SHUMAKER
Consulting Engineering & Land Surveying, D.P.C.

August 15, 2014

Mr. Payson Long
New York State Department of Environmental Conservation
Division of Environmental Remediation
525 Broadway
Albany, NY 12233

Re: Review of Landfill Operations – Calendar Year 2013
Town of Conklin Landfill
Conklin, New York
SCE No. R09357.06

Dear Mr. Long:

Shumaker Consulting Engineering & Land Surveying, D.P.C. (SCE) has been contracted by the Town of Conklin (Town) to assist, monitor, and report on the ongoing Operations and Maintenance activities at the Town of Conklin Landfill site.

The current Operations and Maintenance Plan for the Landfill was prepared by Rust Environment and Infrastructure, and presented in the document entitled *Operation, Maintenance, and Monitoring Plan, Conklin Landfill, Conklin, New York,* dated June 27, 1996 (O&M Plan). A new *Preliminary Site Management Plan* dated March 6, 2014 was prepared by SCE and has been sent to the New York State Department of Environmental Conservation (NYSDEC) and United States Environmental Protection Agency (USEPA) for Review and approval. Both plans call for submission of an annual report summarizing activities at the landfill within the past year. According to the O&M Plan the annual report is to include:

- The results of all groundwater, surface water, and leachate quality data acquired in the past year.
- The amount of leachate from the landfill that was collected from the leachate collection trench and recovery wells.
- The results of leachate analytical results and the amount of leachate discharged to the sanitary sewer.
- Any alterations from the approved report, plans, and specifications or permit conditions, including justification for the change.
- A recent USEPA requirement to the Annual Report includes a certification that no groundwater wells have been installed on the landfill site, pursuant to the approved Institutional controls.

This report has been prepared by SCE on behalf of the Town in support of the annual report commitment promulgated by the O&M Plan. The data collected as part of this study is presented herein.

1.0 LANDFILL ACTIVITIES DURING 2013

Since the remedial activities at the landfill were completed in the mid-1990s, post-closure monitoring and maintenance has been conducted under the O&M Plan, which has been in effect since that date. To date, the O&M Plan has received no authorized modifications; however, it is under revision as part of a Preliminary Site Management Plan which was submitted for USEPA/NYSDEC review in March 2014.

Throughout the year, monthly visual inspections and small maintenance issues are resolved by the Town. The maintenance includes, but is not limited to, a regular mowing schedule during summer months and removal of fallen trees from the perimeter fence. In addition, the monitoring wells (MW) were labeled and redeveloped to remove silt buildup in August 2013. The redevelopment of wells was conducted to aid in the improvement in groundwater sample quality and consistency. Monitoring well labels were provided in order to address comments by the USEPA during their 5-year Annual Inspection.

On September 3, 2013, a down-hole inspection was conducted at MW-2 to identify the cause of the blockage in the well. This blockage was inspected with a camera, and it appears that the blockage is due to a collapse within the screened portion of the well. Over time, landfills often settle and shift as portions compress or decompose. It appears that the shift in this landfill has caused the well to collapse at approximately 21-feet below the top of the standpipe. Photos from the inspection have been included as Figure 1. According to the Operation, Maintenance, and Monitoring Plan from June 27, 1996, MW-2 is only used for groundwater level measuring and not sampling for contaminants. Leachate well LW-14 is directly adjacent to monitoring well and is also used only for groundwater level monitoring. Since both wells serve the same purpose and are adjacent to each other, it is recommended that MW-2 be dropped from the groundwater level monitoring program. Further, due to the cost and complexity of replacing a groundwater well through the landfill cap and the contaminated media, it is not recommended that MW-2 be replaced, rather that it be retained as-is to prevent the need to abandon it and repair the geomembrane landfill cap.

2.0 ANNUAL INSPECTION OF LANDFILL

SCE technicians performed a visual inspection of the entire landfill site on May 16, 2014.

The landfill was inspected for:

- Condition of the perimeter fence and access roads.
- Inspection of the leachate collection system (trench manholes, pump station, storage tank, treatment building).
- Condition of the landfill cover for areas of instability, subsidence, erosion, discoloration, etc.

- Inspection of surface water drainage features for washouts, excessive sediment or debris in ditches, dislodged rip-rap, erosion, etc.
- Observed the gas venting system to determine if the vents have been damaged or disturbed.
- Condition of the monitoring and leachate recovery wells.

Overall, the site and landfill cap appears to be in good condition. Visual Inspections and Maintenance at the landfill has been performed at least monthly by Town forces; however, a formal record of inspections and repair work performed is not maintained. During this visit the main access road was flooded due to heavy rains making access to the site difficult. The security fence was observed to be in good condition however some trees have fallen and are leaning on the fence. Surface drainage features appear to be in good condition; however, a section of the vegetated swale has a breach created by a burrowing animal's den. This breach allows water to flow off the cap instead of being directed to the stone lined chute to the offsite drainage way, Carlin Creek. This section of the landfill cap is recommended to be re-graded in order to function properly.

Monitoring wells and gas vents appeared to be in generally good repair. All monitoring wells are equipped with dedicated bailers and covers that are locked. During the site inspection water level measurements were taken at the wells using an electronic water level detector. These water levels were then used to create a groundwater contour map included as Figure 2. MW-2, a well used for groundwater depth measurements only, was previously reported to have a blockage proximately 19-feet below the top and; therefore, no water level was recorded during the any of the earlier inspections. This blockage has been visually inspected and it appears that the well has collapsed. The lack of groundwater level data lockage at MW-2 does not seem to be impacting the overall quality of data collected from the site.

The leachate recovery system was observed during this field visit. Based on control panel observations, the pumps, level monitors, and controls appeared to be functioning normally. No abnormal groundwater contaminant concentrations or levels suggest that the leachate recovery system is not functioning per design.

The leachate handling system was also inspected in support of this report. The exterior of the building that houses the leachate handling system was noted to be in good condition and no major structural or plumbing deficiencies were noted on the interior components. The exterior of the building shows signs of weathering and the soffit fascia on the west side appears to be deteriorating. The leachate collection tank has paint peeling and some rust spots developing. However, it was observed that the secondary containment for the leachate tank has accumulated some stormwater due to a missing segment of the rain skirt. It is recommended that the rain skirt segment be replaced, and that the containment dike be drained periodically during the monthly visual inspection by the Town.

3.0 LEACHATE DISCHARGES

The Site is equipped with a leachate collection system that includes leachate recovery wells and trenches. Leachate is temporarily stored in a pump station prior to being transferred to a 30,000-gallon aboveground storage tank (AST). The leachate is stored in the tank until it is sampled and submitted for laboratory analysis. After analytical results are received the leachate is discharged to the sewer system. As previously noted, the discharge of the leachate is regulated through an IWPP Permit with the Binghamton-Johnson City Joint Sewage Board (BJCJSB). The permit was most recently updated in September 2009.

Leachate is generally discharged once a year. The Town has coordinated discharge of the leachate with the annual inspection of the facility conducted by the BJCJSB. The Town utilizes the analytical data gathered by the BJCJSB to determine if the leachate is within their permitted effluent limitations prior to discharging to the sewer system. The Town then reports to the BJCJSTB when they discharge the leachate.

Samples of the leachate were taken however the Town never received a discharge permit from BJCJSB so no leachate was discharged in 2013.

At this time, the Town does not track the amount of leachate recovered from each of the three (3) recovery wells. However, the Town does regularly monitor the leachate level in the storage tank to ensure that the tank is not in danger overflow. A tank level detector has been installed and is part of the tank level monitoring system.

4.0 GROUNDWATER AND SURFACE WATER QUALITY ASSESSMENT

The landfill is required to sample a selection of monitoring wells and a surface water (Carlin Creek) every quarter. One (1) round each year must be analyzed for Part 360 baseline parameters.

The Town has contracted with Benchmark Analytics, Inc. (Benchmark) to perform the quarterly sampling. The site was assessed and sampled by a representative from Test Assured Network, a subcontractor to Benchmark on:

- March 25, 2013 (baseline analysis)
- June 4, 2013
- September 17, 2013
- November 26, 2013

The laboratory narratives for the sampling events do not indicate any problems with the sampling or analysis. A summary of laboratory analytical data and full laboratory reports for 2012-2013 are attached as Appendix A. In addition, the lab filtered samples during the 3rd and 4th quarters of 2013 were collected to observe the impact of turbidity on the samples.

4.1. GROUNDWATER QUALITY ASSESSMENT

None of the wells sampled during the Benchmark Sampling Events on March 22, 2012, indicated that concentrations of the identified leachate marker compounds Chloroethane, 1,2-Dichloropropane, Methylene Chloride, or Xylenes were present above the guidance value in any of the samples.

The upgradient well, MW-1 exhibited elevated concentrations of Sodium in all 4 quarters. Although no specific source has been identified, the source for Sodium is speculated to be road salt from nearby roadway surfaces and parking lots. This elevated level of sodium is also present in many of the other monitoring wells.

All of the downgradient wells contained elevated levels of inorganics including Iron, Manganese, and Lead. Iron and Manganese were the two (2) most commonly found inorganics and were present in elevated levels in all downgradient wells. In many instances, the concentrations exceed the NYSDEC drinking water standards. Since very few of these contaminants are present in elevated levels in the upgradient well MW-1 or in downgradient surface water samples at Carlin Creek, it may be suspected that the increased concentrations are caused by the chemical reduction zone under the landfill or by the acidification of silt in the water sample during preservation.

4.2. ANALYSIS OF FILTERED SAMPLES

During the last 5 years of analysis, the turbidity of collected samples has been suspect in impacting the ability to conduct trend analysis on the analytical data collected from any of the landfill monitoring wells. In addition to redeveloping the site monitoring wells to remove excess buildup of silt within the well, the analytical program included collecting filtered samples and non-filtered samples during the last two (2) quarters of 2013.

Samples were collected and then passed through a 0.45 micron filter. The filter removes most suspended solids from the water and leaves only dissolved material within the sample prior to being preserved in the sample bottle.

