



ecology and environment engineering, p.c.

International Specialists in the Environment

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September 9, 2013

Mr. William Welling, Project Manager
New York State Department of Environmental Conservation
Division of Environmental Remediation
625 Broadway, 12th Floor
Albany, New York 12233 - 7013

Re: Mr. C's Dry Cleaners Site, Contract # D007617, Site # 9-15-157
August 2013 Operations, Maintenance, and Monitoring Report

Dear Mr. Welling:

Ecology and Environment Engineering, P.C. (EEEEPC) is pleased to provide the August 2013 Operations, Maintenance, and Monitoring (OM&M) Report for the Mr. C's Dry Cleaners Site, NYSDEC Site # 9-15-157, located in East Aurora, New York. Copies of bi-monthly inspection reports prepared by EEEEEPC's subcontractor, Iyer Environmental Group, PLLC (IEG), are provided in Attachment A. Selected pages from the individual analytical data packages prepared by Spectrum Analytical Inc. (SAI), Warwick, Rhode Island are provided as Attachments B. The full analytical reports along with QA/QC information will be retained by EEEEEPC.

In review of the on-site treatment system operations, monitoring and maintenance for August 2013, EEEEEPC offers the following comments and highlights:

Operational Summary

Mr. C's Site – Remedial Operations Information

- Checklists for system inspections from IEG are provided as Attachment A for 8/14/13, 8/26/13, and 9/5/13. The treatment system was operating full-time after new influent bag filters were installed and air stripper system cleaning was completed. Based on inspection reports prepared by IEG, the remedial treatment system for the period above had a 100.00% operational up-time (Table 1) and the treatment of contaminated groundwater during that period totaling of 188,701 gallons (Table 2) for August 2013.
- Compliance samples were taken on 8/27/13 (Attachment B) and analytical results received on September 5, 2013 from SAI. The results comply with the daily maximum effluent discharge criteria requirements in the site specific SPDES Equivalency Permit (Table 3). Non-compliance issues of Tetrachloroethene (PCE) from the previous month were resolved. The maximum contaminant concentration allowed for Tetrachloroethene is 10µg/L and the current effluent discharge is 1.5µg/L. Excerpts from the analytical data package are included in Attachment B.

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- The analytical results of the sample revealed the total volatile organic contaminant concentrations of the influent to be 117.6 µg/L or 117.6 ppb, and 2.12 µg/L or 2.12 ppb of treated effluent. The summary of influent and effluent contaminant concentrations for the August 2013 sampling is presented in Table 4.
- The Mr. C's treatment system based on the total monthly flows has effectively removed 0.18 lbs. of targeted contaminants from the groundwater below the site in the month of August 2013. The calculations and data for the month are presented in Table 5.
- Other System Work performed –
 - The Air Stripper was inspected on 8/16/13 and 8/19/13.
 - Bag filters were changed on 8/22/13.
 - Well clean-out on PW-4 and installation of aneroid bellows on PW-6 were completed on 9/9/13

Mr. C's Site – Property Information

- Contact information regarding the property owner and party leasing the Mr. C's building was provided to the NYSDEC. The information provided is as follows: Property owner (586 Main Street) – DelTora LLC – Owner - Mr. Paul Bendrowski – 231-313-1954 (Traverse City, MI) – Local Point of Contact – Bob Kowal - . Property Lease – Intrepid Automotive Partners – Dave Kern – 716-481-5703 (East Aurora, NY).

Agway Site Remedial Information

- NYSDEC is performing the scheduling of the removal of the shed and ancillary equipment in the next few months.

Subslab Depressurization Systems (SSDS) – First Presbyterian Church and 27 Whaley Ave. sites

- Site inspection of the church facility on February 20, 2013, revealed that the south SSDS unit was shut off. System was switched back on by field staff. EEEPC to review changing of the switch for this fan to provide uninterrupted operations.
- Property owners at 27 Whaley Ave. have not returned our calls for inspection of the SSDS unit. EEEPC will continue to contact to obtain access for inspection.

Bioaugmentation Direct Push Injection Work

- Procurement for obtaining a direct push subcontractor was performed in March 2013. The successful bidder was Nature's Way Environmental, Alden, NY.
- Part 1 of the bio-augmentation direct push injection work was performed by Nature's Way from May 20, through 31, 2013. Part 1 of the program was the injection of the Regensis HRC primer and 3-D Microemulsion. Oversight of the first for program performance and quality assurance of the scope of work was provided by EEEPC.
- The 1st progress monitoring sampling of the groundwater wells associated with the "pilot" bioaugmentation program was performed on July 1-2, 2013.
- Pumping Wells PW-5 and PW-7 still remain temporarily turned off due to close proximity to the injection locations of the "pilot" bio-augmentation program.
- Monthly monitoring and analyses to be performed for eight months to evaluate the effectiveness of the "pilot" installation on the groundwater from the local area monitoring wells. Interim status reports to be performed and issued by EEEPC.
- The second phase of the bio-injections (BDI Plus) was completed July 15-19, 2013. It is estimated to take a week to complete.
- The 2nd progress monitoring sampling of the groundwater wells associated with the "pilot" bioaugmentation program was performed on August 8-9, 2013.
- Status report on the performance of the "pilot" bio-augmentation program was issued to NYSDEC on August 29, 2013. Report evaluated the baseline sampling plus the two rounds of monthly monitoring.

Mr. C's and Agway Energy Usage Information

- A copy of the site utility costs from the Mr. C's remedial operations for January through December 2013 are provided as Attachment C.

Soil Vapor Intrusion Investigation Program

- Soil vapor intrusion investigation, surveys, and sampling were performed at three out four properties surrounding the Mr. C's site on March 6, 7, and 20, 2013. The three properties included the Mr. C's Indoor Air (586 Main Street), The Brownschidle building (578-580 Main Street), and the Doeing Building (572-576 Main Street). The Pitt property (19 Whaley Avenue) would not allow access.
- Analytical results have been received for all three locations and a final validated report was delivered to NYSDEC and NYSDOH on May 7, 2013.
- Letters issued from NYSDOH (May 28, 2013) to the property owners regarding the need to install mitigation systems on the property. Further discussions regarding the installation of the mitigation system will be performed with the NYSDEC PM.
- Field measurements of the basements at 578 Main Street and 572 Main Street for the installation of the SSDS units were performed by EEEPC engineering personnel in July and August. Drawings to be developed for the installation of SSDS units by the NYSDEC's proposed callout contractor.

Mr. William Welling, Project Manager
September 9, 2013
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Site Management Plan

- Issued the draft Site Management Plan (SMP) on December 28, 2012 for review and comment. The SMP was revised to be consistent with the new NYSDEC template format.

If you have questions regarding the August 2013 OM&M report summary, please do not hesitate to contact me at 716-684-8060.

Very Truly Yours,
Ecology and Environment Engineering, P. C.



Michael G. Steffan
Project Manager

cc: D. Szymanski, Region 9, NYSDEC - Buffalo w/ attachments
D. Iyer, IEG - w/attachments
CTF- EN-003229-0001-03TTO

Table 1
Mr. C's Dry Cleaners Site Remediation
Site #9-15-157
System Operational Time

Month	Reporting Hours	Operational Up-time
(Up-time from inception to 12/31/12)	87,871.50	96.63%
January 7, 2013 - February 4, 2013	576	85.71%
February 4, 2013 - March 4, 2013	594	88.39%
March 4, 2013 - April 3, 2013	720	100.00%
April 3, 2013 - May 6, 2013	792	100.00%
May 6, 2013 - June 3, 2013	672	100.00%
June 3, 2013 - July 1, 2013	672	100.00%
July 1, 2013 - August 14, 2013	648	61.36%
August 14, 2013 - September 5, 2013	528	100.00%
		#DIV/0!
		#DIV/0!
		#DIV/0!
		#DIV/0!
Total Hours from System Startup '2/02'	93,073.50	
Average Operational Up-time from startup =		96.23%
Average Operational Up-time for 2013 =		89.94%

NOTES:

1. Up-time based as percentage of total reporting hours.
2. Treatment system operated by the Tyree Organization Ltd. from 9/02 - 9/03.
3. Treatment system operated by O&M Enterprises Inc. from 10/03 - 7/07.
4. Treatment system operated by Iyer Environmental Group from 7/07 to present.

Table 2
Mr. C's Dry Cleaners Site Remediation
Site #9-15-157
Monthly Process Water Volumes

Month	Actual Period	Gallons (Treated Effluent)
Total - Inception to December 2012	9/5/02 - 12/4/12	118,436,077
January 2013 ³	1/7/13 - 2/4/13	261,527
February 2013 ³	2/4/13 - 3/4/13	242,509
March 2013 ³	3/4/13 - 4/3/13	321,888
April 2013 ³	4/3/13 - 5/6/13	398,999
May 2013	5/6/13 - 6/3/13	304,452
June 2013	6/3/13 - 7/1/13	238,715
July 2013	7/1/13 - 8/14/13	255,356
August 2013	8/14/13 - 9/5/13	188,701
September 2013		0
October 2013		0
November 2013		0
December 2013		0
Total Gallons Treated in 2013		2,212,147
Total Gallons Treated To Date:		120,648,224

NOTES:

1. System operated by Tyree Organization Ltd. From 9/02 - 9/03.
2. System operated by O&M Enterprises from 10/03 - 7/07.
3. System operated by IEG PLLC from 7/07 - present.

