

Memorandum

Northrop Grumman Corporation

3B-13.2

To: Tom Sullivan
Corporate Real Estate

From: Adam Postyn
Environmental Technology
& Compliance

Subject: Parcel S1

Date: January 6, 1998

Copies: J. Cofman
A. Gershonowitz, w/enclosures (2)

Enclosure: Letter Report - Remediation Contractor
Oversight and Endpoint Sampling.

As requested, enclosed please find one (1) copy of the above mentioned report for the subject site prepared by our consultant Geraghty & Miller, Inc. (G&M), dated December 19, 1997. This report summarizes remedial activities conducted at the subject site. G&M concluded that no further action is warranted at this time for the S1 property.

NORTHROP GRUMMAN

PrclS1RemedOvrsght

December 19, 1997

VIA U.S. MAIL

Mr. John Cofman
Northrop Grumman Corporation
South Oyster Bay Road
Mail Stop: D08/001
Bethpage, New York 11714

Re: Remediation Contractor Oversight and Endpoint Sampling for Storm Water Dry Well S1-D6 and the Arresting Cable Winch and Pulley Vaults, S1 Parcel, Bethpage, New York.

Dear Mr. Cofman:

Geraghty & Miller, Inc. is providing the Northrop Grumman Corporation (Northrop Grumman) with this letter report prepared in accordance with our proposal dated July 29, 1997 for Remediation Contractor Oversight and Endpoint Sampling for Storm Water Dry Well S1-D6 and the Arresting Cable Winch and Pulley Vaults, S1 Parcel, Bethpage, New York.

Specifically this letter report documents the work performed at the site by Northrop Grumman's subcontractor Action Environmental (Action) during the excavation, and backfilling of the Arresting Cable Winch and Pulley Vaults, and the excavation of sediment from the bottom of Storm Water Dry Well S1-D6. Figure 1 indicates the locations of the Winch and Pulley Vaults and the location of S1-D6. Tables 1, 2, and 3 provide descriptions of soil samples. Daily logs prepared by Geraghty & Miller field staff have been provided in Appendix A. Waste disposal documentation is provided in Appendix B. In addition, the analytical results and data interpretation of endpoint soil samples collected by Geraghty & Miller from the Arresting Cable Pulley Vault excavations are presented herein.



PROJECT CHRONOLOGY

Daily field activities were documented by Geraghty & Miller on the attached Daily Logs. A description of the excavated soil, PID readings, odors detected, and the quantity of soil excavated are summarized in Tables 1, 2, and 3 for work performed during the excavation of the Arresting Cable Winch Vault, Southern Arresting Cable Pulley Vault and Northern Arresting Cable Pulley Vault, respectively. No description has been presented for the sediment and soils excavated from Storm Water Dry Well S1-D6, because soils were excavated with a Vac-Truck and were not readily available for inspection by Geraghty & Miller.

Arresting Cable Winch and Pulley Vaults

August 13, 1997 Action dismantled the Arresting Cable Winch Vault and excavated 3 ft of soil from within vault. Data collected during the S1 Parcel Phase II Investigation indicated that the 2 to 4 ft interval beneath the arresting cable winch vault is not petroleum impacted, therefore, no endpoint samples were collected. Action secured the location with barricade fencing.

Action excavated 3 ft of soil from within the Southern Arresting Cable Pulley Vault. Geraghty & Miller collected endpoint sample from base of excavation. Action secured the location with barricade fencing.

Action excavated 3 ft of soil from within the Northern Arresting Cable Pulley Vault. Geraghty & Miller collected endpoint sample from base of excavation. Action secured the location with barricade fencing.

Endpoint samples were submitted to EcoTest Laboratories of Babylon, New York for the analysis of Total and Toxicity Characteristic Leaching Procedure (TCLP) semi-volatile organic compounds in accordance with the Spill Technology and Remediation Series (STARS) Memo #1; analytical results and data interpretation are summarized below.

August 26, 1997 Geraghty & Miller completed review of endpoint sample analysis and informed Northrop Grumman of the results. All previously identified petroleum impacted soils have been removed from the excavations.

August 28, 1997 Action excavated the Arresting Cable Winch and Pulley Vaults. Concrete debris was disposed of at 110 Sand Company, Melville, New York.

Action backfilled the excavations with approximately 70 cubic yards of clean sand and graded area.



Storm Water Dry Well S1-D6

- August 19, 1997 Environmental Services, Inc. (ESI), a subcontractor of Action, removed 6,000 gallons of water from Storm Water Dry Well S1-D6.
- August 29, 1997 ESI removed 10,000 gallons of water and 3½ cubic yards of sludge and soil from Storm Water Dry Well S1-D6. Approximately 2.5 ft of soil was removed from the bottom of the dry well. No endpoint sample was collected from this excavation; data collected during the S1 Parcel Phase II Investigation indicate that the 2 to 4 ft interval beneath the bottom of the dry well is not petroleum-impacted.

LABORATORY ANALYSIS AND DATA INTERPRETATION

Arresting Cable Winch and Pulley Vaults

Laboratory analyses of the endpoint samples are summarized in Table 4. Samples PVN-S and PVS-S (pulley vault north- S1 Parcel, and pulley vault south - S1 Parcel) were submitted for analysis of Total and TCLP STARS 8270 parameters. No semivolatile organic compounds were detected in any of the endpoint samples above method detection limits. Based on the results of the laboratory analysis of the endpoint samples, and the analysis of samples collected during the Phase II Investigation, all previously identified petroleum impacted soils have been removed from the arresting cable pulley and winch vaults.



WASTE DISPOSAL

Non-hazardous waste manifests, a contaminated soil disposal report, facility weight tickets, and a receipt for the fill material (sand) are provided in Appendix B to document the removal and disposal of excavated soils and sludges from Storm Water Dry Well S1-D6 and the Arresting Cable Winch and Pulley Vaults.

- 3½ cubic yards of sludge collected from the Storm Water Dry Well S1-D6 in a roll-off container, was transported and disposed of by Chemical Pollution Control, Inc. of Bay Shore, New York at Republic Environmental Systems, of Hatfield, Pennsylvania.
- 16,000 gallons of storm water removed from Storm Water Dry Well S1-D6 was transported by Environmental Services, Inc. and disposed of at the Bay Park Sewage Treatment Plant in East Rockaway, New York.
- 15 cubic yards of petroleum contaminated soil collected from the Arresting Cable Winch and Pulley Vaults (along with approximately 4.5 cubic yards of petroleum contaminated soil collected from Storm Water Dry Well T1-D1) were transported by National Waste Disposal Corporation to AB Oil Service Ltd, Bohemia, New York. AB Oil Service disposed of the waste at Waste Management of Pennsylvania, Inc., Morrisville, PA.
- 17 cubic yards of soil excavated from beneath the Arresting Cable Winch and Pulley Vaults were transported by Canal Sanitation to T+T Materials of Wingdale, New York.
- 50 cubic yards of concrete debris was disposed of by 110 Sand Company, Melville, New York.
- 72 cubic yards of clean fill was provided by Clifford Broman & Son, Inc., Melville, New York.



