



STEPHEN D. FLEMING, PE, CHMM
SENIOR REMEDIATION MANAGER

RECEIVED

JUN 04 2012

REMEDIAL BUREAU E

May 31, 2012

Transmitted: PDF File Transmission and 1st Class USPS Mail to CC List

Mr. Kent Johnson
Senior Engineering Geologist
New York State Dept. of Environmental Conservation
Division of Environmental Remediation
Remedial Section B – Remedial Bureau E
625 Broadway
Albany, NY 12233-7017

SUBJECT: Groundwater Monitoring Report - 1st Quarter 2012 (Report 1 of 4)
Safety- Kleen Service Center
60 Seabro Avenue, North Amityville, New York

Dear Mr. Johnson:

This letter serves as the Safety-Kleen Systems, Inc. (Safety-Kleen) quarterly groundwater monitoring report for the referenced site (**Attachment 1 - Site Map**). Basile Environmental Solutions, LLC (BES) collected the samples and field data on March 14, 2012.

The samples were sent to Test America, Inc. (TA). TA holds NY NELAP and NYDOH laboratory certifications. A recent consolidation of TA functions, necessitated that TA use another network laboratory to perform Volatile Organic Compound (VOCs) analytical services for all Safety-Kleen NY sites. In specific, TA's New Jersey laboratory is now performing both the Mineral Spirit Range Organics (MSRO) analyses as well as the VOCs.

An e-mail notification was sent to the Department on December 22, 2011 regarding this change, and a request for removal of certain (non) target compounds for which the NJ TA lab does not hold NYDOH laboratory certification for, or can only report as a "TIC". Those compounds are noted in the laboratory report.

No other changes in the target compound list, nor the detection or reporting limits, or laboratory report format has been altered; with the exception that the listed reporting limits citation is not included with this quarter's laboratory reports (It will be included with all forthcoming reports).

Further, Safety-Kleen has made some report formatting and graphic presentation changes. Map(s) are now included in the body of the text. Also the data presentation range for the graphs displays trends from March 2009 through the present sampling event. The modifications were made in order to enhance the report.

1.0 QUARTERLY GROUNDWATER SAMPLING WORK SCOPE

The following scope of work was performed:

- Measurement of the depth to water (DTW) at each monitoring well, four vapor points and one select drywell location;
- Monitoring point development for groundwater field/lab parameter measurement;
- Collection of groundwater samples from site monitoring points, and a soil sample from one drywell;
- Packing (on ice) and delivery of the sample set to a TA Sample Collection Location via hand carry.

1.1 Monitoring Point Field Parameter Collection & Summary

Monitoring wells GT-1 through GT-5, VE-1, VE-5, VP-A, VP-B, and DW-1 were gauged and field indicator parameters were collected. Water was present in VE-1, however DW-1 was dry. Temperature, pH, conductivity, dissolved oxygen, redox potential, visual turbidity and dissolved ozone were recorded. The media sampling summary is included as **Attachment 2**. The historic to current field data is presented as **Attachment 3 - Table 1**.

Depth-to-water varied seasonally, and ranged from 16.03 feet (GT-4) to 18.00 (GT-5) feet below grade. Comparatively, the water table is approximately one (1) foot lower than noted last quarter. The variability of the water table for selected site monitoring wells is presented below in **Figure 1**. The March historical data shows that the water table is deeper now, than reported in 2009, and deeper than 2011.

Figure 1

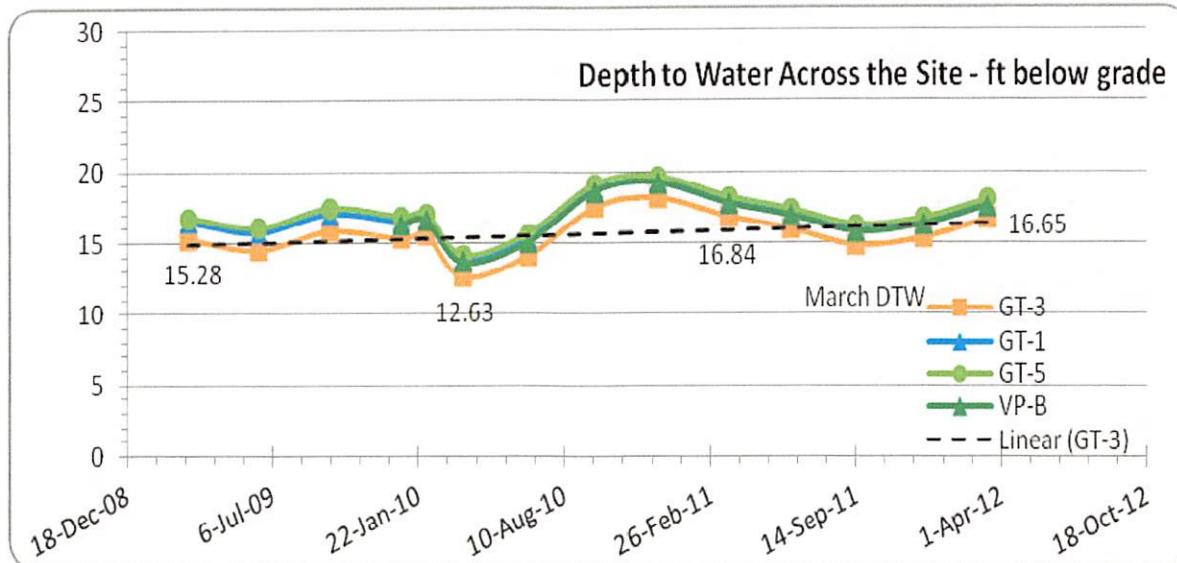
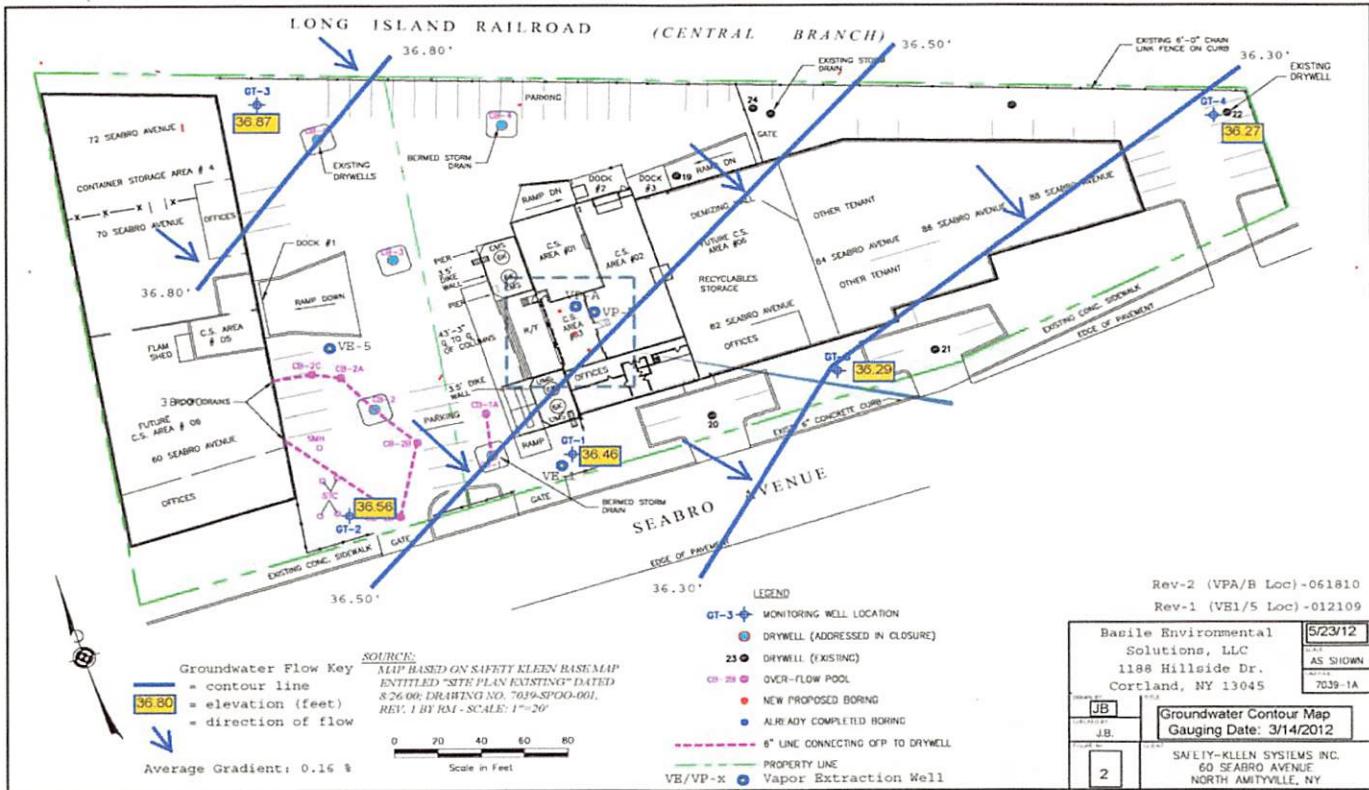


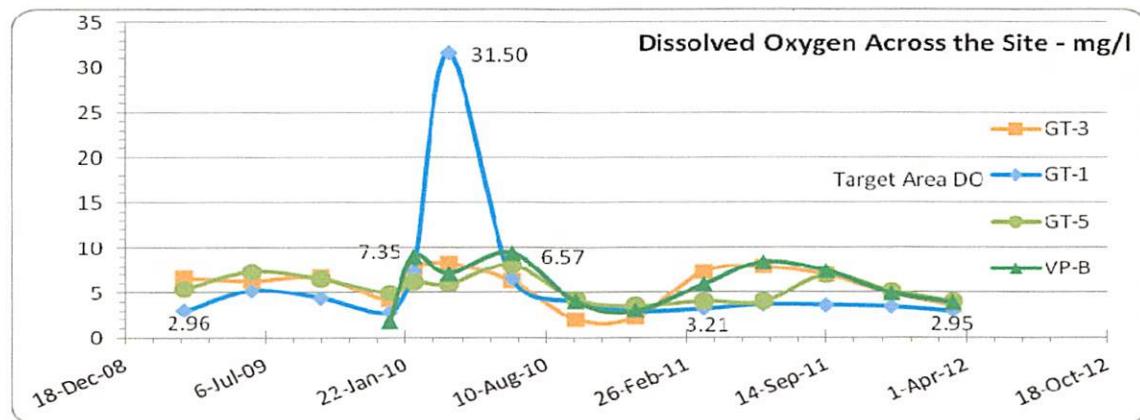
Figure 2 depicts the flow conditions for the sampling event. Direction of groundwater flow was generally consistent with historic trends; south-southeasterly. This quarter's average gradient was measured at 0.16 %.