Table 3
Mr. C's Dry Cleaners Site Remediation
Site #9-15-157
Effluent Discharge Criteria & Analytical Compliance Results

Parameter/Analyte	Daily Maximum ¹	Units	September 3, 2013 - Effluent Analytical Values Compliance
Flow	N/A	gpd	8,577
Ph	6.0 - 9.0	standard units	8.00
1,1 Dichloroethene	10	µg/L	ND(<1.0)
1,1 Dichloroethane	10	µg/L	ND(<1.0)
cis-1,2-dichloroethene	10	µg/L	ND(<1.0)
Trichloroethene	10	µg/L	ND(<1.0)
Tetrachloroethene	10	µg/L	1.5
Vinyl Chloride	10	µg/L	ND(<1.0)
Benzene	5	µg/L	ND(<1.0)
Ethylbenzene	5	µg/L	ND(<1.0)
Methylene Chloride	10	µg/L	ND(<1.0)
1,1,1 Trichloroethane	10	µg/L	ND(<1.0)
Toluene	5	µg/L	ND(<1.0)
Methyl-t-Butyl Ether (MTBE)	NA	ug/L	ND(<1.0)
o-Xylene ²	5	µg/L	NA
m, p-Xylene ²	10	µg/L	NA
Total Xylenes	NA	ug/L	ND(<1.0)
Iron, total	600	µg/L	NA ⁹
Aluminum	4,000	µg/L	NA ⁹
Copper	48	µg/L	NA ⁹
Lead	11	µg/L	NA ⁹
Manganese	2,000	µg/L	NA ⁹
Silver	100	µg/L	NA ⁹
Vanadium	28	µg/L	NA ⁹
Zinc	230	µg/L	NA ⁹
Total Dissolved Solids	850	mg/L	NA ⁹
Total Suspended Solids	20	mg/L	NA ⁹
Hardness	N/A	mg/L	430
Cyanide, Free	10	µg/L	NA ⁹

NOTES:

1. "Daily Maximum" excerpted from Attachment E of Addendum 1 to the Construction Contract Documents dated October 2000.
2. Analytical report did not differentiate between o-Xylene and m, p-Xylene. Total Xylene value reported is given in each line.
3. Shaded cells indicate that analytical value exceeds the "Daily Maximum."
4. "ND" indicates that the compound was not detected and lists the practical quantitation limit in parentheses.
5. "NA" indicates that analyses were not performed and data is unavailable.
6. Average flows based on effluent readings August 14, 2013 through September 5, 2013. Total gallons: 188,701 divided by 22 operating days.
7. "I" indicates an estimated value below the detection limit.
8. "B" indicates analyte found in the associated blank.
9. Removed from the required analysis list by NYSDEC Region 9 in February 2005.

40 Indicates non-compliance with the NYSDEC effluent discharge requirements
NR Indicates Not Reported by Lab

Table 4
Mr. C's Dry Cleaners Site Remediation
NYSDEC Site #9-15-157
August 2013 VOC Analytical Summary

Compound	Based on the 8/27/13 Effluent Sampling Results				
	Influent Concentration*		Effluent Concentration*		Cleanup Efficiency**
	(ug/L)		(ug/L)		(%)
Acetone	ND (<5.0)	U	ND (<5.0)	U	NA
Benzene	ND (<1.0)	U	ND (<1.0)	U	NA
2-Butanone	ND (<5.0)	U	ND (<5.0)	U	NA
cis-1, 2-Dichloroethene	18		0.62	J	96.56%
Chloroform	ND (<1.0)	U	ND (<1.0)	U	NA
Methylene chloride	ND (<1.0)	U	ND (<1.0)	U	NA
Methyl tert-butyl ether (MTBE)	2.4		ND (<1.0)	U	100.00%
Tetrachloroethene (PCE)	95.0		1.5		98.42%
Toluene	ND (<1.0)	U	ND (<1.0)	U	NA
Trichloroethene (TCE)	2.2		ND (<1.0)	U	100.00%
Carbon Disulfide	ND (<1.0)	U	ND (<1.0)	U	NA
1,1,2 Trichloro-1,2,2-trifluoroethane	ND (<1.0)	U	ND (<1.0)	U	NA
Cyclohexane	ND (<1.0)	U	ND (<1.0)	U	NA
trans-1,2-dichloroethene	ND (<1.0)	U	ND (<1.0)	U	NA
Chlorobenzene	ND (<1.0)	U	ND (<1.0)	U	NA
Methylcyclohexane	ND (<1.0)	U	ND (<1.0)	U	NA
Methyl acetate	ND (<1.0)	U	ND (<1.0)	U	NA
Total Xylenes	ND (<1.0)	U	ND (<1.0)	U	NA
<ul style="list-style-type: none"> The 1st progress monitoring sampling of the groundwater wells associated with the "pilot" bioaugmentation program was performed on July 1-2, 2013. 					
		117.6			2.12
					98.20%

Notes:

1. "NA" = Not applicable
2. "U" = Compound analyzed, but was not detected. Detection limit in parentheses.
3. "DJ" or "J" indicates an estimated value below the practical quantitation limit but above the method detection limit.
4. Non-detect values are assumed to be equal to zero for calculation of monthly average concentrations.
5. "D" indicates the compound concentration was obtained from a secondary dilution analysis..

* (<50) - Detection Limit

** Contaminants of Concern only

Table 5
Mr. C's Dry Cleaners Site Remediation
Site #9-15-157
Monthly VOCs Removed From Groundwater

Month	Actual Period	Influent VOCs (µg/L)	Effluent VOCs (µg/L)	VOCs Removed (lbs.)
Total pounds of VOCs removed from inception to December 2012 =				1556.45
January 2013	01/7/13 - 2/4/13	1094.9	0.91	2.39
February 2013	2/4/13 - 3/4/13	1112.2	12.44	2.23
March 2013	3/4/13 - 4/3/13	1306.0	23.65	3.44
April 2013	4/3/13 - 5/6/13	1744.0	5.80	5.79
May 2013	5/6/13 - 6/3/13	1097.0	10.00	2.76
June 2013	6/3/13 - 7/1/13	103.1	6.87	0.19
July 2013	7/1/13 - 8/14/13	144.6	1.50	0.30
August 2013	8/14/13 - 9/5/13	117.6	2.12	0.18
September 2013				0.00
October 2013				0.00
November 2013				0.00
December 2013				0.00
Total pounds of VOCs removed from inception =				1,573.74
Total pounds of VOCs removed in 2013 =				17.28

HISTORICAL NOTES:

1. Calculations are based on monthly water samples and assumes samples are representative of the entire reporting period.
2. Calculations assume that non-detect values = 0 µg/L.
3. Total VOCs summations include estimated "J" values.
4. Calculations are based on effluent totalizer readings.
5. "Influent VOCs" and "Effluent VOCs" values given above is the summation of values for individual compounds given in monthly analytical reports.
6. Treatment system operated by Tyree Organization, Ltd. from 9/02 to 9/03.
7. Treatment system operated by O&M Enterprises from 10/03 to 7/07.
8. Treatment system operated by IEG from 7/07 to present.

CONVERSIONS:

1 pound = 453.5924 grams
1 gallon = 3.785 liters

Based on the Analytical Results from Each Month:

Pounds of VOCs removed calculated by the following formula:

$$(VOCs_{Influent} - VOCs_{Effluent})(\mu g/L) \cdot (1g/10^6 \mu g) \cdot (1 lb/453.5924 g) \cdot (Monthly\ process\ water)(gal) \cdot (3.785 L/gallon)$$

Attachment A
IEG Weekly Inspection Reports
August 2013

Including:

8/14/13

8/26/13

9/5/13

MR. C's DRY CLEANERS SITE
NYSDEC Site #9-15-157
OM&M: SITE INSPECTION FORM

DATE: 14-Aug-13 ACTIVITIES: Site Inspection

INSPECTION PERSONNEL: R. Allen OTHER PERSONNEL: _____

WEATHER CONDITIONS: Partly cloudy, warm OUTSIDE TEMPERATURE (° F): 64

ARE WELL PUMPS OPERATING IN AUTO: YES: _____ NO: If "NO", provide explanation below

PW-4 and PW-6 are OFF due to maintenance problems.

PW-5 and PW-7 are OFF due to injection operation.

