speak for the New York State Department of Environmental Conservation (NYSDEC). Their approval should also be sought before completion of the project.

Please call our office if you have questions or require further information. We will keep the backup computer analysis in our files. If you would like a copy please feel free to contact me at (716) 847-6310.

Sincerely,
CLOUGH, HARBOUR & ASSOCIATES LLP
ENGINEERS, SURVEYORS, PLANNERS
AND LANDSCAPE ARCHITECTS

Russell J. Stoll, P.E.
Project Manager

i:\5187\hydresl.doc

SCAJAQUADA CREEK REMEDIAL DESIGN

City of Buffalo, Erie County, New York

TABLE 1 - COMPARISON OF EXISTING, PROPOSED AND AS-BUILT CONDITIONS

River Station	Distance (ft)	Base Flood Without Floodway						Base Flood With Floodway					
		Stream Bed Elevation (ft)	Interim Effective Model (ft)	Proposed Condition Model (ft)	2/26/99 Condition Model (ft)	As Proposed Difference (ft)	As Constructed Difference (ft)	Stream Bed Elevation (ft)	Interim Effective Model (ft)	Proposed Condition Model (ft)	2/26/99 Condition Model (ft)	As Proposed Difference (ft)	As Constructed Difference (ft)
95.0000	1,951	566.5	586.25	586.23	586.28	-0.02	0.03	566.5	586.65	586.58	586.68	-0.07	0.03
94.9310	1,581	568.0	586.26	586.27	586.31	0.01	0.05	566.0	586.62	586.59	586.69	-0.03	0.07
94.8996	1,411	566.0	586.24	586.25	586.29	0.01	0.05	566.0	586.59	586.55	586.65	-0.04	0.06
94.8580	1,191	566.0	586.22	586.21	586.25	-0.01	0.03	566.5	586.55	586.49	586.60	-0.06	0.05
94.8450	1,124	566.0	586.07	586.06	586.10	-0.01	0.03	566.0	586.40	586.33	586.43	-0.07	0.03
94.8396	1,094	568.0	584.64	584.62	584.68	-0.02	0.04	568.0	585.11	585.03	585.16	-0.08	0.05
94.8395						0.00	0.00					0.00	0.00
94.8367	1,072	569.5	584.01	583.99	584.06	-0.02	0.05	569.5	584.55	584.46	584.61	-0.09	0.06
94.8295	1,034	566.0	584.53	584.53	584.59	0.00	0.06	565.0	584.97	584.90	585.04	-0.07	0.07
94.8205	986	564.0	584.63	584.62	584.68	-0.01	0.05	564.0	585.09	585.01	585.14	-0.08	0.05
94.8148	956	566.0	584.56	584.44	584.50	-0.12	-0.06	568.0	584.93	584.71	584.85	-0.22	-0.08
94.8034	896	568.0	584.51	584.41	584.48	-0.10	-0.03	564.0	584.86	584.67	584.81	-0.19	-0.05
94.7911	831	568.0	584.53	584.48	584.54	-0.05	0.01	565.0	584.88	584.76	584.90	-0.12	0.02
94.7826	786	568.0	584.51	584.47	584.53	-0.04	0.02	566.0	584.80	584.71	584.85	-0.09	0.05
94.7769	756	566.0	584.53	584.47	584.53	-0.06	0.00	564.0	584.83	584.70	584.85	-0.13	0.02
94.7652	694	566.0	584.54	584.49	584.55	-0.05	0.01	564.0	584.83	584.73	584.87	-0.10	0.04
94.7519	624	566.0	584.58	584.53	584.59	-0.05	0.01	564.0	584.91	584.79	584.93	-0.12	0.02
94.7386	554	566.0	584.58	584.53	584.60	-0.05	0.02	564.0	584.91	584.80	584.94	-0.11	0.03
94.7254	484	566.0	584.56	584.51	584.57	-0.05	0.01	564.0	584.87	584.76	584.91	-0.11	0.04
94.7140	424	564.0	584.52	584.47	584.53	-0.05	0.01	563.5	584.76	584.66	584.81	-0.10	0.05
94.7102	404	566.0	584.53	584.48	584.54	-0.05	0.01	563.2	584.81	584.70	584.85	-0.11	0.04
94.7055	379	566.0	584.52	584.47	584.53	-0.05	0.01	563.0	584.72	584.62	584.77	-0.10	0.05
94.6932	314	564.0	584.49	584.44	584.51	-0.05	0.02	562.0	584.70	584.61	584.76	-0.09	0.06
94.6812	251	564.0	584.44	584.39	584.46	-0.05	0.02	562.0	584.57	584.51	584.65	-0.06	0.08
94.6765	226	564.0	584.44	584.40	584.46	-0.04	0.02	562.0	584.63	584.54	584.69	-0.09	0.06
94.6693	188	566.0	584.41	584.37	584.44	-0.04	0.03	562.0	584.48	584.44	584.59	-0.04	0.11
94.6574	125	566.0	584.38	584.34	584.40	-0.04	0.02	562.0	584.32	584.29	584.44	-0.03	0.12
94.6479	75	566.0	584.31	584.27	584.34	-0.04	0.03	562.0	584.21	584.18	584.34	-0.03	0.13
94.6375	20	566.0	584.17	584.17	584.15	0.00	-0.02	564.0	584.18	584.17	584.13	-0.01	-0.05
94.6280	0	566.0	584.12	584.12	584.13	0.00	0.01	564.0	584.12	584.12	584.05	0.00	-0.07

Appendix H

Appendix H

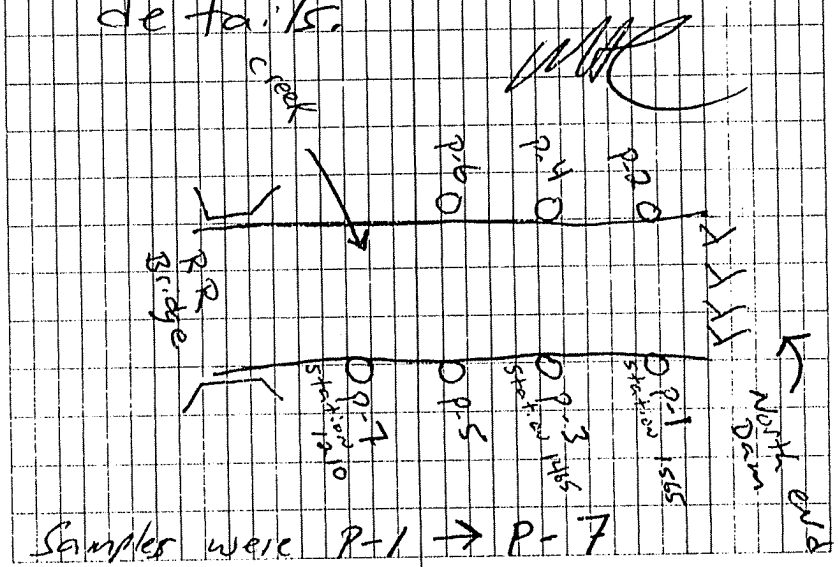
Sediment and Seep Investigation Reports

NYSDEC Site # 91514B
August 30, 2000

PHILIP SERVICES FIELD LOG

Thursday 8/27/98

Samples were taken today to test for total PAH in order to determine what, if any, impact a release may have had on exposed soils when the dams were destroyed and water flooded the work zone. See COC for additional details.



Samples were P-1 → P-7

PHILIP SERVICES

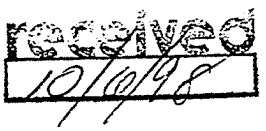
Certificate of Analysis

CLIENT INFORMATION

Attention:	Mike Charles
Client Name:	Philip Service Corp.
Project:	19545/1955
Project Desc:	Scajaquada Creek/NFG
Address:	495 Commerce Dr. Suite 7 Amherst, NY 14228
Fax Number:	716-871-0413
Phone Number:	716 871 0478

LABORATORY INFORMATION

Contact:	Ada Blythe, B.Sc., C.Chem.
Project:	AN980884
Date Received:	98/08/28
Date Reported:	98/09/02
Submission No.:	8H0938
Sample No.:	042098-042105



NOTES: *"-' = not analysed '<' = less than Method Detection Limit (MDL) 'NA' = no data available*
LOQ can by determined for all analytes by multiplying the appropriate MDL X 3.33
Solids data is based on dry weight except for biota analyses.
Organic analyses are not corrected for extraction recovery standards except for isotope dilution methods, (i.e. CARB 429 PAH, all PCDD/F and DBD/DBF analyses)

Methods used by PASC are based upon those found in 'Standard Methods for the Examination of Water and Wastewater', Nineteenth Edition. Other methods are based on the principles of MISA or EPA methodologies. New York State: ELAP Identification Number 10756.

All work recorded herein has been done in accordance with normal professional standards using accepted testing methodologies, quality assurance and quality control procedures except where otherwise agreed to by the client and testing company in writing. Any and all use of these test results shall be limited to the actual cost of the pertinent analysis done. There is no other warranty expressed or implied. Your samples will be retained at PASC for a period of three weeks from receipt of data or as per contract.

COMMENTS:

Certified by

PHILIP ANALYTICAL SERVICES CORPORATION
5555 North Service Road, Burlington, Ontario, Canada L7L 5H7 Tel: (905) 332-8788 Fax: (905) 332-9169

Component	MDL	Units	Method Blank	Blank Spike #1	Blank Spike #1	Blank Spike #2	Blank Spike #2	P-1	P-1	P-1	P-1	P-1
Client ID:			042098 98	042098 98	042098 98	042098 98	042098 98	042099 98	042099 98	042099 98	042099 98	042099 98
Lab No.:			98/08/27	98/08/27	98/08/27	98/08/27	98/08/27	98/08/27	98/08/27	98/08/27	98/08/27	98/08/27
Date Sampled:					% Recoveries		% Recoveries		M. Spike	MS % Rec.	MS Dup	MSD % Rec.
PAH via 8270												
Naphthalene	0.03	mg/kg	<	1.6	80	1.4	69	<	1.2	57	1.3	63
Acenaphthylene	0.04	"	<	1.8	89	1.6	80	<	1.4	64	1.4	69
Acenaphthene	0.07	"	<	1.8	90	1.6	82	<	1.4	66	1.4	70
Fluorene	0.03	"	<	1.7	86	1.6	80	<	1.5	65	1.4	69
Phenanthrene	0.03	"	<	1.8	88	1.7	84	<	2.1	98	1.6	77
Anthracene	0.03	"	<	1.7	87	1.7	85	<	1.7	77	1.6	75
Fluoranthene	0.02	"	<	1.7	86	1.6	79	0.03	2.2	100	1.7	82
Pyrene	0.03	"	<	1.7	83	1.7	87	<	2.1	100	1.7	84
Benz(a)anthracene	0.02	"	<	1.8	89	1.7	85	<	1.9	90	1.7	82
Chrysene	0.03	"	<	1.8	90	1.8	88	<	2.0	94	1.8	86
Benzo(b)fluoranthene	0.04	"	<	1.8	92	1.7	84	<	1.9	90	1.7	82
Benzo(k)fluoranthene	0.04	"	<	1.8	92	1.8	92	<	1.9	89	1.9	90
Benzo(a)pyrene	0.05	"	<	1.9	94	1.7	86	<	1.9	88	1.8	87
Indeno(1,2,3-cd)pyrene	0.06	"	<	1.6	78	1.5	73	<	1.9	87	1.7	82
Dibenzo(ah)anthracene	0.04	"	<	1.7	84	1.8	88	<	1.7	79	1.7	80
Benzo(ghi)perylene	0.04	"	<	1.6	81	1.7	85	<	2.0	92	1.7	84
Total PAH								0.03				
Surrogate Recoveries		%										
d5-Nitrobenzene			72	76	76	64	64	60	53	53	59	59
2-Fluorobiphenyl			84	91	91	83	83	67	61	61	65	65
d14-p-Terphenyl			88	83	83	87	87	87	80	80	80	80

	Client ID:		P-2	P-3	P-4	P-5	P-6	P-7
	Lab No.:		042100 98	042101 98	042102 98	042103 98	042104 98	042105 98
	Date Sampled:		98/08/27	98/08/27	98/08/27	98/08/27	98/08/27	98/08/27
Component	**MDL**	**Units**						
PAH via 8270								
Naphthalene	0.03	mg/kg	<	0.050	0.73	0.14	0.090	0.27
Acenaphthylene	0.04	"	<	<	<0.4	0.13	<	0.18
Acenaphthene	0.07	"	<	<	0.78	0.16	<	0.30
Fluorene	0.03	"	<	<	0.59	0.08	0.11	0.31
Phenanthrene	0.03	"	0.04	0.21	5.7	0.90	0.81	2.2
Anthracene	0.03	"	<	0.05	1.3	0.26	0.23	0.75
Fluoranthene	0.02	"	0.07	0.49	9.4	1.8	1.2	3.8
Pyrene	0.03	"	0.06	0.47	7.4	2.6	1.0	5.6
Benz(a)anthracene	0.02	"	0.04	0.29	4.8	1.1	0.51	2.5
Chrysene	0.03	"	0.07	0.34	5.3	1.3	0.55	2.4
Benzo(b)fluoranthene	0.04	"	<	0.40	4.3	1.2	0.41	1.9
Benzo(k)fluoranthene	0.04	"	<	0.28	4.0	0.95	0.37	1.7
Benzo(a)pyrene	0.05	"	<	0.39	5.3	1.4	0.50	2.8
Indeno(1,2,3-cd)pyrene	0.06	"	<	0.24	3.5	0.84	0.41	1.5
Dibenzo(ah)anthracene	0.04	"	<	<	<0.92	<0.18	<0.06	<0.3
Benzo(ghi)perylene	0.04	"	<	0.23	2.5	0.78	0.38	1.4
Total PAH			0.28	3.4	55.6	13.6	6.2	27.6
Surrogate Recoveries		%						
d5-Nitrobenzene			60	56	67	58	56	50
2-Fluorobiphenyl			67	60	96	71	63	67
d14-p-Terphenyl			82	73	107	86	88	82

Batch Code:	**0828KHA1**	**0828KHA1**
PAH	042098 98	042100 98
	042099 98	042104 98
	042101 98	
	042101 98	
	042102 98	
	042103 98	
	042103 98	
	042105 98	
Date Analyzed	98/09/01	98/09/01
Date Prepared	98/08/28	98/08/28

CHAIN OF CUSTODY

PHILIP SERVICES
PHILIP ANALYTICAL SERVICES CORPORATION
5555 North Service Road
Burlington, Ontario L7L 5H7
Toll Free: (800) 668-0639
Tel: (905) 332-8788
Fax: (905) 332-9169

Page 1 of 1

CLIENT INFORMATION

Company Name: Philip Services
Project Manager: Mike Charles
Site Address: 75 Tonawanda Street
Buffalo, NY 14207
Phone #: (716) 871-0478 Fax #: 0413
Storage: _____
Sampled by: Mike Charles

ANALYSIS REQUESTED

Philip Use Only	Field Sample ID	# Bottles	Matrix	Date	Time	Total PAH		Level of contamination (low, high, unknown)
	P-1	1	Soil	8-27-98	1544	X	Sand cap, East Bank, Station 1565	
	P-2	1	Soil		1550	X	Sand cap, West Bank, Station 1565	
	P-3	1	Soil		1559	X	East Bank, Station 1465	
	P-4	1	Soil		1605	X	West Bank, Station 1465	
	P-5	1	Soil		1611	X	East Bank, ~100' South of 1465	
	P-6	1	Soil		1618	X	West Bank, ~100' South of 1465	
	P-7	1	Soil		1625	X	East Bank, Station 1210	
							* see surveyor notes on locations	

TAT (Turnaround Time)

RUSH TAT MUST HAVE PRIOR APPROVAL

*some exceptions apply please contact Lab

- STD 10 Business Days ☐
- RUSH 5 Business Days ☐
- RUSH 2 Business Days ☐
- RUSH 1 Business Day ☐
- Other Business Days < 72 hrs

PROJECT INFORMATION

Project #: 1955
Site: Scajaquada Creek
PO#: 33161
Philip Quote #: 80703865
Philip Project #: _____
Philip Contact: Ada

SPECIAL DETECTION LIMITS

MISA ☐

SPECIAL REQUIREMENTS / REGULATIONS

REMARKS

Rec'd By: Amy
Storage Loc.: _____
Date/Time 98/08/28 12:58 pm

Client Signature: _____
Affiliation: Philip
Date/Time: 8-28-98

Received By: _____
Affiliation: _____
Date/Time: 8/28/98 5:45

WHITE - LAB / YELLOW - CLIENT

SEE OVER FOR COMPLETION & SAMPLING INSTRUCTIONS

MEMORANDUM

TO:	John Finn	**CLIENT:**	Scajaquada Creek
FROM:	John Flaherty	**TASK:**	3-2111-600
DATE:	November 20, 1998	**RE:**	Testing Results

Your samples from the above referenced site have been analyzed by a carbon disulfide (CS_2) extraction - infrared spectral (FT-IR) technique to characterize the organic material present in each, as requested. Prior to infrared analysis, the samples were extracted into CS_2 in order to isolate the organic material from the sample matrix. The resultant extracts were then analyzed by FT-IR to identify the extractable organic material.

The extracts from the two soil samples, "500 Seep" and "Dredge", exhibit IR absorptions characteristic of a mixture of heavy polynuclear aromatic hydrocarbons (PAHs) and petroleum derived hydrocarbons. Carbonyl absorptions, indicative of hydrocarbon oxidation, are also present. The components observed in these extracts and the ratios of each, are consistent for a carburetted water gas (CWG) tar. The primary difference being that the material in "Dredge" is much less oxidized (weathered) than the material in "500 Seep.

The extracts from the water sample, "100W Seep", are similar to the extracts from the two soil samples. The difference here being that no evidence of hydrocarbon oxidation is present in the "100W Seep" extracts. The absorption pattern here would be consistent for a carburetted water gas tar that has not undergone oxidation or weathering from environmental exposure.

Copies of the infrared spectra obtained from these samples are included with this report for your reference.

As always, please contact me if you have any questions concerning the information presented in this report.

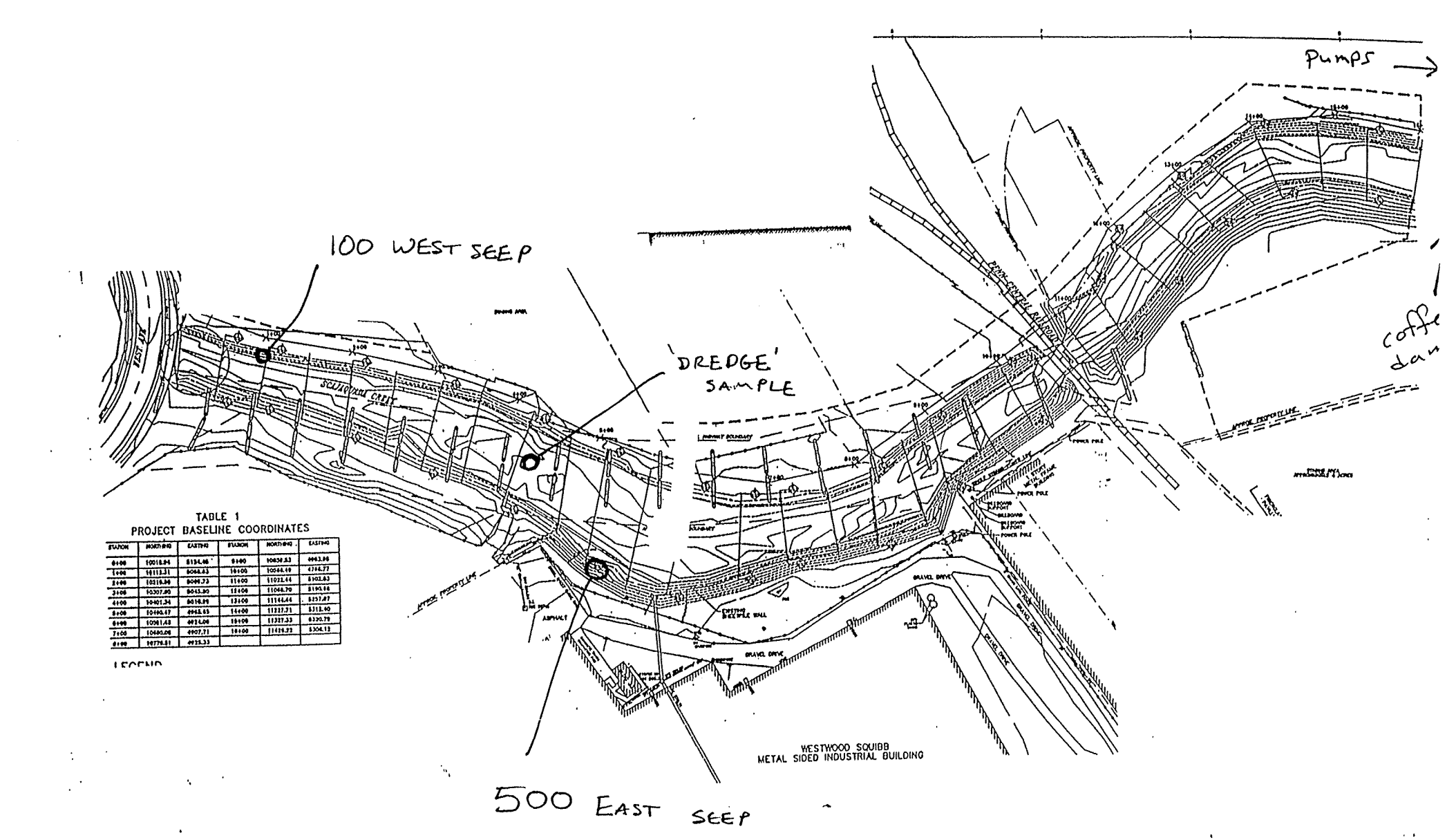
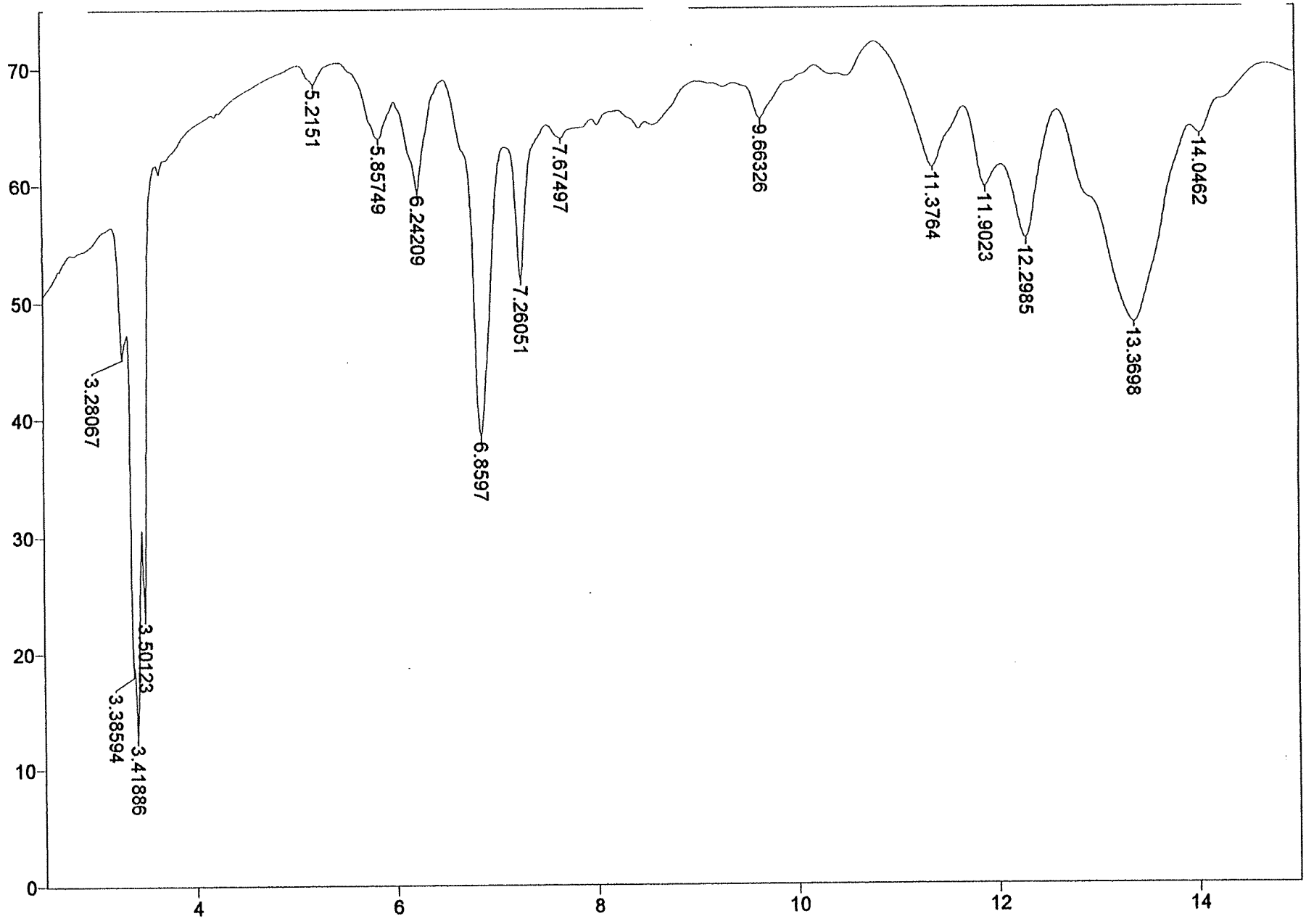


TABLE 1
PROJECT BASELINE COORDINATES

STATION	NORTHING	EASTING	STATION	NORTHING	EASTING
0+00	10018.84	8134.46	8+00	10634.53	6963.86
1+00	10113.31	8068.63	10+00	10568.48	6796.77
2+00	10218.38	8046.73	11+00	11022.46	6902.83
3+00	10307.80	8043.80	12+00	11068.70	8195.86
4+00	10401.24	8018.89	13+00	11164.44	8257.87
5+00	10496.17	6968.65	14+00	11237.71	8318.40
6+00	10581.48	6923.09	15+00	11317.33	8380.79
7+00	10680.06	6907.71	16+00	11419.22	8306.13
8+00	10776.81	6935.33			

LEGEND



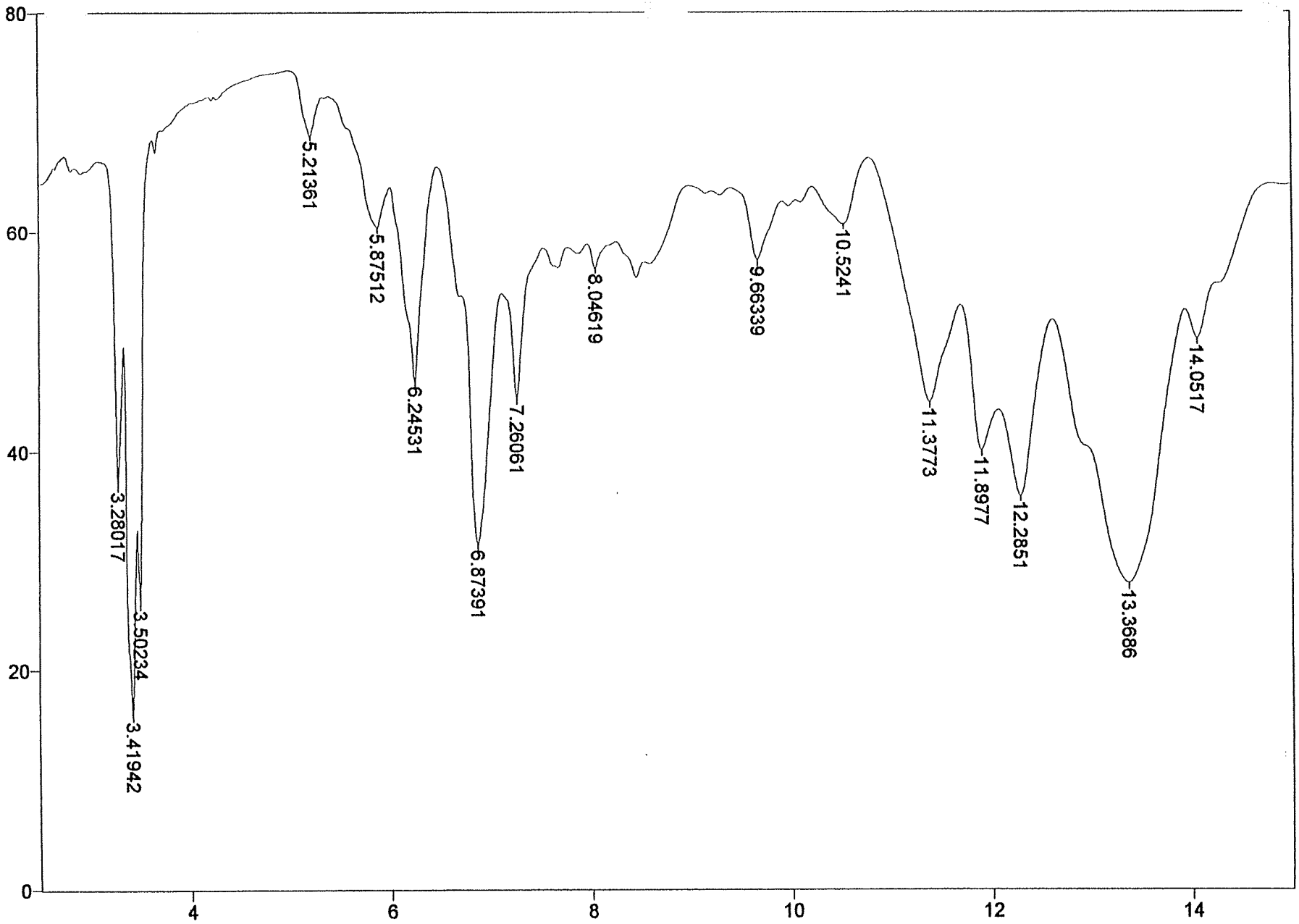
Transmittance / Micrometers

Number of Scans= 16 Apodization= Strong

File # 1 : AL-30172

11/20/98 12:31 PM Res=8 cm-1

CS2 extracts from "500E Seep"



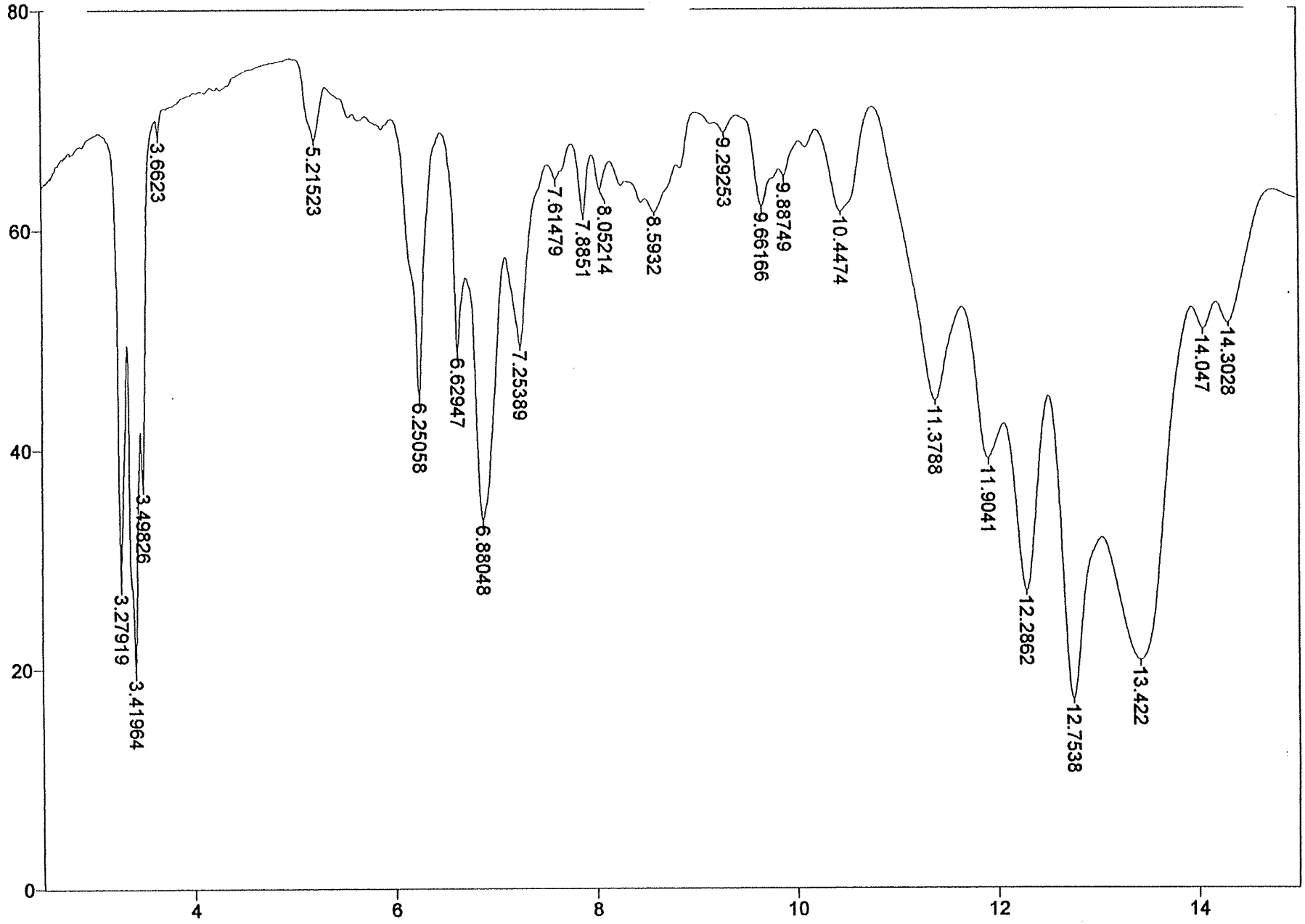
Transmittance / Micrometers

Number of Scans= 16 Apodization= Strong

File # 1 : AL-30173

11/20/98 12:37 PM Res=8 cm-1

CS2 extracts from "Dredge"



Transmittance / Micrometers

Number of Scans= 16 Apodization= Strong

File # 1 : AL-30174

11/20/98 2:15 PM Res=8 cm-1

CS2 extracts from "100W Seep"

REMEDIATION TECHNOLOGIES INC
MEDI[illegible] TEC[illegible] LOGI[illegible]
1001 W. Seneca Street, Suite 204
Ithaca, NY 14850
(607) 277-5716
Fax (607) 277-9057

ASAP TURNAROUND

CHAIN OF CUSTODY RECORD 95

PROJECT NAME: SCAJAQUADA CREEK	PROJECT NUMBER: 3-2111-600
SEND REPORT TO: JOHN FINN/M. HOFFERBERT	SAMPLER (PRINT NAME) D SHEARER
ADDRESS: Thermo RETEC	SAMPLER (PRINT NAME) S WALSTON
1001 W. SENECA ST, STE 204	SHIPMENT METHOD: FED EX
ITHACA NY 14850	AIRBILL NUMBER: 535091217 3
PHONE: (607) 277-5716	LABORATORY RECEIVING: ThermoRETEC-PITT.
FAX: (607) 277-9057	

PAGE 1 OF 1

FIELD SAMPLE ID	SAMPLE DATE	SAMPLE TIME	SAMPLE MATRIX	NUMBER OF CONTAINERS	ANALYSIS REQUESTED: IR FINGERPRINT	COMMENTS, SPECIAL INSTRUCTIONS, ETC.	LAB SAMPLE ID (to be completed by lab)
100 W SEEP	11/5/98	1600	l	1	X	570 elev.	
500E SEEP	11/6/98	0900	S	1	X	572 elev.	
DREDGE	11/7/98	1500	S	1	X	at 4+50	

D Shearer 11/9/98

Relinquished by: (Signature)	Received by: (Signature)	Date:	Time:
D Shearer		11/9/98	1600
Relinquished by: (Signature)	Received by: (Signature)	Date:	Time:
	J. Flynn	11/10/98	1030
Relinquished by: (Signature)	Received by: (Signature)	Date:	Time:

SAMPLE CUSTODIAN REMARKS (COMPLETED BY LABORATORY):

QA/QC LEVEL		TURNAROUND:	
LEVEL I	☐	ROUTINE	☐
LEVEL II	☐	24 HOUR	☐
LEVEL III	☐	1 WEEK	☐
OTHER	☐	OTHER	___

SAMPLE RECEIPT	
TOTAL # CONTAINERS RECEIVED ?	
COC SEALS PRESENT ?	
COC SEALS INTACT ?	
RECEIVED CONTAINERS INTACT ?	
TEMPERATURE ?	

RETEC-PC

December 14, 1998

RETEC Engineering, P.C.
1001 West Seneca Street
Suite 204
Ithaca, NY 14850-3342
(607) 277-5716
FAX (607) 277-9057

Tanya Alexander
National Fuel Gas Distribution Corp.
10 Lafayette Square
Buffalo, NY 14203

RE: **Soil Boring Results -**
Scajaquada Creek Sediment Remediation

Dear Tanya:

Per your request, we have conducted soil borings along the western bank of Scajaquada Creek in the vicinity of the West Avenue bridge. Please see the attached Soil Boring Location Sketch. Also attached are the Soil Boring Logs, numbered SB-01 through SB-04.

On Saturday December 12, 1998, Maxim Technologies conducted the borings under my direction. The work was also witnessed by NYSDEC and NFG representatives. The boring locations had been previously determined and marked with orange spray paint. Some east-west variance (less than 10 feet) from the marked locations was necessary due to the width of the rig and presence of subsurface obstructions.

Also due to subsurface obstructions, and the prevalence of coarse granular fill, recoveries were typically low and the lithology and stratigraphy was only moderately defined (i.e. $^{+}$/- 2 feet). The lower confining clay layer was not precisely defined due to subsurface collapse of the borings after 16 or 20 feet. The presence of NAPL was, however, confirmed in all four borings, typically starting at a depth of approximately 12 feet. The upper 12 feet was typically clean granular fill. Groundwater was typically encountered at 8 feet.

Please call me at (607)-277-5716 if you have any questions or comments.

Sincerely,
RETEC Engineering, P.C.

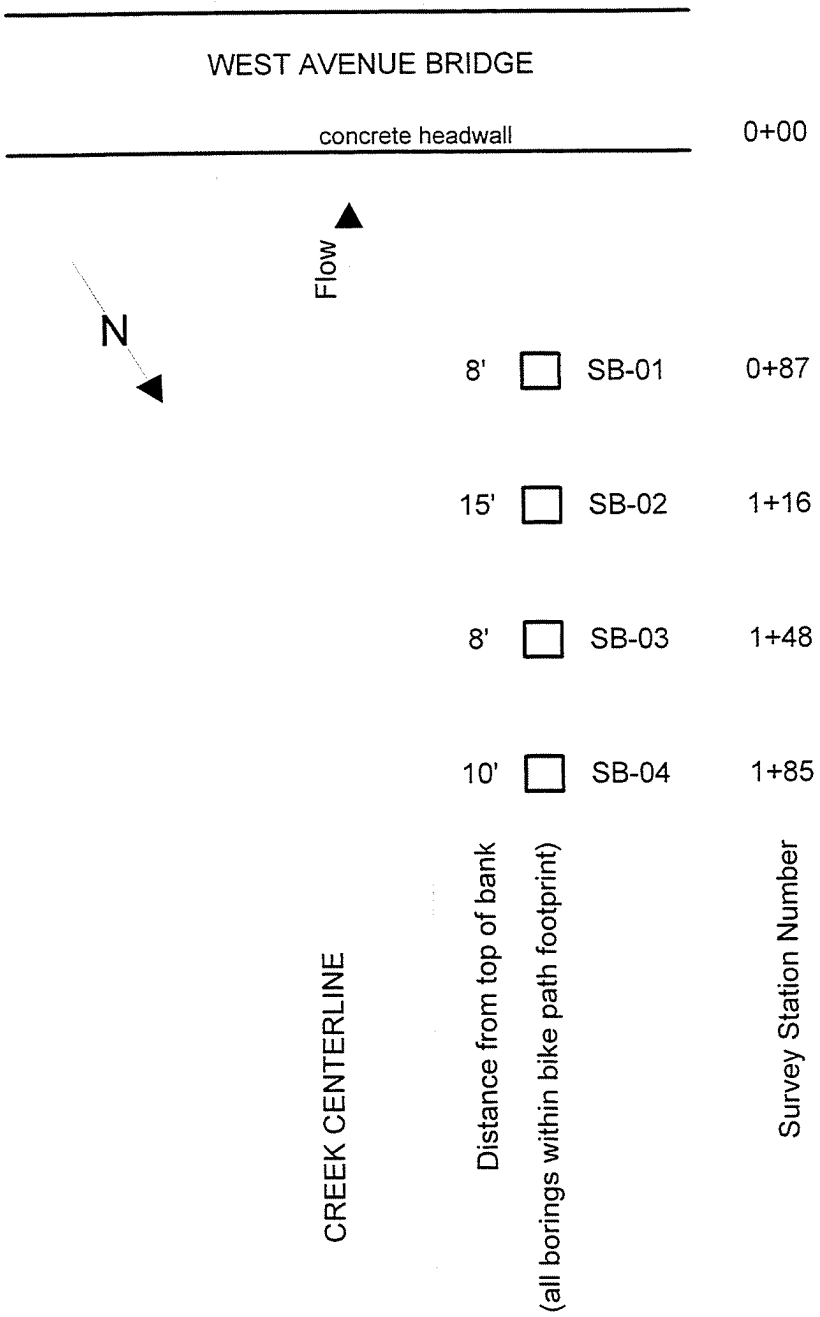
Mark Hofferbert
Project Engineer

attachments

cc: John Finn, Site Office - RETEC
Chris Cej - NFG
File 3-2111

Scajaquada Creek Soil Boring Locations

December 12, 1998
National Fuel Gas, RETEC Engineering, Maxim Technologies



RETEC

SOIL BORING LOG

SB 01

RETEC Engineering, P.C.

PROJECT NO:	3 - 2111 - 600 (3 - 3540 - 102)	DATE:	December 12, 1998	Ground Elevation :	~ 579
CLIENT:	National Fuel Gas	GEOLOGIST:	Mark Hofferbert	Depth to Groundwater :	~ 8
SITE:	Scajaquada Creek	EQUIPMENT:	2 inch x 4 foot Direct Push Core Barrel	Groundwater Elevation:	~ 571
LOCATION:	West Bank near West Avenue	OPERATOR:	Maxim Technologies	Creekwater Elevation :	~ 565

DEPTH BGS (feet)	SAMPLE INTERVAL	PID HEADSPACE (ppm)	SOIL LITHOLOGY	SOIL DESCRIPTION LOG	MONITORING WELL CONSTRUCTION
2		--	--	No Recovery	N/A
4					
6		6.5			
8				**Misc. Industrial Fill and Soil** Gravel, soil, brick and concrete. No Sheen / No Odor. Wet at 8 ' BGS.	
10		1.2			
12					
14		3.2		**Gravel and Sand** No Sheen / No Odor.	
16					
18		51.8		**Gravel and Sand** Thin Lenses of Hydrocarbon NAPL.	
20				End of Boring	
22					
24					
26					

Comments:

RETEC

SOIL BORING LOG

SB 02

RETEC Engineering, P.C.

PROJECT NO:	3 - 2111 - 600 (3 - 3540 - 102)	DATE:	December 12, 1998	Ground Elevation :	~ 579
CLIENT:	National Fuel Gas	GEOLOGIST:	Mark Hofferbert	Depth to Groundwater :	~ 8
SITE:	Scajaquada Creek	EQUIPMENT:	2 inch x 4 foot Direct Push Core Barrel	Groundwater Elevation:	~ 571
LOCATION:	West Bank near West Avenue	OPERATOR:	Maxim Technologies	Creekwater Elevation :	~ 565

DEPTH BGS (feet)	SAMPLE INTERVAL	PID HEADSPACE (ppm)	SOIL LITHOLOGY	SOIL DESCRIPTION LOG	MONITORING WELL CONSTRUCTION
2		4.2			N/A
4				**Misc. Industrial Fill and Soil** Gravel, soil, brick and concrete. No Sheen / No Odor. Wet at 8 ' BGS.	
6		16.5			
8					
10		7.2		**Gravel and Sand** No Sheen / No Odor.	
12					
14		1000 +		**Gravel and Sand** Hydrocarbon NAPL.	
16				End of Boring (Boring Collapsed)	
18					
20					
22					
24					
26					

Comments:

RETEC

SOIL BORING LOG

SB 03

RETEC Engineering, P.C.

PROJECT NO:	3 - 2111 - 600 (3 - 3540 - 102)	DATE:	December 12, 1998	Ground Elevation :	~ 579
CLIENT:	National Fuel Gas	GEOLOGIST:	Mark Hofferbert	Depth to Groundwater :	~ 8
SITE:	Scajaquada Creek	EQUIPMENT:	2 inch x 4 foot Direct Push Core Barrel	Groundwater Elevation:	~ 571
LOCATION:	West Bank near West Avenue	OPERATOR:	Maxim Technologies	Creekwater Elevation :	~ 565

DEPTH BGS (feet)	SAMPLE INTERVAL	PID HEADSPACE (ppm)	SOIL LITHOLOGY	SOIL DESCRIPTION LOG	MONITORING WELL CONSTRUCTION
2		6.0			N/A
4				**Misc. Industrial Fill and Soil** Gravel, soil, brick and concrete. No Sheen / No Odor. Wet at 8 ' BGS.	
6		3.6			
8					
10		4.1		**Gravel and Sand** No Sheen / No Odor.	
12					
14		180		**Gravel and Sand** Hydrocarbon NAPL.	
16					
18		215		**Clay** Hydrocarbon NAPL.	
20				End of Boring	
22					
24					
26					

Comments:

RETEC

SOIL BORING LOG

SB 04

RETEC Engineering, P.C.

PROJECT NO:	3 - 2111 - 600 (3 - 3540 - 102)	DATE:	December 12, 1998	Ground Elevation :	~ 579
CLIENT:	National Fuel Gas	GEOLOGIST:	Mark Hofferbert	Depth to Groundwater :	~ 8
SITE:	Scajaquada Creek	EQUIPMENT:	2 inch x 4 foot Direct Push Core Barrel	Groundwater Elevation:	~ 571
LOCATION:	West Bank near West Avenue	OPERATOR:	Maxim Technologies	Creekwater Elevation :	~ 565

DEPTH BGS (feet)	SAMPLE INTERVAL	PID HEADSPACE (ppm)	SOIL LITHOLOGY	SOIL DESCRIPTION LOG	MONITORING WELL CONSTRUCTION
2		5.1			N/A
4				**Misc. Industrial Fill and Soil** Gravel, soil, brick and concrete. No Sheen / No Odor. Wet at 8 ' BGS.	
6		4.9			
8					
10		3.4		**Gravel and Sand** No Sheen / No Odor.	
12					
14		80.5		**Gravel and Sand** Hydrocarbon NAPL.	
16				End of Boring (Boring Collapsed)	
18					
20					
22					
24					
26					

Comments:

ThermoRetec Corporation
1001 W. Seneca Street, Suite 204
Ithaca, NY 14850-3342

ThermoRetec
Smart Solutions. Positive Outcomes.

(607) 277-5716 Phone
(607) 277-9057 Fax
www.thermoretec.com

January 18, 1999

Ms. Tanya Alexander
National Fuel Gas Distribution Corporation
10 Lafayette Square, Room 400
Buffalo, NY 14203

RE: Sampling and Analysis of Seep Area Near FEDCO
Scajaquada Creek Sediment Remediation

Dear Tanya:

Per your request, I personally collected a sample from the seep area of the west bank of the Scajaquada Creek. The sample was collected from the project Station 0+85 at the toe of the bank. The sample consisted of sand and clay, water, and dark brown oily material, which created a sheen on the water. The sample was analyzed for PCBs and volatile organic compounds (VOCs). Laboratory results indicated the presence of PCBs and non-chlorinated VOCs. Because the sample was analyzed as a very wet solid, results were reported on both an "As Received" and "Dry Weight" mass basis. A copy of the analytical report and chain of custody form are enclosed.

If you have any questions regarding the following invoice report or charges, please contact me at (607) 277-5716.

Sincerely,
ThermoRetec Consulting Corporation

John T. Finn , P.E.

JTF:

Enclosure

cc:
File: 3-2111
File: 3-1151

Lancaster Laboratories
A division of Thermo Analytical Inc.

LLI Sample No. SW 3058757
Collected: 12/16/98 at 11:30 by DY

Submitted: 12/17/98 Reported: 12/29/98
Discard: 1/ 6/99

Seep at 0+85 Grab Solid Sample

Project# 3-2111-600

Account No: 09567
ThermoRetec Consulting Corp..
1001 W. Seneca St., Suite 204
Ithaca NY 14850

P.O. 3-2111-600
Rel.

CAT NO.	ANALYSIS NAME	AS RECEIVED RESULTS	METHOD DETECTION LIMIT	UNITS	DRY WEIGHT RESULTS	METHOD DETECTION LIMIT
1216	PCBs in Solids					
1495	PCB-1016	N.D.	66.	ug/kg	N.D.	110.
1496	PCB-1221	N.D.	66.	ug/kg	N.D.	110.
1497	PCB-1232	N.D.	66.	ug/kg	N.D.	110.
1498	PCB-1242	N.D.	66.	ug/kg	N.D.	110.
1499	PCB-1248	N.D.	66.	ug/kg	N.D.	110.
1500	PCB-1254	450.	66.	ug/kg	770.	110.
1501	PCB-1260	321. J	66.	ug/kg	550. J	110.
8427	Purgeable Volatiles by SW846 S					
8563	Chloromethane	N.D.	25,000.	ug/kg	N.D.	43,000.
8564	Vinyl Chloride	N.D.	10,000.	ug/kg	N.D.	17,000.
8565	Bromomethane	N.D.	25,000.	ug/kg	N.D.	43,000.
8566	Chloroethane	N.D.	10,000.	ug/kg	N.D.	17,000.
8567	Trichlorofluoromethane	N.D.	10,000.	ug/kg	N.D.	17,000.
8568	1,1-Dichloroethene	N.D.	10,000.	ug/kg	N.D.	17,000.
8569	Methylene Chloride	N.D.	10,000.	ug/kg	N.D.	17,000.
8571	trans-1,2-Dichloroethene	N.D.	10,000.	ug/kg	N.D.	17,000.
8572	1,1-Dichloroethane	N.D.	10,000.	ug/kg	N.D.	17,000.
8573	cis-1,2-Dichloroethene	N.D.	10,000.	ug/kg	N.D.	17,000.
8575	Bromochloromethane	N.D.	10,000.	ug/kg	N.D.	17,000.
8576	Chloroform	N.D.	10,000.	ug/kg	N.D.	17,000.
8577	2,2-Dichloropropane	N.D.	10,000.	ug/kg	N.D.	17,000.
8578	1,2-Dichloroethane	N.D.	10,000.	ug/kg	N.D.	17,000.
8579	1,1,1-Trichloroethane	N.D.	10,000.	ug/kg	N.D.	17,000.
8580	1,1-Dichloropropene	N.D.	10,000.	ug/kg	N.D.	17,000.
8581	Carbon Tetrachloride	N.D.	10,000.	ug/kg	N.D.	17,000.
8582	Dibromomethane	N.D.	15,000.	ug/kg	N.D.	26,000.
8583	1,2-Dichloropropane	N.D.	10,000.	ug/kg	N.D.	17,000.
8584	Trichloroethene	N.D.	10,000.	ug/kg	N.D.	17,000.
8585	Bromodichloromethane	N.D.	10,000.	ug/kg	N.D.	17,000.
8587	cis-1,3-Dichloropropene	N.D.	10,000.	ug/kg	N.D.	17,000.
8588	trans-1,3-Dichloropropene	N.D.	10,000.	ug/kg	N.D.	17,000.
8589	1,1,2-Trichloroethane	N.D.	10,000.	ug/kg	N.D.	17,000.
8590	1,3-Dichloropropane	N.D.	10,000.	ug/kg	N.D.	17,000.
8591	Dibromochloromethane	N.D.	10,000.	ug/kg	N.D.	17,000.
8592	1,2-Dibromoethane (EDB)	N.D.	10,000.	ug/kg	N.D.	17,000.

1 COPY TO Remediation Technologies, Inc. ATTN: Mr. John Finn

Questions? Contact your Client Services Representative
Tan H. Vo at (717) 656-2300
13:34:46 D 0001 2 136900 645418
320 0.00 00034740 ASR000

Respectfully Submitted
Michele Turner, B.A.
Manager, Volatiles

MEMBER ACIL
Lancaster Laboratories
2425 New Holland Pike
PO Box 12425
Lancaster, PA 17605-2425
717-656-2300 Fax 717-656-2881

Lancaster Laboratories
A division of Thermo Analytical Inc.

LLI Sample No. SW 3058757
Collected: 12/16/98 at 11:30 by DY

Submitted: 12/17/98 Reported: 12/29/98
Discard: 1/ 6/99

Seep at 0+85 Grab Solid Sample

Project# 3-2111-600

Account No: 09567
ThermoRetec Consulting Corp..
1001 W. Seneca St., Suite 204
Ithaca NY 14850

P.O. 3-2111-600
Rel.

CAT NO.	ANALYSIS NAME	AS RECEIVED RESULTS		METHOD DETECTION LIMIT	UNITS	DRY WEIGHT RESULTS		METHOD DETECTION LIMIT
8593	Tetrachloroethene	N.D.		10,000.	ug/kg	N.D.		17,000.
8594	1,1,1,2-Tetrachloroethane	N.D.		10,000.	ug/kg	N.D.		17,000.
8595	Chlorobenzene	N.D.		10,000.	ug/kg	N.D.		17,000.
8596	Bromoform	N.D.		10,000.	ug/kg	N.D.		17,000.
8597	1,1,2,2-Tetrachloroethane	N.D.		10,000.	ug/kg	N.D.		17,000.
8598	1,2,3-Trichloropropane	N.D.		10,000.	ug/kg	N.D.		17,000.
8599	Bromobenzene	N.D.		10,000.	ug/kg	N.D.		17,000.
8600	2-Chlorotoluene (o)	N.D.		10,000.	ug/kg	N.D.		17,000.
8601	4-Chlorotoluene (p)	N.D.		10,000.	ug/kg	N.D.		17,000.
8602	1,3-Dichlorobenzene (m)	N.D.		10,000.	ug/kg	N.D.		17,000.
8603	1,4-Dichlorobenzene (p)	N.D.		10,000.	ug/kg	N.D.		17,000.
8604	1,2-Dichlorobenzene (o)	N.D.		10,000.	ug/kg	N.D.		17,000.

Due to the nature of the sample matrix, normal reporting limits were not attained.

A poor surrogate recovery was observed due to the dilution needed to perform the analysis.

8428	Purgeable Volatiles by SW846 S							
8605	1,2-Dibromo-3-chloropropane	N.D.		10,000.	ug/kg	N.D.		17,000.
8606	1,2,4-Trichlorobenzene	N.D.		10,000.	ug/kg	N.D.		17,000.
8607	Hexachlorobutadiene	N.D.		10,000.	ug/kg	N.D.		17,000.
8608	1,2,3-Trichlorobenzene	N.D.		10,000.	ug/kg	N.D.		17,000.
8610	Benzene	11,000.	J	10,000.	ug/kg	19,000.	J	17,000.
8611	Toluene	N.D.		10,000.	ug/kg	N.D.		17,000.
8612	Ethylbenzene	170,000.		10,000.	ug/kg	280,000.		17,000.
8614	Styrene	N.D.		10,000.	ug/kg	N.D.		17,000.
8616	Isopropylbenzene (Cumene)	12,000.	J	10,000.	ug/kg	21,000.	J	17,000.
8617	n-Propylbenzene	N.D.		10,000.	ug/kg	N.D.		17,000.
8618	1,3,5-Trimethylbenzene	22,000.	J	10,000.	ug/kg	38,000.	J	17,000.
8619	tert-Butylbenzene	12,000.	J	10,000.	ug/kg	20,000.	J	17,000.
8620	1,2,4-Trimethylbenzene	97,000.		10,000.	ug/kg	160,000.		17,000.
8621	sec-Butylbenzene	N.D.		50,000.	ug/kg	N.D.		85,000.
8622	p-Isopropyltoluene	N.D.		10,000.	ug/kg	N.D.		17,000.
8623	n-Butylbenzene	38,000.	J	10,000.	ug/kg	65,000.	J	17,000.
8624	Naphthalene	1,900,000.		10,000.	ug/kg	3,200,000.		17,000.
8625	Xylene (total)	120,000.	J	30,000.	ug/kg	200,000.	J	51,000.

The reagent blank analyzed at a dilution of 20 in conjunction with this

Questions? Contact your Client Services Representative
Tan H. Vo at (717) 656-2300

Respectfully Submitted
Michele Turner, B.A.
Manager, Volatiles

MEMBER
Lancaster Laboratories
2425 New Holland Pike
PO Box 12425
Lancaster, PA 17605-2425
717-656-2300 Fax 717-656-2681

Lancaster Laboratories
A division of Thermo Analytical Inc.

LLI Sample No. SW 3058757
Collected: 12/16/98 at 11:30 by DY

Submitted: 12/17/98 Reported: 12/29/98
Discard: 1/ 6/99

Seep at 0+85 Grab Solid Sample

Project# 3-2111-600

Account No: 09567
ThermoRetec Consulting Corp..
1001 W. Seneca St., Suite 204
Ithaca NY 14850

P.O. 3-2111-600
Rel.

CAT NO.	ANALYSIS NAME	AS RECEIVED RESULTS	METHOD DETECTION LIMIT	UNITS	DRY WEIGHT RESULTS	METHOD DETECTION LIMIT

sample contained a level equivalent to approximately 4.093 ug/kg of n-butylbenzene.
The result was not changed to reflect the level in the blank.

The quantitation limits were raised because sample dilution was necessary to bring target compounds into the calibration range of the system.

A poor surrogate recovery was observed due to the dilution needed to perform the analysis.

0111	Moisture	41.3	0.080	% by wt.		

"Moisture" represents the loss in weight of the sample after oven drying at 103 - 105 degrees Celsius.

QUALITY CONTROL REPORT

	SAMPLE MDL	SAMPLE UNITS	BLANK	DUP RPD	MS	MSD	MS RPD	LCS	LCS DUP	LCS RPD	LCS LIMITS LOW	LCS LIMITS HIGH
1216 PCBs in Solids			Batch: 983550005A									
1495	PCB-1016											
	66.	ug/kg	N.D.		90	87	4	103			64	127
1496	PCB-1221											
	66.	ug/kg	N.D.									
1497	PCB-1232											
	66.	ug/kg	N.D.									
1498	PCB-1242											
	66.	ug/kg	N.D.									
1499	PCB-1248											
	66.	ug/kg	N.D.									
1500	PCB-1254											
	66.	ug/kg	N.D.									
1501	PCB-1260											
	66.	ug/kg	N.D.		73	74	1	99			69	123
8427 Purgeable Volatiles by SW846 S			Batch: 98350A08									
8563	Chloromethane											

Questions? Contact your Client Services Representative
Tan H. Vo at (717) 656-2300

Respectfully Submitted
Jenifer E. Hess, B.S.
Group Leader Pesticides/PCBs

Lancaster Laboratories
2425 New Holland Pike
PO Box 12425
Lancaster, PA 17605-2425
717-656-2300 Fax 717-656-2681

Lancaster Laboratories
A division of Thermo Analytical Inc.

LLI Sample No. SW 3058757
Collected: 12/16/98 at 11:30 by DY

Submitted: 12/17/98 Reported: 12/29/98
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Seep at 0+85 Grab Solid Sample

Project# 3-2111-600

Account No: 09567
ThermoRetec Consulting Corp..
1001 W. Seneca St., Suite 204
Ithaca NY 14850

P.O. 3-2111-600
Rel.

