



August 28, 2015

Ms. Jennifer Kann
New York State Department of Environmental Conservation, Region 2
Division of Environmental Remediation, Bureau of Spill and Response
1 Hunters Point Plaza
47-40 21st Street
Long Island City, New York 11101

Subject: I.S. 113X (Status Report #4)
3710 Barnes Avenue
Bronx, New York 10467
NYSDEC Spill Case No. 08-11383
NYSDEC PBS No. 2-351989
IEH Service ID: 42503; SCA Project ID: 079953

Dear Ms. Kann:

On behalf of the New York City School Construction Authority (NYCSCA), STV Incorporated (STV) has prepared this Status Report for remediation activities associated with Spill Case No. 08-11383 at Intermediate School 113X (I.S. 113X), located at 3710 Barnes Avenue, Bronx, New York 10467 (the "Site"). This report provides an update on the progress of remedial efforts at the Site pursuant to the New York State Department of Environmental Conservation (NYSDEC) approval letter, dated July 26, 2013. A Site location map is presented as Figure 1.

BACKGROUND

The Site building was constructed with two 7,500-gallon No. 6 fuel oil underground storage tanks (USTs). The tanks are located beneath a paved playground adjacent to the northeastern corner of the building (refer to Figure 2). Based on the observation of petroleum seepage on a basement foundation wall during a Site inspection made by Fleming-Lee Shue, Inc. (FLS) in January 2009, a spill was reported to the NYSDEC. Spill Case No. 08-11383 was assigned to the Site.

FLS completed a subsurface investigation at the Site in April 2009 which indicated the presence of petroleum-impacted soil in the vicinity of the USTs. In April 2011, the USTs were tested for tightness and failed. The USTs were subsequently taken out of service, and Petroleum Tank Cleaners, Inc., of Brooklyn, New York, collected soil samples through the bottom of the USTs, confirming impacted soils below the tanks.

STV conducted a Supplemental UST Investigation in June 2011, which concluded that the petroleum release to the soil did not impact groundwater quality. Additionally, impacts to the soil were fully delineated as limited to a small area between the tanks and the foundation wall of the school building, within the playground area. In a meeting held on June 29, 2011, representatives of NYSDEC, NYCSCA and STV agreed that NYCSCA would install a product recovery system to address the potential that Light Non-Aqueous Phase Liquid (LNAPL) had accumulated along the building foundation wall adjacent to the USTs.

In December 2011, a product recovery system consisting of a weep-hole lattice with nine (9) penetrations manifolded into a vented product recovery tank was installed at the area of observed petroleum seepage.



This was a trial approach to recover localized LNAPL in a less invasive manner than by excavation within the playground area. The recovery system was operated from September 2011 to March 2012. No LNAPL was recovered during the monitoring period. This indicates that unsaturated soils in the area of the petroleum release did not contain recoverable LNAPL. Recoverable free-phase LNAPL was measured within monitoring well MW-2 and on accumulated groundwater in the north UST. A sheen was observed on accumulated groundwater in the south UST. Based on these findings, STV began utilizing a vacuum truck to remove and dispose of the LNAPL/water mixture from MW-2 and both USTs.

Three status reports have been submitted to date and are described as follows:

Status Report #1, dated September 21, 2012

This report provided a summary of implementation of monthly LNAPL gauging and recovery events from Site monitoring wells and out-of-service USTs. The LNAPL was removed by skimming it slowly off the top of the water in monitoring well MW-2 and both USTs until the well and both tanks were completely emptied of liquid. Additionally, the suction hose inlet was held at varying elevations throughout the screened interval to draw additional liquid to the well. A total of 840 gallons of LNAPL/water mixture was recovered and transported off-Site for disposal during this reporting period. The report recommended continued LNAPL gauging and multi-phase recovery (MPR) using a vacuum truck from the on-Site monitoring wells and USTs.