CONCLUSIONS

Based on the information presented above, Geraghty & Miller, Inc. concludes the following:

1. As recommended in the Phase II Environmental Site Assessment of the S1 Parcel (July 1997), soil from 0 to 3 ft below the bottom of the Arresting Cable Winch and Pulley Vaults was excavated and disposed of off-site. Analysis of endpoint samples from the Arresting Cable Pulley Vaults indicate that the impacted soils have been completely removed. Samples collected during the Phase II Assessment indicated that the 2 to 4 ft interval beneath the Arresting Cable Winch Vault was not petroleum impacted.
2. As recommended in the Phase II Environmental Site Assessment of the S1 Parcel (July 1997), soil from the 0 to 3 ft interval within Storm Water Dry Well S1-D6 was excavated and disposed of off-site. No endpoint samples were collected beneath Storm Water Dry Well S1-D6 because data collected during the S1 Parcel Site Assessment indicated that the 2 to 4 ft interval beneath the bottom of the dry well was not petroleum impacted.
3. No further remedial action is required at the S1 Parcel.

Should you have any questions or comments, feel free to call.

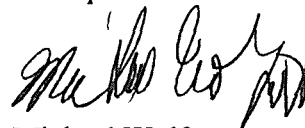
Respectfully Submitted,
GERAGHTY & MILLER, INC.



Robert Porsche
Staff Scientist



Carlo San Giovanni
Principal Scientist



Michael Wolfert
Project Director



Table 1. Winch Vault, S1 Parcel, Northrop Grumman Corporation, Bethpage, New York.

Depth (ft)	PID (ppm)	Odors	Description
0-1	2	no odor	SAND, fine, mixed with stone, dark upper layer.
1-2	2.4	no odor	SAND, fine, mixed with stone.
2-3	0.2	no odor	SAND, fine, mixed with stone.

Notes:

Bottom of vault is approximately 6 ft below land surface; depth is feet below bottom of winch vault.
 Approximately 3 cubic yards of soil were removed during the winch vault excavation.



Table 2. Southern Pulley Vault, S1 Parcel, Northrop Grumman Corporation, Bethpage, New York.

Depth (ft)	PID (ppm)	Odors	Description
0-1	<1	no odor	SAND, fine to medium, orange-brown, with stone.
1-2	NR	no odor	SAND, fine to medium, tan/brown, with stone.
2-3	NR	no odor	SAND, fine, with stone.

Notes:

Bottom of vault is approximately 6 ft below land surface; depth is feet below bottom of pulley vault.

Endpoint sample collected 3 ft below bottom of pulley vault.

Approximately 1.5 cubic yards of soil were removed during the pulley vault excavation.

NR No Response.



Table 3. Northern Pulley Vault, S1 Parcel, Northrop Grumman Corporation, Bethpage, New York.

Depth (ft)	PID (ppm)	Odors	Description
0-1	0.3	no odor	SAND, fine to medium, brown, with larger stones.
1-2	2.8	slight odor	SAND, fine, brown, with stones.
2	5	no odor	SAND, fine, with stones.
2.0-2.5	5	no odor	SAND, fine, brown, with stones.
2.5-3.0	NR	no odor	SAND, fine to medium, brown, with stones.

Notes:

Bottom of vault is approximately 6 ft below land surface; depth is feet below bottom of pulley vault.

Endpoint sample collected 3 ft below bottom of pulley vault.

Approximately 1.5 cubic yards of soil were removed during the pulley vault excavation.

NR No Response.



Table 4. Results of Total and TCLP STARS 8270 Analysis of Soil Samples collected during the Remediation of the S1 Parcel, Northrop Grumman Corporation, Bethpage, New York.

Sample ID	PVN-S ¹	PVN-S ²	PVS-S ¹	PVS-S ²
Date Sampled	8/13/97	8/13/97	8/13/97	8/13/97
Units	ug/Kg	ug/L	ug/Kg	ug/L
Parameter				
Naphthalene	<30	<10	<30	<10
Acenaphthene	<30	<10	<30	<10
Fluorene	<30	<10	<30	<10
Phenanthrene	<30	<10	<30	<10
Anthracene	<30	<10	<30	<10
Fluoranthene	<30	<10	<30	<10
Pyrene	<30	<10	<30	<10
Benzo(a)anthracene	<30	<10	<30	<10
Chrysene	<30	<10	<30	<10
Benzo(b)fluoranthene	<30	<10	<30	<10
Benzo(k)fluoranthene	<30	<10	<30	<10
Benzo(a)pyrene	<30	<10	<30	<10
Dibenzo(a,h)anthracene	<30	<10	<30	<10
Indeno(1,2,3-cd)pyrene	<30	<10	<30	<10
Benzo(ghi)perylene	<30	<10	<30	<10

Samples analyzed by EcoTest Laboratories, Inc.

ug/L Micrograms per Liter.

ug/Kg Micrograms per Kilogram.