PROVIDE WATER LEVEL READINGS ON CONTROL PANEL

RW-1	ON: _____	OFF: <input checked="" type="checkbox"/>	<u>8</u> ft	PW-5	ON: <input checked="" type="checkbox"/>	OFF: _____	<u>12</u> ft
PW-2	ON: _____	OFF: <input checked="" type="checkbox"/>	<u>7</u> ft	PW-6	ON: _____	OFF: <input checked="" type="checkbox"/>	<u>65507</u> ft
PW-3	ON: _____	OFF: <input checked="" type="checkbox"/>	<u>7</u> ft	PW-7	ON: <input checked="" type="checkbox"/>	OFF: _____	<u>13</u> ft
PW-4	ON: <input checked="" type="checkbox"/>	OFF: _____	<u>13</u> ft	PW-8	ON: <input checked="" type="checkbox"/>	OFF: _____	<u>6</u> ft

EQUALIZATION TANK: 3 ft Last Alarm D/T/Condition: 8/13/13 Air Stripper Low Level

NOTES: _____

INFLUENT FLOW RATE: 5 gpm INFLUENT TOTALIZER READING 9,556,562.0 gallons

SEQUESTERING AGENT DRUM LEVEL: 10 inches (x 1.7=) AMOUNT OF AGENT REMAINING: 6 gallons

SEQUESTERING AGENT FEED RATE: ----- ml/min METERING PUMP PRESSURE: ----- psi

		Top	Bottom		Top	Bottom
BAG FILTER PRESSURES:	LEFT:	<u>0</u>	<u>0</u> psi	RIGHT:	<u>6</u>	<u>0</u> psi

INFLUENT FEED PUMP IN USE: #1 #2 _____ INFLUENT PUMP PRESSURE: 13 psi

AIR STRIPPER BLOWER IN USE: #1 #2 _____ AIR STRIPPER PRESSURE: 13.0 in. H₂O

AIR STRIPPER DIFFERENTIAL PRESSURE: 0.45 in. H₂O DISCHARGE PRESSURE: 7.0 in. H₂O

EFFLUENT PUMP IN USE: #1 _____ #2 EFFLUENT FEED PUMP PRESSURE: 2.5 psi

EFFLUENT FLOW RATE: 120 gpm EFFLUENT TOTALIZER READING: 72,038,753 548470 gallons

ARE BUILDING HEATERS IN USE? YES: _____ NO: INSIDE TEMPERATURE (° F): 76

IS SUMP PUMP IN USE: YES: NO: _____ ARE ANY LEAKS PRESENT? YES: _____ NO:

WATER LEVEL IN SUMP: 6.5 in. TREATMENT BUILDING CLEAN & ORGANIZED? YES: NO: _____

MR. C's DRY CLEANERS SITE
NYSDEC Site #90150157
SITE INSPECTION FORM

14-Aug-13

SAMPLES COLLECTED? YES: NO:

	Sample ID	Time of Sampling	pH	Turbidity	Temp.	Sp. Cond.
AIR STRIPPER INFLUENT:	INF	3:00 PM	7.54	9.10	18.5	1660
AIR STRIPPER EFFLUENT:	EFF	3:00 PM	8.24	8.80	19.2	2002

IS THERE EVIDENCE OF TAMPERING/VANDALISM OF WELLS? YES: NO:

WERE MANHOLES INSPECTED? YES: NO:

WERE ELECTRICAL BOXES INSPECTED? YES: NO:

IS WATER PRESENT IN ANY MANHOLES OR ELECTRICAL BOXES? YES: NO:

If yes, provide manhole/electric box ID and description of any corrective measures below:

PW-4 has collapsed inner ring.

INCLUDE REMARKS & DESCRIBE ANY OTHER SYSTEM MAINTENANCE PERFORMED ON MR. C's SITE

Remarks:

Other Actions: PW-4 - replaced inner ring

AGWAY

SYSTEM VACUUM: _____ in. H ₂ O			AIR PRESSURE: _____ psi		
SP-1: _____	scfm _____	psi _____	SP-5 _____	scfm _____	psi _____
SP-2: _____	scfm _____	psi _____	SP-6 _____	scfm _____	psi _____
SP-3: _____	scfm _____	psi _____	SP-7 _____	scfm _____	psi _____
SP-4: _____	scfm _____	psi _____	SP-8 _____	scfm _____	psi _____

INCLUDE REMARKS & DESCRIBE ANY OTHER SYSTEM MAINTENANCE PERFORMED ON AGWAY SITE

Remarks: System is OFF until further instructions.

Other Actions:

MR. C's DRY CLEANERS SITE
NYSDEC Site #9-15-157
OM&M: SITE INSPECTION FORM

DATE: 26-Aug-13 ACTIVITIES: Site Inspection

INSPECTION PERSONNEL: R. Allen OTHER PERSONNEL: _____

WEATHER CONDITIONS: Clouds / rain, warm OUTSIDE TEMPERATURE (°F): 70

ARE WELL PUMPS OPERATING IN AUTO: YES: _____ NO: If "NO", provide explanation below

PW-4 and PW-6 are OFF due to maintenance problems.

PW-5 and PW-7 are OFF due to injection operation.

PROVIDE WATER LEVEL READINGS ON CONTROL PANEL

RW-1	ON: _____	OFF: <input checked="" type="checkbox"/>	<u>8</u> ft	PW-5	ON: <input checked="" type="checkbox"/>	OFF: _____	<u>11</u> ft
PW-2	ON: _____	OFF: <input checked="" type="checkbox"/>	<u>6</u> ft	PW-6	ON: _____	OFF: <input checked="" type="checkbox"/>	<u>65507</u> ft
PW-3	ON: _____	OFF: <input checked="" type="checkbox"/>	<u>3</u> ft	PW-7	ON: <input checked="" type="checkbox"/>	OFF: _____	<u>13</u> ft
PW-4	ON: <input checked="" type="checkbox"/>	OFF: _____	<u>13</u> ft	PW-8	ON: _____	OFF: <input checked="" type="checkbox"/>	<u>7</u> ft

EQUALIZATION TANK: 4 ft Last Alarm D/T/Condition: 8/22/13 Air Stripper Low Level

NOTES: _____

INFLUENT FLOW RATE: 47 gpm INFLUENT TOTALIZER READING 9,724,298.0 gallons

SEQUESTERING AGENT DRUM LEVEL: 10 inches (x 1.7=) AMOUNT OF AGENT REMAINING: 6 gallons

SEQUESTERING AGENT FEED RATE: ----- ml/min METERING PUMP PRESSURE: ----- psi

		Top	Bottom		Top	Bottom
BAG FILTER PRESSURES:	LEFT:	<u>0</u>	<u>0</u> psi	RIGHT:	<u>8 - 6</u>	<u>0</u> psi

INFLUENT FEED PUMP IN USE: #1 #2 _____ INFLUENT PUMP PRESSURE: 13 psi

AIR STRIPPER BLOWER IN USE: #1 #2 _____ AIR STRIPPER PRESSURE: 9.0 in. H₂O

AIR STRIPPER DIFFERENTIAL PRESSURE: 0.44 in. H₂O DISCHARGE PRESSURE: 0.4 in. H₂O

EFFLUENT PUMP IN USE: #1 _____ #2 EFFLUENT FEED PUMP PRESSURE: 2.0 psi

EFFLUENT FLOW RATE: 120 gpm EFFLUENT TOTALIZER READING: 72,143,331 855240 gallons

ARE BUILDING HEATERS IN USE? YES: _____ NO: INSIDE TEMPERATURE (°F): 80

IS SUMP PUMP IN USE: YES: NO: _____ ARE ANY LEAKS PRESENT? YES: _____ NO:

WATER LEVEL IN SUMP: 7.0 in. TREATMENT BUILDING CLEAN & ORGANIZED? YES: NO: _____

MR. C's DRY CLEANERS SITE
NYSDEC Site #90150157
SITE INSPECTION FORM

26-Aug-13

SAMPLES COLLECTED? YES: NO:

	Sample ID	Time of Sampling	pH	Turbidity	Temp.	Sp. Cond.
AIR STRIPPER INFLUENT:	INF	12:30 PM	7.45	6.50	19.5	1820
AIR STRIPPER EFFLUENT:	EFF	12:30 PM	8.26	6.40	21.0	1841

IS THERE EVIDENCE OF TAMPERING/VANDALISM OF WELLS? YES: NO:

WERE MANHOLES INSPECTED? YES: NO:

WERE ELECTRICAL BOXES INSPECTED? YES: NO:

IS WATER PRESENT IN ANY MANHOLES OR ELECTRICAL BOXES? YES: NO:

If yes, provide manhole/electric box ID and description of any corrective measures below:

INCLUDE REMARKS & DESCRIBE ANY OTHER SYSTEM MAINTENANCE PERFORMED ON MR. C's SITE

Remarks:

Other Actions:

AGWAY

SYSTEM VACUUM: _____ in. H ₂ O			AIR PRESSURE: _____ psi		
SP-1: _____	scfm _____	psi _____	SP-5 _____	scfm _____	psi _____
SP-2: _____	scfm _____	psi _____	SP-6 _____	scfm _____	psi _____
SP-3: _____	scfm _____	psi _____	SP-7 _____	scfm _____	psi _____
SP-4: _____	scfm _____	psi _____	SP-8 _____	scfm _____	psi _____

INCLUDE REMARKS & DESCRIBE ANY OTHER SYSTEM MAINTENANCE PERFORMED ON AGWAY SITE

Remarks: System is OFF until further instructions.

