Table 1
Long Term Monitoring Program
5 Hunt Road
Jamestown, New York
NYSDEC BCP Site #C907027

Summary of Water Quality Parameters - Groundwater Samples

WELL ID	Parameter	DATE						
		8/8/2012	3/6/2013	6/26/2013	10/30/2013	12/1/2013	4/30/2014	3/25/2015
MW-07	GW Elevation (ft)	95.27	95.90	95.01	95.91	N/M	96.30	96.29
	pH (su)	N/M	7.04	7.73	7.04	N/M	6.55	7.13
	S.C. (mS/cm)	N/M	1.70	N/M	2.10	N/M	N/M	2.39
	D.O. (mg/l)	0.9	0.10	0.7	0.57	N/M	0.45	0.21
	O.R.P. (mV)	106	100	57	17	N/M	21	85
MW-200	GW Elevation (ft)	92.99	95.46	92.95	95.53	N/M	95.90	95.90
	pH (su)	N/M	8.23	7.74	7.26	N/M	7.33	7.09
	S.C. (mS/cm)	N/M	2.68	N/M	1.60	N/M	N/M	1.17
	D.O. (mg/l)	0.6	4.24	0.6	1.42	N/M		6.41
	O.R.P. (mV)	70	196	-57	37	N/M	-89.00	246
MW-201	GW Elevation (ft)	92.08	92.44	93.69	92.74	N/M	92.52	92.21
	pH (su)	N/M	7.58	7.97	6.90	N/M	6.58	7.24
	S.C. (mS/cm)	N/M	2.11	N/M	1.86	N/M	N/M	1.78
	D.O. (mg/l)	2.3	1.38	0.7	0.52	N/M	0.83	0.88
	O.R.P. (mV)	-31	-53	-13	-116	N/M	-139	-24
CW-1	GW Elevation (ft)	--	96.64	95.62	96.62	N/M	N/M	N/M
	pH (su)	--	N/M	8.02	7.16	N/M	N/M	N/M
	S.C. (mS/cm)	--	N/M	N/M	2.30	N/M	N/M	N/M
	D.O. (mg/l)	--	N/M	4.0	1.69	N/M	N/M	N/M
	O.R.P. (mV)	--	N/M	122	-30	N/M	N/M	N/M
CW-2	GW Elevation (ft)	--	96.46	95.97	96.44	N/M	96.82	96.70
	pH (su)	--	7.65	7.79	7.11	6.76	6.41	7.18
	S.C. (mS/cm)	--	2.01	N/M	2.10	N/M	N/M	2.32
	D.O. (mg/l)	--	0.88	0.6	1.33	N/M	2.76	1.24
	O.R.P. (mV)	--	299	175	48	82	66	356
CW-3	GW Elevation (ft)	--	94.97	94.34	95.24	N/M	95.25	95.07
	pH (su)	--	7.77	7.82	6.89	6.46	6.28	7.25
	S.C. (mS/cm)	--	1.90	N/M	2.39	N/M	N/M	1.77
	D.O. (mg/l)	--	0.70	0.9	0.63	N/M	0.28	0.08
	O.R.P. (mV)	--	310	40	-115	-170	-120	-106
CW-4	GW Elevation (ft)	--	94.63	94.10	94.91	N/M	95.26	94.93
	pH (su)	--	8.10	7.69	7.07	6.75	6.48	7.17