1 Analysis by USEPA Method 8270.

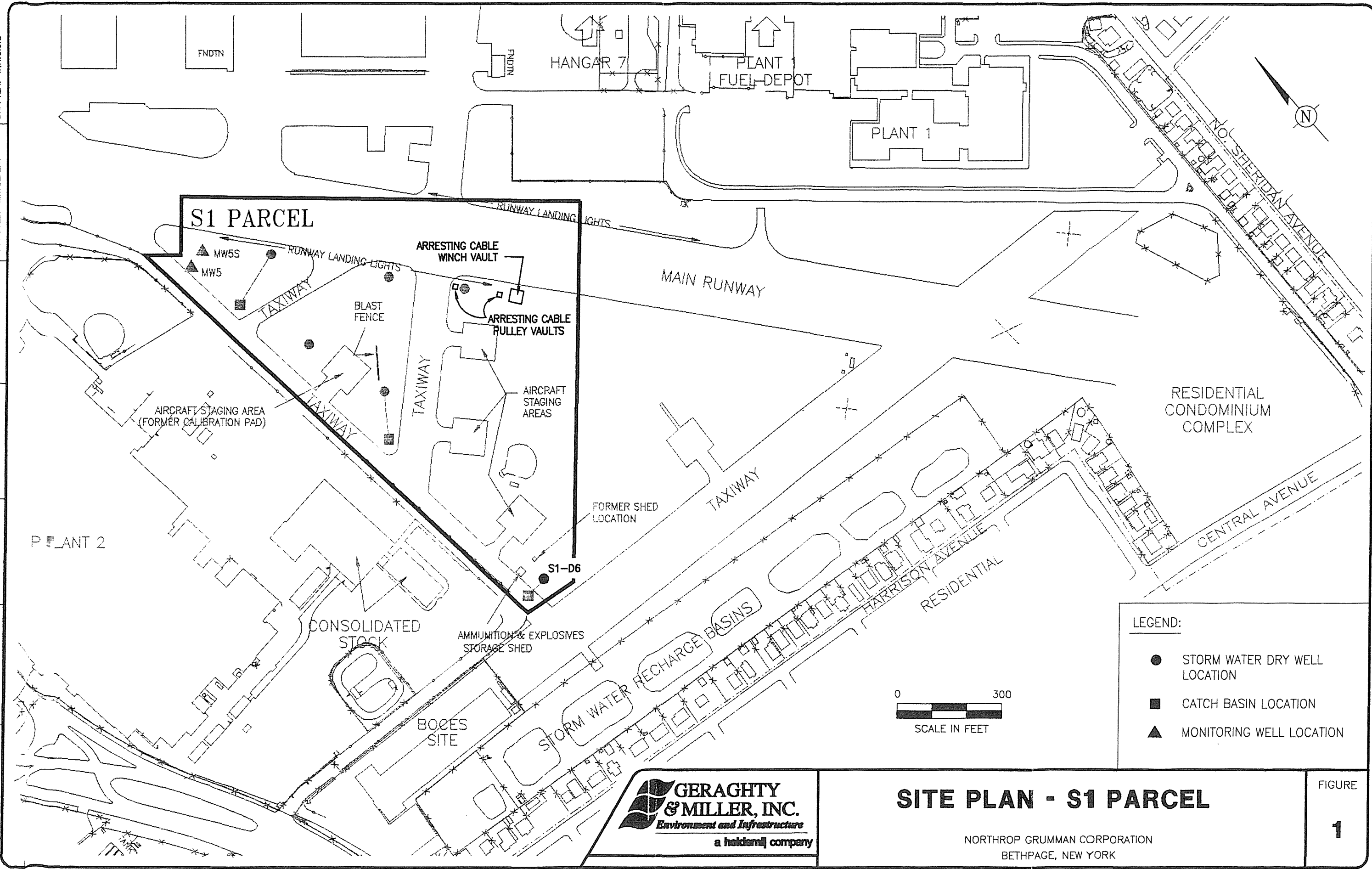
2 TCLP Leachate extracted according to USEPA Method 1311. Analysis of Leachate by USEPA Method 8270.

STARS Spill Technology and Remediation Series Memo #1 Petroleum-Contaminated Soil Guidance Policy.

TCLP Toxicity Characteristic Leaching Procedure.

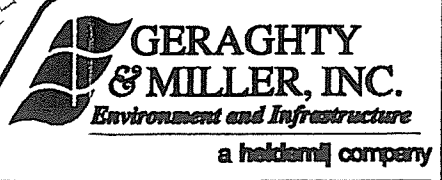


DWG DATE: 02DEC97 | PRJCT NO.: NY0008.132TISHARD FILE: 1818 | DRAWING: PARCL S1A | CHECKED: D.BROWN | APPROVED: M.WOLFERT | DRAFTER: W.H.CICIO



LEGEND:

- STORM WATER DRY WELL LOCATION
- CATCH BASIN LOCATION
- ▲ MONITORING WELL LOCATION



SITE PLAN - S1 PARCEL

NORTHROP GRUMMAN CORPORATION
BETHPAGE, NEW YORK

FIGURE
1

APPENDIX A

DAILY LOGS



DAILY LOG

NY0008.132-015

Date/Time	Description of Activities
8-13-97	
9:45	Start dismantling winch vault - S1
	Ralph Pantony on site
10:00	Top removed, cutting bolts that hold winch in place, remove winch
10:40	Start removing soil from the winch vault with backhoe
	0-1 ft. zone 2 ppm
	Fine sand with stone mixed with dark top layer
	Bottom of vault is 6 ft. bls
10 :50	1-2 ft. zone 2.4 ppm
	Fine sand with stone, no odor
11:10	2-3 ft. zone .2 ppm
	Fine sand/stone, no odor
	Finish this location, take sample at 3 ft. zone
	Approximately 3 yards of soil removed
11:15	Decon Hand Auger for sample WV - S1
11:30	Move to PVS - S1 starts raining hard, Take lunch
12:00	Fence set-up on WV - S1
12:05	PVS - S1 Depth to soil bottom 6 ft. bls
	0-1 ft. zone < 1 ppm
	Orange-brown sand, fine to medium with stone, no odor
12:15	1-2 ft. zone NR PID
	Fine to medium tan/brown sand with stone, no odor
12:20	2 ft. zone NR PID
	Brown medium sand with stone, no odor
12:30	2-2 ½ zone NR PID
	Brown fine to medium sand with stone
12:40	Sample PVS - S1 Taken at 3 ft. below vault bottom
	Brown fine to medium sand with stone



DAILY LOG

NY0008.132-015

Date/Time	Description of Activities
8-13-97	
12:45	Move to PVN - S1 Start digging
12:55	0-1 ft. zone .3 ppm Sand brown fine to medium with larger stones, no odor
1:00	1-2 ft. zone 2.8 ppm Fine sand with stone, brown color, slight odor Calibrate PID
1:10	2 ft. zone 5 ppm Fine sand and stone, no odor
1:15	2-2 ½ ft. zone NR Fine sand and stone
1:20	2 ½-3 ft. zone NR Fine to medium sand and stone, brown
1:25	Torrential rains, took cover before sampling endpoint PVN - S1 Waiting for rain to subside
1:30	Decon Hand Auger to sample PVN - S1 while ACTION unloads ~6 yards of soil generated on the S1 Property Sampled PVN - S1 at 3-3 ½ ft. below vault bottom.
1:45	Leave site



