LEGGETTE, BRASHEARS & GRAHAM, INC.

PROFESSIONAL GROUNDWATER AND ENVIRONMENTAL ENGINEERING SERVICES

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> > February 1*, 2015

Via e-mail: tjbiel@gw.dec.state.ny.us

Mr. Thomas Biel
New York State Department of Environmental Conservation - Region 7 Office
Division of Environmental Remediation
615 Erie Boulevard West
Syracuse, NY 13204

> RE: Groundwater Monitoring Report Deluxe Corporation Liverpool, New York NYSDEC VCP #V-00339

Dear Mr. Biel:

Attached is a Groundwater Monitoring Report (GMR) for October 2014. The next scheduled groundwater sampling event is July 2015 and the Annual Periodic Review Report will be submitted November 2015.

If you have any questions please do not hesitate to contact me at (914) 694-5711 or weber@lbgny.com.

Very truly yours,

LEGGETTE, BRASHEARS & GRAHAM, INC.

Weber

Jorma Weber Senior Associate

JW:dmd Attachment cc: Jon Robertson Jim Burrows

DELUXE CORPORATION FORMER CHECK PRINTING FACILITY 4707 DEY ROAD LIVERPOOL, NEW YORK

NYSDEC VCP #V-00339

Prepared For: Deluxe Corporation 3680 Victoria Street North Shoreview, MN 55126 Attn: Mr. Jon Robertson (651) 490-8654, Ext. 528654

Prepared By: Leggette, Brashears & Graham, Inc. 4 Westchester Park Drive Suite 175 White Plains, NY 10604 (914) 694-5711

Jorma Weber Senior Associate

Reviewed By: John Benvegna Vice President

DELUXE CORPORATION FORMER CHECK PRINTING FACILITY 4707 DEY ROAD LIVERPOOL, NEW YORK

NYSDEC VCP #V-00339

Report Date:	February 1*, 2015
Project Manager:	Jorma Weber
Field Personnel:	Michael Reiff
Regulatory Contact:	New York State Department of Environmental Conservation Division of Environmental Remediation – Region 7 615 Erie Boulevard Syracuse, NY 13204-2400 Attn: Mr. Thomas Biel
Site Description:	The site is a former Deluxe Check Printing facility and is currently owned and operated by M. S. Kennedy Corporation. Comprehensive details of former and current site use can be found in the Site Management Plan (SMP).
Site Phase:	Annual groundwater monitoring (every 9 months) and Annual submittal of a Period Review Report (PRR). The next PRR will be submitted in November 2015.
Methodology and Procedures:	 Gauge and sample 19 groundwater monitor wells Groundwater samples analyzed for volatile organic compounds (VOCs) by
	 USEPA Method 8260. Quality Assurance/Quality Control (QA/QC) trip blank sample analyzed for VOCs by USEPA Method 8260 modified to include MTBE.
Analyzed By:	York Analytical Laboratories, Inc. 120 Research Drive Stratford, CT 06615 (203) 325-1371

Monitoring and Sampling Results:

Groundwater Sampling: On October 7, 2014, LBG personnel measured the depth to water and total depth of each of the 19 monitor wells at the site using an electronic interface probe. Water levels and well depths are summarized on table 1. The measurements were used to calculate the volume of water within each well. On October 7 and October 8, 2014, LBG evacuated 3 volumes of water from each well using a submersible pump set approximately 2 feet below the pumping water level. The pump was operated at a flow rate less than 3 gpm (gallons per minute) and dedicated polyethylene tubing was used for each well. At the conclusion of each well evacuation, LBG personnel measured the following geochemical parameters: temperature, pH, conductivity, dissolved oxygen and oxidation/reduction potential. All of these geochemical measurements are shown on table 1. Field data sheets for this sampling event are attached.

DELUXE CORPORATION FORMER CHECK PRINTING FACILITY 4707 DEY ROAD LIVERPOOL, NEW YORK

NYSDEC VCP #V-00339 (continued)

Monitoring and Sampling Results: (continued)

Groundwater Sampling:

(continued)

Evacuated purge water was stored temporarily in 55-gallon steel drums and was removed from the site on November 6, 2014 by Environmental Products and Services of Vermont, Inc. (EPS). The disposal manifest is attached.

After purging each well, groundwater samples were collected with disposable polyethylene bailers and transferred to laboratory-supplied containers. Each sample was stored in a chilled cooler and shipped to York Analytical Laboratories, Inc. (York) of Stratford, Connecticut for analysis of volatile organic compounds (VOCs) by EPA Method 8260. York is a New York State Department of Health (NYSDOH) Environmental Laboratory Approval Program (ELAP) certified laboratory. The laboratory report supplied by York included NYSDEC Analytical Services Protocol (ASP) Category B Deliverables. A field blank, trip blank, matrix spike and matrix spike duplicate were also sent to York. A copy of the laboratory reports excluding Category B Deliverables are attached. A Data Usability Summary Report (DUSR) will be prepared by Premier Environmental Services of Merrick, New York and will be included in the PRR to be submitted to NYSDEC in November 2015.