Figure 2



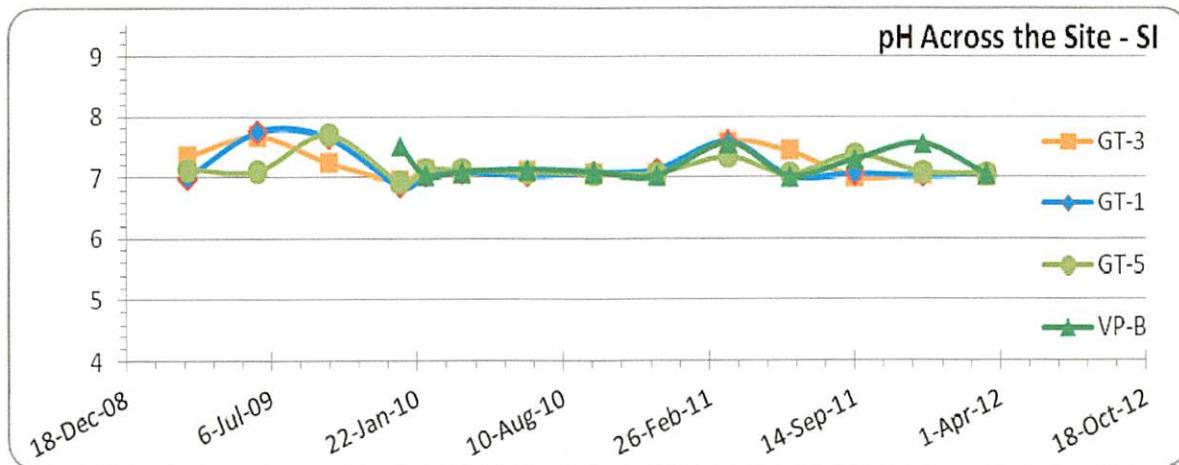
The DO concentrations on-site are fairly consistent (**Figure 3**) between up-gradient (GT-3) and down-gradient (GT-5) monitoring points. DO in the area of GT-1/VE-1, on average over the last three years, remained around 3 milligrams per liter (mg/l). Notable exceptions were during the last batch injection program (high of 31.5 mg/l).

Figure 3



Generally, the pH across the site is relatively neutral (**Figure 4**), and remains within the range (6 - 8) for naturally occurring groundwater. Historically, the pH stays within a relatively narrow range.

Figure 4



1.2 Quarterly Groundwater Sampling

Monitoring wells GT-1, GT-2, GT-3 and GT-5, vapor extraction/monitoring points VE-1, VE-5, VP-A and VP-B were purged of 3 to 5 well volumes (conditions permitting) of groundwater with a submersible pump or bailer prior to sampling.

Groundwater samples were collected with dedicated, disposable polyethylene bailers and placed into glass containers provided by TA as specified for each analysis. A duplicate sample was collected for quality assurance purposes from well GT-1 and labeled X-1.

Samples were kept cool during transport to the laboratory drop off location, were accompanied by chain-of-custody documents and a trip blank. The samples arrived at the laboratory within acceptable USEPA and NYSDEC holding times and preservation requirements.

TA analyzed the samples for Volatile Organic Compounds (VOCs) via EPA Method 8260B, and for Mineral Spirit-Range Organics (MSRO) via Modified EPA Method 8015B.

1.3 Catch Basin DW-1 Media Sampling

DW-1 did not contain standing water, therefore a soil sample was collected. A stainless steel hand auger was used to collect a core from approximately six (6) inches to one (1) foot into the base of the drywell bottom.

Encore(r) tubes were used to retain and preserve the samples. QA/QC samples for MS/MSD were also collected and sent to the laboratory for analysis. A duplicate was not collected. Further, a duplicate sample was also collected (Duplicate).

2.0 QUARTERLY ANALYTICAL RESULTS

Historic (through September 2009) data are presented in **Attachment 3, Table 2**. This quarter's groundwater quality data are summarized in **Attachment 3, Table 3**. The laboratory analytical report is included as **Attachment 4** (on CD, executive summary in print).

VOCS: Select target VOCs were detected above the method detection limits (EPA Method 8260B) in monitoring points GT-1, GT-2, VE-1, VE-5, VP-A, VP-B and DW-1. Only 1,4 dichlorobenzene (6.4 parts per billion - ppb) at GT-1, was above the regulatory values (3 ppb). The duplicate sample, X-1 showed similar results (6.1 ppb).

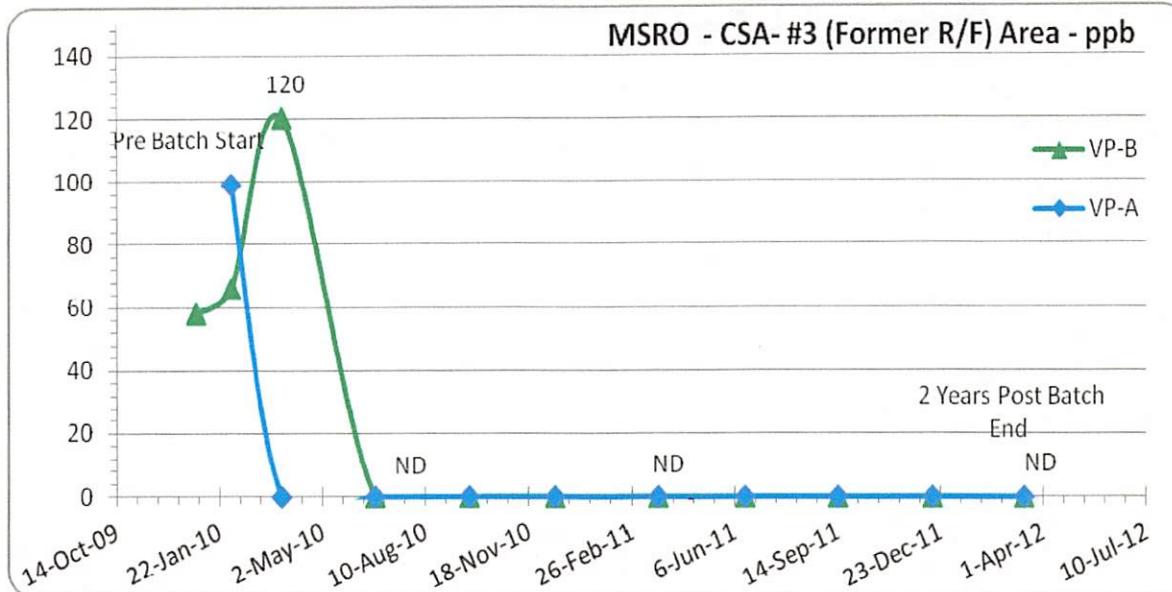
Please note groundwater samples from monitoring points VE-5, VP-A and VP-B have not reported target VOCs at concentrations above the requisite regulatory/site-specific limits for eight (8) consecutive quarters.

Attachment 3 - Table 3 summarizes the positive detections noted at and above the regulatory limit/project-specific lab reporting limits. All detections recorded above the method detection limits can be found in the laboratory report Executive Summary (**Attachment 4**).

Mineral Spirit-Range Organics (MSRO): MSRO was not detected at GT-2, GT-3, GT-5, VE-5, VP-A, VP-B or DW-1. MSRO was detected at GT-1 and in its duplicate, X-1, at concentrations of 14,000 ppb and 12,000 ppb respectively. Further MSRO was reported in VE-1 at 2,600 ppb.

The MSRO concentrations for the Container Storage Area (CSA) #3 from installation to current is presented in **Figure 5** below. MSRO at both monitoring points were not detected above the method or reporting limits (50 ppb). Further, post the February 2010 batch remediation program completion (ozone injection/vapor extraction), MSRO has remained not detectable for two (2) years.

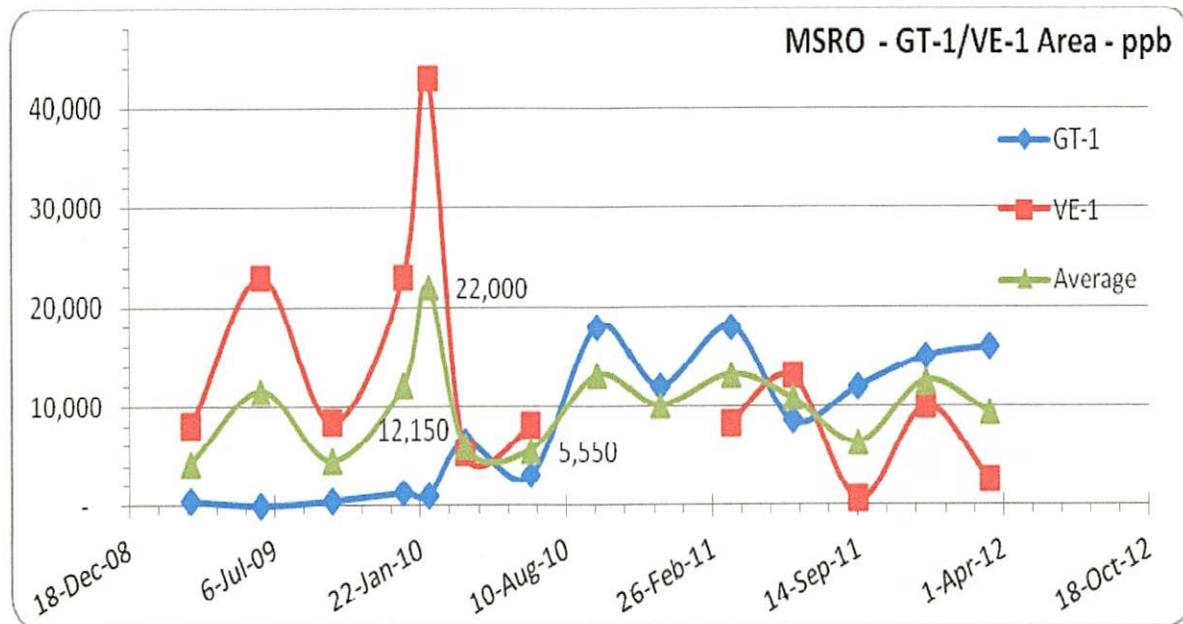
Figure 5



The MSRO concentrations for the GT-1/VE-1 area is presented in **Figure 6** below. Concentrations at both monitoring points were detected above the method or reporting limits at 14,000 ppb (12,000 ppb in duplicate X-1) at GT-1, and 2,600 ppb at VE-1. The monitoring point average is 9,300 ppb. Comparatively, the last quarter concentrations averaged 12,500 ppb.

The effects of the batch application program on the average concentration (pre and post) are visible. Concentrations in the area were two to four times lower after the end of the batch program, and the average concentrations still remains lower than the pre-injection high.

Figure 6



4.0 SUMMARY

1. Groundwater elevations were lower than recorded last quarter; on average, over one (1) foot. Historically, a rise in the water table elevation is noted for this period.
2. It appears, the water table (site-wide) has declined during the past three years by over one (1) foot. However, the direction and magnitude of groundwater flow is similar to historic trends.
3. DO concentrations on average, were lower when compared to last quarter. However, DO has remained within a fairly stable range.
4. DO at the GT-1/VE-1 area are historically lower than other portions of the site, including the CSA #3 area. This is likely due to active biological degradation of the residual MSRO (a food source) utilizing the oxygen to sustain the natural remedial processes.
5. Where MSRO is not detected or was remediated (CSA-#3), DO concentrations are generally higher than the GT-1/VE-1 area.

