



Specialists in Explosives, Blasting and Vibration
Consulting Engineers

August 28, 2017

Dragados-Tomlinson Joint Venture
5597 Power Road
Ottawa, Ontario
K1G 3N4

Attention: Mr. Kevin Stadelmann

**Re: Interim Weekly Vibration Monitoring Report – August 21 to August 27, 2017
Combined Sewage Storage Tunnel (CSST) – Site 5 Operations**

Dear Mr. Stadelmann,

Attached please find the interim weekly summary report detailing the results of the vibration monitoring program developed and implemented as part of the construction operations for the Combined Sewage Storage Tunnel (CSST) Project – Site 5 Operations in Ottawa, Ontario. This monitoring program was initiated on March 31, 2017 and has been recording vibrations generated as a result of the construction equipment in order to confirm predictable levels and to guard against possible adverse impacts on the surrounding structures.

A full time on-site Vibration Monitoring Program is currently implemented to delineate vibration intensities experienced at a representative sampling of structures around the Site 5 construction areas as a result of the construction equipment in operation. The monitoring instruments installed consist of Instantel tri-directional digital seismographs capable of measuring vibration intensities up to 254mm/s at a frequency response of 2 – 250Hz or 1 – 315Hz depending on the installation. The units are programmed to measure all vibration levels continuously at a sampling rate of 1024 samples per second. Following each five minute interval, the units review the 307,200 measured vibrations and permanently records the peak particle velocity for that time interval while deleting all subordinate vibration intensities. This process is repeated for all subsequent five minute time intervals thereby providing maximum vibration intensities experienced at the monitored areas throughout the day.



Such a configuration permits continuous monitoring of vibration levels and provides complete coverage of all vibrations, construction induced or otherwise, experienced at the monitored structure. Events recorded under this program mode are marked by an “H” on the vibrations summary report. As an additional analytical tool, the seismographs are configured to record a more detailed waveform in the event that vibration intensities exceeded a pre-set trigger of 4mm/s. This feature permits advanced analysis in the event that anomalous elevated readings are recorded. Events recorded under this program mode are marked by a “W” on the vibrations summary report.

As per the Contract Specification 02482, Subsection 1.5.1.1, the following threshold, response and shutdown values are observed at Site 5:

Project Threshold, Response and Shutdown Values			
Description of Event	Threshold Value (PPV)	Response Value (PPV)	Shutdown Value (PPV)
Continuous/ Intermittent Source	4mm/s	6mm/s	7mm/s
Transient Source	5mm/s	8mm/s	9mm/s
Blasting	10mm/s	16mm/s	20mm/s

The monitoring locations itemized below were installed for the following sites on the listed days and remain installed during the construction operations:

Site 5A/5B

- **141/151 Stanley Avenue** – Installed on March 31, 2017
- **133 Stanley Avenue** – Installed on August 4, 2017

Site 5C

- **54 Queen Victoria Street** – Installed on March 31, 2017
- **51 Queen Victoria Street** – Installed on April 11, 2017

EXPLOTECH

The following readings generated at Site 5 monitoring locations exceeded the 4mm/s trigger level during the interim monitoring period:

Vibration Readings Exceeding 4mm/s During Interim Monitoring Period						
Ref. Event #	Location	Date	Time	Velocity (mm/s)	Cause of Event	Applicable Project Limit Exceeded
Site 5A/5B						
1 to 46	151 Stanley Avenue	Aug 22, 2017	5:31 to 17:54	3.937 to 32.89	RF / Power Spikes	N/A – Not Construction Related
47	141 Stanley Avenue	Aug 22, 2017	13:14	5.588	RF / Power Spikes	N/A – Not Construction Related
48	151 Stanley Avenue	Aug 24, 2017	8:08	3.937	Localized Impact	N/A – Not Construction Related
49	151 Stanley Avenue	Aug 24, 2017	16:13	9.017	RF / Power Spikes	N/A – Not Construction Related
50	151 Stanley Avenue	Aug 25, 2017	19:29	5.080	RF / Power Spikes	N/A – Not Construction Related
Site 5C						
N/A	No Events	N/A	N/A	N/A	N/A	N/A

All recorded Histogram summaries and Waveform details for Site 5 are available for reference at anytime on the www.constructionvibrations.com website. A summary list is attached to this interim report for reference. Should you have any questions or concerns related to the information contained herein or the monitoring program undertaken, please do not hesitate to contact the undersigned at your leisure.