	S.C. (mS/cm)	--	1.64	N/M	2.03	N/M	N/M	2.20
	D.O. (mg/l)	--	0.23	0.9	0.66	N/M	1.81	0.45
	O.R.P. (mV)	--	193	190	29	-95	-84	-80
CW-5	GW Elevation (ft)	--	94.42	93.97	94.66	N/M	N/M	N/M
	pH (su)	--	N/M	7.93	6.85	N/M	N/M	N/M
	S.C. (mS/cm)	--	N/M	N/M	1.53	N/M	N/M	N/M
	D.O. (mg/l)	--	N/M	1.2	0.94	N/M	N/M	N/M
	O.R.P. (mV)	--	N/M	33	86	N/M	N/M	N/M
CW-6	GW Elevation (ft)	--	95.87	95.19	95.86	N/M	N/M	N/M
	pH (su)	--	N/M	7.94	N/M	N/M	N/M	N/M
	S.C. (mS/cm)	--	N/M	N/M	N/M	N/M	N/M	N/M
	D.O. (mg/l)	--	N/M	1.3	N/M	N/M	N/M	N/M
	O.R.P. (mV)	--	N/M	32	N/M	N/M	N/M	N/M
MW-04	GW Elevation (ft)	97.72	100.16	N/M	99.92	N/M	100.55	100.82
	pH (su)	N/M	7.83	N/M	5.66	N/M	6.42	7.19
	S.C. (mS/cm)	N/M	1.11	N/M	2.02	N/M	N/M	1.55
	D.O. (mg/l)	0.7	0.14	N/M	1.86	N/M	0.35	0.05
	O.R.P. (mV)	95	133	N/M	168	N/M	17	-40
MW-06	GW Elevation (ft)	96.95	100.09	N/M	99.68	N/M	100.38	100.70
	pH (su)	N/M	8.37	N/M	6.10	N/M	6.53	7.21
	S.C. (mS/cm)	N/M	0.70	N/M	1.24	N/M	N/M	1.15
	D.O. (mg/l)	2	0.00	N/M	0.77	N/M	0.58	0.54
	O.R.P. (mV)	-52	197	N/M	137	N/M	28	-12
BR-02FR	GW Elevation (ft)	97.89	100.22	N/M	100.33	N/M	101.02	101.42
	pH (su)	N/M	7.58	N/M	6.44	N/M	6.43	7.20
	S.C. (mS/cm)	N/M	0.62	N/M	1.40	N/M	N/M	1.20
	D.O. (mg/l)	0.6	0.13	N/M	0.65	N/M	0.35	0.09
	O.R.P. (mV)	121	74	N/M	101	N/M	-36	-3
BR-02R	GW Elevation (ft)	97.99	100.46	N/M	99.68	N/M	100.34	100.84
	pH (su)	N/M	8.17	N/M	6.39	N/M	6.30	7.40
	S.C. (mS/cm)	N/M	0.60	N/M	0.92	N/M	N/M	1.34
	D.O. (mg/l)	0.8	0.00	N/M	0.62	N/M	0.35	0.06
	O.R.P. (mV)	88	-164	N/M	57	N/M	-213	-168
BR-03R	GW Elevation (ft)	98.39	100.01	N/M	99.97	N/M	100.61	100.92
	pH (su)	N/M	7.86	N/M	6.24	N/M	6.80	7.05
	S.C. (mS/cm)	N/M	0.51	N/M	2.14	N/M	N/M	1.53
	D.O. (mg/l)	0.3	0.00	N/M	2.14	N/M	0.31	0.07
	O.R.P. (mV)	69	131	N/M	128	N/M	-49	-133