SAMPLE MDL	SAMPLE UNITS	BLANK	DUP RPD	MS	MSD	MS RPD	LCS	LCS DUP	LCS RPD	LCS LIMITS LOW	LCS LIMITS HIGH
25,000.	ug/kg	N.D.		265	230	14	108			34	111
8564 Vinyl Chloride											
10,000.	ug/kg	N.D.		134	125	7	87			50	149
8565 Bromomethane											
25,000.	ug/kg	N.D.		111	103	7	76			61	114
8566 Chloroethane											
10,000.	ug/kg	N.D.		94	87	9	76			62	115
8567 Trichlorofluoromethane											
10,000.	ug/kg	N.D.		82	73	11	78			70	130
8568 1,1-Dichloroethene											
10,000.	ug/kg	N.D.		97	86	11	97			73	110
8569 Methylene Chloride											
10,000.	ug/kg	N.D.		77	69	11	104			67	122
8571 trans-1,2-Dichloroethene											
10,000.	ug/kg	N.D.		98	97	1	104			76	134
[illegible] 1,1-Dichloroethane											
[illegible]00.	ug/kg	N.D.		103	100	3	109			81	131
[illegible]3 cis-1,2-Dichloroethene											
10,000.	ug/kg	N.D.		109	107	2	113			70	130
8575 Bromochloromethane											
10,000.	ug/kg	N.D.		104	107	3	109			70	130
8576 Chloroform											
10,000.	ug/kg	N.D.		101	98	3	106			70	130
8577 2,2-Dichloropropane											
10,000.	ug/kg	N.D.		99	95	4	110			70	130
8578 1,2-Dichloroethane											
10,000.	ug/kg	N.D.		106	107	1	114			81	131
8579 1,1,1-Trichloroethane											
10,000.	ug/kg	N.D.		97	92	5	109			82	113
8580 1,1-Dichloropropene											
10,000.	ug/kg	N.D.		97	92	5	104			70	130
8581 Carbon Tetrachloride											
10,000.	ug/kg	N.D.		98	92	6	109			76	115
8582 Dibromomethane											
15,000.	ug/kg	N.D.		118	118	1	128			70	130
8583 1,2-Dichloropropane											
10,000.	ug/kg	N.D.		109	106	3	117			85	125
8584 Trichloroethene											
10,000.	ug/kg	N.D.		88	92	5	99			68	119
8585 Bromodichloromethane											

Questions? Contact your Client Services Representative
Tan H. Vo at (717) 656-2300

Respectfully Submitted
Jenifer E. Hess, B.S.
Group Leader Pesticides/PCBs

MEMBER ACIL
Lancaster Laboratories
2425 New Holland Pike
PO Box 12425
Lancaster, PA 17605-2425
717-656-2300 Fax 717-656-2681

Lancaster Laboratories
A division of Thermo Analytical Inc.

LLI Sample No. SW 3058757
Collected: 12/16/98 at 11:30 by DY

Submitted: 12/17/98 Reported: 12/29/98
Discard: 1/ 6/99

Seep at 0+85 Grab Solid Sample

Project# 3-2111-600

Account No: 09567
ThermoRetec Consulting Corp..
1001 W. Seneca St., Suite 204
Ithaca NY 14850

P.O. 3-2111-600
Rel.

SAMPLE MDL	SAMPLE UNITS	BLANK	DUP RPD	MS	MSD	MS RPD	LCS	LCS DUP	LCS RPD	LCS LIMITS LOW	LCS LIMITS HIGH
10,000.	ug/kg	N.D.		100	98	2	109			88	123
8587 cis-1,3-Dichloropropene											
10,000.	ug/kg	N.D.		106	105	1	113			86	131
8588 trans-1,3-Dichloropropene											
10,000.	ug/kg	N.D.		112	112	0	123			80	134
8589 1,1,2-Trichloroethane											
10,000.	ug/kg	N.D.		104	104	0	113			90	138
8590 1,3-Dichloropropane											
10,000.	ug/kg	N.D.		104	106	2	114			70	130
8591 Dibromochloromethane											
10,000.	ug/kg	N.D.		106	109	3	119			90	121
8592 1,2-Dibromoethane (EDB)											
10,000.	ug/kg	N.D.		106	109	3	120			82	118
8593 Tetrachloroethene											
10,000.	ug/kg	N.D.		102	99	3	107			79	118
[illegible]4 1,1,1,2-Tetrachloroethane											
[illegible]00.	ug/kg	N.D.		106	106	1	114			70	130
[illegible]5 Chlorobenzene											
10,000.	ug/kg	N.D.		93	99	7	107			76	122
8596 Bromoform											
10,000.	ug/kg	N.D.		107	113	5	129			82	132
8597 1,1,2,2-Tetrachloroethane											
10,000.	ug/kg	N.D.		99	102	4	116			77	141
8598 1,2,3-Trichloropropane											
10,000.	ug/kg	N.D.		100	103	3	116			70	130
8599 Bromobenzene											
10,000.	ug/kg	N.D.		113	114	1	125			70	130
8600 2-Chlorotoluene (o)											
10,000.	ug/kg	N.D.		114	113	1	122			70	130
8601 4-Chlorotoluene (p)											
10,000.	ug/kg	N.D.		95	101	6	123			70	130
8602 1,3-Dichlorobenzene (m)											
10,000.	ug/kg	N.D.		114	113	0	124			70	130
8603 1,4-Dichlorobenzene (p)											
10,000.	ug/kg	N.D.		94	102	8	111			70	130
8604 1,2-Dichlorobenzene (o)											
10,000.	ug/kg	N.D.		109	110	1	121			70	130

8428 Purgeable Volatiles by SW846 S Batch: 98350A08

Questions? Contact your Client Services Representative
Tan H. Vo at (717) 656-2300

Respectfully Submitted
Jenifer E. Hess, B.S.
Group Leader Pesticides/PCBs

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1001 W. Seneca St., Suite 204
Ithaca NY 14850

P.O. 3-2111-600
Rel.

SAMPLE MDL	SAMPLE UNITS	BLANK	DUP RPD	MS	MSD	MS RPD	LCS	LCS DUP	LCS RPD	LCS LOW	LIMITS HIGH
8605 1,2-Dibromo-3-chloropropane											
10,000.	ug/kg	N.D.		108	115	7	137			70	130
8606 1,2,4-Trichlorobenzene											
10,000.	ug/kg	4.9 J ug/kg		106	112	6	130			70	130
8607 Hexachlorobutadiene											
10,000.	ug/kg	8.0 J ug/kg		120	119	1	132			70	130
8608 1,2,3-Trichlorobenzene											
10,000.	ug/kg	7.3 J ug/kg		95	110	15	131			70	130
8610 Benzene											
10,000.	ug/kg	N.D.		87	93	7	99			76	119
8611 Toluene											
10,000.	ug/kg	N.D.		88	95	8	106			78	119
8612 Ethylbenzene											
10,000.	ug/kg	N.D.		93	98	6	122			78	120
8614 Styrene											
[illegible]000.	ug/kg	N.D.		96	103	7	109			70	130
Isopropylbenzene (Cumene)											
[illegible],000.	ug/kg	N.D.		96	100	5	118			79	134
8617 n-Propylbenzene											
10,000.	ug/kg	N.D.		104	101	3	111			72	119
8618 1,3,5-Trimethylbenzene											
10,000.	ug/kg	N.D.		93	101	8	110			74	122
8619 tert-Butylbenzene											
10,000.	ug/kg	N.D.		95	102	6	112			73	121
8620 1,2,4-Trimethylbenzene											
10,000.	ug/kg	N.D.		91	99	8	110			76	120
8621 sec-Butylbenzene											
50,000.	ug/kg	N.D.		98	113	15	130			69	120
8622 p-Isopropyltoluene											
10,000.	ug/kg	N.D.		100	106	6	117			74	125
8623 n-Butylbenzene											
10,000.	ug/kg	4.1 J ug/kg		96	102	6	115			70	123
8624 Naphthalene											
10,000.	ug/kg	8.6 J ug/kg		76	92	18	114			55	140
8625 Xylene (total)											
30,000.	ug/kg	N.D.		95	100	6	108			54	150
0111 Moisture		Batch: 983530227820006A									
0.080	% by wt.		1				100	100	0	99	101

SURROGATE SUMMARY

Questions? Contact your Client Services Representative
Tan H. Vo at (717) 656-2300

Respectfully Submitted
Jenifer E. Hess, B.S.
Group Leader Pesticides/PCBs

MEMBER ACIL
Lancaster Laboratories
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PO Box 12425
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LLI Sample No. SW 3058757
Collected: 12/16/98 at 11:30 by DY

Submitted: 12/17/98 Reported: 12/29/98
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Seep at 0+85 Grab Solid Sample

Project# 3-2111-600

Account No: 09567
ThermoRetec Consulting Corp..
1001 W. Seneca St., Suite 204
Ithaca NY 14850

P.O. 3-2111-600
Rel.

SAMPLE MDL	SAMPLE UNITS	BLANK	DUP RPD	MS	MSD	MS RPD	LCS	LCS DUP	LCS RPD	LCS LIMITS LOW	LCS LIMITS HIGH

	TRIAL ID	SURROGATE	RECOVERY %	SURROGATE LIMITS LOW	SURROGATE LIMITS HIGH
1216 PCBs in Solids		TCX	(5)	24	136
		DCB	112	1	199
8427 Purgeable Volatiles by SW846 S		BrClBenz-H	1	49	123
		BrClBenz-P	2	52	131
8428 Purgeable Volatiles by SW846 S		BrClBenz-H	1	49	123
		BrClBenz-P	2	52	131

(5) Accurate surrogate recoveries could not be determined due to interferences or dilution necessary for this sample.

LABORATORY CHRONICLE

CAT NO	ANALYSIS NAME	METHOD	TRIAL	ANALYSIS ID	DATE AND TIME	ANALYST
0819	Solid Sample Pesticide Extract	SW-846 3550B	1		12/21/98 1737	Nhan Toung Bui
1216	PCBs in Solids	SW-846 8082	1		12/28/98 1213	Rick Shober
8427	Purgeable Volatiles by SW846 S	SW-846 8021B	1		12/18/98 1805	Gregory D. Pennebaker
8428	Purgeable Volatiles by SW846 S	SW-846 8021B	1		12/18/98 1805	Gregory D. Pennebaker
0111	Moisture	EPA 160.3 modified	1		12/19/98 1234	Susan A. Engle

Questions? Contact your Client Services Representative
Tan H. Vo at (717) 656-2300

Respectfully Submitted
Jenifer E. Hess, B.S.
Group Leader Pesticides/PCBs

MEMBER
Lancaster Laboratories
2425 New Holland Pike
PO Box 12425
Lancaster PA 17605-2425
717-656-2300 Fax: 717-656-2681

Analysis Request / Environmental Services Chain of Custody

Lancaster Laboratories
A division of Thermo Analytical Inc.

For Lancaster Laboratories use only
Acct. # 95607 Sample # 3058757-58

Please print. Instructions on reverse side correspond with circled numbers.

(1)
Client: THERMO RETEC
Project Name/#: 3-2111-600
Project Manager: JOHN FINN
Sampler: JOHN T. FINN / DAVE YUDIKAITIS
Name of state where samples were collected: New York
Acct. #:
PWSID #:
P.O.#
Quote #:

(2) **Sample Identification** | **Date Collected** | **Time Collected** | (3) **Grab** | **Composite** | **Matrix** (4): Soil | Water | Potable (Check if applicable) ☐ NPDES ☐ | Other | **Total # of Containers** | (5) **Analyses Requested**: 8260 | 8270 PCB's | **Remarks** | (6) **Temperature of samples upon receipt (if requested)**

Sample Identification	Date Collected	Time Collected	Grab	Composite	Soil	Water	Other	Total # of Containers	8260	8270 PCB's	Remarks	Temperature of samples upon receipt (if requested)
Sump at 80+85	12/16/98	11:30	X				X	4	X	X		

For lab use only
FSC:
SCR #: 1120361

(7) **Turnaround Time Requested** (TAT) (please circle): Normal (Rush)
(Rush TAT is subject to Lancaster Laboratories approval and surcharge.)
Date results are needed:
Rush results requested by (please circle): Phone (Fax)
Phone #: Fax #: (607) 277-9057

(8) **Data Package Options** (please circle if requested)
QC Summary | Type VI (Raw Data) | SDG Complete? Yes No
Type I (Tier I) | GLP
Type II (Tier II) | Other
Type III (NJ Red. Del.)
Type IV (CLP)
Site-specific QC required? Yes (No)
(If yes, indicate QC sample and submit triplicate volume.)
Internal Chain of Custody required? Yes (No)

Relinquished by:	Date	Time	Received by:	Date	Time
M Hufford	12/15/98	17:00			
	12/16/98	17:00			
			Harlan Collins	12-17-98	09:05

(9)

2425 New Holland Pike, PO Box 12425, Lancaster, PA 17605-2425 (717) 656-2300 Copies: White and yellow should accompany samples to Lancaster Laboratories. The pink copy should be retained by the client 2102 Rev. 5/26/98

RETEC-PC

April 21, 1999

RETEC Engineering, P.C.
1001 West Seneca Street
Suite 204
Ithaca, NY 14850-3342
(607) 277-5716
FAX (607) 277-9057

Abul Barkat, P.E.
Project Manager
New York State Department of Environmental Conservation - Region 9
270 Michigan Avenue
Buffalo, NY 14203-2999

RE: Laboratory Results of Sediment Samples from Electrical Conduit Area, Scajaquada Creek Sediment Remediation

Dear Mr. Barkat:

In accordance with NYDEC's request, four samples of sediment were collected in the area affected by the presence of buried electrical lines. The sample collection was performed by ThermoRetec on February 23 , 1999. Samples were collected from 1 to 2 ft. using a hand shovel at the request of Kevin Glaser of NYSDEC, who directed the sampling. Surveyors determined the elevation of the sampled sediments as approximately 560 ft GLD.

Figure 1, attached, is the field sketch of the sample locations.

The laboratory results are provided in the attached reports. The following summary of results indicates that the sediments were below the RCRA hazardous characteristic levels and three of the four samples were close to the background concentrations for PAHs:

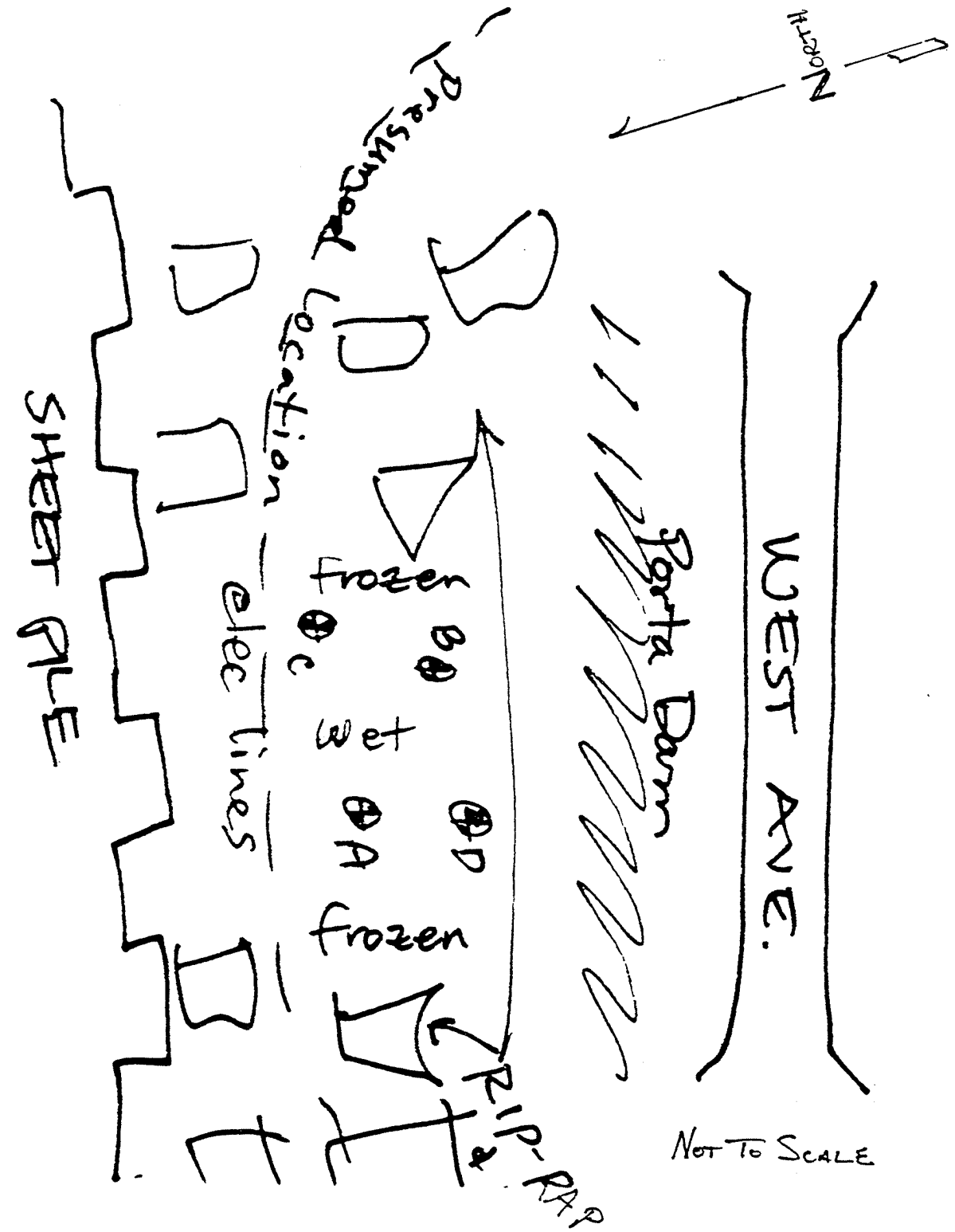
Constituent	Sediment A	Sediment B	Sediment C	Sediment D
TCLP Benzene (ug/L)	ND	ND	ND	ND
Total PAHs (mg/Kg)	53.24	54.79	29.67	497.

Sincerely,
RETEC ENGINEERING, P.C.

John T. Finn, P.E.
Senior Engineer

cc:
Tanya Alexander - NFG

FILE 3-2111 SED. ANALYTICAL RESULTS



ThermoRetec

Field Sketch of Sediment Sampling Locations

CURRENT DATE	4/21/99	FILE	F:\PROJECTS\2111\DOC\FIG.PPT	FIGURE 1

VOLATILE ANALYTICAL REPORT

Galson Laboratories

Client : Remediation Technologies, Inc.
Account # : 12013
Site : SCAJAQUADA CREEK

Date Received : 24-FEB-99
Date Sampled : 23-FEB-99

Matrix : Leachate
Method : TCLP 8260B
Units : UG/L

Galson ID:	L49151-1	L49151-2	L49151-3
Client ID:	SED A	SED B	SED C
Benzene	<50	<50	<50
Dilution Factor	10	10	10
Analysis Date	02/26/99	02/26/99	02/26/99

Approved by : PJT
Date : 26-FEB-99
QC by :
Date : 3/1/99
NYS DOH # : 11626
Footnotes:

Galson Laboratories

VOLATILE ANALYTICAL REPORT

Client : Remediation Technologies, Inc.
Account # : 12013
Site : SCAJAQUADA CREEK

Date Received : 24-FEB-99
Date Sampled : 23-FEB-99

Matrix : Leachate
Method : TCLP 8260B
Units : UG/L

Galson ID:	L49151-4	QCB022699-1	QCB022699-1TP
Client ID:	SED D	Method Blank	TCLP Blank
Benzene	<50	<5	<50
Dilution Factor	10	1	10
Analysis Date	02/26/99	02/26/99	02/26/99

Approved by : PJT
Date : 26-FEB-99
QC by :
Date : 3/1/99
NYS DOH # : 11626
Footnotes:

LEACHATE VOLATILE SURROGATE RECOVERY

Client : Remediation Technologies, Inc. Login # : L49151

SAMPLE NO.	SMC1 (DCE) #	SMC2 ( ) #	SMC3 ( ) #	OTHER	TOT OUT
Method Blank-QCB022699-1	85			BC0226	0
TCLP Blank	86			BC0226	0
SED A	88			BC0226	0
SED B	93			BC0226	0
SED C	87			BC0226	0
SED D	87			BC0226	0

QC LIMITS
(58-134)

SMC1 (DCE) = 1,2-Dichloroethane-d4

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

FORM II-CLP-1

SEMIVOLATILE ANALYTICAL REPORT

Galson Laboratories

Client : Remediation Technologies, Inc.
Account # : 12013
Site : SCAJAQUADA CREEK

Date Received : 24-FEB-99
Date Sampled : 23-FEB-99
Date Extracted: 25-FEB-99

Matrix : Soil
Method : SW846/8270
Units : UG/KG

Galson ID:	L49151-1	L49151-2	L49151-3
Client ID:	SED A	SED B	SED C
Naphthalene	1400	650 J	3300
Acenaphthylene	140 J	440 J	230 J
Acenaphthene	1600	3000	3200
Fluorene	1300	1900	1200
Phenanthrene	8100	7000	4100
Anthracene	2100	3700	970
Fluoranthene	7700	6700	1700
Pyrene	9300	14000	7100
Benzo(a)anthracene	3500	4000	1400
Chrysene	3400	3400	1300
Benzo(b)fluoranthene	2600	2000	780
Benzo(k)fluoranthene	2700	2100	860
Benzo(a)pyrene	3400	4000	1600
Indeno(1,2,3-cd)pyrene	2300	<1800	740
Dibenzo(a,h)anthracene	1000	<1800	210 J
o(g,h,i)perylene	2700	1900	980
Percent Moisture (%)	21	9	27
Dilution Factor	2	5	1
Analysis Date	02/28/99	02/28/99	02/26/99
TOTAL (mg/kg)	53.24	54.79	29.67

Approved by : Oommen Kappil
Date : 01-MAR-99
QC by :
Date : 3/1/99
NYS DOH # : 11626
Footnotes:
Results are reported on a dry weight basis.

Galson Laboratories

SEMIVOLATILE ANALYTICAL REPORT

Client : Remediation Technologies, Inc.
Account # : 12013
Site : SCAJAQUADA CREEK

Date Received : 24-FEB-99
Date Sampled : 23-FEB-99
Date Extracted: 25-FEB-99

Matrix : Soil
Method : SW846/8270
Units : UG/KG

Galson ID:	L49151-4	Q-6370
Client ID:	SED D	SBLK6370
Naphthalene	100000	<330
Acenaphthylene	6400 J	<330
Acenaphthene	45000	<330
Fluorene	29000	<330
Phenanthrene	110000	<330
Anthracene	30000	<330
Fluoranthene	34000	<330
Pyrene	59000	<330
Benzo(a)anthracene	18000	<330
Chrysene	15000	<330
Benzo(b)fluoranthene	7900 J	<330
Benzo(k)fluoranthene	10000	<330
Benzo(a)pyrene	18000	<330
Indeno(1,2,3-cd)pyrene	5700 J	<330
Dibenzo(a,h)anthracene	1400 J	<330
Benzo(g,h,i)perylene	7600 J	<330
Percent Moisture (%)	21	NA
Dilution Factor	20	1
Analysis Date	02/28/99	02/28/99

TOTAL (mg/kg) 497

Approved by : Oommen Kappil
Date : 01-MAR-99
QC by :
Date : 3/1/99
NYS DOH # : 11626
Footnotes:
Results are reported on a dry weight basis.

2D
SOIL SEMIVOLATILE SURROGATE RECOVERY

Lab Name: GALSON LABORATORIES Contract:

Lab Code: Case No.: 1 SAS No.: SDG No.: L49151

Level: (low/med) LOW

SAMPLE NO.	S1 (NBZ) #	S2 (FBP) #	S3 (TPH) #	S4 (DCB) #	S5 ( ) #	S6 ( ) #	S7 ( ) #	S8 ( ) #	TOT OUT
SED C	80	83	145 *	84					1
SBLK6370	107	108	122	114					0
SED A	82	96	134	86					0
SED B	79	103	133	89					0
SED D	74	79	93	85					0

	QC LIMITS
S1 (NBZ) = Nitrobenzene-d5	(23-120)
S2 (FBP) = 2-Fluorobiphenyl	(30-115)
S3 (TPH) = Terphenyl-d14	(18-137)
S4 (DCB) = 1,2-Dichlorobenzene-d4	(20-130).

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

REMEDIATION TECHNOLOGIES INC
REMEDIATION TECHNOLOGIES
1001 W. Seneca Street, Suite 204
Ithaca, NY 14850
(607) 277-5716
Fax (607) 277-9057

HAIN OF CUSTODY RECORD 99

PROJECT NAME: SCAJ. CREEK
PROJECT NUMBER: 3-2111-~~600~~ 600 (SW)
SEND REPORT TO: JOHN FINN
SAMPLER (PRINT NAME): S. WALSTON
ADDRESS:
SAMPLER (PRINT NAME):
SHIPMENT METHOD: FEDEX
AIRBILL NUMBER:
PHONE: 607-277-5716
LABORATORY RECEIVING: GALSON
FAX: 607-277-9057

PAGE 1 OF 1

FIELD SAMPLE ID	SAMPLE DATE	SAMPLE TIME	SAMPLE MATRIX	NUMBER OF CONTAINERS	ANALYSIS REQUESTED: TCLP	TOTAL PAHS	COMMENTS, SPECIAL INSTRUCTIONS, ETC.	LAB SAMPLE ID (to be completed by lab)
SED A	2/23/99	1330	SOIL	2	X	X	RUSH	
SED B	2/23/99	↓	↓	2	X	X		
SED C	2/23/99			2	X	X		
SED D	2/23/99			2	X	X		
							FAX RESULTS TO SITE attn: J. FINN 716-871-0779 (site phone 716-871-0699)	

* 3 day TAT per MOB to Rotec √ MOB

Relinquished by: (Signature)	Received by: (Signature)	Date:	Time:
Relinquished by: (Signature)	Received by: (Signature)	Date:	Time:
Relinquished by: (Signature)	Received by: (Signature) T-N	Date: 2-24-99	Time: 1020

SAMPLE CUSTODIAN REMARKS (COMPLETED BY LABORATORY):

QA/QC LEVEL		TURNAROUND:	
LEVEL I	☐	ROUTINE	~~X~~
LEVEL II	☐	24 HOUR	X
LEVEL III	☐	1 WEEK	☐
OTHER	☐	OTHER	___

SAMPLE RECEIPT	
TOTAL # CONTAINERS RECEIVED ?	8
COC SEALS PRESENT ?	Yes
COC SEALS INTACT ?	Yes
RECEIVED CONTAINERS INTACT ?	Yes
TEMPERATURE ?	<4°C T6

WHITE - LAB COPY YELLOW - RM COPY PINK - FIELD COPY GOLD - RM/QA/QC COPY

Custody.dwg

Appendix I

Appendix I

Summary of MHF Analytical Results

NYSDEC Site # 91514B
August 30, 2000

SUMMARY OF MHF ANALYTICAL RESULTS

Scajaquada Creek Sediment Remediation
National Fuel Gas Distribution Corporation
ThermoRetec Project #: 3-2111-600

On May 6, 1999 confirmation samples were taken of the pavement and soil within the Materials Handling Facility (MHF). Thirteen samples were were submitted for total benzene analysis and one sample (Diesel Fuel Pad) was submitted for TPH and BTEX analysis. The sampling locations are shown on the attached field sketch.

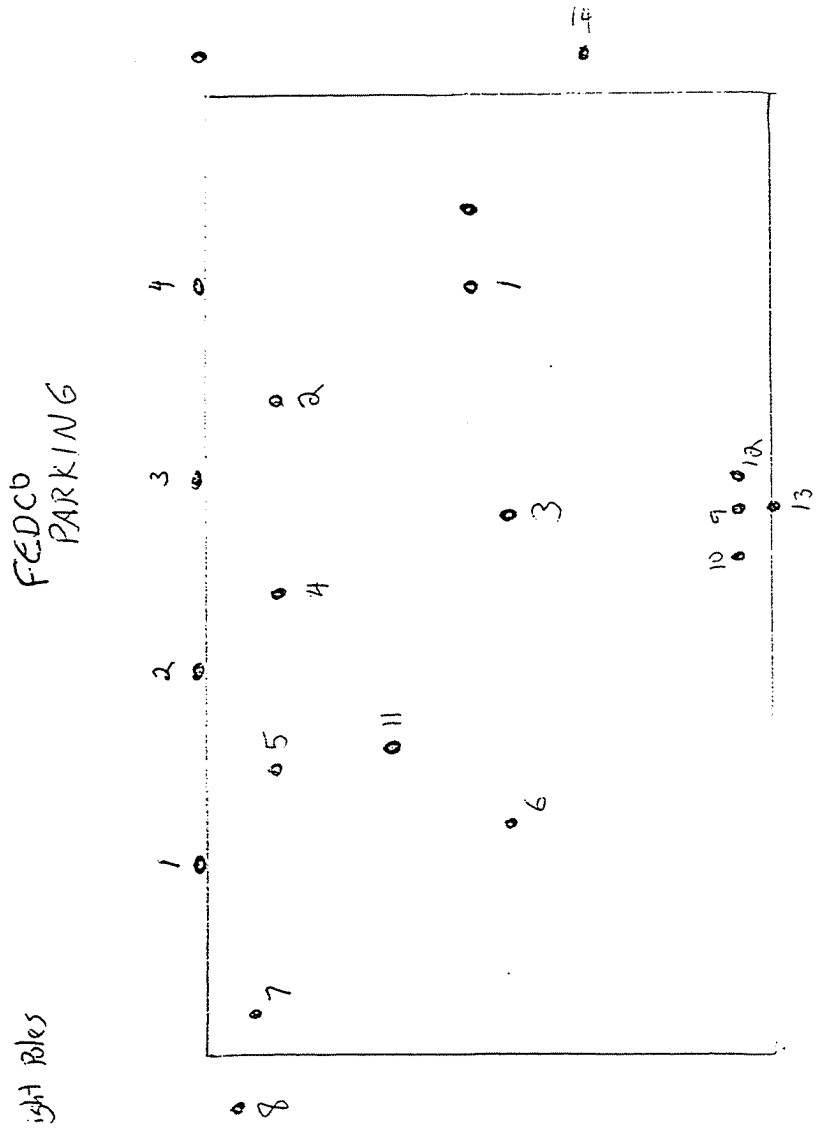
All samples analyzed for benzene contained less than 1.0 mg/kg benzene. One sample (MHF-1) had a benzene concentration of 0.85 mg/kg. The remaining samples had benzene below the detection limit, which was 0.65 mg/kg for most samples. The laboratory results for these analyses are attached.

The attached analytical results for the Diesel Fuel Pad indicate that Diesel (Fuel Oil #2) was not detected in the sample. A concentration of 1600 mg/kg of Lube Oil was detected. It is likely that the lube oil concentration is a remnant of the asphalt in the soil sample, which contained asphalt particles.

REIEC

Project No. 3-2111-600 | Page ____ of ____
Client ____ | Date 5/6/99
Site SEASAGUNDA CREEK | By Dave Yuhnke/Kaitis
Subject Sample Locations SKETCH | App. ____

MHF-1 76' off 4 / 109' off 3
MHF-2 46' off 3 / 52' off 4
MHF-3 83' off 3 / 110' off 2
MHF-4 43' off 2 / 60' off 3
MHF-5 49' off 2 / 56' off 1
MHF-6 113' off 2 / 88' off 1
HOLE 9 157' off west edge MHF
Background SAME ABOVE
HOLE 11 83' off 1 / 69' off 2
HOLE 10 175' off west edge MHF
~~Hol~~ DIESEL PAD 138' off west edge MHF



LOCATION	
1	MHF-1
2	MHF-2
3	MHF-3
4	MHF-4
5	MHF-5
6	MHF-6
7	MHF-SUMP
8	ROADWAY SUMP
9	MHF-HOLE 9
10	MHF-HOLE 10
11	MHF-HOLE 11
12	DIESEL PAD
13	BACKGROUND
14	EXIT ROAD

* COMPOSITE

Galson Laboratories

VOLATILE ANALYTICAL REPORT

Client : ThermoRetec
Account # : 12013
Site : 3-2111-600

Date Received : 07-MAY-99
Date Sampled : 06-MAY-99

Matrix : Bulk
Method : SW846 8260
Units : UG/KG

Galson ID:	L50933-1	L50933-2	L50933-3
Client ID:	MHF-1	MHF-2	MHF-3
Benzene	850	<630	<630
Dilution Factor	1	1	1
Analysis Date	05/07/99	05/07/99	05/07/99

Approved by : pjt
Date : 10-MAY-99
QC by : [signature]
Date : 5/10/99
NYS DOH # : 11626
Footnotes:
: Results are reported on a dry weight basis.
: Samples were analyzed by medium level extraction.

Galson Laboratories

VOLATILE ANALYTICAL REPORT

Client : ThermoRetec
Account # : 12013
Site : 3-2111-600

Date Received : 07-MAY-99
Date Sampled : 06-MAY-99

Matrix : Bulk
Method : SW846 8260
Units : UG/KG

Galson ID:	L50933-4	L50933-5	L50933-6
Client ID:	MHF-4	MHF-5	MHF-6
Benzene	<630	<640	<640
Dilution Factor	1	1	1
Analysis Date	05/07/99	05/07/99	05/07/99

Approved by : pjt
Date : 10-MAY-99
QC by : [signature]
Date : 5/10/99
NYS DOH # : 11626
Footnotes:
: Results are reported on a dry weight basis.
: Samples were analyzed by medium level extraction.

Galson Laboratories

VOLATILE ANALYTICAL REPORT

Client : ThermoRetec
Account # : 12013
Site : 3-2111-600

Date Received : 07-MAY-99
Date Sampled : 06-MAY-99

Matrix : Bulk
Method : SW846 8260
Units : UG/KG

Galson ID:	L50933-7	L50933-8	L50933-9
Client ID:	MHF-SUMP	ROADWAY-SUMP	MHF-HOLE9
Benzene	<640	<670	<690
Dilution Factor	1	1	1
Analysis Date	05/07/99	05/07/99	05/07/99

Approved by : pjt
Date : 10-MAY-99
QC by : [signature]
Date : 5/10/99
NYS DOH # : 11626
Footnotes:
: Results are reported on a dry weight basis.
: Samples were analyzed by medium level extraction.

Galson Laboratories

VOLATILE ANALYTICAL REPORT

Client : ThermoRetec
Account # : 12013
Site : 3-2111-600

Date Received : 07-MAY-99
Date Sampled : 06-MAY-99

Matrix : Bulk
Method : SW846 8260
Units : UG/KG

Galson ID:	L50933-10	L50933-11	L50933-12
Client ID:	MHF-HOLE10	MHF-HOLE11	BACKGROUND
Benzene	<740	<680	<620
Dilution Factor	1	1	1
Analysis Date	05/07/99	05/07/99	05/07/99

Approved by : pjt
Date : 10-MAY-99
QC by : [signature]
Date : 5/10/99
NYS DOH # : 11626
Footnotes:
: Results are reported on a dry weight basis.
: Samples were analyzed by medium level extraction.

Galson Laboratories

VOLATILE ANALYTICAL REPORT

Client : ThermoRetec
Account # : 12013
Site : 3-2111-600

Date Received : 07-MAY-99
Date Sampled : 06-MAY-99

Matrix : Bulk
Method : SW846 8260
Units : UG/KG

Galson ID:	L50933-13	QCB050799-2
Client ID:	EXITROAD	Method Blank
Benzene	<620	<620
Dilution Factor	1	1
Analysis Date	05/07/99	05/07/99

Approved by : pjt
Date : 10-MAY-99
QC by :
Date : 5/10/99
NYS DOH # : 11626
Footnotes:
: Results are reported on a dry weight basis.
: Samples were analyzed by medium level extraction.

BULK VOLATILE SURROGATE RECOVERY

Client : ThermoRetec

Login # : L50933

SAMPLE NO.	SMC1 (DCE) #	SMC2 (TOL) #	SMC3 (BFB) #	OTHER	TOT OUT
Method Blank-QCB050799-2	111	97	102	BC0507	0
MHF-4	103	91	100	BC0507	0
MHF-3	111	92	96	BC0507	0
MHF-5	108	94	99	BC0507	0
MHF-6	107	92	98	BC0507	0
MHF-SUMP	106	90	100	BC0507	0
ROADWAY-SUMP	106	94	96	BC0507	0
MHF-HOLE10	106	92	102	BC0507	0
BACKGROUND	107	93	97	BC0507	0
EXITROAD	102	92	100	BC0507	0
MHF-HOLE11	107	92	99	BC0507	0
MHF-2	107	95	101	BC0507	0
MHF-HOLE9	107	90	101	BC0507	0
MHF-1	110	92	97	BC0507	0

	QC LIMITS
SMC1 (DCE) = 1,2-Dichloroethane-d4	(70-121)
SMC2 (TOL) = Toluene-d8	(81-117)
SMC3 (BFB) = Bromofluorobenzene	(74-121)

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

FORM II-CLP-1

VOLATILE ANALYTICAL REPORT

Galson Laboratories

Client : ThermoRetec
Account # : 12013
Site : 3-2111-600

Date Received : 07-MAY-99
Date Sampled : 06-MAY-99

Matrix : Bulk
Method : SW846 8260
Units : UG/KG

Galson ID:	L50941-1	QCB050799-2
Client ID:	DIESAL PAD	Method Blank
Benzene	<710	<620
Dilution Factor	1	1
Analysis Date	05/07/99	05/07/99

Approved by : PJT
Date : 10-MAY-99
QC by :
Date : 5/10/99
NYS DOH # : 11626
Footnotes:
: Results are reported on a dry weight basis.
* : Sample analyzed as a medium level extract.

BULK VOLATILE SURROGATE RECOVERY

Client : ThermoRetec

Login # : L50941

SAMPLE NO.	SMC1 (DCE) #	SMC2 (TOL) #	SMC3 (BFB) #	OTHER	TOT OUT
Method Blank-QCB050799-2	111	97	102	BC0507	0
DIESAL PAD	108	93	97	BC0507	0

	QC LIMITS
SMC1 (DCE) = 1,2-Dichloroethane-d4	(70-121)
SMC2 (TOL) = Toluene-d8	(81-117)
SMC3 (BFB) = Bromofluorobenzene	(74-121)

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

FORM II-CLP-1

Galson Laboratories

PETROLEUM ANALYTICAL REPORT

Client : ThermoRetec
Account # : 12013
Site : 3-2111-600

Date Received : 07-MAY-99
Date Sampled : 06-MAY-99
Date Extracted: 12-MAY-99

Matrix : Bulk
Method : SW846 8015
Units : mg/kg

Galson ID:	L50941-1	Q-6555
Client ID:	DIESAL PAD	PBLK 6555
Lube Oil	1600	<20
Fuel Oil 2	<230	<20
Kerosene	<230	<20
Gasoline (Present or None)	None	None
Unknown Hydrocarbon	<230	<20
Analysis Date	05/13/99	05/12/99
Dilution Factor	10	1
Surrogate Recovery	% D	95 %
Control Limits (60-130)		

Approved by : Oommen Kappil
Date : 14-MAY-99
QC by : 5/14/99
Date :
NYS DOH # : 11626

Footnotes:
D: Surrogate diluted out.
Results are reported on a dry weight basis.
See enclosed sheet for percent moisture values.

Printed : 05/14/99 09:01 Report Reference # : 123912

SOIL MOISTURE ANALYSIS

LOGIN: [illegible] QC BATCH: [illegible] LAB GROUP: [illegible] REF. #: [illegible]

Wet Weight by: [illegible]
Date : [illegible]
Time : [illegible]

Dry Weight by: [illegible]
Date : [illegible]
Time : [illegible]

GALSON ID	SAMPLE DESC	DCT	PAN WT (gm)	NET WET WT (gm)	GROSS DRY WT (gm)	NET DRY WT (gm)	% MOIST	% SOLID
L50941-1	DIESAL PAD	N	1.04	5.92	6.25	5.21	12.0	88.0

$$\text{Percent Moisture} = \frac{(\text{net wet weight}) - (\text{net dry weight})}{\text{net wet weight}} \times 100$$

05/13/99 16:33

Appendix J

Appendix J

Summary of Haul Road Sampling Locations and Analytical Results

NYSDEC Site # 91514B
August 30, 2000

RETEC-PC

April 23, 1999

RETEC Engineering, P.C.
1001 West Seneca Street
Suite 204
Ithaca, NY 14850-3342
(607) 277-5716
FAX (607) 277-9057

Abul Barkat, P.E.
Project Manager
New York State Department of Environmental Conservation - Region 9
270 Michigan Avenue
Buffalo, NY 14203-2999

RE: Scajaquada Creek Sediment Remediation
Site Restoration: Final Results of Haul Road Sampling

Dear Mr. Barkat:

This letter reports the final analytical results of soil samples collected in the haul road area as part of the site restoration activities. The general procedure was to remove potentially contaminated soil from the haul road area, collect representative samples, obtain analytical results, remove additional soil, and re-sample until background conditions were reached.

The initial sampling was conducted March 31 in accordance with the NYSDEC-approved sampling plan of March 30. Figure 1, attached, is the field sketch of the sample locations.

Results indicated that the four samples analyzed for TCLP Benzene were below detection limits. Results of PAH analyses in areas East of the MHF, at Pier 11, Haul Road areas 0+60 to 2+00, 2+00 to 4+50, and 4+ 50 to 10+00 indicated that only the area 2+00 to 4+50 was far below the background level of 50 mg/kg Total PAHs. All other areas, even if close to background, were subsequently scraped to remove additional soil.

Re-sampling of the scraped areas was conducted April 13 through 16. Results indicated that all areas were below background level except Haul Road area 4+50 to 10+00. This area was subsequently scraped to remove additional soil.

Re-sampling of area 4+50 to 10+00 was conducted on April 19. Results indicated that this area was below the background level.

The laboratory results are provided in the attached reports. The following summary of results shows the only the final PAH analyses from each area :

Analysis	East of MHF April 13	Pier - 11 April 13	Haul Road 0+60 to 2+00 April 16	Haul Road 2+00 to 4+50 March 31	Haul Road 4+50 to 10+00 April 19
Total PAHs* (mg/Kg)	43.70	37.10	22.34	26.86	45.30

* The site background level for soils and sediments was established as 50 mg/Kg (ppm) total PAH , defined as the summation of individual PAHs detected above the PQL (practical quantitation limit), in the Statement of Work June 1995 p.4-1.

Samples from two stockpiles of soil removed from clean areas were confirmed to contain PAHs below the background level. The result for Stockpile 1 was 18.06 mg/Kg TPAHs and the result for Stockpile 2 was 16.63 mg/Kg TPAHs.

Please call me if you have any questions regarding this letter report.

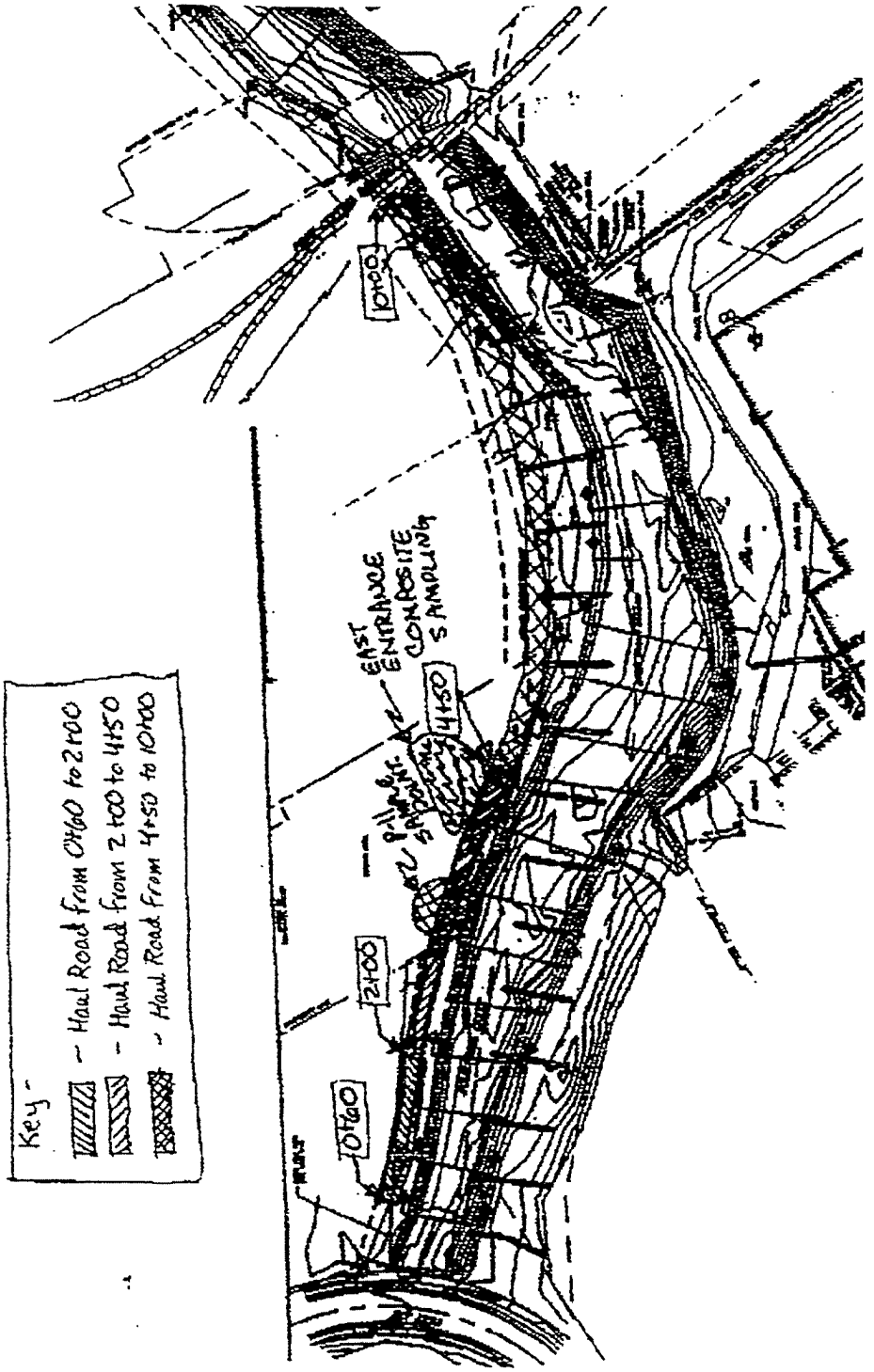
Sincerely,
RETEC ENGINEERING, P.C.

John T. Finn, P.E.
Senior Engineer

Attachements: Field Sketch of Sampling Areas
Laboratory Analysis Reports, Galson Laboratories.

cc:

Tanya Alexander, Chris Cej - National Fuel Gas
Tom Angelo - Sherwin-Williams
Doug Weeks - ICF/Kaiser
Site Office - ThermoRetec
file: 3-2111



ThermoRetec

NOT TO SCALE			Field Sketch of Haul Road Sampling Locations	
CURRENT DATE	4/27/99	FILE	F:\PROJECTS\2111\DOC\FIG.PPT	FIGURE 1

VOLATILE ANALYTICAL REPORT

Galson Laboratories

Client : Remediation Technologies, Inc.
Account # : 12013
Site : Scajaquada Creek

Date Received : 01-APR-99
Date Sampled : 31-MAR-99

Matrix : Leachate
Method : TCLP 8260B
Units : UG/L

Galson ID:	L50053-4	L50053-5	L50053-6
Client ID:	MHFEAST	PIER-11	HRSTOCKPILE
Benzene	<50	<50	<50
Dilution Factor	10	10	10
Analysis Date	04/08/99	04/08/99	04/08/99

Approved by : pjt
Date : 08-APR-99
QC by : [signature]
Date : 4/9/99
NYS DOH # : 11626
Footnotes:

Galson Laboratories

VOLATILE ANALYTICAL REPORT

Client : Remediation Technologies, Inc.
Account # : 12013
Site : Scajaquada Creek

Date Received : 01-APR-99
Date Sampled : 31-MAR-99

Matrix : Leachate
Method : TCLP 8260B
Units : UG/L

Galson ID:	L50053-7	QCB040899-1	QCB040899-1TP
Client ID:	SC0601000	Method Blank	TCLP Blank
Benzene	<50	<5	<50
Dilution Factor	10	1	10
Analysis Date	04/08/99	04/08/99	04/08/99

Approved by : pjt
Date : 08-APR-99
QC by : [signature]
Date : 4/07/99
NYS DOH # : 11626
Footnotes:

LEACHATE VOLATILE SURROGATE RECOVERY

Client : Remediation Technologies, Inc. Login # : L50053

SAMPLE NO.	SMC1 (DCE) #	SMC2 ( ) #	SMC3 ( ) #	OTHER	TOT OUT
Method Blank-QCB040899-1	100			BC0408	0
TCLP Blank	103			BC0408	0
MHFEAST	92			BC0408	0
PIER-11	90			BC0408	0
HRSTOCKPILE	92			BC0408	0
SC0601000	91			BC0408	0

SMC1 (DCE) = 1,2-Dichloroethane-d4 QC LIMITS (58-134)

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

SEMIVOLATILE ANALYTICAL REPORT

Galson Laboratories

Client : Remediation Technologies, Inc.
Account # : 12013
Site : Scajaquada Creek

Date Received : 01-APR-99
Date Sampled : 31-MAR-99
Date Extracted: 06-APR-99

Matrix : Soil
Method : SW846/3550/8270-PAH
Units : UG/KG

2+00 to 4+50

Galson ID:	L50053-1	L50053-2	L50053-3
Client ID:	SC060200	SC200450	SC4501000
Naphthalene	860 J	210 J	1300 J
Acenaphthylene	290 J	65. J	<3800
Acenaphthene	1900	380	2800 J
Fluorene	1000 J	310 J	3000 J
Phenanthrene	5000	2600	24000
Anthracene	2100	770	6200
Fluoranthene	6100	4000	25000
Pyrene	15000	5200	25000
Benzo(a)anthracene	3600	2000	12000
Chrysene	3600	2200	12000
Benzo(b)fluoranthene	2600	2000	11000
Benzo(k)fluoranthene	2900	2000	9400
Benzo(a)pyrene	3500	2200	12000
Indeno(1,2,3-cd)pyrene	1400 J	1200	4800
Dibenzo(a,h)anthracene	<1800	520	1800 J
Benzo(g,h,i)perylene	1600 J	1200	4600
Percent Moisture (%)	6	8	15
Dilution Factor	5	1	10
Analysis Date	04/08/99	04/08/99	04/07/99

TOTAL PAHs (mg/kg) 26.855

Approved by : Oommen Kappil
Date : 09-APR-99
QC by : [signature]
Date : 4/9/99
NYS DOH # : 11626
Footnotes:
Results are reported on a dry weight basis.

Galson Laboratories

SEMIVOLATILE ANALYTICAL REPORT

Client : Remediation Technologies, Inc.
Account # : 12013
Site : Scajaquada Creek

Date Received : 01-APR-99
Date Sampled : 31-MAR-99
Date Extracted: 06-APR-99

Matrix : Soil
Method : SW846/3550/8270-PAH
Units : UG/KG

Galson ID:	L50053-4	L50053-5	L50053-6
Client ID:	MHFEAST	PIER-11	HRSTOCKPILE
Naphthalene	880 J	780 J	370
Acenaphthylene	180 J	230 J	100 J
Acenaphthene	1300 J	1200 J	660
Fluorene	1200 J	770 J	480
Phenanthrene	6800	4900	2500
Anthracene	2200	1600 J	820
Fluoranthene	7400	8000	2400
Pyrene	11000	11000	3800
Benzo(a)anthracene	3800	3600	1300
Chrysene	3900	4100	1400
Benzo(b)fluoranthene	3100	3100	900
Benzo(k)fluoranthene	3400	3300	1000
Benzo(a)pyrene	3800	3800	1200
Indeno(1,2,3-cd)pyrene	1800	1800	460
Dibenzo(a,h)anthracene	500 J	560 J	150 J
Benzo(g,h,i)perylene	1900	2000	520
Percent Moisture (%)	5	12	6
Dilution Factor	5	5	1
Analysis Date	04/08/99	04/08/99	04/08/99

TOTAL PAHs (mg/kg) 18.06

Approved by : Oommen Kappil
Date : 09-APR-99
QC by :
Date : 4/9/99
NYS DOH # : 11626
Footnotes:
Results are reported on a dry weight basis.

Galson Laboratories

SEMIVOLATILE ANALYTICAL REPORT

Client : Remediation Technologies, Inc.
Account # : 12013
Site : Scajaquada Creek

Date Received : 01-APR-99
Date Sampled : 31-MAR-99
Date Extracted: 06-APR-99

Matrix : Soil
Method : SW846/3550/8270-PAH
Units : UG/KG

Galson ID:	Q-6445
Client ID:	SBLK6445

Naphthalene	<330
Acenaphthylene	<330
Acenaphthene	<330
Fluorene	<330
Phenanthrene	<330
Anthracene	<330
Fluoranthene	<330
Pyrene	<330
Benzo(a)anthracene	<330
Chrysene	<330
Benzo(b)fluoranthene	<330
Benzo(k)fluoranthene	<330
Benzo(a)pyrene	<330
Indeno(1,2,3-cd)pyrene	<330
Dibenz(a,h)anthracene	<330
Benzo(g,h,i)perylene	<330
Percent Moisture (%)	NA
Dilution Factor	1
Analysis Date	04/07/99

Approved by : Oommen Kappil
Date : 09-APR-99
QC by : [signature] 4/9/99
Date :
NYS DOH # : 11626
Footnotes:
Results are reported on a dry weight basis.

2D
SOIL SEMIVOLATILE SURROGATE RECOVERY

ab Name: GALSON LABORATORIES Contract:

Lab Code: Case No.: 1 SAS No.: SDG No.: L50053

Level: (low/med) LOW

SAMPLE NO.	S1 (NBZ) #	S2 (FBP) #	S3 (TPH) #	S4 (DCB) #	S5 ( ) #	S6 ( ) #	S7 ( ) #	S8 ( ) #	TOT OUT
SBLK6445	96	103	124	106					0
SC4501000	70	97	95	78					0
HRSTOCKPILE	94	103	122	97					0
SC200450	82	91	122	81					0
SC060200	82	87	159 *	89					1
MHFEAST	83	98	134	100					0
PIER-11	80	93	111	87					0

	QC LIMITS
S1 (NBZ) = Nitrobenzene-d5	(34-134)
S2 (FBP) = 2-Fluorobiphenyl	(38-137)
S3 (TPH) = Terphenyl-d14	(46-156)
S4 (DCB) = 1,2-Dichlorobenzene-d4	(46-142)

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

Chain of Custody Record

GALSON LABORATORIES
6601 Kirkville Road East
E. Syracuse, NY 13057
315-432-0506
800-950-0506

Comp[illegible] lame: THERMORETEC

Project Name / Number: SCAJ. CREEK

Turn-Ar[illegible] Tim[illegible]
- Standard Service
- * Rush Service

Date requested by: 4/9/99

PH # (607) -277-5716

Fax # (607) -277- 9057

Page 1 of 1

Send Report to: THERMORETEC
1001 W. SENECA
ITHACA, NY 14850
ATTN JOHN FINN

Send Invoice to: SAME

P.O. #

SAMPLE ID	Date	Time	TYPE: Comp.	TYPE: Grab	Aqueous	Soil	Other	Laboratory ID Number	PARAMETERS FOR AN[illegible]IS: TOT PAH	TCLP BENZENE
SC060200	3/31/99	11:00	X			X		[illegible]aies. In L50053-1	X	
SC200450		11:05	X			X		[illegible]aies. In L50053-2	X	
SC450 1000		11:10	X			X		[illegible]aies. In L50053-3	X	
MHF EAST		11:15	X			X		[illegible]gies. In L50053-4	X	X
PIER-11		11:20		X		X		[illegible]aies, In L50053-5	X	X
HR STOCKPILE		11:30	X			X		[illegible]aies. In L50053-6	X	X
SC0601000	V	11:45	X			X		[illegible]gies, In L50053-7 SC0601000		X

REMARKS:

Total Containers -

SAMPLER'S NAME: DAVID YUDIKAITUS

SIGNATURE: [signature]

SAMPLES RELINQUISHED BY:		SAMPLES RECEIVED BY:	
NAME: DAVID YUDIKAITUS SIGNATURE: [signature]	DATE: 3/31/99 TIME: 16:00	NAME: FEDEX SIGNATURE:	DATE: TIME:
NAME: SIGNATURE:	DATE: TIME:	Received For Laboratory By: (Signature)	DATE: TIME:
NAME: SIGNATURE:	DATE: TIME:	Received For Laboratory By: (Signature) [signature]	DATE: 4-1-99 TIME: 1140

VOC Pres U P AU NA

Custody Seal Intact? ☐ Yes ☐ No ☐ N.A.

Shipment Complete? ☐ Yes ☐ No

Temp 7 °C TS TB TM TG

Airbill # 810834174203

SEMIVOLATILE ANALYTICAL REPORT

Galson Laboratories

Client : Remediation Technologies, Inc.
Account # : 12013
Site : Scajaquada Creek

Date Received : 14-APR-99
Date Sampled : 13-APR-99
Date Extracted: 14-APR-99

Matrix : Soil
Method : SW846/3550/8270-PAH
Units : UG/KG

4+50 to 10+00

Galson ID:	L50347-1	L50347-2	L50347-3
Client ID:	MHFEAST	PIER-11	SC4501000
Naphthalene	<1700	<2000	<1800
Acenaphthylene	<1700	<2000	<1800
Acenaphthene	<1700	<2000	<1800
Fluorene	<1700	<2000	1800
Phenanthrene	4200	6400	13000
Anthracene	<1700	<2000	3200
Fluoranthene	6500	7900	13000
Pyrene	8300	6800	14000
Benzo(a)anthracene	4200	3600	6900
Chrysene	4300	3200	6900
Benzo(b)fluoranthene	4200	3000	5400
Benzo(k)fluoranthene	4000	2900	6300
Benzo(a)pyrene	4200	3300	6200
Indeno(1,2,3-cd)pyrene	1900	<2000	2200
Dibenzo(a,h)anthracene	<1700	<2000	<1800
Benzo(g,h,i)perylene	1900	<2000	2200
Percent Moisture (%)	5	16	8
Dilution Factor	5	5	5
Analysis Date	04/15/99	04/15/99	04/15/99
TOTAL PAHs (mg/kg)	43.7	37.1	81.1

Approved by : Oommen Kappil
Date : 16-APR-99
QC by :
Date : 4/23/99
NYS DOH # : 11626
Footnotes:
Results are reported on a dry weight basis.

Galson Laboratories

SEMIVOLATILE ANALYTICAL REPORT

Client : Remediation Technologies, Inc.
Account # : 12013
Site : Scajaquada Creek

Date Received : 14-APR-99
Date Sampled : 13-APR-99
Date Extracted: 14-APR-99

Matrix : Soil
Method : SW846/3550/8270-PAH
Units : UG/KG

Galson ID:	Q-6471
Client ID:	SBLK6471
I phthalene	<330
Acenaphthylene	<330
Acenaphthene	<330
I uorene	<330
I enanthrene	<330
Anthracene	<330
Fluoranthene	<330
I rene	<330
L nzo(a)anthracene	<330
Chrysene	<330
I nzo(b)fluoranthene	<330
I nzo(k)fluoranthene	<330
Benzo(a)pyrene	<330
Indeno(1,2,3-cd)pyrene	<330
I h o(a,h)anthracene	<330
I n. g,h,i)perylene	<330
Percent Moisture (%)	NA
I lution Factor	1
l alysis Date	04/15/99

Approved by : Oommen Kappil
Date : 16-APR-99
QC by :
Date : 4/23/99
NYS DOH # : 11626
Footnotes:
Results are reported on a dry weight basis.

2D
SOIL SEMIVOLATILE SURROGATE RECOVERY

Lab Name: GALSON LABORATORIES Contract:

Lab Code: Case No.: 1 SAS No.: SDG No.: L50347

Level: (low/med) LOW

SAMPLE NO.	S1 (NBZ) #	S2 (FBP) #	S3 (TPH) #	S4 (DCB) #	S5 ( ) #	S6 ( ) #	S7 ( ) #	S8 ( ) #	TOT OUT
SBLK6471	82	81	113	94					0
MHFEAST	79	82	98	85					0
PIER-11	78	92	98	87					0
SC4501000	81	87	112	92					0

	QC LIMITS
S1 (NBZ) = Nitrobenzene-d5	(34-134)
S2 (FBP) = 2-Fluorobiphenyl	(38-137)
S3 (TPH) = Terphenyl-d14	(46-156)
S4 (DCB) = 1,2-Dichlorobenzene-d4	(46-142)

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

GALSON LABORATORIES
6601 Kirkville Road East
E. Syracuse, NY 13057
315-432-0506
800-950-0506

Comp Nam: THERMORETEC

Project Name / Number: SCAJ CREEK

n-Ar Tim
- Standard Service
- * Rush Service

Date requested by: 4/16/99

Ph # (607) -277 - 5716

Fax # (607) -277 - 9057

Page 1 of 1

Send Report to: THERMORETEC
1001 W. Seneca St
Ithaca, NY 14850
Attn: John Finn

Send Invoice to: SAME

P.O. #

Chain of Custody Record

SAMPLE ID	Date	Time	TYPE Comp.	TYPE Grab	Aqueous	Soil	Other	Laboratory ID Number	PARAMETERS FOR ANALYSIS: TOT PAH
MHFEAST	4/13/99	14:00	X			X		ogies, In L5034/-1 MHFEAST	X
PIER-11	↓	14:05		X		X		ogies, In L5034/-2 PIER-11	X
SC4501000		14:10	X			X		ogies, In L5034/-3 SC4501000	X

Total Containers =

REMARKS:

SAMPLER'S NAME: DAVID YUDIKAITIS

SIGNATURE:

VOC Pres U P AU NA

Custody Seal Intact? Yes No N.A.