Kindest regards,



Mitch Malcomson, P.Eng.

**CSST - Site 5
M7550A DTJV
Aug 21 to Aug 27, 2017**

Event Report: Event List - z:\to be archived\site 5 temporary folder week reports

Type	Serial No.	Date/Time	Tran Peak (mm/s)	Vert Peak (mm/s)	Long Peak (mm/s)	PVS1 (mm/s)	Tran2 Peak (mm/s)	Vert2 Peak (mm/s)	Long2 Peak (mm/s)	PVS2 (mm/s)	Mic Peak (dB)	Description
H	BE15997	Aug 21 /17 06:01:51	0.254	0.254	0.254	0.311	***	***	***	***	***	Site 5C - 54 Queen Victoria Stre
H	BE11685	Aug 21 /17 06:06:53	0.508	0.381	0.635	0.783	***	***	***	***	106.5L	Site 5AB - 133 Stanley Avenue
H	BA14924	Aug 21 /17 06:07:33	0.508	0.254	0.381	0.554	***	***	***	***	***	Site 5C - 51 Queen Victoria Stre
H	BE14293	Aug 21 /17 06:07:39	0.762	0.889	0.254	0.907	2.667	0.889	5.080	5.121	119.3L	Site 5AB - 141+151 Stanley Ave
W	BE14293	Aug 22 /17 05:31:41	0.381	0.381	0.254	0.475	0.635	0.381	5.080	5.121	<88L	Site 5AB - 141+151 Stanley Ave
H	BE14293	Aug 22 /17 05:34:49	0.508	0.508	0.254	0.582	1.143	0.508	1.143	1.350	91.5L	Site 5AB - 141+151 Stanley Ave
H	BE15997	Aug 22 /17 06:01:52	0.254	0.381	0.381	0.421	***	***	***	***	***	Site 5C - 54 Queen Victoria Stre
H	BE14293	Aug 22 /17 06:07:31	0.508	0.635	0.254	0.696	3.937	0.762	2.286	4.438	100.0L	Site 5AB - 141+151 Stanley Ave
H	BA14924	Aug 22 /17 06:07:34	0.762	0.381	0.508	0.861	***	***	***	***	***	Site 5C - 51 Queen Victoria Stre
H	BE11685	Aug 22 /17 06:07:36	0.381	0.381	0.254	0.524	***	***	***	***	122.2L	Site 5AB - 133 Stanley Avenue
W	BE14293	Aug 22 /17 07:42:27	0.381	0.381	0.254	0.421	3.937	0.381	2.032	4.438	91.5L	Site 5AB - 141+151 Stanley Ave
H	BE14293	Aug 22 /17 07:47:53	1.270	0.889	0.381	1.283	4.953	3.429	3.429	5.190	95.9L	Site 5AB - 141+151 Stanley Ave
W	BE14293	Aug 22 /17 08:44:39	0.381	0.508	0.254	0.524	4.953	1.270	0.889	5.190	91.5L	Site 5AB - 141+151 Stanley Ave
H	BE14293	Aug 22 /17 08:47:38	0.508	0.762	0.254	0.773	2.794	1.016	3.937	4.661	91.5L	Site 5AB - 141+151 Stanley Ave
W	BE14293	Aug 22 /17 08:54:30	0.381	0.381	0.254	0.475	2.413	0.635	3.937	4.661	91.5L	Site 5AB - 141+151 Stanley Ave
H	BE14293	Aug 22 /17 08:56:45	0.508	0.381	0.381	0.524	5.842	1.270	2.413	6.326	101.9L	Site 5AB - 141+151 Stanley Ave
W	BE14293	Aug 22 /17 08:57:34	0.381	0.381	0.254	0.421	5.842	0.635	2.413	6.326	<88L	Site 5AB - 141+151 Stanley Ave
H	BE14293	Aug 22 /17 08:59:49	0.508	0.508	0.254	0.582	1.143	0.889	5.080	5.082	100.0L	Site 5AB - 141+151 Stanley Ave
W	BE14293	Aug 22 /17 09:00:48	0.381	0.508	0.254	0.524	1.143	0.381	5.080	5.082	95.9L	Site 5AB - 141+151 Stanley Ave