DAILY LOG

NY0008.132-015

Date/Time	Description of Activities
8-19-97	
7:45	On site
7:50	Tony of ACTION arrives, Adam arrives
8:00	2 Tankers arrive with Ralph of ACTION. Joe and Ken Environmental Services Inc.
	Letter provided by Ralph to Environmental Services Inc. for access to Bay Park
8:10	Adam signs manifests for each tanker.
8:15	Start removing water from U drywell U3-D4
8:40	Leave site with 6,000 gallons of water about 3 ft. remaining
	small spill under tanker (needs to be cleaned)
9:40	Truck not back
10:40	Truck not back
10:55	Truck returns
11:00	Start pumping water from U3-D4
11:20	6,000 more gallons removed from drywell U3-D4
11:35	Adam signs manifest for load of water
11:40	Environmental Services leaves site
12:10	Tony calls office and leaves site
12:15	Lunch
1:25	Environmental Services arrived on site at S1-D6 location
1:50	Joe of (Environmental) talks to Ralph (ACTION) about tomorrow
	6,000 gallons from S1-D6
2:00	Environmental Services leaves site



DAILY LOG

NY0008.132-015

Date/Time	Description of Activities
8-28-97	
13:06	Moving to locations on the S1 parcel south of the runway.
13:20	Started to dig out the northeastern vault on parcel S1.
13:31	Started to dig out the northern vault on parcel S1.
13:40	Started to dig out the northwestern vault on parcel S1.
13:49	Breaking up concrete for all three vaults.
14:20	Concrete truck left property to get emptied (~25 yards for each truck of concrete debris). A truck of clean sand (36 yards) is being left near the northeastern previous vault location.
14:40	Grading area on the northwest portion of parcel S1 where the vault was removed.
14:51	Trying to grade area on the northeastern & central portions of parcel where the vaults were removed.
14:58	Waiting for truck to come back for additional concrete removal.
15:26	Truck back and concrete being loaded.
15:39	Grading area on the northeastern & central portions of parcel S1 where vaults were removed.
15:51	Done grading, removing metal.
16:04	Load up equipment, left site.



DAILY LOG

NY0008.132-015

Date/Time	Description of Activities
8-29-97	
7:51	On site with Tony from Action
8:09	Adam Postyn & Environmental Services Inc. with a vacuum truck on site.
8:11	Started to pump out water on the drywell located on the SW portion of the S1 parcel. Adam left site. The drywell has ~6 ft. of water in it.
8:38	Truck full going to dump. About 4 ft. of water still in drywell. The truck holds 4000 gallons of liquid. Adam on site & signed manifests for water. A super sucker (guzzler) is on site. Will clean out the additional feet of soil from the drywell located north of the runway, north of parcel T1.
8:54	Super sucker cleaning out the northern drywell on parcel U. Adam left.
9:10	Ralph from Action on site.
10:00	Ralph left site.
10:07	A total of 2 ft. of soil was removed from the drywell north of the runway, north of parcel T1.
10:11	Guys take a deli break
10:53	Back from deli
11:00	The vacuum truck is back to remove more water out of the drywell on the SW portion of the S1 parcel.
11:05	Start to pump out water.
11:21	Truck full, approximately 1 ft. of water still left. Truck went to dump.
12:35	Back on site. Soil from super sucker has been placed on plastic ~6 yards near the SW drywell on parcel S1. As per Adams' request. Environmental out to lunch.
13:26	Environmental Services, Inc. back from lunch.



DAILY LOG

NY0008.132-015

Date/Time	Description of Activities
8-29-97	
13:33	Vacuum truck back on site and vacuuming out the remaining water in SW drywell on parcel S1.
13:53	Ralph on site. Will use super sucker to take the rest of the water out. It will be placed in a drum which will be vacuumed into the vacuum truck.
14:30	Done collecting water ~2000 gallons collected. Make a total of 10,000 gallons from the SW drywell on parcel S1.
14:33	Vacuum truck left site. 2 drums of sludge/soil collected.
15:07	Six more drums of sludge/soil collected.
15:23	2 more drums of sludge/soil collected making a total of 10 drums. The soil is now being placed in the roll-off (canal) used on Wednesday.
15:38	Solidification (salsorb CL15) material added to roll-off.
16:24	Ralph left site.
16:34	Finished pumping. 2 ft. of soil removed from the bottom of the drywell, ~3 ½ yards of material into the roll-off (canal). Cleaning up area and organizing equipment for transportation.
16:48	Left site

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APPENDIX B

WASTE DISPOSAL DOCUMENTATION



**NON-HAZARDOUS
WASTE MANIFEST**

1. Generator's US EPA ID No.

NY D 0 0 2 0 4 7 9 6 7

Manifest Document No.

2. Page 1 of 1

3. Generator's Name and Mailing Address

**NORTROP GRIMMAN
SOUTH OYSTER BAY ROAD, BETHPAGE, NY**

4. Generator's Phone (516) 346-8106

5. Transporter 1 Company Name

CHEMICAL POLLUTION CONTROL INC.

6. US EPA ID Number

NY D 0 8 2 7 8 5 4 2 9

7. Transporter 2 Company Name

8. US EPA ID Number

9. Designated Facility Name and Site Address

**CHEMICAL POLLUTION CONTROL INC.
120 SOUTH FOURTH STREET
BAY SHORE, NY 11706**

10. US EPA ID Number

NY D 0 8 2 7 8 5 4 2 9

A. Transporter's Phone 516-586-1133

B. Transporter's Phone

C. Facility's Phone

516-586-1133

11. Waste Shipping Name and Description

a. **DIRTY WET - OIL SOIL - MUDGE**

12. Containers

No. Type

13. Total Quantity

14. Unit Wt/Vol

01 00100 550 G

D. Additional Descriptions for Materials Listed Above

LOT S-1

F. Handling Codes for Wastes Loaded

13. Special Handling Instructions and Additional Information

**03578 200
3569**

16. GENERATOR'S CERTIFICATION: I certify the materials described above are this manifest and are subject to federal regulations for monitoring proper disposal of these wastes.

Printed/Typed Name **GERONDO RUTIGLIANO**

Signature *Gerardo Rutigliano*

Month **09** Year **1997**

17. Transporter 1 Acknowledgment of Receipt of Materials

Printed/Typed Name **MICHAEL J. SMITH**

Signature *Michael J. Smith*

Month **09** Year **1997**

18. Transporter 2 Acknowledgment of Receipt of Materials

Printed/Typed Name

Signature

Month Year

19. Discrepancy Indication Space

20. Facility Owner or Operator: Certification of receipt of waste materials covered by this manifest except as noted in Item 19.

