

August 1, 2018

Mr. Conor Neal
Hydrogeologist
Land & Chemicals Division
US Environmental Protection Agency, Mail Code LU-9J
77 West Jackson Blvd
Chicago, IL 60604-3590

RE: Bi-Weekly Summary Report for Pump Down Program
Tyco Fire Products LP Site
Marinette, WI

Dear Mr. Neal:

The information provided herein is a summary of activities conducted at the Tyco Fire Products LP (Tyco) site associated with the Pump Down Program for the former Salt Vault and 8th Street Slip areas. The Pump Down Program is required as part of the Administrative Order on Consent between Tyco and U.S. Environmental Protection Agency (USEPA). This summary report covers the period from July 14, 2018 through July 27, 2018.

Summary of Work during Reporting Period

Work conducted during the reporting period included:

- Manual water level readings at the designated monitoring points and extraction wells were collected at least weekly during the reporting period. The average water level, based on the most recent water level measurements during the reporting period, in the former Salt Vault was 578.10 feet above mean seal level (ft. AMSL), or 0.20 feet above the target level. The average water level in the former 8th Street Slip was 575.60ft. AMSL, or 2.30 feet below the target level. A cumulative summary of manual water level readings and corrected elevations is attached as Table 1.
- Total groundwater recovery rates in the former Salt Vault area averaged 1.07 gallons per minute (gpm) per well from the four extraction wells during the reporting period (Note: The extraction wells in the former Salt Vault operated continuously during the reporting period). Total groundwater recovery rates in the former 8th Street Slip averaged 3.02 gpm per well from the two extraction wells

during pumping operations or an average of 2.44 gpm assuming continuous operation during the reporting period. Because average water levels in the former 8th Street Slip are sufficiently below the target water level at this time, and the fact that water levels appear to be able to be maintained using just one of the extraction wells in the former 8th Street Slip, extraction well EW-8 operation was temporarily halted on July 20, 2018 for approximately 7.5 hours. In addition, the internal hose on the pump for extraction well EW-8 failed on July 25, 2018 causing the pump to automatically shut down; therefore, pumping from the extraction well ceased until repairs could be completed. (No release to the environment occurred as a result of the pump failure).

- Off-site transportation of recovered groundwater was conducted during the reporting period. Off-site disposal operations are limited to five days per week with generally 2 trucks (approximately 10,000 gallons) per day.

A summary of pumping and disposal operations for the 2018 season is provided below.

Summary of Pump Down Operations (through July 27, 2018)

	Gallons Pumped	Gallons Treated at GWTS ¹	Gallons Transported for Off Site Disposal
This Period	~103,410	~0	~106,760
2018 Operations To Date	~780,090	~0	~780,440

All quantities are estimated

Issues Encountered during Reporting Period

The groundwater elevation within the former Salt Vault remains slightly above the target elevation. However, the average water level remains below the Menominee River elevation and the main plant cell indicating that an inward gradient is present, reducing the risk of a release from the area. We are evaluating the data collected to obtain an understanding of potential causes of further drawdown resistance and actions necessary to obtain/maintain compliance.

¹ GWTS – Groundwater Treatment System
²

The natural reduction in pumping rates and recent availability of additional trucks has eliminated the need for the temporary shut downs during the reporting period.

The internal hose on the pump for extraction well EW-8 failed on July 25, 2018 and automatically ceased operation. The pump was subsequently repaired on July 30, 2018 and operation of the extraction well recommenced.

Issues To Be Resolved During Next Reporting Period

Groundwater recovery and water level monitoring will continue in the former Salt Vault area, with the intent to achieve the target elevation during the reporting period. We will continue to evaluate the conditions in the pump down area and address necessary actions.

Anticipated Work During Next Reporting Period

Manual water level measurements will be collected from the designated monitoring wells on a weekly basis. Groundwater elevation data will be provided in the next bi-weekly summary report. Extracted groundwater will continue to be transported to Vickery for disposal, with limited transport to the Heritage facility, as available. In addition, general preventative maintenance is planned on the pumps for the extraction wells to replace the internal hose to minimize the risk of additional pump failures in the future.

If you have any questions regarding this report, please contact Jeff Danko at 262-951-6888 or jeff.danko-ext@jci.com.