H	BE14293	Aug 22 /17 09:03:46	1.397	0.635	0.254	1.403	3.175	1.143	6.350	6.457	104.2L	Site 5AB - 141+151 Stanley Ave
W	BE14293	Aug 22 /17 09:08:05	0.381	0.508	0.254	0.524	1.524	1.143	6.350	6.457	91.5L	Site 5AB - 141+151 Stanley Ave
H	BE14293	Aug 22 /17 09:11:01	1.270	0.889	1.778	1.818	23.88	4.826	15.75	29.01	106.0L	Site 5AB - 141+151 Stanley Ave
W	BE14293	Aug 22 /17 09:12:18	0.635	0.889	1.778	1.818	23.88	4.826	15.75	29.01	106.0L	Site 5AB - 141+151 Stanley Ave
H	BE14293	Aug 22 /17 09:15:15	2.413	2.921	0.254	3.791	32.89	2.667	4.191	33.27	111.8L	Site 5AB - 141+151 Stanley Ave
W	BE14293	Aug 22 /17 09:20:50	2.413	2.921	0.254	3.791	32.89	2.667	4.191	33.27	108.8L	Site 5AB - 141+151 Stanley Ave
H	BE14293	Aug 22 /17 09:23:49	0.381	0.508	0.254	0.568	1.524	4.318	2.540	4.469	94.0L	Site 5AB - 141+151 Stanley Ave
W	BE14293	Aug 22 /17 09:24:13	0.381	0.508	0.254	0.568	1.524	4.318	2.540	4.469	94.0L	Site 5AB - 141+151 Stanley Ave
H	BE14293	Aug 22 /17 09:27:09	1.397	1.016	0.254	1.403	3.683	1.905	4.064	4.100	100.0L	Site 5AB - 141+151 Stanley Ave
W	BE14293	Aug 22 /17 09:28:19	1.397	0.889	0.254	1.403	3.683	1.016	4.064	4.100	<88L	Site 5AB - 141+151 Stanley Ave
H	BE14293	Aug 22 /17 09:34:03	0.381	1.778	0.254	1.787	28.96	1.905	9.525	30.54	103.5L	Site 5AB - 141+151 Stanley Ave
W	BE14293	Aug 22 /17 09:34:44	0.381	0.508	0.254	0.568	28.96	1.905	9.525	30.54	100.0L	Site 5AB - 141+151 Stanley Ave
H	BE14293	Aug 22 /17 09:36:59	2.413	3.810	0.254	3.810	4.699	2.032	3.556	4.909	104.9L	Site 5AB - 141+151 Stanley Ave
W	BE14293	Aug 22 /17 09:37:48	0.381	0.762	0.254	0.773	4.699	0.635	3.556	4.909	<88L	Site 5AB - 141+151 Stanley Ave
H	BE14293	Aug 22 /17 09:40:45	1.397	0.889	0.254	1.403	4.191	0.508	6.223	6.224	104.2L	Site 5AB - 141+151 Stanley Ave
W	BE14293	Aug 22 /17 09:41:28	0.381	0.889	0.254	0.898	4.191	0.381	6.223	6.224	<88L	Site 5AB - 141+151 Stanley Ave
H	BE14293	Aug 22 /17 09:43:43	0.762	0.635	0.762	0.852	6.858	4.064	4.064	8.116	91.5L	Site 5AB - 141+151 Stanley Ave
W	BE14293	Aug 22 /17 09:44:18	0.635	0.635	0.762	0.852	6.858	4.064	4.064	8.116	91.5L	Site 5AB - 141+151 Stanley Ave
H	BE14293	Aug 22 /17 09:46:34	0.762	0.889	0.381	0.898	4.445	2.032	2.286	5.396	94.0L	Site 5AB - 141+151 Stanley Ave
W	BE14293	Aug 22 /17 09:47:12	0.381	0.381	0.381	0.475	4.445	2.032	2.286	5.396	<88L	Site 5AB - 141+151 Stanley Ave
H	BE14293	Aug 22 /17 09:49:28	0.508	0.635	0.254	0.660	10.79	0.762	5.969	12.36	91.5L	Site 5AB - 141+151 Stanley Ave
W	BE14293	Aug 22 /17 09:49:51	0.381	0.635	0.254	0.660	10.79	0.762	5.969	12.36	91.5L	Site 5AB - 141+151 Stanley Ave
H	BE14293	Aug 22 /17 09:52:07	0.889	0.889	0.254	1.283	5.334	1.143	2.540	6.017	<88L	Site 5AB - 141+151 Stanley Ave