Printed/Typed Name **FRANK FAZIO**

Signature *Frank Fazio*

Month **10** Year **1997**

GENERATOR

TRANSPORTER

FACILITY

TRANSPORTER #1

Please print or type
Form designed for use in 1991

NON-HAZARDOUS WASTE MANIFEST		1. Generator's US EPA ID No. EXEMPT	Manifest Document No. 5529	2. Page 1 of
3. Generator's Name and Mailing Address NORTHROP GRUMMAN RT. 107 BETHPAGE, NY				
4. Generator's Phone ()				
5. Transporter 1 Company Name ENVIRONMENTAL SERVICES INC		6. US EPA ID Number EXEMPT		
7. Transporter 2 Company Name		8. US EPA ID Number		
9. Designated Facility Name and Site Address 34Y PARK SEWAGE TREATMENT PLANT 4TH AVENUE PO BOX 148 E. ROCKAWAY, NY 11518		10. US EPA ID Number		A. Transporter's Phone 516-395-9882
				B. Transporter's Phone
				C. Facility's Phone 516-571-7100
11. Waste Shipping Name and Description			12. Containers	13. Total Quantity
			No.	Unit
a. AUTHORIZED MS99 STORM WATER LIQUIDS STORM WATER INDUSTRIAL			001	6000 GAL
b.				
c.				
d.				
D. Additional Descriptions for Materials Listed Above DRYWELLS US-D4, S1-D6 STORM WATER CONTAMINATED W/ TRACE PETROLEUM HYDROCARBONS & ORGANICS			E. Handling Codes for Wastes Listed Above	
15. Special Handling Instructions and Additional Information FOR SPILL CLEAN-UP CALL: ENVIRONMENTAL SERVICES INC. 133 COMMACK RD. MASTIC BEACH, NY 11951 516-305-9882				
16. GENERATOR'S CERTIFICATION: I certify the materials described above on this manifest are not subject to federal regulations for reporting proper disposal of Hazardous Waste.				
Printed/Typed Name V. H. H. Postma Agent for NGL		Signature <i>[Signature]</i>		Month Day Year 08 19 89
17. Transporter 1 Acknowledgement of Receipt of Materials				
Printed/Typed Name Kenneth Engel		Signature <i>[Signature]</i>		Month Day Year 08 19 89
18. Transporter 2 Acknowledgement of Receipt of Materials				
Printed/Typed Name		Signature		Month Day Year
19. Discrepancy Indication Space MEETS EPA REGULATIONS FOR NON-HAZARDOUS WASTE:				
20. Facility Owner or Operator: Certification of receipt of waste materials covered by this manifest except as noted in Item 19.				
Printed/Typed Name		Signature <i>[Signature]</i>		Month Day Year 08 19 89

GENERATOR

TRANSPORTER

FACILITY

NON-HAZARDOUS WASTE MANIFEST

1. Generator's US EPA ID No. **EXEMPT**

Manifest Document No. **5529**

2. Page 1 of

3. Generator's Name and Mailing Address
**HORNERUP GRUMMAN
RT. 107 BETHPAGE, NY**

4. Generator's Phone ()

5. Transporter 1 Company Name
ENVIRONMENTAL SERVICES INC.

6. US EPA ID Number
EXEMPT

7. Transporter 2 Company Name

8. US EPA ID Number

9. Designated Facility Name and Site Address
**BAY PARK SEWAGE TREATMENT PLANT
4TH AVENUE PO BOX 148
E. ROCKAWAY, NY 11513**

10. US EPA ID Number

A. Transporter's Phone **516-395-9888**

B. Transporter's Phone

C. Facility's Phone
516-571-7100

11. Waste Shipping Name and Description

12. Containers

13. Total Quantity

14. Unit Wt/Vol

a. **0899 STORM WATER LIQUIDS STORM WATER AUTHORIZED INDUSTRIAL**

001 TK 06000 GAL

b.

c.

d.

D. Additional Descriptions for Materials Listed Above

**DRYWELLS U3-D4, S1-D6 STORM WATER CONTAMINATED W/
TRACE PETROLEUM HYDROCARBONS & ORGANICS:**

E. Handling Codes for Wastes Listed Above

15. Special Handling Instructions and Additional Information
**FOR SPILL CLEAN-UP CALL:
ENVIRONMENTAL SERVICES INC.
133 COMMACK RD.
MASTIC BEACH, NY 11951
516-395-9888**

16. GENERATOR'S CERTIFICATION: I certify the materials described above on this manifest are not subject to federal regulations for reporting proper disposal of Hazardous Waste.

Printed/Typed Name **M. J. ...**

Signature *[Signature]*

Month Day Year **08/19/97**

17. Transporter 1 Acknowledgement of Receipt of Materials

Printed/Typed Name **JOSEPH PARISI**

Signature *[Signature]*

Month Day Year **08/19/97**

18. Transporter 2 Acknowledgement of Receipt of Materials

Printed/Typed Name

Signature

Month Day Year

19. Discrepancy Indication Space

MEETS EPA REGULATIONS FOR NON-HAZARDOUS WASTE:

20. Facility Owner or Operator: Certification of receipt of waste materials covered by this manifest except as noted in Item 19.

Printed/Typed Name

Signature *[Signature]*

Month Day Year **08/19/97**

GENERATOR

TRANSPORTER

FACILITY

**NON-HAZARDOUS
WASTE MANIFEST**

1. Generator's US EPA ID No.
EXEMPT

Manifest Document No. **5329** Page 1 of

3. Generator's Name and Mailing Address
**NORTHROP GRUMMAN
RT. 107 BETHPAGE, NY**

4. Generator's Phone ()

5. Transporter 1 Company Name
ENVIRONMENTAL SERVICES INC.

6. US EPA ID Number
EXEMPT

7. Transporter 2 Company Name

8. US EPA ID Number

9. Designated Facility Name and Site Address
**BAY PARK SEWERAGE TREATMENT PLANT
4TH AVENUE PO BOX 148
E. ROCKAWAY, NY 11518**

10. US EPA ID Number

A. Transporter's Phone **516-395-9888**

B. Transporter's Phone

C. Facility's Phone
516-571-7100

11. Waste Shipping Name and Description

12. Containers

No. Type

13. Total Quantity

14. Unit W/Vol

a. **N899 storm water liquids, storm water authorized industrial:**

001

TK

3500

GAL

b.

c.

d.