In general, the samples analyzed for dissolved metals show much lower levels of iron, magnesium, manganese, lead, and other inorganic compounds. This indicates that the majority of the inorganics concentrations found in the samples were due to the turbidity of the samples. The only contaminant found regularly in the filtered samples is sodium which would be dissolved and, therefore, not filter out. The only well to show elevated levels of inorganics is MW-38D which showed a slightly elevated level of manganese in the filtered sample during the third quarter sampling. It is important to note that the level of manganese dropped in MW-38D from 96.6 mg/L to 0.485 mg/L when filtered, which shows that the majority of the contaminant was likely caused by turbidity.

4.3. DIRECTION OF GROUNDWATER FLOW ASSESSMENT

The direction of groundwater flow was derived from measured groundwater surface elevations from all monitoring wells on the site. From this data, the groundwater contours were derived, which indicate that the direction groundwater flow and the shape of the groundwater contours is generally the same as the 2008 groundwater contour map.

Mapping indicates that the depth to groundwater at the southwest corner, near MW-1, is nearly 5-feet shallower than the 2008 data, which is likely difference caused by seasonal fluctuations or other change that is beyond the control of the Town.

The groundwater elevations and contours under the actual landfill and at the northeast portion of the site are generally in line with the historic groundwater levels, suggesting the leachate collection system is operating properly.

A groundwater contour map, depicting the change from the May 2008 contours is included as Figure 1 herein. Depth to water measurements are included in Appendix C.

4.4. SURFACE WATER QUALITY ASSESSMENT

All Part 360 parameters collected from Carlin Creek are below state standards, with the exception of manganese in the second quarter, and do not appear to be trending higher over time. The only contaminant found to regularly exceed state standards in Carlin Creek in 2012 is Sodium. Although no specific source has been identified, the source for Sodium is speculated to be road salt from nearby roadway surfaces and parking lots.

No volatile organic compounds (VOC) were detected in the baseline analysis at the Carlin Creek sampling point.

5.0 POTENTIAL RE-USE EVALUATION

Currently, there is no guidance available at the NYSDEC for potential re-use scenarios for capped landfill sites. Many landfill sites are re-used for municipal solid waste transfer facilities, equipment storage sites, cellular antennae sites, or for other municipal functions such as police department shooting ranges and training facilities. A promising re-use as a solar energy collection site has been evaluated; however, the land slope makes that alternative impractical. Following an objective evaluation of the very steep slopes on the Conklin landfill site, there are few reasonable re-use alternatives readily identified for the site. This is especially true because of the readily available Greenfield sites in the Town which make development options in the former landfill less desirable.

6.0 CERTIFICATION OF INSTITUTIONAL CONTROLS

In accordance with the Institutional Controls, the site was inspected and no evidence of new groundwater wells or other disruptive activities were observed. The Institutional Controls prohibit any activities that could damage the landfill cover including digging, construction, and excavation without prior consent of the USEPA. Additionally, no groundwater wells for drinking water are allowed on any portion of the upper landfill. No activities regulated by the Institutional Controls were observed or authorized for this site.

7.0 RECOMMENDATIONS

Based on the observations of the past year of landfill operations, SCE recommends the following:

1. The portion of the vegetative channel that has washed out should be repaired and re-graded to ensure that the channel functions correctly.
2. Repair the rain skirt for the leachate tank secondary containment structure. Periodically inspect and drain the accumulated stormwater from the secondary containment structure.
3. Trees leaning on the perimeter fence should be removed.
4. Exterior painting and restoration of the pump house.
5. Fill any animal burrows within the landfill cap, and eradicate the animals.

Please do not hesitate to contact me at any time should you have questions regarding this letter, or other activities that have taken place at the Conklin Landfill.

Very truly yours,

SHUMAKER CONSULTING ENGINEERING & LAND SURVEYING, D.P.C.

W. Curtis Nichols, P.E., LEED-AP
Sr. Managing Engineer

WCN/krf

Enclosures

cc: James Finch, Town of Conklin
Tom Delamarter, Town of Conklin
George Jacobs, USEPA

FIGURE 1

MW-2 DOWN-HOLE INSPECTION SUMMARY

Project Name: conklin landfill mw2

Date: 10/3/2013 11:54:00 AM
Location: conklin ny
Length Surveyed: 21.5
Run Number: 1
Pipe Size: 2 inch

Asset ID:
Upstream MH Number: mw2
Downstream MH Number:
Direction Of Survey: Downstream
Pipe Material: Polyvinyl Chloride

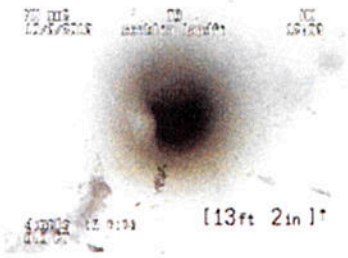
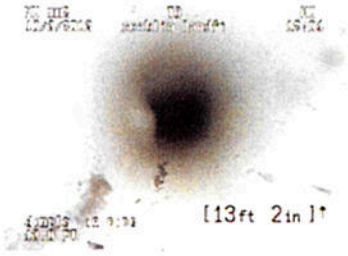
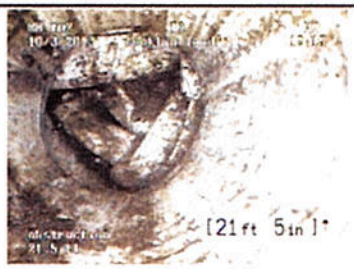
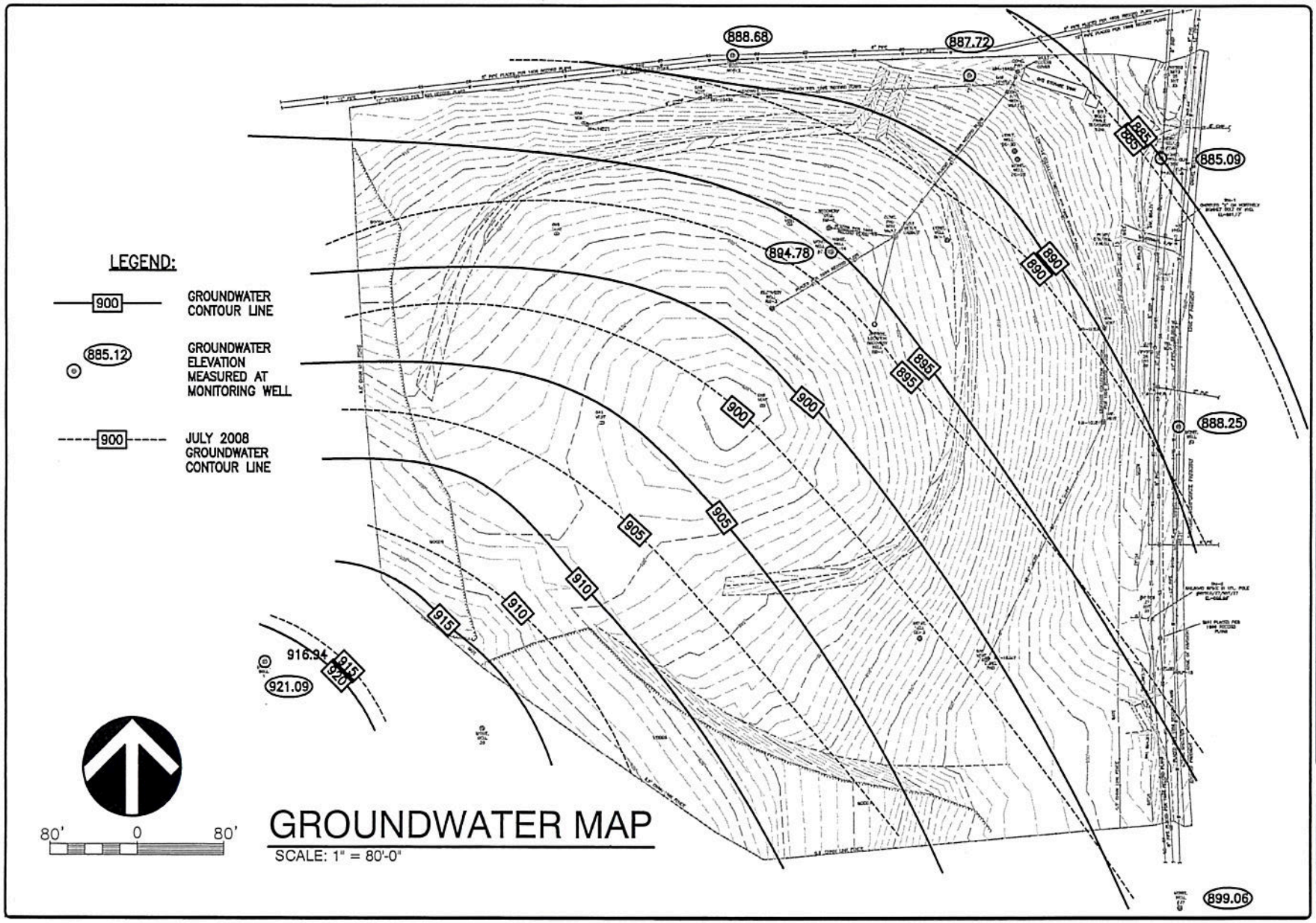
Distance	Fault Observation	Time	Picture
0.0	dimple in pipe Severity: None	02:24	
13.0	dimple in pipe Severity: None	03:01	
16.0	pipe shift and change16 Severity: None	05:21	
21.5	obstruction Severity: None	14:05	

FIGURE 2

GROUNDWATER CONTOUR MAP



GROUNDWATER MAP

SCALE: 1" = 80'-0"

SHUMAKER

CONKLIN LANDFILL
ANNUAL REPORT
1271 CONKLIN ROAD
CONKLIN, NEW YORK

DRAWING TITLE
MAY 2014
GROUNDWATER
CONTOUR MAP

Drawn By: FRC
Checked By: WCN
Project Mgr: WCN
Date: 05/22/14
Project No: R03357

FIGURE
2

APPENDIX A

UNFILTERED GROUNDWATER ANALYTICAL SUMMARIES

Shumaker Consulting Engineering and Land Surveying, P.C.
Analytical History for the Conklin Landfill
SCE Project 08126.00