Other Actions:

MR. C's DRY CLEANERS SITE
NYSDEC Site #9-15-157
OM&M: SITE INSPECTION FORM

DATE: 5-Sep-13 ACTIVITIES: Site Inspection

INSPECTION PERSONNEL: R. Allen OTHER PERSONNEL: _____

WEATHER CONDITIONS: Sunny, warm OUTSIDE TEMPERATURE (°F): 63

ARE WELL PUMPS OPERATING IN AUTO: YES: _____ NO: If "NO", provide explanation below

PW-4 and PW-6 are OFF due to maintenance problems.

PW-5 and PW-7 are OFF due to injection operation.

PROVIDE WATER LEVEL READINGS ON CONTROL PANEL

RW-1	ON: _____	OFF: <input checked="" type="checkbox"/>	<u>6</u> ft	PW-5	ON: <input checked="" type="checkbox"/>	OFF: _____	<u>11</u> ft
PW-2	ON: _____	OFF: <input checked="" type="checkbox"/>	<u>5</u> ft	PW-6	ON: _____	OFF: <input checked="" type="checkbox"/>	<u>65507</u> ft
PW-3	ON: _____	OFF: <input checked="" type="checkbox"/>	<u>7</u> ft	PW-7	ON: <input checked="" type="checkbox"/>	OFF: _____	<u>13</u> ft
PW-4	ON: <input checked="" type="checkbox"/>	OFF: _____	<u>13</u> ft	PW-8	ON: _____	OFF: <input checked="" type="checkbox"/>	<u>4</u> ft

EQUALIZATION TANK: 3 ft Last Alarm D/T/Condition: 8/22/13 Air Stripper Low Level

NOTES: _____

INFLUENT FLOW RATE: 0 gpm INFLUENT TOTALIZER READING 9,857,001.0 gallons

SEQUESTERING AGENT DRUM LEVEL: _____ inches (x 1.7=) AMOUNT OF AGENT REMAINING: _____ gallons

SEQUESTERING AGENT FEED RATE: _____ ml/min METERING PUMP PRESSURE: _____ psi

		Top	Bottom		Top	Bottom
BAG FILTER PRESSURES:	LEFT:	<u>15</u>	<u>0</u> psi	RIGHT:	<u>36</u>	<u>0</u> psi

INFLUENT FEED PUMP IN USE: #1 #2 _____ INFLUENT PUMP PRESSURE: 13 psi

AIR STRIPPER BLOWER IN USE: #1 #2 _____ AIR STRIPPER PRESSURE: 9.0 in. H₂O

AIR STRIPPER DIFFERENTIAL PRESSURE: 0.46 in. H₂O DISCHARGE PRESSURE: 0.5 in. H₂O

EFFLUENT PUMP IN USE: #1 _____ #2 EFFLUENT FEED PUMP PRESSURE: 2.0 psi

EFFLUENT FLOW RATE: 110 gpm EFFLUENT TOTALIZER READING: 72,227,454 741130 gallons

ARE BUILDING HEATERS IN USE? YES: _____ NO: INSIDE TEMPERATURE (°F): 71

IS SUMP PUMP IN USE: YES: NO: _____ ARE ANY LEAKS PRESENT? YES: _____ NO:

WATER LEVEL IN SUMP: 5.5 in. TREATMENT BUILDING CLEAN & ORGANIZED? YES: NO: _____

MR. C's DRY CLEANERS SITE
NYSDEC Site #90150157
SITE INSPECTION FORM

5-Sep-13

SAMPLES COLLECTED? YES: _____ NO: ✓

	Sample ID	Time of Sampling	pH	Turbidity	Temp.	Sp. Cond.
AIR STRIPPER INFLUENT:	_____	_____	_____	_____	_____	_____
AIR STRIPPER EFFLUENT:	_____	_____	_____	_____	_____	_____

IS THERE EVIDENCE OF TAMPERING/VANDALISM OF WELLS? YES: _____ NO: ✓
 WERE MANHOLES INSPECTED? YES: ✓ NO: _____
 WERE ELECTRICAL BOXES INSPECTED? YES: ✓ NO: _____
 IS WATER PRESENT IN ANY MANHOLES OR ELECTRICAL BOXES? YES: _____ NO: ✓

If yes, provide manhole/electric box ID and description of any corrective measures below:

INCLUDE REMARKS & DESCRIBE ANY OTHER SYSTEM MAINTENANCE PERFORMED ON MR. C's SITE

Remarks:

Other Actions: Changed bag filters.

AGWAY

SYSTEM VACUUM: _____ in. H ₂ O			AIR PRESSURE: _____ psi		
SP-1: _____	scfm _____	psi _____	SP-5 _____	scfm _____	psi _____
SP-2: _____	scfm _____	psi _____	SP-6 _____	scfm _____	psi _____
SP-3: _____	scfm _____	psi _____	SP-7 _____	scfm _____	psi _____
SP-4: _____	scfm _____	psi _____	SP-8 _____	scfm _____	psi _____

INCLUDE REMARKS & DESCRIBE ANY OTHER SYSTEM MAINTENANCE PERFORMED ON AGWAY SITE

Remarks: System is OFF until further instructions.

Other Actions:

Mr. C's CLEANERS OM&M

SUMMARY OF FIELD ACTIVITIES BY IEG - 8/2013

DATE	ACTIVITY
1-Aug	Bag filters - install new seals. Inventory Air Stripper latches. Patch Air Stripper. End of month summaries.
2-Aug	Replace corroded Air Stripper exhaust. Clean equipment and Treatment Room. Start up Air Stripper, observe leaks and drain out.
5-Aug	Patch Air Stripper. OM&M office work.
6-Aug	Patch Air Stripper.
7-Aug	Take delivery of stainless steel bag filters. Run Blower motor #1 to dry inside of Air Stripper.
8-Aug	Patch Air Stripper. Replace inner ring on PW-4.
9-Aug	Air Stripper - patch and repair latch keepers.
12-Aug	Pick-up traffic cones at PW-4. Air Stripper - repair latch keepers.
13-Aug	PW-4 - repair broken wires and demobilize repair equipment. Start system and inspect for leaks. Stop system and seal around gaskets.
14-Aug	Start system. OM&M Weekly Inspection and sampling.
16-Aug	Inspect Air Stripper.
19-Aug	OM&M Weekly Inspection. Inspect Air Stripper for leaks.
22-Aug	Change bag filters. UM office work.
26-Aug	OM&M Weekly Inspection.
27-Aug	Sampling
28-Aug	Piezometer Readings and office work.

Mr. C's CLEANERS OM&M
STATUS OF FIELD ACTIVITIES BY IEG - 8/2013

ACTIVITY	DESCRIPTION	COMPLETION DATE/STATUS
Temperature Alarm dials in very cold weather	Instal electric heater from Agway Shed to sump box corner to warm Main Control Panel	Jan-13
PW-8 cycles erratically	Transducer appears defective. Inspect/clean transducer and aneroid bellows.	Apr-13
PW-2 not pumping	Inspect and clean pump and transducer. Replace defective well pump.	Apr-13
PW-4 Well Repair and Level	Asphalt around PW-4 well has sunk, due to collapse of corroded inner ring. Replace inner ring and bring parking lot up to level with asphalt patch.	Aug-13
PW-4 UE Level	Asphalt around Underground Enclosure has sunk, leaving it vulnerable to damage. Bring parking lot up to level with asphalt patch.	in progress
Rebuild JAC Pump as needed	Jesco America Corp recommends rebuilding the Redux pump when needed. Purchased rebuild kit.	in progress
Brace Effluent Pipe	David Szymanski (NYSDEC) inspected Treatment Room and said that the effluent pipe should be braced in (3) places to the north wall.	in progress
Inspect and clean Manholes	Inspect manholes near operating pumps. Pump out water in manholes and clean out remaining sediment and other material.	in progress
Trim Broken Piezometers	Many of the piezometers are broken. Measuring water levels is not precise when a pipe is broken. Identify and trim all broken piezometers.	in progress
Cool Treatment Room	Temperature in Treatment Room is well above 90 degrees during the summer months. Need to increase outside air inflow to the room.	in progress
Replace Air Stripper Exhaust	Present Air Stripper exhaust is very heavy and leaks moisture. Replace with lighter system.	in progress
Demobilize Agway Shed	Remove all equipment from shed and deliver to owner/recycle/dispose as needed; dismantle electrical installations; disassemble/remove shed structure/base.	on hold
PW-7 pitless adapter	Pitless adapter does not seal well. Repair or replacer pitless adapter	in progress
PW-8 pitless adapter	Pitless adapter feels broken/does not seal well. Repair/replace pitless adapter	in progress
Blower #2 makes loud noise	Fan seems to have slipped off of the motor shaft. Disassemble, inspect and repair.	in progress
PW-6 pumping into itself	Water enters well when well pump is running. Suspect faulty check valve. Test and repair as needed.	in progress
Dispose Open Top Sludge Drum	Plastic 55 gal drum with open top is almost full of sludge. Dispose of drum to free up space in the cramped Treatment Room.	in progress
Dispose used Bag Filters	There are (2) Metal 55 gal drums filled with used bag filters. Dispose of both drums and get new drum to store used bag filters.	in progress
Filter Housings are corroded	Flanges that seal filter baskets inside Rosedale Filter Housings are corroded. Sediment flows around filters instead of being trapped. Replace seals in existing housings (short term). Replace housings (long term).	in progress
Teardown Air Stripper and clean	Sediment bypass from corroded filter housings has plugged lower tray of Air Stripper. Tear down and clean.	Jul-13
Move Effluent Pipe	Effluent pipe blocks the access ports of Tray #2. Air Stripper cleaning through these access ports is compromised. Lower effluent pipe 8" to clear the ports.	Jul-13
Replace Air Stripper Latches	Around (6) latches on the Air Stripper trays are loose or broken. Reattach keepers with JB Weld. Replace broken latches and springs with new parts.	in progress
Repair new Air Stripper holes	After last teardown clean of Air Stripper, more corroded areas started to leak upon reassembly. Repatch old leaking patches as well as new corroded areas.	Aug-13
Repair Air Stripper exhaust pipe	Air Stripper exhaust pipe corroded through inside at the elbow near the ceiling and outside through the vertical pipe. Replace all corroded parts and seal. Add plastic tubes on support wires to prevent wear of flexible pipe.	Aug-13