Status Report #2, dated May 30, 2013

This report provided a summary of LNAPL gauging and recovery events from Site monitoring wells and USTs. A total of 1,005 gallons of LNAPL/water mixture was recovered from the USTs and MW-2, and transported offsite for disposal during this reporting period. Based on the delineation of petroleum impacts and the absence of petroleum in the temporary product recovery system during six months of monitoring, STV concluded that LNAPL is isolated in the area surrounding monitoring well MW-2. STV recommended decommissioning of the on-Site product recovery system, abandonment of the USTs in-place and over-drilling a 4 to 6-inch diameter recovery well in the location of MW-2. Additionally, STV recommended monthly MPR events to capture and dispose of the remaining volume of LNAPL.

Status Report #3, dated February 20, 2015

This report provided a background and summary of field activities conducted at the Site from October 2014 to January 2015, including over-drilling of MW-2 for installation of RW-1, decommissioning of the existing on-Site product recovery system, closure of USTs and the first three MPR events for RW-1. A total of 167 gallons of LNAPL/water mixture was recovered from RW-1 during the MPR events and transported offsite for disposal during this reporting period. Based on the presence of recoverable LNAPL in MW-1, STV recommended continued monthly monitoring and MPR events to capture and dispose of the remaining volume of LNAPL.

FIELD ACTIVITY SUMMARY

Field activities were conducted at the Site from February 2015 to August 2015 and consisted of seven (7) monthly monitoring and MPR events for RW-1. Details regarding these activities are presented below:

Multi-Phase Recovery

As per our previous Status Report, monitoring events were conducted on February 27, 2015, March 30, 2015, April 30, 2015, May 27, 2015, June 22, 2015, July 16, 2015 and August 10, 2015. During these events, depth to water and LNAPL levels were gauged and LNAPL/water was recovered in RW-1 through MPR using a vacuum truck. The LNAPL was removed by skimming it slowly off the top of the water until the well was completely emptied of liquid. The suction hose inlet was held at varying elevations throughout the screened interval to induce fluid flow towards the recovery well. A reducing coupling was used during the recovery events to create a seal between the suction hose and well casing to induce a suction from the screened interval of the well to adjacent soils. A total of 234-gallons of LNAPL/water mixture was removed and properly disposed as petroleum-contaminated waste from RW-1 during the MPR events (waste manifests are included as Attachment A). Attachment B provides a Photo Log depicting the activities described in this Status Report. Table 1 summarizes the LNAPL thickness measurements in MW-2/RW-1 since the well was installed.

TABLE 1 – Monthly Monitoring Data

Date	Location*	Depth to Water**	Depth to LNAPL**	LNAPL Thickness (ft)
6/11/12	MW-2	14.50 ±	14.30	0.17 ±
7/25/12	MW-2	15.30 ±	15.10	0.17 ±
8/23/12	MW-2	15.50 ±	15.30	0.17 ±
11/16/12	MW-2	15.84 ±	15.59	0.25 ±
1/10/13	MW-2	15.51 ±	15.26	0.25 ±
3/7/13	MW-2	14.45 ±	14.20	0.25 ±
5/8/13	MW-2	15.35 ±	15.10	0.25 ±
11/8/14	RW-1	15.56 ±	15.39	0.17 ±
12/11/14	RW-1	15.02 ±	14.85	0.17 ±
1/19/15	RW-1	14.52 ±	14.35	0.17 ±
2/27/15	RW-1	15.38 ±	15.17	0.21 ±
3/30/15	RW-1	13.71 ±	13.54	0.17 ±
4/30/15	RW-1	14.24 ±	14.11	0.13 ±
5/27/15	RW-1	15.11 ±	14.94	0.17 ±
6/22/15	RW-1	14.92 ±	14.75	0.17 ±
7/16/15	RW-1	15.05 ±	14.88	0.17 ±
8/10/15	RW-1	16.57 ±	16.36	0.21 ±

* MW-2 (2" dia.) was over-drilled for installation of RW-1 (4" dia.) in the same location.

** Depth in feet below top of PVC well casing (although the top of casing elevation for RW-1 was not surveyed, it was field-verified to be approximately the same elevation as the top of casing elevation was for MW-2).