Monitoring Well 1		Date Sampled:	3/30/2011	6/29/2011	8/31/2011	11/29/2011	3/22/2012	6/20/2012	9/20/2012	11/8/2012	3/25/2013	6/4/2013	9/17/2013	11/26/2013
Analyte (Note 1)	Units	Guidance Value												
Chloroethane	mg/l	0.005	<0.0050	-	-	-	<0.0050	-	-	-	-	-	<0.001	-
1,2-Dichloropropane	mg/l	0.001	<0.0050	-	-	-	<0.0050	-	-	-	-	-	<0.001	-
Methylene chloride	mg/l	0.005	<0.0050	-	-	-	<0.0050	-	-	-	-	-	<0.001	-
o-Xylene	mg/l	0.005	<0.0050	-	-	-	<0.0050	-	-	-	-	-	<0.001	-
m,p-Xylene	mg/l	0.005	<0.0050	-	-	-	<0.0050	-	-	-	-	-	<0.001	-
Alkalinity as CaCO3	mg/l		244	134	258	246	222	254	254	250	176	238	248	252
Ammonia as N	mg/l	2	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Biochemical Oxygen Demand-5	mg/l		<6	<6	<6	<6	<6	<6	<6	<6	<6	<6	<6	<6
Chloride	mg/l	250	0.94	1.32	1.52	1.20	1.72	<10.0	<10.0	<10.0	1.6	2.2	1.3	2.1
Chemical Oxygen Demand	mg/l		28	<10	<10	21	<10	<10	11	32	<10	<10	<10	<10
Hexavalent Chromium	mg/l		<0.01	-	-	-	<0.01	-	-	-	-	-	<0.01	-
Nitrate as N	mg/l	10	0.15	0.10	0.08	0.07	<0.05	<0.05	0.06	0.07	<0.05	0.08	0.15	0.07
pH	pH Units	6.5-8.5	7.44	7.75	7.68	7.47	7.16	7.74	7.51	7.44	7.26	7.49	7.54	7.35
Phenol	mg/l	0.001	0.029	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025
Total Dissolved Solids	mg/l	500	303	226	244	227	291	238	262	225	250	252	271	254
Sulfate as SO4	mg/l	250	11.4	11.1	10.3	9.52	8.16	<10.0	<10.0	<10	5.77	614	6.8	7.47
Total Kjeldahl Nitrogen	mg/l		<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Total Organic Carbon	mg/l		<0.5	0.5	0.6	<0.5	<0.5	<0.5	<0.5	<0.5	0.9	1.1	2.5	<0.5
Total Hardess as CaCO3	mg/l		232	223	230	215	218	227	196	221	220	206	212	207
Color	Color Units	5	<5	-	-	-	<5	-	-	-	-	-	<5	-
Cyanide	mg/l	0.2	<0.010	-	-	-	<0.010	-	-	-	-	-	<0.010	-
Bromide	mg/l	2	<0.05	<0.05	<0.05	<0.05	<0.05	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.05
Mercury	mg/l	0.0007	<0.0002	-	-	-	<0.0002	-	-	-	-	-	<0.0002	-
Silver	mg/l	0.05	<0.002	-	-	-	<0.002	-	-	-	-	-	<0.002	-
Aluminum	mg/l		7.65	-	-	-	<0.025	-	-	-	-	-	-	-
Arsenic	mg/l	0.025	<0.025	-	-	-	<0.010	-	-	-	-	-	<0.010	-
Boron	mg/l	1	<0.100	-	-	-	0.075	-	-	-	-	-	-	-
Barium	mg/l	1	0.078	-	-	-	0.022	-	-	-	-	-	0.038	-
Beryllium	mg/l	0.03	<0.001	-	-	-	<0.001	-	-	-	-	-	<0.001	-
Calcium	mg/l		60.6	56.8	61.0	55	56.1	59.9	50.3	58.1	57.3	52.9	53.5	53.5
Cadmium	mg/l	0.005	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
Cobalt	mg/l		<0.010	-	-	-	<0.002	-	-	-	-	-	0.004	-
Chromium	mg/l	0.05	0.010	-	-	-	<0.002	-	-	-	-	-	<0.002	-
Copper	mg/l	0.2	0.029	-	-	-	<0.002	-	-	-	-	-	0.006	-
Iron	mg/l	0.3	14.2	0.170	0.066	0.047	0.026	0.084	0.019	0.023	0.093	0.195	0.819	0.149
Potassium	mg/l		2.85	1.95	1.66	1.58	1.53	1.51	1.44	1.49	1.73	1.76	1.98	1.78
Magnesium	mg/l	35	19.6	19.8	19	18.9	18.9	18.7	17.1	18.5	18.7	18	18.9	17.8
Manganese	mg/l	0.3	0.592	0.067	0.251	0.080	0.092	0.047	0.008	0.011	0.361	0.132	0.273	0.057
Sodium	mg/l	20	23.6	24.1	21.5	19.3	20.8	19.6	16.4	21.4	20.2	21.1	23.2	20.1
Nickel	mg/l	0.1	0.012	-	-	-	<0.002	-	-	-	-	-	<0.002	-
Lead	mg/l	0.025	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010
Antimony	mg/l	0.03	<0.020	-	-	-	<0.020	-	-	-	-	-	<0.020	-
Thallium	mg/l	0.0005	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025
Vanadium	mg/l		0.011	<0.010	<0.010	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
Zinc	mg/l	2	0.043	0.014	<0.005	0.010	0.006	<0.005	<0.005	<0.005	0.007	0.017	0.038	0.012
Selenium	mg/l	0.01	<0.040	-	-	-	<0.040	-	-	-	-	-	<0.040	-

Notes

1. Full analytical reports for the Target Compound List were analyzed but were not detected. Contaminants of concern plus Organic compounds listed herein are for the Methylene Chloride, which has been detected above standards in one sampling event.
2. Highlighted cell indicates compound detected above applicable regulatory limit.

Shumaker Consulting Engineering and Land Surveying, P.C.
Analytical History for the Conklin Landfill
SCE Project 08126.00

Monitoring Well 3		Date Sampled:	3/30/2011	6/29/2011	8/31/2011	11/28/2011	3/22/2012	6/20/2012	9/20/2012	11/8/2012	3/25/2013	6/4/2013	9/17/2013	11/26/2013
Analyte (Note 1)	Units	Guidance Value												
Chloroethane	mg/l	0.005	-	-	-	-	<0.005	-	-	-	-	-	<0.001	-
1,2-Dichloropropane	mg/l	0.001	-	-	-	-	<0.0050	-	-	-	-	-	<0.001	-
Methylene chloride	mg/l	0.005	-	-	-	-	<0.005	-	-	-	-	-	<0.001	-
o-Xylene	mg/l	0.005	-	-	-	-	<0.005	-	-	-	-	-	<0.001	-
m,p-Xylene	mg/l	0.005	-	-	-	-	<0.005	-	-	-	-	-	<0.001	-
Alkalinity as CaCO3	mg/l		154	126	128	122	124	124	122	122	132	120	128	130
Ammonia as N	mg/l	2	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	0.1	<0.1	<0.1	<0.1
Biochemical Oxygen Demand-5	mg/l		<6	<6	<6	<6	<6	<6	<6	<6	<6	<6	<6	<6
Chloride	mg/l	250	14.2	12.1	10.2	11.1	7.88	<10	<10.0	<10	7.3	3.9	6.4	7.4
Chemical Oxygen Demand	mg/l		92	69	91	36	29	<10	<10	120	16	47	<10	11
Hexavalent Chromium	mg/l		<0.01	-	-	-	<0.01	-	-	-	-	-	<0.01	-
Nitrate as N	mg/l	10	<0.05	0.06	0.07	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
pH	pH Units	6.5-8.5	6.45	6.68	6.46	6.32	6.54	6.4	6.37	6.13	6.19	6.07	6.19	6.2
Phenol	mg/l	0.001	<0.025	<0.025	0.138	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	0.033	<0.025	<0.025
Total Dissolved Solids	mg/l	500	212	-	196	133	154	122	140	148	192	161	187	143
Sulfate as SO4	mg/l	250	11.1	11.5	11.6	11.1	10.5	<10.0	<10	<10.00	12.4	7.54	8.93	8.01
Total Kjeldahl Nitrogen	mg/l		<1.0	1.2	1.7	<1.0	<1.0	<1.0	<1.0	1.1	<1.0	<1.0	<1.0	1.6
Total Organic Carbon	mg/l		1.6	1.7	1.6	1.5	1.4	1.5	1.6	4.1	1.8	1.4	1.5	1.7
Total Hardess as CaCO3	mg/l		237	156	279	198	255	319	116	146	570	140	519	220
Color	Color Units	5	12	-	-	-	100	-	-	-	-	-	<5	-
Cyanide	mg/l	0.2	<0.010	-	-	-	<0.010	-	-	-	-	-	<0.010	-
Bromide	mg/l	2	0.09	0.09	0.08	0.07	0.16	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	0.07
Mercury	mg/l	0.0007	<0.0002	-	-	-	<0.0002	-	-	-	-	-	<0.0040	-
Silver	mg/l	0.05	<0.002	-	-	-	<0.002	-	-	-	-	-	<0.010	-
Aluminum	mg/l		58.5	-	-	-	76.6	-	-	-	-	-	-	-
Arsenic	mg/l	0.025	0.040	-	-	-	0.06	-	-	-	-	-	0.201	-
Boron	mg/l	1	<0.100	-	-	-	0.053	-	-	-	-	-	-	-
Barium	mg/l	1	0.293	-	-	-	0.308	-	-	-	-	-	1.41	-
Beryllium	mg/l	0.03	0.003	-	-	-	0.003	-	-	-	-	-	0.007	-
Calcium	mg/l		48.1	38.8	49.0	40.4	43.3	47.4	32.5	35.8	76.3	39.2	103	43.6
Cadmium	mg/l	0.005	0.002	<0.001	0.002	<0.001	0.002	<0.005	<0.001	<0.001	<0.005	<0.001	<0.005	0.002
Cobalt	mg/l		0.053	-	-	-	0.076	-	-	-	-	-	0.167	-
Chromium	mg/l	0.05	0.074	-	-	-	0.105	-	-	-	-	-	0.139	-
Copper	mg/l	0.2	0.094	-	-	-	0.167	-	-	-	-	-	0.225	-
Iron	mg/l	0.3	125	36.9	182	97.3	181	336	4.95	33.4	487	12	261	117
Potassium	mg/l		4.73	1.98	5.35	4.24	5.4	6.86	1.13	2.49	9.75	1.15	7.87	4
Magnesium	mg/l	35	28.3	14.4	38.2	23.5	35.8	48.7	8.53	13.6	92.4	10.3	63.8	26.9
Manganese	mg/l	0.3	1.52	0.631	2.1	1.23	2.11	3.26	0.273	0.71	5.78	0.693	4.23	1.46
Sodium	mg/l	20	10.7	12.1	11.1	11.0	10.4	10.3	11.3	11.3	10.3	9.81	11.7	10.1
Nickel	mg/l	0.1	0.116	-	-	-	0.176	-	-	-	-	-	0.267	-
Lead	mg/l	0.025	0.054	0.012	0.082	0.039	0.07	0.098	<0.010	0.015	0.251	0.02	0.167	0.053
Antimony	mg/l	0.03	<0.020	-	-	-	<0.020	-	-	-	-	-	<0.100	-
Thallium	mg/l	0.0005	<0.025	<0.025	<0.025	<0.025	<0.025	<0.125	<0.025	<0.025	<0.125	<0.025	<.0125	<0.025
Vanadium	mg/l		0.080	0.021	0.098	0.052	0.106	0.183	<0.005	0.016	0.218	0.01	0.118	0.053
Zinc	mg/l	2	0.304	0.105	0.446	0.244	0.444	0.809	<0.019	0.089	1.19	0.049	0.789	0.286
Selenium	mg/l	0.01	<0.040	-	-	-	<0.040	-	-	-	-	-	<0.200	-