6. Neither VOCs nor MSRO have been detected at either VP-A and VP-B for two years. The batch remediation program in the CSA-#3 area appears effective in reducing VOCs and MSRO to concentrations below both the method detection limit and the New York State standards. A similar trend is also reflected at monitoring point VE-5.
7. The long term positive effects of enhanced DO concentrations in the target remedial areas (lower VOC and MSRO concentrations) remain visible post the last batch injection program.
8. Higher DO is a known benefit of the batch ozone injection process; it's sustained presence at higher than normal concentrations (greater than approximately 3 mg/l in the GT-1/VE-1 area for up to 3 months) had both short term and long term benefits; It enhanced the natural degradation process and reduced dissolve phase VOC/MSRO concentrations.
9. Soil vapor extraction, also completed during the batch program, enhanced the overall movement of subsurface air, thereby further adding to the natural biological MSRO degradation.
10. Given the decline in the water table elevation, a larger area of unsaturated soil is available for direct remediation via vapor extraction.
11. Target VOCs were detected in various monitoring points above the MDLs but below the regulatory reporting limits with one exception; 1,4 dichlorobenzene was detected in GT-1 at 6.4 ppb (duplicate - 6.1 ppb). The New York State standard is 3 ppb.
12. MSRO were only detected at GT-1 (14,000 ppb) and VE-1 (2,600 ppb). The GT-1 results were lower in the sample and duplicate, than reported during the previous quarter, and remain above the GWQS for mineral spirits.
13. Average concentration of MSRO in the GT-1/VE-1 area remain lower when compared to pre 2010 batch injection results, and generally more stable.
14. VE-1 results were dramatically lower than previously recorded last quarter. The concentration variability at VE-1 as well as GT-1 is a historic feature of the area. This is likely due to the chemical nature of MSRO, its subsurface distribution as well as the nature of the subsurface. Further, the age of the monitoring points may be a factor.

5.0 RECOMMENDATIONS

1. Reduce the VOC/MSRO sampling frequency at VE-5, VP-A and VP-B to semi-annual (field parameters will remain quarterly). Target VOCs and MSRO have not been detected for two years.
2. Continue monitoring groundwater on-site for VOCs and MSRO.

Safety-Kleen is completing the summer 2012 remedial program batch application internal financing. An implementation schedule will be forthcoming.

Should you have questions or comments concerning this report, please do not hesitate to contact me at (513) 956-2172. As always, Safety-Kleen appreciates the Department's assistance with this site.

Sincerely,

Safety-Kleen Systems, Inc.



Stephen D. Fleming, P.E., CHMM
Senior Remediation Manager

FIGURES

- 1 Depth to Water Across the Site
- 2 Dissolved Oxygen Across the Site
- 3 Groundwater Contour Map
- 4 pH Across the Site
- 5 MSRO - CSA-#3 Area (Former R/F)
- 6 MSRO - GT-1/VE-1 Area

ATTACHMENTS

- 1 Site Map
- 2 Media Sampling - Field Parameter and Lab Sampling Summary
- 3 Tables

Table 1 – Historic Groundwater Field Data Summary (to Current)
Table 2 – Historic Groundwater Chemical Data Summary (Through 9/2009)
Table 3 – Historic Groundwater Chemical Data Summary (TA Labs)

- 4 Laboratory Analytical Report (on CD) – Executive Summaries Attached

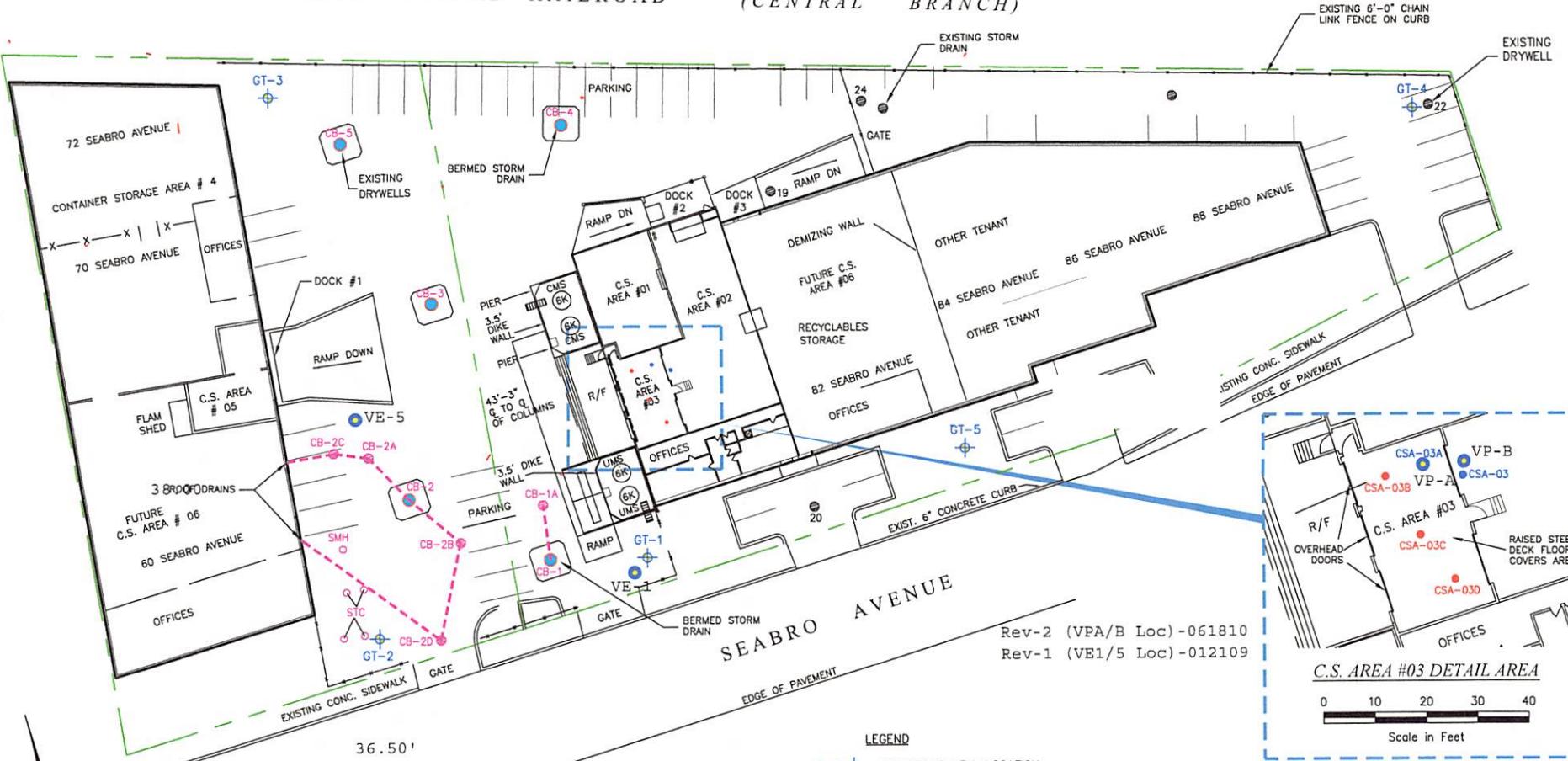
DISTRIBUTION

Person/Department	Method of Transmission
E. Badaracco, Town of Babylon, HW Dept, Lindenhurst, NY	(hard copy – 1 st Class Mail)
C. Horan, NYSDEC, Central Office, Albany, NY	(hard copy – 1 st Class Mail)
M. Leary, NYSDEE, Albany, NY	(hard copy – 1 st Class Mail)
K. (Katy) Murphy, NYSDEC Region 1, Stony Brook, NY	(hard copy – 1 st Class Mail) – no table 3
J. Reidy, USEPA Region II, New York, NY	(hard copy – 1 st Class Mail)
T. Cowans, Safety-Kleen, N. Amityville, NY	(hard copy – 1 st Class Mail, E-copy)
Branch General Manager, Safety-Kleen, N. Amityville, NY	(electronic copy)
J. Basile, Basile Environmental Solutions, LLC, Cortland, NY	(electronic copy)

ATTACHMENT 1

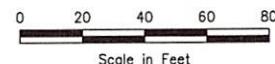
SITE MAP

LONG ISLAND RAILROAD
(CENTRAL BRANCH)



SOURCE:

MAP BASED ON SAFETY KLEEN BASE MAP
ENTITLED "SITE PLAN EXISTING" DATED
8/26/00; DRAWING NO. 7039-SPOO-001,
REV. 1 BY RM - SCALE: 1"-20'



LEGEND

- GT-3 (circle with cross) MONITORING WELL LOCATION
- DRYWELL (ADDRESSED IN CLOSURE) (blue circle)
- DRYWELL (EXISTING) (black circle)
- OVER-FLOW POOL (pink circle)
- NEW PROPOSED BORING (red dot)
- ALREADY COMPLETED BORING (blue dot)

- 6" LINE CONNECTING OFFP TO DRYWELL (dashed line)
- PROPERTY LINE (green dashed line)
- VE/VP-x (blue circle with cross) Vapor Extraction Well

Rev-2 (VPA/B Loc)-061810
Rev-1 (VE1/5 Loc)-012109

C.S. AREA #03 DETAIL AREA

0 10 20 30 40

Scale in Feet

Basile Environmental Solutions, LLC		5/23/12
1188 Hillside Dr.		SCALE: AS SHOWN
Cortland, NY 13045		CAD FILE: 7039-1A
DRAWN BY: JB	CHECKED BY: J.B.	TITLE: SITE PLAN
FIGURE NO: 1	CLIENT: SAFETY-KLEEN SYSTEMS INC. 60 SEABRO AVENUE NORTH AMITYVILLE, NY	

ATTACHMENT 2

Media Sampling - Field Parameters and Lab Sampling Summary

ATTACHMENT 3

TABLES

Table 1 – Historic Groundwater Field Data Summary (to Current)

Table 2 – Historic Groundwater Chemical Data Summary (Through 9/09)

Table 3 – Historic Groundwater Chemical Data Summary (From 12/09-TA Labs)

Table 1 - Historic Groundwater Field Data Summary (to Current)

KEY

Temperature recorded in C
Conductivity measured in uS
Dissolved Oxygen measured in mg/l
Eh measured in Mv
Ozone measured in mg/l

GT-1

PARAMETER

	Depth to Water (ft)	Groundwater						
		Elevation (ft)	Temperature °C	pH	Cond.	D.O.	Eh	Ozone
24-Mar-05	18.29	35.82	12.5	6.50	180	4.9	30	1.38
27-Jun-05	17.20	36.91	16.6	6.33	343	4.67	25	0.07
20-Sep-05	19.12	34.99	18.5	6.17	345	3.98	55	>1.5
13-Dec-05	15.29	38.82	10.7	6.97	157	5.34	<-80	0.10
15-Mar-06	15.07	39.04	12.8	7.02	203	4.27	51	0.34
22-Jun-06	15.81	38.30	15.0	6.64	217	3.95	-48	-0.01
26-Sep-06	17.00	37.11	17.1	7.05	188	2.32	0	-0.70
19-Dec-06	16.53	37.58	16.6	7.05	184	2.40	-36	0.01
27-Mar-07	16.13	37.98	14.0	7.09	462	2.80	-46	0.09
26-Jun-07	16.16	37.95	15.0	7.14	232	1.96	-32	-0.28
20-Sep-07	17.14	36.97	17.3	7.07	171	3.05	-50	0.01
20-Dec-07	18.56	35.55	16.6	7.14	189	2.65	-47	NA
27-Mar-08	15.36	38.75	13.3	7.10	244	2.80	-125	ND
19-Jun-08	16.39	37.72	14.2	7.09	190	2.88	-135	0.07
25-Sep-08	18.10	36.01	17.3	6.22	144	2.23	2	0.20
18-Dec-08	16.20	37.91	16.0	6.53	149	2.95	85	0.09
12-Mar-09	16.47	37.64	12.2	7.00	459	2.96	163	ND
17-Jun-09	15.73	38.38	13.5	7.75	381	5.20	48	0.10
22-Sep-09	17.05	37.06	17.0	7.65	224	4.40	-29	0.10
30-Dec-09	16.49	37.62	15.0	6.85	182	2.80	91	0.08
02-Feb-10	16.75	37.36	13.5	7.03	179	7.35	45	0.00
24-Mar-10	13.80	40.31	12.0	7.08	603	31.50	165	0.60
22-Jun-10	15.30	38.81	15.5	7.03	182	6.57	32	0.00
22-Sep-10	18.70	35.41	17.8	7.08	176	3.98	28	n/m
15-Dec-10	19.28	34.83	15.3	7.13	157	2.95	10	0.00
24-Mar-11	17.83	36.28	13.0	7.60	198	3.21	25	0.00
16-Jun-11	17.01	37.10	14.7	7.03	259	3.68	20	0.02
15-Sep-11	15.88	38.23	19.0	7.06	197	3.62	-62	0.00
16-Dec-11	16.40	37.71	16.0	7.03	186	3.45	-55	0.00
14-Mar-12	17.65	36.46	14.2	7.06	136	2.95	-60	0.00