Mr. C's CLEANERS OM&M
SUMMARY OF WATER PUMP STATUS - 2013

as of Aug 2013

ID	NEEDS CLEANING & INSPECTION	NEEDS NEW PUMP	NEEDS NEW INNER RING	NEEDS P.A. OR PIPE	NEEDS WELL CLEAN-OUT	PITLESS ADAPTER	NEEDS HORIZONTAL LINE PURGE	NEEDS TRANSDUCER INSPECTION	NEEDS NEW TRANSDUCER	NEEDS ANEROID BELLOWS	NEEDS U.E. CLEANED	NEEDS U.E. REPAIR
RW-1	DONE 1/12	NO	PZ-1B		YES			NO	NO	NO	NO	YES - bolts
PW-2	NO	NO	NO		YES			NO		NO	NO	YES - bolts
PW-3	NO	NO	NO	REPAIRED 8/09	DONE 8/09			NO		NO	NO	NO
PW-4	YES	NO	Replaced 9/13		DONE 9/09			NO		NO	NO	YES - Asphalt patch
PW-5	DONE 1/12	NO	NO		YES			NO	DONE 1/12	DONE 1/12	NO	NO
PW-6	YES	YES	NO	Replaced pipe 8/09	DONE 8/09		NO	NO	NO	DONE 9/09	NO	DONE
PW-7	NO	NO	NO	Replaced pipe 8/09	YES	YES	NO	NO	NO	DONE	NO	NO
PW-8	NO	DONE 8/11	NO	Replaced pipe 8/09	NO	YES	YES	NO	NO	YES	NO	NO

Mr. C's CLEANERS OM&M
SUMMARY OF WATER PUMP MAINTENANCE BY IEG - 2013

ID	CLEAN & INSPECT PUMP	REPLACED PUMP	REPAIR PUMP	PITLESS ADAPTER	INNER RING	HORIZONTAL PIPE	CLEAN & INSPECT TRANSDUCER	REPLACE TRANSDUCER	REPAIR TRANSDUCER	PUMP OUT WELL	CLEAN OUT & INSPECT ELECTRICAL BOX
RW - 1	Jan 08, May 10, Jan 12	Feb 08, Jan 12	May 10, Nov 08				May 10, Jan 12				
PW - 2	Jun 08, Aug 09, May 10, Apr 13	Jul 08, Apr 13					Nov 11, May 10, Apr 13	Sep 09, Dec 11		Aug-09	Nov-11
PW - 3	Jun 08, Aug 09, May 10	Jul 08, Dec 11		Repair adapter			Aug 09, Nov 11	Dec 11		Aug-09	Nov-11
PW - 4	Dec 07, May 08, Sep 09, May 10, Jan 12	Dec 07, Jan 12			Aug 13		May 10, Nov 11	Dec 11, Mar 08, Sep 08	Sep-08	Jul 09, Sep 09	Sep 09, Nov 11
PW - 5	Jan 12, May 08	Jul 08, Jan 12					Mar-11	Jan 12, Sep 08	Sep-09		Jan-12
PW - 6	Jun 08, Jul 09, Jul 12, Nov 12	Jun 08, Jul 09, Aug 12, Nov 12				Jul 12, Nov 12	Aug 09, Jul 12, Dec 12, Apr 13	Sep-09	Jun-08	Aug-09	Aug 09, Sep 09
PW - 7	Jun 08, Jul 09, May 10, Oct 10, Aug 11, Mar 12, Jul 12, Nov 12	Nov 07, Jul 09, Oct 10, Nov 12				Jul 12, Nov 12	Oct 10, Aug 11, Mar 12, Jul 12, Dec 12		Jun-08	Aug 09, May 10, Aug 11	
PW - 8	Jun 08, Aug 09, May 10, Aug 11, Jul 12, Dec 12	Jul 08, Sep 09, Aug 11, Dec 12				Pipe 8/09, Jul 12	May 10, Aug 11, Jul 12, Dec 12, Apr 13			Aug 09, May 10, Aug 11	Apr-13

as of Aug 2013

**ELECTRICAL
BOX REPAIR**

	Sep-09		Sep-09		Jul 09, Sep 09	
						Apr-13

MR. C's DRY CLEANERS SITE
 NYSDEC Site #9-15-157
OM&M: PIEZOMETER WATER LEVEL LOG

Date: 28-Aug-13

Measurements taken by: R. Allen

RW-1	<u>18.60</u> ft	Comments:	
PZ-1A	<u>11.53</u> ft	Comments:	
PZ-1B	<u>11.35</u> ft	Comments:	
PZ-1C	<u>12.52</u> ft	Comments:	
PZ-1D	<u>12.62</u> ft	Comments:	
PW-2	<u>13.70</u> ft	Comments:	
PZ-2A	<u>11.13</u> ft	Comments:	
PZ-2B	<u>11.48</u> ft	Comments:	
PZ-2C	<u>10.92</u> ft	Comments:	
MW-7	<u>11.51</u> ft	Comments:	Substitute for 2D
PW-3	<u>20.20</u> ft	Comments:	
PZ-3A	<u>11.65</u> ft	Comments:	
PZ-3B	<u>11.72</u> ft	Comments:	Has bailer
PZ-3C	<u>12.21</u> ft	Comments:	
PZ-3D	<u>11.70</u> ft	Comments:	
PW-4	<u>10.90</u> ft	Comments:	
PZ-4A	<u>11.19</u> ft	Comments:	
PZ-4B	<u>10.94</u> ft	Comments:	sealed over
PZ-4C	<u>-----</u> ft	Comments:	
PZ-4D	<u>10.57</u> ft	Comments:	

PW-5	<u>10.60</u> ft	Comments:	
PZ-5A	<u>10.78</u> ft	Comments:	
PZ-5B	<u>10.96</u> ft	Comments:	Has bailer
PZ-5C	<u>10.55</u> ft	Comments:	
PZ-5D	<u>11.36</u> ft	Comments:	
PW-6	<u>11.40</u> ft	Comments:	
PZ-6A	<u>11.77</u> ft	Comments:	Has bailer
PZ-6B	<u>11.63</u> ft	Comments:	
PZ-6C	<u>11.82</u> ft	Comments:	
PZ-6D	<u>11.59</u> ft	Comments:	Shown as RW-2 on map
PW-7	<u>11.30</u> ft	Comments:	injection fluid
MPI-6S	<u>-----</u> ft	Comments:	injection fluid
PZ-7B	<u>11.47</u> ft	Comments:	
OW-B	<u>11.40</u> ft	Comments:	
PZ-7D	<u>-----</u> ft	Comments:	injection fluid
PW-8	<u>20.30</u> ft	Comments:	
PZ-8A	<u>8.46</u> ft	Comments:	
PZ-8B	<u>8.37</u> ft	Comments:	
PZ-8C	<u>7.99</u> ft	Comments:	Has bailer
PZ-8D	<u>8.19</u> ft	Comments:	

PUMPS IN OPERATION DURING MEASUREMENTS

RW-1 pump on?	<u> </u> Yes	<u> √ </u> No	PW-5 pump on?	<u> </u> Yes	<u> √ </u> No
PW-2 pump on?	<u> </u> Yes	<u> √ </u> No	PW-6 pump on?	<u> </u> Yes	<u> √ </u> No
PW-3 pump on?	<u> </u> Yes	<u> √ </u> No	PW-7 pump on?	<u> </u> Yes	<u> √ </u> No
PW-4 pump on?	<u> </u> Yes	<u> √ </u> No	PW-8 pump on?	<u> √ </u> Yes	<u> </u> No