W	BE14293	Aug 22 /17 09:52:25	0.381	0.508	0.254	0.524	5.334	1.143	2.540	6.017	<88L	Site 5AB - 141+151 Stanley Ave
H	BE14293	Aug 22 /17 09:54:39	0.508	0.508	0.254	0.568	1.651	0.381	4.826	4.826	91.5L	Site 5AB - 141+151 Stanley Ave
W	BE14293	Aug 22 /17 09:55:08	0.381	0.508	0.254	0.524	1.651	0.381	4.826	4.826	91.5L	Site 5AB - 141+151 Stanley Ave
H	BE14293	Aug 22 /17 09:57:25	1.270	0.889	0.254	1.270	3.937	2.032	1.778	4.271	91.5L	Site 5AB - 141+151 Stanley Ave
W	BE14293	Aug 22 /17 09:58:57	0.508	0.889	0.254	0.898	3.937	0.381	1.651	4.271	<88L	Site 5AB - 141+151 Stanley Ave
H	BE14293	Aug 22 /17 10:01:53	1.143	0.889	0.508	1.150	4.191	2.286	3.810	6.029	91.5L	Site 5AB - 141+151 Stanley Ave
W	BE14293	Aug 22 /17 10:05:21	0.381	0.381	0.254	0.475	4.191	2.286	3.683	6.029	<88L	Site 5AB - 141+151 Stanley Ave
H	BE14293	Aug 22 /17 10:08:51	0.381	0.508	0.254	0.554	4.191	0.762	2.413	4.461	<88L	Site 5AB - 141+151 Stanley Ave
W	BE14293	Aug 22 /17 10:09:52	0.381	0.381	0.254	0.475	4.191	0.381	1.524	4.461	<88L	Site 5AB - 141+151 Stanley Ave
H	BE14293	Aug 22 /17 10:12:49	0.381	0.508	0.254	0.635	1.143	0.889	4.826	4.829	91.5L	Site 5AB - 141+151 Stanley Ave
W	BE14293	Aug 22 /17 10:13:41	0.381	0.508	0.254	0.635	0.762	0.762	4.826	4.829	<88L	Site 5AB - 141+151 Stanley Ave
H	BE14293	Aug 22 /17 10:15:56	0.381	0.508	0.254	0.539	4.191	0.635	2.159	4.256	<88L	Site 5AB - 141+151 Stanley Ave
W	BE14293	Aug 22 /17 10:16:19	0.381	0.508	0.254	0.539	4.191	0.635	2.159	4.256	<88L	Site 5AB - 141+151 Stanley Ave
H	BE14293	Aug 22 /17 10:18:34	0.508	0.762	0.254	0.773	3.429	1.651	4.064	4.327	91.5L	Site 5AB - 141+151 Stanley Ave
W	BE14293	Aug 22 /17 10:22:20	0.508	0.381	0.254	0.554	1.397	0.508	4.064	4.327	<88L	Site 5AB - 141+151 Stanley Ave
H	BE14293	Aug 22 /17 10:24:34	0.508	0.508	0.254	0.539	1.397	0.635	4.318	4.322	91.5L	Site 5AB - 141+151 Stanley Ave
W	BE14293	Aug 22 /17 10:25:59	0.381	0.381	0.254	0.475	0.508	0.381	4.318	4.322	91.5L	Site 5AB - 141+151 Stanley Ave
H	BE14293	Aug 22 /17 10:28:15	0.381	0.508	0.254	0.508	4.572	0.889	4.191	6.266	91.5L	Site 5AB - 141+151 Stanley Ave
W	BE14293	Aug 22 /17 10:29:28	0.381	0.381	0.254	0.475	4.572	0.889	4.191	6.266	91.5L	Site 5AB - 141+151 Stanley Ave
H	BE14293	Aug 22 /17 10:31:42	0.508	0.508	0.254	0.582	3.937	1.016	3.556	4.145	94.0L	Site 5AB - 141+151 Stanley Ave
W	BE14293	Aug 22 /17 10:48:04	0.381	0.381	0.254	0.475	3.937	0.381	1.270	4.145	91.5L	Site 5AB - 141+151 Stanley Ave
H	BE14293	Aug 22 /17 10:51:01	0.508	0.508	0.254	0.582	3.048	0.762	4.064	4.074	98.8L	Site 5AB - 141+151 Stanley Ave