Shipment Complete? Yes No

Temp 7 °C TS TB TM TC

Airbill # 810834174155

SAMPLES RELINQUISHED BY:		SAMPLES RECEIVED BY:	
NAME: D. YUDIKAITIS	DATE: 4/13/99
SIGNATURE:	TIME: 17:00	NAME: FEDEX	DATE:
NAME:	DATE:	SIGNATURE:	TIME:
SIGNATURE:	TIME:	Received For Laboratory By: (Signature)	DATE: 4-14-99 TIME: 1036
NAME:	DATE:		
SIGNATURE:	TIME:	Received For Laboratory By: (Signature)	DATE: TIME:

SEMIVOLATILE ANALYTICAL REPORT

Galson Laboratories

Client : Remediation Technologies, Inc.
Account # : 12013
Site : 3-2111-600

Date Received : 17-APR-99
Date Sampled : 16-APR-99
Date Extracted: 19-APR-99

Matrix : Soil
Method : SW846/3550/8270-PAH
Units : UG/KG

0+60 to 2+00

Galson ID:	L50446-1	L50446-2	Q-6491
Client ID:	HRSTOCKPILE2	SC060200	SBLK6491
Naphthalene	<360	<380	<330
Acenaphthylene	<360	<380	<330
Acenaphthene	<360	450	<330
Fluorene	430	<380	<330
Phenanthrene	2900	2700	<330
Anthracene	690	880	<330
Fluoranthene	3000	3900	<330
Pyrene	3000	4400	<330
Benzo(a)anthracene	1300	1900	<330
Chrysene	1300	1900	<330
Benzo(b)fluoranthene	1100	1400	<330
Benzo(k)fluoranthene	1000	1600	<330
Benzo(a)pyrene	1100	1800	<330
Indeno(1,2,3-cd)pyrene	400	680	<330
Dibenzo(a,h)anthracene	<360	<380	<330
Benzo(g,h,i)perylene	410	730	<330
Percent Moisture (%)	9	12	NA
Dilution Factor	1	1	1
Analysis Date	04/21/99	04/21/99	04/21/99
Total PAHs (mg/kg)	16.63	22.34	

Approved by : Oommen Kappil
Date : 21-APR-99
QC by :
Date : 4/23/99
NYS DOH # : 11626
Footnotes:
Results are reported on a dry weight basis.

2D
SOIL SEMIVOLATILE SURROGATE RECOVERY

Lab Name: GALSON LABORATORIES Contract:

Lab Code: Case No.: 1 SAS No.: SDG No.: L50446

Level: (low/med) LOW

SAMPLE NO.	S1 (NBZ) #	S2 (FBP) #	S3 (TPH) #	S4 (DCB) #	S5 ( ) #	S6 ( ) #	S7 ( ) #	S8 ( ) #	TOT OUT
SBLK6491	80	78	100	86					0
HRSTOCKPILE2	40	41	50	41 *					1
SC060200	79	87	96	80					0

	QC LIMITS
S1 (NBZ) = Nitrobenzene-d5	(34-134)
S2 (FBP) = 2-Fluorobiphenyl	(38-137)
S3 (TPH) = Terphenyl-d14	(46-156)
S4 (DCB) = 1,2-Dichlorobenzene-d4	(46-142)

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

FORM II-CLP-1

Gaison Laboratories

6601 Kirkville Road East
E. Syracuse, New York 13057
315 437-7252 • 888-577-5227

Corr Nam: THERMORETEC

Project Name / Number: 3-2111-600

m-A 1Tin
- Standard Service
- * Rush Service

Date requested by: 4/21/99
Ph # (607) - 2775716
Fax # (607) -277-9057 ☆

Page 1 of 1

Send Report to: THERMORETEC
1001 W. SENECA ST.
ITHACA, NY 14850
ATTN: JOHN FINN

Send Invoice to: SAME

P.O. #

Chain of Custody Record

SAMPLE ID	Date	Time	TYPE: Comp.	Grab	Aqueous	Soil	Other	Laboratory ID Number	PARAMETERS FOR AI: TOTAL PAH	SIS
HR STOCKPILE 2	4/16/99	1700	X			X		gies, In L50446-1 [illegible]STOCKPILE2	X	
SC060200	4/16/99	1650	X			X		gies, In L50446-2 SC060200	X	

REMARKS:

Total Containers -

☆ - PLEASE ALSO SEND RESULTS VIA FAX TO (716) 871-0779
ATTN: DAN SHEARER

SAMPLER'S NAME: DM SHEARER SIGNATURE:

SAMPLES RELINQUISHED BY:		SAMPLES RECEIVED BY:	
NAME: DM SHEARER	DATE: 4/16/99	NAME: FED EX	DATE:
SIGNATURE:	TIME: 1800	SIGNATURE:	TIME:
NAME:	DATE:	Received For Laboratory By: (Signature)	DATE:
SIGNATURE:	TIME:		TIME:
NAME:	DATE:	Received For Laboratory By: (Signature)	DATE: 4-19-99
SIGNATURE:	TIME:		TIME: 933

VOC Pres U P AU NA

Custody Seal Intact? ☐ Yes ☐ No ☐ N.A.
Shipment Complete? ☐ Yes ☐ No

Temp 8 °C TS TB TM TG

Airbill # 810834174133

SEMIVOLATILE ANALYTICAL REPORT

Galson Laboratories

Client : Remediation Technologies, Inc.
Account # : 12013
Site : Scajaquada Creek

Date Received : 20-APR-99
Date Sampled : 19-APR-99
Date Extracted: 20-APR-99

Matrix : Soil
Method : SW846/3550/8270-PAH
Units : UG/KG

Galson ID:	L50501-1	Q-6494
Client ID:	SC45010003	SBLK6494
Naphthalene	<1900	<330
cenaphthylene	<1900	<330
cenaphthene	<1900	<330
Fluorene	<1900	<330
Phenanthrene	7800	<330
nthracene	2100	<330
luoranthene	9400	<330
Pyrene	8100	<330
enzo(a)anthracene	3900	<330
rysene	4000	<330
Benzo(b)fluoranthene	3400	<330
Benzo(k)fluoranthene	2900	<330
enzo(a)pyrene	3700	<330
deno(1,2,3-cd)pyrene	<1900	<330
Dibenzo(a,h)anthracene	<1900	<330
Ben-(g,h,i)perylene	<1900	<330
ercent Moisture (%)	14	NA
Dilution Factor	5	1
nalysis Date	04/22/99	04/22/99

Total PAHs (mg/kg) 45.3

Approved by : Oommen Kappil
Date : 22-APR-99
QC by
Date 4/23/99
NYS DOH # : 11626
Footnotes:
Results are reported on a dry weight basis.

2D

SOIL SEMIVOLATILE SURROGATE RECOVERY

Lab Name: GALSON LABORATORIES Contract:

Lab Code: Case No.: 1 SAS No.: SDG No.: L50501

Level: (low/med) LOW

SAMPLE NO.	S1 (NBZ) #	S2 (FBP) #	S3 (TPH) #	S4 (DCB) #	S5 ( ) #	S6 ( ) #	S7 ( ) #	S8 ( ) #	TOT OUT
SBLK6494	55	57	76	63					0
SC45010003	71	77	80	76					0

	QC LIMITS
S1 (NBZ) = Nitrobenzene-d5	(34-134)
S2 (FBP) = 2-Fluorobiphenyl	(38-137)
S3 (TPH) = Terphenyl-d14	(46-156)
S4 (DCB) = 1,2-Dichlorobenzene-d4	(46-142)

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

FORM II-CLP-1

REMEDIATION TECHNOLOGIES INC

1001 W. Seneca Street, Suite 204
Ithaca, NY 14850
(607) 277-5716
Fax (607) 277-9057

CHAIN OF CUSTODY RECORD [illegible]

PROJECT NAME: SCAJAQUADA CREEK
PROJECT NUMBER: 3-2111-600
SEND REPORT TO: JOHN FINN
SAMPLER (PRINT NAME): DM SHEARER
ADDRESS:
SAMPLER (PRINT NAME):
SHIPMENT METHOD: FEDEX
AIRBILL NUMBER: 810834117412-2
PHONE: also fax results to
LABORATORY RECEIVING: GAUSON LABS
FAX: (716) 891-0779 Attn: Dan Shearer.

PAGE 1 OF 1

ANALYSIS REQUESTED: Total PAHs

FIELD SAMPLE ID	SAMPLE DATE	SAMPLE TIME	SAMPLE MATRIX	NUMBER OF CONTAINERS		COMMENTS, SPECIAL INSTRUCTIONS, ETC.	LAB SAMPLE ID (to be completed by lab)
SC45010003	4/19/99	1515	SOIL	1	X	Remediation Technologies, In L50501-1 04/20/99 OPTIONS SC45010003	

Relinquished by: (Signature)	Received by: (Signature)	Date:	Time:
		4/19/99	1900
Relinquished by: (Signature)	Received by: (Signature)	Date:	Time:
Relinquished by: (Signature)	Received by: (Signature)	Date:	Time:
		4-20-99	1050

SAMPLE CUSTODIAN REMARKS (COMPLETED BY LABORATORY):

QA/QC LEVEL	
LEVEL I	☐
LEVEL II	☐
LEVEL III	☐
OTHER	☐

TURNAROUND:	
ROUTINE	☐
24 HOUR	☐
1 WEEK	☐
OTHER	RUSH ASAP

SAMPLE RECEIPT	
TOTAL # CONTAINERS RECEIVED ?	1
COC SEALS PRESENT ?	yes
COC SEALS INTACT ?	yes
RECEIVED CONTAINERS INTACT ?	yes
TEMPERATURE ?	5 T6 (4)

WHITE: LAB COPY YELLOW: PM COPY PINK: FIELD COPY GOLD: PM/QA/QC COPY

Custody.dwg

Appendix K

Appendix K

Summary of Perimeter Air Monitoring Results

NYSDEC Site # 91514B
August 30, 2000

SITE PERIMETER AIR SAMPLING RESULTS

Scajaquada Creek Sediment Remediation

National Fuel Gas Distribution Corp.

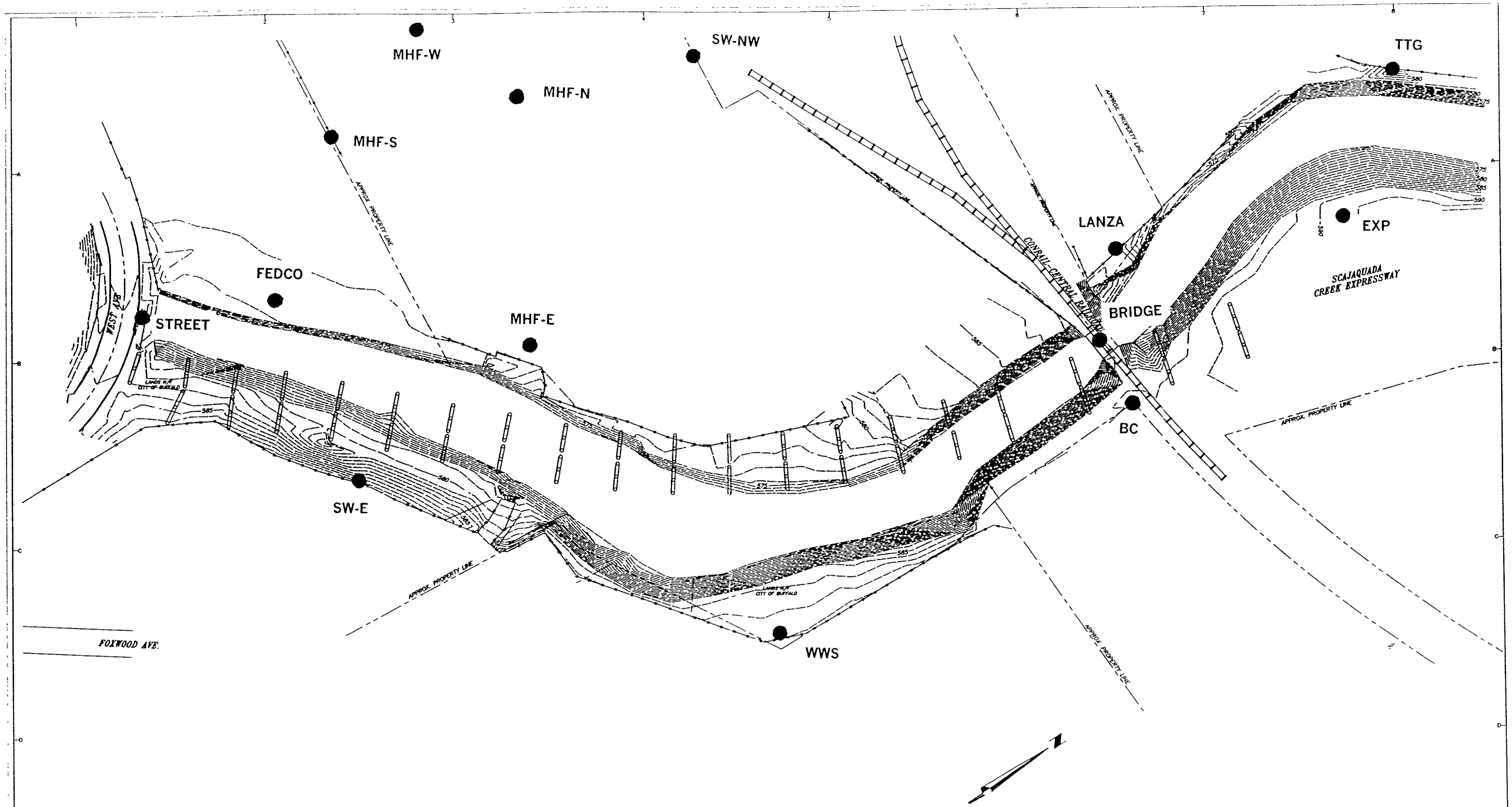
RETEC Project # 3-2111-650

NOTES:

1) Air sampling locations are shown on attached figure.

2) Bold/italicized results indicate that due to adsorbed compound migration, the laboratory reported compound detection in the back section of the sample tube. Results shown are sum of front and back sections and are approximate.

3) "0" indicates compound not detected above detection limit.



RAILROAD and RIVER were fictitious locations submitted to the laboratory as blind blanks

SCALE
0 50' 100' 150'

REFERENCE DWG	DESCRIPTION	NO	DRWN	DATE	REVISION	CHKD	DATE	APPVD	DATE

NATIONAL FUEL GAS
SCAJAQUADA CREEK SITE
3-2111-600

CURRENT DATE | CAD FILE

AIR MONITORING LOCATIONS
PERIMETER AIR MONITORING PROGRAM

REMEDIATION TECHNOLOGIES INC
DRAWING NO. | REV.

SITE PERIMETER AIR SAMPLING RESULTS

Scajaquada Creek Sediment Remediation

National Fuel Gas Distribution Corp.

RETEC Project # 3-2111-650

Parameter	Limit	Units	06/23/98				08/11/98			08/12/98		
			MHF-S	LANZA	SW-E	BC	TTG	EXP	MHF-S	TTG	EXP	SW-E
ACENAPHTHENE	Total PAHs : 0.100 mg/m3 (Naphthalene only : 50 mg/m3)	mg/m3	0	0	0	0	0	0	0	0	0	0
ACENAPHTHYLENE		mg/m3	0	0	0	0	0	0	0.0006	0	0	0
ANTHRACENE		mg/m3	0	0	0	0	0	0	0.0004	0	0	0
BENZO(a)ANTHRACENE		mg/m3	0	0	0	0	0	0	0	0	0	0
BENZO(a)PYRENE		mg/m3	0	0	0	0	0	0	0	0	0	0
BENZO(b)FLUORANTHENE		mg/m3	0	0	0	0	0	0	0	0	0	0
BENZO(e)PYRENE		mg/m3	0	0	0	0	0	0	0	0	0	0
BENZO(ghi)PERYLENE		mg/m3	0	0	0	0	0	0	0	0	0	0
BENZO(k)FLUORANTHENE		mg/m3	0	0	0	0	0	0	0	0	0	0
CHRYSENE		mg/m3	0	0	0	0	0	0	0.0003	0	0	0
DIBENZO(a,h)ANTHRACENE		mg/m3	0	0	0	0	0	0	0	0	0	0
FLUORANTHENE		mg/m3	0	0	0	0	0	0	0.0003	0	0	0
FLUORENE		mg/m3	0	0	0	0	0	0	0.001	0	0	0.0004
INDENO(123-cd)PYRENE		mg/m3	0	0	0	0	0	0	0	0	0	0
NAPHTHALENE		mg/m3	0	0	0	0	0	0	0.0004	0	0	0
PHENANTHRENE		mg/m3	0	0	0	0	0	0	0.004	0	0	0.0004
PYRENE		mg/m3	0.0008	0.0009	0.0006	0	0	0	0.001	0	0	0
BENZENE	0.10	ppm	0	0	0	0	0	0	0	0	0	0
ETHYL BENZENE	100.0	ppm	0	0	0	0	0	0	0	0	0	0
TOLUENE	50.0	ppm	0	0	0	0	0	0	0	0	0	0
XYLENE	100.0	ppm	0	0	0	0	0	0	0	0	0	0
TOTAL DUST	0.15	mg/m3	0	0.16	0	0	0.066	0	0.078	0	0	0.05

SITE PERIMETER AIR SAMPLING RESULTS

Scajaquada Creek Sediment Remediation

National Fuel Gas Distribution Corp.

RETEC Project # 3-2111-650

Parameter	Limit	Units	08/13/98			08/14/98				08/15/98		
			TTG	MHF-S	EXP	EXP	TTG	RIVER	MHF-S	MHF-S	BC	TTG
ACENAPHTHENE	Total PAHs : 0.100 mg/m3 (Naphthalene only : 50 mg/m3)	mg/m3	0	0	0	0	0	0	0	0	0	0
ACENAPHTHYLENE		mg/m3	0	0	0	0	0	0	0	0	0	0
ANTHRACENE		mg/m3	0	0	0	0	0	0	0	0	0	0
BENZO(a)ANTHRACENE		mg/m3	0.0006	0.0009	0	0	0.0006	0.0005	0.0004	0	0	0
BENZO(a)PYRENE		mg/m3	0	0	0	0	0	0	0	0	0	0
BENZO(b)FLUORANTHENE		mg/m3	0	0	0	0	0	0	0	0	0	0
BENZO(e)PYRENE		mg/m3	0	0	0	0	0	0	0	0	0	0
BENZO(ghi)PERYLENE		mg/m3	0	0	0	0	0	0	0	0	0	0
BENZO(k)FLUORANTHENE		mg/m3	0	0	0	0	0	0	0	0	0	0
CHRYSENE		mg/m3	0	0	0	0	0	0	0	0	0	0
DIBENZO(a,h)ANTHRACENE		mg/m3	0	0	0	0	0	0	0	0	0	0
FLUORANTHENE		mg/m3	0	0	0	0	0	0	0	0	0	0
FLUORENE		mg/m3	0	0.0009	0	0	0	0	0	0	0	0
INDENO(123-cd)PYRENE		mg/m3	0	0	0	0	0	0	0	0	0	0
NAPHTHALENE		mg/m3	0	0	0	0	0	0	0	0	0	0
PHENANTHRENE		mg/m3	0	0.002	0	0	0	0	0	0	0	0
PYRENE		mg/m3	0	0.0006	0	0	0.0005	0	0	0	0	0
BENZENE	0.10	ppm	0	0	0	0	0	0	0	0	0	0
ETHYL BENZENE	100.0	ppm	0	0	0	0	0	0	0	0	0	0
TOLUENE	50.0	ppm	0	0	0	0	0	0	0	0	0	0
XYLENE	100.0	ppm	0	0	0	0	0	0	0	0	0	0
TOTAL DUST	0.15	mg/m3	0.1	0	0.12	0.098	0.091	0	0.13	0	0.15	0

SITE PERIMETER AIR SAMPLING RESULTS

Scajaquada Creek Sediment Remediation

National Fuel Gas Distribution Corp.

RETEC Project # 3-2111-650

Parameter	Limit	Units	08/17/98			08/18/98			08/19/98			08/20/98
			BC	MHF-S	TTG	EXP	MHF-S	SW-NW	BC	MHF-S	SW-NW	MHF-S
ACENAPHTHENE	Total PAHs : 0.100 mg/m3 (Naphthalene only : 50 mg/m3)	mg/m3	0	0	0	0	0	0	0	0	0	0
ACENAPHTHYLENE		mg/m3	0	0	0	0	0	0	0	0	0	0
ANTHRACENE		mg/m3	0	0	0	0	0	0	0	0	0	0
BENZO(a)ANTHRACENE		mg/m3	0	0.0005	0	0.0004	0	0	0.0004	0.0005	0.0004	0
BENZO(a)PYRENE		mg/m3	0	0	0	0	0	0	0	0	0	0
BENZO(b)FLUORANTHENE		mg/m3	0	0	0	0	0	0	0	0	0	0
BENZO(e)PYRENE		mg/m3	0	0	0	0	0	0	0	0	0	0
BENZO(ghi)PERYLENE		mg/m3	0	0	0	0	0	0	0	0	0	0
BENZO(k)FLUORANTHENE		mg/m3	0	0	0	0	0	0	0	0	0	0
CHRYSENE		mg/m3	0	0	0	0	0	0	0	0	0	0
DIBENZO(a,h)ANTHRACENE		mg/m3	0	0	0	0	0	0	0	0	0	0
FLUORANTHENE		mg/m3	0	0	0	0	0	0	0	0	0	0
FLUORENE		mg/m3	0	0	0	0	0	0	0	0	0	0
INDENO(123-cd)PYRENE		mg/m3	0	0	0	0	0	0	0	0	0	0
NAPHTHALENE		mg/m3	0	0	0	0	0	0	0	0	0	0
PHENANTHRENE		mg/m3	0	0	0	0	0	0	0	0.0008	0	0
PYRENE		mg/m3	0	0	0	0	0	0	0	0	0	0
BENZENE	0.10	ppm	0	0	0	0	0	0	0	0	0	0
ETHYL BENZENE	100.0	ppm	0	0	0	0	0	0	0	0	0	0
TOLUENE	50.0	ppm	0	0	0	0	0	0	0	0	0	0
XYLENE	100.0	ppm	0	0	0	0	0	0	0	0	0	0
TOTAL DUST	0.15	mg/m3	0.16	0.12	0.13	0.069	0	0	0.063	0.067	0	0

SITE PERIMETER AIR SAMPLING RESULTS

Scajaquada Creek Sediment Remediation

National Fuel Gas Distribution Corp.

RETEC Project # 3-2111-650

Parameter	Limit	Units	08/21/98					08/24/98		08/25/98		08/26/98
			EXP	SW-NW	Fedco	MHF-S	SW-E	MHF-S	SW-NW	MHF-S	MHF-N	MHF-N
ACENAPHTHENE	Total PAHs : 0.100 mg/m3 (Naphthalene only : 50 mg/m3)	mg/m3	0	0	0	0	0	0	0	0	0	0
ACENAPHTHYLENE		mg/m3	0	0	0	0	0	0	0	0	0	0
ANTHRACENE		mg/m3	0	0	0	0	0	0	0	0	0	0
BENZO(a)ANTHRACENE		mg/m3	0	0	0	0	0	0	0	0	0	0
BENZO(a)PYRENE		mg/m3	0	0	0	0	0	0	0	0	0	0
BENZO(b)FLUORANTHENE		mg/m3	0	0	0	0	0	0	0	0	0	0
BENZO(e)PYRENE		mg/m3	0	0	0	0	0	0	0	0	0	0
BENZO(ghi)PERYLENE		mg/m3	0	0	0	0	0	0	0	0	0	0
BENZO(k)FLUORANTHENE		mg/m3	0	0	0	0	0	0	0	0	0	0
CHRYSENE		mg/m3	0	0	0	0	0	0	0	0	0	0
DIBENZO(a,h)ANTHRACENE		mg/m3	0	0	0	0	0	0	0	0	0	0
FLUORANTHENE		mg/m3	0	0	0	0	0	0	0	0	0	0
FLUORENE		mg/m3	0	0	0	0	0	0	0	0	0	0
INDENO(123-cd)PYRENE		mg/m3	0	0	0	0	0	0	0	0	0	0
NAPHTHALENE		mg/m3	0	0	0	0	0	0	0	0	0	0
PHENANTHRENE		mg/m3	0	0	0	0.0005	0	0	0	0	0	0
PYRENE		mg/m3	0	0	0	0	0	0	0	0	0	0
BENZENE	0.10	ppm	0	0	0	0	0	0	0	0	0	0
ETHYL BENZENE	100.0	ppm	0	0	0	0	0	0	0	0	0	0
TOLUENE	50.0	ppm	0	0	0	0	0	0	0	0	0	0
XYLENE	100.0	ppm	0	0	0	0	0	0	0	0	0	0
TOTAL DUST	0.15	mg/m3	0.44	0.13	0.072	0.12	0.18	0.1	0.098	0	0	0

SITE PERIMETER AIR SAMPLING RESULTS

Scajaquada Creek Sediment Remediation

National Fuel Gas Distribution Corp.

RETEC Project # 3-2111-650

Parameter	Limit	Units	08/27/98			08/28/98					08/29/98	
			MHF-S	EXP	LANZA	MHF-S	MHF-S	EXP	RIVER	LANZA	MHF-S	LANZA
ACENAPHTHENE	Total PAHs : 0.100 mg/m3 (Naphthalene only : 50 mg/m3)	mg/m3	0	0	0	0	0	0	0	0	0	0
ACENAPHTHYLENE		mg/m3	0	0	0	0	0	0	0	0	0	0
ANTHRACENE		mg/m3	0	0	0	0	0	0	0	0	0	0
BENZO(a)ANTHRACENE		mg/m3	0	0	0	0	0	0	0	0	0	0
BENZO(a)PYRENE		mg/m3	0	0	0	0	0	0	0	0	0	0
BENZO(b)FLUORANTHENE		mg/m3	0	0	0	0	0	0	0	0	0	0
BENZO(e)PYRENE		mg/m3	0	0	0	0	0	0	0	0	0	0
BENZO(ghi)PERYLENE		mg/m3	0	0	0	0	0	0	0	0	0	0
BENZO(k)FLUORANTHENE		mg/m3	0	0	0	0	0	0	0	0	0	0
CHRYSENE		mg/m3	0	0	0	0	0	0	0	0	0	0
DIBENZO(a,h)ANTHRACENE		mg/m3	0	0	0	0	0	0	0	0	0	0
FLUORANTHENE		mg/m3	0	0	0	0.0003	0	0	0	0	0	0
FLUORENE		mg/m3	0	0	0	0.0004	0	0	0	0	0.0006	0
INDENO(123-cd)PYRENE		mg/m3	0	0	0	0	0	0	0	0	0	0
NAPHTHALENE		mg/m3	0	0	0	0	0	0	0	0	0	0
PHENANTHRENE		mg/m3	0	0	0	0.001	0	0	0	0	0	0
PYRENE		mg/m3	0	0	0	0	0	0	0	0	0	0
BENZENE	0.10	ppm	0	0	0	0	0	0	0	0	0	0
ETHYL BENZENE	100.0	ppm	0	0	0	0	0	0	0	0	0	0
TOLUENE	50.0	ppm	0	0	0.01	0	0	0	0	0.03	0	0
XYLENE	100.0	ppm	0	0	0	0	0	0	0	0	0	0
TOTAL DUST	0.15	mg/m3	0.13	0	0.16	0.069	0.078	0	0	0.18	0	0.11

SITE PERIMETER AIR SAMPLING RESULTS

Scajaquada Creek Sediment Remediation

National Fuel Gas Distribution Corp.

RETEC Project # 3-2111-650

Parameter	Limit	Units	08/31/98				09/01/98		09/02/98			09/03/98
			MHF-N	LANZA	MHF-S	BC	MHF-S	SW-NW	MHF-S	EXP	SW-NW	MHF-S
ACENAPHTHENE	Total PAHs : 0.100 mg/m3 (Naphthalene only : 50 mg/m3)	mg/m3	0	0	0	0	0	0	0	0	0	0
ACENAPHTHYLENE		mg/m3	0	0	0	0	0	0	0.0004	***0.0103***	0	0
ANTHRACENE		mg/m3	0	0	0	0	0	0	0	0	0	0
BENZO(a)ANTHRACENE		mg/m3	0	0	0	0	0	0	0	0	0	0
BENZO(a)PYRENE		mg/m3	0	0	0	0	0	0	0	0	0	0
BENZO(b)FLUORANTHENE		mg/m3	0	0	0	0	0	0	0	0	0	0
BENZO(e)PYRENE		mg/m3	0	0	0	0	0	0	0	0	0	0
BENZO(ghi)PERYLENE		mg/m3	0	0	0	0	0	0	0	0	0	0
BENZO(k)FLUORANTHENE		mg/m3	0	0	0	0	0	0	0	0	0	0
CHRYSENE		mg/m3	0	0	0	0	0	0	0	0	0	0
DIBENZO(a,h)ANTHRACENE		mg/m3	0	0	0	0	0	0	0	0	0	0
FLUORANTHENE		mg/m3	0	0	0	0	0	0	0	0	0	0
FLUORENE		mg/m3	0	0	0	0	0	0	0	0.0008	0	0
INDENO(123-cd)PYRENE		mg/m3	0	0	0	0	0	0	0	0	0	0
NAPHTHALENE		mg/m3	0	0	0	0	0	0	0	***0.0162***	0	0
PHENANTHRENE		mg/m3	0	0	0.0003	0	0	0	0.0005	0.0006	0	0
PYRENE		mg/m3	0	0	0	0	0	0	0	0	0	0
BENZENE	0.10	ppm	0	0	0	0	0	0	0	0	0	0
ETHYL BENZENE	100.0	ppm	0	0	0	0	0	0	0	0	0	0
TOLUENE	50.0	ppm	0	0	0	0	0	0	0	0	0	0
XYLENE	100.0	ppm	0	0	0	0	0	0	0	0	0	0
TOTAL DUST	0.15	mg/m3	0	0.083	0.15	0.058	0.094	0.058	0.1	0.076	0.059	0

SITE PERIMETER AIR SAMPLING RESULTS

Scajaquada Creek Sediment Remediation

National Fuel Gas Distribution Corp.

RETEC Project # 3-2111-650

Parameter	Limit	Units	09/04/98				09/05/98			09/08/98		
			SW-NW	EXP	LANZA	MHF-S	MHF-S	SW-NW	EXP	LANZA	EXP	MHF-S
ACENAPHTHENE		mg/m3	0	0	0	0	0	0	0	0	0	0
ACENAPHTHYLENE		mg/m3	0	0	0	***0.0014***	0	0.0024	0	0	0	0
ANTHRACENE		mg/m3	0	0	0	0	0	0	0	0	***0.0005***	0
BENZO(a)ANTHRACENE		mg/m3	0	0	0	0	0	0	0	0	***0.01***	0
BENZO(a)PYRENE		mg/m3	0	0	0	0	0	0	0	0	0	0
BENZO(b)FLUORANTHENE		mg/m3	0	0	0	0	0	0	0	0	0.003	0
BENZO(e)PYRENE		mg/m3	0	0	0	0	0	0	0	0	***0.01***	0
BENZO(ghi)PERYLENE		mg/m3	0	0	0	0	0	0	0	0	0.01	0
BENZO(k)FLUORANTHENE		mg/m3	0	0	0	0	0	0	0	0	0.002	0
CHRYSENE		mg/m3	0	0	0	0	0	0	0	0	***0.004***	0
DIBENZO(a,h)ANTHRACENE		mg/m3	0	0	0	0	0	0	0	0	0.007	0
FLUORANTHENE		mg/m3	0	0	0	0	0	0	0	0	***0.02***	0
FLUORENE		mg/m3	0	0	0	0.0005	0	0	0.004	0	***0.02***	0
INDENO(123-cd)PYRENE		mg/m3	0	0	0	0	0	0	0	0	0	0
NAPHTHALENE	Total PAHs : 0.100 mg/m3 (Naphthalene only : 50 mg/m3)	mg/m3	0	0	0	0.0006	0	***0.0059***	0	0	0	0
PHENANTHRENE		mg/m3	0	0	0	0.0007	0	0	0	0	***0.002***	0
PYRENE	-	mg/m3	0	0	0	0	0	0	0.003	0	***0.01***	0.003
BENZENE	0.10	ppm	0	0	0	0	0	0	0.01	0	0	0
ETHYL BENZENE	100.0	ppm	0	0	0	0	0	0	0.01	0	0	0
TOLUENE	50.0	ppm	0	0	0	0	0	0	0	0	0	0
XYLENE	100.0	ppm	0	0	0	0	0	0	0	0	0	0
TOTAL DUST	0.15	mg/m3	0.08	0	0	0.11	0	0	0	0	0	0

SITE PERIMETER AIR SAMPLING RESULTS

Scajaquada Creek Sediment Remediation

National Fuel Gas Distribution Corp.

RETEC Project # 3-2111-650

Parameter	Limit	Units	09/09/98			09/10/98				09/11/98		
			EXP	MHF-S	SW-NW	MHF-N	LANZA	MHF-S	Fedco	MHF-S	LANZA	MHF-N
ACENAPHTHENE	Total PAHs : 0.100 mg/m3 (Naphthalene only : 50 mg/m3)	mg/m3	0	0	0	0	0	0	0	0	0	0
ACENAPHTHYLENE		mg/m3	0.0008	***0.0021***	0	0	0.0005	0	0.0009	0	0.0008	***0.0066***
ANTHRACENE		mg/m3	0	0	0	0	0	0	0	0	0	0
BENZO(a)ANTHRACENE		mg/m3	0	0	0	0	0	***0.02***	0	0	0	0
BENZO(a)PYRENE		mg/m3	0	0	0	0	0	***0.004***	0	0	0	0
BENZO(b)FLUORANTHENE		mg/m3	0	0	0	0	0	0.007	0	0	0	0
BENZO(e)PYRENE		mg/m3	0	0	0	0	0	***0.007***	0	0	0	0
BENZO(ghi)PERYLENE		mg/m3	0	0	0	0	0	0	0	0	0	0
BENZO(k)FLUORANTHENE		mg/m3	0	0	0	0	0	***0.003***	0	0	0	0
CHRYSENE		mg/m3	0	0	0	0	0	0	0	0	0	0
DIBENZO(a,h)ANTHRACENE		mg/m3	0	0	0	0	0	0.01	0	0	0	0
FLUORANTHENE		mg/m3	0	0	0	0	0	0	0	0	0	0
FLUORENE		mg/m3	0	0	0	0	0	0.005	0	0	0	0
INDENO(123-cd)PYRENE		mg/m3	0	0	0	0	0	0.003	0	0	0	0
NAPHTHALENE		mg/m3	0.0008	***0.0022***	0.0006	0	0	***0.0035***	0.0009	0	***0.0022***	0
PHENANTHRENE		mg/m3	0	0.0003	0	0	0	0.002	0	0	0	0
PYRENE		mg/m3	0	0	0	0	0	0.01	0	0	0	0
BENZENE	0.10	ppm	0	0	0	0	0	0	0	0	0	0
ETHYL BENZENE	100.0	ppm	0	0	0	0	0	0	0	0	0	0
TOLUENE	50.0	ppm	0	0	0	0	0	0	0	0	0	0
XYLENE	100.0	ppm	0	0	0	0	0	0	0	0	0	0
TOTAL DUST	0.15	mg/m3	0	0.19	0	0	0	0	0	0	0.15	0.12

SITE PERIMETER AIR SAMPLING RESULTS

Scajaquada Creek Sediment Remediation

National Fuel Gas Distribution Corp.

RETEC Project # 3-2111-650

Parameter	Limit	Units	09/12/98			09/14/98			09/15/98			
			MHF-S	MHF-N	EXP	MHF-S	WWS	SW-NW	BC	LANZA	SW-NW	MHF-S
ACENAPHTHENE	Total PAHs : 0.100 mg/m3 (Naphthalene only : 50 mg/m3)	mg/m3	0	0	0	0	0	0	0	0	0	0
ACENAPHTHYLENE		mg/m3	0.0011	***0.0016***	***0.0069***	0.0006	0.0008	***0.0049***	***0.0092***	***0.0021***	***0.0056***	***0.0018***
ANTHRACENE		mg/m3	0	0	0	0	0	0	0	0	0	0
BENZO(a)ANTHRACENE		mg/m3	0	0	0	0	0	0	0	0	0	0
BENZO(a)PYRENE		mg/m3	0	0	0	0	0	0	0	0	0	0
BENZO(b)FLUORANTHENE		mg/m3	0	0	0	0	0	0	0	0	0	0
BENZO(e)PYRENE		mg/m3	0	0	0	0	0	0	0	0	0	0
BENZO(ghi)PERYLENE		mg/m3	0	0	0	0	0	0	0	0	0	0
BENZO(k)FLUORANTHENE		mg/m3	0	0	0	0	0	0	0	0	0	0
CHRYSENE		mg/m3	0	0	0	0	0	0	0	0	0	0
DIBENZO(a,h)ANTHRACENE		mg/m3	0	0	0	0	0	0	0	0	0	0
FLUORANTHENE		mg/m3	0	0	0	0	0	0	0	0	0	0
FLUORENE		mg/m3	0	0	0.0007	0	0	0.0003	0.0008	0	0	0.0004
INDENO(123-cd)PYRENE		mg/m3	0	0	0	0	0	0	0	0	0	0
NAPHTHALENE		mg/m3	***0.0037***	***0.0031***	***0.0118***	0.0006	0.0007	***0.0058***	***0.0085***	***0.0019***	***0.0036***	***0.0018***
PHENANTHRENE		mg/m3	0	0	0	0	0	0	0	0	0	0.0004
PYRENE		mg/m3	0	0	0	0	0	0	0	0	0	0
BENZENE	0.10	ppm	0	0	0	0	0	0	0	0	0	0
ETHYL BENZENE	100.0	ppm	0	0	0	0	0	0	0	0	0	0
TOLUENE	50.0	ppm	0	0	0	0	0	0	0.009	0.006	0.006	0
XYLENE	100.0	ppm	0	0	0	0	0	0	0	0	0	0
TOTAL DUST	0.15	mg/m3	0	0	0.19	0.086	0.085	0.12	0.31	0.39	0.22	0.096

SITE PERIMETER AIR SAMPLING RESULTS

Scajaquada Creek Sediment Remediation

National Fuel Gas Distribution Corp.

RETEC Project # 3-2111-650

Parameter	Limit	Units	09/16/98				09/17/98				09/18/98	
			EXP	WWS	LANZA	MHF-S	LANZA	MHF-S	EXP	SW-NW	SW-NW	MHF-S
ACENAPHTHENE	Total PAHs : 0.100 mg/m3 (Naphthalene only : 50 mg/m3)	mg/m3	0	0	0	0	0	0	0	0	0	0
ACENAPHTHYLENE		mg/m3	0	0	0	***0.0082***	0.0005	***0.0376***	0	***0.0024***	***0.0019***	***0.0028***
ANTHRACENE		mg/m3	0	0	0	0	0	0.0006	0	0	0	0
BENZO(a)ANTHRACENE		mg/m3	0	0	0	0	0	0	0	0	0	0
BENZO(a)PYRENE		mg/m3	0	0	0	0	0	0	0	0	0	0
BENZO(b)FLUORANTHENE		mg/m3	0	0	0	0	0	0	0	0	0	0
BENZO(e)PYRENE		mg/m3	0	0	0	0	0	0	0	0	0	0
BENZO(ghi)PERYLENE		mg/m3	0	0	0	0	0	0	0	0	0	0
BENZO(k)FLUORANTHENE		mg/m3	0	0	0	0	0	0	0	0	0	0
CHRYSENE		mg/m3	0	0	0	0	0	0	0	0	0	0
DIBENZO(a,h)ANTHRACENE		mg/m3	0	0	0	0	0	0	0	0	0	0
FLUORANTHENE		mg/m3	0	0	0	0	0	0.002	0	0	0	0
FLUORENE		mg/m3	0	0	0	0	0	0.003	0	0	0	0.0004
INDENO(123-cd)PYRENE		mg/m3	0	0	0	0	0	0	0	0	0	0
NAPHTHALENE		mg/m3	0	0	0	***0.0122***	0.0006	***0.0713***	0	0.0017	***0.0024***	***0.0053***
PHENANTHRENE		mg/m3	0	0	0	0	0	0.003	0	0	0	0.003
PYRENE		mg/m3	0	0	0	0	0	0.002	0	0	0	0
BENZENE	0.10	ppm	0	0	0	0	0	0.02	0	0	0	0
ETHYL BENZENE	100.0	ppm	0	0	0	0	0	0.03	0	0	0	0
TOLUENE	50.0	ppm	0	0	0	0	0.009	0	0	0.006	0	0
XYLENE	100.0	ppm	0	0	0	0	0	0.36	0	0	0	0
TOTAL DUST	0.15	mg/m3	0	0	0	0	0	0	0	0.047	0	0

SITE PERIMETER AIR SAMPLING RESULTS

Scajaquada Creek Sediment Remediation

National Fuel Gas Distribution Corp.

RETEC Project # 3-2111-650

Parameter	Limit	Units	09/19/98				09/21/98					09/22/98
			EXP	SW-NW	TTG	MHF-S	SW-NW	MHF-S	RIVER	LANZA	EXP	SW-NW
ACENAPHTHENE	Total PAHs : 0.100 mg/m3 (Naphthalene only : 50 mg/m3)	mg/m3	0	0	0	0	0	0	0	0	0	0
ACENAPHTHYLENE		mg/m3	***0.0178***	0.001	0.0004	0.0005	0.0007	0	0	0	***0.0047***	0
ANTHRACENE		mg/m3	0	0	0	0	0	0	0	0	0	0
BENZO(a)ANTHRACENE		mg/m3	0	0	0	0	0	0	0	0	0	0
BENZO(a)PYRENE		mg/m3	0	0	0	0	0	0	0	0	0	0
BENZO(b)FLUORANTHENE		mg/m3	0	0	0	0	0	0	0	0	0	0
BENZO(e)PYRENE		mg/m3	0	0	0	0	0	0	0	0	0	0
BENZO(ghi)PERYLENE		mg/m3	0	0	0	0	0	0	0	0	0	0
BENZO(k)FLUORANTHENE		mg/m3	0	0	0	0	0	0	0	0	0	0
CHRYSENE		mg/m3	0	0	0	0	0	0	0	0	0	0
DIBENZO(a,h)ANTHRACENE		mg/m3	0	0	0	0	0	0	0	0	0	0
FLUORANTHENE		mg/m3	0	0	0	0	0	0	0	0	0	0.0004
FLUORENE		mg/m3	0.001	0	0	0	0	0	0	0	0	0
INDENO(123-cd)PYRENE		mg/m3	0	0	0	0	0	0	0	0	0	0
NAPHTHALENE		mg/m3	***0.0125***	0.0016	***0.0016***	0.0021	***0.0021***	0	0	0	***0.0084***	0
PHENANTHRENE		mg/m3	0	0	0	0	0	0	0	0	0	0
PYRENE		mg/m3	0	0	0	0	0	0	***0.002***	0	0	0
BENZENE	0.10	ppm	0.01	0	0	0	0	0	0	0	0	0
ETHYL BENZENE	100.0	ppm	0.02	0	0	0	0	0	0	0	0	0
TOLUENE	50.0	ppm	0.02	0	0	0	0	0	0	0	0	0.01
XYLENE	100.0	ppm	0.01	0	0	0	0	0	0	0	0	0
TOTAL DUST	0.15	mg/m3	0	0.068	0.18	0	0.12	0	0	0.091	0.27	0

SITE PERIMETER AIR SAMPLING RESULTS

Scajaquada Creek Sediment Remediation

National Fuel Gas Distribution Corp.

RETEC Project # 3-2111-650

Parameter	Limit	Units	09/23/98							09/24/98		
			MHF-S	EXP	WWS	EXP	LANZA	MHF-S	WWS	MHF-S	WWS	TTG
ACENAPHTHENE	Total PAHs : 0.100 mg/m3 (Naphthalene only : 50 mg/m3)	mg/m3	0	0	0	0	0	0	0	0	0	0
ACENAPHTHYLENE		mg/m3	***0.0377***	0	***0.009***	***0.0037***	0	***0.0056***	***0.0043***	0.0004	0	0.0006
ANTHRACENE		mg/m3	0	0	0	0	0	0	0	0	0	0
BENZO(a)ANTHRACENE		mg/m3	0	0	0	0	0	0	0	0	0	0
BENZO(a)PYRENE		mg/m3	0	0	0	0	0	0	0	0	0	0
BENZO(b)FLUORANTHENE		mg/m3	0	0	0	0	0	0	0	0	0	0
BENZO(e)PYRENE		mg/m3	0	0	0	0	0	0	0	0	0	0
BENZO(ghi)PERYLENE		mg/m3	0	0	0	0	0	0	0	0	0	0
BENZO(k)FLUORANTHENE		mg/m3	0	0	0	0	0	0	0	0	0	0
CHRYSENE		mg/m3	0	0	0	0	0	0	0	0	0	0
DIBENZO(a,h)ANTHRACENE		mg/m3	0	0	0	0	0	0	0	0	0	0
FLUORANTHENE		mg/m3	0	0	0	0	0	0.0003	0	0.0009	***0.001***	***0.002***
FLUORENE		mg/m3	0.002	0	0.0007	0	0	***0.002***	0.0003	0	0	0
INDENO(123-cd)PYRENE		mg/m3	0	0	0	0	0	0	0	0	0	0
NAPHTHALENE		mg/m3	***0.0537***	0	***0.0126***	***0.0051***	0	***0.0101***	***0.0071***	0	0	0.0013
PHENANTHRENE		mg/m3	0.0007	0	0	0	0	0.0005	0	0	0	0
PYRENE		mg/m3	0	0	0	0	0	0	0	0	0	0
BENZENE	0.10	ppm	0.01	0	0	0	0	0	0	0	0	0
ETHYL BENZENE	100.0	ppm	0.02	0	0	0	0	0	0	0	0	0
TOLUENE	50.0	ppm	0	0	0	0	0	0	0	0	0	0
XYLENE	100.0	ppm	0.01	0	0	0	0	0	0	0	0	0
TOTAL DUST	0.15	mg/m3	0.079	0	0.06	0	0	0	0	0.087	0.044	0.047

SITE PERIMETER AIR SAMPLING RESULTS

Scajaquada Creek Sediment Remediation

National Fuel Gas Distribution Corp.

RETEC Project # 3-2111-650

Parameter	Limit	Units	09/25/98				09/26/98			09/27/98		09/28/98
			SW-NW	MHF-S	EXP	TTG	MHF-S	EXP	TTG	EXP	SW-NW	TTG
ACENAPHTHENE	Total PAHs : 0.100 mg/m3 (Naphthalene only : 50 mg/m3)	mg/m3	0	0	0	0	0	0	0	0	0	0
ACENAPHTHYLENE		mg/m3	0.0006	0	***0.0032***	0	0	***0.0052***	0	***0.0021***	0	0
ANTHRACENE		mg/m3	0	0	0	0	0	0	0	0	0	0
BENZO(a)ANTHRACENE		mg/m3	0	0	0	0	0	0	0	0	0	0
BENZO(a)PYRENE		mg/m3	0	0	0	0	0	0	0	0	0	0
BENZO(b)FLUORANTHENE		mg/m3	0	0	0	0	0	0	0	0	0	0
BENZO(e)PYRENE		mg/m3	0	0	0	0	0	0	0	0	0	0
BENZO(ghi)PERYLENE		mg/m3	0	0	0	0	0	0	0	0	0	0
BENZO(k)FLUORANTHENE		mg/m3	0	0	0	0	0	0	0	0	0	0
CHRYSENE		mg/m3	0	0	0	0	0	0	0	0	0	0
DIBENZO(a,h)ANTHRACENE		mg/m3	0	0	0	0	0	0	0	0	0	0
FLUORANTHENE		mg/m3	***0.001***	0	0	0	0	0	0	0	0	0
FLUORENE		mg/m3	0	0	0.0004	0	0	0.001	0	0.0009	0	0
INDENO(123-cd)PYRENE		mg/m3	0	0	0	0	0	0	0	0	0	0
NAPHTHALENE		mg/m3	0.0019	0	***0.0049***	0	0	***0.012***	0	***0.0056***	0	0
PHENANTHRENE		mg/m3	0	0	0	0	0	0	0	0	0	0
PYRENE		mg/m3	0	0	0	0	0	0	0	0	0	0
BENZENE	0.10	ppm	0	0	0	0	0	0	0	0	0	0
ETHYL BENZENE	100.0	ppm	0	0	0	0	0	0	0	0	0	0
TOLUENE	50.0	ppm	0	0	0	0	0	0	0	0	0	0
XYLENE	100.0	ppm	0	0	0	0	0	0	0	0	0	0
TOTAL DUST	0.15	mg/m3	0	0	0.13	0.078	0	0.12	0.16	0.072	0	0

SITE PERIMETER AIR SAMPLING RESULTS

Scajaquada Creek Sediment Remediation

National Fuel Gas Distribution Corp.

RETEC Project # 3-2111-650

Parameter	Limit	Units	09/29/98					09/30/98			10/01/98	
			MHF-S	BC	MHF-S	BC	TTG	SW-NW	TTG	MHF-S	SW-NW	TTG
ACENAPHTHENE	Total PAHs : 0.100 mg/m3 (Naphthalene only : 50 mg/m3)	mg/m3	0	0	0	0	0	0	0	0	0	0
ACENAPHTHYLENE		mg/m3	***0.0071***	0	0	***0.0024***	0	0.0006	0	***0.0042***	0	0
ANTHRACENE		mg/m3	0	0	0	0	0	0	0	0	0	0
BENZO(a)ANTHRACENE		mg/m3	0	0	0	0	0	0	0	0	0	0
BENZO(a)PYRENE		mg/m3	0	0	0	0	0	0	0	0	0	0
BENZO(b)FLUORANTHENE		mg/m3	0	0	0	0	0	0	0	0	0	0
BENZO(e)PYRENE		mg/m3	0	0	0	0	0	0	0	0	0	0
BENZO(ghi)PERYLENE		mg/m3	0	0	0	0	0	0	0	0	0	0
BENZO(k)FLUORANTHENE		mg/m3	0	0	0	0	0	0	0	0	0	0
CHRYSENE		mg/m3	0	0	0	0	0	0	0	0	0	0
DIBENZO(a,h)ANTHRACENE		mg/m3	0	0	0	0	0	0	0	0	0	0
FLUORANTHENE		mg/m3	0	0	0	0	0	0	0	0.0004	0	0
FLUORENE		mg/m3	0	0	0	0	0	0	0	0.0006	0	0
INDENO(123-cd)PYRENE		mg/m3	0	0	0	0	0	0	0	0	0	0
NAPHTHALENE		mg/m3	***0.0129***	0	0	***0.004***	0	0.0016	0	***0.0084***	0.0008	0
PHENANTHRENE		mg/m3	0	0	0	0	0	0	0	0.0008	0	0
PYRENE		mg/m3	0	0	0	0	0	0	0	0	0	0
BENZENE	0.10	ppm	0	0	0	0	0	0	0	0	0	0
ETHYL BENZENE	100.0	ppm	0	0	0	0	0	0	0	0	0	0
TOLUENE	50.0	ppm	0	0	0	0	0	0	0	0	0	0
XYLENE	100.0	ppm	0	0	0	0	0	0	0	0	0	0
TOTAL DUST	0.15	mg/m3	0	0	0	0	0	0.056	0	0	0	0

SITE PERIMETER AIR SAMPLING RESULTS

Scajaquada Creek Sediment Remediation

National Fuel Gas Distribution Corp.

RETEC Project # 3-2111-650

Parameter	Limit	Units		10/02/98				10/03/98		10/05/98			10/06/98
			MHF-S	SW-NW	MHF-S	BC	WWS	MHF-S	SW-NW	WWS	MHF-S	MHF-S
ACENAPHTHENE	Total PAHs : 0.100 mg/m3 (Naphthalene only : 50 mg/m3)	mg/m3	0	0	0	0	0	0	0	0	0	0
ACENAPHTHYLENE		mg/m3	***0.0052***	0	***0.0103***	0.0005	***0.001***	***0.0036***	0	0	***0.0145***	***0.0046***
ANTHRACENE		mg/m3	0	0	0	0	0	0	0	0	0	0
BENZO(a)ANTHRACENE		mg/m3	0	0	0	0	0	0	0	0	0	0
BENZO(a)PYRENE		mg/m3	0	0	0	0	0	0	0	0	0	0
BENZO(b)FLUORANTHENE		mg/m3	0	0	0	0	0	0	0	0	0	0
BENZO(e)PYRENE		mg/m3	0	0	0	0	0	0	0	0	0	0
BENZO(ghi)PERYLENE		mg/m3	0	0	0	0	0	0	0	0	0	0
BENZO(k)FLUORANTHENE		mg/m3	0	0	0	0	0	0	0	0	0	0
CHRYSENE		mg/m3	0	0	0	0	0	0	0	0	0	0
DIBENZO(a,h)ANTHRACENE		mg/m3	0	0	0	0	0	0	0	0	0	0
FLUORANTHENE		mg/m3	0	0	0	0	0	0	0	0	0.0005	0
FLUORENE		mg/m3	0.0006	0	0.0008	0	0	0.0005	0	0	0.001	0
INDENO(123-cd)PYRENE		mg/m3	0	0	0	0	0	0	0	0	0	0
NAPHTHALENE		mg/m3	***0.0101***	0	***0.02***	0.0014	***0.003***	***0.0083***	0	0	***0.0271***	***0.0111***
PHENANTHRENE		mg/m3	0.0004	0	0.0005	0	0	0	0	0	0.0003	0
PYRENE		mg/m3	0	0	0	0	0	0	0	0	0.0008	0
BENZENE	0.10	ppm	0	0	0	0	0	0	0	0	0	0
ETHYL BENZENE	100.0	ppm	0	0	0	0	0	0	0	0	0.008	0
TOLUENE	50.0	ppm	0	0	0	0	0	0	0	0	0	0
XYLENE	100.0	ppm	0	0	0	0	0	0	0	0	0	0
TOTAL DUST	0.15	mg/m3	0	0	0	0	0	0	0	0	0	0

SITE PERIMETER AIR SAMPLING RESULTS

Scajaquada Creek Sediment Remediation

National Fuel Gas Distribution Corp.