D. Additional Descriptions for Materials Listed Above

drywells U3-D4, S1-D6 storm water contaminated w/trace petroleum hydrocarbons & organics

E. Handling Codes for Wastes Listed Above

15. Special Handling Instructions and Additional Information

**FOR SPILL CLEAN-UP CALL:
ENVIRONMENTAL SERVICES INC.
133 COMMACK RD.
MASTIC BEACH, NY 11951
516-395-9888**

16. GENERATOR'S CERTIFICATION: I certify the materials described above on this manifest are not subject to federal regulations for reporting proper disposal of Hazardous Waste.

Printed/Typed Name
Alan Pastor Agent for NGC

Signature
[Signature]

Month Day Year
10/8/97

17. Transporter 1 Acknowledgement of Receipt of Materials

Printed/Typed Name
Kenneth O'Rourke

Signature
[Signature]

Month Day Year
10/8/97

18. Transporter 2 Acknowledgement of Receipt of Materials

Printed/Typed Name

Signature

Month Day Year

19. Discrepancy Indication Space

MEETS EPA REGULATIONS FOR NON-HAZARDOUS WASTE:

20. Facility Owner or Operator: Certification of receipt of waste materials covered by this manifest except as noted in Item 19.

Printed/Typed Name

Signature
[Signature]

Month Day Year
10/9/97

GENERATOR

TRANSPORTER

FACILITY

NON-HAZARDOUS WASTE MANIFEST

1. Generator's US EPA ID No.
EXEMPT

Manifest Document No.
5529

2. Page 1 of

3. Generator's Name and Mailing Address
NORTHROP GRUMMAN
RT. 107 BETHPAGE, NY

4. Generator's Phone ()

5. Transporter 1 Company Name
ENVIRONMENTAL SERVICES INC.

6. US EPA ID Number
EXEMPT

7. Transporter 2 Company Name

8. US EPA ID Number

9. Designated Facility Name and Site Address
BAY PARK SEWAGE TREATMENT PLANT
4th AVENUE PO BOX 148
E. ROCKAWAY, NY 11518

10. US EPA ID Number

A. Transporter's Phone 516-395-9888

B. Transporter's Phone

C. Facility's Phone
516-571-7100

11. Waste Shipping Name and Description

12. Containers
No. Type

13. Total Quantity

14. Unit
W/Vol

a. N899 STORM WATER LIQUIDS STORM WATER AUTHORIZED INDUSTRIAL:

001 TK 0.2000 GAL

b.

c.

d.

D. Additional Descriptions for Materials Listed Above

DRYWELLS U3-D4, S1-D6 STORM WATER CONTAMINATED W/
TRACE PETROLEUM HYDROCARBONS & ORGANICS

E. Handling Codes for Wastes Listed Above

15. Special Handling Instructions and Additional Information

FOR SPILL CLEAN-UP CALL:
ENVIRONMENTAL SERVICES INC.
133 COMMACK RD.
MASTIC BEACH, NY 11951
516-395-9888

16. GENERATOR'S CERTIFICATION: I certify the materials described above on this manifest are not subject to federal regulations for reporting proper disposal of Hazardous Waste.

Printed/Typed Name

Signature

Month Day Year
08/19/97

17. Transporter 1 Acknowledgement of Receipt of Materials

Printed/Typed Name

Signature

Month Day Year
08/19/97

18. Transporter 2 Acknowledgement of Receipt of Materials

Printed/Typed Name

Signature

Month Day Year

19. Discrepancy Indication Space

MEETS EPA REGULATIONS FOR NON-HAZARDOUS WASTE:

20. Facility Owner or Operator: Certification of receipt of waste materials covered by this manifest except as noted in Item 19.

Printed/Typed Name

Signature

Month Day Year
8/19/97

ORIGINAL - RETURN TO GENERATOR

NON-HAZARDOUS WASTE MANIFEST

1. Generator's US EPA ID No.
EXEMPT

Manifest Document No.
5607

2. Page 1 of

3. Generator's Name and Mailing Address
**NORTHROP GRUNMAN
107 BEINPAGE, NY**

4. Generator's Phone ()
ENVIRONMENTAL SERVICES INC.

6. US EPA ID Number
EXEMPT

7. Transporter 2 Company Name

8. US EPA ID Number

9. Designated Facility Name and Site Address
**BAY PARK SEWERAGE PLANT
R AVENUE PO BOX 148
E. ROCKAWAY, NY 11518**

10. US EPA ID Number

A. Transporter's Phone **395-9888**

B. Transporter's Phone

C. Facility's Phone **571-7100**

11. Waste Shipping Name and Description

12. Containers
No. Type

13. Total Quantity

14. Unit Wt/Vol

a. **1999 STORM WATER LIQUIDS, STORM WATER AUTHORIZED INDUSTRIAL**

001

TK

4000

GAL

b.

c.

d.

D. Additional Descriptions for Materials Listed Above
DRYWELLS US-D4, S1-D6 STORM WATER CONTAMINATED WITH TRACE PETROLEUM HYDROCARBONS & ORGANICS

E. Handling Codes for Wastes Listed Above

15. Special Handling Instructions and Additional Information
**FOR SPILL CLEAN UP CALL:
ENVIRONMENTAL SERVICES INC.
133 COMMACK RD.
MASTIC BEACH, NY 11951
516-395-9888**

16. GENERATOR'S CERTIFICATION: I certify the materials described above on this manifest are not subject to federal regulations for reporting proper disposal of Hazardous Waste.

Printed/Typed Name
Robert P. Casanovi

Signature
Robert P. Casanovi

Month Day Year
10/29/97

17. Transporter 1 Acknowledgement of Receipt of Materials

Printed/Typed Name
NICK MAURO

Signature
Nick Mauro

Month Day Year
10/29/97

18. Transporter 2 Acknowledgement of Receipt of Materials

Printed/Typed Name

Signature

Month Day Year

19. Discrepancy Indication Space
MEETS EPA REGULATIONS FOR NON-HAZ WASTE:

20. Facility Owner or Operator: Certification of receipt of waste materials covered by this manifest except as noted in Item 19.