Attachment B
Analytical Report from
Spectrum Analytical Laboratories

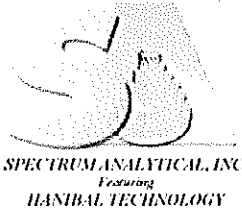
Analytical Data Package Work Order ID: M1544

Sampled: August 27, 2013

Received: September 5, 2013

Report Date:
03-Sep-13 15:48

- Final Report
 Re-Issued Report
 Revised Report



Laboratory Report

Ecology and Environment Engineering P.C.
368 Pleasant View Drive
Lancaster, NY 14086

Work Order: M1544
Project: Mr. C's Dry Cleaning
Project #: 4500000623/EN-003229-0001-03TTO

Attn: Michael Steffan

Laboratory ID	Client Sample ID	Matrix	Date Sampled	Date Received
M1544-01	INFLUENT	Aqueous	27-Aug-13 13:00	28-Aug-13 10:15
M1544-02	EFFLUENT	Aqueous	27-Aug-13 13:30	28-Aug-13 10:15

I attest that the information contained within the report has been reviewed for accuracy and checked against the quality control requirements for each method. The results relate only to the samples(s) as received. This report may not be reproduced, except in full, without written approval from Spectrum Analytical.

All applicable NELAC or USEPA CLP requirements have been met.

Spectrum Analytical (Rhode Island) is accredited under the National Environmental Laboratory Approval Program (NELAP) and DoD Environmental Laboratory Accreditation Program (ELAP), holds Organic and Inorganic contracts under the USEPA CLP Program and is certified under several states. The current list of our laboratory approvals and certifications is available on the Certifications page on our web site at www.spectrum-analytical.com.

Please contact the Laboratory or Technical Director at 401-732-3400 with any questions regarding the data contained in the laboratory report.

Department of Defense	N/A
Connecticut	PH-0153
Delaware	N/A
Florida	E87664
Maine	2007037
Massachusetts	M-RI907
New Hampshire	2631
New Jersey	RI001
New York	11522
North Carolina	581
Rhode Island	LAI00301
USDA	P330-08-00023
USEPA - ISM	EP-W-09-039
USEPA - SOM	EP-W-11-033



Certificate # L2247 Testing

Authorized by:

Yihai Ding
Laboratory Director

Sample Transmittal Documentation



A DIVISION OF SPECTROM ANALYTICAL, INC. FEATURING HANBAL TECHNOLOGY

CHAIN OF CUSTODY RECORD

Special Handling: Std
 TAT- Indicate Date Needed: Std
 All TATs subject to laboratory approval.
 Min. 24-hour notification needed for rushes.
 Samples disposed of after 60 days unless otherwise instructed.

Report To: FZE (inc)
368 Pleasantview Dr
Lancaster, NY 14086
 Telephone #: (716) 684-8060
 Project Mgr.: Mike Steffen

Invoice To: FZE, Inc
 P.O. No.: _____ RQN: _____

Project No.: _____
 Site Name: MCS O&M State: NY
 Location: East Aurora
 Sampler(s): R. Allen

1=Na₂S₂O₃ 2=HCl 3=H₂SO₄ 4=HNO₃ 5=NaOH 6=Ascorbic Acid 7=CH₃OH
 8=NaHSO₄ 9= _____ 10= _____ 11= _____
 List preservative code below:

DW=Drinking Water GW=Groundwater WW=Wastewater
 O=Oil SW=Surface Water SO=Soil SL=Sludge A=Air
 X1= _____ X2= _____ X3= _____
 G=Grab C=Composite

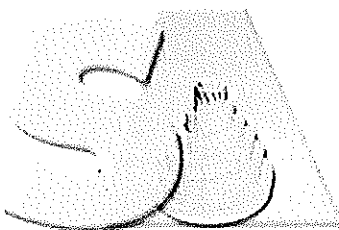
Containers:
 # of VOA Vials _____
 # of Amber Glass _____
 # of Clear Glass _____
 # of Plastic _____

Analyses:
PH
Address
VOC

QA/QC Reporting Level
 Level I Level II
 Level III Level IV
 Other CAT A
 State specific reporting standards: _____

Lab Id:	Sample Id:	Date:	Time:	Type	Matrix	# of VOA Vials	# of Amber Glass	# of Clear Glass	# of Plastic	Notes:
	INFLUENT	Aug 27, 2008	1:00 P	G	GW				1	
	INFLUENT		1:00 P	G	GW				1	
	INFLUENT		1:00 P	G	GW				1	
	EFFLUENT		1:30 P	G	GW				1	
	EFFLUENT		1:30 P	G	GW				1	
	EFFLUENT		1:30 P	G	GW				1	

Relinquished by: Richard C. Allen Jr Received by: [Signature]
 Date: 8/28/08 Time: 10:15
 E-mail to: mstefan@eme.com
 EDD Format: PDF
 Condition upon receipt: Iced Ambient °C 3.5



SPECTRUM ANALYTICAL, INC.
Featuring
HANIBAL TECHNOLOGY

** Volatiles **

REPORT NARRATIVE

Spectrum Analytical, Inc. Featuring Hanibal Technology, RI Division.

Client : Ecology and Environment Engineering P.C.

Project: Mr. C's Dry Cleaning

Laboratory Workorder / SDG #: M1544

SW846 8260C, VOC by GC-MS

I. SAMPLE RECEIPT

No exceptions or unusual conditions were encountered unless a Sample Condition Notification Form, or other record of communication is included with the Sample Receipt Documentation.

II. HOLDING TIMES

A. Sample Preparation:

All samples were prepared within the method-specified holding times.

B. Sample Analysis:

All samples were analyzed within the method-specified holding times.

III. METHODS

Samples were analyzed following procedures in laboratory test code:
SW846 8260C

IV. PREPARATION

Aqueous Samples were prepared following procedures in laboratory test code: SW5030B

V. INSTRUMENTATION

The following instrumentation was used

Instrument Code: V1
Instrument Type: GCMS-VOA

Description: HP5890 II / HP5972
Manufacturer: Hewlett-Packard
Model: 5890 / 5972

VI. ANALYSIS

A. Calibration:

Calibrations met the method/SOP acceptance criteria.

B. Blanks:

All method blanks were within the acceptance criteria.

C. Surrogates:

Surrogate standard percent recoveries were within the QC limits.

D. Spikes:

1. Laboratory Control Spikes (LCS):

Percent recoveries for lab control samples were within the QC limits.

2. Matrix Spike / Matrix Spike Duplicate (MS/MSD):

No client-requested MS/MSD analyses were included in this SDG.

E. Internal Standards:

Internal standard peak areas were within the QC limits.

F. Dilutions:

No sample in this SDG required analysis at dilution.

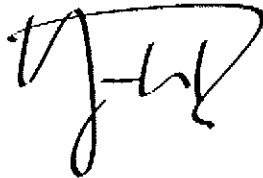
G. Samples:

No other unusual occurrences were noted during sample analysis.

H. Manual Integration

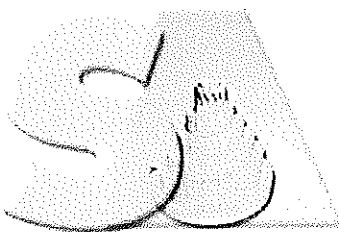
No manual integrations were performed on any sample or standard.

I certify that this data package is in compliance with the terms and conditions agreed to by the client and Spectrum, both technically and for completeness, except for the conditions noted above. Release of the data contained in this hardcopy data package has been authorized by the Laboratory Manager or designated person, as verified by the following signature.

A handwritten signature in black ink, appearing to be 'J. H. P.', written over a horizontal line.