RETEC Project # 3-2111-650

Parameter	Limit	Units	10/07/98			
			MHF-N	WWS	MHF-S	BC
ACENAPHTHENE	Total PAHs : 0.100 mg/m3 (Naphthalene only : 50 mg/m3)	mg/m3	0	0	0	0
ACENAPHTHYLENE		mg/m3	***0.007***	***0.0018***	0	***0.0045***
ANTHRACENE		mg/m3	0	0	0	0
BENZO(a)ANTHRACENE		mg/m3	0	0	0	0
BENZO(a)PYRENE		mg/m3	0	0	0	0
BENZO(b)FLUORANTHENE		mg/m3	0	0	0	0
BENZO(e)PYRENE		mg/m3	0	0	0	0
BENZO(ghi)PERYLENE		mg/m3	0	0	0	0
BENZO(k)FLUORANTHENE		mg/m3	0	0	0	0
CHRYSENE		mg/m3	0	0	0	0
DIBENZO(a,h)ANTHRACENE		mg/m3	0	0	0	0
FLUORANTHENE		mg/m3	0	0	0	0.0008
FLUORENE		mg/m3	0	0	0	0.0008
INDENO(123-cd)PYRENE		mg/m3	0	0	0	0
NAPHTHALENE		mg/m3	***0.015***	***0.0021***	0	***0.0089***
PHENANTHRENE		mg/m3	0	0	0	0
PYRENE		mg/m3	0	0	0	0
BENZENE	0.10	ppm	0	0	0	0
ETHYL BENZENE	100.0	ppm	0	0	0	0
TOLUENE	50.0	ppm	0	0	0	0
XYLENE	100.0	ppm	0	0	0	0
TOTAL DUST	0.15	mg/m3	0	0	0	0

SITE PERIMETER AIR SAMPLING RESULTS

Scajaquada Creek Sediment Remediation
National Fuel Gas Distribution Corp.
RETEC Project # 3-2111-650

Parameter	Limit	Units	10/08/98		10/09/98	10/12/98			10/13/98			10/14/98
			BC	MHF-S	MHF-S	WWS	MHF-S	SW-NW	MHF-S	SW-NW	BC	MHF-S
ACENAPHTHENE		mg/m3	0	0	0	0	0	0	0	0	0	0
ACENAPHTHYLENE		mg/m3	0	***0.0178***	***0.0164***	***0.002***	0.0155	0	0.0021	0	***0.0033***	***0.0327***
ANTHRACENE		mg/m3	0	0	0	0	0	0	0	0	0	0
BENZO(a)ANTHRACENE		mg/m3	0	0	0	0	0	0	0	0	0	0
BENZO(a)PYRENE		mg/m3	0	0	0	0	0	0	0	0	0	0
BENZO(b)FLUORANTHENE		mg/m3	0	0	0	0	0	0	0	0	0	0
BENZO(e)PYRENE		mg/m3	0	0	0	0	0	0	0	0	0	0
BENZO(ghi)PERYLENE		mg/m3	0	0	0	0	0	0	0	0	0	0
BENZO(k)FLUORANTHENE		mg/m3	0	0	0	0	0	0	0	0	0	0
CHRYSENE		mg/m3	0	0	0	0	0	0	0	0	0	0
DIBENZO(a,h)ANTHRACENE		mg/m3	0	0	0	0	0	0	0	0	0	0
FLUORANTHENE		mg/m3	0	0	0	0	0.0008	0	0	0	0	0
FLUORENE		mg/m3	0	0	0	0	0.002	0	0	0	0	***0.009***
INDENO(123-cd)PYRENE		mg/m3	0	0	0	0	0	0	0	0	0	0
NAPHTHALENE	Total PAHs : 0.100 mg/m3 (Naphthalene only : 50 mg/m3)	mg/m3	0	***0.024***	0.0137	***0.0036***	***0.0284***	0.001	***0.0058***	0.0008	***0.0088***	***0.0685***
PHENANTHRENE		mg/m3	0	0	0	0	0.001	0	0	0	0	0.0006
PYRENE		mg/m3	0	0	0	0	0	0	0	0	0	0
BENZENE	0.10	ppm	0	0	0	0	0	0	0	0	0	0.02
ETHYL BENZENE	100.0	ppm	0	0	0	0	0	0	0	0	0	0.03
TOLUENE	50.0	ppm	0	0	0	0	0	0	0	0	0	0
XYLENE	100.0	ppm	0	0	0	0	0	0	0	0	0	0.02
TOTAL DUST	5.0	mg/m3	0	0	0	0	0	0.069	0	0	0	0.081

SITE PERIMETER AIR SAMPLING RESULTS

Scajaquada Creek Sediment Remediation
National Fuel Gas Distribution Corp.
RETEC Project # 3-2111-650

Parameter	Limit	Units	10/15/98						10/16/98			10/17/98
			SW-NW	RIVER	WWS	MHF-S	SW-NW	WWS	MHF-S	SW-NW	WWS	MHF-S
ACENAPHTHENE	Total PAHs : 0.100 mg/m3 (Naphthalene only : 50 mg/m3)	mg/m3	0	0	0	0	0	0	0	0	0	0
ACENAPHTHYLENE		mg/m3	0	0	***0.0194***	***0.0147***	0	***0.0063***	0.001	0.0009	***0.0089***	0.0004
ANTHRACENE		mg/m3	0	0	0	0	0	0	0	0	0	0
BENZO(a)ANTHRACENE		mg/m3	0	0	0	0	0	0	0	0	0	0
BENZO(a)PYRENE		mg/m3	0	0	0	0	0	0	0	0	0	0
BENZO(b)FLUORANTHENE		mg/m3	0	0	0	0	0	0	0	0	0	0
BENZO(e)PYRENE		mg/m3	0	0	0	0	0	0	0	0	0	0
BENZO(ghi)PERYLENE		mg/m3	0	0	0	0	0	0	0	0	0	0
BENZO(k)FLUORANTHENE		mg/m3	0	0	0	0	0	0	0	0	0	0
CHRYSENE		mg/m3	0	0	0	0	0	0	0	0	0	0
DIBENZO(a,h)ANTHRACENE		mg/m3	0	0	0	0	0	0	0	0	0	0
FLUORANTHENE		mg/m3	0	0	0	0	0	0	0	0	0	0
FLUORENE		mg/m3	0	***0.009***	0.001	***0.008***	0	***0.007***	***0.007***	***0.008***	***0.008***	0.0003
INDENO(123-cd)PYRENE		mg/m3	0	0	0	0	0	0	0	0	0	0
NAPHTHALENE		mg/m3	0	0	***0.0351***	***0.03333***	0	***0.0181***	***0.0047***	***0.0055***	***0.0232***	0.0011
PHENANTHRENE		mg/m3	0	0	0	0	0	0	0	0	0	0
PYRENE		mg/m3	0	0	0	0	0	0	0	0	0	0
BENZENE	0.10	ppm	0	0	0.006	0	0	0	0	0	0	0
ETHYL BENZENE	100.0	ppm	0	0	0.01	0.01	0	0	0	0	0.007	0
TOLUENE	50.0	ppm	0	0	0	0	0	0	0	0	0	0
XYLENE	100.0	ppm	0	0	0.01	0	0	0	0	0	0	0
TOTAL DUST	5.0	mg/m3	0	0	0	0.084	0	0	0	0	0	0

SITE PERIMETER AIR SAMPLING RESULTS

Scajaquada Creek Sediment Remediation
National Fuel Gas Distribution Corp.
RETEC Project # 3-2111-650

Parameter	Limit	Units	10/19/98						10/20/98			10/21/98
			WWS	SW-NW	MHF-N	MHF-S	WWS	SW-NW	MHF-S	WWS	SW-NW	MHF-S
ACENAPHTHENE		mg/m3	0	0	0	0	0	0	0	0	0	0
ACENAPHTHYLENE		mg/m3	***0.005***	***0.0126***	***0.003***	***0.0036***	***0.0109***	***0.0014***	***0.0085***	0	***0.0131***	***0.1158***
ANTHRACENE		mg/m3	0	0	0	0	0	0	0	0	0	0.0006
BENZO(a)ANTHRACENE		mg/m3	0	0	0	0	0	0	0	0	0	0
BENZO(a)PYRENE		mg/m3	0	0	0	0	0	0	0	0	0	0
BENZO(b)FLUORANTHENE		mg/m3	0	0	0	0	0	0	0	0	0	0
BENZO(e)PYRENE		mg/m3	0	0	0	0	0	0	0	0	0	0
BENZO(ghi)PERYLENE		mg/m3	0	0	0	0	0	0	0	0	0	0
BENZO(k)FLUORANTHENE		mg/m3	0	0	0	0	0	0	0	0	0	0
CHRYSENE		mg/m3	0	0	0	0	0	0	0	0	0	0
DIBENZO(a,h)ANTHRACENE		mg/m3	0	0	0	0	0	0	0	0	0	0
FLUORANTHENE		mg/m3	0	0	0	0	0	0	0	0	0	0
FLUORENE		mg/m3	0.0005	0.0008	0.0005	0.0004	0.0006	0	0.0007	0.0008	0	***0.005***
INDENO(123-cd)PYRENE		mg/m3	0	0	0	0	0	0	0	0	0	0
NAPHTHALENE	Total PAHs : 0.100 mg/m3 (Naphthalene only : 50 mg/m3)	mg/m3	***0.0101***	***0.0284***	***0.009***	***0.0078***	***0.0222***	***0.0038***	***0.0204***	0	***0.0241***	***0.1817***
PHENANTHRENE		mg/m3	0	0	0	0	0	0	0.0006	0	0	0.0008
PYRENE		mg/m3	0	0	0.001	0	0	0	0	0	0	0.0006
BENZENE	0.10	ppm	0	0.01	0	0	0	0	0	0	0	0.05
ETHYL BENZENE	100.0	ppm	0	0.01	0	0	0.01	0	0	0	0.01	0.1
TOLUENE	50.0	ppm	0	0	0	0	0	0	0	0	0	0
XYLENE	100.0	ppm	0	0	0	0	0	0	0	0	0	0.07
TOTAL DUST	5.0	mg/m3	0	0.22	0.1	0	0	0	0.17	0	0.13	0.12

SITE PERIMETER AIR SAMPLING RESULTS

Scajaquada Creek Sediment Remediation
National Fuel Gas Distribution Corp.
RETEC Project # 3-2111-650

Parameter	Limit	Units	10/22/98					10/23/98			10/24/98	
			WWS	SW-NW	MHF-S	WWS	SW-E	MHF-S	WWS	SW-E	MHF-S	SW-NW
ACENAPHTHENE		mg/m3	0	0	0	0	0	0	0	0	0	0
ACENAPHTHYLENE		mg/m3	0.0135	0	***0.0275***	***0.0021***	***0.0026***	***0.0022***	***0.0065***	0.0004	0	0.0005
ANTHRACENE		mg/m3	0	0	0	0	0	0	0	0	0	0
BENZO(a)ANTHRACENE		mg/m3	0	0	0	0	0	0	0	0	0	0
BENZO(a)PYRENE		mg/m3	0	0	0	0	0	0	0	0	0	0
BENZO(b)FLUORANTHENE		mg/m3	0	0	0	0	0	0	0	0	0	0
BENZO(e)PYRENE		mg/m3	0	0	0	0	0	0	0	0	0	0
BENZO(ghi)PERYLENE		mg/m3	0	0	0	0	0	0	0	0	0	0
BENZO(k)FLUORANTHENE		mg/m3	0	0	0	0	0	0	0	0	0	0
CHRYSENE		mg/m3	0	0	0	0	0	0	0	0	0	0
DIBENZO(a,h)ANTHRACENE		mg/m3	0	0	0	0	0	0	0	0	0	0
FLUORANTHENE		mg/m3	0	0	0.0004	0	0	0	0	0	0	0
FLUORENE		mg/m3	0.001	0	0.001	0	0	0	0	0	0	0
INDENO(123-cd)PYRENE		mg/m3	0	0	0	0	0	0	0	0	0	0
NAPHTHALENE	Total PAHs : 0.100 mg/m3 (Naphthalene only : 50 mg/m3)	mg/m3	0.0212	0	***0.0471***	***0.0049***	***0.0054***	***0.0056***	***0.0115***	0.001	0.0006	***0.0025***
PHENANTHRENE		mg/m3	0	0	0.0006	0	0	0	0	0	0	0
PYRENE		mg/m3	0	0	0	0	0	0	0	0	0	0
BENZENE	0.10	ppm	0	0	0.009	0	0	0	0	0	0	0
ETHYL BENZENE	100.0	ppm	0.005	0	0.02	0	0	0	0	0	0	0
TOLUENE	50.0	ppm	0	0	0	0	0	0	0	0	0	0
XYLENE	100.0	ppm	0	0	0.01	0	0	0	0	0	0	0
TOTAL DUST	5.0	mg/m3	0.047	0	0.045	0	0.059	0.057	0.083	0	0	0

SITE PERIMETER AIR SAMPLING RESULTS

Scajaquada Creek Sediment Remediation
National Fuel Gas Distribution Corp.
RETEC Project # 3-2111-650

Parameter	Limit	Units	10/26/98				10/27/98				10/28/98	
			WWS	MHF-S	MHF-N	SW-NW	WWS	SW=NW	MHF-S	WWS	MHF-S	SW-NW
ACENAPHTHENE	Total PAHs : 0.100 mg/m3 (Naphthalene only : 50 mg/m3)	mg/m3	0	0	0	0	0	0	0	0	0	0
ACENAPHTHYLENE		mg/m3	***0.0076***	0.001	***0.0279***	***0.0045***	***0.0012***	***0.0075***	0	0.0008	***0.0373***	0.0008
ANTHRACENE		mg/m3	0	0	0	0	0	0	0	0	0	0
BENZO(a)ANTHRACENE		mg/m3	0	0	0	0	0	0	0	0	0	0
BENZO(a)PYRENE		mg/m3	0	0	0	0	0	0	0	0	0	0
BENZO(b)FLUORANTHENE		mg/m3	0	0	0	0	0	0	0	0	0	0
BENZO(e)PYRENE		mg/m3	0	0	0	0	0	0	0	0	0	0
BENZO(ghi)PERYLENE		mg/m3	0	0	0	0	0	0	0	0	0	0
BENZO(k)FLUORANTHENE		mg/m3	0	0	0	0	0	0	0	0	0	0
CHRYSENE		mg/m3	0	0	0	0	0	0	0	0	0	0
DIBENZO(a,h)ANTHRACENE		mg/m3	0	0	0	0	0	0	0	0	0	0
FLUORANTHENE		mg/m3	0	0	0	0	0	0	0	0	0	0
FLUORENE		mg/m3	0	0	0.001	0	0	0	0	0	0.002	0
INDENO(123-cd)PYRENE		mg/m3	0	0	0	0	0	0	0	0	0	0
NAPHTHALENE		mg/m3	***0.0125***	***0.0028***	***0.0442***	***0.008***	***0.0034***	***0.0148***	***0.001***	***0.0027***	***0.0559***	***0.0028***
PHENANTHRENE		mg/m3	0	0	0.0005	0	0	0	0	0	0.0007	0
PYRENE		mg/m3	0	0	0	0	0	0	0	0	0.0003	0
BENZENE	0.10	ppm	0	0	0.01	0	0	0	0	0	0.006	0
ETHYL BENZENE	100.0	ppm	0	0	0.02	0	0	0	0	0	0.02	0
TOLUENE	50.0	ppm	0	0	0	0	0	0	0	0	0	0
XYLENE	100.0	ppm	0	0	0.01	0	0	0	0	0	0.01	0
TOTAL DUST	5.0	mg/m3	0	0	0.11	0.068	0.06	0.19	0.093	0	0.36	0

SITE PERIMETER AIR SAMPLING RESULTS

Scajaquada Creek Sediment Remediation
National Fuel Gas Distribution Corp.
RETEC Project # 3-2111-650

Parameter	Limit	Units	10/29/98					10/30/98			10/31/98	
			WWS	MHF-S	SW-NW	WWS	RIVER	MHF-S	SW-NW	WWS	MHF-S	WWS
ACENAPHTHENE		mg/m3	0	0	0	0	0	0	0	0	0	0
ACENAPHTHYLENE		mg/m3	***0.0114***	***0.0558***	0	***0.0125***	0	***0.0393***	0	***0.0161***	***0.0126***	***0.0135***
ANTHRACENE		mg/m3	0	0.0003	0	0	0	0	0	0	0	0
BENZO(a)ANTHRACENE		mg/m3	0	0	0	0	0	0	0	0	0	0
BENZO(a)PYRENE		mg/m3	0	0	0	0	0	0	0	0	0	0
BENZO(b)FLUORANTHENE		mg/m3	0	0	0	0	0	0	0	0	0	0
BENZO(e)PYRENE		mg/m3	0	0	0	0	0	0	0	0	0	0
BENZO(ghi)PERYLENE		mg/m3	0	0	0	0	0	0	0	0	0	0
BENZO(k)FLUORANTHENE		mg/m3	0	0	0	0	0	0	0	0	0	0
CHRYSENE		mg/m3	0	0	0	0	0	0	0	0	0	0
DIBENZO(a,h)ANTHRACENE		mg/m3	0	0	0	0	0	0	0	0	0	0
FLUORANTHENE		mg/m3	0	0	0	0	0	0.0006	0	0	0.0003	0
FLUORENE		mg/m3	0.0007	0.003	0	0.0005	0	0.002	0	0.0008	0.0005	0.0006
INDENO(123-cd)PYRENE		mg/m3	0	0	0	0	0	0	0	0	0	0
NAPHTHALENE		mg/m3	***0.0167***	***0.0849***	0	***0.0171***	0	***0.0648***	0.0004	***0.023***	***0.0245***	***0.0215***
PHENANTHRENE		mg/m3	0	0.001	0	0	0	0.0009	0	0	0.0004	0
PYRENE		mg/m3	0	0	0	0	0	0	0	0	0	0
BENZENE	0.10	ppm	0	0.01	0	0		0.007	0	0	0	0
ETHYL BENZENE	100.0	ppm	0	0.03	0	0		0.02	0	0	0	0
TOLUENE	50.0	ppm	0	0	0	0		0	0	0	0	0
XYLENE	100.0	ppm	0	0.02	0	0		0.01	0	0	0	0
TOTAL DUST	5.0	mg/m3	0	0.14	0	0		0.19	0	0	0.06	0

Total PAHs : 0.100 mg/m3 (Naphthalene only : 50 mg/m3)

SITE PERIMETER AIR SAMPLING RESULTS

Scajaquada Creek Sediment Remediation
National Fuel Gas Distribution Corp.
RETEC Project # 3-2111-650

Parameter	Limit	Units	11/02/98				11/03/98			11/04/98		
			SW-NW	MHF-S	SW-NW	WWS	MHF-S	WWS	SW-E	SW-NW	SW-E	MHF-S
ACENAPHTHENE		mg/m3	0	0	0	0	0	0	0	0	0	0
ACENAPHTHYLENE		mg/m3	0	***0.0178***	0	0	***0.0226***	0	***0.0067***	0	***0.0064***	***0.0677***
ANTHRACENE		mg/m3	0	0	0	0	0	0	0	0	0	0
BENZO(a)ANTHRACENE		mg/m3	0	0	0	0	0	0	0	0	0	0
BENZO(a)PYRENE		mg/m3	0	0	0	0	0	0	0	0	0	0
BENZO(b)FLUORANTHENE		mg/m3	0	0	0	0	0	0	0	0	0	0
BENZO(e)PYRENE		mg/m3	0	0	0	0	0	0	0	0	0	0
BENZO(ghi)PERYLENE		mg/m3	0	0	0	0	0	0	0	0	0	0
BENZO(k)FLUORANTHENE		mg/m3	0	0	0	0	0	0	0	0	0	0
CHRYSENE		mg/m3	0	0	0	0	0	0	0	0	0	0
DIBENZO(a,h)ANTHRACENE		mg/m3	0	0	0	0	0	0	0	0	0	0
FLUORANTHENE		mg/m3	0	0	0	0	0	0	0	0	0	0
FLUORENE		mg/m3	0	0.0006	0	0	0.001	0	0	0	0	***0.003***
INDENO(123-cd)PYRENE		mg/m3	0	0	0	0	0	0	0	0	0	0
NAPHTHALENE	Total PAHs : 0.100 mg/m3 (Naphthalene only : 50 mg/m3)	mg/m3	0	***0.0331***	0	0	***0.033***	0	***0.0105***	0	***0.0119***	***0.0925***
PHENANTHRENE		mg/m3	0	0.0005	0	0	0	0	0	0	0	0.0005
PYRENE		mg/m3	0	0	0	0	0	0	0	0	0	0
BENZENE	0.10	ppm	0	0	0	0	0	0	0	0	0	0.02
ETHYL BENZENE	100.0	ppm	0	0	0	0	0.008	0	0	0	0	0.03
TOLUENE	50.0	ppm	0	0	0	0	0	0	0	0	0	0.006
XYLENE	100.0	ppm	0	0	0	0	0	0	0	0	0	0.02
TOTAL DUST	5.0	mg/m3	0	0.12	0	0	0.21	0	0.074	0	0	0.15

SITE PERIMETER AIR SAMPLING RESULTS

Scajaquada Creek Sediment Remediation
National Fuel Gas Distribution Corp.
RETEC Project # 3-2111-650

Parameter	Limit	Units		11/05/98			11/06/98			11/07/98		
			RIVER	MHF-S	WWS	SW-E	MHF-S	SW-E	WWS	MHF-S	SW-E	WWS
ACENAPHTHENE		mg/m3	0	0.03	0	0	0	0	0	0	0	0
ACENAPHTHYLENE		mg/m3	0	0	0.02	***0.004***	***0.033***	***0.004***	***0.022***	0.009	***0.009***	***0.01***
ANTHRACENE		mg/m3	0	0	0	0	0	0	0	0	0	0
BENZO(a)ANTHRACENE		mg/m3	0	0	0	0	0	0	0	0	0	0
BENZO(a)PYRENE		mg/m3	0	0	0	0	0	0	0	0	0	0
BENZO(b)FLUORANTHENE		mg/m3	0	0	0	0	0	0	0	0	0	0
BENZO(e)PYRENE		mg/m3	0	0	0	0	0	0	0	0	0	0
BENZO(ghi)PERYLENE		mg/m3	0	0	0	0	0	0	0	0	0	0
BENZO(k)FLUORANTHENE		mg/m3	0	0	0	0	0	0	0	0	0	0
CHRYSENE		mg/m3	0	0	0	0	0	0	0	0	0	0
DIBENZO(a,h)ANTHRACENE		mg/m3	0	0	0	0	0	0	0	0	0	0
FLUORANTHENE		mg/m3	0	0	0	0	0	0	0	0	0	0
FLUORENE		mg/m3	0	0.001	0.0008	0	0.001	0	0.0008	0	0	0.0004
INDENO(123-cd)PYRENE		mg/m3	0	0	0	0	0	0	0	0	0	0
NAPHTHALENE	Total PAHs : 0.100 mg/m3 (Naphthalene only : 50 mg/m3)	mg/m3	0	***0.047***	***0.029***	***0.009***	***0.051***	***0.008***	***0.034***	0.01	***0.01***	***0.02***
PHENANTHRENE		mg/m3	0	0.0004	0	0	0.0003	0	0	0	0	0
PYRENE		mg/m3	0	0	0	0	0	0	0	0	0	0
BENZENE	0.10	ppm	0	0	0	0	0	0	0	0	0	0
ETHYL BENZENE	100.0	ppm	0	0.01	0.005	0	0.01	0	0.009	0.01	0	0
TOLUENE	50.0	ppm	0	0	0	0	0	0	0	0	0	0
XYLENE	100.0	ppm	0	0	0	0	0	0	0	0.01	0	0
TOTAL DUST	5.0	mg/m3	0	0.14	0	0.063	0.061	0	0	0	0	0

SITE PERIMETER AIR SAMPLING RESULTS

Scajaquada Creek Sediment Remediation
National Fuel Gas Distribution Corp.
RETEC Project # 3-2111-650

Parameter	Limit	Units	11/09/98			11/10/98			11/11/98		11/16/98	
			MHF-S	WWS	SW-E	MHF-S	RIVER	SW-E	SW-NW	MHF-S	MHF-S	SW-NE
ACENAPHTHENE	Total PAHs : 0.100 mg/m3 (Naphthalene only : 50 mg/m3)	mg/m3	0	0	0	0	0	0	0	0	0	0
ACENAPHTHYLENE		mg/m3	0.001	***0.01***	***0.005***	0.002	0	0	0.03	0.007	***0.004***	0
ANTHRACENE		mg/m3	0	0	0	0	0	0	0	0	0	0
BENZO(a)ANTHRACENE		mg/m3	0	0	0	0	0	0	0	0	0	0
BENZO(a)PYRENE		mg/m3	0	0	0	0	0	0	0	0	0	0
BENZO(b)FLUORANTHENE		mg/m3	0	0	0	0	0	0	0	0	0	0
BENZO(e)PYRENE		mg/m3	0	0	0	0	0	0	0	0	0	0
BENZO(ghi)PERYLENE		mg/m3	0	0	0	0	0	0	0	0	0	0
BENZO(k)FLUORANTHENE		mg/m3	0	0	0	0	0	0	0	0	0	0
CHRYSENE		mg/m3	0	0	0	0	0	0	0	0	0	0
DIBENZO(a,h)ANTHRACENE		mg/m3	0	0	0	0	0	0	0	0	0	0
FLUORANTHENE		mg/m3	0	0	0	0	0	0	0	0	0	0
FLUORENE		mg/m3	0	0	0	0	0	0	0.002	0	0	0
INDENO(123-cd)PYRENE		mg/m3	0	0	0	0	0	0	0	0	0	0
NAPHTHALENE		mg/m3	0.0009	***0.01***	***0.008***	0.0002	0.0006	0	0.04	***0.01***	***0.006***	0.0008
PHENANTHRENE		mg/m3	0	0	0	0	0	0	0.0005	0	0	0
PYRENE		mg/m3	0	0	0	0	0	0	0	0	0	0
BENZENE	0.10	ppm	0	0	0	0	0	0	0	0	0	0
ETHYL BENZENE	100.0	ppm	0	0	0	0	0	0	0	0	0	0
TOLUENE	50.0	ppm	0	0	0	0	0	0	0	0	0	0
XYLENE	100.0	ppm	0	0	0	0	0	0	0	0	0	0
TOTAL DUST	5.0	mg/m3	0	0	0	0	0	0	0	0	0	0

SITE PERIMETER AIR SAMPLING RESULTS

Scajaquada Creek Sediment Remediation
National Fuel Gas Distribution Corp.
RETEC Project # 3-2111-650

Parameter	Limit	Units	11/17/98			11/19/98			11/20/98			
			MHF-S	SW-NW	SW-E	MHF-S	MHF-N	SW-NW	SW-E	WWS	SW-NW	MHF-S
ACENAPHTHENE	Total PAHs : 0.100 mg/m3 (Naphthalene only : 50 mg/m3)	mg/m3	0	0	0	0	0	0	0	0	0	0
ACENAPHTHYLENE		mg/m3	***0.09***	0	***0.02***	0.0006	***0.02***	0.003	***0.02***	***0.05***	0	0
ANTHRACENE		mg/m3	0	0	0	0	0	0	0	0	0	0
BENZO(a)ANTHRACENE		mg/m3	0	0	0	0		0	0	0	0	0
BENZO(a)PYRENE		mg/m3	0	0	0	0	0	0	0		0	0
BENZO(b)FLUORANTHENE		mg/m3	0	0	0	0	0	0	0	0	0	0
BENZO(e)PYRENE		mg/m3	0	0	0	0	0	0	0	0	0	0
BENZO(ghi)PERYLENE		mg/m3	0	0	0	0	0	0	0	0	0	0
BENZO(k)FLUORANTHENE		mg/m3	0	0	0	0	0	0	0	0	0	0
CHRYSENE		mg/m3	0	0	0	0	0	0	0	0	0	0
DIBENZO(a,h)ANTHRACENE		mg/m3	0	0	0	0	0	0	0	0	0	0
FLUORANTHENE		mg/m3	0	0	0	0	0	0	0	0	0	0
FLUORENE		mg/m3	***0.004***	0	0.001	0	0.001	0	0.0009	***0.003***	0	0.002
INDENO(123-cd)PYRENE		mg/m3	0	0	0	0	0	0	0	0	0	0
NAPHTHALENE		mg/m3	***0.1***	0	***0.02***	0.0006	***0.03***	***0.006***	***0.03***	***0.06***	0	***0.04***
PHENANTHRENE		mg/m3	0.0005	0	0	0	0	0	0	0	0	0
PYRENE		mg/m3	0	0	0	0	0	0	0	0	0	0
BENZENE	0.10	ppm	0	0	0	0	0	0	0	0	0	0
ETHYL BENZENE	100.0	ppm	0	0	0	0	0	0	0.005	0.01	0	0.005
TOLUENE	50.0	ppm	0	0	0	0	0	0	0	0	0	0
XYLENE	100.0	ppm	0	0	0	0	0	0	0	0	0	0
TOTAL DUST	5.0	mg/m3	0.32	0	0	0	0.15	0	0.064	0.076	0	0.097

SITE PERIMETER AIR SAMPLING RESULTS

Scajaquada Creek Sediment Remediation
National Fuel Gas Distribution Corp.
RETEC Project # 3-2111-650

Parameter	Limit	Units		11/21/98			11/23/98			11/24/98		
			RIVER	MHF-S	WWS	SW-NW	MHF-S	WWS	SW-NW	MHF-S	WWS	SW-NW
ACENAPHTHENE	Total PAHs : 0.100 mg/m3 (Naphthalene only : 50 mg/m3)	mg/m3	0	0	0	0	0	0	0	0	0	0
ACENAPHTHYLENE		mg/m3	0	***0.009***	***0.02***	0	0.001	***0.004***	***0.005***	***0.03***	0.02	0.002
ANTHRACENE		mg/m3	0	0	0	0	0	0	0	0	0	0
BENZO(a)ANTHRACENE		mg/m3	0	0	0	0	0	0	0	0	0	0
BENZO(a)PYRENE		mg/m3	0	0	0	0	0	0	0	0	0	0
BENZO(b)FLUORANTHENE		mg/m3	0	0	0	0	0	0	0	0	0	0
BENZO(e)PYRENE		mg/m3	0	0	0	0	0	0	0	0	0	0
BENZO(ghi)PERYLENE		mg/m3	0	0	0	0	0	0	0	0	0	0
BENZO(k)FLUORANTHENE		mg/m3	0	0	0	0	0	0	0	0	0	0
CHRYSENE		mg/m3	0	0	0	0	0	0	0	0	0	0
DIBENZO(a,h)ANTHRACENE		mg/m3	0	0	0	0	0	0	0	0	0	0
FLUORANTHENE		mg/m3	0	0	0	0	0	0	0	0	0.001	0
FLUORENE		mg/m3	0	0.0005	0.002	0	0	0.0006	0	0.001	0.001	0
INDENO(123-cd)PYRENE		mg/m3	0	0	0	0	0	0	0	0	0	0
NAPHTHALENE		mg/m3	0.0007	***0.01***	***0.03***	0	0.002	***0.007***	***0.007***	***0.05***	0.02	0.003
PHENANTHRENE		mg/m3	0	0	0	0	0	0	0	0.0005	0	0
PYRENE		mg/m3	0	0	0	0	0	0	0	0	0	0
BENZENE	0.10	ppm	0	0	0	0	0	0	0	0	0	0
ETHYL BENZENE	100.0	ppm	0	0	0	0	0	0	0	0	0	0
TOLUENE	50.0	ppm	0	0	0	0	0	0	0	0	0	0
XYLENE	100.0	ppm	0	0	0	0	0	0	0	0	0	0
TOTAL DUST	5.0	mg/m3	0	0	0.11	0	0	0	0.092	0.087	0.15	0

SITE PERIMETER AIR SAMPLING RESULTS

Scajaquada Creek Sediment Remediation
National Fuel Gas Distribution Corp.
RETEC Project # 3-2111-650

Parameter	Limit	Units	11/25/98			11/27/98		
			MHF-S	MHF-N	SW-E	SW-NW	SW-E	MHF-S
ACENAPHTHENE	Total PAHs : 0.100 mg/m3 (Naphthalene only : 50 mg/m3)	mg/m3	0	0	0	0	0	0
ACENAPHTHYLENE		mg/m3	***0.03***	0.002	0	0	0.007	0.03
ANTHRACENE		mg/m3	0	0	0	0	0	0
BENZO(a)ANTHRACENE		mg/m3	0	0	0	0	0	0
BENZO(a)PYRENE		mg/m3	0	0	0	0	0	0
BENZO(b)FLUORANTHENE		mg/m3	0	0	0	0	0	0
BENZO(e)PYRENE		mg/m3	0	0	0	0	0	0
BENZO(ghi)PERYLENE		mg/m3	0	0	0	0	0	0
BENZO(k)FLUORANTHENE		mg/m3	0	0	0	0	0	0
CHRYSENE		mg/m3	0	0	0	0	0	0
DIBENZO(a,h)ANTHRACENE		mg/m3	0	0	0	0	0	0
FLUORANTHENE		mg/m3	0	0	0	0	0	0
FLUORENE		mg/m3	0.001	0	0	0	0	0.001
INDENO(123-cd)PYRENE		mg/m3	0	0	0	0	0	0
NAPHTHALENE		mg/m3	***0.04***	0.002	0	0	0.01	0.04
PHENANTHRENE		mg/m3	0	0	0	0	0	0
PYRENE	-	mg/m3	0	0	0	0	0	0
BENZENE	0.10	ppm	0	0	0	0	0	0
ETHYL BENZENE	100.0	ppm	0.01	0	0	0	0	0.01
TOLUENE	50.0	ppm	0	0	0	0	0	0
XYLENE	100.0	ppm	0	0	0	0	0	0
TOTAL DUST	5.0	mg/m3	0	0	0	0	0	0

SITE PERIMETER AIR SAMPLING RESULTS

Scajaquada Creek Sediment Remediation

National Fuel Gas Distribution Corp.

RETEC Project # 3-2111-650

Parameter	Limit	Units	11/28/98				11/30/98			12/01/98		
			MHF-S	RIVER	SW-NW	SW-E	MHF-S	SW-NW	SW-E	MHF-S	SW-E	FEDCO
ACENAPHTHENE	Total PAHs : 0.100 mg/m3 (Naphthalene only : 50 mg/m3)	mg/m3	0	0	0	0	0	0	0	0	0	0
ACENAPHTHYLENE		mg/m3	0.0008	0	0.0006	0	0.001	***0.003***	0	0.002	***0.009***	0
ANTHRACENE		mg/m3	0	0	0	0	0	0	0	0	0	0
BENZO(a)ANTHRACENE		mg/m3	0	0	0	0	0	0	0	0	0	0
BENZO(a)PYRENE		mg/m3	0	0	0	0	0	0	0	0	0	0
BENZO(b)FLUORANTHENE		mg/m3	0	0	0	0	0	0	0	0	0	0
BENZO(e)PYRENE		mg/m3	0	0	0	0	0	0	0	0	0	0
BENZO(ghi)PERYLENE		mg/m3	0	0	0	0	0	0	0	0	0	0
BENZO(k)FLUORANTHENE		mg/m3	0	0	0	0	0	0	0	0	0	0
CHRYSENE		mg/m3	0	0	0	0	0	0	0	0	0	0
DIBENZO(a,h)ANTHRACENE		mg/m3	0	0	0	0	0	0	0	0	0	0
FLUORANTHENE		mg/m3	0	0	0	0	0	0	0	0	0	0
FLUORENE		mg/m3	0	0	0	0	0	0	0	0	0.0006	0
INDENO(123-cd)PYRENE		mg/m3	0	0	0	0	0	0	0	0	0	0
NAPHTHALENE		mg/m3	0.001	0.0005	0.001	0.001	0.002	***0.006***	0	***0.006***	***0.01***	0.001
PHENANTHRENE		mg/m3	0	0	0	0	0	0	0	0	0	0
PYRENE		mg/m3	0	0	0	0	0	0	0	0	0	0
BENZENE	0.10	ppm	0	0	0	0	0	0	0	0	0	0
ETHYL BENZENE	100.0	ppm	0	0	0	0	0	0	0	0	0	0
TOLUENE	50.0	ppm	0	0	0	0	0	0	0	0	0	0
XYLENE	100.0	ppm	0	0	0	0	0	0	0	0	0	0
TOTAL DUST	0.15	mg/m3	0	0	0	0	0	0	0	0	0	0

SITE PERIMETER AIR SAMPLING RESULTS

Scajaquada Creek Sediment Remediation

National Fuel Gas Distribution Corp.

RETEC Project # 3-2111-650

Parameter	Limit	Units	12/02/98				12/03/98			12/04/98		
			MHF-S	SW-NW	SW-E	RIVER	MHF-S	SW-NW	SW-E	MHF-S	SW-NW	SW-E
ACENAPHTHENE	Total PAHs : 0.100 mg/m3 (Napthalene only : 50 mg/m3)	mg/m3	0	0	0	0	0	0	0	0	0	0
ACENAPHTHYLENE		mg/m3	***0.003***	***0.002***	***0.003***	0	0.001	***0.004***	***0.004***	***0.002***	***0.006***	0
ANTHRACENE		mg/m3	0	0	0	0	0	0	0	0	0	0
BENZO(a)ANTHRACENE		mg/m3	0	0	0	0	0	0	0	0	0	0
BENZO(a)PYRENE		mg/m3	0	0	0	0	0	0	0	0	0	0
BENZO(b)FLUORANTHENE		mg/m3	0	0	0	0	0	0	0	0	0	0
BENZO(e)PYRENE		mg/m3	0	0	0	0	0	0	0	0	0	0
BENZO(ghi)PERYLENE		mg/m3	0	0	0	0	0	0	0	0	0	0
BENZO(k)FLUORANTHENE		mg/m3	0	0	0	0	0	0	0	0	0	0
CHRYSENE		mg/m3	0	0	0	0	0	0	0	0	0	0
DIBENZO(a,h)ANTHRACENE		mg/m3	0	0	0	0	0	0	0	0	0	0
FLUORANTHENE		mg/m3	0	0	0	0	0	0	0	0	0	0
FLUORENE		mg/m3	0	0	0	0	0	0	0	0	0	0
INDENO(123-cd)PYRENE		mg/m3	0	0	0	0	0	0	0	0	0	0
NAPHTHALENE		mg/m3	***0.005***	0.004	***0.005***	0	0.001	***0.006***	***0.004***	0.001	***0.009***	0.0008
PHENANTHRENE		mg/m3	0	0	0	0	0	0	0	0	0	0
PYRENE		mg/m3	0	0	0	0	0	0	0	0	0	0
BENZENE	0.10	ppm	0	0	0	0	0	0	0	0	0	0
ETHYL BENZENE	100.0	ppm	0	0	0	0	0	0	0	0	0	0
TOLUENE	50.0	ppm	0	0	0	0	0	0	0	0	0	0
XYLENE	100.0	ppm	0	0	0	0	0	0	0	0	0	0
TOTAL DUST	0.15	mg/m3	0	0	0	0	0	0	0	0	0.056	0

SITE PERIMETER AIR SAMPLING RESULTS

Scajaquada Creek Sediment Remediation

National Fuel Gas Distribution Corp.

RETEC Project # 3-2111-650

Parameter	Limit	Units	12/05/98		12/07/98				12/08/98			12/09/98
			MHF-S	SW-SE	SW-E	MHF-S	SW-NW	SW-E	MHF-S	SW-NW	SW-SE	MHF-S
ACENAPHTHENE	Total PAHs : 0.100 mg/m3 (Naphthalene only : 50 mg/m3)	mg/m3	0	0	0	0	0	0	0	0	0	0
ACENAPHTHYLENE		mg/m3	***0.04***	***0.008***	0	***0.06***	0	***0.01***	***0.02***	0	***0.006***	***0.008***
ANTHRACENE		mg/m3	0	0	0	0	0	0	0	0	0	0
BENZO(a)ANTHRACENE		mg/m3	0	0	0	0	0	0	0	0	0	0
BENZO(a)PYRENE		mg/m3	0	0	0	0	0	0	0	0	0	0
BENZO(b)FLUORANTHENE		mg/m3	0	0	0	0	0	0	0	0	0	0
BENZO(e)PYRENE		mg/m3	0	0	0	0	0	0	0	0	0	0
BENZO(ghi)PERYLENE		mg/m3	0	0	0	0	0	0	0	0	0	0
BENZO(k)FLUORANTHENE		mg/m3	0	0	0	0	0	0	0	0	0	0
CHRYSENE		mg/m3	0	0	0	0	0	0	0	0	0	0
DIBENZO(a,h)ANTHRACENE		mg/m3	0	0	0	0	0	0	0	0	0	0
FLUORANTHENE		mg/m3	0	0	0	0	0	0	0	0	0	0
FLUORENE		mg/m3	0.002	0	0	***0.003***	0	0.001	0.0009	0	0	0.0005
INDENO(123-cd)PYRENE		mg/m3	0	0	0	0	0	0	0	0	0	0
NAPHTHALENE		mg/m3	***0.07***	***0.01***	0.001	***0.09***	0	***0.02***	***0.02***	0	***0.009***	***0.01***
PHENANTHRENE		mg/m3	0.002	0	0	0.0005	0	0	0	0	0	0
PYRENE		mg/m3	0	0	0	0	0	0	0	0	0	0
BENZENE	0.10	ppm	0	0	0	0.02	0	0	0	0	0	0
ETHYL BENZENE	100.0	ppm	0.02	0	0	0.04	0	0	0.006	0	0	0
TOLUENE	50.0	ppm	0	0	0	0	0	0	0	0	0	0
XYLENE	100.0	ppm	0	0	0	0.02	0	0	0	0	0	0
TOTAL DUST	0.15	mg/m3	0	0	0	0.065	0	0	0	0	0	0

SITE PERIMETER AIR SAMPLING RESULTS

Scajaquada Creek Sediment Remediation

National Fuel Gas Distribution Corp.

RETEC Project # 3-2111-650

Parameter	Limit	Units	12/10/98						12/11/98			12/12/98
			SW-NW	RIVER	SW-SE	MHF-S	SW-NW	SW-SE	MHF-S	SW-E	SW-NW	MHF-S
ACENAPHTHENE	Total PAHs : 0.100 mg/m3 (Naphthalene only : 50 mg/m3)	mg/m3	0	0	0	0	0	0	0	0	0	0
ACENAPHTHYLENE		mg/m3	0	0	***0.002***	***0.01***	0.002	0.002	***0.04***	***0.02***	0	0
ANTHRACENE		mg/m3	0	0	0	0	0	0	0	0	0	0
BENZO(a)ANTHRACENE		mg/m3	0	0	0	0	0	0	0	0	0	0
BENZO(a)PYRENE		mg/m3	0	0	0	0	0	0	0	0	0	0
BENZO(b)FLUORANTHENE		mg/m3	0	0	0	0	0	0	0	0	0	0
BENZO(e)PYRENE		mg/m3	0	0	0	0	0	0	0	0	0	0
BENZO(ghi)PERYLENE		mg/m3	0	0	0	0	0	0	0	0	0	0
BENZO(k)FLUORANTHENE		mg/m3	0	0	0	0	0	0	0	0	0	0
CHRYSENE		mg/m3	0	0	0	0	0	0	0	0	0	0
DIBENZO(a,h)ANTHRACENE		mg/m3	0	0	0	0	0	0	0	0	0	0
FLUORANTHENE		mg/m3	0	0	0	0	0	0	0	0	0	0
FLUORENE		mg/m3	0	0	0	0	0	0	0.002	0.0009	0	0
INDENO(123-cd)PYRENE		mg/m3	0	0	0	0	0	0	0	0	0	0
NAPHTHALENE		mg/m3	0.0006	0.0006	***0.004***	***0.01***	0.004	0.002	***0.06***	***0.03***	0	0.001
PHENANTHRENE		mg/m3	0	0	0	0	0	0	0	0	0	0
PYRENE		mg/m3	0	0	0	0	0	0	0	0	0	0
BENZENE	0.10	ppm	0	0	0	0	0	0	0.007	0	0	0
ETHYL BENZENE	100.0	ppm	0	0	0	0	0	0	0.02	0.006	0	0
TOLUENE	50.0	ppm	0	0	0	0	0	0	0	0	0	0
XYLENE	100.0	ppm	0	0	0	0	0	0	0.01	0	0	0
TOTAL DUST	0.15	mg/m3	0	0	0	0	0	0	0	0	0	0.39

SITE PERIMETER AIR SAMPLING RESULTS

Scajaquada Creek Sediment Remediation

National Fuel Gas Distribution Corp.

RETEC Project # 3-2111-650

Parameter	Limit	Units	12/14/98					12/15/98			12/16/98	
			SW-NW	SW-E	SW-E	FEDCO	SW-NW	WWS	SW-NW	FEDCO	MHF-S	SW-E
ACENAPHTHENE	Total PAHs : 0.100 mg/m3 (Naphthalene only : 50 mg/m3)	mg/m3	0	0	0	0	0	0	0	0	0	0
ACENAPHTHYLENE		mg/m3	0	0	0.006	***0.007***	0.003	0	0.009	0	0.2	***0.03***
ANTHRACENE		mg/m3	0	0	0	0	0	0	0	0	0	0
BENZO(a)ANTHRACENE		mg/m3	0	0	0	0	0	0	0	0	0	0
BENZO(a)PYRENE		mg/m3	0	0	0	0	0	0	0	0	0	0
BENZO(b)FLUORANTHENE		mg/m3	0	0	0	0	0	0	0	0	0	0
BENZO(e)PYRENE		mg/m3	0	0	0	0	0	0	0	0	0	0
BENZO(ghi)PERYLENE		mg/m3	0	0	0	0	0	0	0	0	0	0
BENZO(k)FLUORANTHENE		mg/m3	0	0	0	0	0	0	0	0	0	0
CHRYSENE		mg/m3	0	0	0	0	0	0	0	0	0	0
DIBENZO(a,h)ANTHRACENE		mg/m3	0	0	0	0	0	0	0	0	0	0
FLUORANTHENE		mg/m3	0	0	0	0	0	0	0	0	0	0
FLUORENE		mg/m3	0	0	0	0	0	0	0	0	0.01	0.002
INDENO(123-cd)PYRENE		mg/m3	0	0	0	0	0	0	0	0	0	0
NAPHTHALENE		mg/m3	0.003	0.002	0.008	***0.009***	***0.007***	0.001	***0.02***	0	0.2	***0.04***
PHENANTHRENE		mg/m3	0	0	0	0	0	0	0	0	0	0
PYRENE		mg/m3	0	0	0	0	0	0	0	0	0	0
BENZENE	0.10	ppm	0	0	0	0	0	0	0	0	0.04	0
ETHYL BENZENE	100.0	ppm	0	0	0	0	0	0	0	0	0.08	0.009
TOLUENE	50.0	ppm	0	0	0	0	0	0	0	0	0.006	0
XYLENE	100.0	ppm	0	0	0	0	0	0	0	0	0.04	0
TOTAL DUST	0.15	mg/m3	0	0	0	0	0	0	0.23	0	0	0

SITE PERIMETER AIR SAMPLING RESULTS

Scajaquada Creek Sediment Remediation

National Fuel Gas Distribution Corp.

RETEC Project # 3-2111-650

Parameter	Limit	Units			12/17/98			12/18/98			12/19/98	
			SW-NW	RIVER	SW-NW	MHF-S	SW-E	MHF-S	SW-E	SW-NW	MHF-S	SW-E
ACENAPHTHENE	Total PAHs : 0.100 mg/m3 (Naphthalene only : 50 mg/m3)	mg/m3	0	0	0	0	0	0	0	0	0	0
ACENAPHTHYLENE		mg/m3	0	0	0	***0.07***	***0.02***	0.008	0.002	0.003	0	0
ANTHRACENE		mg/m3	0	0	0	0	0	0	0	0	0	0
BENZO(a)ANTHRACENE		mg/m3	0	0	0	0	0	0	0	0	0	0
BENZO(a)PYRENE		mg/m3	0	0	0	0	0	0	0	0	0	0
BENZO(b)FLUORANTHENE		mg/m3	0	0	0	0	0	0	0	0	0	0
BENZO(e)PYRENE		mg/m3	0	0	0	0	0	0	0	0	0	0
BENZO(ghi)PERYLENE		mg/m3	0	0	0	0	0	0	0	0	0	0
BENZO(k)FLUORANTHENE		mg/m3	0	0	0	0	0	0	0	0	0	0
CHRYSENE		mg/m3	0	0	0	0	0	0	0	0	0	0
DIBENZO(a,h)ANTHRACENE		mg/m3	0	0	0	0	0	0	0	0	0	0
FLUORANTHENE		mg/m3	0	0	0	0.001	0	0	0	0	0	0
FLUORENE		mg/m3	0	0	0	0.004	0.001	0	0	0	0	0
INDENO(123-cd)PYRENE		mg/m3	0	0	0	0	0	0	0	0	0	0
NAPHTHALENE		mg/m3	0	0.001	0.002	***0.09***	***0.02***	0.01	0.005	0.005	0.002	0.002
PHENANTHRENE		mg/m3	0	0	0	0	0	0	0	0	0	0
PYRENE		mg/m3	0	0	0	0	0	0	0	0	0	0
BENZENE	0.10	ppm	0	0	0	0.007	0	0	0	0	0	0
ETHYL BENZENE	100.0	ppm	0	0	0	0.02	0.005	0	0	0	0	0
TOLUENE	50.0	ppm	0	0	0	0	0	0	0	0	0	0
XYLENE	100.0	ppm	0	0	0	0.01	0	0	0	0	0	0
TOTAL DUST	0.15	mg/m3	0	0	0	0.53	0.062	0	0.051	0	0	0

SITE PERIMETER AIR SAMPLING RESULTS

Scajaquada Creek Sediment Remediation

National Fuel Gas Distribution Corp.

RETEC Project # 3-2111-650

Parameter	Limit	Units	12/20/98				12/21/98			12/28/98		
			SW-NW	MHF-S	MHF-N	SW-E	SW-E	SW-NW	MHF-S	RIVER	WWS	MHF-S
ACENAPHTHENE	Total PAHs : 0.100 mg/m3 (Naphthalene only : 50 mg/m3)	mg/m3	0	0	0	0	0	0	0	0	0	0
ACENAPHTHYLENE		mg/m3	0.006	0.01	0	0.002	0.002	***0.006***	0.004	0	0.004	***0.04***
ANTHRACENE		mg/m3	0	0	0	0	0	0	0	0	0	0
BENZO(a)ANTHRACENE		mg/m3	0	0	0	0	0	0	0	0	0	0
BENZO(a)PYRENE		mg/m3	0	0	0	0	0	0	0	0	0	0
BENZO(b)FLUORANTHENE		mg/m3	0	0	0	0	0	0	0	0	0	0
BENZO(e)PYRENE		mg/m3	0	0	0	0	0	0	0	0	0	0
BENZO(ghi)PERYLENE		mg/m3	0	0	0	0	0	0	0	0	0	0
BENZO(k)FLUORANTHENE		mg/m3	0	0	0	0	0	0	0	0	0	0
CHRYSENE		mg/m3	0	0	0	0	0	0	0	0	0	0
DIBENZO(a,h)ANTHRACENE		mg/m3	0	0	0	0	0	0	0	0	0	0
FLUORANTHENE		mg/m3	0	0	0	0	0	0	0	0	0	0
FLUORENE		mg/m3	0	0	0	0	0	0	0	0	0	0.001
INDENO(123-cd)PYRENE		mg/m3	0	0	0	0	0	0	0	0	0	0
NAPHTHALENE		mg/m3	***0.01***	0.03	0	***0.004***	0.002	***0.01***	***0.009***	0	***0.009***	***0.06***
PHENANTHRENE		mg/m3	0	0	0	0	0	0	0	0	0	0
PYRENE		mg/m3	0	0	0	0	0	0	0	0	0	0
BENZENE	0.10	ppm	0	0	0	0	0	0	0	0	0	0
ETHYL BENZENE	100.0	ppm	0	0	0	0	0	0	0	0	0	0.07
TOLUENE	50.0	ppm	0	0	0	0	0	0	0	0	0	0
XYLENE	100.0	ppm	0	0	0	0	0	0	0	0	0	0
TOTAL DUST	0.15	mg/m3	0	0	0	0	0	0	0	0	0	0.093

SITE PERIMETER AIR SAMPLING RESULTS

Scajaquada Creek Sediment Remediation

National Fuel Gas Distribution Corp.

RETEC Project # 3-2111-650

Parameter	Limit	Units	12/29/98				12/30/98			12/31/98		
			SW-E	MHF-S	SW-NW	SW-E	MHF-S	SW-NW	SW-E	MHF-S	SW-NW	SW-E
ACENAPHTHENE	Total PAHs : 0.100 mg/m3 (Naphthalene only : 50 mg/m3)	mg/m3	0	0	0	0	0	0	0	0	0	0
ACENAPHTHYLENE		mg/m3	0.006	0	0.003	0	0.01	0	0.005	***0.005***	0	0.004
ANTHRACENE		mg/m3	0	0	0	0	0	0	0	0	0	0
BENZO(a)ANTHRACENE		mg/m3	0	0	0	0	0	0	0	0	0	0
BENZO(a)PYRENE		mg/m3	0	0	0	0	0	0	0	0	0	0
BENZO(b)FLUORANTHENE		mg/m3	0	0	0	0	0	0	0	0	0	0
BENZO(e)PYRENE		mg/m3	0	0	0	0	0	0	0	0	0	0
BENZO(ghi)PERYLENE		mg/m3	0	0	0	0	0	0	0	0	0	0
BENZO(k)FLUORANTHENE		mg/m3	0	0	0	0	0	0	0	0	0	0
CHRYSENE		mg/m3	0	0	0	0	0	0	0	0	0	0
DIBENZO(a,h)ANTHRACENE		mg/m3	0	0	0	0	0	0	0	0	0	0
FLUORANTHENE		mg/m3	0	0	0	0	0	0	0	0	0	0
FLUORENE		mg/m3	0	0	0	0	0	0	0	0	0	0
INDENO(123-cd)PYRENE		mg/m3	0	0	0	0	0	0	0	0	0	0
NAPHTHALENE		mg/m3	***0.01***	0.002	***0.008***	0	0.02	0	0.008	***0.008***	0.004	***0.01***
PHENANTHRENE		mg/m3	0	0	0	0	0	0	0	0	0	0
PYRENE		mg/m3	0	0	0	0	0	0	0	0	0	0
BENZENE	0.10	ppm	0	0	0	0	0	0	0	0	0	0
ETHYL BENZENE	100.0	ppm	0	0	0	0	0.03	0	0	0	0	0
TOLUENE	50.0	ppm	0	0	0	0	0	0	0	0	0	0
XYLENE	100.0	ppm	0	0	0	0	0	0	0	0	0	0
TOTAL DUST	0.15	mg/m3	0	0	0	0	0	0	0	0	0	0

SITE PERIMETER AIR SAMPLING RESULTS

Scajaquada Creek Sediment Remediation

National Fuel Gas Distribution Corp.

RETEC Project # 3-2111-650

Parameter	Limit	Units	01/02/99			01/08/99				01/10/99		
			MHF-S	SW-NW	SW-E	MHF-S	SW-E	RIVER	SW-NW	MHF-S	SW-NW	BRIDGE
ACENAPHTHENE	Total PAHs : 0.100 mg/m3 (Naphthalene only : 50 mg/m3)	mg/m3	0	0	0	0	0	0	0	0	0	0
ACENAPHTHYLENE		mg/m3	0.02	0	0	0.002	0	0	0	0	0	0
ANTHRACENE		mg/m3	0	0	0	0	0	0	0	0	0	0
BENZO(a)ANTHRACENE		mg/m3	0	0	0	0	0	0	0	0	0	0
BENZO(a)PYRENE		mg/m3	0	0	0	0	0	0	0	0	0	0
BENZO(b)FLUORANTHENE		mg/m3	0	0	0	0	0	0	0	0	0	0
BENZO(e)PYRENE		mg/m3	0	0	0	0	0	0	0	0	0	0
BENZO(ghi)PERYLENE		mg/m3	0	0	0	0	0	0	0	0	0	0
BENZO(k)FLUORANTHENE		mg/m3	0	0	0	0	0	0	0	0	0	0
CHRYSENE		mg/m3	0	0	0	0	0	0	0	0	0	0
DIBENZO(a,h)ANTHRACENE		mg/m3	0	0	0	0	0	0	0	0	0	0
FLUORANTHENE		mg/m3	0	0	0	0	0	0	0	0	0	0
FLUORENE		mg/m3	0	0	0	0	0	0	0	0	0	0
INDENO(123-cd)PYRENE		mg/m3	0	0	0	0	0	0	0	0	0	0
NAPHTHALENE		mg/m3	0.02	0.001	0	0.002	0	0.001	0	0	0.004	0
PHENANTHRENE		mg/m3	0	0	0	0	0	0	0	0	0	0
PYRENE		mg/m3	0	0	0	0	0	0	0	0	0	0
BENZENE	0.10	ppm	0	0	0	0	0	0	0	0	0	0
ETHYL BENZENE	100.0	ppm	0.04	0	0	0	0	0	0	0	0	0
TOLUENE	50.0	ppm	0	0	0	0	0	0	0	0	0	0
XYLENE	100.0	ppm	0	0	0	0	0	0	0	0	0	0
TOTAL DUST	0.15	mg/m3	0.11	0	0	0	0.138	0	0	0	0	0

SITE PERIMETER AIR SAMPLING RESULTS

Scajaquada Creek Sediment Remediation

National Fuel Gas Distribution Corp.

RETEC Project # 3-2111-650

Parameter	Limit	Units	01/11/99			01/12/99			01/13/99			
			MHF-S	SW-NW	BRIDGE	MHF-S	SW-NW	BRIDGE	RIVER	BRIDGE	MHF-S	SW-NW
ACENAPHTHENE	Total PAHs : 0.100 mg/m3 (Naphthalene only : 50 mg/m3)	mg/m3	0	0	0	0	0	0	0	0	0	0
ACENAPHTHYLENE		mg/m3	0.002	0	0	0.005	0	0.004	0	0	0.003	0
ANTHRACENE		mg/m3	0	0	0	0	0	0	0	0	0	0
BENZO(a)ANTHRACENE		mg/m3	0	0	0	0	0	0	0	0	0	0
BENZO(a)PYRENE		mg/m3	0	0	0	0	0	0	0	0	0	0
BENZO(b)FLUORANTHENE		mg/m3	0	0	0	0	0	0	0	0	0	0
BENZO(e)PYRENE		mg/m3	0	0	0	0	0	0	0	0	0	0
BENZO(ghi)PERYLENE		mg/m3	0	0	0	0	0	0	0	0	0	0
BENZO(k)FLUORANTHENE		mg/m3	0	0	0	0	0	0	0	0	0	0
CHRYSENE		mg/m3	0	0	0	0	0	0	0	0	0	0
DIBENZO(a,h)ANTHRACENE		mg/m3	0	0	0	0	0	0	0	0	0	0
FLUORANTHENE		mg/m3	0	0	0	0	0	0	0	0	0	0
FLUORENE		mg/m3	0	0	0	0	0	0	0	0	0	0
INDENO(123-cd)PYRENE		mg/m3	0	0	0	0	0	0	0	0	0	0
NAPHTHALENE		mg/m3	***0.004***	0	0	0.006	0	0.004	0	0	0.004	0
PHENANTHRENE		mg/m3	0	0	0	0	0	0	0	0	0	0
PYRENE		mg/m3	0	0	0	0	0	0	0	0	0	0
BENZENE	0.10	ppm	0	0	0	0	0	0	0	0	0	0
ETHYL BENZENE	100.0	ppm	0	0	0	0	0	0	0	0	0	0
TOLUENE	50.0	ppm	0	0	0	0	0	0	0	0	0	0
XYLENE	100.0	ppm	0	0	0	0	0	0	0	0	0	0
TOTAL DUST	0.15	mg/m3	0	0	0	0	0	0	0	0	0	0

SITE PERIMETER AIR SAMPLING RESULTS

Scajaquada Creek Sediment Remediation

National Fuel Gas Distribution Corp.

RETEC Project # 3-2111-650

Parameter	Limit	Units	01/16/99			01/18/99			01/20/99			01/21/99
			MHF-S	SW-E	BRIDGE	MHF-S	SW-NW	SW-E	SW-NW	SW-E	BRIDGE	MHF-S
ACENAPHTHENE	Total PAHs : 0.100 mg/m3 (Naphthalene only : 50 mg/m3)	mg/m3	0	0	0	0	0	0	0	0	0	0
ACENAPHTHYLENE		mg/m3	0	0.008	0	0.005	0	0.001	0	0	0	0.02
ANTHRACENE		mg/m3	0	0	0	0	0	0	0	0	0	0
BENZO(a)ANTHRACENE		mg/m3	0	0	0	0	0	0	0	0	0	0
BENZO(a)PYRENE		mg/m3	0	0	0	0	0	0	0	0	0	0
BENZO(b)FLUORANTHENE		mg/m3	0	0	0	0	0	0	0	0	0	0
BENZO(e)PYRENE		mg/m3	0	0	0	0	0	0	0	0	0	0
BENZO(ghi)PERYLENE		mg/m3	0	0	0	0	0	0	0	0	0	0
BENZO(k)FLUORANTHENE		mg/m3	0	0	0	0	0	0	0	0	0	0
CHRYSENE		mg/m3	0	0	0	0	0	0	0	0	0	0
DIBENZO(a,h)ANTHRACENE		mg/m3	0	0	0	0	0	0	0	0	0	0
FLUORANTHENE		mg/m3	0	0	0	0	0	0	0	0	0	0
FLUORENE		mg/m3	0	0	0	0	0	0	0	0	0	0.001
INDENO(123-cd)PYRENE		mg/m3	0	0	0	0	0	0	0	0	0	0
NAPHTHALENE		mg/m3	0	0.002	0	***0.009***	0	0.003	0	0	0	***0.05***
PHENANTHRENE		mg/m3	0	0	0	0	0	0	0	0	0	0
PYRENE		mg/m3	0	0	0	0	0	0	0	0	0	0.001
BENZENE	0.10	ppm	0	0	0	0	0	0	0	0	0	0
ETHYL BENZENE	100.0	ppm	0	0	0	0	0	0	0	0	0	0
TOLUENE	50.0	ppm	0	0	0	0	0	0	0	0	0	0.2
XYLENE	100.0	ppm	0	0	0	0	0	0	0	0	0	0
TOTAL DUST	0.15	mg/m3	0	0	0	0.35	0	0	0	0	0	0.077

SITE PERIMETER AIR SAMPLING RESULTS

Scajaquada Creek Sediment Remediation

National Fuel Gas Distribution Corp.

RETEC Project # 3-2111-650

Parameter	Limit	Units			01/22/99			01/23/99		01/25/99	
			SW-E	SW-NW	MHF-S	BRIDGE	SW-NE	MHF-S	SW-NW	MHF-S	SW-NW
ACENAPHTHENE	Total PAHs : 0.100 mg/m3 (Naphthalene only : 50 mg/m3)	mg/m3	0	0	0	0	0	0	0	0	0
ACENAPHTHYLENE		mg/m3	0	0	***0.04***	***0.03***	0	0.002	0.007	0.02	0
ANTHRACENE		mg/m3	0	0	0	0	0	0	0	0	0
BENZO(a)ANTHRACENE		mg/m3	0	0	0	0	0	0	0	0	0
BENZO(a)PYRENE		mg/m3	0	0	0	0	0	0	0	0	0
BENZO(b)FLUORANTHENE		mg/m3	0	0	0	0	0	0	0	0	0
BENZO(e)PYRENE		mg/m3	0	0	0	0	0	0	0	0	0
BENZO(ghi)PERYLENE		mg/m3	0	0	0	0	0	0	0	0	0
BENZO(k)FLUORANTHENE		mg/m3	0	0	0	0	0	0	0	0	0
CHRYSENE		mg/m3	0	0	0	0	0	0	0	0	0
DIBENZO(a,h)ANTHRACENE		mg/m3	0	0	0	0	0	0	0	0	0
FLUORANTHENE		mg/m3	0	0	0	0	0	0	0	0	0
FLUORENE		mg/m3	0	0	0.002	0.002	0	0	0	0	0
INDENO(123-cd)PYRENE		mg/m3	0	0	0	0	0	0	0	0	0
NAPHTHALENE		mg/m3	0	0	***0.06***	***0.03***	0	0.003	***0.01***	0.02	0
PHENANTHRENE		mg/m3	0	0	0	0	0	0	0	0	0
PYRENE		mg/m3	0	0	0.001	0	0	0	0	0	0
BENZENE	0.10	ppm	0	0	0	0	0	0	0	0	0
ETHYL BENZENE	100.0	ppm	0	0	0	0	0	0	0	0	0
TOLUENE	50.0	ppm	0.1	0.2	0	0.2	0	0	0	0	0
XYLENE	100.0	ppm	0	0	0	0	0	0	0	0	0
TOTAL DUST	0.15	mg/m3	0	0	0	0	0	0	0	0	0

SITE PERIMETER AIR SAMPLING RESULTS

Scajaquada Creek Sediment Remediation

National Fuel Gas Distribution Corp.

RETEC Project # 3-2111-650

Parameter	Limit	Units	01/26/99		01/27/99	02/01/99			02/02/99			02/03/99
			MHF-S	SW-NW	RIVER	MHF-S	BRIDGE	SW-NW	MHF-S	SW-NW	BRIDGE	MHF-S
ACENAPHTHENE	Total PAHs : 0.100 mg/m3 (Naphthalene only : 50 mg/m3)	mg/m3	0	0	0	0	0	0	0.001	0.02	0	0
ACENAPHTHYLENE		mg/m3	0	0	0	***0.08***	***0.05***	0.002	***0.01***	***0.02***	0	0.002
ANTHRACENE		mg/m3	0	0	0	0	0	0	0	0	0	0
BENZO(a)ANTHRACENE		mg/m3	0	0	0	0	0	0	0	0	0	0
BENZO(a)PYRENE		mg/m3	0	0	0	0	0	0	0	0	0	0
BENZO(b)FLUORANTHENE		mg/m3	0	0	0	0	0	0	0	0	0	0
BENZO(e)PYRENE		mg/m3	0	0	0	0	0	0	0	0	0	0
BENZO(ghi)PERYLENE		mg/m3	0	0	0	0	0	0	0	0	0	0
BENZO(k)FLUORANTHENE		mg/m3	0	0	0	0	0	0	0	0	0	0
CHRYSENE		mg/m3	0	0	0	0	0	0	0	0	0	0
DIBENZO(a,h)ANTHRACENE		mg/m3	0	0	0	0	0	0	0	0	0	0
FLUORANTHENE		mg/m3	0	0	0	0	0	0	0	0	0	0
FLUORENE		mg/m3	0	0	0	0.004	0.003	0	0	***0.003***	0	0
INDENO(123-cd)PYRENE		mg/m3	0	0	0	0	0	0	0	0	0	0
NAPHTHALENE		mg/m3	0.002	0.0009	0	***0.1***	***0.04***	***0.002***	0.003	***0.02***	0	0
PHENANTHRENE		mg/m3	0	0	0	0.002	0	0	0	0	0	0
PYRENE		mg/m3	0	0	0	0	0	0	0	0	0	0
BENZENE	0.10	ppm	0	0	0	0	0.05	0	0	0	0	0
ETHYL BENZENE	100.0	ppm	0	0	0	0.08	0.06	0	0	0	0	0
TOLUENE	50.0	ppm	0	0	0	0.02	0.05	0.02	0	0	0	0
XYLENE	100.0	ppm	0	0	0	0.07	0.07	0	0	0	0	0
TOTAL DUST	0.15	mg/m3	0	0	0	0.23	0.048	0	0	0	0	0

SITE PERIMETER AIR SAMPLING RESULTS

Scajaquada Creek Sediment Remediation

National Fuel Gas Distribution Corp.