GT-2**PARAMETER**

Sampling Date	Depth to Water (ft)	Groundwater Elevation (ft)	Temperature °C	pH	Cond.	D.O.	Eh	Ozone
24-Mar-05	17.15	36.98	12.7	6.41	520	2.8	215	1.50
27-Jun-05	16.95	37.18	15.8	7.23	518	2.78	150	0
20-Sep-05	19.65	34.48	17.1	6.53	500	3.01	125	>1.5
13-Dec-05	15.22	38.91	16.5	7.01	353	3.51	130	>1.5
15-Mar-06	14.97	39.16	12.6	6.87	581	4.56	193	1.11
22-Jun-06	15.69	38.44	16.8	6.50	704	4.45	184	0.07
26-Sep-06	16.89	37.24	17.5	7.09	781	2.93	135	0.10
19-Dec-06	16.42	37.71	14.6	7.06	473	2.88	39	0.27
27-Mar-07	16.01	38.12	13.7	7.09	466	3.05	2	0.45
26-Jun-07	16.03	38.10	15.8	7.12	659	2.76	41	0.60
20-Sep-07	17.02	37.11	17.1	7.08	628	3.11	14	0.27
20-Dec-07	18.48	35.65	14.7	7.07	333	3.10	20	NA
27-Mar-08	15.25	38.88	13.1	7.06	342	2.95	-104	ND
19-Jun-08	16.30	37.83	15.2	7.13	478	2.50	-100	0.05
25-Sep-08	18.00	36.13	16.7	6.21	350	1.58	215	0.09
18-Dec-08	16.15	37.98	15.0	6.38	399	1.97	-100	0.10
12-Mar-09	16.38	37.75	12.9	7.14	500	0.77	167	ND
17-Jun-09	15.63	38.50	13.0	7.63	270	3.29	57	0.06
22-Sep-09	16.95	37.18	17.0	7.01	711	2.00	77	0.40
30-Dec-09	16.40	37.73	14.2	6.95	427	2.05	95	0.02
02-Feb-10	16.66	37.47	12.8	7.14	330	2.84	232	0.00
24-Mar-10	13.70	40.43	12.7	7.11	452	2.00	92	0.00
22-Jun-10	15.10	39.03	16.5	7.14	1064	1.17	-29	0.00
22-Sep-10	18.61	35.52	17.0	7.09	302	2.55	-33	n/m
15-Dec-10	19.22	34.91	13.8	7.09	384	2.80	-40	0.00
24-Mar-11	17.77	36.36	11.6	7.05	530	3.14	-25	0.00
16-Jun-11	16.90	37.23	16.0	7.02	667	3.36	-30	0.00
15-Sep-11	15.77	38.36	19.0	7.06	644	2.92	-141	0.00
16-Dec-11	16.33	37.80	15.1	7.10	476	3.05	-105	0.00
13-Mar-12	17.57	36.56	14.0	7.05	403	3.00	-55	0.00

GT-3**PARAMETER**

Sampling Date	Depth to Water (ft)	Groundwater Elevation (ft)	Temperature °C	pH	Cond.	D.O.	Eh	Ozone
24-Mar-05	17.05	36.47	10.5	8.30	80	5.85	160	1.48
27-Jun-05	15.95	37.57	16.0	6.71	211	7.94	175	0.02
20-Sep-05	18.53	34.99	17.8	6.30	215	6.90	100	0.20
13-Dec-05	14.11	39.41	15.5	7.43	235	7.40	130	0.05
15-Mar-06	13.85	39.67	11.9	7.26	396	9.10	184	0.20
22-Jun-06	14.56	38.96	15.0	7.26	257	6.20	190	-0.12
26-Sep-06	15.80	37.72	18.4	7.08	253	5.66	102	0.04
19-Dec-06	15.34	38.18	16.2	7.05	251	4.20	68	0.05
27-Mar-07	14.91	38.61	12.1	7.07	225	3.95	-33	0.10
26-Jun-07	14.96	38.56	13.5	7.07	205	3.40	50	-0.32
20-Sep-07	15.87	37.65	18.9	7.06	287	4.10	-25	0.18
20-Dec-07	17.40	36.12	14.9	7.11	164	3.15	65	NA
27-Mar-08	14.15	39.37	12.0	7.53	202	3.15	-82	0.22
19-Jun-08	15.20	38.32	14.4	7.09	168	3.00	-75	0.15
25-Sep-08	16.89	36.63	18.1	6.27	172	5.30	182	0.11
18-Dec-08	15.05	38.47	13.0	6.85	89	7.75	93	0.20
12-Mar-09	15.28	38.24	11.7	7.36	214	6.60	125	0.20
17-Jun-09	14.52	39.00	13.3	7.69	219	6.30	68	0.10
22-Sep-09	15.83	37.69	18.0	7.25	300	6.70	50	0.01
30-Dec-09	15.31	38.21	14.4	6.95	186	4.22	97	0.05
02-Feb-10	15.58	37.94	13.2	7.13	215	7.68	243	0.05
24-Mar-10	12.63	40.89	10.9	7.08	174	8.24	118	0.00
22-Jun-10	14.11	39.41	16.0	7.10	226	6.30	49	0.00
22-Sep-10	17.49	36.03	18.0	7.07	176	2.00	55	n/m
15-Dec-10	18.15	35.37	14.2	7.07	120	2.18	15	0.00
24-Mar-11	16.84	36.68	10.7	7.60	160	7.36	15	0.00
16-Jun-11	16.00	37.52	14.0	7.44	226	7.85	21	0.00
15-Sep-11	14.85	38.67	19.0	7.02	158	6.99	-37	0.00
16-Dec-11	15.37	38.15	16.0	7.06	189	4.95	-42	0.00
14-Mar-12	16.65	36.87	14.0	7.04	191	3.58	-30	0.00

GT-4

PARAMETER

Sampling Date	Depth to Water (ft)	Groundwater Elevation (ft)	Temperature °C	pH	Cond.	D.O.	Eh	Ozone
24-Mar-05	19.85	32.45	12.8	7.10	90	3.55	120	n/c
27-Jun-05	15.75	36.55	15.4	6.33	133	5.50	105	meter fault
20-Sep-05	16.25	Anomalous WL	16.5	6.93	139	2.52	115	>1.5
13-Dec-05	13.68	38.62	15.5	7.01	141	5.85	115	>1.5
15-Mar-06	13.48	38.82	11.6	6.86	200	4.92	46	>1.5
22-Jun-06	14.22	38.08	13.4	7.26	239	4.50	-56	>1.5
26-Sep-06	15.40	36.90	17.0	7.04	197	2.10	-40	>1.5
19-Dec-06	14.88	37.42	16.3	7.03	172	1.95	-70	>1.5
27-Mar-07	14.51	37.79	12.7	7.06	162	2.02	-55	>1.5
26-Jun-07	14.56	37.74	13.0	7.07	169	2.00	-116	>1.5
20-Sep-07	15.52	36.78	16.8	7.03	149	2.70	-40	over range
20-Dec-07	16.97	35.33	16.4	7.04	130	2.75	-44	NA
27-Mar-08	13.75	38.55	12.2	7.10	149	2.50	-70	over range
19-Jun-08	14.78	37.52	13.4	7.08	112	3.50	-45	over range
25-Sep-08	16.46	35.84	16.0	6.50	174	1.92	-12	over range
18-Dec-08	14.60	37.70	15.7	7.80	111	1.94	-94	over range
12-Mar-09	14.80	37.50	12.0	7.45	188	5.06	103	over range
17-Jun-09	14.06	38.24	12.9	7.88	231	3.50	-45	over range
22-Sep-09	15.44	36.86	16.3	8.22	163	2.93	-8	over range
30-Dec-09	14.85	37.45	15.0	7.75	171	2.05	75	over range
02-Feb-10	15.11	37.19	11.9	7.11	268	5.26	76	over range
24-Mar-10	12.14	40.16	11.8	7.03	160	6.88	22	over range
22-Jun-10	13.61	38.69	14.0	7.08	73	3.01	65	over range
22-Sep-10	17.12	35.18	16.9	7.04	212	2.82	49	n/m
15-Dec-10	17.65	34.65	16.8	7.02	232	3.05	50	0
24-Mar-11	16.20	36.10	12.8	7.70	190	4.20	50	0
16-Jun-11	15.42	36.88	13.5	7.03	130	3.50	30	0
15-Sep-11	14.31	37.99	17.0	7.32	154	3.85	15	0
16-Dec-11	14.73	37.57	16.8	7.13	177	3.58	10	over range
14-Mar-12	16.03	36.27	14.3	7.03	197	3.95	11	over range

GT-5**PARAMETER**

Sampling Date	Depth to Water (ft)	Groundwater Elevation (ft)	Temperature °C	pH	Cond.	D.O.	Eh	Ozone
24-Mar-05	17.65	36.64	13.5	6.21	217	3.40	130	1.16
27-Jun-05	17.50	36.79	14.8	6.13	205	7.29	135	0.23
20-Sep-05	19.33	34.96	15.6	6.13	210	6.51	-0.61	0.00
13-Dec-05	15.63	38.66	14.2	6.61	162	6.81	110	0.27
15-Mar-06	15.40	38.89	12.5	6.72	189	7.45	156	0.20
22-Jun-06	16.13	38.16	15.0	6.16	180	6.58	150	0.07
26-Sep-06	17.32	36.97	14.9	7.12	333	6.18	100	0.15
19-Dec-06	16.82	37.47	15.0	7.05	219	5.05	62	0.11
27-Mar-07	16.46	37.83	14.1	7.12	185	4.96	48	0.12
26-Jun-07	16.50	37.79	15.0	7.13	215	3.69	36	0.11
20-Sep-07	17.46	36.83	14.6	7.03	286	4.30	35	0.18
20-Dec-07	18.88	35.41	15.5	7.10	310	4.22	60	NA
27-Mar-08	15.68	38.61	13.5	7.12	219	3.88	-74	ND
19-Jun-08	16.70	37.59	14.5	7.11	189	3.95	-50	0.15
25-Sep-08	18.41	35.88	14.8	6.11	255	4.80	131	0.12
18-Dec-08	16.55	37.74	14.5	6.85	184	7.10	54	0.08
12-Mar-09	16.75	37.54	13.2	7.14	190	5.44	127	0.10
17-Jun-09	16.03	38.26	14.5	7.11	221	7.30	50	0.15
22-Sep-09	17.4	36.89	15.0	7.71	452	6.51	34	0.09
30-Dec-10	16.81	37.48	12.5	6.92	231	4.96	112	0.10
02-Feb-10	17.03	37.26	12.9	7.13	315	6.21	113	0.00
24-Mar-10	14.1	40.19	13.0	7.12	218	5.95	217	0.00
22-Jun-10	15.61	38.68	15.0	7.09	207	8.02	-46	0.00
22-Sep-10	19.08	35.21	15.4	7.07	294	4.25	-35	n/m
15-Dec-10	19.61	34.68	14.8	7.07	243	3.55	-10	0.00
24-Mar-11	18.18	36.11	13.9	7.34	326	4.08	-15	0.00
16-Jun-11	17.33	36.96	15.0	7.05	236	4.00	-10	0.00
15-Sep-11	16.23	38.06	17.0	7.38	142	6.95	6	0.00
16-Dec-11	16.68	37.61	15.7	7.09	173	5.20	10	0.00
14-Mar-12	18	36.29	15.2	7.07	302	4.02	15	0.00