Groundwater Quality - Well Cluster #1 (Former Underground Storage Tank Area):

Monitor Well Cluster #1 is located at the former underground storage tank (UST) area (figure 1). Groundwater samples collected from these wells contain the highest concentrations of tetrachloroethylene (PCE) and its degradation byproducts. Laboratory analysis of groundwater samples collected from MW-1A and MW-1B on October 8, 2014 indicated PCE concentrations exceeding NYSDEC Ground Water Quality Standards (GWQS). On these dates, PCE concentrations were 61 ug/l (micrograms per liter) and 76 ug/l in MW-1A and MW-1B, respectively.

The historic concentrations of PCE and its degradation products decreases with depth below grade at the Well Cluster #1 location. No VOCs were detected above NYSDEC GWQS in MW-1C on October 8, 2014 and VOCs have never been detected above NYSDEC GWQS in MW-1D (the deepest #1 cluster well at 109 feet). Table 2.1 summarizes groundwater quality at Well Cluster #1.

Groundwater Quality - Well Clusters #2 and #3:

Well Clusters #2 and #3 are located to the east and northeast of the former UST area (50 to 60 feet away). Groundwater samples from Cluster #2 (east of the former UST area) did not contain VOCs above GWQS during the most recent sampling event. Historically, GWQS were exceeded for only one compound on one date in Cluster #2 (7 ug/l, 1,1-dichloroethane, MW-2C, April 30, 2003). Table 2.2 summarizes groundwater quality at Monitor Well Cluster #2.

DELUXE CORPORATION FORMER CHECK PRINTING FACILITY 4707 DEY ROAD LIVERPOOL, NEW YORK

NYSDEC VCP #V-00339 (continued)

Monitoring and Sampling Results: (continued)

Groundwater Quality - Well Clusters #2 and #3: (continued)

Consistent with historical results groundwater samples collected from Well Cluster #3 (northeast of the former UST area) had no VOCs exceeding GWQS in the October 2014 samples. Table 2.3 summarized groundwater quality at Well Cluster #3.

Groundwater Quality - Well Cluster #4 (North of Former UST Area):

Groundwater samples collected from Well Cluster #4 contain the greatest VOC concentration lateral to Well Cluster #1. On the most recent sampling date (October 7, 2014), groundwater samples collected from Monitor Wells 4A and 4B contained PCE at concentrations of 26 ug/l and 27 ug/l, respectively. Table 2.4 summarizes groundwater quality at Well Cluster #4.

Groundwater Quality - Well Clusters #5, #6 and #7:

The results of laboratory analysis from the most recent groundwater sampling date (October 7, 2014) indicate that the only VOC detection above NYSDEC GWQS at this well cluster was PCE at 7.6 ug/l in Monitor Well 5A. Table 2.5 summarizes groundwater quality in Well Clusters 5, 6 and 7.

Groundwater Flow:

Groundwater flow through a bedrock aquifer is primarily through fractures, joints and bedding-plane partings. Flow direction is controlled by differences in potentiometric surface elevation within the aquifer and the orientation and general character of the secondary porosity paths (fractures, joints, etc.) over a local and regional scale.

Groundwater elevations calculated for the shallow "A" wells indicated a horizontal gradient to the north. The groundwater elevation in 5A was the lowest of all "A" wells on October 7, 2014 and was 9.28 feet lower than groundwater in the contamination source area (1A) 110 feet away. Groundwater in the shallow "A" zone flows to the north through unconsolidated sediment and weathered bedrock. A groundwater elevation contour map for the October 7, 2014 measurements from the "A" monitor wells is shown on figure 2.

Groundwater elevations calculated for the "B" wells indicate a horizontal gradient to the northwest. Groundwater elevations calculated for the "C" wells indicate a horizontal gradient to the southwest. Groundwater elevations calculated for the "D" wells indicate a horizontal gradient to the northeast.

Groundwater in the "B", "C" and "D" wells flows through bedrock fractures; the flow patterns described above are estimates of the generalized flow direction and do not take into account any localized secondary porosity effects. Figure 3 depicts the generalized groundwater flow direction for the different bedrock intervals.

DELUXE CORPORATION FORMER CHECK PRINTING FACILITY 4707 DEY ROAD LIVERPOOL, NEW YORK

NYSDEC VCP #V-00339 (continued)

Current Status/Plans: The next groundwater sampling event is scheduled for July 2015 and the Annual PRR will be submitted in November 2015.

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DELUXE CORPORATION FORMER CHECK PRINTING FACILITY 4707 DEY ROAD LIVERPOOL, NEW YORK