RETEC Project # 3-2111-650

Parameter	Limit	Units			02/04/99			02/05/99			02/08/99	
			SW-NW	RIVER	MHF-S	SW-NW	SW-E	MHF-S	SW-NW	BRIDGE	MHF-S	SW-NW
ACENAPHTHENE	Total PAHs : 0.100 mg/m3 (Naphthalene only : 50 mg/m3)	mg/m3	0	0	0	0	0	0	0	0	0	0
ACENAPHTHYLENE		mg/m3	0.002	0	0	0.002	0	0.009	0	0.001	0	0.001
ANTHRACENE		mg/m3	0	0	0	0	0	0	0	0	0	0
BENZO(a)ANTHRACENE		mg/m3	0	0	0	0	0	0	0	0	0	0
BENZO(a)PYRENE		mg/m3	0	0	0	0	0	0	0	0	0	0
BENZO(b)FLUORANTHENE		mg/m3	0	0	0	0	0	0	0	0	0	0
BENZO(e)PYRENE		mg/m3	0	0	0	0	0	0	0	0	0	0
BENZO(ghi)PERYLENE		mg/m3	0	0	0	0	0	0	0	0	0	0
BENZO(k)FLUORANTHENE		mg/m3	0	0	0	0	0	0	0	0	0	0
CHRYSENE		mg/m3	0	0	0	0	0	0	0	0	0	0
DIBENZO(a,h)ANTHRACENE		mg/m3	0	0	0	0	0	0	0	0	0	0
FLUORANTHENE		mg/m3	0	0	0	0	0	0	0	0	0	0
FLUORENE		mg/m3	0	0	0	0	0	0	0	0	0.001	0
INDENO(123-cd)PYRENE		mg/m3	0	0	0	0	0	0	0	0	0	0
NAPHTHALENE		mg/m3	0.004	0	0.002	0.003	0	0.02	0	0.003	0.005	***0.004***
PHENANTHRENE		mg/m3	0	0	0	0	0	0	0	0	0	0
PYRENE	-	mg/m3	0	0	0	0	0	0	0	0	0	0
BENZENE	0.10	ppm	0	0	0	0	0	0	0	0	0	0
ETHYL BENZENE	100.0	ppm	0	0	0	0	0	0	0	0	0	0
TOLUENE	50.0	ppm	0	0	0	0	0	0	0	0	0	0
XYLENE	100.0	ppm	0	0	0	0	0	0	0	0	0	0
TOTAL DUST	0.15	mg/m3	0	0	0	0	0	0	0	0	0	0

SITE PERIMETER AIR SAMPLING RESULTS

Scajaquada Creek Sediment Remediation

National Fuel Gas Distribution Corp.

RETEC Project # 3-2111-650

Parameter	Limit	Units	02/09/99				02/10/99				02/11/99	
			SW-E	MHF-S	SW-NW	SW-E	BRIDGE	RAILROAD	MHF-S	SW-E	MHF-S	SW-NW
ACENAPHTHENE	Total PAHs : 0.100 mg/m3 (Naphthalene only : 50 mg/m3)	mg/m3	0	0	0	0	0	0	0	0	0	0
ACENAPHTHYLENE		mg/m3	0.003	0.002	0.001	0.001	0	0	0.01	0.009	0.01	0.007
ANTHRACENE		mg/m3	0	0	0	0	0	0	0	0	0	0
BENZO(a)ANTHRACENE		mg/m3	0	0	0	0	0	0	0	0	0	0
BENZO(a)PYRENE		mg/m3	0	0	0	0	0	0	0	0	0	0
BENZO(b)FLUORANTHENE		mg/m3	0	0	0	0	0	0	0	0	0	0
BENZO(e)PYRENE		mg/m3	0	0	0	0	0	0	0	0	0	0
BENZO(ghi)PERYLENE		mg/m3	0	0	0	0	0	0	0	0	0	0
BENZO(k)FLUORANTHENE		mg/m3	0	0	0	0	0	0	0	0	0	0
CHRYSENE		mg/m3	0	0	0	0	0	0	0	0	0	0
DIBENZO(a,h)ANTHRACENE		mg/m3	0	0	0	0	0	0	0	0	0	0
FLUORANTHENE		mg/m3	0	0	0	0	0	0	0	0	0	0
FLUORENE		mg/m3	0	0	0	0	0	0	0	0	0	0
INDENO(123-cd)PYRENE		mg/m3	0	0	0	0	0	0	0	0	0	0
NAPHTHALENE		mg/m3	0.001	0.003	0.001	0.002	0.001	0	***0.02***	***0.02***	***0.02***	0.01
PHENANTHRENE		mg/m3	0	0	0	0	0	0	0	0	0	0
PYRENE		mg/m3	0	0	0	0	0	0	0	0	0	0
BENZENE	0.10	ppm	0	0	0	0	0	0	0	0	0	0
ETHYL BENZENE	100.0	ppm	0	0	0	0	0	0	0	0	0	0
TOLUENE	50.0	ppm	0	0	0	0	0	0	0	0	0.03	0
XYLENE	100.0	ppm	0	0	0	0	0	0	0	0	0	0
TOTAL DUST	0.15	mg/m3	0	0	0	0	0	0	0	0.061	0	0

SITE PERIMETER AIR SAMPLING RESULTS

Scajaquada Creek Sediment Remediation

National Fuel Gas Distribution Corp.

RETEC Project # 3-2111-650

Parameter	Limit	Units		02/13/99		02/15/99			02/16/99			02/17/99
			SW-E	MHF-S	SW-NW	MHF-S	SW-NW	BRIDGE	MHF-S	SW-NW	BRIDGE	MHF-S
ACENAPHTHENE	Total PAHs : 0.100 mg/m3 (Naphthalene only : 50 mg/m3)	mg/m3	0	0	0	0	0	***0.002***	0	0	0	0
ACENAPHTHYLENE		mg/m3	0	0.006	0	0.002	0.0008	0.001	***0.03***	0.002	0.002	0
ANTHRACENE		mg/m3	0	0	0	0	0	0	0	0	0	0
BENZO(a)ANTHRACENE		mg/m3	0	0	0	0	0	0	0	0	0	0
BENZO(a)PYRENE		mg/m3	0	0	0	0	0	0	0	0	0	0
BENZO(b)FLUORANTHENE		mg/m3	0	0	0	0	0	0	0	0	0	0
BENZO(e)PYRENE		mg/m3	0	0	0	0	0	0	0	0	0	0
BENZO(ghi)PERYLENE		mg/m3	0	0	0	0	0	0	0	0	0	0
BENZO(k)FLUORANTHENE		mg/m3	0	0	0	0	0	0	0	0	0	0
CHRYSENE		mg/m3	0	0	0	0	0	0	0	0	0	0
DIBENZO(a,h)ANTHRACENE		mg/m3	0	0	0	0	0	0	0	0	0	0
FLUORANTHENE		mg/m3	0	0	0	0	0	0	0	0	0	0
FLUORENE		mg/m3	0	0	0	0	0	0	0.001	0	0	0
INDENO(123-cd)PYRENE		mg/m3	0	0	0	0	0	0	0	0	0	0
NAPHTHALENE		mg/m3	0	0.01	0	0	0.002	0.002	***0.05***	0.002	0.002	0
PHENANTHRENE		mg/m3	0	0	0	0.003	0	0	0	0	0	0
PYRENE		mg/m3	0	0	0	0	0	0	0	0	0	0
BENZENE	0.10	ppm	0	0	0	0	0	0	0	0	0	0
ETHYL BENZENE	100.0	ppm	0	0	0	0	0	0	0.03	0	0	0
TOLUENE	50.0	ppm	0	0	0	0	0	0	0	0	0	0
XYLENE	100.0	ppm	0	0	0	0	0	0	0	0	0	0
TOTAL DUST	0.15	mg/m3	0	0	0	0	0	0.046	0.048	0.086	0.051	0

SITE PERIMETER AIR SAMPLING RESULTS

Scajaquada Creek Sediment Remediation

National Fuel Gas Distribution Corp.

RETEC Project # 3-2111-650

Parameter	Limit	Units				02/18/99			02/19/99			02/20/99
			BRIDGE	SW-NW	RAILROAD	MHF-S	SW-NW	BRIDGE	MHF-S	SW-NW	BRIDGE	MHF-S
ACENAPHTHENE		mg/m3	0	0	0	0	0	0	0	0	0	0
ACENAPHTHYLENE		mg/m3	0	0	0	***0.02***	0	0.01	0.02	0	0.005	0.02
ANTHRACENE		mg/m3	0	0	0	0	0	0	0	0	0	0
BENZO(a)ANTHRACENE		mg/m3	0	0	0	0	0	0	0	0	0	0
BENZO(a)PYRENE		mg/m3	0	0	0	0	0	0	0	0	0	0
BENZO(b)FLUORANTHENE		mg/m3	0	0	0	0	0	0	0	0	0	0
BENZO(e)PYRENE		mg/m3	0	0	0	0	0	0	0	0	0	0
BENZO(ghi)PERYLENE		mg/m3	0	0	0	0	0	0	0	0	0	0
BENZO(k)FLUORANTHENE		mg/m3	0	0	0	0	0	0	0	0	0	0
CHRYSENE		mg/m3	0	0	0	0	0	0	0	0	0	0
DIBENZO(a,h)ANTHRACENE		mg/m3	0	0	0	0	0	0	0	0	0	0
FLUORANTHENE		mg/m3	0	0	0	0	0	0	0	0	0	0
FLUORENE		mg/m3	0	0	0	0	0	0.001	0	0	0	0
INDENO(123-cd)PYRENE		mg/m3	0	0	0	0	0	0	0	0	0	0
NAPHTHALENE	Total PAHs : 0.100 mg/m3 (Naphthalene only : 50 mg/m3)	mg/m3	0	0.002	0	***0.02***	0	0.009	0.03	0	0.007	0.02
PHENANTHRENE		mg/m3	0	0	0	0	0	0	0	0	0	0
PYRENE		mg/m3	0	0	0	0	0	0	0	0	0	0
BENZENE	0.10	ppm	0	0	0	0	0	0	0	0	0	0
ETHYL BENZENE	100.0	ppm	0	0	0	0	0	0	0	0	0	0
TOLUENE	50.0	ppm	0	0	0	0	0	0	0	0	0	0
XYLENE	100.0	ppm	0	0	0	0	0	0	0	0	0	0
TOTAL DUST	0.15	mg/m3	0	0	0	0	0	0	0.048	0	0	0

SITE PERIMETER AIR SAMPLING RESULTS

Scajaquada Creek Sediment Remediation

National Fuel Gas Distribution Corp.

RETEC Project # 3-2111-650

Parameter	Limit	Units	02/21/99		02/22/99			02/23/99		02/24/99		02/25/99
			MHF-S	SW-NW	MHF-S	SW-NW	SW-E	MHF-S	SW-NW	MHF-S	SW-NW	MHF-S
ACENAPHTHENE	Total PAHs : 0.100 mg/m3 (Naphthalene only : 50 mg/m3)	mg/m3	0	0	0	0	0	0	0	0	0	0
ACENAPHTHYLENE		mg/m3	0.06	0	0.04	0	0	0.02	0	***0.006***	0	0.01
ANTHRACENE		mg/m3	0	0	0	0	0	0	0	0	0	0
BENZO(a)ANTHRACENE		mg/m3	0	0	0	0	0	0	0	0	0	0
BENZO(a)PYRENE		mg/m3	0	0	0	0	0	0	0	0	0	0
BENZO(b)FLUORANTHENE		mg/m3	0	0	0	0	0	0	0	0	0	0
BENZO(e)PYRENE		mg/m3	0	0	0	0	0	0	0	0	0	0
BENZO(ghi)PERYLENE		mg/m3	0	0	0	0	0	0	0	0	0	0
BENZO(k)FLUORANTHENE		mg/m3	0	0	0	0	0	0	0	0	0	0
CHRYSENE		mg/m3	0	0	0	0	0	0	0	0	0	0
DIBENZO(a,h)ANTHRACENE		mg/m3	0	0	0	0	0	0	0	0	0	0
FLUORANTHENE		mg/m3	0	0	0	0	0	0	0	0	0	0
FLUORENE		mg/m3	0	0	0	0	0	0	0	0	0	0
INDENO(123-cd)PYRENE		mg/m3	0	0	0	0	0	0	0	0	0	0
NAPHTHALENE		mg/m3	0.08	0	0.05	0	0	***0.03***	0	***0.01***	0	***0.02***
PHENANTHRENE		mg/m3	0	0	0	0	0	0	0	0	0	0
PYRENE		mg/m3	0	0	0	0	0	0	0	0	0	0
BENZENE	0.10	ppm	0.02	0	0	0	0	0	0	0	0	0
ETHYL BENZENE	100.0	ppm	0.1	0	0.04	0	0	0.05	0	0	0	0
TOLUENE	50.0	ppm	0	0	0	0	0	0.03	0	0	0	0
XYLENE	100.0	ppm	0.06	0	0.03	0	0	0.03	0	0	0	0
TOTAL DUST	0.15	mg/m3	0.21	0	0.16	0	0	0.13	0.021	0.15	0.05	0

SITE PERIMETER AIR SAMPLING RESULTS

Scajaquada Creek Sediment Remediation

National Fuel Gas Distribution Corp.

RETEC Project # 3-2111-650

Parameter	Limit	Units		02/26/99			03/01/99			03/02/99		
			SW-NW	MHF-S	RAILROAD	SW-NW	MHF-S	SW-NW	SW-E	MFH-S	SW-NW	SW-E
ACENAPHTHENE	Total PAHs : 0.100 mg/m3 (Naphthalene only : 50 mg/m3)	mg/m3	0	0	0	0	0	0	0	0	0	0
ACENAPHTHYLENE		mg/m3	0	0.005	0	0	0	0.006	***0.02***	0.002	0	0
ANTHRACENE		mg/m3	0	0	0	0	0	0	0	0	0	0
BENZO(a)ANTHRACENE		mg/m3	0	0	0	0	0	0	0	0	0	0
BENZO(a)PYRENE		mg/m3	0	0	0	0	0	0	0	0	0	0
BENZO(b)FLUORANTHENE		mg/m3	0	0	0	0	0	0	0	0	0	0
BENZO(e)PYRENE		mg/m3	0	0	0	0	0	0	0	0	0	0
BENZO(ghi)PERYLENE		mg/m3	0	0	0	0	0	0	0	0	0	0
BENZO(k)FLUORANTHENE		mg/m3	0	0	0	0	0	0	0	0	0	0
CHRYSENE		mg/m3	0	0	0	0	0	0	0	0	0	0
DIBENZO(a,h)ANTHRACENE		mg/m3	0	0	0	0	0	0	0	0	0	0
FLUORANTHENE		mg/m3	0	0	0	0	0	0	0	0	0	0
FLUORENE		mg/m3	0	0	0	0	0	0	0	0	0	0
INDENO(123-cd)PYRENE		mg/m3	0	0	0	0	0	0	0	0	0	0
NAPHTHALENE		mg/m3	0	***0.01***	0	0	0	0.01	0.02	0.002	0	0
PHENANTHRENE		mg/m3	0	0	0	0	0	0	0	0	0	0
PYRENE		mg/m3	0	0	0	0	0	0	0	0	0	0
BENZENE	0.10	ppm	0	0	0	0	0	0	0	0	0	0
ETHYL BENZENE	100.0	ppm	0	0	0	0	0	0	0	0	0	0
TOLUENE	50.0	ppm	0	0	0	0	0	0	0	0	0	0
XYLENE	100.0	ppm	0	0	0	0	0	0	0	0	0	0
TOTAL DUST	0.15	mg/m3	0	0	0	0	0	0	0	0	0	0

SITE PERIMETER AIR SAMPLING RESULTS

Scajaquada Creek Sediment Remediation

National Fuel Gas Distribution Corp.

RETEC Project # 3-2111-650

Parameter	Limit	Units	03/03/99			03/04/99	03/05/99	03/09/99		03/10/99		03/11/99
			SW-NW	RAILROAD	MHF-S	MHF-S	MHF-S	MHF-S	RAILROAD	MHF-S	SW-NW	MHF-S
ACENAPHTHENE	Total PAHs : 0.100 mg/m3 (Naphthalene only : 50 mg/m3)	mg/m3	0	0	0	0	0	0	0	0	0	0
ACENAPHTHYLENE		mg/m3	0.001	0	0.008	0.003	0.003	0.004	0	0.004	0	0.003
ANTHRACENE		mg/m3	0	0	0	0	0	0	0	0	0	0
BENZO(a)ANTHRACENE		mg/m3	0	0	0	0	0	0	0	0	0	0
BENZO(a)PYRENE		mg/m3	0	0	0	0	0	0	0	0	0	0
BENZO(b)FLUORANTHENE		mg/m3	0	0	0	0	0	0	0	0	0	0
BENZO(e)PYRENE		mg/m3	0	0	0	0	0	0	0	0	0	0
BENZO(ghi)PERYLENE		mg/m3	0	0	0	0	0	0	0	0	0	0
BENZO(k)FLUORANTHENE		mg/m3	0	0	0	0	0	0	0	0	0	0
CHRYSENE		mg/m3	0	0	0	0	0	0	0	0	0	0
DIBENZO(a,h)ANTHRACENE		mg/m3	0	0	0	0	0	0	0	0	0	0
FLUORANTHENE		mg/m3	0	0	0	0	0.0009	0	0	0	0	0
FLUORENE		mg/m3	0	0	0	0	0	0	0	0	0	0
INDENO(123-cd)PYRENE		mg/m3	0	0	0	0	0	0	0	0	0	0
NAPHTHALENE		mg/m3	0.001	0	0.006	0.006	***0.008***	0.007	0	0.009	0	0.01
PHENANTHRENE		mg/m3	0	0	0	0	0	0	0	0	0	0
PYRENE		mg/m3	0	0	0	0	0	0	0	0	0	0
BENZENE	0.10	ppm	0	0	0	0	0	0	0	0	0	0
ETHYL BENZENE	100.0	ppm	0	0	0	0	0	0	0	0	0	0
TOLUENE	50.0	ppm	0	0	0	0.01	0	0	0	0	0	0
XYLENE	100.0	ppm	0	0	0	0	0	0	0	0	0	0
TOTAL DUST	0.15	mg/m3	0	0	0	0	0	0	0	0	0	0

SITE PERIMETER AIR SAMPLING RESULTS

Scajaquada Creek Sediment Remediation

National Fuel Gas Distribution Corp.

RETEC Project # 3-2111-650

Parameter	Limit	Units		03/12/99		03/15/99		03/16/99		03/17/99		03/18/99
			SW-NW	MHF-S	SW-NW	MHF-S	SW-NW	MHF-S	SW-NW	MHF-S	SW-NW	MHF-S
ACENAPHTHENE	Total PAHs : 0.100 mg/m3 (Naphthalene only : 50 mg/m3)	mg/m3	0	0	0	0	0	0	0	0	0	0
ACENAPHTHYLENE		mg/m3	0	0.005	0	0.006	0.002	0	0	0	0	0
ANTHRACENE		mg/m3	0	0	0	0	0	0	0	0	0	0
BENZO(a)ANTHRACENE		mg/m3	0	0	0	0	0	0	0	0	0	0
BENZO(a)PYRENE		mg/m3	0	0	0	0	0	0	0	0	0	0
BENZO(b)FLUORANTHENE		mg/m3	0	0	0	0	0	0	0	0	0	0
BENZO(e)PYRENE		mg/m3	0	0	0	0	0	0	0	0	0	0
BENZO(ghi)PERYLENE		mg/m3	0	0	0	0	0	0	0	0	0	0
BENZO(k)FLUORANTHENE		mg/m3	0	0	0	0	0	0	0	0	0	0
CHRYSENE		mg/m3	0	0	0	0	0	0	0	0	0	0
DIBENZO(a,h)ANTHRACENE		mg/m3	0	0	0	0	0	0	0	0	0	0
FLUORANTHENE		mg/m3	0	0	0	0	0	0	0	0	0	0
FLUORENE		mg/m3	0	0	0	0	0	0	0	0	0	0
INDENO(123-cd)PYRENE		mg/m3	0	0	0	0	0	0	0	0	0	0
NAPHTHALENE		mg/m3	0	0.01	0	***0.01***	***0.002***	0	0	0	0.005	0
PHENANTHRENE		mg/m3	0	0	0	0	0	0	0	0	0	0
PYRENE		mg/m3	0	0	0	0	0	0	0	0	0	0
BENZENE	0.10	ppm	0	0	0	0	0	0	0	0	0	0
ETHYL BENZENE	100.0	ppm	0	0	0	0	0	0	0	0	0	0
TOLUENE	50.0	ppm	0	0	0	0	0	0	0	0	0	0
XYLENE	100.0	ppm	0	0	0	0	0	0	0	0	0	0
TOTAL DUST	0.15	mg/m3	0	0	0	0	0	0	0	0	0	0

SITE PERIMETER AIR SAMPLING RESULTS

Scajaquada Creek Sediment Remediation

National Fuel Gas Distribution Corp.

RETEC Project # 3-2111-650

Parameter	Limit	Units		03/19/99		03/22/99			03/23/99		03/24/99		
			SW-NW	MHF-S	SW-NW	MHF-S	SW-NW		MHF-S	SW-NW	MHF-S	RAILROAD	SW-NW
ACENAPHTHENE	Total PAHs : 0.100 mg/m3 (Naphthalene only : 50 mg/m3)	mg/m3	0	0	0	0	0		0	0	0	0	0
ACENAPHTHYLENE		mg/m3	0	0.005	0	0	0.001		0	0	0	0	0
ANTHRACENE		mg/m3	0	0	0	0	0		0	0	0	0	0
BENZO(a)ANTHRACENE		mg/m3	0	0	0	0	0		0	0	0	0	0
BENZO(a)PYRENE		mg/m3	0	0	0	0	0		0	0	0	0	0
BENZO(b)FLUORANTHENE		mg/m3	0	0	0	0	0		0	0	0	0	0
BENZO(e)PYRENE		mg/m3	0	0	0	0	0		0	0	0	0	0
BENZO(ghi)PERYLENE		mg/m3	0	0	0	0	0		0	0	0	0	0
BENZO(k)FLUORANTHENE		mg/m3	0	0	0	0	0		0	0	0	0	0
CHRYSENE		mg/m3	0	0	0	0	0		0	0	0	0	0
DIBENZO(a,h)ANTHRACENE		mg/m3	0	0	0	0	0		0	0	0	0	0
FLUORANTHENE		mg/m3	0	0	0	0	0		0	0	0	0	0
FLUORENE		mg/m3	0	0	0	0	0		0	0	0	0	0
INDENO(123-cd)PYRENE		mg/m3	0	0	0	0	0		0	0	0	0	0
NAPHTHALENE		mg/m3	0	***0.009***	0	0	0.002		0	0.001	0	0	0
PHENANTHRENE		mg/m3	0	0	0	0	0		0	0	0	0	0
PYRENE		mg/m3	0	0	0	0	0		0	0	0	0	0
BENZENE	0.10	ppm	0	0	0	0	0		0	0	0	0	0
ETHYL BENZENE	100.0	ppm	0	0	0	0	0		0	0	0	0	0
TOLUENE	50.0	ppm	0	0	0	0	0		0	0	0	0	0
XYLENE	100.0	ppm	0	0	0	0	0		0	0	0	0	0
TOTAL DUST	0.15	mg/m3	0	0.055	0	0	0		0	0	0	0	0.082

SITE PERIMETER AIR SAMPLING RESULTS

Scajaquada Creek Sediment Remediation

National Fuel Gas Distribution Corp.

RETEC Project # 3-2111-650

Parameter	Limit	Units	03/25/99		03/26/99		03/29/99		03/30/99		03/31/99	
			MHF-S	SW-NW	MHF-S	SW-NW	MHF-S	SW-NW	MHF-S	SW-NW	MHF-S	SW-NW
ACENAPHTHENE	Total PAHs : 0.100 mg/m3 (Naphthalene only : 50 mg/m3)	mg/m3	0	0	0	0	0	0	0	0	0	0
ACENAPHTHYLENE		mg/m3	0.02	0	0	0.01	0	0	0	0	0	0
ANTHRACENE		mg/m3	0	0	0	0	0	0	0	0	0	0
BENZO(a)ANTHRACENE		mg/m3	0	0	0	0	0	0	0	0	0	0
BENZO(a)PYRENE		mg/m3	0	0	0	0	0	0	0	0	0	0
BENZO(b)FLUORANTHENE		mg/m3	0	0	0	0	0	0	0	0	0	0
BENZO(e)PYRENE		mg/m3	0	0	0	0	0	0	0	0	0	0
BENZO(ghi)PERYLENE		mg/m3	0	0	0	0	0	0	0	0	0	0
BENZO(k)FLUORANTHENE		mg/m3	0	0	0	0	0	0	0	0	0	0
CHRYSENE		mg/m3	0	0	0	0	0	0	0	0	0	0
DIBENZO(a,h)ANTHRACENE		mg/m3	0	0	0	0	0.002	0	0	0	0	0
FLUORANTHENE		mg/m3	0	0	0	0	0	0	0	0	0	0
FLUORENE		mg/m3	0	0	0	0	0	0	0	0	0	0
INDENO(123-cd)PYRENE		mg/m3	0	0	0	0	0	0	0	0	0	0
NAPHTHALENE		mg/m3	0.04	0	0	0.02	0.004	***0.002***	0	***0.008***	0	***0.006***
PHENANTHRENE		mg/m3	0	0	0	0	0	0	0	0	0	0
PYRENE		mg/m3	0	0	0	0	0	0	0	0	0	0
BENZENE	0.10	ppm	0	0	0	0	0	0	0	0	0	0
ETHYL BENZENE	100.0	ppm	0	0	0	0	0	0	0	0	0	0
TOLUENE	50.0	ppm	0	0	0	0	0	0	0	0	0	0
XYLENE	100.0	ppm	0	0	0	0	0	0	0	0	0	0
TOTAL DUST	0.15	mg/m3	0.075	0	0	0.07	0.063	0	0	0.067	0.083	0.19

SITE PERIMETER AIR SAMPLING RESULTS

Scajaquada Creek Sediment Remediation

National Fuel Gas Distribution Corp.

RETEC Project # 3-2111-650

Parameter	Limit	Units	04/01/99		04/05/99		04/06/99		04/07/99			04/08/99
			MHF-S	SW-NW	MHF-S	SW-NW	MHF-S	SW-NW	MHF-S	SW-NW	RIVER	MHF-S
ACENAPHTHENE	Total PAHs : 0.100 mg/m3 (Naphthalene only : 50 mg/m3)	mg/m3	0	0	0	0	0	0	0	0	0	0
ACENAPHTHYLENE		mg/m3	0	0.006	0.01	0	0.005	0.004	0.005	0.007	0.001	0.005
ANTHRACENE		mg/m3	0	0	0	0	0	0	0	0	0	0
BENZO(a)ANTHRACENE		mg/m3	0	0	0	0	0	0	0	0	0	0
BENZO(a)PYRENE		mg/m3	0	0	0	0	0	0	0	0	0	0
BENZO(b)FLUORANTHENE		mg/m3	0	0	0	0	0	0	0	0	0	0
BENZO(e)PYRENE		mg/m3	0	0	0	0	0	0	0	0	0	0
BENZO(ghi)PERYLENE		mg/m3	0	0	0	0	0	0	0	0	0	0
BENZO(k)FLUORANTHENE		mg/m3	0	0	0	0	0	0	0	0	0	0
CHRYSENE		mg/m3	0	0	0	0	0	0	0	0	0	0
DIBENZO(a,h)ANTHRACENE		mg/m3	0	0	0	0	0	0	0	0	0	0
FLUORANTHENE		mg/m3	0	0	0	0	0	0	0	0	0	0
FLUORENE		mg/m3	0	0	0	0	0	0	0	0	0	0
INDENO(123-cd)PYRENE		mg/m3	0	0	0	0	0	0	0	0	0	0
NAPHTHALENE		mg/m3	0	0.01	0.02	0.002	0.006	0.009	0.01	0.01	0.001	***0.01***
PHENANTHRENE		mg/m3	0	0	0	0	0	0	0	0	0	0
PYRENE		mg/m3	0	0	0	0	0	0	0	0	0	0
BENZENE	0.10	ppm	0	0	0	0	0	0	0	0	0	0
ETHYL BENZENE	100.0	ppm	0	0	0	0	0	0	0	0	0	0
TOLUENE	50.0	ppm	0	0	0	0	0	0	0	0	0	0
XYLENE	100.0	ppm	0	0	0	0	0	0	0	0	0	0
TOTAL DUST	0.15	mg/m3	0.06	0.054	0	0	0	0	0	0	0	0.051

SITE PERIMETER AIR SAMPLING RESULTS

Scajaquada Creek Sediment Remediation

National Fuel Gas Distribution Corp.

RETEC Project # 3-2111-650

Parameter	Limit	Units	04/09/99				04/12/99		04/13/99		04/14/99	
			SW-NW	MHF-S	MHF-N	STREET	MHF-S	SW-NW	MHF-S	SW-NW	MHF-S	SW-NW
ACENAPHTHENE	Total PAHs : 0.100 mg/m3 (Naphthalene only : 50 mg/m3)	mg/m3	0	0	0	0	0	0	0	0	0	0
ACENAPHTHYLENE		mg/m3	0.004	0.02	0.002	0.004	0.01	0	***0.02***	0	0	0.005
ANTHRACENE		mg/m3	0	0	0	0	0	0	0	0	0	0
BENZO(a)ANTHRACENE		mg/m3	0	0	0	0	0	0	0	0	0	0
BENZO(a)PYRENE		mg/m3	0	0	0	0	0	0	0	0	0	0
BENZO(b)FLUORANTHENE		mg/m3	0	0	0	0	0	0	0	0	0	0
BENZO(e)PYRENE		mg/m3	0	0	0	0	0	0	0	0	0	0
BENZO(ghi)PERYLENE		mg/m3	0	0	0	0	0	0	0	0	0	0
BENZO(k)FLUORANTHENE		mg/m3	0	0	0	0	0	0	0	0	0	0
CHRYSENE		mg/m3	0	0	0	0	0	0	0	0	0	0
DIBENZO(a,h)ANTHRACENE		mg/m3	0	0	0	0	0	0	0	0	0	0
FLUORANTHENE		mg/m3	0	0	0	0	0	0	0	0	0	0
FLUORENE		mg/m3	0	0.0008	0	0	0	0	0	0	0	0
INDENO(123-cd)PYRENE		mg/m3	0	0	0	0	0	0	0	0	0	0
NAPHTHALENE		mg/m3	***0.01***	0.04	0.006	0.009	0.03	0	***0.03***	0	0	***0.009***
PHENANTHRENE		mg/m3	0	0.0008	0	0	0	0	0	0	0	0
PYRENE		mg/m3	0	0	0	0	0	0	0	0	0	0
BENZENE	0.10	ppm	0	0	0	0	0	0	0	0	0	0
ETHYL BENZENE	100.0	ppm	0	0.004	0	0	0	0	0	0	0	0
TOLUENE	50.0	ppm	0	0	0	0	0	0	0	0	0	0
XYLENE	100.0	ppm	0	0	0	0	0	0	0	0	0	0
TOTAL DUST	0.15	mg/m3	0	0	0	0	0	0	0	0	0	0.065

SITE PERIMETER AIR SAMPLING RESULTS

Scajaquada Creek Sediment Remediation

National Fuel Gas Distribution Corp.

RETEC Project # 3-2111-650

Parameter	Limit	Units	04/15/99		04/16/99		04/17/99	04/19/99		04/20/99		04/21/99
			MHF-S	SW-NW	MHF-S	SW-NW	MHF-N	MHF-S	SW-NW	MHF-S	SW-NW	MHF-S
ACENAPHTHENE	Total PAHs : 0.100 mg/m3 (Naphthalene only : 50 mg/m3)	mg/m3	0	0	0	0	0	0	0	0	0	0
ACENAPHTHYLENE		mg/m3	0	0	0	0	0	0	0.003	0.003	0	0.004
ANTHRACENE		mg/m3	0	0	0	0	0	0	0	0	0	0
BENZO(a)ANTHRACENE		mg/m3	0	0	0	0	0	0	0	0	0	0
BENZO(a)PYRENE		mg/m3	0	0	0	0	0	0	0	0	0	0
BENZO(b)FLUORANTHENE		mg/m3	0	0	0	0	0	0	0	0	0	0
BENZO(e)PYRENE		mg/m3	0	0	0	0	0	0	0	0	0	0
BENZO(ghi)PERYLENE		mg/m3	0	0	0	0	0	0	0	0	0	0
BENZO(k)FLUORANTHENE		mg/m3	0	0	0	0	0	0	0	0	0	0
CHRYSENE		mg/m3	0	0	0	0	0	0	0	0	0	0
DIBENZO(a,h)ANTHRACENE		mg/m3	0	0	0	0	0	0	0	0	0	0
FLUORANTHENE		mg/m3	0	0	0	0	0	0	0	0	0	0
FLUORENE		mg/m3	0	0	0	0	0	0	0	0	0	0
INDENO(123-cd)PYRENE		mg/m3	0	0	0	0	0	0	0	0	0	0
NAPHTHALENE		mg/m3	0.005	0.004	0.004	0	0.03	0	0.006	0.006	0.004	0.008
PHENANTHRENE		mg/m3	0	0	0	0	0	0	0	0	0	0
PYRENE		mg/m3	0	0	0	0	0	0	0	0	0	0
BENZENE	0.10	ppm	0	0	0	0	0	0	0	0	0	0
ETHYL BENZENE	100.0	ppm	0	0	0	0	0	0	0	0	0	0
TOLUENE	50.0	ppm	0	0	0	0	0	0	0	0	0	0
XYLENE	100.0	ppm	0	0	0	0	0	0	0	0	0	0
TOTAL DUST	0.15	mg/m3	0	0	0	0	0	0	0	0	0	0.22

SITE PERIMETER AIR SAMPLING RESULTS

Scajaquada Creek Sediment Remediation

National Fuel Gas Distribution Corp.

RETEC Project # 3-2111-650

Parameter	Limit	Units	04/22/99		04/23/99		04/26/99		04/27/99		04/28/99	
			SW-NW	MHF-S	SW-NW	MHF-S	SW-NW	MHF-S	SW-NW	MHF-S	SW-NW	MHF-S
ACENAPHTHENE	Total PAHs : 0.100 mg/m3 (Naphthalene only : 50 mg/m3)	mg/m3	0	0	0	0	0	0	0	0	0	0
ACENAPHTHYLENE		mg/m3	0	0	0.0009	0	0	0	0	0	0	0
ANTHRACENE		mg/m3	0	0	0	0	0	0	0	0	0	0
BENZO(a)ANTHRACENE		mg/m3	0	0	0	0	0	0	0	0	0	0
BENZO(a)PYRENE		mg/m3	0	0	0	0	0	0	0	0	0	0
BENZO(b)FLUORANTHENE		mg/m3	0	0	0	0	0	0	0	0	0	0
BENZO(e)PYRENE		mg/m3	0	0	0	0	0	0	0	0	0	0
BENZO(ghi)PERYLENE		mg/m3	0	0	0	0	0	0	0	0	0	0
BENZO(k)FLUORANTHENE		mg/m3	0	0	0	0	0	0	0	0	0	0
CHRYSENE		mg/m3	0	0	0	0	0	0	0	0	***0.003***	0
DIBENZO(a,h)ANTHRACENE		mg/m3	0	0	0	0	0	0	0	0	0	0
FLUORANTHENE		mg/m3	0	0	0	0	0	0	0	0	0	0
FLUORENE		mg/m3	0	0	0	0	0	0	0	0	0	0
INDENO(123-cd)PYRENE		mg/m3	0	0	0	0	0	0	0	0	0	0
NAPHTHALENE		mg/m3	0.008	0.003	0.002	0	0	0.005	0.007	***0.02***	0	0
PHENANTHRENE		mg/m3	0	0	0	0	0	0	0	0	0	0
PYRENE		mg/m3	0	0	0	0	0	0	0	0	0	0
BENZENE	0.10	ppm	0	0	0	0	0	0	0	0	0	0
ETHYL BENZENE	100.0	ppm	0	0	0	0	0	0	0	0	0	0
TOLUENE	50.0	ppm	0	0	0	0	0	0	0	0	0	0
XYLENE	100.0	ppm	0	0	0	0	0	0	0	0	0	0
TOTAL DUST	0.15	mg/m3	0.084	0.05	0	0	0	0	0.11	0.26	0	0

SITE PERIMETER AIR SAMPLING RESULTS

Scajaquada Creek Sediment Remediation

National Fuel Gas Distribution Corp.

RETEC Project # 3-2111-650

Parameter	Limit	Units		05/03/99		05/04/99		05/05/99	
			SW-NW	MHF-E	MHF-W	MHF-E	MHF-W	MHF-S	MHF-E
ACENAPHTHENE	Total PAHs : 0.100 mg/m3 (Naphthalene only : 50 mg/m3)	mg/m3	0	0	0	0	0	0	0
ACENAPHTHYLENE		mg/m3	0	0	0	0	0	0	0
ANTHRACENE		mg/m3	0	0	0	0	0	0	0
BENZO(a)ANTHRACENE		mg/m3	0	0	0	0	0	0	0
BENZO(a)PYRENE		mg/m3	0	0	0	0	0	0	0
BENZO(b)FLUORANTHENE		mg/m3	0	0	0	0	0	0	0
BENZO(e)PYRENE		mg/m3	0	0	0	0	0	0	0
BENZO(ghi)PERYLENE		mg/m3	0	0	0	0	0	0	0
BENZO(k)FLUORANTHENE		mg/m3	0	0	0	0	0	0	0
CHRYSENE		mg/m3	0	0	0	0	0	0	0
DIBENZO(a,h)ANTHRACENE		mg/m3	0	0	0	0	0	0	0
FLUORANTHENE		mg/m3	0	0	0	0	0	0	0
FLUORENE		mg/m3	0	0	0	0	0	0	0
INDENO(123-cd)PYRENE		mg/m3	0	0	0	0	0	0	0
NAPHTHALENE		mg/m3	0	0	0	0	0	0	0
PHENANTHRENE		mg/m3	0	0	0	0	0	0	0
PYRENE	-	mg/m3	0	0	0	0	0	0	0
BENZENE	0.10	ppm	0	0	0	0	0	0	0
ETHYL BENZENE	100.0	ppm	0	0	0	0	0	0	0
TOLUENE	50.0	ppm	0	0	0	0	0	0	0
XYLENE	100.0	ppm	0	0	0	0	0	0	0
TOTAL DUST	0.15	mg/m3	0	0.79	0.06	0	0.1	0.15	0

Appendix L

Appendix L

Summary of Real-Time Air Monitoring Results

NYSDEC Site # 91514B
August 30, 2000

Scajaquada Creek Sediment Remediation Project, Buffalo, NY
Real-Time Air Monitoring Results

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Site Perimeter, EXCAVATION/PILINGS

Date	Hydrocarbons, ppm		Dust, mg/m3		Noise, dB		Odor, 8 point scale		Notes
	Max	Min	Max	Min	Max	Min	Max	Min	
08/11/98									
08/12/98									
08/13/98									
08/14/98									
08/15/98									
08/16/98									
08/17/98									
08/18/98									RAIN IN THE MORNING
08/19/98									
08/20/98									
08/21/98									
08/22/98									
08/23/98									
08/24/98									VERY HUMID
08/25/98									
08/26/98									
08/27/98									
08/28/98									
08/29/98									
08/30/98									
08/31/98									
09/01/98									
09/02/98									
09/03/98									
09/04/98									
09/05/98									
09/06/98									
09/07/98									
09/08/98									
09/09/98									
09/10/98									
09/11/98									
09/12/98									
09/14/98									
09/15/98									
09/16/98									
09/17/98	0.6	0.4	0.028		90.0	70.0			
09/18/98									
09/19/98									
09/20/98									
09/21/98									
09/22/98	0.5	0.5							
09/23/98									
09/24/98									
09/25/98									
09/26/98									
09/27/98									
09/28/98									
09/29/98									
09/30/98									
10/01/98									
10/02/98									
10/03/98									
10/04/98									
10/05/98									
10/06/98									
10/07/98									
10/08/98									
10/09/98									
10/10/98									
10/11/98									
10/12/98									
10/13/98									
10/14/98									
10/15/98	0.7	0.0							
10/16/98	0.5	0.0							
10/17/98	10.0	5.0							OVERPACKING OPERATION
10/18/98									
10/19/98	0.9	0.0							
10/20/98	0.0								
10/21/98									
10/22/98									
10/23/98									
10/24/98	0.0		0.076	0.038	76.0	74.0	3.0	0.0	

Scajaquada Creek Sediment Remediation Project, Buffalo, NY
Real-Time Air Monitoring Results

Site Perimeter, EXCAVATION / PILINGS STATION, continued

Date	Hydrocarbons, ppm		Dust, mg/m3		Noise, dB		Odor, 8 point scale		Notes
	Max	Min	Max	Min	Max	Min	Max	Min	
10/25/1998									
10/26/1998	0.0								
10/27/1998	3.4	0.4							BENZENE/NAPTH 0 PPM
10/28/1998									
10/29/1998	0.0								
10/30/1998									
10/31/1998									
11/01/1998									
11/02/1998									
11/03/1998									
11/04/1998	0.0		0.006		72.0		NOTES		SEWAGE ODOR
11/05/1998									
11/06/1998									
11/07/1998	0.0		0.001		72.0	68.0	1.0	0.0	
11/08/1998									
11/09/1998									
11/10/1998									
11/11/1998									
11/12/1998									
11/13/1998									
11/14/1998									
11/15/1998									
11/16/1998									
11/17/1998									
11/18/1998									
11/19/1998									
11/20/1998									
11/21/1998									
11/22/1998									
11/23/1998									
11/24/1998									
11/25/1998									
11/26/1998									
11/28/1998									
11/29/1998									
11/30/1998									
12/01/1998									
12/02/1998									
12/03/1998									
12/04/1998									
12/05/1998									
12/06/1998									
12/07/1998									
12/08/1998									
12/09/1998									
12/10/1998									
12/11/1998									
12/12/1998	0.6						7.0		BENZENE .5PPM
12/13/1998									
12/14/1998									
12/15/1998	0.6								
12/16/1998	0.8	0.0							
12/17/1998									
12/18/1998									
12/19/1998									
12/20/1998									
12/21/1998	0.6								RAIN
12/22/1998									
12/23/1998									
12/24/1998									
12/25/1998									
12/26/1998									
12/27/1998									
12/28/1998									
12/29/1998	0.0								
12/30/1998									
12/31/1998									
01/01/1999									
01/02/1999									
01/03/1999									
01/04/1999									
01/05/1999									
01/06/1999									
01/07/1999									

Scajaquada Creek Sediment Remediation Project, Buffalo, NY
Real-Time Air Monitoring Results

Site Perimeter, EXCAVATION / PILINGS STATION, continued

Date	Hydrocarbons, ppm		Dust, mg/m3		Noise, dB		Odor, 8 point scale		Notes
	Max	Min	Max	Min	Max	Min	Max	Min	
01/08/1999	0.0						0.0		
01/09/1999									
01/10/1999									
01/11/1999									
01/12/1999	0.0		0.020	0.015	76.0	70.0	2.0	0.0	
01/13/1999									
01/14/1999									
01/15/1999									
01/16/1999									
01/17/1999									
01/18/1999	0.0						0.0		
01/19/1999									
01/20/1999									
01/21/1999	1.0		0.056		70.0	68.0	2.0		
01/22/1999	0.5	0.0							
01/23/1999									
01/24/1999									
01/25/1999									
01/26/1999									
01/27/1999									
01/28/1999									
01/29/1999									
01/30/1999									
01/31/1999									
02/01/1999									
02/02/1999	0.4	0.2							
02/03/1999									
02/04/1999									
02/05/1999									
02/06/1999									
02/07/1999									
02/08/1999									
02/09/1999									
02/11/1999									
02/12/1999									
02/13/1999									
02/14/1999									
02/15/1999	0.0						2.0	1.0	
02/16/1999									
02/17/1999									
02/18/1999									
02/19/1999									
02/20/1999									
02/21/1999			0.150	0.109					
02/22/1999									
02/23/1999									
02/24/1999									
02/25/1999									
02/26/1999									
02/27/1999									
02/28/1999									
03/01/1999									
03/02/1999									
03/03/1999									
03/04/1999									
03/05/1999									
03/06/1999									
03/07/1999									
03/08/1999									
03/09/1999									
03/10/1999									
03/11/1999									
03/12/1999									
03/13/1999									
03/14/1999									
03/15/1999									
03/16/1999									
03/17/1999									
03/18/1999									
03/19/1999									
03/20/1999									
03/21/1999									
03/22/1999									
03/23/1999									

Scajaquada Creek Sediment Remediation Project, Buffalo, NY
Real-Time Air Monitoring Results

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Site Perimeter, SW-E / WEST AVE STATION

Date	Hydrocarbons, ppm		Dust, mg/m3		Noise, dB		Odor, 8 point scale		Notes
	Max	Min	Max	Min	Max	Min	Max	Min	
08/11/98	0.0		0.000		64.0		1.0	0.0	
08/12/98	0.0		0.000		70.0	66.0	2.0	0.0	
08/13/98	0.0		0.030	0.000	66.0	62.0	1.5	0.0	
08/14/98	0.0		0.000		64.0	60.0	0.0		
08/15/98	0.0		0.020	0.000	62.0		0.0		
08/16/98									
08/17/98	0.0		0.110	0.090	70.0	60.0	0.0		
08/18/98	0.0		0.000		66.0	64.0	1.0	0.0	
08/19/98	0.0		0.000		71.0	66.0	2.0	0.0	
08/20/98	0.0		0.070	0.000	71.0		1.0	0.0	
08/21/98	0.0		0.130	0.100	80.0	66.0	2.0	1.0	
08/22/98									
08/23/98									
08/24/98									
08/25/98									
08/26/98									
08/27/98	0.0		0.040	0.015	67.0	62.0	1.0	0.0	
08/28/98	0.0		0.076	0.038	70.0	66.0	1.0	0.0	
08/29/98	0.0		0.077	0.022	68.0	64.0	1.0	0.0	
08/30/98									
08/31/98									
09/01/98									
09/02/98									
09/03/98									
09/04/98									
09/05/98									
09/06/98									
09/07/98									
09/08/98									
09/09/98									
09/10/98									
09/11/98									
09/12/98									
09/14/98	0.0		0.070	0.027	68.0	64.0	0.0		
09/15/98									
09/16/98	0.0		0.060				1.0	0.0	
09/17/98	0.0		0.202		60.0		0.0		
09/18/98	0.0		0.028		64.0		2.0	0.0	
09/19/98									
09/20/98									
09/21/98									
09/22/98									
09/23/98									
09/24/98									
09/25/98									
09/26/98									
09/27/98									
09/28/98									
09/29/98									
09/30/98									
10/01/98									
10/02/98									
10/03/98									
10/04/98									
10/05/98									
10/06/98									
10/07/98									
10/08/98									
10/09/98									
10/10/98									
10/11/98									
10/12/98									
10/13/98									
10/14/98									
10/15/98	0.0		0.053	0.012	68.0	66.0	0.0		
10/16/98	0.0		0.061	0.013	66.0		0.0		
10/17/98									
10/18/98									
10/19/98	0.0		0.064	0.016	72.0	68.0	1.0	0.0	
10/20/98	0.0		0.064	0.015	73.0	70.0	0.0		
10/21/98									
10/22/98	0.0		0.042		72.0		2.0		
10/23/98	0.0		0.033		76.0		0.0		
10/24/98									

Scajaquada Creek Sediment Remediation Project, Buffalo, NY
Real-Time Air Monitoring Results

Site Perimeter, SW-E / WEST AVE STATION, continued

Date	Hydrocarbons, ppm		Dust, mg/m3		Noise, dB		Odor, 8 point scale		Notes
	Max	Min	Max	Min	Max	Min	Max	Min	
10/25/1998									
10/26/1998	0.0		0.062	0.034	68.0	66.0	0.0		
10/27/1998	0.0		0.045	0.041	70.0		0.0		
10/28/1998									
10/29/1998	0.0		0.052	0.010	74.0	64.0	1.0	0.0	
10/30/1998	0.0		0.219	0.016	70.0		1.0	0.0	
10/31/1998	0.0		0.072	0.068	68.0		1.0	0.0	
11/01/1998									
11/02/1998			0.021		70.0		2.0		
11/03/1998			0.009		75.0	70.0	2.0	0.0	
11/04/1998	0.0		0.097	0.007	74.0	72.0	1.0	0.0	
11/05/1998	0.0		0.083	0.032	68.0		0.0		
11/06/1998	0.0		0.132	0.018	80.0	64.0	1.0	0.0	
11/07/1998	0.0		0.005	0.000	75.0	65.0	1.0	0.0	
11/08/1998									
11/09/1998									
11/10/1998									
11/11/1998									
11/12/1998									
11/13/1998									
11/14/1998									
11/15/1998									
11/16/1998									
11/17/1998									
11/18/1998									
11/19/1998	0.1	0.0	0.052	0.016	76.0	64.0	0.0		
11/20/1998	0.4	0.0	0.216	0.088	80.0	69.0	3.0	0.0	
11/21/1998	0.0		0.058	0.026	80.0		0.0		EQUIPMENT EXHAUST ODORS
11/22/1998									
11/23/1998	0.0		0.044	0.032	78.0		0.0		
11/24/1998	0.0		0.039	0.020	78.0	76.0	1.0	0.0	
11/25/1998									
11/27/1998	0.0		0.009		65.0		1.0		
11/28/1998	0.0		0.030		70.0		1.0		
11/29/1998									
11/30/1998	0.0		0.026		75.0	65.0	2.0		
12/01/1998	0.0		0.000		66.0	64.0	2.0	1.0	
12/02/1998	0.0		0.000		74.0	64.0	1.0	0.0	
12/03/1998	0.0		0.010	0.000	72.0	64.0	1.0	0.0	
12/04/1998	0.0		0.760	0.060	73.0	64.0	0.0		
12/05/1998	0.0		0.030		64.0		0.0		
12/06/1998									
12/07/1998	0.0		0.010	0.000	68.0	64.0	2.0	1.0	
12/08/1998	0.0		0.030	0.000	70.0	66.0	2.0	1.0	
12/09/1998	0.0		0.020	0.000	70.0	66.0	2.0	0.0	
12/10/1998	0.0		0.020	0.010	84.0	70.0	1.0	0.0	
12/11/1998	0.0		0.010	0.000	73.0	70.0	1.0		
12/12/1998									
12/13/1998									
12/14/1998	0.3	0.0	0.116	0.012	72.0	68.0	2.0	0.0	
12/15/1998	0.0		0.029	0.014	71.0	70.0	0.0		
12/16/1998	0.1	0.0	0.085	0.022	72.0	70.0	1.0		
12/17/1998			0.105	0.097	68.0		1.0		SNOW
12/18/1998	0.0		0.038	0.025	72.0	64.0	1.0	0.0	
12/19/1998	0.0		0.008	0.006	74.0		0.0		
12/20/1998									RAIN
12/21/1998	0.0		0.044		76.0		0.0		RAIN
12/22/1998									SNOW
12/23/1998									
12/24/1998									
12/25/1998									
12/26/1998									
12/27/1998									
12/28/1998	0.3	0.0	0.082	0.043	62.0		1.0	0.0	
12/29/1998	0.0		0.083	0.065	73.0	68.0	0.0		
12/30/1998	0.0		0.007		71.0	70.0	1.0	0.0	
12/31/1998									
01/01/1999									
01/02/1999									
01/03/1999									
01/04/1999									
01/05/1999									
01/06/1999									
01/07/1999	0.0						0.0		

Scajaquada Creek Sediment Remediation Project, Buffalo, NY
Real-Time Air Monitoring Results

Site Perimeter, SW-E / WEST AVE STATION, continued

Date	Hydrocarbons, ppm		Dust, mg/m3		Noise, dB		Odor, 8 point scale		Notes
	Max	Min	Max	Min	Max	Min	Max	Min	
01/08/1999	0.0						0.0		
01/09/1999	0.0						0.0		
01/10/1999	0.0						0.0		
01/11/1999	0.0						0.0		
01/12/1999									
01/13/1999									
01/14/1999	0.0		0.024	0.018	75.0	75.0	0.0		
01/15/1999	0.0		0.018	0.014	76.0	72.0	0.0		
01/16/1999	0.0						0.0		
01/17/1999									
01/18/1999									
01/19/1999									
01/20/1999	0.0		0.022		73.0		0.0		
01/21/1999	0.0		0.040		68.0	67.0	1.0		
01/22/1999	0.1	0.0	0.077	0.025	76.0	72.0	1.0	0.0	
01/23/1999	0.0		0.037	0.030	76.0		0.0		
01/24/1999									
01/25/1999	0.0				66.0	62.0	1.0	0.0	SNOW
01/26/1999	0.0		0.063	0.022	66.0	64.0	0.0		
01/27/1999									
01/28/1999	0.0		0.091		74.0		1.0		
01/29/1999	0.0		0.072		70.0		1.0		
01/30/1999									
01/31/1999									
02/01/1999									
02/02/1999	0.0		0.015	0.005	80.0	76.0	0.0		
02/03/1999	0.0		0.012		75.0	65.0	0.0		
02/04/1999	0.0		0.019	0.011	85.0	65.0	0.0		
02/05/1999	0.0		0.038	0.015	85.0	70.0	0.0		
02/06/1999									
02/07/1999									
02/08/1999	0.0		0.008	0.007	80.0	78.0	2.0	1.0	
02/09/1999	0.0		0.127	0.042	76.0	64.0	0.0		
02/11/1999									
02/12/1999									
02/13/1999									
02/14/1999									
02/15/1999									
02/16/1999							5.0		
02/17/1999									
02/18/1999							1.0	0.0	
02/19/1999	0.0		0.150				0.0		
02/20/1999									
02/21/1999									
02/22/1999	0.0		0.028	0.027	76.0	70.0	0.0		
02/23/1999	0.0		0.090	0.034	80.0	70.0	1.0	0.0	
02/24/1999	0.0		0.105	0.044	76.0	68.0	0.0		
02/25/1999	0.0		0.050		76.0	76.0	0.0		
02/26/1999	0.0		0.029	0.012	74.0	66.0			
02/27/1999	0.0		0.042	0.033	70.0	60.0	0.0		
02/28/1999									
03/01/1999									
03/02/1999									
03/03/1999	0.0		0.017				0.0		RAIN
03/04/1999	0.0						0.0		
03/05/1999									
03/06/1999									
03/07/1999									
03/08/1999	0.0						0.0		
03/09/1999	0.0				80.0	70.0	0.0		
03/10/1999	0.0				85.0	70.0	0.0		
03/11/1999	0.0						1.0		
03/12/1999									
03/13/1999									
03/14/1999									
03/15/1999									
03/16/1999									
03/17/1999									
03/18/1999									
03/19/1999									
03/20/1999									
03/21/1999									
03/22/1999									
03/23/1999									

Scajaquada Creek Sediment Remediation Project, Buffalo, NY
Real-Time Air Monitoring Results

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Site Perimeter, SW-NW STATION

Date	Hydrocarbons, ppm		Dust, mg/m3		Noise, dB		Odor, 8 point scale		Notes
	Max	Min	Max	Min	Max	Min	Max	Min	
08/11/98									
08/12/98									
08/13/98									
08/14/98									
08/15/98									
08/16/98									
08/17/98									
08/18/98	0.0		0.000		62.0		1.0	0.0	
08/19/98	0.0		0.010		65.0	64.0	1.0	0.0	
08/20/98	0.0		0.100	0.010	67.0	62.0	0.0		
08/21/98									
08/22/98									
08/23/98									
08/24/98	0.0		0.870		60.0		0.0		
08/25/98									
08/26/98									
08/27/98									
08/28/98									
08/29/98									
08/30/98									
08/31/98									
09/01/98									
09/02/98	0.0		0.069	0.024	64.0	62.0	0.0		
09/03/98									
09/04/98									
09/05/98									
09/06/98									
09/07/98									
09/08/98									
09/09/98									
09/10/98									
09/11/98	0.0		0.280	0.030			2.0	1.0	
09/12/98	0.0		0.040	0.030	64.0	63.0	0.0		
09/14/98	0.0		0.081	0.029	66.0		0.0		
09/15/98	0.0		0.156	0.059	70.0	64.0	1.0	0.0	
09/16/98									
09/17/98	0.0		0.167	0.031	66.0	62.0	1.0	0.0	
09/18/98	0.0		0.036	0.021	64.0	62.0	0.0		
09/19/98	0.0		0.050	0.005	93.0	68.0	2.0	0.0	
09/20/98									
09/21/98	0.0		0.127	0.078	66.0	64.0	0.0		
09/22/98	0.0		0.091	0.019	74.0	64.0	0.0		
09/23/98									
09/24/98									
09/25/98									
09/26/98									
09/27/98	0.0		0.074	0.058	74.0	58.0	1.0	0.0	
09/28/98	0.0		0.087	0.063	62.0	52.0	0.0		
09/29/98	0.0		0.074	0.029	68.0	63.0	2.0	0.0	
09/30/98	0.0		0.027	0.010	60.0	46.0	3.0	0.0	
10/01/98	0.0		0.017	0.008	70.0	62.0	1.0	0.0	
10/02/98	0.0		0.013	0.007	66.0	64.0	1.0	0.0	
10/03/98	0.0		0.004	0.002	64.0	54.0	1.0	0.0	
10/04/98									
10/05/98									
10/06/98									
10/07/98	0.0		0.083		58.0		0.0		
10/08/98									
10/09/98	0.0		0.020	0.000	66.0	60.0	0.0		
10/10/98									
10/11/98									
10/12/98	0.0		0.010	0.000	74.0	66.0	2.0	1.0	
10/13/98	0.0		0.105	0.027	64.0	62.0	0.0		
10/14/98	0.0		0.034	0.004	66.0	63.0	0.0		
10/15/98	0.0		0.019	0.014	65.0	64.0	0.0		
10/16/98	0.0		0.100	0.025	64.0	62.0	1.0	0.0	
10/17/98	0.0		0.070	0.016	64.0	60.0	1.0	0.0	
10/18/98									
10/19/98	0.0		0.027	0.022	80.0	62.0	0.0		
10/20/98	0.0		0.034		68.0	62.0	0.0		
10/21/98									
10/22/98	0.0		0.011	0.007	60.0		2.0	0.0	
10/23/98	0.0		0.043		58.0		0.0		
10/24/98	0.0		0.039	0.024	60.0		0.0		

Scajaquada Creek Sediment Remediation Project, Buffalo, NY
Real-Time Air Monitoring Results