*** **Bold** type indicates measurements performed during the current monitoring period for this Status Report (#4).



PLANNED ACTIVITIES

These monthly events have continued to recover residual product; therefore, we recommend continuing product gauging and MPR events on a monthly basis. This will allow us to continue removing free product trapped in adjacent soils and fractured rock. The following activities are planned in connection with completing remediation of the Site in accordance with the NYSDEC approval letter dated July 26, 2013:

- Monthly gauging and MPR of RW-1 will be continued. Status Report #5 will be submitted to the NYSDEC after the sixth round of gauging/MPR which is scheduled for February 2016.

Please do not hesitate to contact me at (212) 614-3450 if you have any questions or comments.

Sincerely,

STV Incorporated

A handwritten signature in black ink, appearing to read "Robert Fields".

Robert Fields, P.E., LEED AP BD+C
Project Engineer

A handwritten signature in black ink, appearing to read "Christine Vilardi".

Christine Vilardi, P.G., LEED Green Associate
Quality Control Officer

Copy: L. Guterman, NYCSCA
S. Kanaparthi, NYCSCA

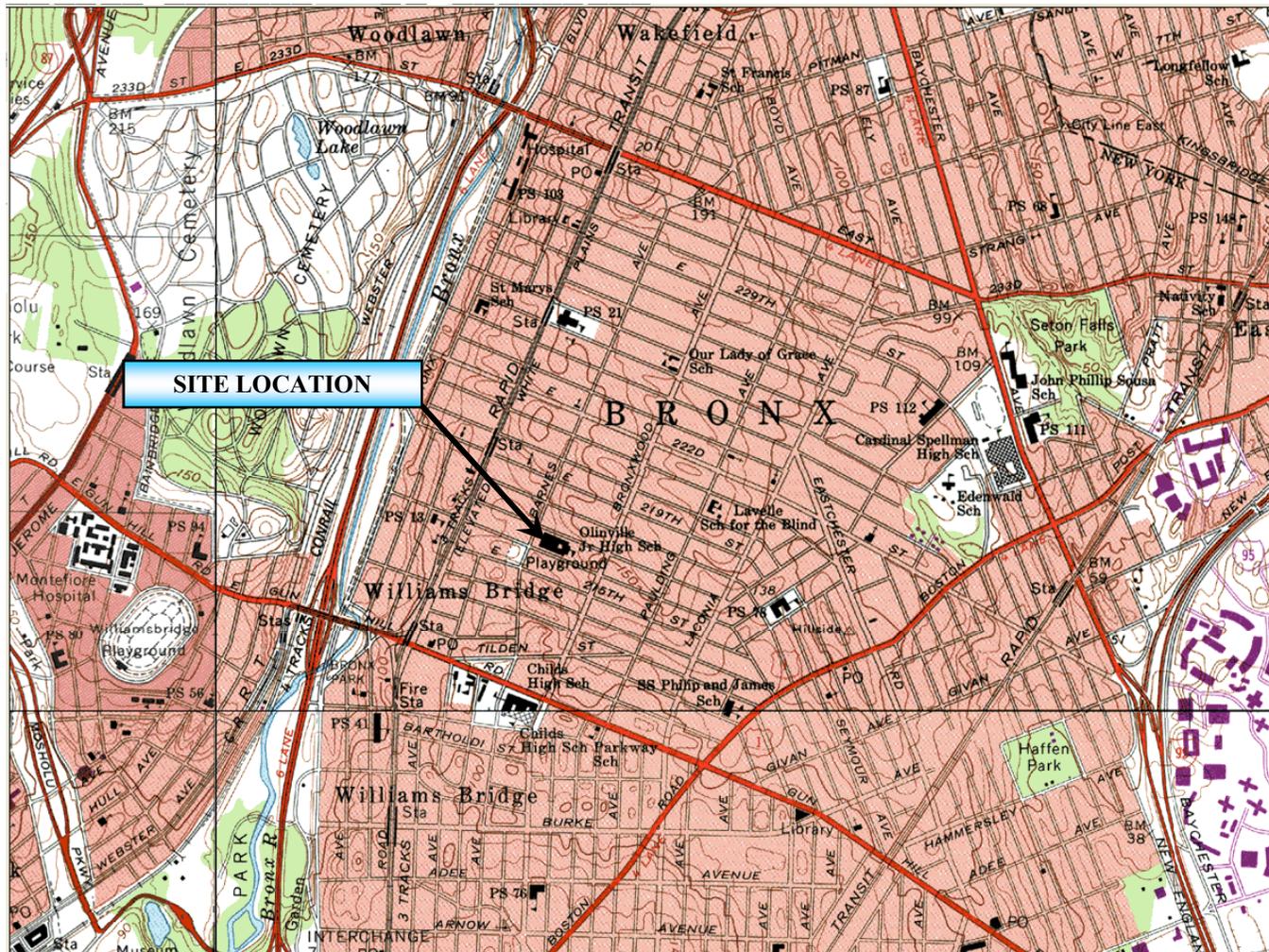
Enclosures:

Figure 1 – Site Location Map

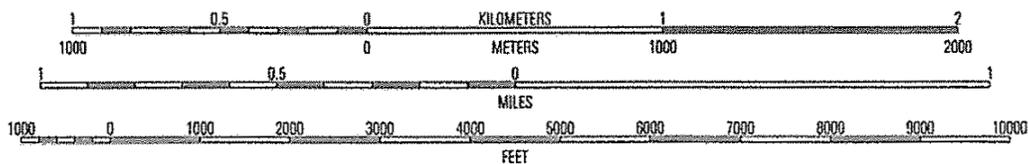
Figure 2 – Site Plan

Attachment A – Waste Manifests

Attachment B – Photo Log



SCALE 1:24 000



Prepared by: STV Incorporated
Prepared for: NYC School Construction Authority

FIGURE 1
SITE LOCATION MAP

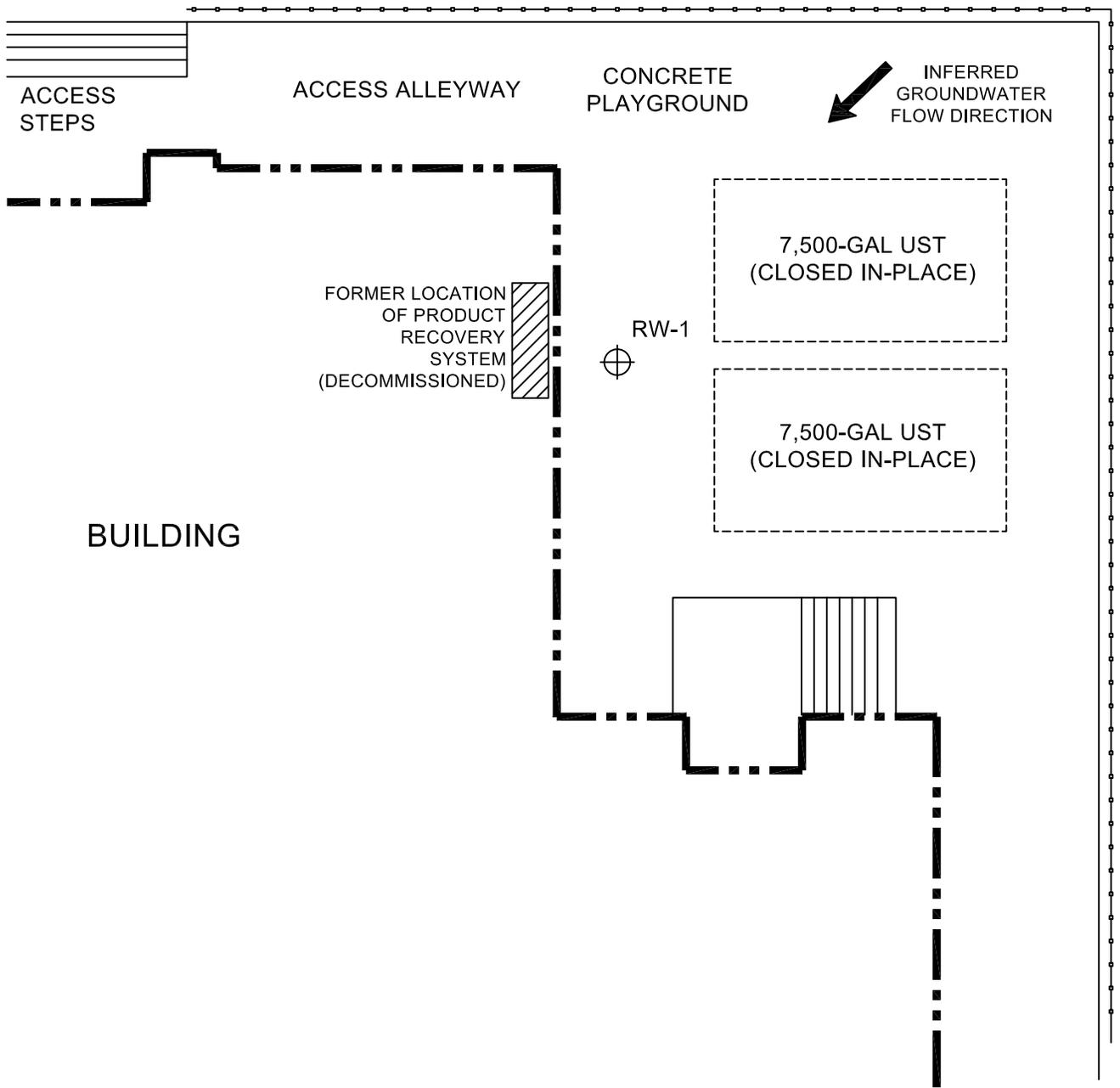
USGS TOPOGRAPHIC MAP, 7.5 MINUTE SERIES
MOUNT VERNON, NY, QUADRANGLE, 1966 PHOTOREVISED 1979 SCALE: 1:24,000