VE-1**PARAMETER**

Sampling Date	Depth to Water (ft)	Temperature °C	pH	Cond.	D.O.	Eh	Ozone
24-Mar-05	N/C	n/c	n/c	n/c	n/c	n/c	0.17
27-Jun-05	17.14	17.0	7.41	457	6.52	140	0.08
20-Sep-05	Dry	13.5	7.01	111	2.95	<-80	>1.5
13-Dec-05	15.43	NA	7.35	177	N/A	-100	>1.5
15-Mar-06	15.20	16.0	6.89	351	3.00	3.88	>1.5
22-Jun-06	15.92	19.4	7.06	529	3.58	-105	0.22
26-Sep-06	17.10	14.8	7.05	248	3.15	-113	0.25
19-Dec-06	16.63	13.7	7.07	322	2.44	-60	0.2
27-Mar-07	16.23	17.0	7.12	509	1.66	-114	0.10
26-Jun-07	16.29	19.2	7.05	408	2.05	-50	0.11
20-Sep-07	17.25	14.8	7.12	234	2.99	-110	NA
20-Dec-07	18.62	11.4	7.11	268	3.15	-178	0.10
27-Mar-08	15.47	16.0	7.10	181	2.05	-200	over range
19-Jun-08	16.50	19.2	6.53	470	2.60	-106	over range
25-Sep-08	18.20	15.0	6.63	175	1.86	-83	over range
18-Dec-08	16.32	12.0	6.94	212	5.63	178	0.11
12-Mar-09	16.57	17.0	7.84	388	1.97	-109	over range
17-Jun-09	15.53	19.2	7.64	547	1.60	-123	0.03
22-Sep-09	17.15	12.0	6.75	334	1.66	-49	0.09
30-Dec-09	16.59	12.0	7.09	221	2.60	-15	0.02
02-Feb-10	16.83	12.1	7.39	392	34.70	202	over range
24-Mar-10	13.90	17.1	7.08	261	3.93	-60	0.00
22-Jun-10	15.36	DRY					
22-Sep-10	DRY						
15-Dec-10	DRY						
24-Mar-11	17.95	11.8	7.10	267	4.42	-10	0.00
16-Jun-11	17.13	16.8	7.02	251	3.26	-15	0.00
15-Sep-11	16.00	19.5	7.09	184	1.61	-122	0.00
16-Dec-11	16.51	14.2	7.00	181	1.88	-104	0.00
14-Mar-12	17.78	14.6	7.20	205	1.80	-120	0.00

VE-5

PARAMETER

Sampling Date	Depth to Water (ft)	Temperature °C	pH	Cond.	D.O.	Eh	Ozone
24-Mar-05	19.64	12.1	6.91	230	4.45	190	0.57
27-Jun-05	16.65	16.7	7.02	235	6.83	125	meter fault
20-Sep-05	18.45	20.0	6.53	238	7.83	100	>15
13-Dec-05	5.51	15.0	7.10	240	5.51	105	>15
15-Mar-06	14.62	12.0	7.05	240	4.95	165	>15
22-Jun-06	15.35	16.0	7.10	251	3.85	150	>15
26-Sep-06	16.47	18.0	7.11	240	2.95	157	>15
19-Dec-06	16.00	14.1	7.06	263	2.99	29	>15
03-Jan-07	15.60	14.5	7.11	226	2.71	8	>15
26-Jun-07	15.64	7.15	212	1.58	15	>1.5	
20-Sep-07	16.60	7.04	201	2.50	-30	over range	
20-Dec-07	18.03	7.14	232	2.80	32	NA	
27-Mar-08	14.84	11.0	7.09	198	3.00	-95	ND
19-Jun-08	15.88	16.4	7.16	227	2.85	-100	0.1
25-Sep-08	17.60	18.2	6.04	215	6.18	195	0.05
18-Dec-08	15.70	14.0	6.42	224	6.32	121	0.35
12-Mar-09	15.94	12.0	6.94	212	5.63	178	0.11
17-Jun-09	15.20	15.5	8.01	259	5.60	55	0.06
22-Sep-09	16.53	19.0	7.50	313	9.65	30	0.01
30-Dec-09	15.97	13.0	6.55	249	5.22	131	over range
02-Feb-10	16.23	12.5	7.12	252	8.00	382	over range
24-Mar-10	13.26	12.5	7.13	218	8.20	153	over range
22-Jun-10	14.76	16.8	7.10	275	8.16	-36	over range
22-Sep-10	18.20	19.0	7.04	210	3.20	-40	n/m
15-Dec-10	18.80	15.0	7.08	221	3.05	20	0
24-Mar-11	17.33	11.9	7.12	188	6.02	5	0
16-Jun-11	16.50	15.8	7.04	255	6.15	7	over range
14-Sep-11	15.38	18.0	7.04	184	4.70	37	0
16-Dec-11	15.90	14.6	7.08	220	3.85	25	over range
14-Mar-12	17.14	7.07	188	3.25	10	10	over range

DW-1**PARAMETER**

Sampling Date	Depth to Water (ft)		Temperature °C	pH	Cond.	D.O.	Eh	Ozone
24-Mar-05			7.7	7.51	543	5.8	95	n/c
27-Jun-05			20.6	6.53	105	1.94	125	0
20-Sep-05	9.50		25.5	6.27	110	1.87	-35	0
13-Dec-05	6.95		12.0	7.41	43	11.21	45	0
15-Mar-06	10.36		8.6	7.78	97	7.41	102	0.1
22-Jun-06	8.90		18.5	7.46	66	7.00	88	-0.08
26-Sep-06	8.36		22.4	7.03	65	3.74	34	0.05
19-Dec-06	10.35		12.5	7.31	94	4.25	-41	-0.01
27-Mar-07	8.70		8.5	7.16	209	5.2	-60	-0.08
26-Jun-07	8.98		21.3	7.13	67	4.80	-25	0.10
20-Sep-07	9.58		23.0	7.08	63	6.70	-46	0.07
20-Dec-07	7.65		8.5	7.02	72	5.28	25	NA
27-Mar-08	7.90		8.1	7.21	82	4.85	-123	ND
19-Jun-08	4.30		22.4	7.13	56	6.55	-10	0.08
25-Sep-08	DRY		n/a	n/a	n/a	n/a	n/a	n/a
18-Dec-08	DRY	soil sample coll.	n/a	n/a	n/a	n/a	n/a	n/a
12-Mar-09	10.48	soil sample coll.	13.0	7.30	65	6.55	-8	ND
17-Jun-09	DRY	soil sample coll.	n/a	n/a	n/a	n/a	n/a	n/a
22-Sep-09	DRY	soil sample coll.	n/a	n/a	n/a	n/a	n/a	n/a
30-Dec-09	DRY	soil sample coll.	n/a	n/a	n/a	n/a	n/a	n/a
02-Feb-10	DRY	soil sample coll.	n/a	n/a	n/a	n/a	n/a	n/a
24-Mar-10	DRY	soil sample coll.	soil sample wet	n/a	n/a	n/a	n/a	n/a
22-Jun-10	DRY	soil sample coll.	n/a	n/a	n/a	n/a	n/a	n/a
22-Sep-10	DRY	soil sample coll.	n/a	n/a	n/a	n/a	n/a	n/a
15-Dec-10	DRY	soil sample coll.	n/a	n/a	n/a	n/a	n/a	n/a
24-Mar-11	9.82		8.5	7.10	25	10.50	80	0.00
16-Jun-11	8.58		22.0	7.09	67	5.60	45	0.00
15-Sep-11	DRY	soil sample coll.						
16-Dec-11	DRY	soil sample coll.						
14-Mar-12	DRY	soil sample coll.						

VP-A

Sampling Date	Depth to Water (ft)		Temperature °C	pH	Cond.	D.O.	Eh	Ozone
30-Dec-09		Not Accessible						
02-Feb-10	18.13		14.1	7.11	350	9.15	224	0.00
24-Mar-10	15.18		13.5	7.11	271	9.66	144	over range
22-Jun-10	16.50		15.5	7.13	188	10.23	-60	over range
22-Sep-10	20.05		17.5	7.11	376	3.95	-45	n/m
15-Dec-10	20.68		16.0	7.06	292	3.55	-35	0
24-Mar-11	19.20		13.5	7.10	255	6.10	-20	0
16-Jun-11	18.40		13.8	7.57	318	8.30	-12	0
15-Sep-11	17.30		18.0	7.07	90	7.30	28	0
16-Dec-11	17.79		16.6	7.06	233	5.88	15	0
14-Mar-12	19.06		14.8	7.03	254	4.01	20	0

VP-B**PARAMETER**

Sampling Date	Depth to Water (ft)		Temperature °C	pH	Cond.	D.O.	Eh	Ozone
30-Dec-09	16.28		15.1	7.53	211	1.79	170	0.03
02-Feb-10	16.55		14.1	7.04	340	9.01	190	over range
24-Mar-10	13.68		13.8	7.09	229	7.14	137	over range
22-Jun-10	15.08		15.5	7.13	245	9.40	12	over range
22-Sep-10	18.61		17.0	7.09	370	4.00	16	n/m
15-Dec-10	19.20		14.9	7.03	370	2.97	20	0
24-Mar-11	17.75		13.8	7.57	196	5.95	-15	0
16-Jun-11	16.92		14.0	7.02	161	8.39	-19	over range
15-Sep-11	15.81		17.5	7.30	96	7.40	-27	0
16-Dec-11	16.30		16.3	7.56	171	4.99	-30	over range
14-Mar-12	17.57		14.5	7.05	198	3.91	-15	over range

Table 2
Historic Groundwater Chemical Data Summary (Through 9/09)
S-K N. Amityville, NY