Well ID	Date	Top of	Total	Depth to	Groundwater	Conductivity	Temperature	pН	Turbidity	Dissolved	ORP ⁶⁾
		Casing	Depth	Water	Elevation					Oxygen	
		Elevation									
		(feet) $^{1)}$	(feet)	(ft btoc) $^{2)}$	(feet)	$(S/m)^{3)}$	(°C)		(NTU) ⁴⁾	$(mg/l)^{5)}$	$(mV)^{7)}$
1A	04/05/01	98.78	20.00	12.38	86.40	NM ⁸⁾	NM	NM	NM	NM	NM
	10/15/02	-	-	15.25	83.53	0.067	15.2	7.21	72	7.0	76
	01/29/03	-	-	13.91	84.87	0.057	8.1	7.21	120	7.3	118
	04/28/03	-	-	13.00	85.78	0.140	15.0	7.02	270	8.1	NM
	09/24/03	-	-	16.64	82.14	0.050	NM	6.63	NM	NM	NM
	04/22/13	-	20.05	12.15	86.63	0.117	12.04	7.55	321	7.03	-17
	01/21/14	-	20.15	13.63	85.15	0.092	6.98	7.46	NM	9.48	174
	10/07/14		20.15	13.82	84.96	0.066	15.2	7.30	NM	10.0	94
1B	04/05/01	98.87	40.20	33.39	65.48	NM	NM	NM	NM	NM	NM
	10/15/02	-	-	39.80	59.07	NM	NM	NM	NM	NM	NM
	01/29/03	-	-	Dry	-	-	-	-	-	-	-
	04/28/03	-	-	35.55	63.32	0.150	18.6	6.76	180	5.1	NM
	09/24/03	-	-	39.85	59.02	NM	NM	NM	NM	NM	NM
	04/22/13	-	40.40	36.58	62.29	0.145	14.54	7.59	287	5.14	-17
	01/21/14	-	40.32	39.38	59.49	0.127	8.49	9.18	NM	8.53	164
	10/07/14		40.33	39.85	59.02	0.273	15.00	7.80	NM	9.89	81
1C	04/05/01	99.20	60.10	37.55	61.65	NM	NM	NM	NM	NM	NM
	10/15/02	-	-	52.02	47.18	0.200	12.6	7.20	9	8.0	83
	01/29/03	-	-	43.97	55.23	0.140	11.8	6.98	21	8.0	124
	04/28/03	-	-	37.34	61.86	0.160	17.6	6.76	280	13.3	NM
	09/24/03	-	-	52.19	47.01	0.081	NM	6.60	NM	NM	NM

DELUXE CORPORATION FORMER CHECK PRINTING FACILITY 4707 DEY ROAD LIVERPOOL, NEW YORK

Well ID	Date	Top of Casing	Total Depth	Depth to Water	Groundwater Elevation	Conductivity	Temperature	рН	Turbidity	Dissolved Oxygen	ORP ⁶⁾
		(feet) ¹⁾	(feet)	(ft btoc) ²⁾	(feet)	(S/m) ³⁾	(°C)		(NTU) ⁴⁾	(mg/l) ⁵⁾	(mV) ⁷⁾
1C	10/16/03	99.20	-	52.33	46.87	NM	NM	NM	NM	NM	NM
(continued)	04/22/13	-	60.25	42.50	56.70	0.252	15.57	8.78	565	7.74	-72
	01/21/14	-	60.40	42.65	56.55	0.324	6.64	7.22	NM	9.54	31
	10/07/14		60.40	51.55	47.65	0.222	14.86	6.40	NM	9.87	-36
1D	09/24/03	98.78	109.52	49.74	49.04	0.294	NM	11.41	NM	NM	NM
	04/22/13	-	109.52	42.25	56.53	0.342	12.22	10.73	NM	6.73	-261
	01/21/14	-	109.50	41.00	57.78	0.354	7.22	11.52	NM	9.18	-38
	10/07/14		109.50	48.32	50.46	0.104	14.07	6.20	nm	7.40	-44
2A	04/05/01	98.73	20.08	9.49	89.24	NM	NM	NM	NM	NM	NM
	10/15/02	-	-	14.52	84.21	0.210	17.4	6.88	81	5.0	91
	01/29/03	-	-	12.55	86.18	0.220	9.3	6.99	90	8.3	91
	04/28/03	-	-	10.75	87.98	0.220	12.2	6.79	820	5.8	NM
	09/24/03	-	-	15.42	83.31	0.084	NM	6.48	NM	NM	NM
	04/22/13	-	20.10	10.76	87.97	0.292	12.52	6.94	NM	9.20	17
	01/21/14	-	20.08	12.71	86.02	0.186	7.96	8.06	NM	8.66	182
	10/07/14		20.08	14.80	83.93	0.289	16.04	8.08	NM	7.80	150
2B	04/05/01	98.92	40.18	35.48	63.44	NM	NM	NM	NM	NM	NM
	10/15/02	-	-	39.80	59.12	NM	NM	NM	NM	NM	NM
	01/29/03	-	-	Dry	-	-	-	-	-	-	-
	04/28/03	-	-	36.01	62.91	0.100	16.6	6.87	500	6.0	NM
	09/24/03	-	-	39.95	58.97	NM	NM	NM	NM	NM	NM