Notes
1. Full analytical reports for the Target Compound List were analyzed but were not detected. Contaminants of concern plus Organic compounds listed herein are for the Methylene Chloride, which has been detected above standards in one sampling event.
2. Highlighted cell indicates compount detected above applicable regulatory limit.

Shumaker Consulting Engineering and Land Surveying, P.C.
Analytical History for the Conklin Landfill
SCE Project 08126.00

Monitoring Well 4		Date Sampled:	3/30/2011	6/29/2011	8/31/2011	11/28/2011	3/22/2012	6/20/2012	9/20/2012	11/8/2012	3/25/2013	6/4/2013	9/17/2013	11/25/2013
Analyte (Note 1)	Units	Guidance Value												
Chloroethane	mg/l	0.005	<0.0050	-	-	-	<0.005	-	-	-	-	-	<0.001	-
1,2-Dichloropropane	mg/l	0.001	<0.0050	-	-	-	<0.005	-	-	-	-	-	<0.001	-
Methylene chloride	mg/l	0.005	<0.0050	-	-	-	<0.005	-	-	-	-	-	<0.001	-
o-Xylene	mg/l	0.005	<0.0050	-	-	-	<0.005	-	-	-	-	-	<0.001	-
m,p-Xylene	mg/l	0.005	<0.0050	-	-	-	<0.005	-	-	-	-	-	<0.001	-
Alkalinity as CaCO3	mg/l		102	104	102	102	108	104	90	110	108	114	102	90
Ammonia as N	mg/l	2	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Biochemical Oxygen Demand-5	mg/l		<6	<6	<6	<6	<6	<6	<6	<6	<6	<6	<6	<6
Chloride	mg/l	250	18.9	17.7	15.7	20.4	25.4	21.9	16.1	27.7	27.5	26.9	27.3	20.2
Chemical Oxygen Demand	mg/l		21	17	33	38	<10	<10	11	32	14	18	<10	<10
Hexavalent Chromium	mg/l		<0.01	-	-	-	0.01	-	-	-	-	-	<0.01	-
Nitrate as N	mg/l	10	0.12	0.15	0.22	0.13	0.11	0.1	0.07	0.1	0.06	0.05	<0.05	0.06
pH	pH Units	6.5-8.5	7.08	6.76	7.01	7.02	7	6.88	6.31	6.74	6.82	6.76	6.73	6.41
Phenol	mg/l	0.001	0.044	<0.025	0.034	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	0.026	<0.025
Total Dissolved Solids	mg/l	500	179	146	138	142	173	154	131	176	329	228	232	162
Sulfate as SO4	mg/l	250	9.29	11.1	9.82	9.45	9.52	<10.0	12.1	<10.0	8.27	8.18	8.19	10.9
Total Kjeldahl Nitrogen	mg/l		<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Total Organic Carbon	mg/l		<0.5	0.5	<0.5	<0.5	<0.5	<0.5	0.7	<0.5	<0.5	<0.5	<0.5	0.8
Total Hardess as CaCO3	mg/l		130	114	127	134	139	135	75.5	147	152	175	140	121
Color	Color Units	5	10	-	-	-	<5	-	-	-	-	-	<5	-
Cyanide	mg/l	0.2	<0.010	-	-	-	<0.010	-	-	-	-	-	<0.010	-
Bromide	mg/l	2	<0.05	<0.05	<0.05	<0.05	<0.05	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.05
Mercury	mg/l	0.0007	<0.0002	-	-	-	<0.0002	-	-	-	-	-	<0.002	-
Silver	mg/l	0.05	<0.002	-	-	-	<0.002	-	-	-	-	-	<0.002	-
Aluminum	mg/l		8.43	-	-	-	2.53	-	-	-	-	-	-	-
Arsenic	mg/l	0.025	<0.025	-	-	-	<0.010	-	-	-	-	-	<0.010	-
Boron	mg/l	1	<0.100	-	-	-	0.028	-	-	-	-	-	-	-
Barium	mg/l	1	0.091	-	-	-	0.047	-	-	-	-	-	0.033	-
Beryllium	mg/l	0.03	<0.001	-	-	-	<0.001	-	-	-	-	-	<0.001	-
Calcium	mg/l		34.7	30.3	33.0	35.8	38.5	36.8	23.6	39.8	40.8	42.9	36.7	32.4
Cadmium	mg/l	0.005	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	0.001	<0.001	<0.001
Cobalt	mg/l		0.027	-	-	-	0.02	-	-	-	-	-	0.003	-
Chromium	mg/l	0.05	<0.010	-	-	-	0.003	-	-	-	-	-	0.003	-
Copper	mg/l	0.2	0.013	-	-	-	0.007	-	-	-	-	-	0.006	-
Iron	mg/l	0.3	14.8	4.61	17.4	13.5	4.18	7.11	0.098	15.7	6.67	43.7	4.66	9.31
Potassium	mg/l		2.10	1.11	2.75	1.90	1.21	1.57	0.822	1.96	1.56	3.33	1.62	1.61
Magnesium	mg/l	35	10.6	9.31	10.9	10.8	10.4	10.5	4.01	11.6	12.1	16.4	11.8	9.65
Manganese	mg/l	0.3	2.04	1.11	3.16	3.47	1.67	1.86	0.189	3.48	0.534	10.3	0.224	0.755
Sodium	mg/l	20	6.62	6.10	6.39	6.42	7.38	6.43	6.68	6.76	7.66	7.55	7.55	7.85
Nickel	mg/l	0.1	0.013	-	-	-	0.007	-	-	-	-	-	0.003	-
Lead	mg/l	0.025	0.018	<0.010	0.020	0.013	<0.010	<0.010	<0.010	0.021	<0.010	0.056	0.01	<0.010
Antimony	mg/l	0.03	<0.020	-	-	-	<0.020	-	-	-	-	-	<0.020	-
Thallium	mg/l	0.0005	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025
Vanadium	mg/l		0.013	<0.010	0.012	0.010	<0.005	0.007	<0.005	0.009	0.013	0.025	<0.005	0.006
Zinc	mg/l	2	0.035	0.022	0.044	0.044	0.012	0.022	<0.005	0.038	0.014	0.097	0.016	0.031
Selenium	mg/l	0.01	<0.040	-	-	-	<0.040	-	-	-	-	-	<0.040	-

Notes
1. Full analytical reports for the Target Compound List were analyzed but were not detected. Contaminants of concern plus Organic compounds listed herein are for the Methylene Chloride, which has been detected above standards in one sampling event.
2. Highlighted cell indicates compound detected above applicable regulatory limit.