Well ID GW STND	Date	TOC		Ethyl-benzene		Chloro-benzene		1,2-DCB		1,3-DCB		1,4-DCB		1,1,1-TCA		trans -1,2-DCE		Mineral Spirits	Total VOCs
		rev.	1	Benzene (ug/l)	Toluene (ug/l)	5	Xylenes (ug/l)	5	1	3	3	3	5	5	5	5	50	(ug/l)	(ug/l)
GT-1	3/14/1994	ND	ND	51	410	170	ND	21	81	ND	ND	ND	ND	ND	ND	NS	733		
	2/9/1996	ND	ND	5	49	19	13	ND	12	ND	ND	ND	ND	ND	ND	444	98		
	5/28/1996	ND	ND	ND	16	24	10	ND	13	ND	ND	ND	ND	ND	ND	186	63		
DUPE	5/28/1996	ND	ND	ND	16	23	ND	ND	13	11	ND	ND	ND	ND	ND	244	63		
	8/22/1996	ND	ND	8	76	41	20	5	23	ND	ND	ND	ND	ND	ND	588	173		
	12/2/1996	ND	ND	ND	42	18	10	ND	10	ND	ND	ND	ND	ND	ND	NS	80		
SPLIT	2/27/1997	ND	ND	ND	34	16	7	ND	8	ND	ND	ND	ND	ND	ND	113	65		
	2/27/1997	ND	ND	1	29	17	9	3	13	ND	ND	ND	ND	ND	ND	170	72		
DUPE	5/28/1997	ND	ND	6	52	22	12	ND	11	ND	ND	ND	ND	ND	ND	ND	103		
SPLIT	5/28/1997	ND	ND	6	52	22	12	ND	11	ND	ND	ND	ND	ND	ND	ND	51	92	
	5/28/1997	ND	ND	6	47	20	9	ND	10	ND	ND	ND	ND	ND	ND	ND	308	343	
DUPE	9/9/1997	ND	ND	22	167	73	33	9	38	ND	ND	ND	ND	ND	ND	ND	277	304	
SPLIT	9/9/1997	ND	ND	17	130	62	33	9	38	ND	ND	ND	ND	ND	ND	ND	5000	289	
	12/18/1997	ND	ND	9	62	26	16	4	18	ND	ND	ND	ND	ND	ND	ND	43	135	
DUPE	12/18/1997	ND	ND	8	61	26	14	4	16	ND	ND	ND	ND	ND	ND	ND	33	129	
	6/25/1998	ND	ND	ND	23	16	17	ND	16	ND	ND	ND	ND	ND	ND	ND	51	72	
DUPE	6/25/1998	ND	ND	ND	23	16	17	ND	15	ND	ND	ND	ND	ND	ND	ND	55	70	
SPLIT	6/25/1998	ND	ND	ND	18	ND	19	ND	16	ND	ND	ND	ND	ND	ND	ND	ND	53	
	10/13/1998	ND	ND	9	70	37	15	ND	21	ND	ND	ND	ND	ND	ND	ND	96	153	
DUPE	10/13/1998	ND	ND	7	56	25	14	ND	17	ND	ND	ND	ND	ND	ND	ND	113	119	
	12/4/1998	ND	ND	9	51	27	16	ND	17	ND	ND	ND	ND	ND	ND	ND	128	119	
DUPE	12/4/1998	ND	ND	9	48	26	16	ND	16	ND	ND	ND	ND	ND	ND	ND	115	114	
	6/16/1999	ND	ND	10	54	29	31	8	37	ND	ND	ND	ND	ND	ND	ND	820	168	
DUPE	6/16/1999	ND	ND	6	37	18	27	8	35	ND	ND	ND	ND	ND	ND	ND	335	129	
	9/30/1999	ND	ND	14	71	45	31	7	34	ND	ND	ND	ND	ND	ND	ND	ND	204	
DUPE	9/30/1999	ND	ND	16	80	49	37	9	41	ND	ND	ND	ND	ND	ND	ND	ND	232	
	12/22/1999	ND	ND	9	43	23	22	6	26	ND	ND	ND	ND	ND	ND	ND	2480	129	
	3/15/2000	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	
SPLIT	3/15/2000	ND	ND	1	9	5	4	1	4	0	ND	ND	ND	ND	ND	ND	250	24	
	6/28/2000	ND	ND	7	36	19	13	ND	13	ND	ND	ND	ND	ND	ND	ND	92	0	
SPLIT	6/28/2000	ND	0	5	37	19	17	4	19	2	ND	ND	ND	ND	ND	ND	38	0	
	9/20/2000	ND	ND	ND	25	11	13	ND	15	ND	ND	ND	ND	ND	ND	ND	118	0	
SPLIT	9/20/2000	ND	ND	ND	10	5	6	2	10	1	ND	ND	ND	ND	ND	ND	23	34	
	12/20/2000	ND	ND	ND	8	6	7	ND	8	ND	ND	ND	ND	ND	ND	ND	87	28	
SPLIT	12/20/2000	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	4	0	
	3/15/2001	ND	ND	ND	8	7	6	ND	6	ND	ND	ND	ND	ND	ND	ND	ND	0	
SPLIT	3/15/2001	ND	ND	ND	17	8	9	ND	8	ND	ND	ND	ND	ND	ND	ND	3	0	
m. malf.	8/23/2001	ND	ND	5	20	8	13	ND	12	ND	ND	ND	ND	ND	ND	ND	186	58	
SPLIT	8/23/2001	ND	ND	5	22	8	18	ND	ND	1	ND	ND	ND	ND	ND	ND	450	54	

2 of 11

Table
Historic Groundwater Chemical Data Summary (Through 9/09)
S-K N. Amityville, NY

Table 2
Historic Groundwater Chemical Data Summary (Through 9/09)
S-K N. Amityville, NY

Table 2
Historic Groundwater Chemical Data Summary (Through 9/09)
S-K N. Amityville, NY

Table 2
Historic Groundwater Chemical Data Summary (Through 9/09)
S-K N. Amityville, NY

Table 2
Historic Groundwater Chemical Data Summary (Through 9/09)
S-K N. Amityville, NY

Table 2
Historic Groundwater Chemical Data Summary (Through 9/09)
S-K N. Amityville, NY

Table 2
Historic Groundwater Chemical Data Summary (Through 9/09)
S-K N. Amityville, NY

Table 2
Historic Groundwater Chemical Data Summary (Through 9/09)
S-K N. Amityville, NY

Table 2
Historic Groundwater Chemical Data Summary (Through 9/09)
S-K N. Amityville, NY

Well ID GW STND	TOC Date	Total Organic Compounds (ug/l)												Mineral Spirits (ug/l)	Total VOCs (ug/l)
		Benzene (ug/l)	Toluene (ug/l)	Ethyl-benzene (ug/l)	Xylenes (ug/l)	Chloro-benzene (ug/l)	1,2-DCB (ug/l)	1,3-DCB (ug/l)	1,4-DCB (ug/l)	1,2-DCE (ug/l)	1,1,1-TCA (ug/l)	trans-1,2-DCE (ug/l)			
1	5	5	5	5	5	3	3	3	5	5	5	5	50		
VE-1	3/27/2007	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	0	
	6/26/2007	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	0	
	9/20/2007	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	0	
	12/20/2007	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	0	
	3/27/2008	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	0	
	6/19/2008	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	0	
	9/25/2008	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	0	
	12/18/2008	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	0	
	3/12/2009	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	0	
	6/17/2009	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	0	
	9/22/2009	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	0	
VE-1	3/30/2005	ND	ND	ND	ND	ND	ND	64	ND	ND	ND	ND	2900	164	
	7/6/2005	ND	ND	ND	5	ND	41	7	27	ND	ND	ND	5600	80	
dry	9/20/2005	ND	ND	ND	18	ND	97	72	71	ND	ND	ND	24000	258	
	12/13/2005	ND	ND	ND	19J1M	ND	98J1M	83J1M	83J1M	ND	ND	6-cis 1,2 DCE	39000	289	
	3/15/2006	ND	ND	ND	9	ND	57	ND	61	ND	ND	ND	17000	127	
	6/22/2006	ND	ND	ND	ND	ND	18	8	26	ND	ND	ND	8600	52	
	9/26/2006	ND	ND	ND	ND	ND	21	5	20	ND	ND	ND	3900	46	
	dup	ND	ND	ND	ND	ND	37	12	45	ND	ND	ND	27000	94	
	12/19/2006	ND	ND	ND	ND	ND	21	9	31	ND	ND	ND	34000	61	
	3/27/2007	ND	ND	ND	ND	ND	27	13	40	ND	ND	ND	30000	80	
	6/26/2007	ND	ND	ND	ND	ND	6	4	12	ND	ND	ND	9500	22	
	9/20/2007	ND	ND	ND	ND	ND	9	7	19	ND	ND	ND	33000	35	
	12/20/2007	ND	ND	ND	ND	ND	9	7	18	ND	ND	ND	430	78 ¹	
	3/27/2008	ND	ND	ND	ND	ND	6	5	12	ND	ND	ND	21000	23	
	6/19/2008	ND	ND	ND	ND	ND	6	5	12	ND	ND	ND	23000	0	
	9/25/2008	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	15000	20.2	
	12/18/2008	ND	ND	ND	ND	ND	ND	ND	7.2	ND	ND	ND	8000	3.9	
	3/12/2009	ND	ND	ND	ND	ND	ND	ND	3.9	ND	ND	ND			
	6/17/2009	ND	ND	ND	ND	ND	ND	6.0	ND	ND	ND	ND	23000	6	
	9/22/2009	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	8400	0	

Note: 13 ppb of isopropylbenzene was also detected. This parameter total is included in the Total VOCs column.

A

Table 2
Historic Groundwater Chemical Data Summary (Through 9/09)
S-K N. Amityville, NY

Well ID	TOC ev.	Benzene (ug/l)	Toluene (ug/l)	Ethyl-benzene (ug/l)	Xylenes (ug/l)	Chloro-benzene (ug/l)	1,2-DCB (ug/l)	1,3-DCB (ug/l)	1,4-DCB (ug/l)	1,2-DCE (ug/l)	1,1,1-TCA (ug/l)	trans -1,2-DCE (ug/l)	Mineral Spirits (ug/l)	Total VOCs (ug/l)
GW STND		1	5	5	5	5	3	3	3	5	5	5	50	

Key

Notes	Target Compound Abbreviations
BDL = Not detected above the method detection limit	1,2-DCB = 1,2-Dichlorobenzene
ND = Not Detected (reported in micrograms per liter (ug/l))	1,3-DCB = 1,3-Dichlorobenzene
NS = Not Sampled	1,4-DCB = 1,4-Dichlorobenzene
NA = Not Applicable	1,2-DCE = 1,2-Dichloroethene
TOC = Top of Casing (measured in feet above MSL)	1,1,1-TCA = 1,1,1-Trichloroethane
DO = Dissolved Oxygen (reported in milligrams per liter (mg/l))	
J1M = Lab estimated concentration	
Number that is in BOLD exceeds the New York State Class GA Group Standards for Class GA groundwater (NYSDEC TOGS 1.1.1, 10/22/93, Rev. 6/98)	Trans-1,2-DCE = Trans-1,2-Dichloroethene

Notes:

1. Tetrachloroethane was detected at a concentration of 5.7 and 6.3 ug/L in sample GT-1 and X-2, respectively.

Table 3
Groundwater Monitoring Results Summary - Test America, Inc. Start
Safety-Kleen Systems, Inc. - Corrective Action Program
N. Amityville, New York Facility

(Recorded At/Above the T.O.G.S. 1.1.1 Standards or Project-Specific Reporting Limits)

(See Laboratory Report for all Compounds Detected Above the Method Detection Limit)

(Project Laboratory as of 12/2009 - Test America, Inc.)