DELUXE CORPORATION FORMER CHECK PRINTING FACILITY 4707 DEY ROAD LIVERPOOL, NEW YORK

Well ID	Date	Top of Casing	Total Depth	Depth to Water	Groundwater Elevation	Conductivity	Temperature	рН	Turbidity	Dissolved Oxygen	ORP ⁶⁾
		Elevation									
		(feet) ¹⁾	(feet)	(ft btoc) $^{2)}$	(feet)	$(S/m)^{3)}$	(°C)		$(NTU)^{4)}$	(mg/l) ⁵⁾	(mV) ⁷⁾
2B	04/22/13	98.92	40.15	36.98	61.94	0.154	15.97	7.49	NM	8.19	4
(continued)	01/21/14	-	40.15	39.57	59.35	0.164	8.23	8.86	NM	8.50	161
	10/07/14		40.15	39.80	59.12	0.200	15.38	8.40	NM	9.07	90
2C	04/05/01	98.83	60.10	37.24	61.59	NM	NM	NM	NM	NM	NM
	10/15/02	-	-	51.78	47.05	0.220	13.2	6.64	5	7.7	97
	01/29/03	-	-	43.66	55.17	0.190	11.5	6.88	46	7.6	96
	04/28/03	-	-	37.00	61.83	0.180	17.2	6.99	390	7.7	NM
	09/24/03	-	-	51.83	47.00	0.077	NM	6.68	NM	NM	NM
	04/22/13	-	61.00	38.95	59.88	0.279	14.00	7.25	350	8.57	11
	01/21/14	-	61.00	42.30	56.53	0.202	7.13	7.11	NM	9.06	12
	10/07/14		61.00	51.14	47.69	0.296	13.98	8.50	NM	9.10	6
3A	04/05/01	98.31	20.00	8.79	89.52	NM	NM	NM	NM	NM	NM
	10/15/02	-	-	14.33	83.98	0.120	17.7	7.58	67	6.2	74
	01/29/03	-	-	12.39	85.92	0.120	13.1	7.02	56	4.9	53
	04/28/03	-	-	10.65	87.66	0.140	13.2	7.14	150	3.4	NM
	09/24/03	-	-	15.12	83.19	0.069	NM	6.82	NM	NM	NM
	04/22/13	-	20.00	10.20	88.11	0.244	12.55	9.78	NM	3.69	-198
	01/21/14	-	20.02	12.15	86.16	0.153	9.07	6.89	NM	7.79	31
	10/07/14		20.00	14.50	83.81	0.111	16.28	6.80	NM	7.16	36
3B	04/05/01	98.36	40.18	34.30	64.06	NM	NM	NM	NM	NM	NM
	10/15/02	-	-	39.86	58.50	NM	NM	NM	NM	NM	NM

DELUXE CORPORATION FORMER CHECK PRINTING FACILITY 4707 DEY ROAD LIVERPOOL, NEW YORK

Well ID	Date	Top of	Total	Depth to	Groundwater	Conductivity	Temperature	pН	Turbidity	Dissolved	ORP ⁶⁾
		Casing	Depth	Water	Elevation					Oxygen	
		Elevation									
		(feet) $^{1)}$	(feet)	(ft btoc) $^{2)}$	(feet)	$(S/m)^{3)}$	(°C)		(NTU) ⁴⁾	$(mg/l)^{5)}$	$(mV)^{7)}$
3B	01/29/03	98.36	-	39.17	59.19	0.090	12.8	6.88	72	11.0	151
(continued)	04/28/03	-	-	35.10	63.26	0.078	19.6	7.10	100	4.5	NM
	09/24/03	-	-	39.95	58.41	NM	NM	NM	NM	NM	NM
	04/22/13	-	40.30	35.90	62.46	0.140	16.48	7.37	317	11.09	-4
	01/21/14	-	40.23	38.13	60.23	0.100	6.66	6.84	NM	9.30	191
	10/07/14		40.25	38.82	59.54	0.198	15.26	6.90	NM	7.79	156
3C	04/05/01	98.19	60.18	36.24	61.95	NM	NM	NM	NM	NM	NM
	10/15/02	-	-	50.06	48.13	0.230	13.4	7.13	23	8.0	87
	01/29/03	-	-	42.62	55.57	0.210	12.7	6.82	47	7.5	154
	04/28/03	-	-	35.99	62.20	0.200	15.2	6.59	110	8.0	NM
	09/24/03	-	-	50.15	48.04	0.072	NM	6.67	NM	NM	NM
	04/22/13	-	60.20	37.75	60.44	0.326	16.92	7.60	NM	8.58	-13
	01/21/14	-	60.30	41.10	57.09	0.270	7.87	5.66	NM	7.22	118
	10/07/14		60.30	49.45	48.74	0.178	15.02	7.20	NM	8.83	114
4A	04/05/01	96.90	20.03	8.91	87.99	NM	NM	NM	NM	NM	NM
	10/15/02	-	-	13.19	83.71	0.120	16.0	7.16	97	6.3	82
	01/29/03	-	-	11.81	85.09	0.110	10.5	6.85	95	6.7	124
	04/28/03	-	-	10.70	86.20	0.100	19.3	6.56	500	5.7	NM
	09/24/03	-	-	13.85	83.05	0.053	NM	6.63	NM	NM	NM
	04/22/13	-	19.97	10.73	86.17	0.145	11.98	7.00	NM	6.50	19