Printed/Typed Name
ROBERT CASANOVI

Signature
Robert Casanovi

Month Day Year
10/29/97

GENERATOR

TRANSPORTER

FACILITY

NON-HAZARDOUS WASTE MANIFEST

1. Generator's US EPA ID No.
EXEMPT

Manifest Document No.
5637

2. Page 1 of

3. Generator's Name and Mailing Address
NORTHROP GRUMMAN
RT. 107 BETHPAGE, NY

4. Generator's Phone ()

5. Transporter 1 Company Name
ENVIRONMENTAL SERVICES INC.

6. US EPA ID Number
EXEMPT

7. Transporter 2 Company Name

8. US EPA ID Number

9. Designated Facility Name and Site Address
BAY PARK SEWERAGE TREATMENT PLANT
4TH AVENUE PO BOX 145
E. ROCKAWAY, NY 11513

10. US EPA ID Number

A. Transporter's Phone 516-395-88

B. Transporter's Phone

C. Facility's Phone
516-571-7100

11. Waste Shipping Name and Description

12. Containers
No. Type

13. Total Quantity

14. Unit Wt/Vol

a. 1099 storm water liquids storm water authorized industrial
001 TK 08000 GAL

b.

c.

d. DRYWELLS W-3-Da, S1-D6 Storm water contaminated w/trace petroleum hydrocarbons & organics

D. Additional Descriptions for Materials Listed Above

FOR SPILL CLEAN-UP CALL:
ENVIRONMENTAL SERVICES INC.

E. Handling Codes for Wastes Listed Above

15. Special Handling Instructions and Additional Information

FOR SPILL CLEAN UP CALL:
ENVIRONMENTAL SERVICES INC.
133 CONRACK RD.
MASTIC BEACH, NY 11911
516-395-9388

16. GENERATOR'S CERTIFICATION: I certify the materials described above on this manifest are not subject to federal regulations for reporting proper disposal of Hazardous Waste.

Printed/Typed Name
William Poston, NGLC

Signature

Month Day Year
12 29 97

17. Transporter 1 Acknowledgement of Receipt of Materials

Printed/Typed Name
ALEX MALLO

Signature

Month Day Year
12 29 97

18. Transporter 2 Acknowledgement of Receipt of Materials

Printed/Typed Name

Signature

Month Day Year

19. Discrepancy Indication Space

MEETS EPA REGULATIONS FOR NON-HAZARDOUS WASTE:

20. Facility Owner or Operator: Certification of receipt of waste materials covered by this manifest except as noted in Item 19.

Printed/Typed Name
Robert Czarnowski

Signature

Month Day Year
12 29 97

NON-HAZARDOUS WASTE MANIFEST		1. Generator's US EPA ID No.	Manifest Document No. 87438	2. Page 1 of 1
3. Generator's Name and Mailing Address NORTROP / GRUMMAN RTE. 107 BETHPAGE, NY 11714		4. Generator's Phone (516) 382-7300		
5. Transporter 1 Company Name NATIONAL WASTE DISPOSAL CORP.	6. US EPA ID Number NY 0000380923	7A-372 516-242-0300		
7. Transporter 2 Company Name	8. US EPA ID Number			
9. Designated Facility Name and Site Address R. B OIL SERVICE LTD. 1599 Ocean Avenue Bohemia, NY 11716		10. US EPA ID Number NY D997023571	A. Transporter's Phone B. Transporter's Phone C. Facility's Phone 516 567-6545	
11. Waste Shipping Name and Description		12. Containers		13. Total Quantity
a. PETROLEUM CONTAMINATED SOIL, N816		No.	Type	14. lbs WWTd
				N816
		001	CMC	0007
D. Additional Descriptions for Materials Listed Above PARCEL # 81 BOX # 2 NMI476504 ER#9709727		E. Handling Codes for Wastes Listed Above		
15. Special Handling Instructions and Additional Information 24 HOUR EMERGENCY # (516) 567-6545				
16. GENERATOR'S CERTIFICATION: I certify the materials described above on this manifest are not subject to reporting requirements for reporting proper disposal of Hazardous Waste.				
Printed/Typed Name Gerard Rutigliano		Signature <i>Gerard Rutigliano</i>		Month Day Year 07 22 97
17. Transporter 1 Acknowledgment of Receipt of Materials Printed/Typed Name David Cuervo		Signature <i>David Cuervo</i>		Month Day Year 9 23 97
18. Transporter 2 Acknowledgment of Receipt of Materials Printed/Typed Name David Cuervo		Signature <i>David Cuervo</i>		Month Day Year 9 29 97
19. Discrepancy Indication: Space				
20. Facility Owner or Operator: Certification of receipt of waste materials covered by this manifest except as noted in item 19.				
Printed/Typed Name Michael Rosati to ABAD		Signature <i>Michael Rosati</i>		Month Day Year 09 24 97

GENERATOR
TRANSPORTER
FACILITY

ORIGINAL - RETURN TO GENERATOR

WASTE MANAGEMENT OF PENNSYLVANIA, INC.

Document Refer No. 97 09727

1000 New Ford Mill Road
Morrisville, PA 19067

(215) 736-9400
(215) 736-9475 Laboratory

NON-HAZARDOUS WASTE MANIFEST

Generator of Waste (must be filled in by producer) EPA I.D. No. PA0000000001

Company Name: (Print or Type) AB OIL SERVICE

Pick-up Address: 1229 Cobain Ave Bohemia, NY 11716
(No) (Street) (City) (State)

Telephone Number: 516-687-0245 SIC No. _____

Waste Stream Identification: This manifest represents a non-hazardous waste as per EPA and PA D.E.R. regulations.

Tons: _____ Cubic Yards: 2.0 Other (Specify): _____

Name of Waste: Silly putty and stickers

Special Handling Instructions, if any: MS 37436, 37437, 37438 Gen # 2084 Box # 2
LAW 10 4717501

PROFILE/WASTE STREAM I.D. NUMBER: WMI 476004

This is to certify that the above named materials are properly classified, described, packaged, marked, and labeled and are in proper condition for transportation according to applicable state and federal law. The wastes were consigned to the transporter named. I certify that the foregoing is true and correct to the best of my knowledge.

Date: 10/2/97

Signature: [Signature]
(Name and Title)

2. Hauler of Waste (must be filled-in by hauler) EPA I.D. No. NY0000039023

COMPANY NAME: FULLER WASTE DISPOSAL CORP.

ADDRESS: 11 Lincoln Ave Bay Shore, NY 11706

Pick-up Date: _____ Truck No. _____ Vehicle Lic. No. _____

The above described waste was picked up and hauled by me to the disposal facility named below and was accepted. I certify under penalty of perjury that the foregoing is true and correct.