Monitoring Location	Sample Date	Detected Compound	Acetone	Benzene	Toluene	Ethyl-benzene	Xylenes	PCE	Chloro-benzene	1,2-DCB	1,3-DCB	1,4-DCB	1,2-DCE	1,1,1-trans-1,2-DCE	Mineral Spirit RO	Total VOCs
		Units	(ug/l)	(ug/l)	(ug/l)	(ug/l)	(ug/l)	(ug/l)	(ug/l)	(ug/l)	(ug/l)	(ug/l)	(ug/l)	(ug/l)	(ug/l)	(ug/l)
		TOGS-STD->	50	1	5	5	5	3	3	3	5	5	5	50	n/a	
GT-1	12/30/2009	Sample														
		Duplicate (X-1)														1,300
	2/2/2010	Sample														1,300
		Duplicate (X-1)														1,000
	3/24/2010	Sample														1,100
		Duplicate (X-1)														3,5 & 4.1
	6/22/2010	Sample														6,400
		Duplicate (X-1)														3,5 & 4.1
	9/22/2010	Sample														4,500
		Duplicate (X-1)														3,5 & 4.2
	12/15/2010	Sample														3,000
		Duplicate (X-1)														2,400
	3/24/2011	Sample														18,000
		Duplicate (X-1)														14.9
	6/16/2011	Sample														16,000
		Duplicate (X-1)														15.9
	9/15/2011	Sample														12,000
		Duplicate (X-1)														35.3
	12/16/2011	Sample														39,000
		Duplicate (X-1)														34.2
	3/14/2012	Sample														18,000
		Duplicate (X-1)														25.8
	6/16/2012	Sample														24,000
		Duplicate (X-1)														26
	9/15/2012	Sample														8,500
		Duplicate (X-1)														6.5
	12/16/2012	Sample														11,000
		Duplicate (X-1)														7.2
	3/14/2013	Sample														12,000
		Duplicate (X-1)														5.5
GT-2	12/30/2009															
	2/2/2010															67
	3/24/2010															
	6/22/2010															
	9/22/2010															
	12/15/2010															
	3/24/2011															
	6/16/2011															
	9/15/2011															
	12/16/2011															
	3/14/2012															

Monitoring Location	Sample Date	Detected Compound Units	Acetone	Benzene	Toluene	Ethy- benzene	Xylenes	PCE	Chloro- benzene	1,2- DCB	1,3- DCB	1,4- DCB	1,2- DCE	1,3- TCA	1,1,1- trans -1,2- DCE	Mineral Spirit RO	Total VOCs
		TGGS-STD->	(ug/l)	(ug/l)	(ug/l)	(ug/l)	(ug/l)	(ug/l)	(ug/l)	(ug/l)	(ug/l)	(ug/l)	(ug/l)	(ug/l)	(ug/l)	(ug/l)	n/a
GT-3	12/30/2009																
	2/2/2010																
	3/24/2010																
	6/2/2010																
	9/2/2010																
	12/15/2010																
GT-4	12/30/2009	N/S															
	2/2/2010	N/S															
	3/24/2010	N/S															
	6/2/2010	N/S															
	9/2/2010	N/S															
	12/15/2010	N/S															
	3/24/2011	N/S															
	6/16/2011	N/S															
	9/15/2011	N/S															
	12/16/2011	N/S															
	3/14/2012	N/S															
GT-5	12/30/2009																
	2/2/2010																
	3/24/2010																
	6/2/2010																
	9/2/2010																
	12/15/2010																
	3/24/2011																
	6/16/2011																
	9/15/2011																
	12/16/2011																
	3/14/2012																
VE-1	12/30/2009																
	2/2/2010																
	3/24/2010																
	6/2/2010																
	9/2/2010																
	12/15/2010	Dry															
	3/24/2011																
	6/16/2011																
	9/15/2011																
	12/16/2011																
	3/14/2012																

Safety-Kleen Systems, Inc.
N. Amityville, NY

Monitoring Location	Sample Date	Detected Compound	Acetone	Benzene	Toluene	Ethyl-benzene	Xylenes	PCE	Chloro-benzene	1,2-DCB	1,3-DCB	1,4-DCB	1,2-DCE	1,1,1-TCA	trans -1,2-DCE	Mineral Spirit RO	Total VOCs
		Units	(ug/l)	(ug/l)	(ug/l)	(ug/l)	(ug/l)	(ug/l)	(ug/l)	(ug/l)	(ug/l)	(ug/l)	(ug/l)	(ug/l)	(ug/l)	(ug/l)	(ug/l)
		TOGS-STD->	50	1	5	5	5	5	3	3	3	5	5	5	50	n/a	
VE-5	12/30/2009															190	
	2/2/2010															390	
	3/24/2010																
	6/22/2010																
	9/22/2010																
	12/15/2010																
	3/24/2011																
	6/16/2011																
	9/15/2011																
	12/16/2011																
	3/14/2012																
VP-A	12/30/2009	Not Accessible														99	
	2/2/2010																
	3/24/2010																
	6/22/2010																
	9/22/2010																
	12/15/2010																
	3/24/2011																
	6/16/2011																
	9/15/2011																
	12/16/2011																
	3/14/2012																
VP-B	12/30/2009															58	
	2/2/2010															66	
	3/24/2010		130 & 110													120	130 & 110
	6/22/2010																
	9/22/2010																
	12/15/2010																
	3/24/2011																
	6/16/2011																
	9/15/2011																
	12/16/2011																
	3/14/2012																

Monitoring Location	Sample Date	Detected Compound	Acetone	Benzene	Toluene	Ethyl-benzene	Xylenes	PCE	Chloro-benzene	1,2-DCB	1,3-DCB	1,4-DCB	1,2-DCE	1,1,1-trans -1,2-DCE	Mineral Spirit RO	Total VOCs
		Units	(ug/l)	(ug/l)	(ug/l)	(ug/l)	(ug/l)	(ug/l)	(ug/l)	(ug/l)	(ug/l)	(ug/l)	(ug/l)	(ug/l)	(ug/l)	(ug/l)
		TOGS-STD->	50	1	5	5	5	5	5	3	3	3	5	5	50	n/a
DW-1 SOIL	12/30/2009	Sample														
		Duplicate														
	2/2/2010	Sample														
		Duplicate														
	3/24/2010	Sample														
		Duplicate														
	6/22/2010	Sample														
		Duplicate														
	9/22/2010	Sample														
		Duplicate														
	12/15/2010	Sample														
		Duplicate														
DW-1 WTR	12/30/2009	No standing water														
	2/2/2010	No standing water														
	3/24/2010	sampled														
	6/22/2010	No standing water														
	9/22/2010	No standing water														
	12/15/2010	No standing water														
	3/24/2011	sampled														
	6/16/2011	sampled														
	9/15/2011	No standing water														
	12/16/2011	No standing water														
	3/14/2012	No standing water														

ATTACHMENT 4

LABORATORY ANALYTICAL REPORT

COMPACT DISK DISTRIBUTION

CC LIST Hard Copy Recipients

(Executive Summary Attached Herein)

ANALYTICAL REPORT

Job Number: 460-38026-1

Job Description: 2012 Safety-Kleen Amityville

For:

Basile Environmental Solutions, LLC
1188 Hillside Drive
Cortland, NY 3045

Attention: Joseph Basile, Jr., MSc.



Approved for release.
Jackie Trudell
Project Manager I
4/5/2012 3:12 PM

Jackie Trudell
Project Manager I
jackie.trudell@testamericainc.com
04/05/2012

The test results in this report meet all NELAP requirements unless specified within the case narrative. Pursuant to NELAP, this report may not be reproduced, except in full, without the written approval of the laboratory. All questions regarding this report should be directed to the TestAmerica Edison Project Manager.

TestAmerica Edison Certifications and Approvals: Connecticut: CTDOH #PH-0200, New Jersey: NJDEP (NELAP) #12028, New York: NYDOH (NELAP) #11452, NYDOH (ELAP) #11452, Pennsylvania: PADEP (NELAP) 68-00522 and Rhode Island: RIDOH LA000132

TestAmerica Laboratories, Inc.

TestAmerica Edison 777 New Durham Road, Edison, NJ 08817
Tel (732) 549-3900 Fax (732) 549-3679 www.testamericainc.com



Job Number: 460-38026-1

Job Description: 2012 Safety-Kleen Amityville

I certify that this data package is in compliance with the terms and conditions of the contract, both technically and for completeness, for other than the conditions detailed within the body of this report. Release of the data contained in this sample data package and in the electronic data deliverable has been authorized by the Laboratory Manager or his/her designee, as verified by the following signature.



Approved for release.
Jackie Trudell
Project Manager I
4/5/2012 3:12 PM

Jackie Trudell

Table of Contents

Cover Title Page	1
Data Summaries	5
Report Narrative	5
Sample Summary	6
Executive Summary	7
Method Summary	9
Method / Analyst Summary	10
Sample Datasheets	11
Surrogate Summary	51
QC Data Summary	53
Data Qualifiers	65
QC Association Summary	66
Lab Chronicle	67
Organic Sample Data	71
GC/MS VOA	71
Method 8260B	71
Method 8260B QC Summary	72
Method 8260B Sample Data	83
Standards Data	175
Method 8260B ICAL Data	175
Method 8260B CCAL Data	219
Raw QC Data	228
Method 8260B Tune Data	228
Method 8260B Blank Data	236
Method 8260B LCS/LCSD Data	240
Method 8260B MS/MSD Data	248

Table of Contents

Method 8260B Run Logs	262
Method 8260B Prep Data	264
GC VOA	269
Method 8015B - GRO	269
Method 8015B - GRO QC Summary	270
Method 8015B - GRO Sample Data	277
Standards Data	327
Method 8015B - GRO ICAL Data.....	327
Method 8015B - GRO CCAL Data	354
Raw QC Data	378
Method 8015B - GRO Blank Data	378
Method 8015B - GRO LCS/LCSD Data	388
Method 8015B - GRO Run Logs	408
Method 8015B - GRO Prep Data	411
Shipping and Receiving Documents	417
Client Chain of Custody	418
Sample Receipt Checklist	419

**Job Narrative
460-38026-1**

Comments

No additional comments.

Receipt

Technical and Operational Guidance Series subpart 1.1.1 (The New York State Ambient Water Quality Standards and Guidance Values) references a class GA standard of 0.04 ug/L for 1,2-dibromo-3-Chloropropane and 1,2,3-Trichloropropane. The laboratory is unable to meet this standard by reporting to their established reporting limit (RL) or method detection limit (MDL). Sample results are evaluated to the MDL, which is the lowest level the instrumentation has been able to detect, which is 0.21 ug/L for 1,2-Dibromo-3-Chloropropane and 0.17 ug/L for 1,2,3-Trichloropropane.

The following sample(s) was received at the laboratory without a sample collection time documented on the chain of custody: X-1 (460-38026-9). The client was contacted and instructed the lab to use a collection time of 13:00.

The following sample(s) was received at the laboratory without a sample collection time documented on the chain of custody: trip Blank (460-38026-10). The client was contacted and instructed the lab to use a collection time of 08:00.