DELUXE CORPORATION FORMER CHECK PRINTING FACILITY 4707 DEY ROAD LIVERPOOL, NEW YORK

Well ID	Date	Top of	Total	Depth to	Groundwater	Conductivity	Temperature	pН	Turbidity	Dissolved	ORP ⁶⁾
		Casing	Depth	Water	Elevation					Oxygen	
		Elevation									
		(feet) ¹⁾	(feet)	(ft btoc) $^{2)}$	(feet)	$(S/m)^{3)}$	(°C)		$(NTU)^{4)}$	$(mg/l)^{5)}$	$(mV)^{7)}$
4A	01/21/14	96.90	20.00	11.94	84.96	0.121	10.09	6.91	NM	8.16	186
(continued)	10/07/14		20.00	13.47	83.43	0.206	16.66	6.50	NM	5.94	-21
4B	04/05/01	96.76	40.18	32.85	63.91	NM	NM	NM	NM	NM	NM
	10/15/02	-	-	38.78	57.98	NM	NM	NM	NM	NM	NM
	01/29/03	-	-	37.99	58.77	0.089	11.1	6.45	87	9.3	174
	04/28/03	-	-	33.35	63.41	0.083	17.3	6.78	700	7.0	NM
	09/24/03	-	-	39.01	57.75	0.017	NM	7.14	NM	NM	NM
	04/22/13	-	40.21	33.83	62.93	0.126	13.32	6.99	226	6.50	16
	01/21/14	-	40.17	36.65	60.11	0.102	8.32	7.36	NM	8.72	183
	10/07/14		40.15	38.92	57.84	0.312	15.03	7.20	NM	7.77	-64
4C	04/05/01	96.50	60.20	34.73	61.77	NM	NM	NM	NM	NM	NM
	10/15/02	-	-	49.03	47.47	0.140	12.5	7.69	5	8.9	77
	01/29/03	-	-	41.15	55.35	0.150	12.8	7.01	160	9.2	115
	04/28/03	-	-	34.52	61.98	0.140	15.6	6.90	200	9.5	NM
	09/24/03	-	-	48.96	47.54	0.062	NM	6.78	NM	NM	NM
	04/22/13	-	60.17	36.42	60.08	0.301	13.65	4.69	246	6.17	16
	01/21/14		62.30	39.62	56.88	0.269	6.31	7.60	NM	10.22	167
	10/07/14		62.30	48.26	48.24	0.309	15.26	6.10	NM	8.51	21

DELUXE CORPORATION FORMER CHECK PRINTING FACILITY 4707 DEY ROAD LIVERPOOL, NEW YORK

Well ID	Date	Top of	Total	Depth to	Groundwater	Conductivity	Temperature	pН	Turbidity	Dissolved	ORP ⁶⁾
		Casing	Depth	Water	Elevation					Oxygen	
		Elevation									
		(feet) ¹⁾	(feet)	(ft btoc) $^{2)}$	(feet)	$(S/m)^{3)}$	(°C)		(NTU) ⁴⁾	$(mg/l)^{5)}$	$(mV)^{7)}$
5A	09/24/03	96.52	22.48	21.98	74.54	0.016	NM	7.29	NM	NM	NM
	04/22/13	-	22.50	19.81	76.71	0.150	8.49	5.69	5	8.59	99
	01/21/14	-	22.59	20.01	76.51	0.128	4.66	7.32	NM	10.74	220
	10/07/14		22.50	20.84	75.68	0.147	16.28	6.30	NM	11.49	41
5D	09/24/03	96.19	111.88	106.14	-9.95	0.173	NM	7.10	NM	NM	NM
	04/22/13	-	111.88	40.20	55.99	2.70	13.19	10.47	648	6.78	-152
	01/21/14	-	112.00	51.80	44.39	1.77	10.11	12.59	NM	8.45	-6
	10/07/14		112.00	45.61	50.58	2.05	14.46	8.50	NM	9.75	-177
6A	09/24/03	102.73	22.50	17.75	84.98	0.016	NM	6.71	NM	NM	NM
	04/22/13	-	23.50	13.15	89.58	0.097	8.66	8.57	NM	5.40	-48
	01/21/14	-	23.50	14.69	88.04	0.303	9.22	8.86	NM	8.94	23
	10/07/14		23.50	17.00	85.73	0.047	15.07	5.80	NM	9.21	-8
6D	09/24/03	103.03	112.28	108.58	-5.55	0.148	NM	7.28	NM	NM	NM
	04/22/13	-	112.28	43.20	59.83	1.80	11.43	9.83	431	6.17	-95
	01/21/14	-	112.60	46.26	56.77	0.359	4.23	10.27	NM	9.00	87
	10/07/14		112.60	54.54	48.49	0.078	13.93	6.90	NM	8.83	-93
7A	09/24/03	106.31	22.52	Dry	-	-	-	-	-	-	-
	04/22/13	-	22.55	11.00	95.31	0.379	11.92	8.84	973	4.44	-126
	01/21/14	-	22.59	11.20	95.11	0.009	9.67	7.13	NM	10.83	127
	10/07/14		22.55	22.00	84.31	0.603	15.77	7.40	NM	6.69	-220