Intermediate School 113X
3710 Barnes Ave.
Bronx, N.Y. 10467

EAST 217TH STREET



CONCRETE SIDEWALK



ACCESS STEPS

ACCESS ALLEYWAY

CONCRETE PLAYGROUND

INFERRED GROUNDWATER FLOW DIRECTION

7,500-GAL UST (CLOSED IN-PLACE)

FORMER LOCATION OF PRODUCT RECOVERY SYSTEM (DECOMMISSIONED)

RW-1

7,500-GAL UST (CLOSED IN-PLACE)

BUILDING



STV Incorporated
225 PARK AVENUE SOUTH, N.Y., N.Y. 10003

INTERMEDIATE SCHOOL 113X
3710 BARNES AVENUE
BRONX, NY 10467

SCHOOL CONSTRUCTION AUTHORITY

FIGURE 2
SITE PLAN

DATE:
NOVEMBER 21, 2014

SCALE:
AS NOTED

SHEET NO:
1 OF 1

NON-HAZARDOUS WASTE MANIFEST

1. Generator ID Number

CESQ10

2. Page 1 of

3. Emergency Response Phone

845 279 0263

4. Waste Tracking Number

268931

5. Generator's Name and Mailing Address

Generator's Site Address (if different than mailing address)

PS 113
3710 Barres Ave Bronx, NY

Generator's Phone:

6. Transporter 1 Company Name

Enviro Waste Oil

U.S. EPA ID Number

NYD044825656

7. Transporter 2 Company Name

U.S. EPA ID Number

8. Designated Facility Name and Site Address

Enviro Waste Oil
579 Rt 6

U.S. EPA ID Number

Facility's Phone:

Mahopac, NY 10541

845 279 0263

NYD044825656

9. Waste Shipping Name and Description

10. Containers

11. Total Quantity

12. Unit Wt./Vol.

1. Petroleum Contaminated Water, Not Regulated,
Not RIDRA, None Above

No. Type

001 TT

15 G

13. Special Handling Instructions and Additional Information

14. GENERATOR'S/OFFEROR'S CERTIFICATION: I hereby declare that the contents of this consignment are fully and accurately described above by the proper shipping name, and are classified, packaged, marked and labeled/placarded, and are in all respects in proper condition for transport according to applicable international and national governmental regulations.

Generator's/Offoror's Printed/Typed Name

Signature

Month Day Year

2 27 15

15. International Shipments

Import to U.S.