N/M = Not Measured
O.R.P = oxygen reduction potential
D.O. = dissolved oxygen
S.C. = specific conductance

Table 2

Summary of Analytical Laboratory Results
Groundwater Samples

Anderson Cleaners Site
Jamestown, New York
BCP Site C907027

Constituent	Sample Locations and Sample Dates																	
	MW-01	MW-02	MW-03			MW-04											MW-05	
	5/25/2005	1/12/2006	5/25/2005	1/12/2006	9/12/2006	5/25/2005	1/12/2006	1/4/2007	2/13/2007	3/15/2007	11/8/2007	7/24/2008	1/15/2010	5/5/2010	8/8/2012	10/30/2013	5/25/2005	1/12/2006
PCE	U (10)	2,090	1,400	1,040	1,560	1,200	1,230	1,820	1,120	904	189	734	837	694	974	966 D	2 E	U (2)
TCE	U (10)	U (20)	U (10)	U (20)	U (20)	1 E	U (20)	U (200)	U (200)	U (100)	1,220	113	34.9	31.4	U (18.9)	U (18.9)	U (10)	U (2)
trans 1,2-DCE	U (10)	U (20)	U (10)	U (20)	U (20)	U (10)	U (20)	U (200)	U (200)	U (100)	187	U (20)	U (20)	U (20)	U (17.0)	U (20.8)	U (10)	U (2)
cis 1,2-DCE	U (10)	-	U (10)	-	-	U (10)	-	U (200)	U (200)	U (100)	3,830	101	24.6	28.6	U (17.9)	U (17.9)	U (10)	-
VC	U (10)	U (20)	U (10)	U (20)	U (20)	U (10)	U (20)	U (200)	U (200)	U (100)	U (100)	U (20)	U (20)	U (20)	U (20.2)	U (20.2)	U (10)	U (2)
Total VOCs	**0**	**2,090**	**1,400**	**1,040**	**1,560**	**1,201**	**1,230**	**1,820**	**1,120**	**904**	**5,426**	**948**	**896.5**	**754**	**974**	**966**	**2**	**0**

Constituent	Sample Locations and Sample Dates																					
	MW-06								MW-07													
	5/25/2005	1/12/2006	1/4/2007	2/13/2007	3/15/2007	7/24/2008	8/8/2012	10/30/2013	5/25/2005	1/12/2006	9/12/2006	1/4/2007	2/13/2007	3/15/2007	7/24/2008	8/8/2012	11/16/2012	3/6/2013	10/30/2013	4/30/2013	8/6/2014	3/25/2015
PCE	620	392	369	256	246	329	187	156 D	9,600 E	8,590	9,170	5,310	6,440	4,240	11,600	15,600	6,410	2,140	2,840 D	1,610 D	4910 D	6,610 D
TCE	1 E	U (10)	U (4)	U (5)	U (5)	U (5)	U (3.8)	U (3.8)	6,500	U (200)	U (200)	U (200)	U (200)	U (200)	U (200)	U (151)	U (151)	U (37.8)	U (37.8)	37.0 D	U (44.2)	U (38.0)
trans 1,2-DCE	U (10)	U (10)	U (4)	U (5)	U (5)	U (5)	U (3.4)	U (4.2)	61	U (200)	U (200)	U (200)	U (200)	U (200)	U (200)	U (136)	U (136)	U (34.0)	U (41.6)	U (11.6)	U (46.5)	U (20.8)
cis 1,2-DCE	U (10)	-	U (4)	U (5)	U (5)	U (5)	U (3.6)	U (3.6)	7,100	-	-	U (200)	U (200)	U (200)	245	U (143)	U (143)	U (35.8)	U (35.8)	142 D	U (38.4)	U (23.4)
VC	U (10)	U (10)	U (4)	U (5)	U (5)	U (5)	U (4.0)	U (4.0)	1,000	U (200)	U (200)	U (200)	U (200)	U (200)	U (200)	U (161)	U (161)	U (40.4)	U (40.4)	U (24.2)	U (96.7)	U (33.9)
Total VOCs	**621**	**392**	**369**	**256**	**246**	**329**	**187**	**156**	**24,261**	**8,590**	**9,170**	**5,310**	**6,440**	**4,240**	**11,845**	**15,600**	**6,410**	**2,140**	**2,840**	**1,789**	**4,910**	**6,610**