Site Perimeter, SW-NW STATION, continued

Date	Hydrocarbons, ppm		Dust, mg/m3		Noise, dB		Odor, 8 point scale		Notes
	Max	Min	Max	Min	Max	Min	Max	Min	
10/25/1998									
10/26/1998	0.0		0.077	0.025	64.0	62.0	1.0	0.0	
10/27/1998	0.0		0.123	0.036	62.0		2.0	0.0	
10/28/1998	0.0		0.092	0.063	66.0	64.0	0.0		* SWEET SOLVENT ODOR COMING IN FROM
10/29/1998	0.0		0.029	0.027	64.0	62.0	0.0		OFFSITE. NOTICED IN THE AFTERNOON
10/30/1998	0.0		0.336	0.013	60.0		0.0		
10/31/1998	0.0		0.011	0.006	60.0		0.0		
11/01/1998									
11/02/1998			0.009		58.0		0.0		
11/03/1998			0.013		75.0	70.0	0.0		
11/04/1998	0.0		0.024	0.009	58.0	56.0	0.0		
11/05/1998	0.0		0.010	0.004	56.0		0.0		
11/06/1998	0.0		0.014	0.001	56.0		0.0		
11/07/1998									
11/08/1998									
11/09/1998			0.066		65.0	56.0	0.0		RAINING
11/10/1998									
11/11/1998									
11/12/1998									
11/13/1998									
11/14/1998									
11/15/1998									
11/16/1998									
11/17/1998									
11/18/1998									
11/19/1998	0.3	0.2	0.059	0.022	64.0	62.0	0.0		
11/20/1998	0.2	0.0	0.080	0.055	64.0	62.0	0.0		
11/21/1998	0.0		0.067	0.011	62.0	60.0	0.0		
11/22/1998									
11/23/1998	0.0		0.174	0.011	63.0	60.0	2.0	0.0	
11/24/1998	0.0		0.031	0.017	66.0	60.0	1.0	0.0	
11/25/1998									
11/27/1998	0.0		0.010		58.0		0.0		
11/28/1998	0.0		0.062		65.0		0.0		
11/29/1998									
11/30/1998									
12/01/1998	0.0		0.000		66.0	62.0	1.0	0.0	
12/02/1998	0.0		0.080	0.000	66.0	64.0	2.0	1.0	
12/03/1998	0.0		0.010	0.000	64.0	63.0	1.0		
12/04/1998	0.0		0.670	0.220	63.0	62.0	1.0		
12/05/1998									
12/06/1998									
12/07/1998	0.0		0.000		62.0		0.0		
12/08/1998	0.0		0.000		62.0	58.0	0.0		
12/09/1998	0.0		0.020	0.010	60.0	57.0	0.0		
12/10/1998	0.0		0.030		64.0		1.0	0.0	
12/11/1998	0.0		0.000		60.0		0.0		
12/12/1998									
12/13/1998									
12/14/1998	0.3	0.0	0.048	0.016	64.0	60.0	2.0	0.0	
12/15/1998	0.2	0.0	0.054	0.040	64.0	62.0	1.0	0.0	
12/16/1998	0.0		0.038	0.034	60.0		4.0	0.0	ODORS COMING FROM OFF-SITE
12/17/1998			0.023		62.0		0.0		SNOW
12/18/1998	0.0		0.119	0.015	61.0	60.0	1.0	0.0	
12/19/1998	0.0		0.038	0.009	63.0		1.0	0.0	
12/20/1998									
12/21/1998	0.0		0.035		64.0		0.0		RAIN
12/22/1998									SNOW
12/23/1998									
12/24/1998									
12/25/1998									
12/26/1998									
12/27/1998									
12/28/1998	0.0		0.068	0.040			0.0		
12/29/1998	0.0		0.091	0.050	64.0	61.0	0.0		
12/30/1998	0.0		0.004		62.0		0.0		
12/31/1998									
01/01/1999									
01/02/1999									
01/03/1999									
01/04/1999									
01/05/1999									
01/06/1999									
01/07/1999									

Scajaquada Creek Sediment Remediation Project, Buffalo, NY
Real-Time Air Monitoring Results

Site Perimeter, SW-NW STATION, continued

Date	Hydrocarbons, ppm		Dust, mg/m3		Noise, dB		Odor, 8 point scale		Notes
	Max	Min	Max	Min	Max	Min	Max	Min	
01/08/1999									
01/09/1999									
01/10/1999									
01/11/1999									
01/12/1999									
01/13/1999									
01/14/1999									
01/15/1999									
01/16/1999	0.0						0.0		
01/17/1999									
01/18/1999	0.0						0.0		
01/19/1999									
01/20/1999									
01/21/1999									
01/22/1999	0.0		0.059	0.038	60.0	56.0	0.0		
01/23/1999	0.1	0.0	0.033	0.022	58.0		1.0	0.0	
01/24/1999									
01/25/1999	0.0				60.0	58.0	0.0		
01/26/1999	0.0		0.057	0.022	70.0	60.0	1.0	0.0	
01/27/1999									
01/28/1999									
01/29/1999									
01/30/1999									
01/31/1999									
02/01/1999									
02/02/1999									
02/03/1999									
02/04/1999	0.0				70.0	60.0	0.0		
02/05/1999									
02/06/1999									
02/07/1999									
02/08/1999									
02/09/1999									
02/11/1999									
02/12/1999									
02/13/1999									
02/14/1999									
02/15/1999									
02/16/1999									
02/17/1999									
02/18/1999									
02/19/1999	0.0						0.0		
02/20/1999									
02/21/1999	0.0		0.042				0.0		
02/22/1999	0.0						0.0		
02/23/1999	0.0		0.047	0.037	62.0	60.0			
02/24/1999	0.0		0.058	0.053	58.0	56.0			
02/25/1999	0.0				58.0				
02/26/1999	0.0		0.023	0.010	64.0	56.0			
02/27/1999									
02/28/1999									
03/01/1999									
03/02/1999									
03/03/1999									
03/04/1999									
03/05/1999									
03/06/1999									
03/07/1999									
03/08/1999									
03/09/1999									
03/10/1999									
03/11/1999									
03/12/1999									
03/13/1999									
03/14/1999									
03/15/1999									
03/16/1999									
03/17/1999									
03/18/1999									
03/19/1999									
03/20/1999									
03/21/1999									
03/22/1999									
03/23/1999									

Scajaquada Creek Sediment Remediation Project, Buffalo, NY
Real-Time Air Monitoring Results

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Site Perimeter, HAUL ROAD/RR BRIDGE STATION

Date	Hydrocarbons, ppm		Dust, mg/m3		Noise, dB		Odor, 8 point scale		Notes
	Max	Min	Max	Min	Max	Min	Max	Min	
08/11/98									
08/12/98	0.0		0.090	0.000			1.0	0.0	
08/13/98	0.0		0.190	0.000					
08/14/98	0.0		0.200	0.010			2.0		
08/15/98	0.0		0.040						
08/16/98									
08/17/98	0.0		0.110	0.110					
08/18/98	0.0				65.0				RAIN IN THE MORNING
08/19/98	0.0		0.010	0.000	68.0	66.0	0.0		
08/20/98	0.0		0.010	0.010	67.0	66.0	1.0	0.0	
08/21/98	0.0		0.100	0.000	64.0	64.0	0.0		
08/22/98									
08/23/98									
08/24/98									VERY HUMID
08/25/98	0.0		0.180	0.000	64.0		0.0		
08/26/98	0.0		0.000		70.0		0.0		
08/27/98	0.0		0.063	0.018	64.0	60.0	0.0		
08/28/98	0.0		0.640	0.380			0.0		
08/29/98	0.0		0.061		80.0		1.0	0.0	
08/30/98									
08/31/98	0.0		0.315	0.058			0.0		
09/01/98	0.0		0.230	0.026	65.0		0.0		
09/02/98	0.0		0.089	0.043			0.0		
09/03/98									
09/04/98									
09/05/98									
09/06/98									
09/07/98									
09/08/98									
09/09/98									
09/10/98									
09/11/98	0.0		0.301	0.027	85.0	65.0	3.0	0.0	
09/12/98	0.0		0.030	0.020	63.0	60.0	0.0		
09/14/98	0.0		0.111	0.092	68.0		2.0	0.0	
09/15/98	3.2	0.0	0.158	0.086			0.0		BENZENE 0.0 PPM
09/16/98	3.0	0.0	0.041	0.019			2.0	0.0	
09/17/98	5.0	0.0	0.420	0.031	72.0		1.0	0.0	HIGH PID AROUND TRUCKS BEING LOADED
09/18/98	2.5	0.0	0.467	0.026	70.0		2.0	0.0	HIGH PID READING AT RR BRIDGE
09/19/98	0.0		0.300	0.002	68.0	64.0	2.5	1.0	
09/20/98									
09/21/98	0.0		0.155	0.090			0.0		
09/22/98	0.0		0.121	0.045	80.0	60.0			
09/23/98									
09/24/98									
09/25/98	0.0		0.342	0.050	82.0	56.0			
09/26/98	0.0		0.243	0.083	80.0	70.0	0.0		
09/27/98									
09/28/98	0.0		0.079	0.012	66.0	56.0	0.0		
09/29/98	0.0		0.035	0.017	71.0	55.0	2.0	0.0	
09/30/98	0.0		0.056	0.009	70.0	52.0	1.0	0.0	
10/01/98	0.0		0.054	0.025	70.0	66.0	3.0	0.0	
10/02/98	0.0		0.096	0.032	70.0	64.0	1.0	0.0	
10/03/98	0.0		0.115	0.004	66.0	58.0	1.0	0.0	
10/04/98									
10/05/98									
10/06/98	0.0		0.109				0.0		
10/07/98	0.0		0.856	0.039	72.0	64.0	2.0	0.0	SEWAGE ODOR
10/08/98	0.0		0.000				0.0		RAINING
10/09/98									
10/10/98									
10/11/98									
10/12/98	0.0		0.030	0.010	72.0	62.0	1.0		
10/13/98	0.0		0.041						
10/14/98	0.0		0.019	0.008					
10/15/98	0.0		0.045	0.015					
10/16/98	0.0		0.047				2.0	0.0	
10/17/98	0.0		0.037						
10/18/98									
10/19/98	0.0		0.047	0.040					
10/20/98	0.0		0.112	0.029	76.0		0.0		
10/21/98									
10/22/98	0.0		0.045		70.0		0.0		
10/23/98	0.0		0.341	0.055	72.0		0.0		
10/24/98	0.0		0.710	0.093	74.0		1.0	0.0	SEWAGE ODOR

Scajaquada Creek Sediment Remediation Project, Buffalo, NY
Real-Time Air Monitoring Results

Site Perimeter, HAUL ROAD / RR BRIDGE STATION, continued

Date	Hydrocarbons, ppm		Dust, mg/m3		Noise, dB		Odor, 8 point scale		Notes
	Max	Min	Max	Min	Max	Min	Max	Min	
10/25/1998									
10/26/1998	0.0		0.632	0.050			0.0		
10/27/1998	0.0		0.083	0.063			1.0	0.0	
10/28/1998	0.0		0.086	0.060					
10/29/1998									
10/30/1998	0.0		0.432	0.042					
10/31/1998	0.0		0.071	0.044					
11/01/1998									
11/02/1998			0.200		76.0		0.0		
11/03/1998			0.079		75.0		0.0		
11/04/1998	0.0		0.107		61.0		0.0		
11/05/1998									
11/06/1998	0.0		0.407	0.009	70.0	64.0	1.0	0.0	
11/07/1998	0.0		0.007	0.005	75.0	65.0	0.0		
11/08/1998									
11/09/1998									RAINING
11/10/1998									RAINING
11/11/1998									FLOOD
11/12/1998									
11/13/1998									
11/14/1998									
11/15/1998									
11/16/1998									
11/17/1998									
11/18/1998									
11/19/1998	1.0		0.068	0.031	76.0				
11/20/1998	0.4	0.2	0.300	0.261			1.0		
11/21/1998	0.0		0.036						
11/22/1998									
11/23/1998									
11/24/1998	0.2	0.0	0.045	0.025			1.0	0.0	
11/25/1998									
11/26/1998									
11/28/1998									
11/29/1998									
11/30/1998									
12/01/1998									
12/02/1998									
12/03/1998									
12/04/1998									
12/05/1998									
12/06/1998									
12/07/1998									
12/08/1998									
12/09/1998									
12/10/1998									
12/11/1998	0.0		0.040	0.020	90.0		2.0		NEAR VAC TRUCK
12/12/1998									
12/13/1998									
12/14/1998	0.5	0.2	0.077	0.021			1.0		
12/15/1998	0.4	0.0	0.052						
12/16/1998	0.6	0.2							
12/17/1998									
12/18/1998	0.0		0.014		60.0		1.0	0.0	
12/19/1998									
12/20/1998									
12/21/1998									
12/22/1998									
12/23/1998									
12/24/1998									
12/25/1998									
12/26/1998									
12/27/1998									
12/28/1998	0.5	0.3	0.070						
12/29/1998									
12/30/1998									
12/31/1998									
01/01/1999									
01/02/1999									
01/03/1999									
01/04/1999									
01/05/1999									
01/06/1999									
01/07/1999									

Scajaquada Creek Sediment Remediation Project, Buffalo, NY
Real-Time Air Monitoring Results

Site Perimeter, HAUL ROAD / RR BRIDGE STATION, continued

Date	Hydrocarbons, ppm		Dust, mg/m3		Noise, dB		Odor, 8 point scale		Notes
	Max	Min	Max	Min	Max	Min	Max	Min	
01/08/1999									
01/09/1999									
01/10/1999									
01/11/1999									
01/12/1999	0.0		0.015	0.006	74.0	63.0	2.0	0.0	
01/13/1999									
01/14/1999	0.0		0.014		70.0		0.0		
01/15/1999	0.0		0.015	0.012	74.0		0.0		
01/16/1999	0.0						0.0		
01/17/1999									
01/18/1999									
01/19/1999	0.0						0.0		
01/20/1999	0.0		0.020		75.0		0.0		
01/21/1999									
01/22/1999	0.1	0.0	0.073	0.025	76.0	72.0	2.0	0.0	
01/23/1999	0.0		0.031				0.0		
01/24/1999									
01/25/1999	0.0				66.0	62.0	1.0	0.0	SNOW
01/26/1999	0.0		0.050	0.022	64.0		0.0		
01/27/1999	0.0		0.023	0.020	78.0	69.0	0.0		
01/28/1999	0.0		0.053		66.0		1.0		
01/29/1999	0.0		0.080		76.0		1.0		
01/30/1999									
01/31/1999									
02/01/1999									
02/02/1999	0.0		0.055	0.008	78.0	70.0	0.0		
02/03/1999	0.0		0.021		75.0	65.0	0.0		
02/04/1999	0.0		0.014	0.005	80.0	60.0	0.0		
02/05/1999	0.0		0.035	0.027	70.0	60.0	0.0		
02/06/1999									
02/07/1999									
02/08/1999	0.0		0.033	0.007	80.0	65.0	2.0	0.0	
02/09/1999	0.0		0.025		64.0		1.0		
02/11/1999	0.0		0.157	0.083	62.0	60.0	1.0		
02/12/1999									
02/13/1999	0.0						2.0		
02/14/1999									
02/15/1999	0.0		0.032	0.024			2.0	1.0	
02/16/1999	0.0						5.0	0.0	
02/17/1999									RAIN
02/18/1999							1.0	0.0	
02/19/1999									
02/20/1999	0.0						0.0		
02/21/1999	0.0		0.021	0.017			0.0		
02/22/1999	0.0		0.095	0.021	66.0	65.0	0.0		
02/23/1999	0.0		0.075	0.025	72.0	62.0	0.0		
02/24/1999	0.0		0.080	0.043	68.0	64.0	0.0		
02/25/1999	0.0		0.075		70.0	66.0	0.0		
02/26/1999	0.0		0.028	0.006	66.0	64.0			
02/27/1999	0.0		0.025		70.0	60.0	0.0		
02/28/1999									
03/01/1999									
03/02/1999									
03/03/1999	0.0		0.024				0.0		
03/04/1999			2.000						< 5 MINUTES
03/05/1999	0.0						0.0		
03/06/1999									
03/07/1999									
03/08/1999									
03/09/1999									
03/10/1999									
03/11/1999	0.0						0.0		
03/12/1999									
03/13/1999									
03/14/1999									
03/15/1999	0.0				100.0	80.0	0.0		
03/16/1999									
03/17/1999									
03/18/1999									
03/19/1999									
03/20/1999									
03/21/1999									
03/22/1999									
03/23/1999									

Scajaquada Creek Sediment Remediation Project, Buffalo, NY
Real-Time Air Monitoring Results

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Site Perimeter, MHF-S / FEDCO STATION

Date	Hydrocarbons, ppm		Dust, mg/m3		Noise, dB		Odor, 8 point scale		Notes
	Max	Min	Max	Min	Max	Min	Max	Min	
08/11/98	0.0		0.000		64.0		2.0	0.0	
08/12/98	0.0		0.000		64.0	62.0	2.0	0.0	
08/13/98	0.0		0.000		70.0	62.0	2.0	0.0	
08/14/98	0.0		0.000		68.0	62.0	1.0	0.0	
08/15/98	0.0		0.000		62.0		2.0	0.0	
08/16/98									
08/17/98	0.0		0.130	0.040	85.0	64.0	1.0	0.0	
08/18/98	0.0		0.000		68.0	62.0	2.0	0.0	
08/19/98	0.0		0.000		74.0	61.0	1.0	0.0	
08/20/98	0.0		0.070	0.000	74.0	64.0	0.0		
08/21/98	0.0		0.080	0.000	66.0	63.0	1.0	0.0	
08/22/98									
08/23/98									
08/24/98	0.0		0.042		68.0		0.0		
08/25/98	0.0		0.240	0.000	70.0	64.0	0.0		
08/26/98	0.0		0.000		74.0	64.0	0.0		
08/27/98	0.0		0.057	0.020	68.0	65.0	3.0	0.0	
08/28/98	0.0		0.053	0.020	80.0	72.0	1.0	0.0	
08/29/98	0.0		0.057		70.0		1.0	0.0	
08/30/98									
08/31/98	0.0		0.195	0.016	90.0	64.0	1.0	0.0	
09/01/98	0.0		0.029	0.011	80.0	65.0	1.0	0.0	
09/02/98	0.0		0.047	0.024	75.0	65.0	1.0	0.0	
09/03/98									
09/04/98									
09/05/98									
09/06/98									
09/07/98									
09/08/98									
09/09/98									
09/10/98									
09/11/98	0.0		0.720	0.035	85.0	60.0	4.0	0.0	
09/12/98	0.0		0.030	0.020	62.0	60.0	0.0		
09/14/98	0.0		0.086	0.031	66.0	64.0	0.0		
09/15/98	0.0		0.149	0.095	66.0	64.0	0.0		
09/16/98	0.0		0.077	0.024	68.0	64.0	3.0	0.0	
09/17/98	1.6	0.0	0.178	0.014	70.0	60.0	5.0	0.0	BENZENE 0.0 PPM
09/18/98	0.0		0.035	0.024	74.0	66.0	1.0	0.0	
09/19/98	0.0		0.095	0.010	65.0	62.0	1.0	0.0	
09/20/98									
09/21/98	0.0		0.111	0.066	70.0	64.0	0.0		
09/22/98	0.5	0.0	0.039	0.013	70.0	64.0	4.0	0.0	
09/23/98									
09/24/98									
09/25/98	0.0		0.213	0.009	72.0	61.0	1.0	0.0	
09/26/98	0.0		0.158	0.071	70.0	64.0	0.0		
09/27/98									
09/28/98			0.023	0.012	54.0		1.0	0.0	
09/29/98	0.0		0.032	0.020	72.0	62.0	2.0	0.0	
09/30/98	0.0		0.025	0.014	70.0	56.0	1.0	0.0	
10/01/98	0.0		0.175	0.009	76.0	68.0	3.0	0.0	
10/02/98	0.0		0.020	0.011	70.0	66.0	4.0	0.0	
10/03/98	0.0		0.018	0.013	70.0	58.0	3.0	0.0	
10/04/98									
10/05/98									
10/06/98	0.0		0.100	0.009	64.0	56.0	2.0	0.0	
10/07/98	0.0		0.059	0.032	70.0	62.0	0.0		
10/08/98	0.0		0.000		67.0	63.0	2.0	0.0	RAINING
10/09/98	0.0		0.000		67.0	63.0	2.0	1.0	
10/10/98									
10/11/98									
10/12/98	0.6	0.0	0.030	0.000	67.0	63.0	2.0	1.0	
10/13/98	0.0		0.081	0.018	76.0	60.0	0.0		
10/14/98	0.0		0.024	0.004	70.0		2.0	0.0	
10/15/98	0.7	0.0	0.082	0.020	72.0	66.0	4.0	0.0	
10/16/98	0.0		0.050	0.008	70.0	68.0	1.0	0.0	
10/17/98	0.0		0.043	0.032	68.0		0.0		
10/18/98									
10/19/98	0.0		0.027	0.016	70.0	68.0	1.0	0.0	
10/20/98	0.0		0.050	0.020	72.0	70.0	2.0	0.0	
10/21/98									
10/22/98	0.0		0.086	0.080	72.0	64.0	2.0	1.0	
10/23/98									
10/24/98	0.0		0.048	0.038	66.0		0.0		

Scajaquada Creek Sediment Remediation Project, Buffalo, NY
Real-Time Air Monitoring Results

Site Perimeter, MHF-S / FEDCO STATION, continued

Date	Hydrocarbons, ppm		Dust, mg/m3		Noise, dB		Odor, 8 point scale		Notes
	Max	Min	Max	Min	Max	Min	Max	Min	
10/25/1998									
10/26/1998	0.0		0.049	0.031	66.0		0.0		
10/27/1998	0.0		0.097	0.071	80.0	66.0	0.0		
10/28/1998	0.0		0.078	0.011	80.0	64.0	5.0	0.0	
10/29/1998	1.2	0.0	0.054				3.0	2.0	0.0 PPM MEASURED AT FIRST LINE OF CARS
10/30/1998	1.0	0.0	0.419	0.022	80.0	64.0	5.0	0.0	
10/31/1998	0.0		0.038	0.032	70.0		2.0	0.0	
11/01/1998									
11/02/1998			0.350	0.068	68.0	62.0	1.0		
11/03/1998			0.424		75.0	70.0	0.0		
11/04/1998	0.0		70.300	0.143	76.0		0.0		
11/05/1998	0.0		0.076	0.003	75.0	65.0	1.0	0.0	
11/06/1998	0.0		0.056	0.015	75.0	60.0	0.0		
11/07/1998	0.0		0.058	0.009	68.0		0.0		
11/08/1998									
11/09/1998			0.116		75.0	65.0	0.0		RAINING
11/10/1998									
11/11/1998									
11/12/1998									
11/13/1998									
11/14/1998									
11/15/1998									
11/16/1998									
11/17/1998									
11/18/1998									
11/19/1998	0.7	0.0	0.060	0.012	76.0	66.0	0.0		
11/20/1998	0.2	0.0	0.079	0.055	78.0	68.0	1.0	0.0	
11/21/1998	0.0		0.056	0.010	66.0		1.0	0.0	
11/22/1998									
11/23/1998	0.0		0.046	0.022	68.0	66.0	0.0		
11/24/1998	0.1	0.0	0.036	0.017	68.0	60.0	2.0	0.0	
11/25/1998									
11/27/1998	0.2		0.013		72.0		2.0		
11/28/1998									
11/29/1998									
11/30/1998	0.0		0.014		75.0	65.0	4.0		
12/01/1998	0.0		0.040	0.000	78.0	68.0	3.0	0.0	
12/02/1998	0.0		0.020	0.000	72.0	64.0	1.0		
12/03/1998	0.0		0.020	0.000	66.0	63.0	1.0	0.0	
12/04/1998	0.0		0.130	0.050	0 64.0		1.0	0.0	
12/05/1998	0.0		0.020		68.0		2.0		
12/06/1998									
12/07/1998	0.2	0.0	0.000		62.0		2.0	1.0	
12/08/1998	0.0		0.020	0.000	64.0	61.0	2.0	1.0	
12/09/1998	0.0		0.010		64.0	62.0	2.0	1.0	
12/10/1998	0.0		0.030		65.0	62.0	2.0	1.0	
12/11/1998	0.0		0.000		64.0	61.0	1.0		
12/12/1998									
12/13/1998									
12/14/1998	0.3	0.0	0.060	0.013	72.0	71.0	3.0	0.0	
12/15/1998	0.0		0.055	0.032	66.0		0.0		BURNT WOOD/PLASTIC ODOR
12/16/1998	5.0	0.0	0.034	0.013	71.0	62.0	3.0	0.0	BENZENE/NAPTH 0.0PPM
12/17/1998			0.185	0.037	64.0		3.0	1.0	
12/18/1998	0.0		0.014	0.011	66.0	64.0	2.0	0.0	
12/19/1998	0.0		0.024	0.004	85.0	64.0	0.0		RAIN
12/20/1998									
12/21/1998	0.0		0.028		68.0		0.0		RAIN
12/22/1998	0.0						0.0		SNOW
12/23/1998									
12/24/1998									
12/25/1998									
12/26/1998									
12/27/1998									
12/28/1998	0.5	0.0	0.063	0.018	74.0	68.0	1.0	0.0	
12/29/1998	0.0		0.076	0.044	70.0		0.0		
12/30/1998	0.0		0.014		66.0	65.0	1.0	0.0	
12/31/1998									
01/01/1999									
01/02/1999									
01/03/1999									
01/04/1999									
01/05/1999									
01/06/1999	0.0						0.0		
01/07/1999	0.0						0.0		

Scajaquada Creek Sediment Remediation Project, Buffalo, NY
Real-Time Air Monitoring Results

Site Perimeter, MHF-S / FEDCO STATION, continued

Date	Hydrocarbons, ppm		Dust, mg/m3		Noise, dB		Odor, 8 point scale		Notes
	Max	Min	Max	Min	Max	Min	Max	Min	
01/08/1999	0.0						0.0		
01/09/1999	0.0						0.0		
01/10/1999	0.0						0.0		
01/11/1999	0.0						0.0		
01/12/1999	0.0		0.015	0.005	72.0	68.0	1.0	0.5	
01/13/1999									
01/14/1999	0.0		0.024		72.0		0.0		
01/15/1999	0.0		0.018	0.016	74.0	72.0	0.0		
01/16/1999	0.0						1.0		
01/17/1999	0.0						0.0		
01/18/1999	0.0						0.0		
01/19/1999	0.0						0.0		
01/20/1999	0.0		0.021		71.0		0.5	0.0	
01/21/1999	1.0	0.0	0.038		70.0	68.0	1.0		
01/22/1999	0.3	0.0	0.060	0.043	68.0	66.0	1.0	0.0	
01/23/1999	0.0		0.035	0.027	68.0		0.0		
01/24/1999									
01/25/1999	0.0				85.0	64.0	1.0	0.0	
01/26/1999	0.0		0.051	0.020	70.0	60.0	0.0		
01/27/1999	0.0		0.020	0.013	66.0	60.0	0.0		
01/28/1999	0.0		0.057		68.0		1.5		
01/29/1999	0.0		0.074		74.0		1.0		
01/30/1999									
01/31/1999									
02/01/1999									
02/02/1999	0.0		0.015	0.014	78.0		0.0		
02/03/1999	0.0		0.021	0.007	75.0	65.0	0.0		
02/04/1999	0.0		0.004		80.0	65.0	2.0	0.0	
02/05/1999	0.0		0.021		85.0	70.0	0.0		
02/06/1999									
02/07/1999									
02/08/1999	0.0		0.022	0.018	78.0	70.0	2.0	1.0	
02/09/1999	0.0		0.136	0.021	80.0	64.0	2.0	0.0	
02/11/1999	0.0		0.047	0.034	70.0	68.0	1.0	0.0	
02/12/1999	0.0		0.109	0.027			2.0	1.0	
02/13/1999	0.0						2.0	1.0	
02/14/1999									
02/15/1999			0.015				1.0		
02/16/1999	0.0						2.0	1.0	
02/17/1999									RAIN
02/18/1999							0.0		
02/19/1999									
02/20/1999	0.0						1.0		
02/21/1999	0.0		0.057	0.029			0.0		
02/22/1999	0.0		0.049	0.020	70.0	68.0	1.0	0.0	
02/23/1999	0.0		0.103	0.036	70.0	64.0	1.0	0.0	
02/24/1999	0.0		0.085	0.045	68.0	64.0	2.0	1.0	
02/25/1999	0.0				64.0				
02/26/1999	0.0		0.025	0.003	66.0	64.0			
02/27/1999	0.0		0.031		70.0	60.0	0.0		
02/28/1999									
03/01/1999									
03/02/1999									
03/03/1999	0.0		0.029				0.0		RAIN
03/04/1999			1.000						
03/05/1999	0.0						0.0		
03/06/1999									
03/07/1999									
03/08/1999	0.0						0.0		
03/09/1999	0.0				80.0	70.0	1.0	0.0	
03/10/1999	0.0				85.0	70.0	0.0		
03/11/1999	0.0						1.0	0.0	
03/12/1999									
03/13/1999									
03/14/1999									
03/15/1999	0.0				80.0	60.0	1.0	0.0	
03/16/1999									
03/17/1999									
03/18/1999									
03/19/1999									
03/20/1999									
03/21/1999									
03/22/1999									
03/23/1999									

Scajaquada Creek Sediment Remediation Project, Buffalo, NY
Real-Time Air Monitoring Results

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Site Perimeter, LANZA / TTG STATION

Date	Hydrocarbons, ppm		Dust, mg/m3		Noise, dB		Odor, 8 point scale		Notes
	Max	Min	Max	Min	Max	Min	Max	Min	
08/11/98									
08/12/98									
08/13/98	0.0		0.000		66.0	60.0	1.0	0.0	
08/14/98	0.0		0.010	0.000	64.0	60.0	0.0		
08/15/98	0.0		0.030	0.000	58.0		1.0	0.0	
08/16/98									
08/17/98	0.0		0.070	0.030	75.0	62.0	2.0	1.0	
08/18/98	0.0		0.000		90.0	80.0	1.0	0.0	
08/19/98	0.0		0.070	0.000	72.0	64.0	1.0	0.0	
08/20/98	0.0		0.070	0.000	72.0	67.0	1.0		
08/21/98									
08/22/98									
08/23/98									
08/24/98									
08/25/98									
08/26/98									
08/27/98	0.0		0.084	0.021	78.0	60.0	1.0	0.0	PAINT SOLVENTS NOTICABLE FROM GARAGE
08/28/98	0.0		0.220	0.027	85.0	60.0	2.0	0.0	
08/29/98	0.0		0.051		64.0		0.0		
08/30/98									
08/31/98	0.0		0.024	0.009	72.0	66.0	0.0		
09/01/98	0.0		0.026		64.0		0.0		
09/02/98	0.0		0.045	0.020	64.0	64.0	0.0		
09/03/98									
09/04/98									
09/05/98									
09/06/98									
09/07/98									
09/08/98									
09/09/98									
09/10/98									
09/11/98	0.1	0.0	0.062	0.036	75.0	65.0	2.0	0.0	
09/12/98									
09/14/98	0.0		0.148	0.053	85.0	70.0	0.0		
09/15/98	0.0		0.175	0.114	90.0	64.0	1.0	0.0	
09/16/98	0.0		0.089	0.017	80.0	66.0	0.0		
09/17/98	0.0		0.291	0.026	72.0	64.0	0.0		FRONT OF GARAGE- SOLVENT ODOR PID4.8PPM
09/18/98	0.0		0.041	0.028	70.0		0.0		
09/19/98	0.0		0.090	0.020	73.0	72.0	1.0	0.0	
09/20/98									
09/21/98	0.0		0.104	0.081	90.0	64.0	1.0	0.0	SOLVENT ODOR
09/22/98	0.0		0.020		60.0		0.0		
09/23/98									
09/24/98									
09/25/98	0.0		0.265	0.018	82.0	74.0	1.0	0.0	ODORS FROM GARAGE
09/26/98	0.0		0.059	0.059	80.0	70.0	0.0		
09/27/98									
09/28/98	0.0		0.016	0.010	60.0	52.0	0.0		
09/29/98	0.0		0.062	0.018	63.0	56.0	1.0	0.0	
09/30/98	0.0		0.054	0.009	80.0	52.0	1.0	0.0	
10/01/98	0.0		0.023	0.008	72.0	60.0	1.0	0.0	
10/02/98	0.0		0.021	0.010	76.0	66.0	1.0	0.0	
10/03/98	0.0		0.107	0.001	68.0	66.0	1.0	0.0	
10/04/98									
10/05/98									
10/06/98	0.0		0.021	0.007	64.0		0.0		
10/07/98	0.0		0.088	0.046	80.0	64.0	0.0		
10/08/98									
10/09/98									
10/10/98									
10/11/98									
10/12/98									
10/13/98									
10/14/98									
10/15/98									
10/16/98									
10/17/98									
10/18/98									
10/19/98									
10/20/98									
10/21/98									
10/22/98									
10/23/98									
10/24/98									

Scajaquada Creek Sediment Remediation Project, Buffalo, NY
Real-Time Air Monitoring Results

Site Perimeter, LANZA / TTG STATION, continued

Date	Hydrocarbons, ppm		Dust, mg/m3		Noise, dB		Odor, 8 point scale		Notes
	Max	Min	Max	Min	Max	Min	Max	Min	
10/25/1998									
10/26/1998									
10/27/1998									SPRAY PAINT ODORS IN THE AREA
10/28/1998									
10/29/1998									
10/30/1998									
10/31/1998									
11/01/1998									
11/02/1998									
11/03/1998	0.3								PID READING COMIMG GARAGE ACTIVITY
11/04/1998									
11/05/1998									
11/06/1998									
11/07/1998									
11/08/1998									
11/09/1998									
11/10/1998									
11/11/1998									
11/12/1998									
11/13/1998									
11/14/1998									
11/15/1998									
11/16/1998									
11/17/1998									
11/18/1998									
11/19/1998									
11/20/1998									
11/21/1998									
11/22/1998									
11/23/1998	0.3								READING FROM GARAGE ACTIVITY
11/24/1998									
11/25/1998									
11/26/1998									
11/28/1998									
11/29/1998									
11/30/1998									
12/01/1998									
12/02/1998									
12/03/1998									
12/04/1998									
12/05/1998									
12/06/1998									
12/07/1998									
12/08/1998									
12/09/1998									
12/10/1998									
12/11/1998									
12/12/1998									
12/13/1998									
12/14/1998									
12/15/1998									
12/16/1998									
12/17/1998									
12/18/1998									
12/19/1998									
12/20/1998									
12/21/1998									
12/22/1998									
12/23/1998									
12/24/1998									
12/25/1998									
12/26/1998									
12/27/1998									
12/28/1998									
12/29/1998									
12/30/1998									
12/31/1998									
01/01/1999									
01/02/1999									
01/03/1999									
01/04/1999									
01/05/1999									
01/06/1999									
01/07/1999									

Scajaquada Creek Sediment Remediation Project, Buffalo, NY
Real-Time Air Monitoring Results

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Site Perimeter, OFFICE TRAILER/MHF-N STATION

Date	Hydrocarbons, ppm		Dust, mg/m3		Noise, dB		Odor, 8 point scale		Notes
	Max	Min	Max	Min	Max	Min	Max	Min	
08/11/98	0.0				60.0		0.0		
08/12/98	0.0		0.070	0.000	70.0	60.0	0.0		
08/13/98	0.0		0.000		70.0		0.0		
08/14/98	0.0		0.100	0.000	72.0		2.0	1.0	
08/15/98	0.0		0.040	0.000	60.0		2.0	1.0	
08/16/98									
08/17/98	0.0		0.000						
08/18/98	0.0		0.000		70.0		1.0	0.0	RAIN IN THE MORNING
08/19/98	0.0		0.000		64.0	58.0	0.0		
08/20/98	0.0		0.010	0.000	71.0	58.0	1.0	0.0	
08/21/98	0.0		0.100	0.000	60.0	58.0	1.0	0.0	
08/22/98									
08/23/98									
08/24/98	0.0		0.620		65.0		0.0		
08/25/98	0.0		0.000		64.0	62.0	2.0	0.0	
08/26/98	0.0		0.000		64.0	60.0	1.0	0.0	
08/27/98	0.0		0.040	0.015	62.0	60.0	0.0		
08/28/98	0.0		0.140	0.035	71.0	64.0	1.0	0.0	
08/29/98	0.0		0.043	0.042	72.0	60.0	1.0	0.0	
08/30/98									
08/31/98	0.0		0.175	0.014	66.0	60.0	2.0	0.0	
09/01/98	0.0		0.045	0.012	70.0	60.0	1.0	0.0	
09/02/98	0.0		0.075	0.050	85.0	64.0	4.0	0.0	
09/03/98									
09/04/98									
09/05/98									
09/06/98									
09/07/98									
09/08/98									
09/09/98									
09/10/98									
09/11/98	0.0		0.095	0.028	70.0	60.0	3.0	1.0	
09/12/98	0.0		0.050	0.020	60.0		1.0	0.0	
09/14/98	0.0		0.078	0.030	66.0	62.0	0.0		
09/15/98	0.0		0.182	0.081	66.0	60.0	0.0		
09/16/98	0.0		0.049	0.016	68.0	60.0	1.0	0.0	
09/17/98	0.0		0.175	0.017	60.0		1.0	0.0	
09/18/98	0.0		0.065	0.023	75.0	62.0	4.0	0.0	
09/19/98	0.0		0.500	0.050	64.0	62.0	1.0	0.0	
09/20/98									
09/21/98	0.0		0.150	0.065	62.0	60.0	1.0	0.0	
09/22/98	0.0		0.056	0.014	62.0	60.0	0.0		
09/23/98									
09/24/98									
09/25/98	0.0		0.024		52.0		3.0		
09/26/98									
09/27/98									
09/28/98	0.0		0.035	0.012	64.0	56.0	0.0		
09/29/98	0.0		0.065	0.019	74.0	52.0	1.0	0.0	
09/30/98	0.0		0.039	0.005	62.0	52.0	3.0	0.0	
10/01/98	0.0		0.035	0.009	66.0	60.0	1.0	0.0	
10/02/98	0.0		0.033	0.012	66.0	58.0	1.0	0.0	
10/03/98	0.0		0.071	0.001	68.0	52.0	1.0	0.0	
10/04/98									
10/05/98									
10/06/98	0.0		0.097	0.020			2.0	1.0	
10/07/98	0.0		0.124	0.042	68.0	62.0	0.0		
10/08/98									
10/09/98									
10/10/98									
10/11/98									
10/12/98	0.0		0.020	0.000	67.0	63.0	2.0	0.0	
10/13/98	1.3	0.0	0.080	0.020	72.0	64.0	2.0	0.0	BENZENE/NAPTH 0.0 PPM
10/14/98	0.0		0.035	0.005	68.0	62.0	0.0		
10/15/98	0.0		0.078	0.017	68.0	62.0	0.0		
10/16/98	0.0		0.086	0.014	66.0	62.0	2.0	0.0	
10/17/98	3.0	0.6							BENZENE/NAPTH 0.0PPM
10/18/98									
10/19/98	0.0		0.038	0.015	62.0	60.0	2.0	0.0	
10/20/98	0.0		0.028	0.021	70.0	62.0	0.0		
10/21/98									
10/22/98	0.0								
10/23/98	0.0								
10/24/98	0.0		0.046		68.0		1.0		

Scajaquada Creek Sediment Remediation Project, Buffalo, NY
Real-Time Air Monitoring Results

Site Perimeter, OFFICE TRAILER / MHF-N STATION, continued

Date	Hydrocarbons, ppm		Dust, mg/m3		Noise, dB		Odor, 8 point scale		Notes
	Max	Min	Max	Min	Max	Min	Max	Min	
10/25/1998									
10/26/1998	0.0		0.057	0.038	66.0	62.0	4.0	0.0	
10/27/1998	0.7	0.0	0.662	0.042	64.0	62.0	3.0	0.0	
10/28/1998	0.0		0.070	0.067	70.0	62.0	2.0	0.0	
10/29/1998	0.0		0.041	0.017	74.0	66.0	0.0		
10/30/1998	0.0		0.153	0.011	76.0	64.0	0.0		
10/31/1998	0.0		0.045	0.012	64.0		0.0		
11/01/1998									
11/02/1998			0.004	0.000	64.0	56.0	0.0		
11/03/1998			0.018		62.0	50.0	0.0		
11/04/1998	0.0		0.006		63.0		0.0		
11/05/1998									
11/06/1998	0.0		0.407	0.002	68.0	60.0	1.0	0.0	
11/07/1998	0.0		0.003	0.002	75.0	65.0	0.0		
11/08/1998									
11/09/1998									RAIN
11/10/1998									
11/11/1998									
11/12/1998									
11/13/1998									
11/14/1998									
11/15/1998									
11/16/1998									
11/17/1998									
11/18/1998									
11/19/1998	0.9	0.4	0.082	0.030	70.0	66.0	3.0	0.0	
11/20/1998	0.1	0.0	0.091	0.058	70.0	60.0	0.0		
11/21/1998	0.0		0.039	0.016	68.0	60.0	0.0		
11/22/1998									
11/23/1998	0.2	0.0	0.104	0.033	76.0	66.0	1.0	0.0	
11/24/1998	0.0		0.021	0.014	80.0	58.0	0.0		
11/25/1998									
11/26/1998									
11/28/1998									
11/29/1998									
11/30/1998									
12/01/1998	0.2	0.0	0.010	0.000	74.0	60.0	1.0	0.0	
12/02/1998	0.0		0.030	0.010	70.0	64.0	1.0	0.0	
12/03/1998	0.0		0.000		63.0	62.0	1.0		
12/04/1998	0.0		0.170	0.090	64.0	62.0	1.0	0.0	
12/05/1998	0.0		0.050	0.010	61.0		1.0	0.0	
12/06/1998									
12/07/1998	0.0		0.000		68.0	62.0	2.0	0.0	
12/08/1998	0.0		0.000		60.0		1.0	0.0	
12/09/1998	0.0		0.020	0.000	68.0	65.0	0.0		
12/10/1998	0.0		0.060		62.0		0.0		
12/11/1998	0.0		0.000		60.0		0.0		
12/12/1998	0.7						7.0		
12/13/1998									
12/14/1998	0.0		0.075	0.013	76.0	60.0	3.0	0.0	
12/15/1998	0.9	0.0	0.055	0.034	70.0				
12/16/1998	0.0		0.039	0.024	70.0	60.0	1.0	0.0	Odor level 3 coming from offsite (W)
12/17/1998			0.042	0.027	60.0		1.0	0.0	snowing
12/18/1998	0.0		0.026	0.015	68.0	60.0	1.0	0.0	
12/19/1998	0.4	0.0	0.038	0.021	70.0	66.0	5.0	0.0	rain
12/20/1998									
12/21/1998	0.0		0.053	0.046	65.0		2.0	1.0	rain
12/22/1998	0.0						0.0		snowing
12/23/1998									
12/24/1998									
12/25/1998									
12/26/1998									
12/27/1998									
12/28/1998	0.0		0.076	0.028	70.0	65.0	1.0	0.0	
12/29/1998	0.1	0.0	0.071	0.044	66.0		1.0	0.0	
12/30/1998	0.0		0.017		60.0		0.0		
12/31/1998									
01/01/1999									
01/02/1999									
01/03/1999									
01/04/1999									
01/05/1999									
01/06/1999	0.0						0.0		
01/07/1999	0.0						0.0		

Scajaquada Creek Sediment Remediation Project, Buffalo, NY
Real-Time Air Monitoring Results

Site Perimeter, OFFICE TRAILER / MHF-N STATION, continued

Date	Hydrocarbons, ppm		Dust, mg/m3		Noise, dB		Odor, 8 point scale		Notes
	Max	Min	Max	Min	Max	Min	Max	Min	
01/08/1999	0.0						0.0		
01/09/1999	0.0						0.0		
01/10/1999	0.0						0.0		
01/11/1999	0.0						0.0		
01/12/1999	0.2	0.0	0.015	0.007	68.0	62.0	0.5		
01/13/1999									
01/14/1999	0.0						0.0		
01/15/1999	0.0		0.020	0.010	68.0	66.0	0.0		
01/16/1999	0.0						2.0		
01/17/1999	0.0						1.0	0.0	
01/18/1999	0.0						2.0		
01/19/1999	0.0						1.0	0.0	
01/20/1999	1.0	0.0	0.032	0.031	68.0		1.0	0.5	
01/21/1999	1.0	0.0	0.031		74.0	72.0	1.0		
01/22/1999	0.0		0.068	0.023	60.0		1.0	0.0	
01/23/1999	0.3	0.0	0.027	0.021	56.0		1.0		
01/24/1999									
01/25/1999	0.0				60.0	59.0	0.0		
01/26/1999	0.0		0.054	0.019	62.0	60.0	1.0	0.0	
01/27/1999	0.0		0.021	0.020	62.0		0.0		
01/28/1999	0.1		0.048		66.0		1.0		
01/29/1999	0.0		0.084		72.0		1.0		
01/30/1999									
01/31/1999									
02/01/1999									
02/02/1999	0.0		0.021	0.015	70.0	65.0	1.0	0.0	
02/03/1999	0.0		0.019	0.009	75.0	65.0	2.0	0.0	
02/04/1999	0.0		0.001		80.0	60.0	0.0		
02/05/1999	0.0		0.019		70.0	60.0	0.0		
02/06/1999									
02/07/1999									
02/08/1999	0.0		0.021	0.015	70.0	60.0	1.0	0.0	
02/09/1999	0.0		0.131	0.018	74.0	62.0	1.0		
02/11/1999	0.0		0.066	0.029	60.0		2.0	0.0	
02/12/1999	0.0		0.143	0.024			1.0		
02/13/1999									
02/14/1999	0.0						2.0		
02/15/1999			0.024	0.011			2.0	1.0	
02/16/1999	0.0						1.0		
02/17/1999									
02/18/1999							0.0		
02/19/1999	0.0						1.0		
02/20/1999	0.0						0.0		
02/21/1999	0.0		0.025				0.0		
02/22/1999	0.0		0.029	0.026	70.0	60.0	0.0		
02/23/1999	0.0		0.060	0.032	65.0	60.0	0.0		
02/24/1999	0.0		0.068	0.042	64.0	56.0	0.0		
02/25/1999	0.0				64.0				
02/26/1999	0.0		0.013	0.007	66.0	56.0			
02/27/1999	0.0		0.014		70.0	60.0	0.0		
02/28/1999									
03/01/1999									
03/02/1999									
03/03/1999	0.0		0.031				0.0		
03/04/1999			2.000						
03/05/1999	0.0						0.0		
03/06/1999									
03/07/1999									
03/08/1999	0.0				76.0		1.0		
03/09/1999	0.0						1.0		
03/10/1999	0.0				85.0	70.0	1.0		
03/11/1999	0.0						0.0		
03/12/1999									
03/13/1999									
03/14/1999									
03/15/1999	0.0				80.0	70.0	0.0		
03/16/1999									
03/17/1999									
03/18/1999									
03/19/1999									
03/20/1999									
03/21/1999									
03/22/1999									
03/23/1999									

Scajaquada Creek Sediment Remediation Project, Buffalo, NY
Real-Time Air Monitoring Results

Site Perimeter, OFFICE TRAILER / MHF-N STATION, continued

Date	Hydrocarbons, ppm		Dust, mg/m3		Noise, dB		Odor, 8 point scale		Notes
	Max	Min	Max	Min	Max	Min	Max	Min	
03/24/1999									
03/25/1999	0.0		0.031	0.016	60	50	0		
03/26/1999									
03/27/1999									
03/28/1999									
03/29/1999									
03/30/1999									
03/31/1999	0.0		0.124	0.016	58		2	0	
04/01/1999									
04/02/1999									
04/03/1999									
**********									
04/05/1999									
04/06/1999	0.5	0	0.085	0.021	80	60	3	0	
04/07/1999	0.0		0.048	0.008	85	60	4	0	
04/08/1999	0.5	0	0.078	0.028	70		5	0	
04/09/1999	0.1	0	0.030	0.024	65		1	0	
04/10/1999									
04/11/1999									
04/12/1999									
04/13/1999	0.0		0.054	0.011	80	60	0		
04/14/1999	0.4	0	0.080	0.031	75	60	3	0	
04/15/1999									
04/16/1999									
04/17/1999									
04/18/1999									
04/19/1999									
04/20/1999									
04/21/1999									
04/22/1999									
04/23/1999									
04/24/1999									
04/25/1999									
04/26/1999	0.3	0	0.041	0.036	58		4	0	

Scajaquada Creek Sediment Remediation Project, Buffalo, NY
Real-Time Air Monitoring Results

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Site Perimeter, WESTWOOD STATION

Date	Hydrocarbons, ppm		Dust, mg/m3		Noise, dB		Odor, 8 point scale		Notes
	Max	Min	Max	Min	Max	Min	Max	Min	
08/11/98									
08/12/98									
08/13/98									
08/14/98									
08/15/98									
08/16/98									
08/17/98									
08/18/98									
08/19/98									
08/20/98									
08/21/98									
08/22/98									
08/23/98									
08/24/98									
08/25/98									
08/26/98									
08/27/98									
08/28/98									
08/29/98									
08/30/98									
08/31/98									
09/01/98									
09/02/98	0.0		0.042	0.019	66.0	64.0	1.0	0.0	
09/03/98									
09/04/98									
09/05/98									
09/06/98									
09/07/98									
09/08/98									
09/09/98									
09/10/98									
09/11/98	0.0		0.230	0.032	80.0	65.0	1.0	0.0	
09/12/98									
09/14/98	0.0		0.130	0.066	68.0	64.0	0.0		
09/15/98									
09/16/98	0.0		0.051	0.022	70.0		1.0	0.0	
09/17/98									
09/18/98	0.0		0.056	0.043	64.0	62.0	0.0		
09/19/98									
09/20/98									
09/21/98									
09/22/98	0.0		0.029	0.013	64.0		2.0	0.0	
09/23/98									
09/24/98									
09/25/98									
09/26/98									
09/27/98									
09/28/98									
09/29/98									
09/30/98									
10/01/98									
10/02/98									
10/03/98	0.0		0.021		70.0	60.0	2.0		
10/04/98									
10/05/98									
10/06/98	0.0		0.045	0.011	70.0		2.0	0.0	
10/07/98			0.033		70.0	66.0	0.0		
10/08/98									
10/09/98									
10/10/98									
10/11/98									
10/12/98	0.0		0.010	0.000	73.0	68.0	2.0	0.0	
10/13/98	0.0		0.080	0.021	68.0	64.0	0.0		
10/14/98	0.4	0.0	0.019	0.007	72.0		3.0	0.0	
10/15/98	0.0		0.032	0.020	74.0	64.0	2.0	0.0	
10/16/98	0.0		0.086	0.014	74.0	71.0	2.0	0.0	
10/17/98	0.0		0.034	0.020	64.0		1.0	0.0	
10/18/98									
10/19/98	0.0		0.082	0.035	74.0	66.0	3.0	0.0	
10/20/98	0.0		0.050	0.039	70.0	66.0	3.0	0.0	
10/21/98									
10/22/98	0.0		0.034	0.006	68.0		0.0		
10/23/98	0.0		0.094		74.0		0.0		
10/24/98	0.0		0.038		76.0		3.0	1.0	

Scajaquada Creek Sediment Remediation Project, Buffalo, NY
Real-Time Air Monitoring Results

Site Perimeter, WESTWOOD STATION, continued

Date	Hydrocarbons, ppm		Dust, mg/m3		Noise, dB		Odor, 8 point scale		Notes
	Max	Min	Max	Min	Max	Min	Max	Min	
10/25/1998									
10/26/1998	0.0		0.027	0.017	74.0	66.0	0.0		
10/27/1998	0.0		0.038	0.028	74.0	68.0	0.0		
10/28/1998	0.0		0.080	0.044	75.0	68.0	1.0	0.0	
10/29/1998	0.0		0.058	0.023	74.0	64.0	1.0	0.0	
10/30/1998	0.0		0.196	0.080	80.0	69.0	4.0	1.0	
10/31/1998	0.4	0.0	0.094	0.082	74.0		2.0	1.0	
11/01/1998									
11/02/1998									
11/03/1998			0.006		75.0	70.0	0.0		
11/04/1998	0.0		0.059	0.003	76.0	68.0	2.0	0.0	
11/05/1998	0.0		0.034	0.017	66.0		1.0		
11/06/1998	0.0		0.012		68.0	66.0	2.0	0.0	SOAPY SMELL COMING FROM EAST OFFSITE
11/07/1998	0.0		0.001	0.000	75.0	65.0	1.0	0.0	
11/08/1998									
11/09/1998									RAINING
11/10/1998									
11/11/1998									
11/12/1998									
11/13/1998									
11/14/1998									
11/15/1998									
11/16/1998									
11/17/1998									
11/18/1998									
11/19/1998									
11/20/1998	0.4	0.1	0.139	0.092	70.0	66.0	3.0	1.0	
11/21/1998	0.1	0.0	0.045	0.021	76.0	70.0	2.0	0.0	
11/22/1998									
11/23/1998	0.0		0.047	0.026	74.0	66.0	1.0	0.0	
11/24/1998	0.5	0.0	0.081	0.026	68.0	66.0	3.0	0.0	
11/25/1998									
11/26/1998									
11/28/1998									
11/29/1998									
11/30/1998									
12/01/1998									
12/02/1998									
12/03/1998									
12/04/1998									
12/05/1998									
12/06/1998									
12/07/1998									
12/08/1998									
12/09/1998									
12/10/1998									
12/11/1998									
12/12/1998									
12/13/1998									
12/14/1998	0.0		0.019	0.007	66.0	64.0	0.0		
12/15/1998	0.0		0.040	0.022	66.0	64.0	1.0	0.0	
12/16/1998	0.0		0.078	0.035	64.0	62.0	2.0	0.0	
12/17/1998			0.035		66.0		1.0		snowing - no PID readings
12/18/1998	0.0		0.046	0.012	65.0	62.0	2.0	0.0	odors coming FROM Westwood
12/19/1998	0.0		0.013	0.012	60.0		0.0		
12/20/1998									
12/21/1998	0.0		0.029		66.0		0.0		raining
12/22/1998	0.0						0.0		snowing
12/23/1998									
12/24/1998									
12/25/1998									
12/26/1998									
12/27/1998									
12/28/1998	0.1	0.0	0.099	0.029	64.0	63.0	1.0	0.0	
12/29/1998	0.0		0.067	0.056	64.0	62.0	0.0		
12/30/1998	0.0		0.004		66.0	62.0	0.0		
12/31/1998									
01/01/1999									
01/02/1999									
01/03/1999									
01/04/1999									
01/05/1999									
01/06/1999									
01/07/1999									

Scajaquada Creek Sediment Remediation Project, Buffalo, NY
Real-Time Air Monitoring Results

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Site Perimeter, EXP / BUFFALO CORE STATION

Date	Hydrocarbons, ppm		Dust, mg/m3		Noise, dB		Odor, 8 point scale		Notes
	Max	Min	Max	Min	Max	Min	Max	Min	
08/11/98	0.0		0.000		74.0	72.0			
08/12/98	0.0		0.030	0.000	68.0	58.0	2.0	0.0	
08/13/98	0.0		0.000		70.0	64.0	0.0		
08/14/98	0.0		0.010	0.000	70.0	66.0	0.0		
08/15/98	0.0		0.000		58.0		0.0		
08/16/98									
08/17/98	0.0		0.060	0.030	75.0	63.0	0.0		
08/18/98	0.0		0.000		68.0	64.0	2.0	0.0	
08/19/98	0.0		0.000		70.0		0.0		
08/20/98									
08/21/98									
08/22/98									
08/23/98									
08/24/98									
08/25/98									
08/26/98									
08/27/98	0.0		0.043	0.022	60.0		0.0		
08/28/98	0.0		0.041	0.016	62.0		0.0		
08/29/98									
08/30/98									
08/31/98	0.0		0.029	0.015	68.0	60.0	2.0	0.0	
09/01/98	0.0		0.045		80.0	60.0	3.0	0.0	
09/02/98	0.9	0.0	0.060	0.026	90.0	70.0	3.0	0.0	
09/03/98									
09/04/98									
09/05/98									
09/06/98									
09/07/98									
09/08/98									
09/09/98									
09/10/98									
09/11/98	0.0		0.230		70.0	65.0	1.0	0.0	
09/12/98	0.0		0.080	0.030	66.0		1.0		
09/14/98									
09/15/98	0.0		0.181	0.065	70.0	64.0	1.0	0.0	
09/16/98	0.0		0.023	0.014	70.0	64.0	0.0		
09/17/98	0.0		0.182	0.022	70.0	62.0	0.0		
09/18/98	0.0		0.173	0.030	66.0		2.0	0.0	
09/19/98									
09/20/98									
09/21/98	0.0		0.143	0.132	65.0		2.0	0.0	
09/22/98	0.0		0.090	0.014	66.0	60.0	0.0		
09/23/98									
09/24/98									
09/25/98									
09/26/98	0.0		0.065		64.0		0.0		
09/27/98	0.0		0.071	0.042	72.0	54.0	1.0	0.0	
09/28/98	0.0		0.012	0.007	68.0		0.0		
09/29/98	0.0		0.600	0.110	76.0	54.0	4.0	0.0	
09/30/98	0.0		0.122	0.016	78.0	62.0	5.0	0.0	
10/01/98	0.0		0.050	0.010	74.0	58.0	1.0	0.0	
10/02/98	0.0		0.050	0.022	78.0	74.0	3.0	0.0	
10/03/98	0.0		0.014	0.004	68.0	60.0	2.0	0.0	
10/04/98									
10/05/98									
10/06/98	0.0		0.090	0.004	70.0		1.0	0.0	
10/07/98	0.0		0.032		60.0		1.0		
10/08/98	0.0		0.000				0.0		
10/09/98									
10/10/98									
10/11/98									
10/12/98									
10/13/98	0.0		0.047	0.029	64.0		1.0	0.0	
10/14/98	0.0		0.014	0.002	68.0	66.0	0.0		
10/15/98									
10/16/98									
10/17/98									
10/18/98									
10/19/98									
10/20/98									
10/21/98									
10/22/98	0.0		0.010		64.0		0.0		
10/23/98									
10/24/98									

Scajaquada Creek Sediment Remediation Project, Buffalo, NY
Real-Time Air Monitoring Results

Site Perimeter, EXP / BUFFALO CORE STATION, continued

Date	Hydrocarbons, ppm		Dust, mg/m3		Noise, dB		Odor, 8 point scale		Notes
	Max	Min	Max	Min	Max	Min	Max	Min	
10/25/98									
10/26/98									
10/27/98	0.0		0.046				0.0		
10/28/98	0.0		0.088	0.043	68.0	66.0	0.0		
10/29/98									
10/30/98									
10/31/98									
11/01/98									
11/02/98									
11/03/98									
11/04/98									
11/05/98									
11/06/98									
11/07/98									
11/08/98									
11/09/98									
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12/26/98									
12/27/98									
12/28/98									
12/29/98									
12/30/98									
12/31/98									
01/01/99									
01/02/99									
01/03/99									
01/04/99									
01/05/99									
01/06/99									
01/07/99									

Appendix M

Appendix M

Summary of Surface Water Monitoring Results

NYSDEC Site # 91514B
August 30, 2000

Scajaquada Creek Sediment Remediation Project, Buffalo, NY
Surface Water Quality Monitoring Results

Date	UPSTREAM Turbidity,NTUs		DOWNSTREAM Turbidity,NTUs		Comments -
	Max.	Min.	Max.	Min.	
08/11/98	27.4	24.9	26.2	22	No sheen, water is cloudy
08/12/98	27.4	6.4	11.3	10.2	No sheen, water is cloudy
08/13/98	36	10	15	5.2	No sheen, water is cloudy
08/14/98	2.2	1.2	17	8.5	No sheen, water is cloudy
08/15/98	7		21		No sheen, water is cloudy
08/17/98	12.4	3	15	4.8	No sheen, water is cloudy
08/18/98	32	5.3	23	16.5	No sheen, water is cloudy
08/19/98	5.5		4.7		No sheen, water is cloudy
08/20/98	10	7	10	9.5	No sheen, water is cloudy
08/21/98	3.6		23		No sheen, water is cloudy
08/24/98	3.2	1.8	8.9	3.7	No sheen, water is cloudy
08/25/98	14.9	3.3	13.9	3.5	No sheen, water is cloudy
08/26/98	14	10.1	7	4.6	No sheen, water is cloudy
08/27/98	6.5	2.4	11.7	5.2	No sheen, water is cloudy
08/28/98	5.7	3.3	16.4	5.1	No sheen, water is cloudy
08/29/98	6	3	7	5	No sheen, water is cloudy
08/31/98	12.8	1.7	28	4.7	No sheen, water is cloudy
09/01/98	7.1	5.7	32	3.8	No sheen, water is cloudy
09/02/98	4.9	2.7	13.5	5.9	No sheen, water is cloudy
09/03/98	24	9.3	18	11.6	No sheen, water is cloudy
09/04/98	27.7	14.2	20.6	15.9	No sheen, water is turbid
09/05/98	4	3.2	7	6	Biological sheen present downstream
09/08/98	3.9	1.9	3.1	2.6	Biological sheen present downstream
09/09/98	5.5	1.9	13	8.1	No sheen, water downstream is silty
09/10/98	3.5	1.3	2.3	1.5	Biological sheen present downstream,
09/11/98	2	2	3	2	Clear, biological sheen present downstream
09/12/98	6	2.5	8		Cloudy, no sheen
09/14/98	6.8	4.5	5.2	4.3	No sheen, cloudy
09/15/98	5.8	1.8	9	3.8	No sheen, cloudy
09/16/98	8.2	1.9	21.2	6.2	Cloudy, biological sheen downstream
09/17/98	3.5	2.1	4.4	3.5	Cloudy, biological sheen downstream
09/18/98	2.9	2.6	15	4.8	Cloudy, biological sheen downstream
09/19/98	3.5	2.9	9.8	8.5	Cloudy, no sheen
09/21/98	4.9	3.5	5.5	4.3	Cloudy, no sheen
09/22/98	4.1	3.6	19.3	4.6	No sheen, water downstream is silty
09/23/98	4.7	3.1	5.4	3.8	No sheen, water downstream is silty
09/24/98	5.7	3.7	18.5	7.1	Biological sheen downstream and is silty
09/25/98	8	2	30	4	Water is turbid, biological sheen observed downstream
09/26/98	2		4		Water is clear
09/28/98	6	3	3	2	Water is cloudy, biological sheen downstream
09/29/98	5.1	1.7	11.2	4	Water is clear, no sheen
09/30/98	3.1	2.7	6	5.7	Water is cloudy, no sheen
10/01/98	13.9	1.9	11.5	5	Water is silty, no sheen
10/02/98	3.4	2.9	4.1	3	No sheen, clear
10/03/98	3.1	1.5	7.7	2.7	No sheen, clear
10/05/98	2.2	2	3.2	2	Clear, biological sheen present downstream
10/06/98	9	4.2	7.4	5	Clear, algae upstream, no sheen
10/07/98	7.3	4	10	3.8	Heavy algae upstream, no sheen
10/08/98	14.9	13.9	16.2	14.5	Biological sheen downstream, water is turbid
10/09/98	14.5		16.1		No sheen, cloudy
10/10/98	8.7	4.1	7.3	5.7	Biological sheen downstream, cloudy