Export from U.S.

Port of entry/exit:

Date leaving U.S.:

Transporter Signature (for exports only):

16. Transporter Acknowledgment of Receipt of Materials

Transporter 1 Printed/Typed Name

Transporter 2 Printed/Typed Name

Signature

Signature

Month Day Year

2 27 15

Month Day Year

17. Discrepancy

17a. Discrepancy Indication Space

Quantity

Type

Residue

Partial Rejection

Full Rejection

Manifest Reference Number:

U.S. EPA ID Number

Facility's Phone:

17c. Signature of Alternate Facility (or Generator)

Month Day Year

18. Designated Facility Owner or Operator: Certification of receipt of materials covered by the manifest except as noted in Item 17a

Printed/Typed Name

Signature

Month Day Year

2 27 15

NON-HAZARDOUS WASTE MANIFEST

1. Generator ID Number

2. Page 1 of

3. Emergency Response Phone

4. Waste Tracking Number

274459

5. Generator's Name and Mailing Address

Generator's Site Address (if different than mailing address)

15 113
3710 BARNES AVE
BARNES AVE BRONX NY.

Generator's Phone:

6. Transporter 1 Company Name

ENVIRO WASTE OIL

U.S. EPA ID Number

7. Transporter 2 Company Name

NY0044825636

U.S. EPA ID Number

8. Designated Facility Name and Site Address

ENVIRO WASTE OIL
279 RT 6
MATHUAC NY. 10541

U.S. EPA ID Number

Facility's Phone:

NY0044825636

9. Waste Shipping Name and Description

10. Containers

11. Total Quantity

12. Unit Wt./Vol

1. PETROLEUM CONTAMINATED WATER, NON PLRA,
NON HAZARDOUS, NON REGULATER.

No.

Type

14

G

001

TT

14

G

13. Special Handling Instructions and Additional Information

14. GENERATOR'S/OFFEROR'S CERTIFICATION: I hereby declare that the contents of this consignment are fully and accurately described above by the proper shipping name, and are classified, packaged, marked and labeled/placarded, and are in all respects in proper condition for transport according to applicable international and national governmental regulations.

Generator's/Offeror's Printed/Typed Name

Signature

Month Day Year

15. International Shipments

Import to U.S.

Export from U.S.

Port of entry/exit:

Transporter Signature (for exports only):

Date leaving U.S.:

TRANSPORTER INT'L

16. Transporter Acknowledgment of Receipt of Materials

Transporter 1 Printed/Typed Name

Signature

Month Day Year

Transporter 2 Printed/Typed Name

Signature

Month Day Year

17. Discrepancy

17a. Discrepancy Indication Space

Quantity

Type

Residue

Partial Rejection

Full Rejection

17b. Alternate Facility (or Generator)

Manifest Reference Number:

U.S. EPA ID Number

Facility's Phone:

17c. Signature of Alternate Facility (or Generator)

Month Day Year

18. Designated Facility Owner or Operator: Certification of receipt of materials covered by the manifest except as noted in Item 17c