Constituent	Sample Locations and Sample Dates														
	PW-2			PW-3					MW-7			MW-7.1			
	10/21/2004	1/12/2006	8/8/2006	10/21/2004	5/25/2005	1/12/2006	8/8/2006	9/12/2006	11/23/2003	10/21/2004	5/25/2005	8/9/2006	9/12/2006	7/24/2008	
PCE	91,400	29,700	50,400	108,000	74,000	64,700	34,100	23,100	53,300	53,700	73,000	113,000	120,000	78,100	
TCE	U (2000)	U (1000)	U (1000)	9,070	8,100	7,360	8,150	9,040	U (1000)	U (2000)	81	U (1000)	U (1000)	1,120	
trans 1,2-DCE	U (2000)	U (1000)	U (1000)	U (2000)	290 E	U (1000)	U (1000)	U (400)	U (1000)	U (2000)	U (10)	U (1000)	U (1000)	U (1000)	
cis 1,2-DCE	U (2000)	-	-	72,500	57,000	-	-	-	-	U (2000)	95	-	-	U (1000)	
VC	U (2000)	U (1000)	U (1000)	13,800	12,000	17,900	20,400	5,490	U (1000)	U (2000)	2 E	U (1000)	U (1000)	U (1000)	
Total VOCs	**91,400**	**29,700**	**50,400**	**203,370**	**151,390**	**89,960**	**62,650**	**37,630**	**53,300**	**53,700**	**73,178**	**113,000**	**120,000**	**79,220**	

Notes:

All samples tested for halogenated VOCs by USEPA Method 8260B and concentrations are shown in ug/L or parts per billion.
U (200) = constituent not detected at the concentration shown in parenthesis.
D = Data reported from a dilution
E = estimated concentration
PCE = tetrachloroethene
TCE = trichloroethene
trans 1,2-DCE = trans 1,2-dichloroethene
cis 1,2-DCE = cis 1,2-dichloroethene
VC = vinyl chloride

Table 2

Summary of Analytical Laboratory Results
Groundwater Samples

Anderson Cleaners Site
Jamestown, New York
BCP Site C907027

Constituent	Sample Locations and Sample Dates									
	MW-200									
	4/20/2006	7/24/2008	8/8/2012	11/16/2012	3/6/2013	10/30/2013	1/13/2014	4/30/2014	8/6/2014	3/25/2015
PCE	U (2.0)	U (2.0)	1.4	U (0.7)	1.8	7.3	1.9	4.0	2.0 D	0.6
TCE	U (2.0)	U (2.0)	3.2	5.6	1.5	4.8	U (0.8)	U (0.4)	1.4 D	U (0.4)
trans 1,2-DCE	U (2.0)	U (2.0)	0.8	U (0.7)	U (0.7)	U (0.8)	U (0.8)	U (0.5)	U (0.5)	U (0.2)
cis 1,2-DCE	-	4.56	32.6	45.6	7.2	23.3	3.2	U (0.4)	9.4 D	U (0.2)
VC	U (2.0)	U (2.0)	0.9	0.8	U (0.8)	U (0.8)	U (0.8)	U (1.0)	U (1.0)	U (0.3)
Total VOCs	**ND**	**4.56**	**38.9**	**52.0**	**10.5**	**35.4**	**5.1**	**4.0**	**12.8**	**0.6**

Constituent	Sample Locations and Sample Dates																
	MW-201																
	4/24/2006	1/4/2007	2/13/2007	3/15/2007	8/31/2007	11/8/2007	4/2/2008	7/24/2008	12/20/2008	8/8/2012	11/16/2012	12/7/2012	3/6/2013	10/30/2013	1/13/2014	4/30/2014	8/6/2014	3/25/2015
PCE	10,500	14,200	2,610	423	1,000	402	U (100)	U (200)	U (200)	U (186)	U (0.7)	U (250)	U (186)	U (37.2)	U (3.7)	U (0.6)	U (2.9)	U (2.9)
TCE	970	U (200)	17,500	937	772 E	232	U (100)	U (200)	U (200)	U (189)	U (0.8)	U (250)	U (189)	U (37.8)	U (3.8)	0.4	U (2.2)	U (1.9)
trans 1,2-DCE	U (200)	U (200)	1,290	94.4	361 E	141	U (100)	U (200)	U (200)	U (170)	U (0.7)	U (250)	U (170)	U (41.6)	U (4.2)	U (0.5)	U (0.5)	U (1.0)
cis 1,2-DCE	-	U (200)	7,860	U (20)	16,000	9,130	4,040	7,820	752	10,400	27.7	9,570	11,200	2,350	229 D	33.4	121 D	71.8 D
VC	U (200)	U (200)	U (200)	U (20)	566 E	1,180	1,710	4,260	1,050	650	14.7	848	588	1,190	93.5 D	18.1	206 D	181 D
Total VOCs	**11,470**	**14,200**	**29,260**	**1,454**	**18,699**	**11,085**	**5,750**	**12,080**	**1,804**	**11,050**	**42.4**	**10,418**	**11,788**	**3,540**	**322.5**	**51.9**	**327**	**252.8**