Scajaquada Creek Sediment Remediation Project, Buffalo, NY
Surface Water Quality Monitoring Results - Continued

Date	UPSTREAM Turbidity,NTUs Max.	UPSTREAM Turbidity,NTUs Min.	DOWNSTREAM Turbidity,NTUs Max.	DOWNSTREAM Turbidity,NTUs Min.	Comments -
10/13/98	4.3	3.8	5	4.6	Cloudy, biological sheen downstream
10/14/98	6	4.4	9	5.5	Cloudy, biological sheen downstream
10/15/98	19.4	11.9	21.3	14.8	No sheen, very muddy
10/16/98	10	8.4	9.7	8.5	Cloudy, no sheen
10/17/98	8.2	6	7.2	5.7	Cloudy, biological sheen downstream
10/19/98	4.2	2.7	3.9	2.7	Clear, no sheen
10/20/98	3.1	2.8	5.7	4.3	Cloudy, no sheen
10/21/98	4.8	3.8	4.4	3.3	Cloudy, no sheen
10/22/98	4.5	3.5	7.5	3.7	Clear, biological sheen present upstream
10/23/98	3.7	2.6	2.3	1.9	Clear, no sheen
10/24/98	3.9	3.7	5.7	3.8	Clear, biological sheen downstream
10/26/98	4.5	4.2	4.2	4.1	Cloudy, no sheen
10/27/98	4.5	3	5.2	4	Cloudy, no sheen
10/28/98	4.1	2.3	9	5.2	Cloudy, no sheen
10/29/98	5.5	4.8	4.8	4.2	Cloudy, no sheen
10/30/98	14.2	10.5	12	11.2	Very cloudy, no sheen
10/31/98	6		8		Cloudy, no sheen
11/02/98	4	4	6	5	Clear, no sheen
11/03/98	4.7	3.6	6	3.7	Clear, no sheen
11/04/98	3.3	3	6.5	6.4	Clear, biological sheen upstream
11/05/98	4.1	2.2	5	4.4	Clear, no sheen
11/06/98	4.1	2.6	9.1	4.3	Clear, no sheen
11/07/98	4.4	3.7	6.3	4.3	Clear, no sheen
11/09/98	4	3.8	23.6	5	Sheen downstream in a.m, problem rectified
11/10/98	7	3.5	14.1	10.7	Cloudy, biological sheen downstream
11/11/98					Site flooded
11/14/98	28	26	34	27	Turbid, silty, sheen north of downstream booms
11/15/98	14		32		Water beginning to clear upstream
11/16/98	4		5		Cloudy, sheen north of downstream booms
11/17/98	10.3	7.6	28	10.8	Cloudy, no sheen
11/18/98	9.8	8.9	11.3	10.6	Cloudy, no sheen
11/19/98	10.3	8.7	73.3	15.6	Sheen downstream, work stopped
11/20/98	8.7	7.6	40.1	7.6	Downstream water was grey, problem rectified
11/21/98	7.4	6.9	34	6	Downstream water was grey, problem rectified
11/23/98	7.2	5.1	47.3	8.1	Discharge from work zone no longer feasible
11/24/98	8.2	6	67.5	11.7	Discharge from work zone no longer feasible
11/25/98	6.7	5.8	42	8	Discharge from work zone no longer feasible
11/27/98	5		7	6	Cloudy, no sheen, no work zone discharge
11/28/98	17	12	55	17	White foam in discharge from storm sewer in work zone
11/29/98	6		12		Cloudy, sheen present north of downstream booms
11/30/98	9	6	18	6	Cloudy, no sheen
12/01/98	11.4	7.2	12.3	10.9	Turbid, no sheen
12/02/98	18.2	17.2	35	19.6	Sheen in a.m., cleared by p.m.
12/03/98	11.3	9	16.5	8.2	Clear, no sheen
12/04/98	7.7	7.1	9.4	8	Clear, no sheen
12/05/98	8.1		8.3		No discharge from work zone
12/07/98	10.7		36	9.7	Turbid, biological sheen downstream
12/08/98	8.5	6	7.6	7.4	Cloudy, no sheen
12/09/98	5.8	5.2	11.1	7.1	Cloudy, no sheen
12/10/98	5.4	5.7	5.8	5.2	No discharge from work zone
12/11/98	6.1	4.9	5.9	5.1	No discharge from work zone
12/12/98	4		9	7	Clear, no sheen
12/14/98	6	4.3	6.7	5.3	Cloudy, no sheen
12/15/98	4.2	4.2	5.5	3.9	Cloudy, no sheen

Scajaquada Creek Sediment Remediation Project, Buffalo, NY
Surface Water Quality Monitoring Results - Continued

Date	UPSTREAM Turbidity,NTUs Max.	UPSTREAM Turbidity,NTUs Min.	DOWNSTREAM Turbidity,NTUs Max.	DOWNSTREAM Turbidity,NTUs Min.	Comments -
12/16/98	6.7	6.4	7.4	6	Cloudy, no sheen
12/17/98	5.6	3.4	4.8	3.4	Cloudy, no sheen
12/18/98	6	4.1	7.3	6.4	Cloudy, no sheen
12/19/98	7	5.1	17.8	8.1	Cloudy, no sheen
12/20/98	4		10	6	Turbid, slight sheen at times
12/21/98	9.6	8	71	8.5	Very cloudy, no sheen, work zone flooded
12/22/98	32.5	29	69.5	30.3	Turbid, some sheen downstream
12/23/98	33.1	30.4	44.6	34.3	Water being pumped out of work zone
12/24/98	25.1	24.1	54.1	35	Pumps moved to lower turbidity
12/28/98	6.7	6	12.6	7.1	Cloudy, biological sheen downstream
12/29/98	6.6	5.1	7.5	6.4	Cloudy, biological sheen downstream
12/30/98	6.7	6.5	10.7	7.7	Ice, cloudy, no sheen
12/31/98	6		6		Ice, cloudy, no sheen
01/05/99					Clear, no sheen, ice
01/06/99					Clear, no sheen, ice
01/07/99					Clear, ice, no sheen
01/08/99					Clear, ice, no sheen
01/09/99					Clear, ice, no sheen
01/10/99			7	4	Clear, ice, no sheen
01/11/99	6		14	12	Cloudy, slight sheen, ice
01/12/99	8	5	9	3	Cloudy, ice, no sheen
01/13/99	10	8	15	10	Cloudy, ice, no sheen
01/14/99			20	10	Cloudy, ice, no sheen
01/15/99			20.3	10.3	Ice, no collection point for upstream sample
01/16/99	5	4	12	8	Cloudy, ice, no sheen
01/17/99	5	4	10	7	Cloudy, no sheen
01/18/99	9	8	27	17	Silty, slight sheen downstream
01/19/99	16	15	23	16	Cloudy, ice, no sheen
01/20/99	15.8	12.5	19	11.8	White foam in discharge from storm sewer in work zone
01/21/99	12.9	12	19.1	18.3	Cloudy, biological sheen downstream
01/22/99	14.6	10.5	27.5	17.2	Turbid, ice, biological sheen downstream
01/23/99	26.5	26	35.5	31.2	Cloudy, slight sheen downstream
01/25/99	22.9	21	24.5	21.6	Cloudy, no sheen
01/26/99	17.3	16.9	17.5	16.6	Cloudy, no sheen
01/27/99	15.1	13.8	14.3	14.2	Cloudy, biological sheen downstream
01/28/99	11.2		14.3		Divers repairing south portdam, no discharge
01/29/99	10.1		13.1		Slight sheen downstream, cloudy
02/02/99	10	10	18	15	Work area flooded, no sheen downstream
02/03/99	34.9		40	23	Work area flooded, no sheen downstream
02/04/99	20.1	18	26	22.9	Work area flooded, no sheen downstream
02/05/99	16	12	22.5	18	Work area flooded, no sheen downstream
02/06/99	12	12	14	13	Work area flooded, no sheen downstream
02/07/99	9		9.2		Work area flooded, no sheen downstream
02/08/99	8.8	6.1	12.7	7	Work area flooded, no sheen downstream
02/09/99	7.5	7.4	58	13	Work area flooded, no sheen downstream
02/10/99	17.4		12	10	Work area flooded, no sheen downstream
02/11/99	16	16	17	13	Work area flooded, no sheen downstream
02/12/99	11		16		Work area flooded, no sheen downstream
02/15/99	10		15	10	Work area flooded, no sheen downstream
02/16/99	4		9	7	Work area flooded, no sheen downstream
02/17/99	6		8		Work area flooded, no sheen downstream
02/18/99			6	6	Work area flooded, no sheen downstream
02/19/99			6	9	Cloudy, no sheen downstream
02/20/99			8	7	Cloudy, no sheen downstream

Scajaquada Creek Sediment Remediation Project, Buffalo, NY
Surface Water Quality Monitoring Results - Continued

Date	UPSTREAM Turbidity,NTUs		DOWNSTREAM Turbidity,NTUs		Comments -
	Max.	Min.	Max.	Min.	
02/21/99			12	7	Cloudy, no sheen downstream
02/22/99			8	9	Clear, no sheen downstream
02/23/99			6		Clear, no sheen downstream
02/24/99	3.8	3.4	5	4.2	Clear, biological sheen downstream
02/25/99			4.1	3.7	Clear, biological sheen downstream
02/26/99	4.3	4.2	4.9	3	Clear, no sheen
02/27/99	5		3		Clear, no sheen
02/28/99	9		7		Cloudy, no sheen, work zone flooded
03/01/99			4		Clear, no sheen
03/02/99					Discharge from work zone discontinued, cloudy, no sheen
03/03/99	36	9	45	7	Silty due to storm drain discharge
03/04/99	68	28	65	34	South dam removed
03/05/99	27	20	30	22	North dam removed

Appendix N

Appendix N

Summary of Non-MGP Sampling and Analytical Results

NYSDEC Site # 91514B
August 30, 2000

SUMMARY OF NON - MGP SAMPLING AND ANALYTICAL RESULTS

Scajaquada Creek Sediment Remediation
National Fuel Gas Distribution Corporation
ThermoRetec Project #: 3-2111-600

During the project, sampling was performed twice on media which did not appear to be by-products of the manufactured gas process. The first sampling event occurred in September, along the west bank, at Station 12+60. Field observations suggested that the media was a "shoe leather or gasket material". The analytical results are attached.

The second sampling event occurred in March, 1999. Two 55 gallon drums of a "paint-like" substance were excavated from the creek, along the previously installed (RETEC, 1996) sheet pile wall. The sample was analyzed for flashpoint and TCLP-Metals. The analytical results are also attached.

RECEIVED
SEP 21 1998
RETEC ITHACA

RETEC

REMEDIATION TECHNOLOGIES, INC.

MEMORANDUM

TO: Mark Hofferbert

FROM: John Flaherty JMF

DATE: September 17, 1998

RE: Analytical Results - Analytical Results (Scajaquada Creek)

Your sample, identified as "unknown solid" from the above referenced site, has been examined by a carbon disulfide (CS_2) extraction - infrared spectral technique for identification of the material source, as requested.

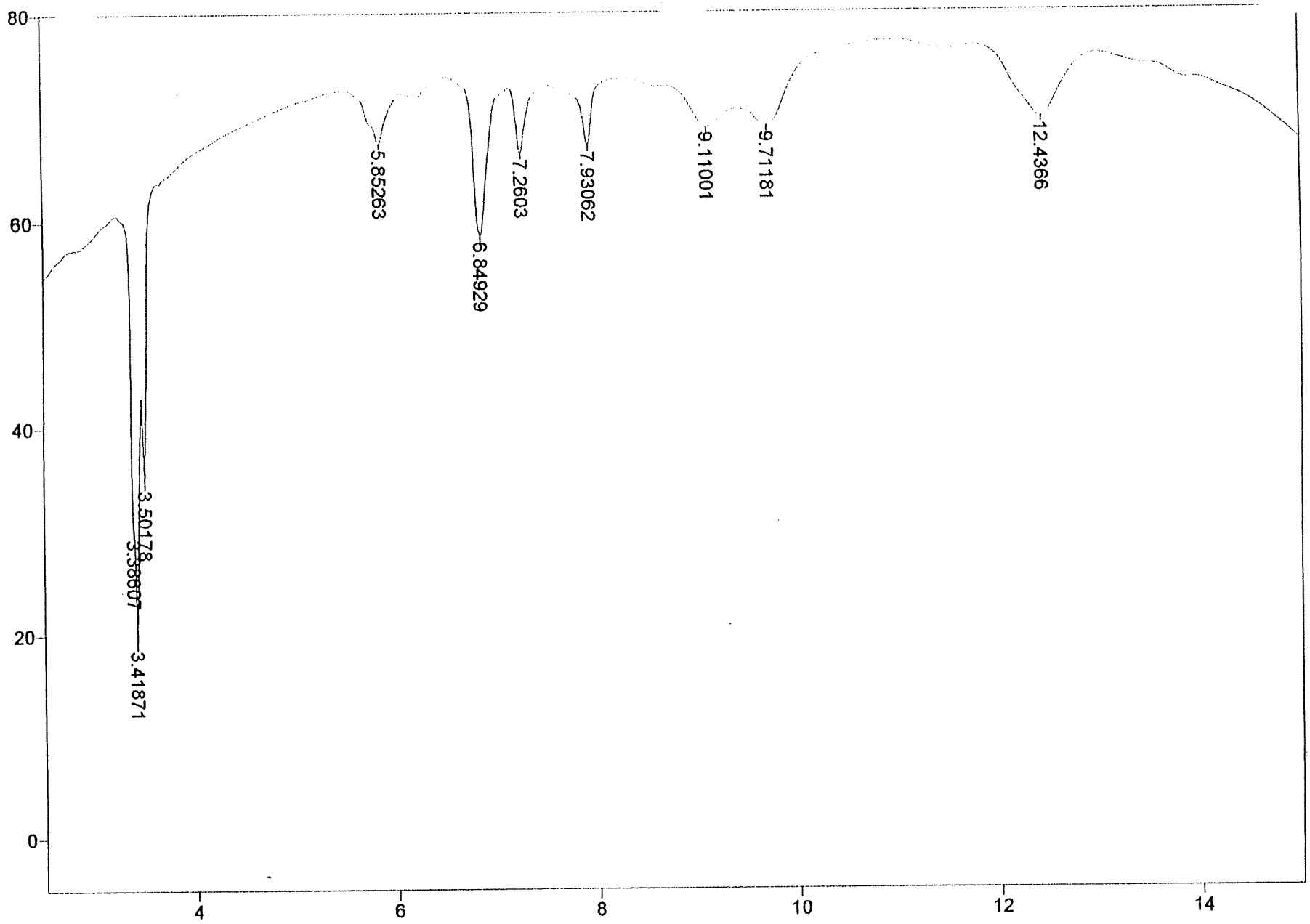
The sample was initially extracted with CS_2 in order to separate any hydrocarbon material from the sample matrix. A small amount of extractable material (approximately 100 ppm by weight) was obtained and analyzed by FT-IR. The extract showed IR absorptions characteristic of a mixture of an oxidized, high-boiling petroleum oil and silicon oil/grease.

The CS_2 insoluble phase, an approximately 2 mm thick fibrous "mat" was found to be comprised of fine black solids and discrete fibers. The black solids were identified as amorphous carbon (e.g., soot), while the fibers are a naturally occurring polyamide resembling wool.

The components observed in this material as well as its physical appearance suggest a filter medium, possibly used to isolate particulate matter out of an oil (?).

Copies of the IR spectra obtained are enclosed with this report for your reference.

As always, please contact me if you have any questions concerning the information presented in this report.



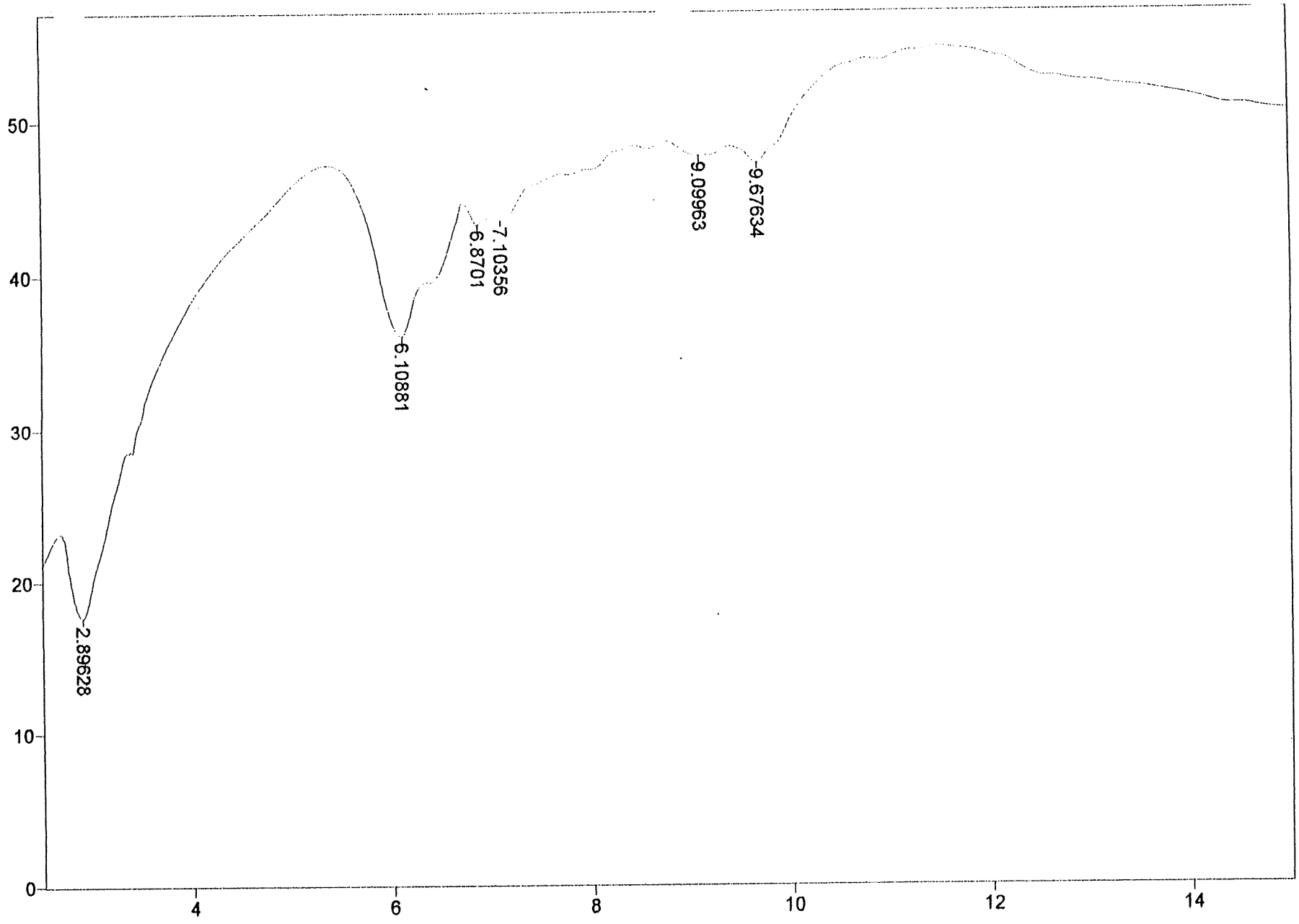
Transmittance / Micrometers

Number of Scans= 16 Apodization= Strong

File # 1 : 29849E

9/11/98 9:13 AM Res=8 cm-1

"Unknown Solid" CS2 Extracts



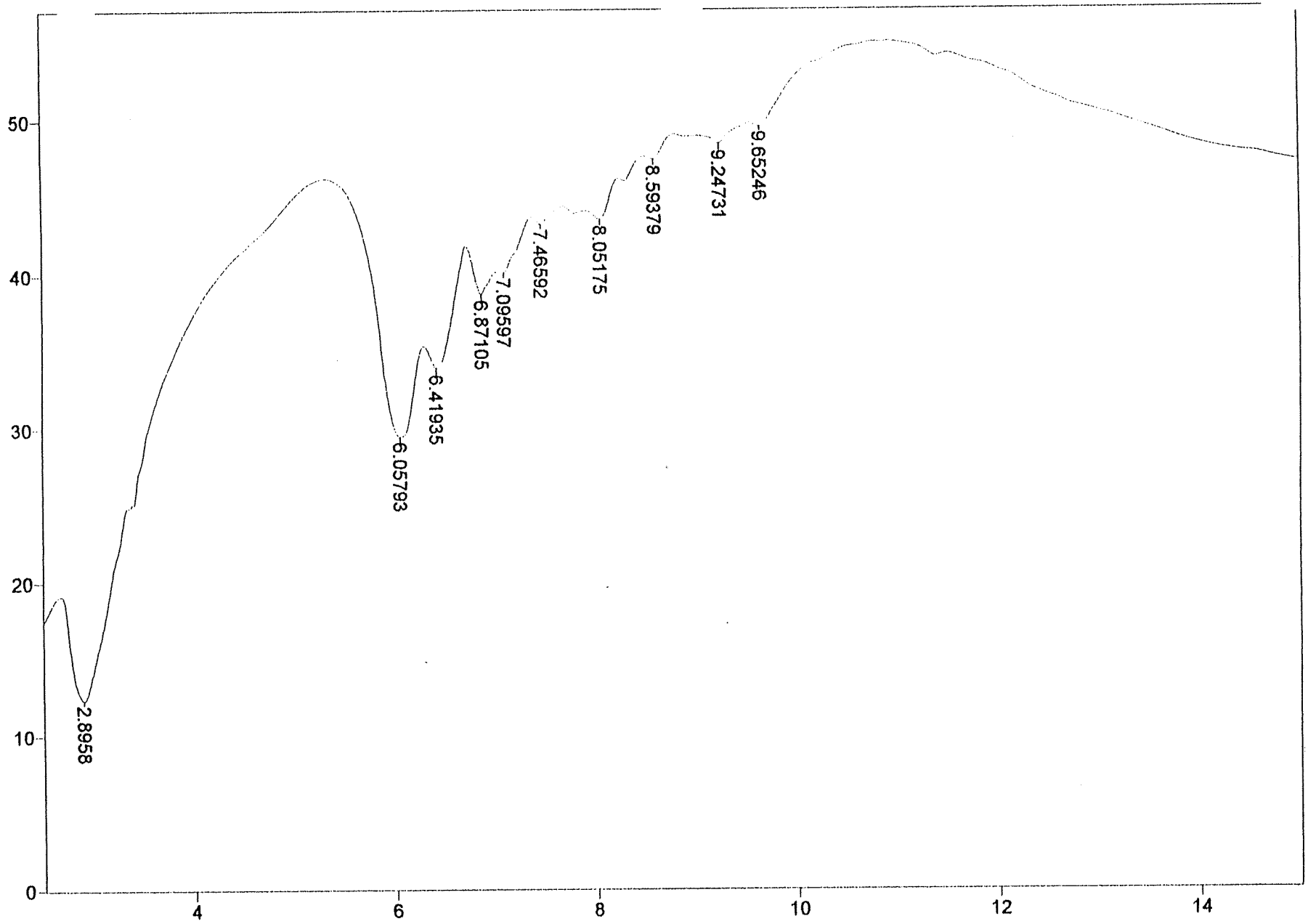
Transmittance / Micrometers

Number of Scans= 16 Apodization= Strong

File # 1 : 298491 2

9/11/98 9:31 AM Res=8 cm-1

"Unknown Solid" CS2 Insoluble 'Fine' Solids



Transmittance / Micrometers

Number of Scans= 16 Apodization= Strong

File # 1 : 298491

9/11/98 9:20 AM Res=8 cm-1

"Unknown Solid" CS2 Insoluble 'Fibrous' Solids

RETEC
REMEDIATION TECHNOLOGIES INC
RE...DIATION TECHNOLOGIES INC
1001 W. Seneca Street, Suite 204
Ithaca, NY 14850
(607) 277-5716
Fax (607) 277-9057

CHAIN OF CUSTODY RECORD 07...

PAGE 1 OF 1

PROJECT NAME: SCAJAQUADA CREEK
PROJECT NUMBER: 3-2111
REPORT TO: M. HOFFERBERT
SAMPLER (PRINT NAME): D. YUDIKAITIS
ADDRESS: above
SAMPLER (PRINT NAME): —
SHIPMENT METHOD: FEDEX
AIRBILL NUMBER: 535091 2501
PHONE:
LABORATORY RECEIVING:
FAX:
RETEC - Pittsburgh

FIELD SAMPLE ID	SAMPLE DATE	SAMPLE TIME	SAMPLE MATRIX	NUMBER OF CONTAINERS	ANALYSIS REQUESTED: HC FINGERPRINT	COMMENTS, SPECIAL INSTRUCTIONS, ETC.	LAB SAMPLE ID (to be completed by lab)
UNKNOWN SOLID	9/3/98	1045		1	X	QUESTIONS TO: DAVE Y. - ITHACA 607-277-5716	

Relinquished by: (Signature) S. Walston
Received by: (Signature) FEDEX
Date: 9/3/98
Time: 1900

Relinquished by: (Signature)
Received by: (Signature) John M Flaherty
Date: 9/4/98
Time: 1000

Relinquished by: (Signature)
Received by: (Signature)
Date:
Time:

SAMPLE CUSTODIAN REMARKS (COMPLETED BY LABORATORY):

QA/QC LEVEL		TURNAROUND:	
LEVEL I	☐	ROUTINE	☐
LEVEL II	☐	24 HOUR	☐
LEVEL III	☐	1 WEEK	☐
OTHER	☐	OTHER	____

SAMPLE RECEIPT	
TOTAL # CONTAINERS RECEIVED ?	
COC SEALS PRESENT ?	
COC SEALS INTACT ?	
RECEIVED CONTAINERS INTACT ?	
TEMPERATURE ?	

Custody.dwg

SEMIVOLATILE ANALYTICAL REPORT

Galson Laboratories

Client : ThermoRetec
Account # : 12013
Site : 3-2111-600

Date Received : 08-MAY-99
Date Sampled : 07-MAY-99
Date Extracted: 12-MAY-99

Matrix : Water
Method : SW846/3520/8270-PAH
Units : UG/L

Galson ID:	L50979-1	Q-6556
Client ID:	HIGHWAY RUNOFF	SBLK6556
Naphthalene	<10	<10
Acenaphthylene	<10	<10
Acenaphthene	<10	<10
Fluorene	<10	<10
Phenanthrene	9. J	<10
Anthracene	2. J	<10
Fluoranthene	14.	<10
Pyrene	12.	<10
Benzo(a)anthracene	4. J	<10
Chrysene	8. J	<10
Benzo(b)fluoranthene	7. J	<10
Benzo(k)fluoranthene	6. J	<10
Benzo(a)pyrene	4. J	<10
Indeno(1,2,3-cd)pyrene	<10	<10
Dibenzo(a,h)anthracene	<10	<10
Benzo(g,h,i)perylene	<10	<10
Dilution Factor	1	1
Analysis Date	05/16/99	05/14/99

Approved by : Oommen Kappil
Date : 17-MAY-99
QC by : [signature]
Date : 5/17/99
NYS DOH # : 11626
Footnotes:

2C
WATER SEMIVOLATILE SURROGATE RECOVERY

Lab Name: GALSON LABORATORIES Contract:

Lab Code: Case No.: 1 SAS No.: SDG No.: L50979

SAMPLE NO.	S1 (NBZ) #	S2 (FBP) #	S3 (TPH) #	S4 (DCB) #	S5 ( ) #	S6 ( ) #	S7 ( ) #	S8 ( ) #	TOT OUT
SBLK6556	87	79	118	91					0
HIGHWAY RUNOFF	82	48	35	81					0

	QC LIMITS
S1 (NBZ) = Nitrobenzene-d5	(35-121)
S2 (FBP) = 2-Fluorobiphenyl	(28-123)
S3 (TPH) = Terphenyl-d14	(21-134)
S4 (DCB) = 1,2-Dichlorobenzene-d4	(32-125)

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

REMEDIATION TECHNOLOGIES
1001 W. Seneca Street, Suite 204
Ithaca, NY 14850
(607) 277-5716
Fax (607) 277-9057

CHAIN OF CUSTODY RECORD 0812

PAGE 1 OF 1

PROJECT NAME:

PROJECT NUMBER: 3-2111-600

SEND REPORT TO: John Finn

SAMPLER (PRINT NAME) DAVID

ADDRESS: RETEC

SAMPLER (PRINT NAME) YUDIKAITIS

1001 W. Seneca St

SHIPMENT METHOD: FEDEX

Ithaca NY 14850

AIRBILL NUMBER: 810834174074

PHONE: 607 2775716

LABORATORY RECEIVING: Balson

FAX: 607 2779057

ANALYSIS REQUESTED: PAH 8270B

FIELD SAMPLE ID	SAMPLE DATE	SAMPLE TIME	SAMPLE MATRIX	NUMBER OF CONTAINERS			COMMENTS, SPECIAL INSTRUCTIONS, ETC.	LAB SAMPLE ID (to be completed by lab)
HIGHWAY RUNOFF	5/7/99	11:00	water	1	X	HIGHWAY RUNOFF	1 week Turn Around	

Relinquished by: (Signature)	Received by: (Signature)	Date:	Time:
	Fedex	5/7/99	1500
Relinquished by: (Signature)	Received by: (Signature)	Date:	Time:
		5/8/99	1200
Relinquished by: (Signature)	Received by: (Signature)	Date:	Time:
		5-10-99	1000

SAMPLE CUSTODIAN REMARKS (COMPLETED BY LABORATORY):

QA/QC LEVEL		TURNAROUND:	
LEVEL I	☐	ROUTINE	☐
LEVEL II	☐	24 HOUR	☐
LEVEL III	☐	1 WEEK	☒
OTHER	☐	OTHER	___

SAMPLE RECEIPT	
TOTAL # CONTAINERS RECEIVED ?	1
COC SEALS PRESENT ?	yes
COC SEALS INTACT ?	yes
RECEIVED CONTAINERS INTACT ?	yes
TEMPERATURE ?	14°

WHITE: LAB COPY YELLOW: PM COPY PINK: FIELD COPY GOLD: PM/QA/QC COPY

Custody.dwg

MAY-07-1999 14:06 FROM RETEC ITHACA TO 1-716-871-0779 P.02
TOTAL P.02

METALS ANALYTICAL REPORT

Galson Laboratories

3-2111
EA SEDIMENT REMEDIATION
LAB ANALYSES

Client : Remediation Technologies, Inc.
Account # : 12013
Site : Scajaquada Creek

Date Received : 03-MAR-99
Date Sampled : 02-MAR-99

Matrix : Leachate
Method : SW846 6010B/7470A

Galson ID:		L49323-1	QM990305-1
Client ID:		3299-DRUM	TCLP Blank
	Units		
Arsenic TCLP	mg/l	0.034	<0.01
Barium TCLP	mg/l	<1	<1
Cadmium TCLP	mg/l	0.028	<0.005
Chromium TCLP	mg/l	280	<0.01
Lead TCLP	mg/l	<0.02	<0.02
Mercury TCLP	mg/l	<0.0003	<0.0003
Selenium TCLP	mg/l	<0.02	<0.02
Silver TCLP	mg/l	<0.01	<0.01

Approved by : KSB
Date : 08-MAR-99
QC by :
Date : 3/8/99
NYS DOH # : 11626
Footnotes:

INORGANIC ANALYTICAL REPORT

Galson Laboratories

Client : Remediation Technologies, Inc.
Account # : 12013
Site : Scajaquada Creek

Date Received : 03-MAR-99 Matrix : Bulk
Date Sampled : 02-MAR-99

Galson ID:		L49323-1
Client ID:		3299-DRUM
	Method Units	
gnitability	SW846 1030	POSITIVE

Approved by : LM
Date : 08-MAR-99
QC by :
Date : 3/8/99
NYS DOH # : 11626

Footnotes:

* The sample did ignite when exposed to a flame from a propane burner. The sample did continue to burn after removing flame source. The flame remained at the point of ignition and did not travel 200 mm within 2 minutes as defined in section 7.1 of SW846 1030.

REMEDIATION TECHNOLOGIES
1001 W. Seneca Street, Suite 204
Ithaca, NY 14850
(607) 277-5716
Fax (607) 277-9057

CHAIN OF CUSTODY RECORD 0300

PROJECT NAME: SCAJ. CREEK	PROJECT NUMBER: 3-2111-600
SEND REPORT TO: J. FINN	SAMPLER (PRINT NAME) S. WALSTON
ADDRESS: above	SAMPLER (PRINT NAME)
	SHIPMENT METHOD: FEDEX
	AIRBILL NUMBER: 810149188935
PHONE:	LABORATORY RECEIVING: GALSON
FAX:	

PAGE 1 OF 1

FIELD SAMPLE ID	SAMPLE DATE	SAMPLE TIME	SAMPLE MATRIX	NUMBER OF CONTAINERS	ANALYSIS REQUESTED: TCLP METALS	FLASHPOINT									COMMENTS, SPECIAL INSTRUCTIONS, ETC.	LAB SAMPLE ID (to be completed by lab)
3299-DRUM	3/2/99	1600	SOLID	2	X	X		gies, In 14923-1 3299-DRUM							REQUEST 2-WK. TAT PER CONV. TODAY w/ PAM WEAVER	

Relinquished by: (Signature)	Received by: (Signature)	Date:	Time:
S. Walston	FEDEX	3/2/99	1900
Relinquished by: (Signature)	Received by: (Signature)	Date:	Time:
	T. Kay	3-3-99	1040
Relinquished by: (Signature)	Received by: (Signature)	Date:	Time:

SAMPLE CUSTODIAN REMARKS (COMPLETED BY LABORATORY):

QA/QC LEVEL		TURNAROUND:	
LEVEL I	☐	ROUTINE	☐
LEVEL II	☐	24 HOUR	☐
LEVEL III	☐	1 WEEK	☐
OTHER	☐	OTHER	X

SAMPLE RECEIPT	
TOTAL # CONTAINERS RECEIVED ?	2
COC SEALS PRESENT ?	yes
COC SEALS INTACT ?	yes
RECEIVED CONTAINERS INTACT ?	yes
TEMPERATURE ?	<4°C TG

WHITE - LAB COPY YELLOW - PM COPY PINK - FIELD COPY GOLD - PM/QA/QC COPY

Custody.dwg

Appendix O

Appendix O

Permits

NYSDEC Site # 91514B
August 30, 2000

New York State Department of Environmental Conservation
Division of Environmental Remediation, Region 9
270 Michigan Avenue, Buffalo, New York, 14203-2999
Phone: (716) 851-7220 FAX: (716) 851-7226

John P. Cahill
Commissioner

June 24, 1998

Mr. John T. Finn, P.E.
Senior Engineer
RETEC, Inc.
1001 W. Senecca Street
Ithaca, NY 14850

Dear Mr. Finn:

Iroquois Gas/Westwood - Riparian
Site #915141B
Final RD/RA Submittals

The Department has completed the review of the following submittals relative to the referenced remedial project:

- Preliminary Remedial Design/Remedial Action (June 5, 1998);
- Remedial Action Work Plans (June 5, 1998);
- Technical Specifications (June 9, 1998); and
- Final Remedial Design and Drawings (June 10, 1998).

Approval of these submittals is hereby granted, subject to the following conditions:

1. Materials dredged from Scajaquada Creek cannot be returned without the approval of the Department. Materials proposed to be placed back in the creek must be analyzed for applicable waste constituents with the results presented to the Department for review prior to approval.

2. Work in Scajaquada Creek, a Class B stream, shall meet the substantive technical requirements of 6 NYCRR Part 608. As the remedial work is being undertaken pursuant to an Order on Consent, issuance of an Article 15 (Protection of Waters) permit will not be required.

3. An Operation and Maintenance (O&M) manual, to be prepared as part of this remedial action, shall provide for an initial O&M period of 30 years including 5-year periodic reviews.

4. Within 14 days from start of construction of the remedial project, National Fuel Gas shall submit for the Department's review and approval a plan detailing final restoration of the creek bed and banks. Specifically, the plan shall include the restoration specifications outlined as Attachment A, "Creek Restoration Plan - Technical Specifications", of this approval letter.

5. Dredging tolerances shall be +/- three inches.

6. Prior to commencement of any work at the site, National Fuel Gas or its designated representative, RETEC, must submit a letter agreeing to and accepting approval Conditions 1 through 5 above.

Should you have any questions regarding this approval or the above stated conditions, please do not hesitate to contact me at 716/851-7220.

Sincerely,

Abul Barkat, P.E.
Environmental Engineer II

AB:sz

cc: Mr. Kenneth Roblee, NYSDEC, Division of Fish & Wildlife, Buffalo
Ms. Christina Dowd, NYSDEC, Division of Fish & Wildlife, Albany
Mr. Richard Tuers, NYS Dept. of Health, Bureau of Environmental Exposure, Albany

ATTACHMENT A
CREEK RESTORATION PLAN - TECHNICAL SPECIFICATIONS

Scajaquada Creek
Iroquois Gas/Westwood - Riparian Site
No. 915141B

(date)

The Creek Restoration Plan shall include the following specifications for restoration of habitat within the creek. Additional restorative work must be identified during the early stages of construction and plans submitted for approval as detailed below.

1. An area of emergent/submerged vegetation currently exists along the north bank of the stream, across and somewhat downstream of the existing sheet pile wall. Vegetation currently existing includes:

Submergent Vegetation:	Emergent Vegetation:
Potomogeton spp.	*Iris sp.*
Elodea sp.	*Phalaris arundinacea*
Vallisneria americana	*Sagittaria latifolia*
Ceratophyllum demersum	

The dimensions and elevations of the vegetated area will be delineated after dewatering of the stream and prior to sediment excavation. Photographs of the area will be taken. After sediment excavation and capping, stream bed elevations compatible with the restoration of this vegetation will be established by constructing a bar or bench consisting of soil covered with a biodegradable jute or fibre matting. Vegetation will be planted in the soil and held in place by the matting. A small berm of stone will be placed on the upstream edge of the bar as a shield against the current. The flow in the stream is periodically reversed due to the operation of the canal. The rock containment should, therefore, be constructed around the entire substrate bar. Plants shall be plugs consisting of mature plants with a two-inch diameter root ball, planted one plug two feet on center. Alternate specifications for planting subject to approval of the NYSDEC. A planting plan including species, locations, and cross sections of the bench area, shall be submitted for approval in accordance with approval condition No. 4.

2. For all other areas of the stream, after dewatering and prior to sediment excavation, existing vegetation shall be identified, photographed and documented. After excavation and capping, suitable elevations and substrate for re-establishment of this vegetation shall be established and planted as in 1. above. A plan for restoration of stream vegetation shall be submitted for approval in accordance with approval condition No. 4.

3. Various species of woody vegetation currently exist along the banks of the stream. All trees and shrubs removed from the bottom half of the embankment shall be replaced. Currently existing vegetation includes:

   - *Salix sp.*
   - *Acer saccharinum*
   - *Acer negundo*

   Prior to clearing and/or grubbing along the bank, an inventory of woody vegetation shall be conducted to identify vegetation to be replaced. Topsoil and other amendments shall be placed along the area to be planted. Trees shall be root balled, a minimum diameter of three inches, and planted ten feet on center. Shrubs shall be a minimum of 2.5 feet high and planted at 5 feet on center. Additional shrub species to be planted include:

   - *Cornus sericea*
   - *Cornus amomum*
   - *Cephalanthus occidentalis*

   Alternate specifications for planting subject to approval of the NYSDEC. A plan for restoration of woody vegetation shall be submitted for approval in accordance with the approval condition No. 4.

4. In addition to the approved erosion control mix, seeding of the bottom third of the embankment shall include a wet meadow mix including a variety of sedges, rushes and herbaceous species including:

   - *Eupatorium maculatum*
   - *Eupatorium perfoliatum*
   - *Panicum spp.*

5. Additional bars or benches shall be constructed to provide substrate for vegetation in the existing shallow areas shown as the 570-foot contour on the Site Layout Plan Drawing S-1.

   - between station 4+50 and 8+00 on the north side of the stream;
   - between station 14+00 and 15+00 on the north side of the stream;

- between station 2+50 and 3+00 on the south side of the stream; and

- between station 7+50 and 8+50 on the south side of the stream.

Existing elevations and vegetation will be documented and photographed after dewatering and prior to excavation and capping. If these shallows are currently vegetated, the constructed bars will be planted as in 1. above. The bars shall be constructed of a 1:1 mixture of anchor stone and soil and be provided with boulders or a stone berm as needed at the upstream and downstream edges to hold the soil in place. Alternate specifications for bar placement and design subject to approval of NYSDEC.

6. The plantings and substrate bars shall be maintained for a period of five years after the completion of the remedial action.

7. Tree seedlings are not acceptable as replacement for mature trees removed during clearing and grubbing. Restoration should include trees of two- to three-inch diameter planted ten feet on center.

New York State Department of Environmental Conservation
Division of Environmental Remediation, Region 9
270 Michigan Avenue, Buffalo, New York, 14203-2999
Phone: (716) 851-7220 FAX: (716) 851-7226

John P. Cahill
Commissioner

April 13, 1998

Mr. John T. Finn, P.E.
RETEC
1001 W. Seneca Street - Suite 204
Ithaca, New York 14850

Dear Mr. Finn:

Scajaquada Creek
Remedial Design

This is in follow-up to our recent discussions regarding RCRA mandates for the upland sediment processing and staging area to be utilized as part of the remediation of Scajaquada Creek.

The Department's Division of Solid & Hazardous Materials implement the Federal RCRA Program in New York State utilizing rules and regulations contained in the 6NYCRR Part 370 series. As such, I have discussed the proposed processing and staging area with this division and offer the following for your information:

- The processing and staging area will be part of the remedial action undertaken pursuant to a CERCLA Order on Consent. Therefore, a RCRA permit will not be required.
- The processing and staging area will be considered a "Temporary Unit" as defined in 6NYCRR Part 373-2.19.
- Typically, the temporary unit should not exist for longer than one year's duration.

- Key to the use of this temporary unit will be the prevention of any hazardous waste from contacting the native soils in the processing and staging area as wastes allowed to contact the native soils in the area could be construed as illegal disposal of a hazardous waste. Therefore, proper and effective installation and use of berms, barriers and other control/containment methods in this regard must be provided.

I have enclosed a copy of 6NYCRR Part 373 for your reference. Should you have further questions regarding this issue, please do not hesitate to contact Mr. Abul Barkat or me at 716/851-7220.

Very truly yours,

Daniel K. King, P.E.
Regional Hazardous Waste Remediation Engineer

DKK:sz

cc: Mr. James Strickland, NYSDEC, Division of Solid & Hazardous Materials, Region 9
Mr. Abul Barkat, NYSDEC, Division of Environmental Remediation, Region 9
Mr. Roger Murphy, NYSDEC, Division of Solid & Hazardous Materials, Albany

STATE OF NEW YORK
DEPARTMENT OF TRANSPORTATION
125 MAIN STREET
BUFFALO, N.Y. 14203

ROBERT J. RUSSELL
REGIONAL DIRECTOR

JOSEPH H. BOARDMAN
COMMISSIONER

August 24, 1998

Philip Services Corp.
495 Commerce Drive, Suite 7
Amherst, NY 14228

Dear Applicant:

Attached is Highway Work Permit No. **598-0275.**

Please pay special attention to the following conditions pursuant to the subject permit. You are be advised that this correspondence and the conditions listed below are part of the permit and are required to remain attached to the permit. Your superintendent/contractor should also be throughly familiar with these restrictions before any work is started.

- **All damaged or disturbed areas, that are the result of the work done by this permit, will be returned to original condition or better.**

- **Maintenance and Protection of Traffic shall be in conformance with the New York State Manual of Uniform Traffic Control Devices.**



When all work is completed, please sign the permit in the space provided and return your copy of the permit to our Assistant Resident Engineer, D. J. Barabasz.

Very truly yours,

N. R. Shah

N. R. SHAH
Regional Permit Engineer

NRS:pli

cc: D. J. Barabasz, Asst. North Erie Resident Engineer

PERM 42p (8/93)

STATE OF NEW YORK DEPARTMENT OF TRANSPORTATION

HIGHWAY WORK PERMIT

P Fee: $ 25.00
Insurance Fee: $ 50.00
Total Received: $ 75.00
Check or M.O. No.: 12850224

Permit No.: 5-98-0275
Project Identification No.:
Expiration Date: 12/31/98
SH No.: 155
Deposit Rec. for $ 0.00
Check or M.O. No.:
Dated: / /
Estimated Cost of Work Performed in the State Right-of-Way $ 0.00
Chargeable to Bond No.:
or Undertaking on File: 10 0.000

*Permittee:
PHILIP SERVICES CORP.
495 COMMERCE DR, SUITE 7
AMHERST, NY 14228
attn:

Billing Address: (Complete if different from above)

Return of Deposit Made Payable to: (Complete if different from Permittee

Under the provisions of the Highway Law or Vehicle & Traffic Law, permission is hereby granted to the permittee to:

Route 198. Dewatering of Ellicott Creek to allow by the construction of approximately 1,000 cubic yards of soil & or contaminated sediment from the creek bed. Work is to be performed between Dart Airport and Main Street.

THE PERMITTEE IS RESPONSIBLE FOR THE MAINTENANCE AND PROTECTION OF TRAFFIC. ANYONE WORKING IN THE STATE HIGHWAY RIGHT-OF-WAY IS REQUIRED TO WEAR HIGH VISIBILITY APPAREL (ORANGE/YELLOW) AND HARD HAT.

County - ERIE Municipality - BUFFALO Route # - 198

as set forth and represented in the attached application at the particular location or area, or over the routes as stated therein, if required; and pursuant to the conditions and regulations general or special, and methods of performing work, if any; all of which are set forth in the application and form of this permit.

Dated at: BUFFALO, N.Y.
Date Signed: 07/15/98

Commissioner of Transportation

By: JOSEPH M. BOARDMAN

IMPORTANT

THIS PERMIT, WITH APPLICATION AND DRAWING (OR COPIES THEREOF) ATTACHED SHALL BE PLACED IN THE HANDS OF THE CONTRACTOR BEFORE ANY WORK BEGINS. THE HIGHWAY WORK PERMIT SHALL BE AVAILABLE AT THE SITE DURING CONSTRUCTION.

BEFORE WORK IS STARTED AND UPON ITS COMPLETION, THE PERMITTEE ABSOLUTELY MUST NOTIFY THE RESIDENT ENGINEER,

D. ... Kennedy
(716) 639-3[illegible]

[illegible] INDIAN RD
DEPEW, NEW YORK 14043

UPON COMPLETION OF WORK AUTHORIZED, THE FOLLOWING WILL BE COMPLETED, SIGNED BY THE PERMITTEE AND DELIVERED TO THE RESIDENT ENGINEER.

Work authorized by this permit has been completed. Refund of deposit or return/release of bond is requested.

DATE _____ PERMITTEE _____ AUTHORIZED AGENT (If Any) _____

Work authorized by this permit has been satisfactorily completed and is accepted. **Reverse side of this form must be completed.**

- ☐ Refund of Deposit is authorized
- ☐ Return of Bond is authorized
- ☐ Amount charged against Bond may be released
- ☐ Retain Bond for future permits
- ☐ Other

DATE _____ RESIDENT ENGINEER _____

The Regional Office will forward this form to the Main Office with the appropriate box checked.

RECEIVED

JUL 9 / 1998

NYSDOT
NORTHERN REGION

PERM 33m (1/97)

STATE OF NEW YORK DEPARTMENT OF TRANSPORTATION
HIGHWAY WORK PERMIT APPLICATION FOR NON-UTILITY WORK

PREPARE 4 COPIES
(photocopies acceptable)

Application is hereby made for a highway work permit:

Name Philip Services Corp.

Address 495 Commerce Drive, Suite 7

City Amherst State NY Zip 14228

Federal I.D. No. or Social Security No. 37-1021508

Applicant Telephone No. (716) 691-6088

Contact person in case of emergency Mike Charles

Telephone No. of contact person (716) 360-9835

For Joint application, name and address of Second Applicant below:

Name

Address

City State Zip

Project Identification No.

Highway Work Permit No.

RETURN PERMIT TO: (If different from above)

Name

Address

City State Zip

RETURN OF DEPOSIT/BOND TO: (Complete only if different from permittee)

Name

Address

City State Zip

1. Estimated cost of work being performed in state highway right-of-way $ 3.5 M

2. Anticipated duration of work: From July 19 98 thru Oct. 19 98 to apply to the operation(s) checked on the reverse side.

3. Protective Liability Insurance covered by Policy No. GL1525551 (See enclosed check for Department's Blanket Insurance) ; expires on 10/31/98 19

4. A $20.00 fee will be charged for checks returned by the bank.

PROPOSED WORK (Brief description): Dewatering (local) of Scajaquada Creek followed by the remediation of approx. 22,000 CY of coal tar contaminated sediment from the creek bed.

ATTACHED: Plans X Specifications X (Project overview)

LOCATION: State Route Scajaquada Expy. State Highway 198

between Reference Marker Dart Street and Reference Marker West Avenue

Town of: Buffalo County of: Erie

SEQR REQUIREMENTS: (Check appropriate item)

___ Exempt ___ Ministerial ___ Type II ___ EIS or DEIS Lead Agency

If project is identified to be ministerial, exempt, or TYPE II, no further action is required.

If project is determined to be other than ministerial, exempt, or TYPE II, refer to M.A.P.7.12-2, Appendix A SEQR REQUIREMENTS FOR HIGHWAY WORK PERMITS.

Acceptance of the requested permit subjects the permittee to the restrictions, regulations and obligations stated on this application and on the permit.

Applicant Signature Date 7-2-98 19 .

Second Applicant Signature Date 19 .

Approval recommended 7/7/98 19 By Resident Engineer Residency No. 5-3

Approved 19 By Regional Traffic Engineer Region No.

CHECK TYPE OF OPERATION	Permit Fee	Insurance Fee	Perm 17 or Under Taking	Total Amount of Fee and/or Insurance	Guarantee Deposit and/or Bond Amount
5. q Single job - Permit issued for each job					
a. q Driveway or roadway					
1. q Residential	$ 15	$ 25			
2. q Commercial - Minor	550	175			
a. q Home Business	100	75			
3. q Commercial - Major - (Less than 100,000 square feet Gross Building Area)	1400	N/A			
4. q Commercial - Major - (100,000 square feet Gross Building Area and Greater)	Actual cost with Minimum of $2000 upon permit app.	N/A			
5. q Subdivision Street	900	N/A			
6. q Temporary access road or street	200	150			
b. q Improvement					
1. q Residential	15	25			
2. q Commercial					
Check additional description below:					
a. q Install sidewalk, curb paving, stabilized shoulder, drainage, etc.	200	150			
b. q Grade, seed, improve land contour, clear land of brush, etc.	100	75			
c. q Resurface existing roadway or driveway	50	50			
d. q Annual resurfacing of residential and commercial roadways or driveways.					
1. q Per County	150	N/A			
2. q Per Region	400	N/A			
c. q Tree Work					
1. q Residential	15	25			
2. q Commercial (not required for pruning if utility has annual maintenance permit)	25	50			
Check additional description below:					
a. q Removal or planting					
b. q Pruning, applying chemicals to stumps, etc.					
d. q Miscellaneous Construction					
1. q Beautifying ROW - (for Civic Groups only)	NC	25			
2. q Temporary signs, banners, holiday decorations					
a. q Not-for-profit organizations	NC	25			
b. q Organizations other than not-for-profit	25	25			
3. q Traffic control signals	500	175			
4. q Warning and entrance signs	25	50			
5. q Miscellaneous - Requiring substantial review	400	175			
6. q Miscellaneous	25	50		75.00	
6. q Encroachment caused by D.O.T. acquisition of property	25	50			
7. q Compulsory permit required for work performed at the request of D.O.T.					
a. q Building demolition or moving requested by D.O.T.	NC	25			
1. q Demolition 2. q Moving					
b. q Improvement to meet Department standards	NC	25			
8. q Miscellaneous	25	25			
9. q Adopt a Highway	NC	N/A			

SECTION 1.0
Project Overview

Philip Services Corporation (PSC) has been contracted to conduct the Scajaquada Creek Sediment Remediation project at the Iroquois Gas/Westwood Pharmaceutical (IG/WP) site in Buffalo, Erie County, New York. A description of the Site and the contracted Scope of Work (SOW) is provided in the subsections that follow.

1.1 SITE BACKGROUND

1.1.1 Description

The Iroquois Gas/Westwood Pharmaceutical (IG/WP) site lies in a mixed industrial and residential area of Buffalo, New York on the south bank of the Scajaquada Creek. The creek itself flows through a zone of active and inactive industrial facilities upstream and downstream from the IG/WP site. Scajaquada Creek is approximately 40 to 110 feet wide in the section adjacent to the IG/WP site with a creek level approximately 20 feet below the top of the south bank. The creek drains southwest into the Black Rock Canal of the Niagara River approximately one-half mile down stream. However, experience on site and historic records of river stage show that river elevations can vary by several feet over a short period of time. The action of wind on Lake Erie causes the level of the Black Rock Canal to rise and fall, often resulting in rapid reversals in the direction of flow in Scajaquada Creek at the site location.

For the purposes of the remedial design/construction, the site has been divided into terrestrial and riparian areas. The terrestrial portion consists of an area of approximately 9 acres where a manufactured gas plant (MGP) facility was formerly located. This property is currently owned by the Westwood Squibb Pharmaceutical Company (WSP) and contains two buildings which cover about 50 percent of the area. The riparian portion of the site consists of the sediments of Scajaquada Creek impacted by MGP residues. The riparian Site is located in a 1600-foot-long stretch of the creek running from the West Avenue Bridge to a location 400 feet north of the New York Central Railroad bridge.

1.1.2 History and Usage

People's Gas Light and Coke Company built a manufactured gas plant at the site in the 1890s, before which the site was used for various commercial and industrial operations. Under People's Gas Light and Coke Company's ownership, the property reportedly was leased to and/or operated by Buffalo Gas Company, William Judge, Niagara Gas Corporation, and Iroquois Gas Company. Iroquois Gas Company, now National Fuel Gas Distribution Company (NFG), acquired the property in 1925 and operated the manufactured gas plant, using the carbureted water-gas and oil-gas processes, until the early 1950s. The feed stocks used in the manufacturing process were coke and oil, and coal which was reportedly used as a boiler fuel. Gas storage was continued on the property until 1972. In 1968, NFG removed or demolished some site structures. Westwood Pharmaceutical, now Westwood-Squibb Pharmaceutical (WSP), purchased the property and demolished the remaining structures in 1972. In 1985, WSP began construction of a second warehouse on the site. During construction, tarry and oily residues were found in the soil and remaining underground structures. Soil and groundwater sampling conducted by WSP reportedly indicated that the soil and groundwater were contaminated with chemicals associated with gas manufacturing processes. Groundwater monitoring and creek sediment sampling reportedly indicated that contaminants were moving off site into the Scajaquada Creek.

Until about 1972, Scajaquada Creek was part of the Buffalo City sewer system and an alternate conveyance system for industrial discharges. The course of the Scajaquada Creek has changed significantly since the late 1800s when the creek meandered from 50 to 240 feet west of its present location at the site. By the late

1950s, the creek channel had been altered into its current state by a series of infillments completed with a final alteration by the United States Army Corps of Engineers for the construction of the Scajaquada Creek Expressway.

1.1.3 Regulatory History and Environmental Findings

The New York State Department of Environmental Conservation (NYSDEC) listed the Iroquois Gas/Westwood Squibb site in the New York State Registry of Inactive Hazardous Waste Disposal Sites in 1989. The New York State Attorney General filed a complaint against Westwood Squibb Pharmaceutical in December 1990. WSP completed a Remedial Investigation/Feasibility Study (RI/FS) at the site. In 1993, the complaint against WSP was amended to include NFG as a primary defendant. In the Record of Decision (ROD) dated March 1994, NYSDEC selected a preferred remedial action for the riparian portion of the site. The primary components of the remedy include removal of contaminated sediments from Scajaquada Creek adjacent to the site followed by management of the dredged material at an off-site treatment, recycling, or disposal facility.

In 1995, two Consent Decrees were entered by the court settling the State's claims, one for implementation of the terrestrial remedy, for which WSP is responsible, and one for implementation of the riparian remedy, for which NFG is responsible. The riparian portion of the site is defined in the Statement of Work for the Remedial Design/Remedial Action (SOW) as 1600 linear feet of Scajaquada Creek sediments located from the West Avenue Bridge to 400 feet upstream of the rail road bridge. The riparian portion of the site is bounded on the southern bank by a maximum of five feet (horizontally) from the average annual high water mark and on the northern bank by the creek water's edge. Sediments included in the riparian remedy are defined in the SOW as those sediments above the lower confining clay layer to a maximum depth of six feet.

The selected remedy for the riparian portion of the site was originally presented in the ROD for the site (NYSDEC 1994). The components of the riparian remedy as specified in the ROD include the following:

- Dredging of contaminated creek sediments;
- Implementation of creek use restrictions and fencing in the work area for the duration of the remediation work;
- Construction of a temporary dewatering facility and storage area for dewatered sediments;
- Construction of a temporary waste water treatment facility and disposal of waste water;
- Transportation and off-site thermal destruction or disposal/recycle/reuse of dewatered sediments; and
- Sediment verification sampling.

During development of the Consent Order SOW for the riparian portion of the site, two additional components were added to the remedy including sediment capping and a sheet pile wall. A sheet pile wall, which was originally a component of the terrestrial remedy was transferred to the riparian remedy. Because of scheduling concerns in relation to the installation of the groundwater extraction and treatment system on the terrestrial portion of the site, the design of the sheet pile wall was separated from the rest of the design of the selected remedy. The sheet pile wall was constructed in 1996.