**CSST - Site 5
M7550A DTJV
Aug 21 to Aug 27, 2017**

Event Report: Event List - z:\to be archived\site 5 temporary folder week reports

Type	Serial No.	Date/Time	Tran Peak (mm/s)	Vert Peak (mm/s)	Long Peak (mm/s)	PVS1 (mm/s)	Tran2 Peak (mm/s)	Vert2 Peak (mm/s)	Long2 Peak (mm/s)	PVS2 (mm/s)	Mic Peak (dB)	Description
W	BE14293	Aug 22 /17 10:57:56	0.381	0.381	0.254	0.539	0.508	0.381	4.064	4.074	91.5L	Site 5AB - 141+151 Stanley Ave
H	BE14293	Aug 22 /17 11:00:54	0.508	0.508	0.254	0.582	2.921	1.397	4.318	4.337	95.9L	Site 5AB - 141+151 Stanley Ave
W	BE14293	Aug 22 /17 11:07:12	0.508	0.508	0.254	0.539	1.270	0.381	4.318	4.337	91.5L	Site 5AB - 141+151 Stanley Ave
H	BE14293	Aug 22 /17 11:10:11	0.762	0.508	0.254	0.773	3.556	1.651	7.112	7.401	113.1L	Site 5AB - 141+151 Stanley Ave
W	BE14293	Aug 22 /17 12:33:42	0.381	0.381	0.254	0.421	1.778	1.016	7.112	7.401	91.5L	Site 5AB - 141+151 Stanley Ave
H	BE14293	Aug 22 /17 12:36:39	0.762	0.508	0.254	0.813	1.905	1.397	5.461	5.581	103.5L	Site 5AB - 141+151 Stanley Ave
W	BE14293	Aug 22 /17 12:47:03	0.762	0.508	0.254	0.813	1.143	0.381	5.461	5.581	91.5L	Site 5AB - 141+151 Stanley Ave
H	BE14293	Aug 22 /17 12:52:34	0.508	0.508	0.254	0.554	1.143	0.508	10.16	10.19	108.4L	Site 5AB - 141+151 Stanley Ave
W	BE14293	Aug 22 /17 12:57:26	0.508	0.381	0.254	0.508	1.143	0.508	10.16	10.19	91.5L	Site 5AB - 141+151 Stanley Ave
H	BE14293	Aug 22 /17 13:00:24	1.016	2.159	0.508	2.174	5.715	2.667	2.921	6.296	117.4L	Site 5AB - 141+151 Stanley Ave
W	BE14293	Aug 22 /17 13:04:58	0.762	0.635	0.508	0.773	5.715	1.524	2.159	6.296	106.0L	Site 5AB - 141+151 Stanley Ave
H	BE14293	Aug 22 /17 13:07:54	1.651	1.016	0.254	1.651	7.239	4.572	11.56	14.38	122.0L	Site 5AB - 141+151 Stanley Ave
W	BE14293	Aug 22 /17 13:11:16	0.508	0.889	0.254	1.032	7.239	4.572	11.56	14.38	118.2L	Site 5AB - 141+151 Stanley Ave
H	BE14293	Aug 22 /17 13:13:32	5.588	1.016	0.254	5.595	1.651	0.635	1.524	2.247	98.8L	Site 5AB - 141+151 Stanley Ave
W	BE14293	Aug 22 /17 13:14:19	5.588	0.762	0.254	5.595	1.524	0.381	0.635	1.550	<88L	Site 5AB - 141+151 Stanley Ave
H	BE14293	Aug 22 /17 13:16:34	1.016	1.905	0.889	2.106	3.302	1.397	4.191	5.515	109.5L	Site 5AB - 141+151 Stanley Ave
W	BE14293	Aug 22 /17 13:22:23	0.381	1.905	0.889	2.106	3.302	1.397	4.191	5.515	91.5L	Site 5AB - 141+151 Stanley Ave
H	BE14293	Aug 22 /17 13:25:19	0.635	2.794	0.381	2.823	5.207	4.191	8.509	10.82	104.9L	Site 5AB - 141+151 Stanley Ave
W	BE14293	Aug 22 /17 13:29:58	0.508	0.381	0.254	0.524	5.207	4.191	8.509	10.82	91.5L	Site 5AB - 141+151 Stanley Ave