DELUXE CORPORATION FORMER CHECK PRINTING FACILITY 4707 DEY ROAD LIVERPOOL, NEW YORK

Summary of Groundwater Elevations and Field Measurements

Well ID	Date	Top of	Total	Depth to	Groundwater	Conductivity	Temperature	pН	Turbidity	Dissolved	ORP ⁶⁾
		Casing	Depth	Water	Elevation					Oxygen	
		Elevation									
		(feet) ¹⁾	(feet)	(ft btoc) $^{2)}$	(feet)	$(S/m)^{3)}$	(°C)		(NTU) ⁴⁾	(mg/l) ⁵⁾	(mV) ⁷⁾
7D	09/24/03	105.98	112.15	59.83	46.15	0.016	NM	7.19	NM	NM	NM
	04/22/13	-	112.15	46.90	59.08	1.800	13.42	9.94	197	3.34	-230
	01/21/14	-	112.10	50.05	59.08	0.685	11.24	7.75	NM	12.42	-532
	10/07/14		112.60	58.58	59.08	0.818	13.15	7.50	NM	8.71	-467

1) Elevations referenced to arbitrary datum

2) Feet below top of casing

3) Siemens per meter

4) Nephelometric turbidity units

5) Milligrams per liter

6) Oxydation reduction potential

7) Millivolts

8) Not measured

DELUXE CORPORATION FORMER CHECK PRINTING FACILITY 4707 DEY ROAD LIVERPOOL, NEW YORK

Well ID	Date Sampled	1,1,1-	1,1-	1,1-	cis-1,2-	1,2,4-Tri-	1,3,5-Tri-	Tetrachloro-	Trichloro-	Vinyl
		Trichloro-	Dichloro-	Dichloro-	Dichloro-	methyl-	methyl-	ethylene	ethylene	Chloride
		ethane	ethane	ethylene	ethylene	benzene	benzene	(PCE)	(TCE)	
1A	04/05/01	2	2	6	75	45	14	730	300	23
	10/15/02	7	ND	ND	53	ND	ND	860	340	ND
	01/31/03	12	ND	3	23	3	ND	610	190	3
	04/30/03	ND	ND	ND	12	ND	ND	310	82	ND
	09/24/03	12	ND	3	25	ND	ND	390	130	ND
	10/16/03	10	ND	3	49	ND	ND	360	140	ND
	04/23/13	ND	ND	ND	40	ND	ND	740	300	ND
	01/23/14	ND	ND	ND	25	ND	ND	160	140	ND
	10/08/14	ND	ND	ND	9.8	ND	ND	61	31	ND
1B	04/05/01	27	1	7	70	34	11	670	290	20
	10/15/02	NS	NS	NS	NS	NS	NS	NS	NS	NS
	01/31/03	NS	NS	NS	NS	NS	NS	NS	NS	NS
	04/30/03	5	ND	ND	10	ND	ND	140	25	ND
	09/24/03	16	3	ND	8	ND	ND	280	27	ND
	04/23/13	ND	ND	ND	40	ND	ND	18	<5	ND
	01/23/14	ND	ND	ND	3 J	ND	ND	25	8.1	ND
	10/08/14	0.27 J	ND	ND	9.1	ND	ND	76	42	ND
1C	04/05/01	5	ND	ND	3	ND	ND	44	9	ND
	10/15/02	3	2	1	ND	ND	ND	3	ND	ND
	01/31/03	3	ND	ND	2	ND	ND	25	8	ND
	04/30/03	3	4	2	ND	ND	ND	10	1	ND
	09/24/03	4	3	2	ND	ND	ND	ND	ND	ND
	10/16/03	3	3	3	ND	ND	ND	2	ND	ND
	04/23/13	ND	ND	ND	ND	ND	ND	ND	ND	ND
	01/23/14	ND	ND	ND	ND	ND	ND	ND	ND	ND
	10/08/14	0.39 J	0.49 J	0.39 J	0.48 J	ND	ND	4.8	2.7	ND
1D	09/24/03	ND	ND	ND	ND	ND	ND	ND	ND	ND
	04/23/13	ND	ND	ND	ND	ND	ND	ND	ND	ND
	01/23/14	ND	ND	ND	ND	ND	ND	ND	ND	ND
	10/08/14	ND	ND	ND	ND	ND	ND	1	0.35 J	ND
NYSDE	EC GWQS ¹⁾	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	2.0

Summary of Groundwater Quality - #1 Well Cluster (all concentrations in micrograms per liter)

1) - New York State Department of Environmental Conservation Ground Water Quality Standards

NS = Not sampled

DELUXE CORPORATION FORMER CHECK PRINTING FACILITY 4707 DEY ROAD LIVERPOOL, NEW YORK

Summary of Groundwater Quality - #2 Well Cluster (all concentrations in micrograms per liter)