The Edison lab does not hold NY certification for the following analytes via method 8260 for water or soil: Ethyl Methacrylate, Iodomethane and Methacrylonitrile.

All other samples were received in good condition within temperature requirements.

GC/MS VOA

Method(s) 8260B: Ethyl methacrylate was not calibrated in initial calibration 14920; therefore, it was reported as a TIC for the following samples: GT-1 (460-38026-1), GT-2 (460-38026-2), GT-3 (460-38026-3), GT-5 (460-38026-4), trip Blank (460-38026-10), VE-1 (460-38026-7), VE-5 (460-38026-8), VP-A (460-38026-5), VP-B (460-38026-6), X-1 (460-38026-9).

Method(s) 8260B: The laboratory control sample (LCS) for batch 107121 recovered outside control limits for the following analyte: Methacrylonitrile. The data has been flagged and reported.

No other analytical or quality issues were noted.

GC VOA

Method(s) 8015B: The following sample was diluted due to the abundance of the target analyte: GT-1 (460-38026-1). Elevated reporting limits (RLs) are provided.

Method(s) 8015B: The following samples were diluted due to the abundance of the target analyte: VE-1 (460-38026-7), X-1 (460-38026-9). Elevated reporting limits (RLs) are provided.

No other analytical or quality issues were noted.

VOA Prep

No analytical or quality issues were noted.

SAMPLE SUMMARY

Client: Basile Environmental Solutions, LLC

Job Number: 460-38026-1

Lab Sample ID	Client Sample ID	Client Matrix	Date/Time Sampled	Date/Time Received
460-38026-1	GT-1	Water	03/14/2012 1020	03/16/2012 0945
460-38026-2	GT-2	Water	03/14/2012 0950	03/16/2012 0945
460-38026-3	GT-3	Water	03/14/2012 0920	03/16/2012 0945
460-38026-4	GT-5	Water	03/14/2012 0850	03/16/2012 0945
460-38026-5	VP-A	Water	03/14/2012 1050	03/16/2012 0945
460-38026-6	VP-B	Water	03/14/2012 1115	03/16/2012 0945
460-38026-7	VE-1	Water	03/14/2012 1215	03/16/2012 0945
460-38026-8	VE-5	Water	03/14/2012 1145	03/16/2012 0945
460-38026-9	X-1	Water	03/14/2012 1300	03/16/2012 0945
460-38026-10	trip Blank	Water	03/14/2012 0800	03/16/2012 0945

EXECUTIVE SUMMARY - Detections

Client: Basile Environmental Solutions, LLC

Job Number: 460-38026-1

Lab Sample ID Analyte	Client Sample ID	Result	Qualifier	Reporting Limit	Units	Method
460-38026-1 1,2-Dichlorobenzene	GT-1	2.2	J	3.0	ug/L	8260B
1,3-Dichlorobenzene		2.1	J	3.0	ug/L	8260B
1,4-Dichlorobenzene		6.4		3.0	ug/L	8260B
Tetrachloroethene		0.28	J	5.0	ug/L	8260B
cis-1,2-Dichloroethene		0.26	J	5.0	ug/L	8260B
Mineral Spirit Range Organics		16000		2500	ug/L	8015B
460-38026-2 Acetone	GT-2	24	J	50	ug/L	8260B
Tetrachloroethene		0.18	J	5.0	ug/L	8260B
460-38026-3 Tetrachloroethene	GT-3	0.20	J	5.0	ug/L	8260B
460-38026-4 Chloroform	GT-5	0.17	J	7.0	ug/L	8260B
Tetrachloroethene		0.11	J	5.0	ug/L	8260B
460-38026-5 Chloroform	VP-A	0.19	J	7.0	ug/L	8260B
Tetrachloroethene		0.66	J	5.0	ug/L	8260B
Trichloroethene		0.11	J	5.0	ug/L	8260B
460-38026-6 Chloroform	VP-B	0.16	J	7.0	ug/L	8260B
Tetrachloroethene		1.0	J	5.0	ug/L	8260B
Trichloroethene		0.17	J	5.0	ug/L	8260B
460-38026-7 Chloroethane	VE-1	0.76	J	5.0	ug/L	8260B
Tetrachloroethene		0.40	J	5.0	ug/L	8260B
Mineral Spirit Range Organics		2600		250	ug/L	8015B
460-38026-8 Tetrachloroethene	VE-5	0.12	J	5.0	ug/L	8260B

EXECUTIVE SUMMARY - Detections

Client: Basile Environmental Solutions, LLC

Job Number: 460-38026-1

Lab Sample ID Analyte	Client Sample ID	Result	Qualifier	Reporting Limit	Units	Method
460-38026-9	X-1					
1,2-Dichlorobenzene		2.1	J	3.0	ug/L	8260B
1,3-Dichlorobenzene		2.0	J	3.0	ug/L	8260B
1,4-Dichlorobenzene		6.1		3.0	ug/L	8260B
1,2-Dichloroethene, Total		0.32	J	2.0	ug/L	8260B
Tetrachloroethene		0.23	J	5.0	ug/L	8260B
cis-1,2-Dichloroethene		0.32	J	5.0	ug/L	8260B
Mineral Spirit Range Organics		14000		2500	ug/L	8015B
460-38026-10	TRIP BLANK					
Chloroform		0.19	J	7.0	ug/L	8260B
Methylene Chloride		2.3	J	5.0	ug/L	8260B

ANALYTICAL REPORT

Job Number: 460-37920-1

Job Description: 2012 Safety-Kleen Amityville

For:

Basile Environmental Solutions, LLC
1188 Hillside Drive
Cortland, NY 3045

Attention: Joseph Basile, Jr., MSc.



Approved for release.
Jackie Trudell
Project Manager I
4/4/2012 3:11 PM

Jackie Trudell
Project Manager I
jackie.trudell@testamericainc.com
04/04/2012

The test results in this report meet all NELAP requirements unless specified within the case narrative. Pursuant to NELAP, this report may not be reproduced, except in full, without the written approval of the laboratory. All questions regarding this report should be directed to the TestAmerica Edison Project Manager.

TestAmerica Edison Certifications and Approvals: Connecticut: CTDOH #PH-0200, New Jersey: NJDEP (NELAP) #12028, New York: NYDOH (NELAP) #11452, NYDOH (ELAP) #11452, Pennsylvania: PADEP (NELAP) 68-00522 and Rhode Island: RIDOH LA000132

TestAmerica Laboratories, Inc.

TestAmerica Edison 777 New Durham Road, Edison, NJ 08817
Tel (732) 549-3900 Fax (732) 549-3679 www.testamericainc.com



Job Number: 460-37920-1

Job Description: 2012 Safety-Kleen Amityville

I certify that this data package is in compliance with the terms and conditions of the contract, both technically and for completeness, for other than the conditions detailed within the body of this report. Release of the data contained in this sample data package and in the electronic data deliverable has been authorized by the Laboratory Manager or his/her designee, as verified by the following signature.



Approved for release.
Jackie Trudell
Project Manager I
4/4/2012 3:11 PM

Jackie Trudell

Table of Contents

Cover Title Page	1
Data Summaries	5
Report Narrative	5
Sample Summary	6
Executive Summary	7
Method Summary	8
Method / Analyst Summary	9
Sample Datasheets	10
Surrogate Summary	18
QC Data Summary	20
Data Qualifiers	38
QC Association Summary	39
Lab Chronicle	41
Organic Sample Data	43
GC/MS VOA	43
Method 8260B	43
Method 8260B QC Summary	44
Method 8260B Sample Data	63
Standards Data	73
Method 8260B ICAL Data	73
Method 8260B CCAL Data	155
Raw QC Data	170
Method 8260B Tune Data	170
Method 8260B Blank Data	186
Method 8260B LCS/LCSD Data	201
Method 8260B MS/MSD Data	221

Table of Contents

Method 8260B Run Logs	235
Method 8260B Prep Data	239
GC VOA	249
Method 8015B - GRO	249
Method 8015B - GRO QC Summary	250
Method 8015B - GRO Sample Data	255
Standards Data	265
Method 8015B - GRO ICAL Data	265
Method 8015B - GRO CCAL Data	292
Raw QC Data	304
Method 8015B - GRO Blank Data	304
Method 8015B - GRO LCS/LCSD Data	309
Method 8015B - GRO MS/MSD Data	314
Method 8015B - GRO Run Logs	324
Method 8015B - GRO Prep Data	326
Inorganic Sample Data	331
General Chemistry Data	331
Gen Chem Cover Page	332
Gen Chem MDL	333
Gen Chem Analysis Run Log	335
Gen Chem Prep Data	336
Shipping and Receiving Documents	337
Client Chain of Custody	338
Sample Receipt Checklist	339

**Job Narrative
460-37920-1**

Comments

No additional comments.

Receipt

All samples were received in good condition within temperature requirements.

Technical and Operational Guidance Series subpart 1.1.1 (The New York State Ambient Water Quality Standards and Guidance Values) references a class GA standard of 0.04 ug/L for 1,2-dibromo-3-Chloropropane and 1,2,3-Trichloropropane. The laboratory is unable to meet this standard by reporting to their established reporting limit (RL) or method detection limit (MDL). Sample results are evaluated to the MDL, which is the lowest level the instrumentation has been able to detect, which is 0.21 ug/L for 1,2-Dibromo-3-Chloropropane and 0.17 ug/L for 1,2,3-Trichloropropane.

The Edison lab does not hold NY certification for the following analytes via method 8260 for water or soil: Ethyl Methacrylate, Iodomethane and Methacrylonitrile.

GC/MS VOA

Method(s) 8260B: The matrix spike / matrix spike duplicate (MS/MSD) recoveries for batch 106307 were outside control limits for multiple analytes. The MS/MSD %RPD was outside control limits for Methyl methacrylate. The associated laboratory control sample (LCS) recoveries met acceptance criteria.

No other analytical or quality issues were noted.

GC VOA

Method(s) 8015B: The matrix spike / matrix spike duplicate (MS/MSD) recoveries for batch 107286 were outside control limits. The associated laboratory control sample (LCS) recovery met acceptance criteria.

No other analytical or quality issues were noted.

VOA Prep

No analytical or quality issues were noted.

SAMPLE SUMMARY

Client: Basile Environmental Solutions, LLC

Job Number: 460-37920-1

Lab Sample ID	Client Sample ID	Client Matrix	Date/Time Sampled	Date/Time Received
460-37920-1	DW-1	Solid	03/14/2012 1200	03/15/2012 0955
460-37920-1MS	DW-1	Solid	03/14/2012 1200	03/15/2012 0955
460-37920-1MSD	DW-1	Solid	03/14/2012 1200	03/15/2012 0955
460-37920-2	DW-1 dup	Solid	03/14/2012 1200	03/15/2012 0955

EXECUTIVE SUMMARY - Detections

Client: Basile Environmental Solutions, LLC

Job Number: 460-37920-1

Lab Sample ID Analyte	Client Sample ID	Result	Qualifier	Reporting Limit	Units	Method
460-37920-1	DW-1					
Methylene Chloride		4.9	J	72	ug/Kg	8260B
Percent Moisture		20.0		1.0	%	Moisture
Percent Solids		80.0		1.0	%	Moisture
460-37920-2	DW-1 DUP					
Methylene Chloride		1.2	J	69	ug/Kg	8260B
Percent Moisture		20.5		1.0	%	Moisture
Percent Solids		79.5		1.0	%	Moisture