Signed: _____

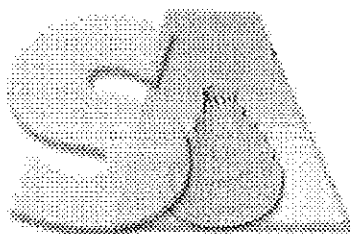
Date: _____ 9/3/2013 _____



SPECTRUM ANALYTICAL, INC.
Featuring
HANIBAL TECHNOLOGY

** Sample Data **

175 Metro Center Boulevard · Warwick, RI 02886-1755 · 401-732-3400 · FAX 401-732-3499
www.spectrum-analytical.com



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HANIBAL TECHNOLOGY

Sample ID Suffixes

- DL Diluted analysis. The sample was diluted and reanalyzed. The DL may be followed by a digit if more than one diluted reanalysis is provided. The DL suffix is not attached to an analysis initially performed at dilution, only to reanalyses performed at dilution
- RE Reanalysis. Appended to the client sample ID to indicate a reextraction and reanalysis or a reanalysis of the original sample extract.
- RA Reanalysis. Appended to the laboratory sample ID indicates a reanalysis of the original sample extract.
- RX Reextraction. Appended to the laboratory sample ID indicates a reextraction of the sample.
- MS Matrix Spike.
- MSD Matrix Spike Duplicate
- DUP Duplicate analysis
- SD Serial Dilution
- PS Post-digestion or Post-distillation spike. For metals or inorganic analyses

1A -- FORM I VOA-1
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

INFLUENT

Lab Name: SPECTRUM ANALYTICAL, INC. Contract: _____
 Lab Code: MITKEM Case No.: M1544 Mod. Ref No.: _____ SDG No.: SM1544
 Matrix: (SOIL/SED/WATER) WATER Lab Sample ID: M1544-01A
 Sample wt/vol: 5.00 (g/mL) ML Lab File ID: VIM4064.D
 Level: (TRACE/LOW/MED) LOW Date Received: 08/28/2013
 % Moisture: not dec. Date Analyzed: 08/31/2013
 GC Column: DB-624 ID: 0.25 (mm) Dilution Factor: 1.0
 Soil Extract Volume: _____ (uL) Soil Aliquot Volume: _____ (uL)
 Purge Volume: 5.0 (mL)

CAS NO.	COMPOUND	CONCENTRATION UNITS:		
		(ug/L or ug/Kg)	ug/L	
75-71-8	Dichlorodifluoromethane		1.0	U
74-87-3	Chloromethane		1.0	U
75-01-4	Vinyl chloride		1.0	U
74-83-9	Bromomethane		1.0	U
75-00-3	Chloroethane		1.0	U
75-69-4	Trichlorofluoromethane		1.0	U
75-35-4	1,1-Dichloroethene		1.0	U
67-64-1	Acetone		5.0	U
75-15-0	Carbon disulfide		1.0	U
75-09-2	Methylene chloride		1.0	U
156-60-5	trans-1,2-Dichloroethene		1.0	U
1634-04-4	Methyl tert-butyl ether		2.4	
75-34-3	1,1-Dichloroethane		1.0	U
78-93-3	2-Butanone		5.0	U
156-59-2	cis-1,2-Dichloroethene		18	
67-66-3	Chloroform		1.0	U
71-55-6	1,1,1-Trichloroethane		0.68	J
56-23-5	Carbon tetrachloride		1.0	U
107-06-2	1,2-Dichloroethane		1.0	U
71-43-2	Benzene		1.0	U
79-01-6	Trichloroethene		2.2	
78-87-5	1,2-Dichloropropane		1.0	U
75-27-4	Bromodichloromethane		1.0	U
10061-01-5	cis-1,3-Dichloropropene		1.0	U
108-10-1	4-Methyl-2-pentanone		5.0	U
108-88-3	Toluene		1.0	U
10061-02-6	trans-1,3-Dichloropropene		1.0	U
79-00-5	1,1,2-Trichloroethane		1.0	U
127-18-4	Tetrachloroethene		95	
591-78-6	2-Hexanone		5.0	U
124-48-1	Dibromochloromethane		1.0	U
106-93-4	1,2-Dibromoethane		1.0	U
108-90-7	Chlorobenzene		1.0	U
100-41-4	Ethylbenzene		1.0	U
1330-20-7	Xylene (Total)		1.0	U

1B - FORM I VOA-2
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

INFLUENT

Lab Name: SPECTRUM ANALYTICAL, INC. Contract: _____
 Lab Code: MITKEM Case No.: M1544 Mod. Ref No.: _____ SDG No.: SM1544
 Matrix: (SOIL/SED/WATER) WATER Lab Sample ID: M1544-01A
 Sample wt/vol: 5.00 (g/mL) ML Lab File ID: VIM4064.D
 Level: (TRACE/LOW/MED) LOW Date Received: 08/28/2013
 % Moisture: not dec. Date Analyzed: 08/31/2013
 GC Column: DB-624 ID: 0.25 (mm) Dilution Factor: 1.0
 Soil Extract Volume: _____ (uL) Soil Aliquot Volume: _____ (uL)
 Purge Volume: 5.0 (mL)

CAS NO.	COMPOUND	CONCENTRATION UNITS:		Q
		(ug/L or ug/Kg)	ug/L	
100-42-5	Styrene		1.0	U
75-25-2	Bromoform		1.0	U
98-82-8	Isopropylbenzene		1.0	U
79-34-5	1,1,2,2-Tetrachloroethane		1.0	U
541-73-1	1,3-Dichlorobenzene		1.0	U
106-46-7	1,4-Dichlorobenzene		1.0	U
95-50-1	1,2-Dichlorobenzene		1.0	U
96-12-8	1,2-Dibromo-3-chloropropane		1.0	U
120-82-1	1,2,4-Trichlorobenzene		1.0	U
76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane		1.0	U
110-82-7	Cyclohexane		1.0	U
79-20-9	Methyl acetate		1.0	U
108-87-2	Methylcyclohexane		1.0	U

1A - FORM I VOA-1
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

EFFLUENT

Lab Name: SPECTRUM ANALYTICAL, INC. Contract: _____
 Lab Code: MITKEM Case No.: M1544 Mod. Ref No.: _____ SDG No.: SM1544
 Matrix: (SOIL/SED/WATER) WATER Lab Sample ID: M1544-02A
 Sample wt/vol: 5.00 (g/mL) ML Lab File ID: VIM4063.D
 Level: (TRACE/LOW/MED) LOW Date Received: 08/28/2013
 % Moisture: not dec. Date Analyzed: 08/31/2013
 GC Column: DB-624 ID: 0.25 (mm) Dilution Factor: 1.0
 Soil Extract Volume: _____ (uL) Soil Aliquot Volume: _____ (uL)
 Purge Volume: 5.0 (mL)

CAS NO.	COMPOUND	CONCENTRATION UNITS:		Q
		(ug/L or ug/Kg)	ug/L	
75-71-8	Dichlorodifluoromethane		1.0	U
74-87-3	Chloromethane		1.0	U
75-01-4	Vinyl chloride		1.0	U
74-83-9	Bromomethane		1.0	U
75-00-3	Chloroethane		1.0	U
75-69-4	Trichlorofluoromethane		1.0	U
75-35-4	1,1-Dichloroethene		1.0	U
67-64-1	Acetone		5.0	U
75-15-0	Carbon disulfide		1.0	U
75-09-2	Methylene chloride		1.0	U
156-60-5	trans-1,2-Dichloroethene		1.0	U
1634-04-4	Methyl tert-butyl ether		1.0	U
75-34-3	1,1-Dichloroethane		1.0	U
78-93-3	2-Butanone		5.0	U
156-59-2	cis-1,2-Dichloroethene		0.62	J
67-66-3	Chloroform		1.0	U
71-55-6	1,1,1-Trichloroethane		1.0	U
56-23-5	Carbon tetrachloride		1.0	U
107-06-2	1,2-Dichloroethane		1.0	U
71-43-2	Benzene		1.0	U
79-01-6	Trichloroethene		1.0	U
78-87-5	1,2-Dichloropropane		1.0	U
75-27-4	Bromodichloromethane		1.0	U
10061-01-5	cis-1,3-Dichloropropene		1.0	U
108-10-1	4-Methyl-2-pentanone		5.0	U
108-88-3	Toluene		1.0	U
10061-02-6	trans-1,3-Dichloropropene		1.0	U
79-00-5	1,1,2-Trichloroethane		1.0	U
127-18-4	Tetrachloroethene		1.5	
591-78-6	2-Hexanone		5.0	U
124-48-1	Dibromochloromethane		1.0	U
106-93-4	1,2-Dibromoethane		1.0	U
108-90-7	Chlorobenzene		1.0	U
100-41-4	Ethylbenzene		1.0	U
1330-20-7	Xylene (Total)		1.0	U

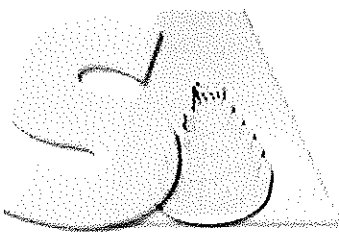
1B - FORM I VOA-2
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

EFFLUENT

Lab Name: SPECTRUM ANALYTICAL, INC. Contract: _____
 Lab Code: MITKEM Case No.: M1544 Mod. Ref No.: _____ SDG No.: SM1544
 Matrix: (SOIL/SED/WATER) WATER Lab Sample ID: M1544-02A
 Sample wt/vol: 5.00 (g/mL) ML Lab File ID: V1M4063.D
 Level: (TRACE/LOW/MED) LOW Date Received: 08/28/2013
 % Moisture: not dec. Date Analyzed: 08/31/2013
 GC Column: DB-624 ID: 0.25 (mm) Dilution Factor: 1.0
 Soil Extract Volume: _____ (uL) Soil Aliquot Volume: _____ (uL)
 Purge Volume: 5.0 (mL)

CAS NO.	COMPOUND	CONCENTRATION UNITS:		Q
		(ug/L or ug/Kg)	UG/L	
100-42-5	Styrene		1.0	U
75-25-2	Bromoform		1.0	U
98-82-8	Isopropylbenzene		1.0	U
79-34-5	1,1,2,2-Tetrachloroethane		1.0	U
541-73-1	1,3-Dichlorobenzene		1.0	U
106-46-7	1,4-Dichlorobenzene		1.0	U
95-50-1	1,2-Dichlorobenzene		1.0	U
96-12-8	1,2-Dibromo-3-chloropropane		1.0	U
120-82-1	1,2,4-Trichlorobenzene		1.0	U
76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane		1.0	U
110-82-7	Cyclohexane		1.0	U
79-20-9	Methyl acetate		1.0	U
108-87-2	Methylcyclohexane		1.0	U



SPECTRUM ANALYTICAL, INC.
Featuring
HANIBAL TECHNOLOGY

** Wet Chemistry **

REPORT NARRATIVE

Spectrum Analytical, Inc. Featuring Hanibal Technology, RI Division.