Well ID	Date Sampled	1,1,1- Trichloro- ethane	1,1- Dichloro- ethane	1,1- Dichloro- ethylene	cis-1,2- Dichloro- ethylene	Tetrachloro- ethylene (PCE)	Trichloro- ethylene (TCE)	Vinyl Chloride
2 A	04/04/01	ND	ND	ND	ND	ND	ND	ND
	10/15/02	ND	ND	ND	ND	ND	ND	ND
	01/31/03	ND	ND	ND	ND	ND	ND	ND
	04/30/03	ND	ND	ND	ND	ND	ND	ND
	09/24/03	ND	ND	ND	ND	ND	ND	ND
	04/23/13	ND	ND	ND	ND	ND	ND	ND
	01/23/14	ND	ND	ND	ND	ND	ND	ND
	10/07/14	ND	0.94	0.69	ND	ND	ND	ND
2 B	04/04/01	ND	ND	ND	ND	ND	ND	ND
	10/15/02	NS	NS	NS	NS	NS	NS	NS
	01/31/03	NS	NS	NS	NS	NS	NS	NS
	04/30/03	ND	ND	ND	ND	ND	ND	ND
	09/24/03	NS	NS	NS	NS	NS	NS	NS
	04/23/13	ND	ND	ND	ND	ND	ND	ND
	01/23/14	ND	ND	ND	ND	ND	ND	ND
	10/07/14	ND	1.4	0.85	ND	ND	ND	ND
2 C	04/04/01	4	2	2	ND	ND	ND	ND
	10/15/02	3	2	2	ND	ND	ND	ND
	01/31/03	2	2	1	ND	ND	ND	ND
	04/30/03	3	7	3	ND	ND	ND	ND
	09/25/03	3	2	1	ND	ND	ND	ND
	04/23/13	ND	ND	ND	ND	ND	ND	ND
	01/23/14	ND	ND	ND	ND	ND	ND	ND
	10/07/14	ND	1.9	0.96	ND	ND	ND	ND
NYSDE	C GWQS ¹⁾	5.0	5.0	5.0	5.0	5.0	5.0	2.0

1) - New York State Department of Environmental Conservation Ground Water Quality Standards

NS = Not sampled

DELUXE CORPORATION FORMER CHECK PRINTING FACILITY 4707 DEY ROAD LIVERPOOL, NEW YORK

Well ID	Date Sampled	1,1,1- Trichloro-	1,1- Dichloro-	1,1- Dichloro-	cis-1,2- Dichloro-	Tetrachloro- ethylene	Trichloro- ethylene	Vinyl Chloride
		ethane	ethane	ethylene	ethylene	(PCE)	(TCE)	
	04/04/01	ND	ND	ND	ND	ND	ND	ND
	10/15/02	ND	ND	2	ND	2	ND	ND
	01/31/03	ND	2	<1	<1	2	ND	ND
3 A	04/30/03	ND	ND	ND	ND	ND	ND	ND
	09/25/03	ND	2	ND	ND	ND	ND	ND
	04/23/13	ND	ND	ND	ND	ND	ND	ND
	01/22/14	ND	ND	ND	ND	ND	ND	ND
	10/07/14	0.85	1	0.75	ND	ND	ND	ND
	04/04/01	ND	ND	ND	ND	ND	ND	ND
	10/15/02	NS	NS	NS	NS	NS	NS	NS
	01/31/03	ND	ND	ND	ND	ND	ND	ND
3 D	04/30/03	ND	ND	ND	ND	ND	ND	ND
5 B	09/25/03	NS	NS	NS	NS	NS	NS	NS
	04/23/13	ND	ND	ND	ND	ND	ND	ND
	01/22/14	ND	ND	ND	ND	ND	ND	ND
	10/07/14	ND	ND	ND	ND	ND	ND	ND
	04/04/01	3	1	ND	ND	ND	ND	ND
	10/15/02	2	2	1	ND	ND	ND	ND
	01/31/03	4	2	2	ND	ND	ND	ND
3.0	04/30/03	3	3	1	ND	ND	ND	ND
30	09/25/03	2	2	1	ND	ND	ND	ND
	04/23/13	ND	ND	ND	ND	ND	ND	ND
	01/22/14	ND	ND	ND	ND	ND	ND	ND
	10/07/14	ND	0.98	0.64	ND	ND	ND	ND
NYSDEC	C GWQS ¹⁾	5.0	5.0	5.0	5.0	5.0	5.0	2.0

Summary of Groundwater Quality - #3 Well Cluster (all concentrations in micrograms per liter)

1) - New York State Department of Environmental Conservation Ground Water Quality Standards NS = Not sampled

DELUXE CORPORATION FORMER CHECK PRINTING FACILITY 4707 DEY ROAD LIVERPOOL, NEW YORK

Summary of Groundwater Quality - #4 Well Cluster (all concentrations in micrograms per liter)

Well ID	Date Sampled	1,1,1- Trichloro- ethane	1,1-Dichloro ethane	1,1- Dichloro- ethylene	cis-1,2- Dichloro- ethylene	Tetrachloro- ethylene (PCE)	Trichloro- ethylene (TCE)	Vinyl Chloride
4A	04/04/01	ND	ND	ND	ND	5	ND	ND
	10/15/02	6	ND	ND	2	170	13	ND
	01/31/03	2	ND	ND	ND	110	9	ND
	04/30/03	ND	ND	ND	ND	48	3	ND
	09/25/03	4	2	ND	1	130	9	ND
	04/23/13	23	ND	ND	ND	ND	ND	ND
	01/22/14	ND	ND	ND	ND	29	2.7 J	ND
	10/07/14	1.2	1.1	0.25 J	2	26	2.3	ND
4B	04/04/01	ND	ND	ND	ND	ND	ND	ND
	10/15/02	NS	NS	NS	NS	NS	NS	NS
	01/31/03	6	ND	1	5	68	12	ND
	04/30/03	8	ND	ND	11	88	20	ND
	09/25/03	ND	ND	ND	ND	14	3	ND
	04/23/13	3.7 J	ND	ND	18	67	28	ND
	01/22/14	3.3 J	ND	ND	13	58	20	ND
	10/07/14	1.2	1.2	0.22 J	2.2	27	2.2	ND
4C	04/04/01	4	ND	ND	ND	15	3	ND
	10/15/02	7	1	2	2	54	7	ND
	01/31/03	2	ND	ND	1	20	4	ND
	04/30/03	4	4	3	ND	12	1	ND
	09/25/03	5	2	2	ND	ND	ND	ND
	04/23/13	ND	ND	ND	ND	ND	ND	ND
	01/22/14	ND	ND	ND	ND	ND	ND	ND
	10/07/14	1.3	1.4	1	ND	ND	ND	ND
NYSDEC	GWQS ¹⁾	5.0	5.0	5.0	5.0	5.0	5.0	2.0