Printed/Typed Name

Signature

Month Day Year

NON-HAZARDOUS WASTE MANIFEST		1. Generator ID Number	2. Page 1 of	3. Emergency Response Phone 845 279 0263	4. Waste Tracking Number 278694
5. Generator's Name and Mailing Address NYCSCA 30-30 Thomson Avenue Long Island City, NY 11101			Generator's Site Address (if different than mailing address) PS 113 3710 Burnes Ave Bronx, NY		
6. Transporter 1 Company Name Enviro Waste Oil		U.S. EPA ID Number NYD044825636			
7. Transporter 2 Company Name		U.S. EPA ID Number			
8. Designated Facility Name and Site Address Enviro Waste Oil 279 Rt 6 Mahopac, NY 10541			U.S. EPA ID Number NYD044825636		
Facility's Phone: 845-279-0263					
9. Waste Shipping Name and Description		10. Containers		11. Total Quantity	12. Unit Wt./Vol.
		No.	Type		
1. Petroleum Contaminated water non DOT non R.C.R.A		001	TT	26	G
2.					
3.					
4.					
13. Special Handling Instructions and Additional Information					
14. GENERATOR'S/OFFEROR'S CERTIFICATION: I hereby declare that the contents of this consignment are fully and accurately described above by the proper shipping name, and are classified, packaged, marked and labeled/placarded, and are in all respects in proper condition for transport according to applicable international and national governmental regulations.					
Generator's/Offor's Printed/Typed Name Richard V. Taylor		Signature Richard V. Taylor		Month	Day Year
				04	30 15
15. International Shipments		<input type="checkbox"/> Import to U.S. <input type="checkbox"/> Export from U.S.		Port of entry/exit: Date leaving U.S.:	
16. Transporter Acknowledgment of Receipt of Materials		Transporter 1 Printed/Typed Name Daniel Leger		Signature Daniel Leger	
		Transporter 2 Printed/Typed Name		Signature	
				Month	Day Year
				4	30 15
17. Discrepancy					
17a. Discrepancy Indication Space <input type="checkbox"/> Quantity <input type="checkbox"/> Type <input type="checkbox"/> Residue <input type="checkbox"/> Partial Rejection <input type="checkbox"/> Full Rejection					
17b. Alternate Facility (or Generator) Manifest Reference Number: U.S. EPA ID Number					
Facility's Phone:					
17c. Signature of Alternate Facility (or Generator)					
18. Designated Facility Owner or Operator: Certification of receipt of materials covered by the manifest except as noted in Item 17a					
Printed/Typed Name Ryan Conolly		Signature Ryan Conolly		Month	Day Year
				04	30 15

GENERATOR

TRANSPORTER INT'L

DESIGNATED FACILITY

NON-HAZARDOUS WASTE MANIFEST

1. Generator ID Number: CESQG

2. Page 1 of

3. Emergency Response Phone: 866-927-8384

4. Waste Tracking Number: 290883

5. Generator's Name and Mailing Address: PS 113, 3710 BARNES AVE, BRONX NY

Generator's Site Address (if different than mailing address)

Generator's Phone: (631) 606-8810

6. Transporter 1 Company Name: ENVIRO WASTE OIL RECOVERY, LLC

U.S. EPA ID Number: NYD044825635

7. Transporter 2 Company Name: ENVIRO WASTE OIL RECOVERY, LLC

U.S. EPA ID Number

8. Designated Facility Name and Site Address: ENVIRO WASTE OIL RECOVERY, LLC

U.S. EPA ID Number

279 RT 6 MAHOPAC, NY 10541

NYD044825635

Facility's Phone: 8452790263

8. Waste Shipping Name and Description

10. Containers

11. Total Quantity

12. Unit Wt/Vol.

1. PETROLEUM CONTAMINATED WATER, NON REGULATED, (NOT US D.O.T. HAZARDOUS MATERIAL), N/A, NONE, NONE

No. Type: 001 TT

41

G

13. Special Handling Instructions and Additional Information



14. GENERATOR'S/OFFEROR'S CERTIFICATION: I hereby declare that the contents of this consignment are fully and accurately described above by the proper shipping name, and are classified, packaged, marked and labeled/placarded, and are in all respects in proper condition for transport according to applicable international and national governmental regulations.

Generator's/Offerior's Printed/Typed Name: AS Agent For Nick Holdener

Signature

Signature: [Handwritten Signature]

Month Day Year: 07 | 16 | 15

15. International Shipments: Import to U.S.

Export from U.S.

Port of entry/exit:

Date leaving U.S.:

Transporter Signature (for exports only):

16. Transporter Acknowledgment of Receipt of Materials

Transporter 1 Printed/Typed Name: Daniel Leger

Signature

Signature: [Handwritten Signature]

Month Day Year: 7 | 16 | 15

Transporter 2 Printed/Typed Name

Signature

Month Day Year

17. Discrepancy

17a. Discrepancy indication Space

Quantity

Type

Residue

Partial Rejection

Full Rejection

17b. Alternate Facility (or Generator)

Manifest Reference Number:

U.S. EPA ID Number

Facility's Phone:

17c. Signature of Alternate Facility (or Generator)

Month Day Year

18. Designated Facility Owner or Operator: Certification of receipt of materials covered by this manifest except as noted in Item 17a

Printed/Typed Name: Lynn Connokey

Signature

Signature: [Handwritten Signature]

Month Day Year: 7 | 16 | 15

DESIGNATED FACILITY TO GENERATOR

STV-113x
1478

NON-HAZARDOUS WASTE MANIFEST	1. Generator ID Number CESQG	2. Page 1 of	3. Emergency Response Phone 866-927-8364	4. Waste Tracking Number 234436
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5. Generator's Name and Mailing Address
**PS 113
3710 BARNES AVE
BRONX NY**

Generator's Site Address (if different than mailing address)

Generator's Phone: **(531) 606-8810**

6. Transporter 1 Company Name
ENVIRO WASTE OIL RECOVERY, LLC

U.S. EPA ID Number
NYD044825635

7. Transporter 2 Company Name
ENVIRO WASTE OIL RECOVERY, LLC

U.S. EPA ID Number

8. Designated Facility Name and Site Address
**ENVIRO WASTE OIL RECOVERY, LLC
279 RT 6 MAHOPAC, NY 10541**

U.S. EPA ID Number
NYD044825635

Facility's Phone: **8452790263**

9. Waste Shipping Name and Description	10. Containers		11. Total Quantity	12. Unit Wt./Vol.
	No.	Type		
1. PETROLEUM CONTAMINATED WATER, NON REGULATED, (NOT US D.O.T. HAZARDOUS MATERIAL), N/A, NONE, NONE	001	TT	806	
2. USED OIL, NON REGULATED, (NOT US D.O.T. HAZARDOUS MATERIAL), N/A, NONE, NONE				
3. PETROLEUM CONTAMINATED SLUDGE, NON REGULATED, (NOT US D.O.T. HAZARDOUS MATERIAL), N/A, NONE, NONE				
4.				

13. Special Handling Instructions and Additional Information




14. GENERATOR'S/OFFEROR'S CERTIFICATION: I hereby declare that the contents of this consignment are fully and accurately described above by the proper shipping name, and are classified, packaged, marked and labeled/placarded, and are in all respects in proper condition for transport according to applicable international and national governmental regulations.

Generator's/Offereor's Printed/Typed Name: **Andrew Au** Signature: *[Signature]* Month: **8** Day: **10** Year: **15**

15. International Shipments Import to U.S. Export from U.S. Port of entry/exit: _____ Date leaving U.S.: _____

16. Transporter Acknowledgment of Receipt of Materials

Transporter 1 Printed/Typed Name: **Chris Painter** Signature: *[Signature]* Month: **8** Day: **10** Year: **15**

Transporter 2 Printed/Typed Name: _____ Signature: _____ Month: _____ Day: _____ Year: _____

17. Discrepancy

17a. Discrepancy Indication Space Quantity Type Residue Partial Rejection Full Rejection

17b. Alternate Facility (or Generator) Manifest Reference Number: _____ U.S. EPA ID Number _____

Facility's Phone: _____

17c. Signature of Alternate Facility (or Generator) Month: _____ Day: _____ Year: _____

18. Designated Facility Owner or Operator. Certification of receipt of materials covered by the manifest except as noted in form 17a

Printed/Typed Name: **Adrian Deems** Signature: *[Signature]* Month: **8** Day: **10** Year: **15**

GENERATOR
INT'L
TRANSPORTER
DESIGNATED FACILITY

PHOTO LOG

SITE: IS 113X

PROJECT #: 3017079-1016

PHOTOGRAPHER: Robert E Fields

PHOTO 1: RW-1 during February 27, 2015 MPR/monitoring event.



PHOTO 2: Adjusting of RW-1 suction elevation during March 30 event.



PHOTO LOG

SITE: IS 113X

PROJECT #: 3017079-1016

PHOTOGRAPHER: Robert E Fields

PHOTO 3: Close-up of coupling to seal around the suction hose on RW-1.



PHOTO 4: View of vacuum truck during MPR event.