H	BE14293	Aug 22 /17 13:32:13	1.270	1.016	0.254	1.283	4.445	2.794	3.175	5.486	118.5L	Site 5AB - 141+151 Stanley Ave
W	BE14293	Aug 22 /17 14:21:45	0.381	0.508	0.254	0.539	4.445	0.508	3.175	5.486	98.8L	Site 5AB - 141+151 Stanley Ave
H	BE14293	Aug 22 /17 14:24:43	0.508	0.508	0.254	0.582	3.937	1.143	3.175	4.224	101.0L	Site 5AB - 141+151 Stanley Ave
W	BE14293	Aug 22 /17 14:25:27	0.508	0.381	0.254	0.554	3.937	0.381	0.762	4.018	98.8L	Site 5AB - 141+151 Stanley Ave
H	BE14293	Aug 22 /17 14:28:23	0.508	0.508	0.254	0.582	4.953	0.381	2.413	5.523	94.0L	Site 5AB - 141+151 Stanley Ave
W	BE14293	Aug 22 /17 14:29:41	0.381	0.508	0.254	0.539	4.953	0.381	2.413	5.523	94.0L	Site 5AB - 141+151 Stanley Ave
H	BE14293	Aug 22 /17 14:32:36	0.508	0.508	0.254	0.582	1.524	0.889	3.937	3.941	110.2L	Site 5AB - 141+151 Stanley Ave
W	BE14293	Aug 22 /17 14:39:57	0.381	0.381	0.254	0.475	0.508	0.381	3.937	3.941	<88L	Site 5AB - 141+151 Stanley Ave
H	BE14293	Aug 22 /17 14:42:54	0.762	0.635	0.635	0.762	4.826	1.524	1.905	5.138	119.8L	Site 5AB - 141+151 Stanley Ave
W	BE14293	Aug 22 /17 16:18:17	0.381	0.508	0.254	0.582	4.826	1.524	0.889	5.138	<88L	Site 5AB - 141+151 Stanley Ave
H	BE14293	Aug 22 /17 16:21:15	1.143	1.270	0.254	1.295	4.445	1.143	4.572	4.616	125.0L	Site 5AB - 141+151 Stanley Ave
W	BE14293	Aug 22 /17 16:45:00	0.635	0.635	0.254	0.660	4.445	0.635	4.572	4.616	91.5L	Site 5AB - 141+151 Stanley Ave
H	BE14293	Aug 22 /17 16:47:15	1.778	1.016	0.254	1.783	6.223	1.778	2.286	6.438	119.7L	Site 5AB - 141+151 Stanley Ave
W	BE14293	Aug 22 /17 17:27:50	0.889	0.508	0.254	0.898	6.223	0.635	1.524	6.438	91.5L	Site 5AB - 141+151 Stanley Ave
H	BE14293	Aug 22 /17 17:30:07	0.508	0.508	0.508	0.648	4.191	2.286	1.270	4.781	95.9L	Site 5AB - 141+151 Stanley Ave
W	BE14293	Aug 22 /17 17:43:00	0.381	0.381	0.508	0.539	4.191	2.286	0.508	4.781	<88L	Site 5AB - 141+151 Stanley Ave
H	BE14293	Aug 22 /17 17:45:57	0.508	0.508	0.254	0.582	0.635	0.381	4.953	4.955	106.5L	Site 5AB - 141+151 Stanley Ave
W	BE14293	Aug 22 /17 17:54:36	0.381	0.381	0.254	0.475	0.508	0.381	4.953	4.955	94.0L	Site 5AB - 141+151 Stanley Ave
H	BE14293	Aug 22 /17 17:56:52	0.635	0.889	0.381	0.898	3.683	0.635	1.651	3.737	116.9L	Site 5AB - 141+151 Stanley Ave
H	BE15997	Aug 23 /17 06:01:53	0.254	0.254	0.254	0.311	***	***	***	***	***	Site 5C - 54 Queen Victoria Stre
H	BA14924	Aug 23 /17 06:06:52	0.889	0.254	0.508	1.055	***	***	***	***	***	Site 5C - 51 Queen Victoria Stre
H	BE11685	Aug 23 /17 06:06:54	0.254	0.254	0.254	0.381	***	***	***	***	108.4L	Site 5AB - 133 Stanley Avenue