1) - New York State Department of Environmental Conservation Ground Water Quality Standards

NS = Not sampled

DELUXE CORPORATION FORMER CHECK PRINTING FACILITY 4707 DEY ROAD LIVERPOOL, NEW YORK

Summary of Groundwater Quality - #5, 6, 7 Well Clusters (all concentrations in micrograms per liter)

Well ID	Date Sampled	1,1,1- Trichloro- ethane	1,1- Dichloro- ethane	1,1- Dichloro- ethylene	cis-1,2- Dichloro- ethylene	Tetrachloro- ethylene (PCE)	Trichloro- ethylene (TCE)	Vinyl Chloride
5 \	00/25/02	ND	ND	ND	ND	21	ND	ND
JA	09/23/03	ND			ND	21	ND	ND
	04/23/13	ND	ND		ND	9.7	ND	ND
	01/22/14		ND	ND	ND	13	ND	ND
	10/07/14	0.36 J	0.55	ND	1.4	7.6	l	ND
5D	09/25/03	ND	ND	ND	ND	ND	ND	ND
	04/23/13	ND	ND	ND	ND	ND	ND	ND
	01/22/14	ND	ND	ND	ND	ND	ND	ND
	10/07/14	ND	ND	ND	ND	0.31 J	ND	ND
6A	09/25/03	ND	ND	ND	ND	ND	ND	ND
	04/23/13	ND	ND	ND	ND	ND	ND	ND
	01/22/14	ND	ND	ND	ND	ND	ND	ND
	10/07/14	ND	ND	ND	ND	ND	ND	ND
6D	09/25/03	ND	ND	ND	ND	ND	ND	ND
	04/23/13	ND	ND	ND	ND	ND	ND	ND
	01/22/14	ND	ND	ND	ND	ND	ND	ND
	10/07/14	ND	ND	ND	ND	ND	ND	ND
7A	09/25/03	NS	NS	NS	NS	NS	NS	NS
	04/23/13	ND	ND	ND	ND	ND	ND	ND
	01/23/14	ND	ND	ND	ND	ND	ND	ND
	10/07/14	ND	ND	ND	ND	ND	ND	ND
7D	09/25/03	ND	ND	ND	ND	ND	ND	ND
	04/23/13	ND	ND	ND	ND	ND	ND	ND
	01/23/14	ND	ND	ND	ND	ND	ND	ND
	10/07/14	ND	ND	ND	ND	ND	ND	ND
NYSDEC	C GWQS ¹⁾	5.0	5.0	5.0	5.0	5.0	5.0	2.0

1) - New York State Department of Environmental Conservation Ground Water Quality Standards NS = Not sampled



∲ 1A



<u>LEGEND</u>

PROPERTY LINE

MONITOR WELL IDENTIFICATION AND LOCATION

DELUXE CORPORATION FORMER CHECK PRINTING FACILITY 4707 DEY ROAD LIVERPOOL, NEW YORK

SITE PLAN

REVISE	סד	PREPARED BY:								
			LEGGETTE, BRASHEARS & GRAHAM, INC.							
		and the	Professional Groundwater and Environmental Engineering Services							
			4 Westchester Park Drive							
			Suite 175							
			White Plains, NY 10604							
			(914) 694-5711							
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th.	M& Fax: (914) 694-5			744			Date: Profession:	_ 10/7/14 al: M.ReiGE		Weather/Co	mments: OC	106939-
Well Identification	Time Gauged	Depth to Product	Depth to Groundwater	Product Thickness	Total Depth	GW Evacuated calc/actual	пН	FIELD PA	RAMETER	Temp	ORP	Fime Sampled
		(ft btoc)	(ft btoc)	(ft)	(ft btoc)	(gallons)		anit	(mg/l)	(C)	(m¥)	
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63	0942	59.54	54.54		112.60	(11.4)	6.9	0.776 ms/cm	8.93	13.93	-93	1130
74	0915		22.00	-	1.2.59	- 26 125	7-4	6.02 ms/cm	6.69	15.77	-220	1240
70	0917		58.58	Constant of the local diversion of the local	112.60	103.71	7.5	8.18 Ms/cm	8.71	13.15	-467-	1225
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