Constituent	Sample Locations and Sample Dates																			
	MW-202	MW-203		BR-02 FR				BR-02 R				BR-03 R				CW-1		CW-2					
	4/20/2006	7/12/2006	7/24/2008	1/15/2010	5/5/2010	8/8/2012	10/30/2013	1/15/2010	5/5/2010	8/8/2012	10/30/2013	1/15/2010	5/5/2010	8/8/2012	10/30/2013	12/7/2012	10/30/2013	11/16/2012	3/6/2013	10/30/2013	1/13/2014	4/30/2014	8/6/2014	3/25/2015
PCE	U (2.0)	U (2.0)	U (2.0)	15,000	30,000	5,880	15,500 D	334	371	1,620	5,570 D	115	37	129	76.5 D	13.3	2.1	155	308	254	359 D	389 D	503 D	349 D
TCE	U (2.0)	U (2.0)	U (2.0)	U (200)	U (400)	499	3,230 D	79.8	550	1,330	2,600 D	221	18	67.0	9.9 D	1.0	1.1	60.8	40.0	32.8	34.5	31.8 D	40.3 D	22.9 D
trans 1,2-DCE	U (2.0)	U (2.0)	U (2.0)	U (200)	U (400)	U (68.1)	U (416)	U (20)	U (20)	U (17.0)	U (166)	U (20)	U (2)	U (3.4)	U (4.2)	U (1.0)	U(0.8)	1.8	U (3.4)	U (4.2)	0.8 J	U (4.6)	U (4.6)	U (1.3)
cis 1,2-DCE	-	-	3.66	U (200)	U (400)	97.0	3,150 D	U (20)	U (20)	364	692 D	468	124	70.3	27.8 D	1.3	0.9	37.4	24.4	23.6	17.9	16.7 D	17.0 D	11.9 D
VC	U (2.0)	3.38	U (2.0)	U (200)	U (400)	U (80.7)	U (404)	79.0	115	400	750 D	U (20)	U (2)	U (4.0)	U (4.0)	U (1.0)	U(0.8)	1.2	U (4.0)	U (4.0)	U (0.8)	U (9.7)	U (9.7)	U (1.7)
Total VOCs	**0**	**3.38**	**3.66**	**15,000**	**30,000**	**6,476**	**21,880**	**492.8**	**1,036**	**3,762.5**	**9,612**	**804**	**179**	**266.3**	**114.2**	**15.6**	**4.1**	**256.2**	**372.4**	**310.4**	**412.2**	**437.5**	**560.3**	**383.8**

Constituent	Sample Locations and Sample Dates																
	CW-3							CW-4							CW-5		CW-6
	11/16/2012	3/6/2013	10/30/2013	1/13/2014	4/30/2014	8/6/2014	3/25/2015	11/16/2012	3/6/2013	10/30/2013	1/13/2014	4/30/2014	8/6/2014	3/25/2015	11/16/2012	10/30/2013	11/16/2012
PCE	794	910	1,020 D	60.0 D	U (5.7)	28.3 D	3.2	39,800	31,300	36,000 D	34,900 D	34,600 D	34500 D	44,100 D	U (0.7)	U (0.7)	U (0.7)
TCE	U (7.6)	U (15.1)	61.0	U (37.8)	U (4.4)	79.5 D	2.9	U (378)	U (378)	2360 D	1,930 D	3010 D	1,660 D	2,040 D	U (0.8)	U (0.8)	U (0.8)
trans 1,2-DCE	U (6.8)	U (13.6)	U(16.6)	U (41.6)	U (4.6)	U (4.6)	0.5 J	U (340)	U (340)	U (416)	U (416)	U (232)	U (232)	U (104)	U (0.7)	U (0.8)	U (0.7)
cis 1,2-DCE	28.5	25.4	1,440 D	2,800 D	381 D	408 D	53.8	U (358)	U (358)	2960 D	4,840 D	5180 D	1,910 D	1,700 D	U (0.7)	U (0.7)	U (0.7)
VC	U (8.1)	U (16.1)	16.8 JD	65.0 D	121 D	104 D	16.3	U (404)	U (404)	U (404)	U (404)	U (484)	U (484)	U (170)	U (0.8)	U (0.8)	U (0.8)
Total VOCs	**822.5**	**935.4**	**2,537.8**	**2,925.0**	**502**	**619.8**	**76.7**	**39,800**	**31,300**	**41,050**	**41,670**	**42,790**	**38,070**	**47,840**	**0**	**0**	**0**