Signature of authorized agent and title: _____

3. Disposer of Waste (must be filled-in by disposer) CIRCLE ONE:

G.R.O.W.S., INC.
1513 Bordertown Road
Morrisville, PA 19067
Permit # 100148

T.R.R.F.
200 Bordertown Road
Tullytown, PA 19007
Permit # 101494

Waste subject to this manifest was delivered by the above hauler to this disposal facility and accepted on _____ (DISPOSAL DATE)

Signature of authorized agent and title: _____

CUSTOMER COPY

110 Sand Company

170 Cabot Street
West Babylon, New York 11704

TELEPHONES

Office - 516-249-4108
Scalehouse - 516-694-2822
Landfill - 516-694-2848

CUSTOMER NO.	P.O. NUMBER	TRUCK NO.	TYPE OF SALE	JOB NO.	OUR ORDER NUMBER	TICKET NO.
910001		43	SHIPPING		12909	311614

CUSTOMER NAME:

MATERIAL SALE - CHECK

DATE	TAX PERCENTAGE	TRUCK CODE	MATERIAL CODE
8/28/97			900

MATERIAL DESCRIPTION:
CONCRETE (C)

DELIVERY ADDRESS
ACTION REMEDIATION

RECEIVED BY

CARRIER SIGNATURE

CUSTOMER SIGNATURE

SEE REVERSE SIDE FOR COLLECTION TERMS

GROSS	TARE	NET	UNIT	WEIGHED BY
		24.00	UNITS	CHK
IN	OUT	CHECK NO./CHARGE TYPE	LICENSE NO.	
	11:20	MC		

TOTAL TODAY

QUANTITY THIS ORDER TODAY

LOADS THIS ORDER TODAY

OFFICE USE ONLY

MATERIAL	TOTAL
----------	-------

CUSTOMER COPY

110 Sand Company

170 Cabot Street
West Babylon, New York 11704

TELEPHONES

Office - 516-249-4108
Scalehouse - 516-694-2822
Landfill - 516-694-2848

CUSTOMER NO.	P.O. NUMBER	TRUCK NO.	TYPE OF SALE	JOB NO.	OUR ORDER NUMBER	TICKET NO.
910001		43	SHIPPING		12900	311614

CUSTOMER NAME:

MATERIAL SALE - CHECK

DATE	TAX PERCENTAGE	TRUCK CODE	MATERIAL CODE
8/28/97			900

MATERIAL DESCRIPTION:
CONCRETE (C)

DELIVERY ADDRESS
ACTION REMEDIATION

RECEIVED BY

CARRIER SIGNATURE

CUSTOMER SIGNATURE

SEE REVERSE SIDE FOR COLLECTION TERMS

GROSS	TARE	NET	UNIT	WEIGHED BY
		24.00	UNITS	CHK
IN	OUT	CHECK NO./CHARGE TYPE	LICENSE NO.	
		MC		

TOTAL TODAY

QUANTITY THIS ORDER TODAY

LOADS THIS ORDER TODAY

OFFICE USE ONLY

MATERIAL	TOTAL
----------	-------

CH 9-4108

CH 9-4199

CLIFFORD BROMAN & SON Inc.
170 CABOT STREET
WEST BABYLON, N.Y. 11704

Name Action Reproduction Date 8/31 1957
Address _____ Mileage _____
Job Bethpage Truck No. 05

	Hrs. Truck Hire		
	Yds. Bank Run		
	Yds. Gravel		
<u>49.54</u>	16.5 Yds. Sand (Tank)		
	Yds. Fill		
<u>36.48</u>	Yds. Grit		
	Yds. Stone		
	Yds. Top Soil		

Trucks Driven Over Sidewalk at Customer's Risk

No. A066775 Rec'd By [Signature]

S-2922

CH 9-4108

CH 9-4199

CLIFFORD BROMAN & SON Inc.
170 CABOT STREET
WEST BABYLON, N.Y. 11704

Name Action Date 8-28 1957
Address Grumman Bethpage Mileage _____
Job Grumman Truck No. 01

	Hrs. Truck Hire		
	Yds. Bank Run		
	Yds. Gravel		
<u>41.92</u>	16.5 Yds. Sand Tank		
	Yds. Fill		
<u>36.48</u>	Yds. Grit		
	Yds. Stone		
	Yds. Top Soil		

Trucks Driven Over Sidewalk at Customer's Risk

No. 470937 Rec'd By [Signature]
No. 30987

S-2922

FROM : SHARP TRANSPORTATION

PHONE NO. : 516 382 7312

Oct. 03 1997 10:02AM P3

OCT-02-97 10:42 AM TT.MATERIALS

9148325194



Sharp Transportation & Disposal Services Ltd.

135 W. Main Street • Suite 204 • Smithtown, New York 11787

Tel: 516-382-7300 • Fax: 516-382-7312

No 3162

REPORT OF CONTAMINATED SOIL DISPOSAL

DATE: 9-9-97 JOB NUMBER: NG 7997

JOB NAME: Northrop Grumman

JOB ADDRESS: S-1 Bethpage, NY

CONTRACTOR: Action Remediation

SITE NO.: ~~155~~ NYDEC SPILL NO.: 173/213.081 MATERIAL CODE: N816

MATERIAL VOLUME: TONS 173/213.081 YARDS: _____ POUNDS: _____

MATERIAL DESCRIPTION: Contaminated Soil

TIME: IN: _____ WAITING: _____ OUT: _____

FOREMAN'S SIGNATURE: [Signature]

HAULING COMPANY'S NAME: Canal Sanitation NYDEC PERMIT NO.: JA 403

HAULING COMPANY'S ADDRESS: 34 Ferris St Brooklyn NY

TRUCK PLATE NO.: AC897S TRAILER PLATE NO.: _____

DRIVER'S NAME: DEREK BRONOWSKI DRIVER'S LICENSE NO.: _____

DRIVER'S SIGNATURE: [Signature]

DISPOSAL FACILITY NAME: T.T. Materials

DISPOSAL FACILITY ADDRESS: Route 22 Wapdale NY

OPERATOR'S NAME: Rob Muller

OPERATOR'S SIGNATURE: [Signature]



Facility Weight Ticket

Customer ID # _____
 Date of form generation 9/10/97
 Job ## _____

Site Name Northrop Grumman
 Site Address S-1 Bethesda N.Y.
 Transporter Name Canal Sanitation
 Generator Name same
 Contr Agent Company Canal Sanitation
 Contr Agent Address Brooklyn N.Y.
 Contr Agent Contact Gerard K.

SCALE WEIGHT PRINTOUT

12:51 PM 09/10/97
 36780 lb GR

Scale ID# _____
 Truck ID# 101
 LB Gross 86780
 LB Tare 40600
 LB Net 46180
 Net tonnage 23.09
 Weight Date 9/10/97
 Weight time 12:51

WEIGHT TICKET PROCESSED BY Loft Muller Date 9/10/97

THIS COPY GOES TO: _____