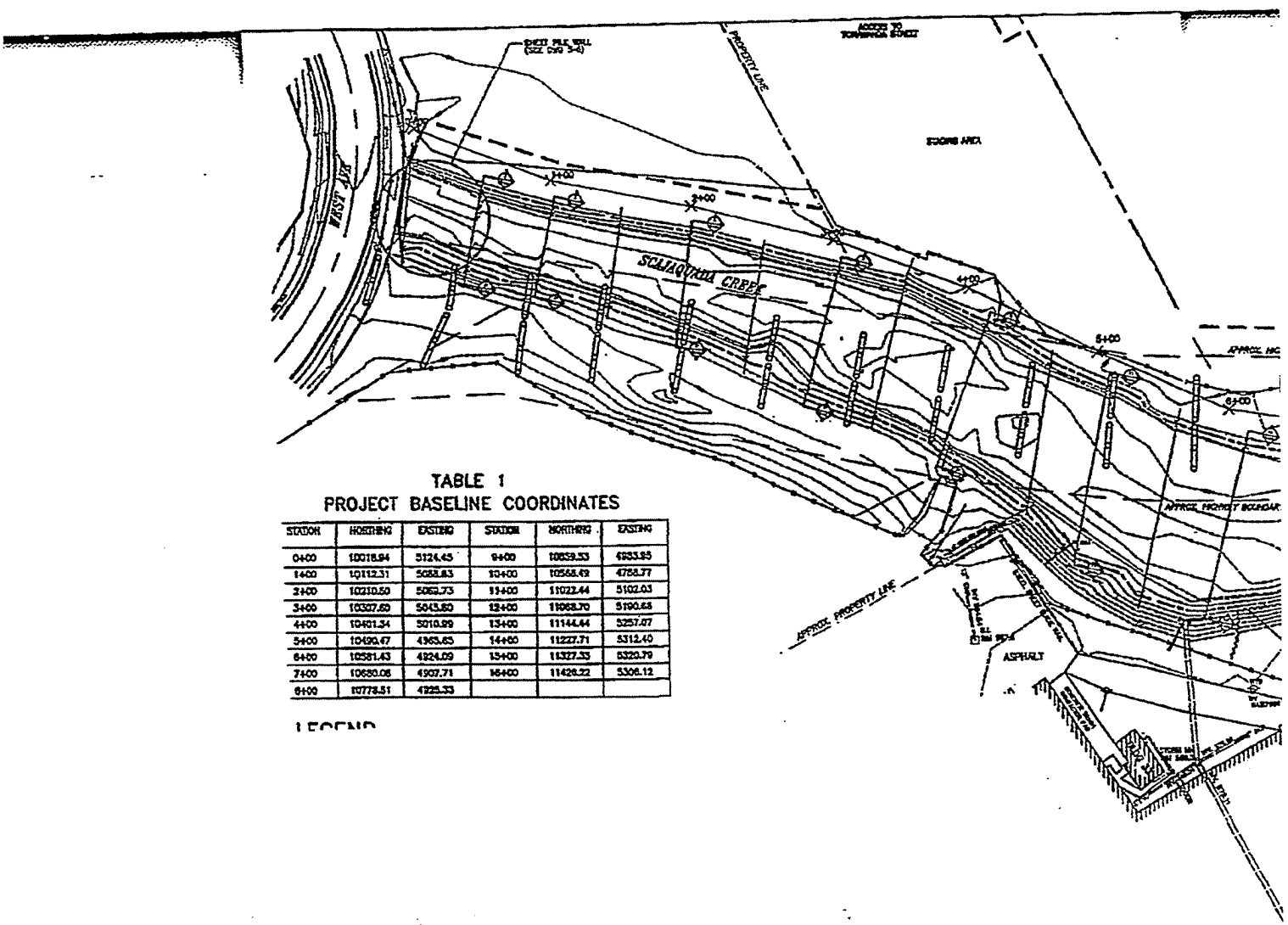
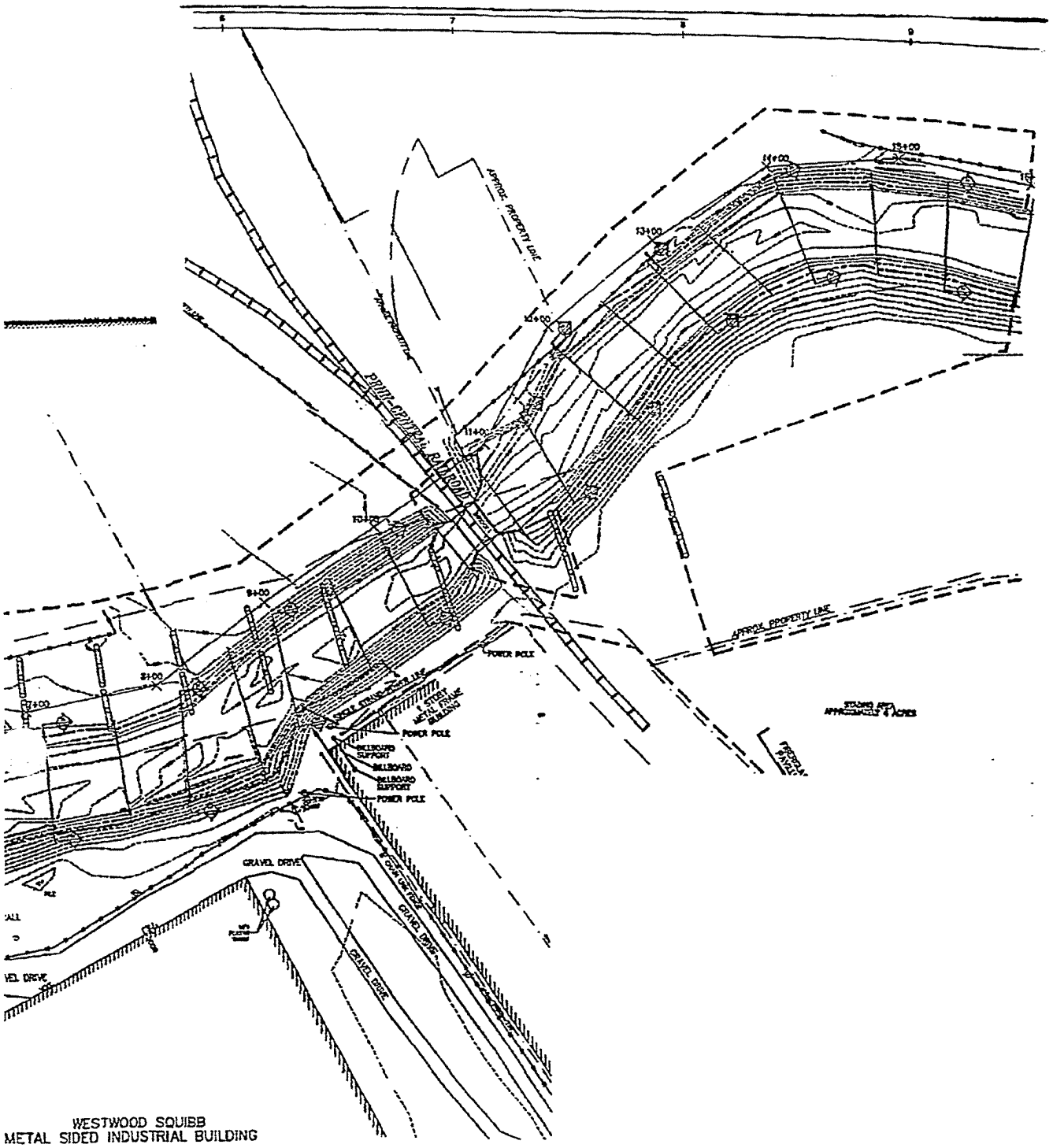


TABLE 1
PROJECT BASELINE COORDINATES

STATION	NORTHING	EASTING	STATION	NORTHING	EASTING
0+00	10018.84	5124.45	9+00	10859.53	4933.85
1+00	10112.31	5088.83	10+00	10568.49	4758.77
2+00	10210.50	5069.75	11+00	11022.44	5102.03
3+00	10307.69	5043.80	12+00	11068.70	5190.68
4+00	10401.34	5010.99	13+00	11144.44	5257.07
5+00	10490.47	4965.65	14+00	11227.71	5312.40
6+00	10581.43	4924.09	15+00	11327.33	5320.79
7+00	10680.08	4907.71	16+00	11428.22	5306.12
8+00	10778.51	4925.33			

LEGEND



WESTWOOD SQUIBB
METAL SIDED INDUSTRIAL BUILDING

DEPARTMENT OF THE ARMY
BUFFALO DISTRICT, CORPS OF ENGINEERS
1776 NIAGARA STREET
BUFFALO, NEW YORK 14207-3199

REPLY TO ATTENTION OF:

June 3, 1998

Regulatory Branch

SUBJECT: Application No. 98-976-0071(0), Nationwide Permit No. (38) as Published in the Federal Register, Volume 61, No. 241, on Friday December 13, 1996

Ms. Tanya Alexander
National Fuel Gas Distribution Corp.
10 Lafayette Square
Buffalo, New York 14203

Dear Ms. Alexander:

This pertains to your application for a Department of the Army permit to mechanically dredge about 10,000 cubic yards of contaminated sediments from about a 1,600 foot reach of Scajaquada Creek in connection with the remediation of the Westwood-Squibb/Iroquios Gas Site. Upon the completion of the dredging about 5,000 cubic yards of clean material will be discharged into the 1,600 foot reach of the creek to form a protective cap over any remaining contaminated sediments in Scajaquada Creek. The project site is located at 100 Forest Ave., in the City of Buffalo, Erie County, New York.

I have evaluated the impacts associated with your proposal, and have concluded that they are authorized by the enclosed Nationwide Permit provided that the attached conditions are satisfied.

Verification of the applicability of this Nationwide Permit is valid for two years from the date of affirmation unless the Nationwide Permit is modified, suspended or revoked. This verification will remain valid for two years if during this two year period the Nationwide Permit is reissued without modification or your activity complies with any subsequent permit modification. Please note that if you commence or are under contract to commence this activity in reliance of your Permit prior to the date this Nationwide Permit is suspended or revoked, or is modified such that your activity no longer complies with the terms and conditions, you have twelve months from the date of permit modification, expiration, or revocation to complete the activity under the present terms and conditions of this

JUN 8 1998

Regulatory Branch
SUBJECT: Application No. 98-976-0071(0), Nationwide Permit No. (38) as Published in the Federal Register, Volume 61, No. 241, on Friday December 13, 1996

Nationwide Permit, unless this Nationwide Permit has been subject to the provisions of discretionary authority.

It is your responsibility to remain informed of changes to the Nationwide Permit program. A public notice announcing any changes will be issued when they occur. Finally, note that if your activity is not undertaken within the defined period or the project specifications have changed, you must immediately notify this office to determine the need for further approval or reverification.

In addition to the general conditions attached to the Nationwide Permit, your attention is directed to the following Special Conditions which are also appended at the end of the Nationwide Permit General Conditions:

1. That the dredged material shall be disposed of at a disposal site approved by the New York State Department of Environmental Conservation.

Your initiation of work as authorized by the enclosed Nationwide Permit acknowledges your acceptance of the general and special conditions contained therein.

Questions pertaining to this matter should be directed to me at (716) 879-4322, by writing to the following address: U.S. Army Corps of Engineers, 1776 Niagara Street, Buffalo, New York 14207-3199, or by e-mail at: Gary.E.Mcdannell@usace.army.mil

Sincerely,

Gary E. McDannell
Biologist

Enclosures

DEPARTMENT OF THE ARMY
BUFFALO DISTRICT, CORPS OF ENGINEERS
1776 NIAGARA STREET
BUFFALO, NEW YORK 14207-3199

REPLY TO
ATTENTION OF:

August 31, 1998

Regulatory Branch

SUBJECT: Request for Modification of Department of the Army Permit No. 98-976-0071(1)

Ms. Tanya Alexander
National Fuel Gas Distribution Corp.
10 Lafayette Square
Buffalo, New York 14203

Dear Ms. Alexander:

This is in reply to your letter dated August 31, 1998, in which you requested that Department of the Army Permit No. 98-976-0071(0) be modified to reflect the changes identified in your submittal. Specifically, you seek authorization to install two temporary portable dams in the creek, and dredge an additional 22, 000 yards of contaminated sediments from the waterway..

I have thoroughly considered your request, and have coordinated it with the:

a. New York State Department of Environmental Conservation.

Based upon the comments provided by the above agency, I have concluded that your request will not result in any unacceptable environmental impacts. Therefore, I am modifying Department of the Army permit No. 98-976-0071(0) to reflect the changes outlined in your request and identified in the attached drawings. Specifically, drawing no. 2 of 2 has been replaced with the attached modified drawing. In addition, drawing no. 2A of 2 is hereby by added and incorporated into your Department of the Army Permit.

All other terms and conditions of Permit No. 98-976-0071(0) remain in full force and effect, and henceforth shall be referred to as Permit No. 98-976-0071(1).

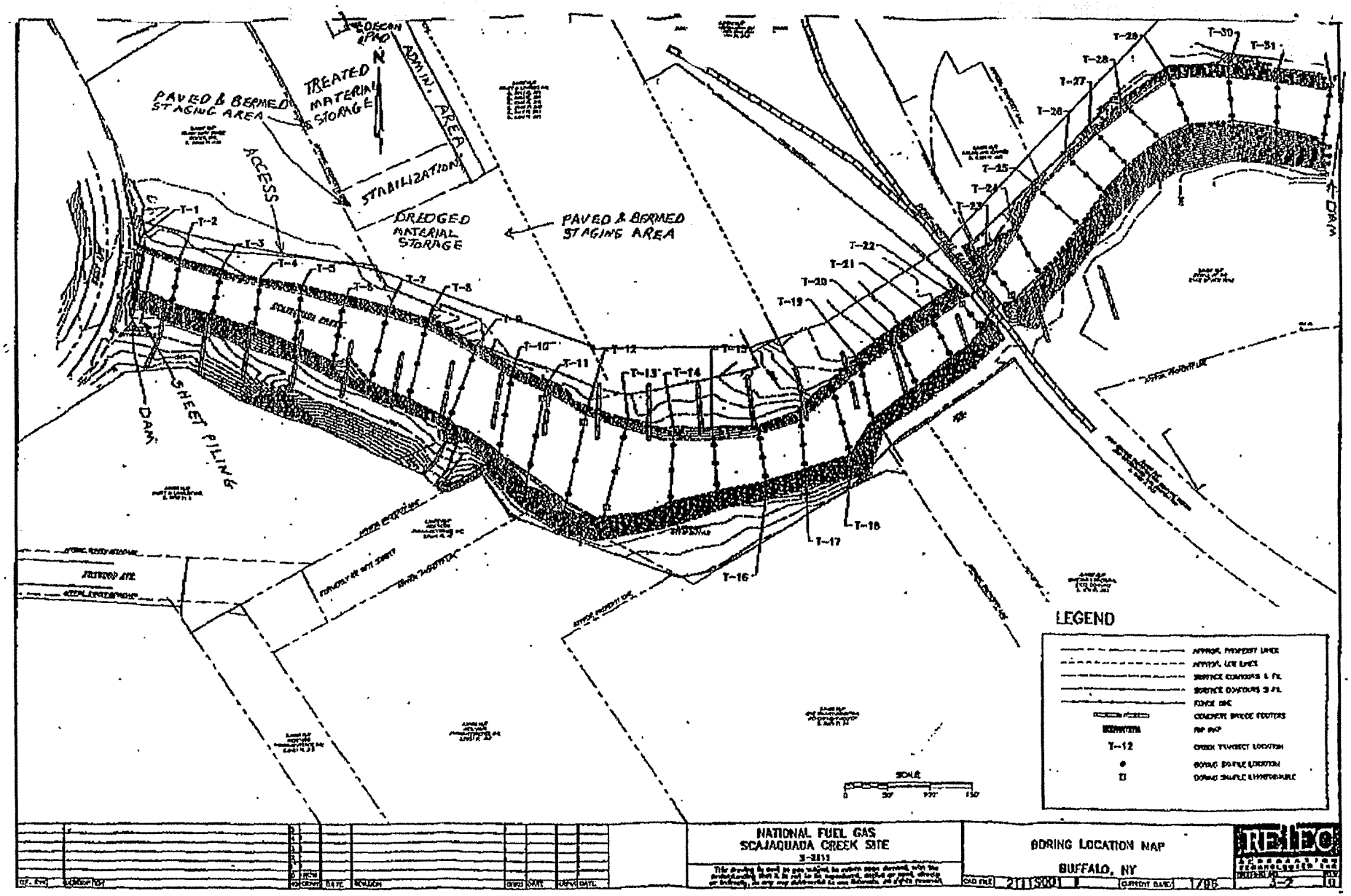
SEP 08 1998

Regulatory Branch
SUBJECT: Request for Modification of Department of the Army Permit No. 98-976-0071(1)

Questions pertaining to this matter should be directed to me at (716) 879-4322, by writing to the following address: U.S. Army Corps of Engineers, 1776 Niagara Street, Buffalo, New York 14207-3199, or by e-mail at: Gary.E.Mcdannell@usace.army.mil

Sincerely,

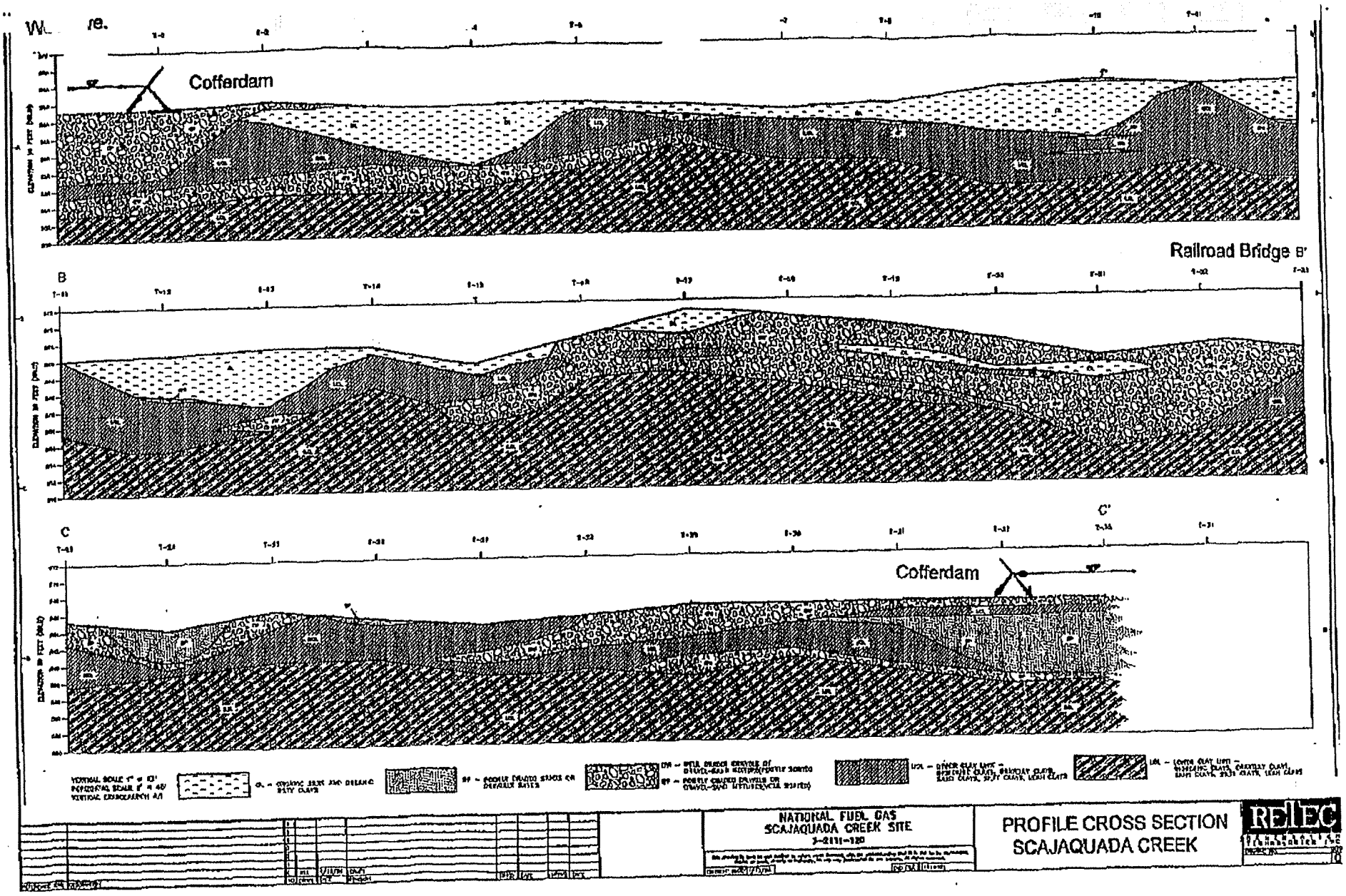
Gary E. McDannell
Biologist



3-4

NATIONAL FUEL GAS DISTRIBUTION
CORP.-SCAJAQUADA CREEK CLEAN UP
D/A Processing No. 98-976-0071(1)
Erie County, New York Quad: BUFFALO NW
Sheet 2 of 2 REVISED

SEP 04 '98 08:09AM NFG IA IE US MAIN 20 P.2



NATIONAL FUEL GAS DISTRIBUTION
CORP.-SCAJAQUADA CREEK CLEAN UP
D/A Processing No. 98-976-0071(1)
Erie County, New York Quad: BUFFALO NW
Sheet 2A of 2

copy sent to file 3-2111

New York State Office of Parks, Recreation and Historic Preservation
Historic Preservation Field Services Bureau
Peebles Island, PO Box 189, Waterford, New York 12188-0189 518-237-8643

Bernadette Castro
Commissioner

April 7, 1998

Mr. Gary McDannell
U.S. Army Corps of Engineers
Buffalo District
1776 Niagara Street
Buffalo, New York 14207
sent this day via telecopier to 716/879-4310

Dear Mr. McDannell:

Re: CORPS 98-976-0071(0)
National Fuel Gas Distribution Dredging
100 Forest Avenue
C/Buffalo, Erie County
98PR0931

Thank you for requesting the comments of the State Historic Preservation Office (SHPO) for the project noted above. This material was received via telecopier on March 30, 1998 and reviewed under Section 106 of the National Historic Preservation Act of 1966 and the relevant implementing regulations.

Based on our limited knowledge of the neighborhood, the SHPO feels some structures at the Westwood/Squibb/Iroquois Gas site (the historic Foster-Millburn-Westwood Pharmaceutical Co.) date from the late nineteenth century and may be eligible for listing on the National Register.

Also, your letter states that this work is proposed as part of a consent decree entered into by the National Fuel Gas Distribution Corporation and the New York State Department of Environmental Conservation (DEC), and we have confirmed that with DEC Region 9 remediation staff in Buffalo. We have no record of the DEC requesting comments for this undertaking. By copy of this letter the SHPO reminds DEC of their responsibility to consult with our office under the New York State Parks, Recreation and Historic Preservation Law, and ask that the Region contact DEC Agency Preservation Officer Charles Vandrei at 518/457-7433 to review these procedures.

From discussions with DEC staff we understand that no structures will be impacted as work is limited to the dredging specified in your application. We also have no concerns over possible impacts to archeological resources. With this in mind, it is the opinion of the SHPO that this undertaking will have No Effect on significant historic or cultural resources.

An Equal Opportunity/Affirmative Action Agency
printed on recycled paper

The SHPO appreciates your consulting for this undertaking; for future projects I will try to contact you within 5 days of receipt to advise you if we will be providing comments. Please telephone me at 518/237-8643, ext. 276 with any questions. The project number(s) above should be used in future submissions to expedite our review.

Sincerely,

Richard M. Lord
Historic Sites Restoration
Coordinator

cc: Charles Vandrei, DEC APO Albany
Steven Doleski, DEC Region 9 Buffalo

L24423/040798

United States Department of the Interior

FISH AND WILDLIFE SERVICE
3817 Luker Road
Cortland, New York 13045

August 20, 1996

Mr. Andy Baldo
Environmental Engineer
RETEC
1005 West Ninth Avenue, Suite A
King of Prussia, PA 19406

Dear Mr. Baldo:

This responds to your letter of July 30, 1996, requesting information on the presence of endangered or threatened species in the vicinity of the proposed sheet steel wall adjacent to the Scajaquada Creek 500 feet east of West Avenue at the Iroquois Gas/Westwood Squibb inactive hazardous waste disposal site in the City of Buffalo, Erie County, New York. This request is being made in order to comply with requirements of the Nationwide Permit Program.

Except for occasional transient individuals, no Federally listed or proposed endangered or threatened species under our jurisdiction are known to exist in the project impact area. Therefore, no Biological Assessment or further Section 7 consultation under the Endangered Species Act (87 Stat. 884, as amended; 16 U.S.C. 1531 et seq.) is required with the U.S. Fish and Wildlife Service (Service). Should project plans change, or if additional information on listed or proposed species becomes available, this determination may be reconsidered. A compilation of Federally listed and proposed endangered and threatened species in New York is enclosed for your information.

The above comments pertaining to endangered species under our jurisdiction are provided pursuant to the Endangered Species Act. This response does not preclude additional Service comments under the Fish and Wildlife Coordination Act or other legislation.

For additional information on fish and wildlife resources or State-listed species, we suggest you contact:

New York State Department of
Environmental Conservation
Region 9
128 South Street
Olean, NY 14760
(716) 851-7000

New York State Department of
Environmental Conservation
Wildlife Resources Center - Information Serv.
New York Natural Heritage Program
700 Troy-Schenectady Road
Latham, NY 12110-2400
(518) 783-3932

The National Wetlands Inventory (NWI) map of the Buffalo Northwest Quadrangle is available and may show wetlands in the project vicinity. However, while the NWI maps

are reasonably accurate, they should not be used in lieu of field surveys for determining the presence of wetlands or delineating wetland boundaries for Federal regulatory purposes.

If you require additional information please contact Michael Stoll at (607) 753-9334.

Sincerely,

Sherry W. Morgan

Sherry W. Morgan
Field Supervisor

Enclosure

cc: NYSDEC, Olean, NY (Reg. Services)
NYSDEC, Latham, NY
COE, Buffalo, NY

FEDERALLY LISTED AND PROPOSED ENDANGERED AND THREATENED SPECIES IN NEW YORK

Common Name	Scientific Name	Status	Distribution
FISHES			
Sturgeon, shortnose*	*Acipenser brevirostrum*	E	Hudson River & other Atlantic coastal rivers
REPTILES			
Turtle, green*	*Chelonia mydas*	T	Oceanic summer visitor coastal waters
Turtle, hawksbill*	*Eretmochelys imbricata*	E	Oceanic summer visitor coastal waters
Turtle, leatherback*	*Dermochelys coriacea*	E	Oceanic summer resident coastal waters
Turtle, loggerhead*	*Caretta caretta*	T	Oceanic summer resident coastal waters
Turtle, Atlantic ridley*	*Lepidochelys kempii*	E	Oceanic summer resident coastal waters
BIRDS			
Eagle, bald	*Haliaeetus leucocephalus*	T	Entire state
Falcon, peregrine	*Falco peregrinus*	E	Entire state - re-establishment to former breeding range in progress
Plover, piping	*Charadrius melodus*	E	Great Lakes Watershed
		T	Remainder of coastal New York
Tern, roseate	*Sterna dougallii dougallii*	E	Southeastern coastal portions of state
MAMMALS			
Bat, Indiana	*Myotis sodalis*	E	Entire state
Cougar, eastern	*Felis concolor couguar*	E	Entire state - probably extinct
Whale, blue*	*Balaenoptera musculus*	E	Oceanic
Whale, finback*	*Balaenoptera physalus*	E	Oceanic
Whale, humpback*	*Megaptera novaeangliae*	E	Oceanic
Whale, right*	*Eubalaena glacialis*	E	Oceanic
Whale, sei*	*Balaenoptera borealis*	E	Oceanic
Whale, sperm*	*Physeter catodon*	E	Oceanic
MOLLUSKS			
Snail, Chittenango ovate amber	*Succinea chittenangoensis*	T	Madison County
Mussel, dwarf wedge	*Alasmidonta heterodon*	E	Orange County - lower Neversink River

* Except for sea turtle nesting habitat, principal responsibility for these species is vested with the National Marine Fisheries Service.

Region 5 - 02/13/96 - 2 pp.

FEDERALLY LISTED AND PROPOSED ENDANGERED AND THREATENED SPECIES IN NEW YORK (Cont'd)

Common Name	Scientific Name	Status	Distribution
BUTTERFLIES			
Butterfly, Karner blue	*Lycaeides melissa samuelis*	E	Albany, Saratoga, Warren, and Schenectady Counties
PLANTS			
Monkshood, northern wild	*Aconitum noveboracense*	T	Ulster, Sullivan, and Delaware Counties
Pogonia, small whorled	*Isotria medeoloides*	T	Entire state
Swamp pink	*Helonias bullata*	T	Staten Island - presumed extirpated
Gerardia, sandplain	*Agalinis acuta*	E	Nassau and Suffolk Counties
Fern, American hart's-tongue	*Asplenium scolopendrium* var. *americana*	T	Onondaga and Madison Counties
Orchid, eastern prairie fringed	*Platanthera leucophea*	T	Not relocated in New York
Bulrush, northeastern	*Scirpus ancistrochaetus*	E	Not relocated in New York
Roseroot, Leedy's	*Sedum integrifolium* ssp. *Leedyi*	T	West shore of Seneca Lake
Amaranth, seabeach	*Amaranthus pumilus*	T	Atlantic coastal plain beaches
Goldenrod, Houghton's	*Solidago houghtonii*	T	Genesee County

E=endangered T=threatened P=proposed

Region 5 - 02/13/96 - 2 pp.



May 12, 1998

George E. Pataki
Governor
Alexander F. Treadwell
Secretary of State

John T. Finn, P.E.
Senior Engineer
Remediation Technologies, Inc.
1001 West Seneca Street, Suite 204
Ithaca, NY 14850

Re: F-98-267
U.S. Army Corps of Engineers/Buffalo District Permit Application - National Fuel Gas Distribution Corp. - Scajaquada Creek Remediation
City of Buffalo, Erie County

Dear Mr. Finn:

The Department of State has completed its evaluation of your Federal Consistency Assessment Form and certification that the above proposed permit activity complies with New York State's approved Coastal Management Program, and will be conducted in a manner consistent with this program.

Pursuant to 15 CFR Section 930.63, and based upon the project information submitted, the Department of State concurs with your consistency certification. This concurrence is without prejudice to, and does not obviate the need to obtain all other applicable licenses, permits, and approvals required under existing State statutes.

The U.S. Army Corps of Engineers is being notified of this decision by copy of this letter.

Sincerely,

William F. Barton for
George R. Stafford
Director

GRS:WF:dlb
cc: COE/Buffalo District - Gary McDannell

Permit No.: 98-06-TP053

Expiration Date: 12/31/98
Date Paid: 6/30/98

BUFFALO SEWER AUTHORITY

TEMPORARY DISCHARGE PERMIT

Permittee: PHILIP SERVICES CORP.

Location Address: 495 COMMERCE DRIVE, SUITE 7, AMHERST, NEW YORK 14228

The above named Permittee is hereby approved to discharge **pretreated water** only, from a **remediation site** located at:

SCAJAQUADA CREEK, ELMWOOD AVENUE TO WEST AVENUE AT 75 TONAWANDA ST.

to the Buffalo Sewer Authority facilities in accordance with the Buffalo Sewer Authority Regulations, Article VI, Section 14, and subject to the following conditions:

ARTICLE 1 CONDITIONS OF ACCEPTANCE

The discharge of the approved waste by the Permittee shall be subject to the following conditions:

a. Times, Location & Rate

The following location is designated for discharge during the hours listed and subject to the limit for rate of discharge specified:

Location: (see attached map)

Time Discharge is Permitted **(during dry weather conditions only): 24 hours**

Limit on Rate of Discharge: **3,600 gallons per day**

b. Operations

The Permittee shall maintain cleanliness, minimize odors and protect the Buffalo Sewer Authority facilities during the permittee's operations. The Permittee shall not permit any condition to arise which may pose a threat to public health, safety or welfare.

c. Samples and Analyses

The wastewater in the holding tank is required to be sampled and analysed after treatment through activated carbon. After treatment though activated carbon. The analysis shall be performed by a New York State Department of Health Certified Lab: The analyses and limits shall be as specified below:

PARAMETER	DISCHARGE LIMITS		SAMPLING REQUIREMENTS		
	Daily Max (1)	M.A.J.D.(2)	Period	Type	Frequency
pH	5.0 - 12.0 S.U.		One Day	Grab	Weekly
Total Mercury	.000025 lbs.	7.0 mg/L	One Day	Grab	Weekly
Total Lead	1.95 lbs.	65.0 mg/L	One Day	Grab	Weekly
Total Copper	.48 lbs.	16.0 mg/L	One Day	Grab	Weekly
Total Nickel	.42 lbs.	14.0 mg/L	One Day	Grab	Weekly
Total Zinc	.75 lbs	25.0 mg/L	One Day	Grab	Weekly
Total Cyanide	.005 lbs.	66.0 mg/L	One Day	Grab	Weekly
EPA Test					
Procedure 624	(3)		One Day	Grab	Weekly
Benzene	.004 lbs.		One Day	Grab	Weekly
Ethylbenzene	.05 lbs.		One Day	Grab	Weekly
Total Xylenes	.06 lbs.		One Day	Grab	Weekly
EPA Test					
Procedure 625	(3)		One Day	Grab	Weekly
Pyrene	.003 lbs.	0 .1 mg/L	One Day	Grab	Weekly
Fluoranthene	.003 lbs.	0 .1 mg/L	One Day	Grab	Weekly
Total Phenol	.061 lbs.	20.0 mg/L	One Day	Grab	Weekly
Total Flow	3,600 gallons				

(1) Daily Maximum Limits for each pollutant are determined by multiplying the Total Flow (MGD) X 8.34 (lbs./gal) X a concentration limit.

(2) M.A.I.D. - Maximum Allowable Instantaneous Discharge (Grab limit).

(3) All analytes detected at a concentration greater than 10 ug/L.

d. Refusal to Discharge

The Buffalo Sewer Authority may refuse the Permittee permission to discharge wastes at any time and for any reason whatsoever, for the protection of sewer facilities against damage or flooding; to assure the proper operation and maintenance of said facilities; or to protect public health, safety or welfare.

e. Local Limits

Except as otherwise specified in this permit, the permit holder shall comply with all specific prohibitions, limits on pollutants or pollutant parameters set forth in the Buffalo Sewer Authority Sewer Use Regulations, as amended from time to time, and such prohibitions, limits and parameters shall be deemed pretreatment standards for purposes for the Clean Water Act.

ARTICLE 2 REGULATIONS

The Permittee must conform to all Buffalo Sewer Authority regulations and appropriate Federal, State and County Statutes, rules, mandates, directives, and orders concerning the collection, transportation, treatment and disposal of wastewaters.

ARTICLE 3 INSURANCE AND INDEMNIFICATION

The Permittee, agrees to indemnify and hold harmless the Buffalo Sewer Authority and its agents and employees against any and all claims resulting from work performed under this permit. The permittee shall be solely responsible for any and all injury or damage to its employees or property arising from use of Buffalo Sewer Authority facilities under this permit.

In the event of any alteration, non-renewal or cancellation of these policies, at least (45) forty-five days advance notice shall be given to the Industrial Waste Section, Bird Island Treatment Plant, Foot of West Ferry Street, Buffalo, New York 14213 - before such change shall be effective.

ARTICLE 4 TERMINATION FOR VIOLATION OF AGREEMENT

In the event of a violation of any of the terms and conditions of this permit by the Permittee or upon the failure to pay the charges herein specified, the Buffalo Sewer Authority shall terminate the permit by service of notice of termination by registered mail at the Permittee's office address as set forth above.

ARTICLE 5 PERMITTEE APPROVAL

Official Michael A. Charles (Print Name) Title Project Manager (Print)

Signature _____ Date 7-23-98

Permit No.: 98-06-TP053

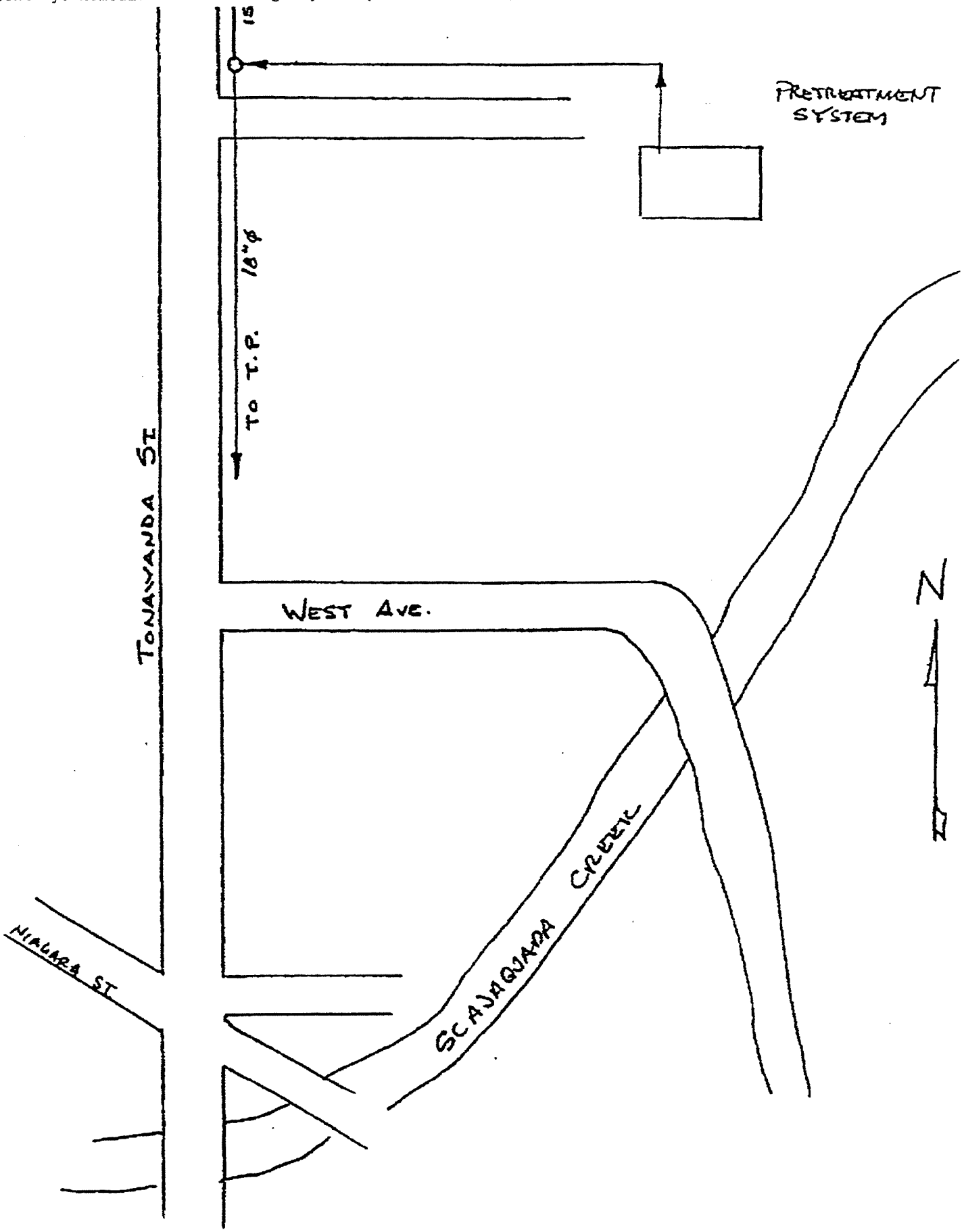
ARTICLE 6 BUFFALO SEWER AUTHORITY APPROVAL

Approved as to Content:

Signature_____ Date_____
Industrial Waste Administrator

Effective this 30th day of July, 1998

General Manager
Buffalo Sewer Authority


15
PRETREATMENT SYSTEM
18"ϕ
TO T.P.
TONAWANDA ST
WEST AVE.
N
NIAGARA ST
SCAJAQUADA CREEK

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
WASHINGTON, D.C. 20460

August 25, 1998

OFFICE OF
ENFORCEMENT AND
COMPLIANCE ASSURANCE

EPA Notice No.: 399/98

MS. TANYA ALEXANDER
NATIONAL FUEL GAS DISTRIBUTION
100A FOREST AVENUE
BUFFALO,NY 14213-1032
EPA I.D. No.: NYD986930758

Dear MS. ALEXANDER:

This is to acknowledge receipt of your notice, dated July 22, 1998, of intent to export hazardous waste to Canada as required by Title 40, Code of Federal Regulations, Part 262, Subpart E, Section 262.53 promulgated pursuant to the Resource Conservation and Recovery Act (RCRA). In accordance with the U.S.-Canada Bilateral Agreement on the Transboundary Movement of Hazardous Waste, the U.S. Environmental Protection Agency (EPA) forwarded your notice to the Government of Canada and Canada has no objection to your shipment(s) of hazardous waste.

This letter constitutes the EPA Acknowledgment of Consent for the export of the following hazardous waste as specified in your notice:

Waste Description: WASTE COAL TAR CONTAMINATED SEDIMENT/SOIL. EPA Waste Code: D018. DOT Shipping Name: WASTE ENVIRONMENTALLY HAZARDOUS SUBSTANCE; DOT Hazard Class: 9; DOT I.D. No.: UN3077. Total Volume to be Exported: 50,000 METRIC TONS. Estimated Frequency: 2,500 loads per YEAR.

You may ship this waste to the following consignee:

PHILIP ENTERPRISES INC.
1731 PETTIT ROAD
FORT ERIE, ONTARIO L2A 5M4

Shipments may occur during the period from August 24, 1998 to August 24, 1999.

You are also reminded of the following **special RCRA requirements for export shipments of hazardous waste.** Specific details of these requirements are contained in Title 40 of the Code of Federal Regulations, Part 262, Subpart E.

1. If the major terms of the original notice of intent to export on which this consent is based should change, you must **renotify** EPA. Please send your renotification to: EPA, Office of Enforcement and Compliance Assurance (OECA), Office of Compliance (OC), (2222A), 401 M Street, S.W., Washington, D.C. 20460, with "ATTENTION: NOTIFICATION TO EXPORT" prominently displayed on the front of the envelope. (262.53(c))

2. The Uniform Hazardous Waste **Manifest** Form for each shipment must identify the **point of departure** from the United States in Item 15, Special Handling Instructions. (262.54(c))

3. The following statement must be added to the end of the first sentence of the **certification** set forth in Item 16 of the Uniform Hazardous Waste Manifest Form: "and conforms to the terms of the attached EPA Acknowledgment of Consent". (262.54(d))

4. A **copy** of this Acknowledgment of Consent must be attached to the U.S. hazardous waste manifest that accompanies each shipment of hazardous waste. (262.54(h))

5. You must provide the waste transporter with an additional copy of the U.S. hazardous waste manifest accompanying the shipment for delivery to a **U.S. Customs** official at the point the hazardous waste leaves the United States in accordance with 263.20(g)(4) and (262.54(i)).

6. You must file an **exception report** with the EPA, Office of Enforcement and Compliance Assurance (OECA), Office of Compliance, (2222A), 401 M Street, S.W., Washington, DC 20460, Attn: NOTIFICATION TO EXPORT, if you have not received a copy of the manifest signed by the transporter stating the date and place of departure from the U.S. within forty five (45) days from the date it was accepted by the initial transporter; if within ninety (90) days from the date the waste was accepted by the initial transporter, the primary exporter has not received written confirmation from the consignee that the hazardous waste was received; or if the waste is returned to the United States. (262.55).

7. You must file an **annual report** by March 1 of each year with the EPA, Office of Enforcement and Compliance Assurance (OECA), Office of Compliance (2222A), 401 M Street, S.W., Washington, DC 20460, Attn: NOTIFICATION TO EXPORT, summarizing all hazardous waste shipments exported during the previous calendar year. The report must include all items listed in 262.56.

All shipments of hazardous waste must conform to all applicable State and Federal hazardous waste regulations and transportation requirements as well as these specific export requirements.

Any questions you may have concerning this Acknowledgment of Consent or other export requirements may be directed to Mr. Scott Nelson (Phone 202/564-5032), or Mr. Bob Small (Phone 202/564-5043), EPA, Office of Enforcement and Compliance Assurance.

Sincerely,

Robert G. Heiss

Robert G. Heiss
Director
Import-Export Program
Enforcement, Planning, Targeting and
Data Division
Office of Compliance (2222A)

SEP 09 '98 10:23AM NFG IN TE US WITHIN 20 P.4

Appendix P

Appendix P

Project Photographs

NYSDEC Site # 91514B
August 30, 2000



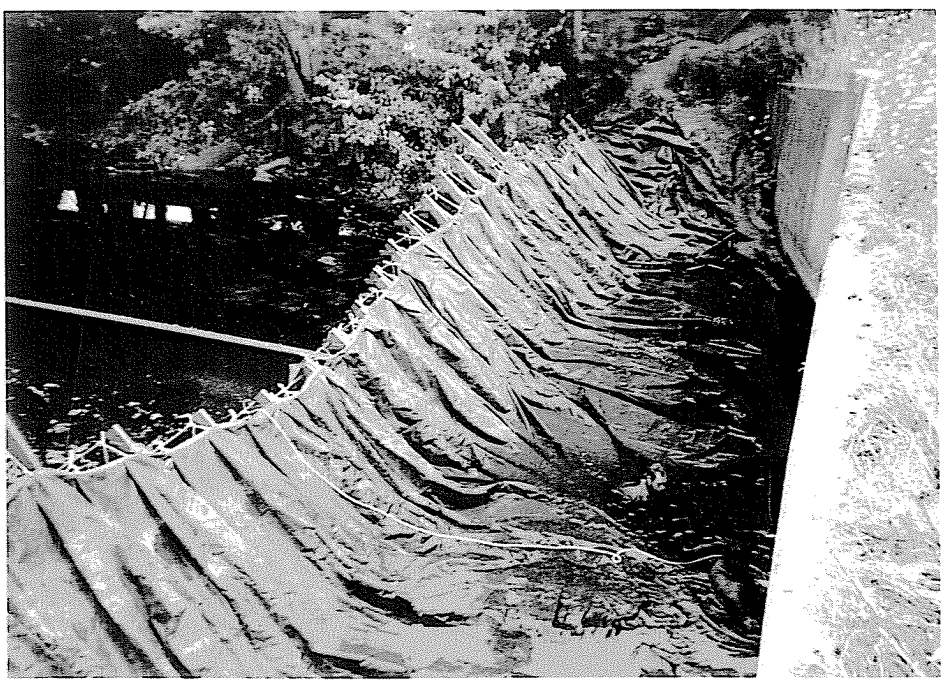
1. Paving Materials Handling Pad



2. Constructing Berm Around Materials Handling Pad



3. Assembly of South Port-A-Dam



4. Installing Fabric on South Port-A-Dam



5. Assembly of North Port-A-Dam



6. Dewatering of Site



7. Assembly of North Port-A-Dam



8. Absorbent Boom and Silt Curtain Downstream of Bypass Water Outfall



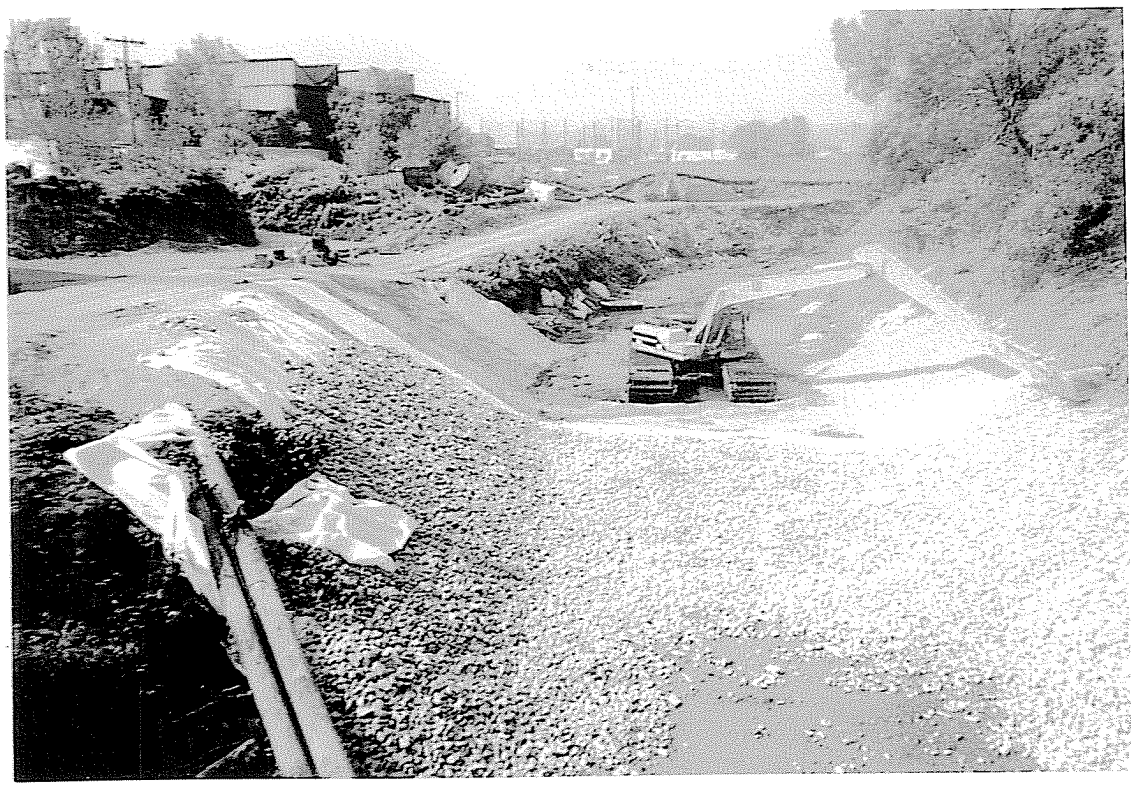
9. Flow Bypass Pumps and Pipe



10. Dewatered, Partially Excavated Condition



11. Excavation in North End



12. Capping in North End by Placement of Sand, White Geotextile, and Armor Stone



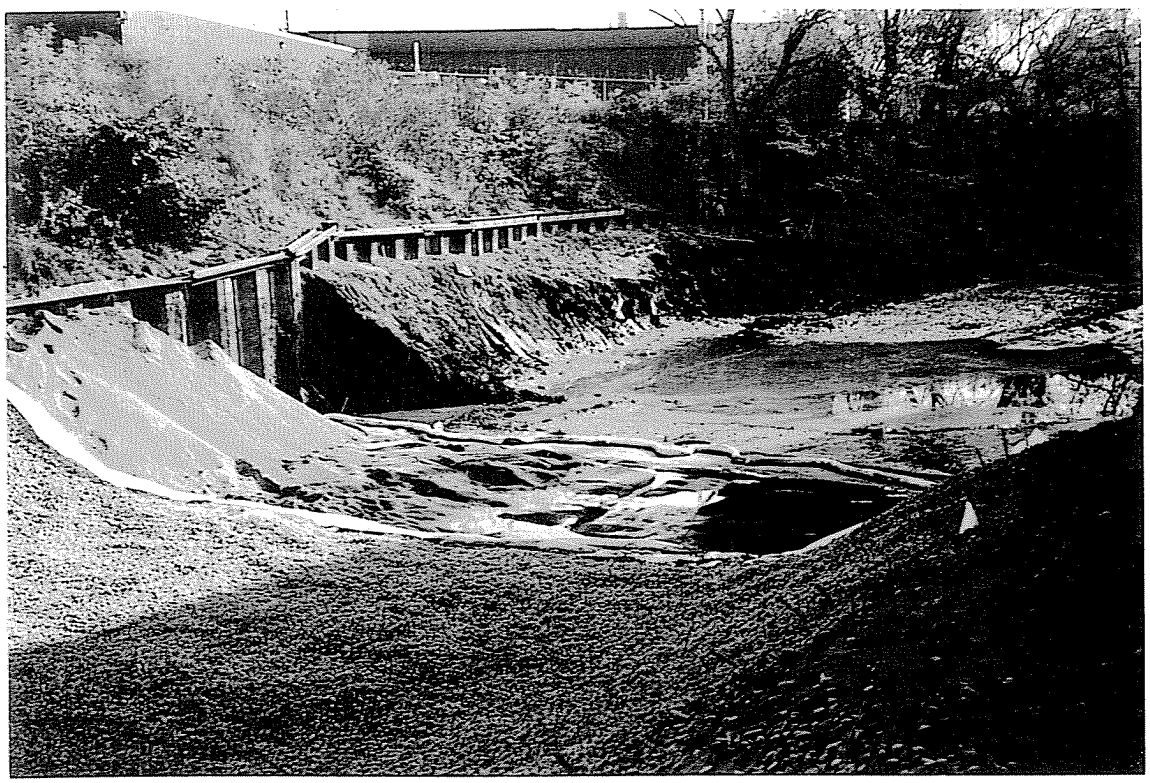
13. Excavation in South End



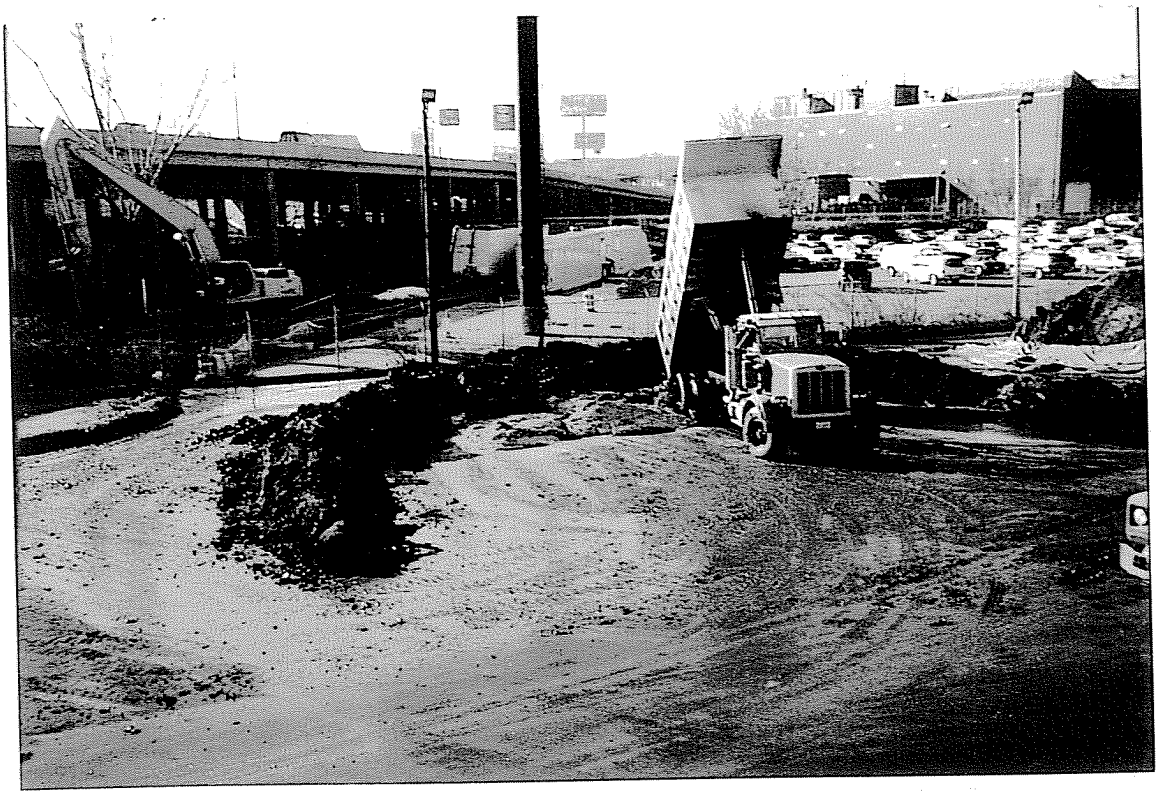
14. Excavation in South End



15. Capping in South End by Placement of Black Geosynthetic Clay Liner, Sand, White Geotextile, and Armor Stone



16. Capping in South End



17. Placement of Excavated Sediment on Materials Handling Pad



18. Stockpiling of Excavated Sediment on Materials Handling Pad



19. Continuous Dewatering of South End During Excavation and Capping



20. Removal of Sheen and Suspended Solids From Pumped Water Using Baker Frac Tanks and Sand Filter



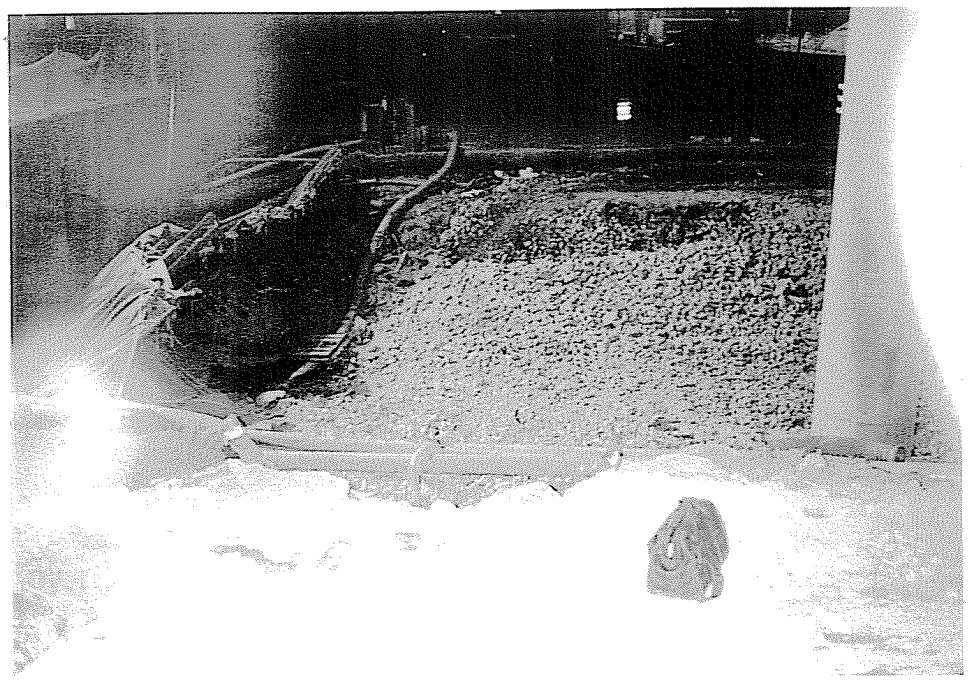
21. Placement of sheet pile wall on west bank



22. Placement of sheet pile barrier across the width of the creek



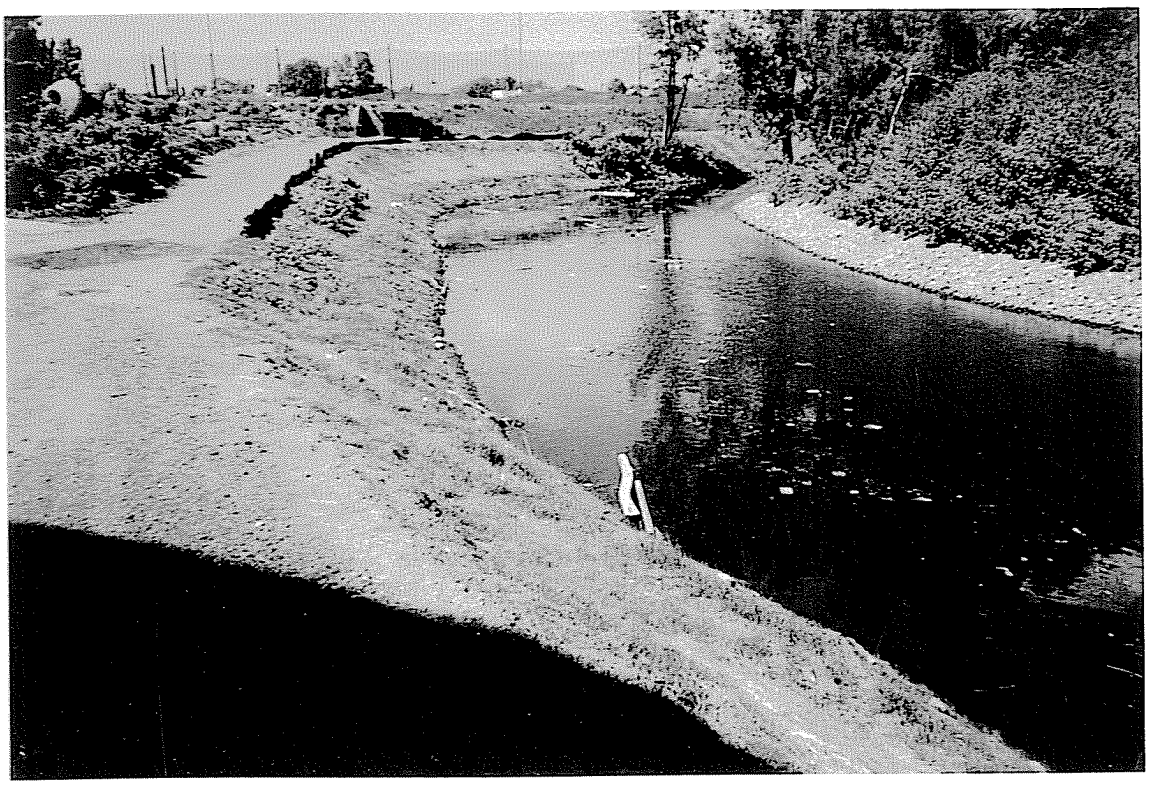
23. Placement of Final Section of Cap, Working at Night



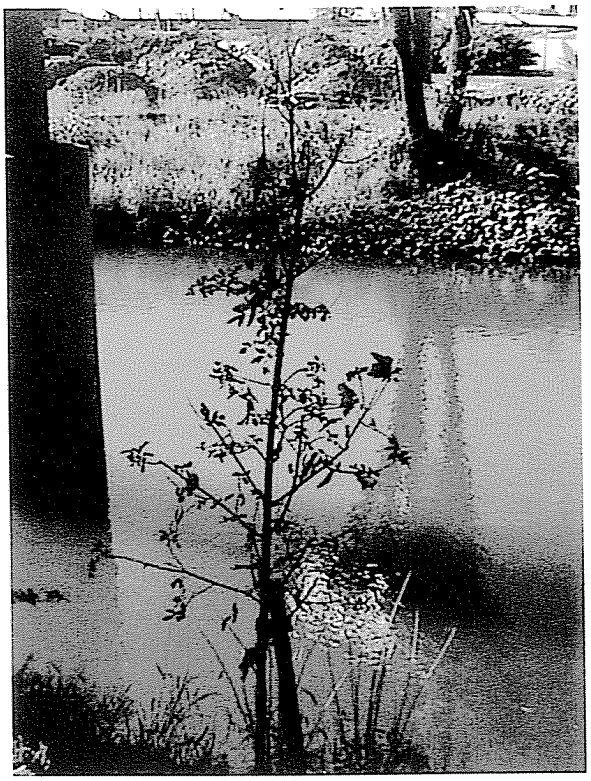
24. Completed Cap at South End



25. Placement of fiber rolls, topsoil, and jute mat



26. Restored vegetation



27. Restoration of trees



28. Restoration of shrubs. Bicycle pathway construction in foreground.



29. Restoration of trees