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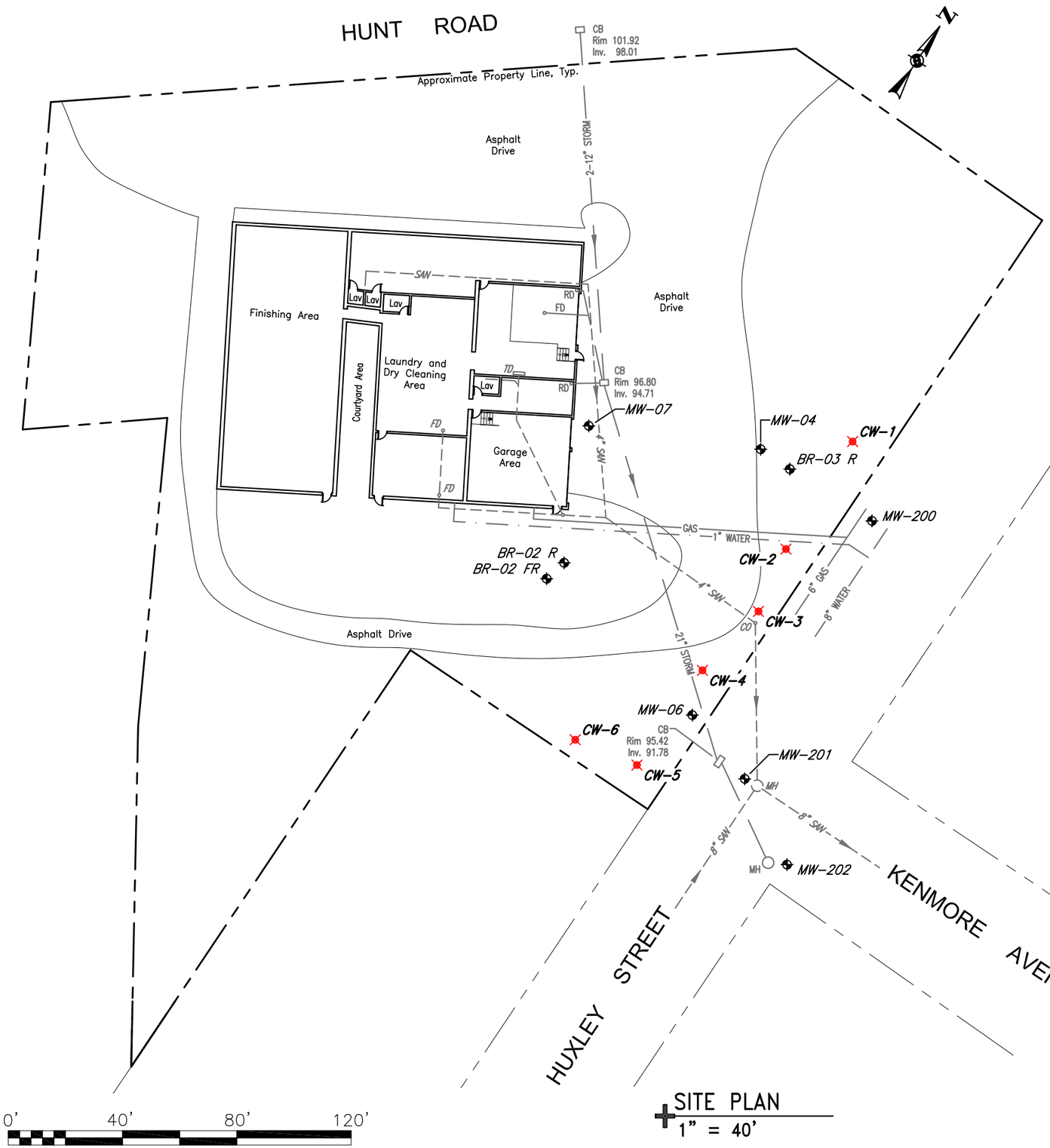
cis 1,2-DCE = cis 1,2-dichloroethene
VC = vinyl chloride