Shumaker Consulting Engineering and Land Surveying, P.C.
Analytical History for the Conklin Landfill
SCE Project 08126.00

Monitoring Well 12		Date Sampled:	3/30/2011	6/29/2011	8/31/2011	11/28/2011	3/22/2012	6/20/2012	9/20/2012	11/8/2012	3/25/2013	6/4/2013	9/17/2013	11/26/2013
Analyte (Note 1)	Units	Guidance Value												
Chloroethane	mg/l	0.005	<0.0050	-	-	-	<0.0050	-	-	-	-	-	<0.001	-
1,2-Dichloropropane	mg/l	0.001	<0.0050	-	-	-	<0.0050	-	-	-	-	-	<0.001	-
Methylene chloride	mg/l	0.005	<0.0050	-	-	-	<0.0050	-	-	-	-	-	<0.001	-
o-Xylene	mg/l	0.005	<0.0050	-	-	-	<0.0050	-	-	-	-	-	<0.001	-
m,p-Xylene	mg/l	0.005	<0.0050	-	-	-	<0.0050	-	-	-	-	-	<0.001	-
Alkalinity as CaCO3	mg/l		104	126	80	88	96	146	116	92	124	106	112	112
Ammonia as N	mg/l	2	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<1.0	<0.1	<0.1
Biochemical Oxygen Demand-5	mg/l		<6	<6	<6	<6	<6	<6	<6	<6	<6	<6	<6	<6
Chloride	mg/l	250	5.83	8.37	10.3	5.97	5.21	<10.0	<10.0	<10	5	4.3	10.5	5.3
Chemical Oxygen Demand	mg/l		23	34	45	29	<10	11	69	66	11	11	<10	<10
Hexavalent Chromium	mg/l		<0.01	-	-	-	<0.01	-	-	-	-	-	<0.01	-
Nitrate as N	mg/l	10	<0.05	0.07	0.06	<0.05	<0.05	0.07	<0.05	<0.05	<0.05	<0.05	0.09	<0.1
pH	pH Units	6.5-8.5	6.38	6.50	-	6.11	5.99	6.29	6.12	5.99	5.93	5.89	6.23	5.84
Phenol	mg/l	0.001	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	0.072	<0.025	<0.025	<0.025
Total Dissolved Solids	mg/l	500	178	100	152	134	172	160	147	93	149	152	185	137
Sulfate as SO4	mg/l	250	14.1	14.2	13.1	14.0	13.7	14.3	13.6	1	11.3	11.8	11.7	12.1
Total Kjeldahl Nitrogen	mg/l		<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Total Organic Carbon	mg/l		1.3	1.5	1.2	1.1	0.8	1.2	1	0.8	1	1.3	2.2	0.9
Total Hardess as CaCO3	mg/l		95.2	133	101	86.6	48	146	75	39.1	84.2	111	166	142
Color	Color Units	5	<5	-	-	-	<5	-	-	-	-	-	<5	-
Cyanide	mg/l	0.2	<0.010	-	-	-	<0.010	-	-	-	-	-	<0.010	-
Bromide	mg/l	2	0.25	0.41	0.14	0.20	0.33	0.29	0.31	<0.20	0.23	0.22	0.22	0.22
Mercury	mg/l	0.0007	<0.0002	-	-	-	<0.0002	-	-	-	-	-	<0.0040	-
Silver	mg/l	0.05	<0.002	-	-	-	<0.002	-	-	-	-	-	<0.002	-
Aluminum	mg/l		5.78	-	-	-	0.177	-	-	-	-	-	-	-
Arsenic	mg/l	0.025	<0.025	-	-	-	<0.010	-	-	-	-	-	0.065	-
Boron	mg/l	1	<0.100	-	-	-	<0.025	-	-	-	-	-	-	-
Barium	mg/l	1	0.055	-	-	-	0.01	-	-	-	-	-	0.29	-
Beryllium	mg/l	0.03	<0.001	-	-	-	<0.001	-	-	-	-	-	0.002	-
Calcium	mg/l		23.9	33	25.2	22.1	12.1	37.5	19.2	9.79	21.4	27.4	33.9	34.4
Cadmium	mg/l	0.005	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	0.002	<0.001
Cobalt	mg/l		<0.010	-	-	-	<0.002	-	-	-	-	-	0.027	-
Chromium	mg/l	0.05	<0.010	-	-	-	<0.002	-	-	-	-	-	0.045	-
Copper	mg/l	0.2	0.016	-	-	-	<0.002	-	-	-	-	-	0.102	-
Iron	mg/l	0.3	10.3	13.6	17.1	5.33	0.216	12.4	0.15	0.877	3.84	12.3	85.5	32.9
Potassium	mg/l		1.28	1.32	1.85	0.977	<0.500	1.48	<0.500	<0.500	0.98	1.41	4.65	2.42
Magnesium	mg/l	35	8.64	12.1	9.17	7.63	4.34	12.6	6.57	3.56	7.46	10.3	19.7	13.7
Manganese	mg/l	0.3	1.39	2.45	3.01	1.12	0.05	1.57	0.032	0.15	0.587	1.36	5.46	1.37
Sodium	mg/l	20	9.47	11.0	8.22	9.97	7.6	11.2	8.95	7.32	9.97	10.4	13	12.1
Nickel	mg/l	0.1	<0.010	-	-	-	<0.002	-	-	-	-	-	0.06	-
Lead	mg/l	0.025	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	0.047	0.014
Antimony	mg/l	0.03	<0.020	-	-	-	<0.020	-	-	-	-	-	<0.020	-
Thallium	mg/l	0.0005	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025
Vanadium	mg/l		<0.010	0.007	0.011	<0.005	<0.005	0.01	<0.005	<0.005	0.006	0.007	0.038	0.017
Zinc	mg/l	2	0.021	0.036	0.037	0.025	<0.005	0.028	<0.005	<0.005	0.01	0.029	0.216	0.071
Selenium	mg/l	0.01	<0.040	-	-	-	<0.040	-	-	-	-	-	<0.040	-

Notes
1. Full analytical reports for the Target Compound List were analyzed but were not detected. Contaminants of concern plus Organic compounds listed herein are for the Methylene Chloride, which has been detected above standards in one sampling event.
2. Highlighted cell indicates compound detected above applicable regulatory limit.

Shumaker Consulting Engineering and Land Surveying, P.C.
Analytical History for the Conklin Landfill
SCE Project 08126.00

Monitoring Well 37		Date Sampled:	3/30/2011	6/29/2011	8/31/2011	11/29/2011	3/22/2012	6/20/2012	9/20/2012	11/8/2012	3/25/2013	6/4/2013	9/17/2013	11/26/2013
Analyte (Note 1)	Units	Guidance Value												
Chloroethane	mg/l	0.005	<0.0050	-	-	-	<0.0050	-	-	-	-	-	<0.001	-
1,2-Dichloropropane	mg/l	0.001	<0.0050	-	-	-	<0.0050	-	-	-	-	-	<0.001	-
Methylene chloride	mg/l	0.005	<0.0050	-	-	-	<0.0050	-	-	-	-	-	<0.001	-
o-Xylene	mg/l	0.005	<0.0050	-	-	-	<0.0050	-	-	-	-	-	<0.001	-
m,p-Xylene	mg/l	0.005	<0.0050	-	-	-	<0.0050	-	-	-	-	-	<0.001	-
Alkalinity as CaCO3	mg/l		120	142	-	144	136	134	138	140	128	172	94	130
Ammonia as N	mg/l	2	<0.1	<0.1	-	<0.1	<0.01	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Biochemical Oxygen Demand-5	mg/l		<6	<6	-	<6	<6	<6	<6	<6	<6	<6	11	<6
Chloride	mg/l	250	9.17	12.6	-	12.7	14.9	12.1	14.3	14.3	13.7	14.7	17.4	16
Chemical Oxygen Demand	mg/l		18	12	-	24	41	<10	<10	25	16	<10	32	<10
Hexavalent Chromium	mg/l		<0.01	-	-	-	<0.01	-	-	-	-		<0.01	-
Nitrate as N	mg/l	10	<0.05	0.17	-	<0.05	<0.05	0.07	<0.05	<0.05	<0.050	<0.05	<0.05	<0.05
pH	pH Units	6.5-8.5	7.8	7.76	-	7.53	7.23	7.54	7.31	7.09	7.24	7.06	7.78	7.33
Phenol	mg/l	0.001	<0.025	<0.025	-	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025
Total Dissolved Solids	mg/l	500	222	172	-	165	178	160	199	139	190	196	169	201
Sulfate as SO4	mg/l	250	11.7	13.8	-	13.2	13.2	<10	<10.0	<10.00	10.7	8.26	22.3	12.3
Total Kjeldahl Nitrogen	mg/l		<1.0	<1.0	-	<1.0	1.5	<1.0	<1.0	<1.0	<1.0	1.2	2.3	<1.0
Total Organic Carbon	mg/l		<0.5	4.8	-	<0.5	0.7	0.6	0.9	0.8	1.8	1	3.5	0.8
Total Hardess as CaCO3	mg/l		136	130	-	149	145	152	138	146	145	139	128	141
Color	Color Units	5	<5	-	-	-	<5	-	-	-	-	-	<5	-
Cyanide	mg/l	0.2	<0.010	-	-	-	<0.010	-	-	-	-	-	<0.010	-
Bromide	mg/l	2	<0.05	<0.05	-	<0.05	0.07	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.05
Mercury	mg/l	0.0007	<0.0002	-	-	-	<0.0002	-	-	-	-	-	<0.0002	-
Silver	mg/l	0.05	<0.002	-	-	-	<0.002	-	-	-	-	-	<0.002	-
Aluminum	mg/l		8.21	-	-	-	0.322	-	-	-	-	-	-	-
Arsenic	mg/l	0.025	<0.025	-	-	-	<0.010	-	-	-	-	-	<0.010	-
Boron	mg/l	1	<0.100	-	-	-	<0.025	-	-	-	-	-	-	-
Barium	mg/l	1	0.053	-	-	-	0.02	-	-	-	-	-	0.014	-
Beryllium	mg/l	0.03	<0.001	-	-	-	<0.001	-	-	-	-	-	<0.001	-
Calcium	mg/l		41.3	42.0	-	48.6	46.2	50	43.9	47.3	46.7	44.1	40	44.7
Cadmium	mg/l	0.005	<0.001	<0.001	-	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
Cobalt	mg/l		<0.010	-	-	-	<0.002	-	-	-	-	-	<0.002	-
Chromium	mg/l	0.05	0.023	-	-	-	<0.002	-	-	-	-	-	<0.002	-
Copper	mg/l	0.2	0.012	-	-	-	0.003	-	-	-	-	-	0.004	-
Iron	mg/l	0.3	16.4	0.521	-	0.397	0.805	0.562	0.257	0.233	0.394	0.474	0.489	0.462
Potassium	mg/l		3.81	8.09	-	4.02	2.44	2.61	2.44	2.39	2.45	2.16	2.58	2.55
Magnesium	mg/l	35	8.10	5.95	-	6.79	7.22	6.5	6.68	6.67	6.74	7.11	6.72	7.12
Manganese	mg/l	0.3	0.429	0.017	-	0.073	0.204	0.026	0.373	0.325	0.213	0.196	0.207	0.066
Sodium	mg/l	20	7.91	9.56	-	8.88	8.48	7.76	8.04	8.06	8.95	9.06	9.03	9.1
Nickel	mg/l	0.1	0.015	-	-	-	<0.002	-	-	-	-	-	<0.002	-
Lead	mg/l	0.025	<0.010	<0.010	-	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010
Antimony	mg/l	0.03	<0.020	-	-	-	<0.020	-	-	-	-	-	<0.020	-
Thallium	mg/l	0.0005	<0.025	<0.025	-	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025
Vanadium	mg/l		0.013	<0.010	-	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
Zinc	mg/l	2	0.036	0.015	-	0.012	<0.005	0.009	<0.005	0.006	<0.005	0.008	0.006	0.011
Selenium	mg/l	0.01	<0.040	-	-	-	<0.040	-	-	-	-	-	<0.040	-

Notes

1. Full analytical reports for the Target Compound List were analyzed but were not detected. Contaminants of concern plus Organic compounds listed herein are for the Methylene Chloride, which has been detected above standards in one sampling event.
2. Highlighted cell indicates compound detected above applicable regulatory limit.