H	BE14293	Aug 23 /17 06:10:03	1.397	1.397	0.635	1.408	3.810	1.143	2.667	3.898	120.2L	Site 5AB - 141+151 Stanley Ave
H	BE15997	Aug 24 /17 06:01:52	0.381	0.254	0.254	0.421	***	***	***	***	***	Site 5C - 54 Queen Victoria Stre
H	BA14924	Aug 24 /17 06:06:53	0.508	0.254	0.254	0.582	***	***	***	***	***	Site 5C - 51 Queen Victoria Stre
H	BE11685	Aug 24 /17 06:06:54	0.254	0.254	0.254	0.359	***	***	***	***	108.8L	Site 5AB - 133 Stanley Avenue
H	BE14293	Aug 24 /17 06:14:43	0.762	0.635	1.016	1.295	3.937	3.175	3.937	5.499	112.0L	Site 5AB - 141+151 Stanley Ave
W	BE14293	Aug 24 /17 08:08:38	0.381	0.381	0.254	0.475	3.937	3.175	3.937	5.499	94.0L	Site 5AB - 141+151 Stanley Ave
H	BE14293	Aug 24 /17 08:11:43	0.508	0.508	0.254	0.648	9.017	0.508	1.143	9.049	116.1L	Site 5AB - 141+151 Stanley Ave
W	BE14293	Aug 24 /17 16:13:32	0.381	0.381	0.254	0.475	9.017	0.381	0.762	9.049	98.8L	Site 5AB - 141+151 Stanley Ave
H	BE14293	Aug 24 /17 16:16:32	1.397	1.397	0.381	1.408	1.651	0.508	1.397	1.699	103.5L	Site 5AB - 141+151 Stanley Ave
H	BE15997	Aug 25 /17 06:01:52	0.254	0.254	0.254	0.311	***	***	***	***	***	Site 5C - 54 Queen Victoria Stre
H	BA14924	Aug 25 /17 06:06:51	0.762	0.254	0.381	0.861	***	***	***	***	***	Site 5C - 51 Queen Victoria Stre
H	BE11685	Aug 25 /17 06:06:54	0.254	0.381	0.254	0.421	***	***	***	***	104.9L	Site 5AB - 133 Stanley Avenue
H	BE14293	Aug 25 /17 06:10:48	0.635	0.635	0.508	0.783	5.080	0.508	1.270	5.143	108.4L	Site 5AB - 141+151 Stanley Ave
W	BE14293	Aug 25 /17 19:29:17	0.381	0.381	0.254	0.475	5.080	0.381	0.762	5.143	<88L	Site 5AB - 141+151 Stanley Ave
H	BE14293	Aug 25 /17 19:34:08	0.508	0.508	0.254	0.582	3.175	1.143	2.794	3.225	106.0L	Site 5AB - 141+151 Stanley Ave
H	BE15997	Aug 26 /17 06:02:32	0.254	0.254	0.254	0.311	***	***	***	***	***	Site 5C - 54 Queen Victoria Stre
H	BA14924	Aug 26 /17 06:06:52	0.635	0.254	0.381	0.751	***	***	***	***	***	Site 5C - 51 Queen Victoria Stre
H	BE11685	Aug 26 /17 06:06:58	0.254	0.381	0.381	0.475	***	***	***	***	98.8L	Site 5AB - 133 Stanley Avenue
H	BE14293	Aug 26 /17 06:09:24	0.635	0.508	0.508	0.660	3.556	0.635	1.524	3.561	102.8L	Site 5AB - 141+151 Stanley Ave
H	BE15997	Aug 27 /17 06:01:53	0.254	0.254	0.254	0.311	***	***	***	***	***	Site 5C - 54 Queen Victoria Stre
H	BA14924	Aug 27 /17 06:06:53	0.889	0.254	0.508	1.032	***	***	***	***	***	Site 5C - 51 Queen Victoria Stre
H	BE14293	Aug 27 /17 06:07:04	1.143	1.270	0.635	1.295	2.540	0.635	1.397	2.556	104.2L	Site 5AB - 141+151 Stanley Ave
H	BE11685	Aug 27 /17 06:07:32	0.254	0.254	0.254	0.311	***	***	***	***	101.0L	Site 5AB - 133 Stanley Avenue