LEGEND:

CW-1	Plume Containment: Overburden Well
MW-04	Existing Monitoring Well and Designation
DI	Catch Basin
FD	Floor Drain
MH	Manhole
Rim 100.83	Rim Elevation In Feet
Inv. 95.55	Invert Elevation In Feet
RD	Roof Drain
TD	Trench Drain
6" GAS	Gas Line (Approx 2.5 feet below grade)
8" SAN	Sanitary Sewer (Approx 5–7 feet below grade)
STORM	Storm Sewer (Approx 4–6 feet below grade)
8" WATER	Water Line (Approx 5–7 feet below grade)

NOTES:

1. Site Plan produced from drawings by Habiterra Associates, Thorsell, Kennedy, Casker, Arnone & Hedin. P.C. entitled "Addition and Renovations, Anderson Cleaners, Inc", drawings A–1 Floor Plan dated October 22, 1985 and L–1 Grading Plan and from notes of site visits by representatives of Day Environmental, Inc.
2. Well locations MW–04, MW–06, MW–07 and MW–08 were obtained in the field by a Trimble GeoXT GPS. Other well and test boring locations were obtained by tape measurement from existing site structure. Locations should be considered accurate to the degree implied by the method used.
3. Utility locations were obtained in the field by a Trimble GeoXT GPS, from drawings referenced in Note 1, A 1967 map from Jamestown DPW showing the proposed location of a permanent easement for the purpose of constructing and maintaining a storm sewer from the existing catch basin on the west side of Huxley Street to the west city line, and from a 1951 DPW storm sewer filed book number 438S, page 107. Locations should be considered accurate to the degree implied by the method used.
4. Elevation survey data determined by Michael J. Rodgers, LS, PC, and referenced to an arbitrary site wide datum. Elevations should be considered accurate to the degree implied by the method used.
5. Approximate depths of gas line, sanitary sewer, storm sewer and water line were obtained from a hand drawn plan from "Jamestown Board of Public Utilities, Anderson Cleaners Sewer Connection Map", dated October 2, 1985.

FIELD VERIFIED BY	CAH
DATE	11-9-2012
DRAWN BY	RJM
DATE DRAWN	11-14-2012
SCALE	As Noted
DATE ISSUED	11-14-2012

DAY ENVIRONMENTAL, INC.
ENVIRONMENTAL CONSULTANTS
ROCHESTER, NEW YORK 14606
NEW YORK, NEW YORK 10170

PROJECT TITLE
5 HUNT ROAD
JAMESTOWN, NEW YORK

REMEDIAL ACTION WORK PLAN - BCP #C907027

DRAWING TITLE
Long-Term Monitoring Well Locations and
Plume Containment: Overburden Well Locations

PROJECT NO.
3563S-04

FIGURE 1

Ref1:
Ref2:
Ref3:
Xerox432AnsiB-2; 11 x 17
Layout Name: Layout1
Pen Setting File: 800psFullcolor.ctb
Time Plotted: Wednesday, November 14, 2012 8:29:45 AM
File Name: P:\Drawings\Brownfield\3563\40 Scale Extraction Well Nov 2012.dwg