Shumaker Consulting Engineering and Land Surveying, P.C.
Analytical History for the Conklin Landfill
SCE Project 08126.00

Monitoring Well 38D		Date Sampled:	3/30/2011	6/29/2011	8/31/2011	11/29/2011	3/22/2012	6/20/2012	9/20/2012	11/8/2012	3/25/2013	6/4/2013	9/17/2013	11/26/2013
Analyte (Note 1)	Units	Guidance Value												
Chloroethane	mg/l	0.005	<0.0050	-	-	-	<0.0050	-	-	-	-	-	<0.001	-
1,2-Dichloropropane	mg/l	0.001	<0.0050	-	-	-	<0.0050	-	-	-	-	-	<0.001	-
Methylene chloride	mg/l	0.005	<0.0050	-	-	-	<0.0050	-	-	-	-	-	<0.001	-
o-Xylene	mg/l	0.005	<0.0050	-	-	-	<0.0050	-	-	-	-	-	<0.001	-
m,p-Xylene	mg/l	0.005	<0.0050	-	-	-	<0.0050	-	-	-	-	-	<0.001	-
Alkalinity as CaCO3	mg/l		172	188	186	176	178	172	172	184	172	168	188	194
Ammonia as N	mg/l	2	0.9	17.1	<0.01	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	0.5	<0.1
Biochemical Oxygen Demand-5	mg/l		<6	<6	<6	<6	<6	<6	<6	<6	<6	<6	<6	<6
Chloride	mg/l	250	11.1	11.4	10.5	10.6	11.5	<10.0	11.1	11.3	9.2	9.3	9.6	10.2
Chemical Oxygen Demand	mg/l		342	37	118	51	118	16	187	79	21	138	243	<10
Hexavalent Chromium	mg/l		0.01	-	-	-	<0.01	-	-	-	-	-	<0.01	-
Nitrate as N	mg/l	10	0.1	0.17	0.16	0.11	0.09	0.11	0.07	0.06	0.2	0.22	<0.05	0.06
pH	pH Units	6.5-8.5	7.71	8.02	7.84	7.88	7.66	7.91	7.75	7.51	7.98	7.64	7.65	7.57
Phenol	mg/l	0.001	0.829	0.026	0.130	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025
Total Dissolved Solids	mg/l	500	160	186	208	3	223	187	217	157	239	205	243	237
Sulfate as SO4	mg/l	250	8.63	7.87	7.50	8.28	9.22	<10	<10.	<10	7.52	7.51	6.74	6.82
Total Kjeldahl Nitrogen	mg/l		2.2	<1.0	<1.0	<0.1	<1.0	<1.0	<1.0	1.6	1.8	<1.0	<1.0	1.1
Total Organic Carbon	mg/l		2.3	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	0.8	<0.5	<0.5	0.9	<0.5
Total Hardess as CaCO3	mg/l		2140	128	511	298	453	151	120	176	120	179	1840	144
Color	Color Units	5	30	-	-	-	15	-	-	-	-	-	<5	-
Cyanide	mg/l	0.2	<0.010	-	-	-	<0.010	-	-	-	-	-	<0.010	-
Bromide	mg/l	2	0.13	0.13	0.11	0.12	0.14	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	0.13
Mercury	mg/l	0.0007	<0.0008	-	-	-	<0.0002	-	-	-	-	-	<0.0040	-
Silver	mg/l	0.05	<0.018	-	-	-	<0.010	-	-	-	-	-	0.02	-
Aluminum	mg/l		221	-	-	-	140	-	-	-	-	-	-	-
Arsenic	mg/l	0.025	0.274	-	-	-	0.111	-	-	-	-	-	0.21	-
Boron	mg/l	1	<0.900	-	-	-	<0.125	-	-	-	-	-	-	-
Barium	mg/l	1	9.89	-	-	-	0.849	-	-	-	-	-	3.89	-
Beryllium	mg/l	0.03	0.017	-	-	-	0.005	-	-	-	-	-	0.01	-
Calcium	mg/l		558	35.6	70.3	50.3	63.9	39.6	34	39.1	34.4	41.3	438	39.8
Cadmium	mg/l	0.005	0.013	<0.001	<0.005	<0.001	<0.005	<0.001	<0.001	<0.001	<0.001	<0.001	0.009	<0.001
Cobalt	mg/l		0.292	-	-	-	0.16	-	-	-	-	-	0.3	-
Chromium	mg/l	0.05	0.240	-	-	-	0.19	-	-	-	-	-	0.28	-
Copper	mg/l	0.2	0.294	-	-	-	0.266	-	-	-	-	-	0.399	-
Iron	mg/l	0.3	698	12.8	395	183	354	28.4	5.27	59.4	<0.010	60.8	599	17.6
Potassium	mg/l		11.9	2.47	11.6	7.14	9.47	2.92	1.89	3.93	1.86	4.49	13.1	2.85
Magnesium	mg/l	35	183	9.46	81.5	42.1	71.2	12.6	8.56	19.1	8.28	18.4	182	10.8
Manganese	mg/l	0.3	100	0.367	10.2	2.98	9.41	0.841	0.604	1.84	0.205	2.28	96.6	0.637
Sodium	mg/l	20	44.8	32.7	43.1	19.3	36.5	28.7	34.6	33.8	37.4	36.9	39.5	35.3
Nickel	mg/l	0.1	0.492	-	-	-	0.341	-	-	-	-	-	0.575	-
Lead	mg/l	0.025	0.241	<0.010	0.145	0.081	0.135	<0.010	<0.010	0.026	<0.010	0.034	0.311	<0.010
Antimony	mg/l	0.03	<0.180	-	-	-	<0.100	-	-	-	-	-	<0.100	-
Thallium	mg/l	0.0005	<0.225	<0.025	<0.125	<0.025	<0.125	<0.025	<0.025	<0.025	<0.025	<0.025	<0.125	<0.025
Vanadium	mg/l		0.271	<0.010	0.169	0.085	0.181	0.018	<0.005	0.024	<0.005	0.027	0.204	0.009
Zinc	mg/l	2	1.30	0.035	0.911	0.464	0.837	0.064	0.019	0.141	0.01	0.156	1.48	0.047
Selenium	mg/l	0.01	<0.360	-	-	-	<0.200	-	-	-	-	-	<0.200	-

Notes

1. Full analytical reports for the Target Compound List were analyzed but were not detected. Contaminants of concern plus Organic compounds listed herein are for the Methylene Chloride, which has been detected above standards in one sampling event.
2. Highlighted cell indicates compound detected above applicable regulatory limit.
3. * Blank Cells on 12/28/10 Benchmark Analysis indicates no data received for this analyte.

Shumaker Consulting Engineering and Land Surveying, P.C.
Analytical History for the Conklin Landfill
SCE Project 08126.00