Client : Ecology and Environment Engineering P.C.

Project: Mr. C's Dry Cleaning

Laboratory Workorder / SDG #: M1544

SM 2340B, SM 4500 H+ B

I. SAMPLE RECEIPT

No exceptions or unusual conditions were encountered unless a Sample Condition Notification Form, or other record of communication is included with the Sample Receipt Documentation.

II. HOLDING TIMES

A. Sample Preparation:

All samples were prepared within the method-specified holding times.

B. Sample Analysis:

All samples were analyzed within the method-specified holding times.

III. METHODS

Samples were analyzed following procedures in laboratory test code: SM 2340B, SM 4500 H+ B

IV. PREPARATION

Aqueous Samples were prepared following procedures in laboratory test code: SW3005A

V. INSTRUMENTATION

The following instrumentation was used:

Instrument Code: OPTIMA3

Instrument Type: ICP

Description: Optima ICP-OES
Manufacturer: Perkin-Elmer
Model: 4300 DV

Instrument Code: WC03
Instrument Type: Probe
Description: pH Meter
Manufacturer: Oakton Instruments
Model: Bench 2700 Series

VI. ANALYSIS

A. Calibration:

Calibrations met the method/SOP acceptance criteria.

B. Blanks:

All method blanks were within the acceptance criteria.

C. Spikes:

1. Laboratory Control Spikes (LCS):

2. Matrix spike (MS):

A matrix spike was not performed on any sample in this SDG.

D. Post Digestion Spike (PDS):

A post-digestion spike was not performed on any sample in this SDG.

E. Duplicate sample:

Duplicate analyses were performed on sample: EFFLUENT
(M1544-02BDUP).

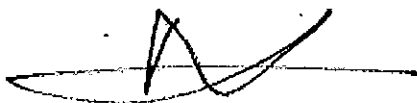
Relative percent differences were within the QC limits.

F. Samples:

No other unusual occurrences were noted during sample analysis.

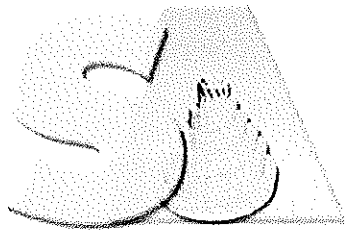
I certify that this data package is in compliance with the terms and conditions agreed to by the client and Spectrum, both technically and

for completeness, except for the conditions noted above. Release of the data contained in this hardcopy data package has been authorized by the Laboratory Manager or designated person, as verified by the following signature.

A handwritten signature in black ink, consisting of several loops and a long horizontal stroke at the bottom.

Signed: _____

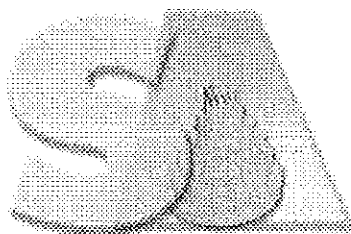
Date: 09/03/2013



SPECTRUM ANALYTICAL, INC.
Featuring
HANIBAL TECHNOLOGY

** Sample Data **

175 Metro Center Boulevard · Warwick, RI 02886-1755 · 401-732-3400 · FAX 401-732-3499
www.spectrum-analytical.com



SPECTRUM ANALYTICAL, INC.
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HANIBAL TECHNOLOGY

Sample ID Suffixes

- DL** Diluted analysis. The sample was diluted and reanalyzed. The DL may be followed by a digit if more than one diluted reanalysis is provided. The DL suffix is not attached to an analysis initially performed at dilution, only to reanalyses performed at dilution
- RE** Reanalysis. Appended to the client sample ID to indicate a reextraction and reanalysis or a reanalysis of the original sample extract.
- RA** Reanalysis. Appended to the laboratory sample ID indicates a reanalysis of the original sample extract.
- RX** Reextraction. Appended to the laboratory sample ID indicates a reextraction of the sample.
- MS** Matrix Spike.
- MSD** Matrix Spike Duplicate
- DUP** Duplicate analysis
- SD** Serial Dilution
- PS** Post-digestion or Post-distillation spike. For metals or inorganic analyses

Spectrum Analytical Inc. - North Kingstown RI -- Rhode Island Division

09/03/2013

Client: Ecology and Environment Engineering P.C.

Client Sample ID: INFLUENT

Lab ID: M1544-01

Project: Mr. C's Dry Cleaning

Collection Date: 08/27/13 13:00

Analyses	Result	Qual	RL	Units	DF	Date Analyzed	Batch ID
SM 2340B -- HARDNESS by Calculation							SM2340_W
Hardness, Ca/Mg (As CaCO3)	450		4.0	mg/L CaCO3	1	08/30/2013 11:15	73407
SM 4500 H+ B -- pH VALUE							SM4500_H+
pH	7.3		1.0	S.U.	1	08/28/2013 15:55	R76205

Qualifiers: ND - Not Detected at the Reporting Limit
 J - Analyte detected below quantitation limits
 B - Analyte detected in the associated Method Blank
 DF - Dilution Factor

S - Spike Recovery outside accepted recovery limits
 R - RPD outside accepted recovery limits
 E - Value above quantitation range
 RL - Reporting Limit

Spectrum Analytical Inc. - North Kingstown RI -- Rhode Island Division

09/03/2013

Client: Ecology and Environment Engineering P.C.

Client Sample ID: EFFLUENT

Lab ID: M1544-02

Project: Mr. C's Dry Cleaning

Collection Date: 08/27/13 13:30

Analyses	Result	Qual	RL	Units	DF	Date Analyzed	Batch ID
SM 2340B -- HARDNESS by Calculation							SM2340_W
Hardness, Ca/Mg (As CaCO3)	430		4.0	mg/L CaCO3		1 08/30/2013 11:19	73407
SM 4500 H+ B -- pH VALUE							SM4500_H+
pH	8.0		1.0	S.U.		1 08/28/2013 15:58	R76205

Qualifiers: ND - Not Detected at the Reporting Limit
 J - Analyte detected below quantitation limits
 B - Analyte detected in the associated Method Blank
 DF - Dilution Factor

S - Spike Recovery outside accepted recovery limits
 R - RPD outside accepted recovery limits
 E - Value above quantitation range
 RL - Reporting Limit

Attachment C
Summary of Site Utility Costs and Projections
January to December 2013

**Mr. C's Dry Cleaners Site - Remedial Treatment Utility Costs
NYSDEC Work Assignment #DC13**

**12 Months of System Operation and Maintenance
August 2013 Report**

	Optimum Operating Hours	Actual Operating Hours	Up-time Percentage	Capacity	Comments:	Budget Remaining:	Electric:	Telephone:	Gas	Total:
January-13	672	576	85.71%	13.8%	Mid January	\$7,914.71				
February-13	672	594	88.39%	8.7%	Mid February	\$338.52				
March-13	720	720	100.00%	9.6%	Cold March	\$405.43				
April-13	732	732	100.00%	10.7%	Mid April					
May-13	672	672	100.00%	9.6%	Normal May					
June-13	672	648	100.00%	7.5%	Water June					
July-13	1056	648	61.36%	8.4%	Stripper leaddown/new bag filler installed					
August-13	528	528	100.00%	7.6%	Normal August					
September-13			#DIV/0!							
October-13			#DIV/0!							
November-13			#DIV/0!							
December-13			#DIV/0!							
Totals to Date	5784	5202	89.94%							

* Percent Capacity is based on initial operating groundwater flows from the eight installed pumps from 9/02. Evaluated on total gallons discharged for monthly operating time. Maximum pump discharges calculated as an average of 78 gpm as the total for all 8 pumps at the site if all pumps operate 100%. With the exception of groundwater pump RW-1, all others run on a batch basis.

Monthly Average Costs

Mr. C's Electric	\$	1,126.47								
Agway Electric	\$	-								
Mr. C's Gas	\$	89.32								
Mr. C's Telephone	\$	50.37								
Ave. Utility Cost Total	\$	1,266.16	times	12 Month Estimate						\$16,460.10

ATTACHMENT C