Carlin Creek		Date Sampled:	3/30/2011	6/29/2011	8/31/2011	11/29/2011	3/22/2012	6/20/2012	9/20/2012	11/8/2012	3/25/2013	6/4/2013	9/17/2013	11/26/2013
Analyte (Note 1)	Units	Guidance Value												
Chloroethane	mg/l	0.005	<0.0050	-	-	-	<0.0050	-	-	-	-	-	<0.001	-
1,2-Dichloropropane	mg/l	0.001	<0.0050	-	-	-	<0.0050	-	-	-	-	-	<0.001	-
Methylene chloride	mg/l	0.005	<0.0050	-	-	-	<0.0050	-	-	-	-	-	<0.001	-
o-Xylene	mg/l	0.005	<0.0050	-	-	-	<0.0050	-	-	-	-	-	<0.001	-
m,p-Xylene	mg/l	0.005	<0.0050	-	-	-	<0.0050	-	-	-	-	-	<0.001	-
Alkalinity as CaCO3	mg/l		22	66	36	30	34	46	52	36	26	50	50	42
Ammonia as N	mg/l	2	0.2	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Biochemical Oxygen Demand-5	mg/l		<6	<6	<6	<6	<6	<6	<6	<6	<6	<6	<6	<6
Chloride	mg/l	250	56.1	31.4	23.3	15.8	42.2	30.3	38.2	22.5	71	52.7	39.5	47.9
Chemical Oxygen Demand	mg/l		18	<10	16	17	<10	23	16	35	14	<10	<10	<10
Hexavalent Chromium	mg/l		<0.01	-	-	-	<0.01	-	-	-	-	-	<0.01	-
Nitrate as N	mg/l	10	<0.05	<0.05	0.38	0.11	0.18	<0.05	0.1	0.06	0.31	0.11	0.2	0.14
pH	pH Units	6.5-8.5	7.34	6.79	6.9	7.41	7.07	6.39	7.35	7.31	7.09	6.6	7.03	6.82
Phenol	mg/l	0.001	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025
Total Dissolved Solids	mg/l	500	135	90	85	56	130	79	158	85	202	152	174	150
Sulfate as SO4	mg/l	250	8.75	8.24	8.98	7.66	8.77	<10.0	<10.0	<10.0	6.96	6.67	7.31	8.38
Total Kjeldahl Nitrogen	mg/l		<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	1.1	<1.0	<1.0	<1.0	<1.0	<1.0
Total Organic Carbon	mg/l		1.2	3.3	2.7	2.0	1.8	1.9	4.2	2.2	1.6	2.3	1.5	2.1
Total Hardess as CaCO3	mg/l		37.8	48.4	37.4	-	44.1	50.3	49.9	37.4	53.1	61.7	59	56.4
Color	Color Units	5	<5	-	-	-	<5	-	-	-	-	-	<5	-
Cyanide	mg/l	0.2	<0.010	-	-	-	<0.010	-	-	-	-	-	<0.010	-
Bromide	mg/l	2	<0.05	<0.05	<0.05	<0.05	<0.05	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.05
Mercury	mg/l	0.0007	<0.0002	-	-	-	<0.0002	-	-	-	-	-	<0.0002	-
Silver	mg/l	0.05	<0.002	-	-	-	<0.002	-	-	-	-	-	<0.002	-
Aluminum	mg/l		0.098	-	-	-	0.096	-	-	-	-	-		-
Arsenic	mg/l	0.025	<0.025	-	-	-	<0.010	-	-	-	-	-	<0.010	-
Boron	mg/l	1	<0.100	-	-	-	<0.025	-	-	-	-	-		-
Barium	mg/l	1	0.011	-	-	-	0.01	-	-	-	-	-	0.017	-
Beryllium	mg/l	0.03	<0.001	-	-	-	<0.001	-	-	-	-	-	<0.001	-
Calcium	mg/l		10.8	13.6	10.7	9.64	12.6	14.1	14.1	10.6	15.2	18.1	16.7	16
Cadmium	mg/l	0.005	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
Cobalt	mg/l		<0.010	-	-	-	<0.002	-	-	-	-	-	<0.002	-
Chromium	mg/l	0.05	<0.010	-	-	-	<0.002	-	-	-	-	-	<0.002	-
Copper	mg/l	0.2	<0.010	-	-	-	<0.002	-	-	-	-	-	0.004	-
Iron	mg/l	0.3	0.1	0.715	0.200	0.138	0.198	0.022	0.204	0.094	0.203	0.226	0.069	0.124
Potassium	mg/l		1.06	2.72	1.87	1.08	1.34	1.31	1.6	0.956	1.34	1.57	2.07	1.37
Magnesium	mg/l	35	2.63	3.49	2.59	2.25	3.05	3.64	3.55	2.64	3.66	4.04	4.24	3.99
Manganese	mg/l	0.3	0.004	0.085	0.018	0.044	0.06	0.177	0.021	0.027	0.02	0.444	0.035	0.091
Sodium	mg/l	20	30.1	20.2	16.7	11.8	24.7	20.7	24.5	15.9	37.5	43	26.8	27.1
Nickel	mg/l	0.1	<0.010	-	-	-	<0.002	-	-	-	-	-	<0.002	-
Lead	mg/l	0.025	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010
Antimony	mg/l	0.03	<0.020	-	-	-	<0.020	-	-	-	-	-	<0.020	-
Thallium	mg/l	0.0005	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025
Vanadium	mg/l		<0.010	<0.010	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
Zinc	mg/l	2	<0.005	0.007	0.007	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	0.006	<0.005	<0.005
Selenium	mg/l	0.01	<0.040	-	-	-	<0.040	-	-	-	-	-	<0.040	-

Notes

1. Full analytical reports for the Target Compound List were analyzed but were not detected. Contaminants of concern plus Organic compounds listed herein are for the Methylene Chloride, which has been detected above standards in one sampling event.

*. Third Quarter Analysis, 2010 not conducted.

APPENDIX B

FILTERED AND UNFILTERED GROUNDWATER SAMPLE COMPARISON

Filtered and Unfiltered Sample Comparison
Analytical History for the Conklin Landfill
SCE Project 08126.00

Monitoring Well 1		Date Sampled:	9/17/2013	9/17/2013	11/18/2013	11/18/2013
Analyte (Note 1)	Units	Guidance Value				
Filtered/Unfiltered.			**Unfiltered**	**Filtered**	**Unfiltered**	**Filtered**
Mercury	mg/l	0.0007	<0.0002	<0.0002	-	-
Silver	mg/l	0.05	<0.002	<0.002	-	-
Arsenic	mg/l	0.025	<0.010	<0.010	-	-
Barium	mg/l	1	0.038	0.028	-	-
Beryllium	mg/l	0.03	<0.001	<0.001	-	-
Calcium	mg/l		53.5	56.4	53.5	52.4
Cadmium	mg/l	0.005	<0.001	<0.002	<0.001	<0.001
Cobalt	mg/l		0.004	<0.002	-	-
Chromium	mg/l	0.05	<0.002	<0.002	-	-
Copper	mg/l	0.2	0.006	<0.002	-	-
Iron	mg/l	0.3	0.819	<0.005	0.149	0.006
Potassium	mg/l		1.98	1.78	1.78	1.68
Magnesium	mg/l	35	18.9	17.3	17.8	17.4
Manganese	mg/l	0.3	0.273	<0.002	0.057	<0.002
Sodium	mg/l	20	23.2	22.8	20.1	19.1
Nickel	mg/l	0.1	<0.002	<0.002	-	-
Lead	mg/l	0.025	<0.010	<0.010	<0.010	<0.010
Antimony	mg/l	0.03	<0.020	<0.020	-	-
Thallium	mg/l	0.0005	<0.025	<0.025	<0.025	<0.025
Vanadium	mg/l		<0.005	<0.005	<0.005	<0.005
Zinc	mg/l	2	0.038	<0.005	0.012	<0.005
Selenium	mg/l	0.01	<0.040	<0.040	-	-

Notes

1. Full analytical reports for the Target Compound List were analyzed but were not detected. Contaminants of concern plus Organic compounds listed herein are for the Methylene Chloride, which has been detected above standards in one sampling event.
2. Highlighted cell indicates compound detected above applicable regulatory limit.

Filtered and Unfiltered Sample Comparison
Analytical History for the Conklin Landfill
SCE Project 08126.00

Monitoring Well 3		Date Sampled:	9/17/2013	9/17/2013	11/18/2013	11/18/2013
Analyte (Note 1)	Units	Guidance Value				
Filtered/Unfiltered.			**Unfiltered**	**Filtered**	**Unfiltered**	**Filtered**
Mercury	mg/l	0.0007	<0.0040	<0.0002	-	-
Silver	mg/l	0.05	<0.010	<0.002	-	-
Arsenic	mg/l	0.025	0.201	<0.010	-	-
Barium	mg/l	1	1.41	0.015	-	-
Beryllium	mg/l	0.03	0.007	<0.001	-	-
Calcium	mg/l		103	34.7	43.6	33.3
Cadmium	mg/l	0.005	<0.005	<0.001	0.002	<0.001
Cobalt	mg/l		0.167	0.002	-	-
Chromium	mg/l	0.05	0.139	<0.002	-	-
Copper	mg/l	0.2	0.225	<0.002	-	-
Iron	mg/l	0.3	261	<0.005	117	0.045
Potassium	mg/l		7.87	0.502	4	<0.500
Magnesium	mg/l	35	63.8	8.55	26.9	7.67
Manganese	mg/l	0.3	4.23	0.253	1.46	0.249
Sodium	mg/l	20	11.7	10.2	10.1	10.1
Nickel	mg/l	0.1	0.267	<0.002	-	-
Lead	mg/l	0.025	0.167	<0.010	0.053	<0.010
Antimony	mg/l	0.03	<0.100	<0.020	-	-
Thallium	mg/l	0.0005	<0.125	<0.025	<0.025	<0.025
Vanadium	mg/l		0.118	<0.005	0.053	<0.005
Zinc	mg/l	2	0.789	<0.005	0.286	<0.005
Selenium	mg/l	0.01	<0.200	<0.040	-	-

Notes

1. Full analytical reports for the Target Compound List were analyzed but were not detected. Contaminants of concern plus Organic compounds listed herein are for the Methylene Chloride, which has been detected above standards in one sampling event.
2. Highlighted cell indicates compound detected above applicable regulatory limit.

Filtered and Unfiltered Sample Comparison
Analytical History for the Conklin Landfill
SCE Project 08126.00

Monitoring Well 4		Date Sampled:	9/17/2013	9/17/2013	11/18/2013	11/18/2013
Analyte (Note 1)	Units	Guidance Value				
Filtered/Unfiltered.			**Unfiltered**	**Filtered**	**Unfiltered**	**Filtered**
Mercury	mg/l	0.0007	<0.0002	<0.0002	-	-
Silver	mg/l	0.05	<0.002	<0.002	-	-
Arsenic	mg/l	0.025	<0.010	<0.010	-	-
Barium	mg/l	1	0.033	0.014	-	-
Beryllium	mg/l	0.03	<0.001	<0.001	-	-
Calcium	mg/l		36.7	39.4	32.4	29.5
Cadmium	mg/l	0.005	<0.001	<0.001	<0.001	<0.001
Cobalt	mg/l		0.003	<0.002	-	-
Chromium	mg/l	0.05	0.003	<0.002	-	-
Copper	mg/l	0.2	0.006	<0.002	-	-
Iron	mg/l	0.3	4.66	<0.005	9.31	0.018
Potassium	mg/l		1.62	0.711	1.61	0.749
Magnesium	mg/l	35	11.8	10.5	9.65	8.15
Manganese	mg/l	0.3	0.224	0.023	0.755	0.01
Sodium	mg/l	20	7.55	7.36	7.85	7.46
Nickel	mg/l	0.1	0.003	<0.002	-	-
Lead	mg/l	0.025	<0.010	<0.010	<0.010	<0.010
Antimony	mg/l	0.03	<0.020	<0.020	-	-
Thallium	mg/l	0.0005	<0.025	<0.025	<0.025	<0.025
Vanadium	mg/l		<0.005	<0.005	0.006	<0.005
Zinc	mg/l	2	0.016	<0.005	0.031	<0.005
Selenium	mg/l	0.01	<0.040	<0.040	-	-

Notes

1. Full analytical reports for the Target Compound List were analyzed but were not detected. Contaminants of concern plus Organic compounds listed herein are for the Methylene Chloride, which has been detected above standards in one sampling event.
2. Highlighted cell indicates compount detected above applicable regulatory limit.

Filtered and Unfiltered Sample Comparison
Analytical History for the Conklin Landfill
SCE Project 08126.00

Monitoring Well 12		Date Sampled:	9/17/2013	9/17/2013	11/18/2013	11/18/2013
Analyte (Note 1)	Units	Guidance Value				
Filtered/Unfiltered.			**Unfiltered**	**Filtered**	**Unfiltered**	**Filtered**
Mercury	mg/l	0.0007	<0.0040	<0.0002	-	-
Silver	mg/l	0.05	<0.002	<0.002	-	-
Arsenic	mg/l	0.025	0.065	<0.010	-	-
Barium	mg/l	1	0.29	0.014	-	-
Beryllium	mg/l	0.03	0.002	<0.001	-	-
Calcium	mg/l		33.9	31.2	34.4	27.3
Cadmium	mg/l	0.005	0.002	<0.001	<0.001	<0.001
Cobalt	mg/l		0.027	<0.002	-	-
Chromium	mg/l	0.05	0.045	<0.002	-	-
Copper	mg/l	0.2	0.102	0.003	-	-
Iron	mg/l	0.3	85.5	<0.005	32.9	0.01
Potassium	mg/l		4.65	0.703	2.42	<0.500
Magnesium	mg/l	35	19.7	9.22	13.7	8.42
Manganese	mg/l	0.3	5.46	0.645	1.37	0.049
Sodium	mg/l	20	13	13.1	12.1	10.5
Nickel	mg/l	0.1	0.06	0.002	-	-
Lead	mg/l	0.025	0.047	<0.010	0.014	<0.010
Antimony	mg/l	0.03	<0.020	<0.020	-	-
Thallium	mg/l	0.0005	<0.025	<0.025	<0.025	<0.025
Vanadium	mg/l		0.038	<0.005	0.017	<0.005
Zinc	mg/l	2	0.216	0.015	0.071	<0.005
Selenium	mg/l	0.01	<0.040	<0.040	-	-

Notes

1. Full analytical reports for the Target Compound List were analyzed but were not detected. Contaminants of concern plus Organic compounds listed herein are for the Methylene Chloride, which has been detected above standards in one sampling event.
2. Highlighted cell indicates compount detected above applicable regulatory limit.

Filtered and Unfiltered Sample Comparison
Analytical History for the Conklin Landfill
SCE Project 08126.00

Monitoring Well 37		Date Sampled:	9/17/2013	9/17/2013	11/18/2013	11/18/2013
Analyte (Note 1)	Units	Guidance Value				
Filtered/Unfiltered.			**Unfiltered**	**Filtered**	**Unfiltered**	**Filtered**
Mercury	mg/l	0.0007	<0.0002	<0.0002	-	-
Silver	mg/l	0.05	<0.002	<0.002	-	-
Arsenic	mg/l	0.025	<0.010	<0.010	-	-
Barium	mg/l	1	0.014	0.019	-	-
Beryllium	mg/l	0.03	<0.001	<0.001	-	-
Calcium	mg/l		40	40.6	44.7	41.5
Cadmium	mg/l	0.005	<0.001	<0.001	<0.001	<0.001
Cobalt	mg/l		<0.002	<0.002	-	-
Chromium	mg/l	0.05	<0.002	<0.002	-	-
Copper	mg/l	0.2	0.004	0.002	-	-
Iron	mg/l	0.3	0.489	0.03	0.462	<0.005
Potassium	mg/l		2.58	2.34	2.55	2.27
Magnesium	mg/l	35	6.72	6.75	7.12	6.51
Manganese	mg/l	0.3	0.207	0.006	0.066	<0.002
Sodium	mg/l	20	9.03	67.2	9.1	8.56
Nickel	mg/l	0.1	<0.002	<0.002	-	-
Lead	mg/l	0.025	<0.010	<0.010	<0.010	<0.010
Antimony	mg/l	0.03	<0.020	<0.020	-	-
Thallium	mg/l	0.0005	<0.025	<0.025	<0.025	<0.025
Vanadium	mg/l		<0.005	<0.005	<0.005	<0.005
Zinc	mg/l	2	0.006	0.006	0.011	<0.005
Selenium	mg/l	0.01	<0.040	<0.040	-	-

Notes

1. Full analytical reports for the Target Compound List were analyzed but were not detected. Contaminants of concern plus Organic compounds listed herein are for the Methylene Chloride, which has been detected above standards in one sampling event.
2. Highlighted cell indicates compount detected above applicable regulatory limit.

Filtered and Unfiltered Sample Comparison
Analytical History for the Conklin Landfill
SCE Project 08126.00

Monitoring Well 38D		Date Sampled:	9/17/2013	9/17/2013	11/18/2013	11/18/2013
Analyte (Note 1)	Units	Guidance Value				
Filtered/Unfiltered.			**Unfiltered**	**Filtered**	**Unfiltered**	**Filtered**
Mercury	mg/l	0.0007	<0.0040	<0.0002	-	-
Silver	mg/l	0.05	0.02	<0.002	-	-
Arsenic	mg/l	0.025	0.21	<0.010	-	-
Barium	mg/l	1	3.89	0.046	-	-
Beryllium	mg/l	0.03	0.01	<0.001	-	-
Calcium	mg/l		438	37.2	39.8	37.7
Cadmium	mg/l	0.005	0.009	<0.001	<0.001	<0.001
Cobalt	mg/l		0.3	<0.002	-	-
Chromium	mg/l	0.05	0.28	<0.002	-	-
Copper	mg/l	0.2	0.399	<0.002	-	-
Iron	mg/l	0.3	599	<0.005	17.6	0.008
Potassium	mg/l		13.1	1.14	2.85	1.13
Magnesium	mg/l	35	182	8.12	10.8	7.6
Manganese	mg/l	0.3	96.6	0.485	0.637	<0.002
Sodium	mg/l	20	39.5	35.2	35.3	34.5
Nickel	mg/l	0.1	0.575	<0.002	-	-
Lead	mg/l	0.025	0.311	<0.010	<0.010	<0.010
Antimony	mg/l	0.03	<0.100	<0.020	-	-
Thallium	mg/l	0.0005	<0.125	<0.025	<0.025	<0.025
Vanadium	mg/l		0.204	<0.005	0.009	<0.005
Zinc	mg/l	2	1.48	<0.005	0.047	<0.005
Selenium	mg/l	0.01	<0.200	<0.040	-	-

Notes

1. Full analytical reports for the Target Compound List were analyzed but were not detected. Contaminants of concern plus Organic compounds listed herein are for the Methylene Chloride, which has been detected above standards in one sampling event.
2. Highlighted cell indicates compount detected above applicable regulatory limit.

Filtered and Unfiltered Sample Comparison
Analytical History for the Conklin Landfill
SCE Project 08126.00

Carlin Creek		Date Sampled:	9/17/2013	9/17/2013	11/18/2013	11/18/2013
Analyte (Note 1)	Units	Guidance Value				
Filtered/Unfiltered.			**Unfiltered**	**Filtered**	**Unfiltered**	**Filtered**
Mercury	mg/l	0.0007	<0.0002	<0.0002	-	-
Silver	mg/l	0.05	<0.002	<0.002	-	-
Arsenic	mg/l	0.025	<0.010	<0.010	-	-
Barium	mg/l	1	0.017	0.017	-	-
Beryllium	mg/l	0.03	<0.001	<0.001	-	-
Calcium	mg/l		16.7	17.2	16	15.1
Cadmium	mg/l	0.005	<0.001	<0.001	<0.001	<0.001
Cobalt	mg/l		<0.002	<0.002	-	-
Chromium	mg/l	0.05	<0.002	<0.002	-	-
Copper	mg/l	0.2	0.004	<0.002	-	-
Iron	mg/l	0.3	0.069	<0.005	0.124	0.043
Potassium	mg/l		2.07	2.06	1.37	1.17
Magnesium	mg/l	35	4.24	4.19	3.99	3.78
Manganese	mg/l	0.3	0.035	<0.002	0.091	0.081
Sodium	mg/l	20	26.8	26.4	27.1	26.4
Nickel	mg/l	0.1	<0.002	<0.002	-	-
Lead	mg/l	0.025	<0.010	<0.010	<0.010	<0.010
Antimony	mg/l	0.03	<0.020	<0.020	-	-
Thallium	mg/l	0.0005	<0.025	<0.025	<0.025	<0.025
Vanadium	mg/l		<0.005	<0.005	<0.005	<0.005
Zinc	mg/l	2	<0.005	<0.005	<0.005	<0.005
Selenium	mg/l	0.01	<0.040	<0.040	-	-

Notes

1. Full analytical reports for the Target Compound List were analyzed but were not detected. Contaminants of concern plus Organic compounds listed herein are for the Methylene Chloride, which has been detected above standards in one sampling event.
2. Highlighted cell indicates compound detected above applicable regulatory limit.

APPENDIX C

DEPTH-TO-GROUNDWATER MEASUREMENTS

Depth To Groundwater Measurements

Town of Conklin Landfill

6-May-14

Well ID	Top of Casing Elevation	Depth to Water	Elevation of Water
MW-1	946.69	25.6	921.09
MW-3	892.4	4.15	888.25
MW-4	897.18	9.46	887.72
MW-12	901.08	12.4	888.68
MW-37	908.71	9.65	899.06
MW-38S	890.13	5.04	885.09
MW-38D	888.34	5.77	882.57
lw14	926.24	31.46	894.78