Sincerely,



Jeffrey Danko
Environmental Project Geologist

Attachments:

Table 1 –Pump Down Program Groundwater Elevation Monitoring

cc: Angela Carey – WDNR
Trevor Moen - WDNR

Joseph Janeczek – Johnson Controls
Richard Mator – Johnson Controls
Ryan Suennen – Tyco Fire Products

TABLE 1
 2016-2018 Pump Down Program Groundwater Elevation Monitoring
 Tyco Fire Products LP
 Marinette, Wisconsin

		Target Elevation		577.9																																								
Well ID	DTW	June 14, 2016	June 16, 2016	June 22, 2016	June 29, 2016	July 6, 2016	July 13, 2016	July 20, 2016	July 27, 2016	August 3, 2016	August 10, 2016	August 17, 2016	August 24, 2016	August 31, 2016	September 7, 2016	September 14, 2016	September 21, 2016	September 28, 2016	October 5, 2016	October 12, 2016	October 19, 2016	October 26, 2016	November 2, 2016	November 9, 2016	November 16, 2016	November 23, 2016	November 30, 2016	December 7, 2016	December 14, 2016	December 21, 2016	December 28, 2016	January 4, 2017	January 11, 2017	January 18, 2017	February 4, 2017	February 11, 2017	February 18, 2017	March 4, 2017						
		Corrected Groundwater Elevation (for equivalent fresh water)	Corrected Groundwater Elevation (for equivalent fresh water)	Corrected Groundwater Elevation (for equivalent fresh water)	Corrected Groundwater Elevation (for equivalent fresh water)	Corrected Groundwater Elevation (for equivalent fresh water)	Corrected Groundwater Elevation (for equivalent fresh water)	Corrected Groundwater Elevation (for equivalent fresh water)	Corrected Groundwater Elevation (for equivalent fresh water)	Corrected Groundwater Elevation (for equivalent fresh water)	Corrected Groundwater Elevation (for equivalent fresh water)	Corrected Groundwater Elevation (for equivalent fresh water)	Corrected Groundwater Elevation (for equivalent fresh water)	Corrected Groundwater Elevation (for equivalent fresh water)	Corrected Groundwater Elevation (for equivalent fresh water)	Corrected Groundwater Elevation (for equivalent fresh water)	Corrected Groundwater Elevation (for equivalent fresh water)	Corrected Groundwater Elevation (for equivalent fresh water)	Corrected Groundwater Elevation (for equivalent fresh water)	Corrected Groundwater Elevation (for equivalent fresh water)	Corrected Groundwater Elevation (for equivalent fresh water)	Corrected Groundwater Elevation (for equivalent fresh water)	Corrected Groundwater Elevation (for equivalent fresh water)	Corrected Groundwater Elevation (for equivalent fresh water)	Corrected Groundwater Elevation (for equivalent fresh water)	Corrected Groundwater Elevation (for equivalent fresh water)	Corrected Groundwater Elevation (for equivalent fresh water)	Corrected Groundwater Elevation (for equivalent fresh water)	Corrected Groundwater Elevation (for equivalent fresh water)	Corrected Groundwater Elevation (for equivalent fresh water)	Corrected Groundwater Elevation (for equivalent fresh water)	Corrected Groundwater Elevation (for equivalent fresh water)	Corrected Groundwater Elevation (for equivalent fresh water)	Corrected Groundwater Elevation (for equivalent fresh water)	Corrected Groundwater Elevation (for equivalent fresh water)	Corrected Groundwater Elevation (for equivalent fresh water)	Corrected Groundwater Elevation (for equivalent fresh water)	Corrected Groundwater Elevation (for equivalent fresh water)	Corrected Groundwater Elevation (for equivalent fresh water)	Corrected Groundwater Elevation (for equivalent fresh water)	Corrected Groundwater Elevation (for equivalent fresh water)	Corrected Groundwater Elevation (for equivalent fresh water)	Corrected Groundwater Elevation (for equivalent fresh water)	Corrected Groundwater Elevation (for equivalent fresh water)
MW001M	3.38	583.64	3.37	583.65	3.29	583.73	10.39	576.62	8.94	578.07	11.83	575.17	12.27	574.73	11.9	575.10	11.79	575.21	10.19	576.82	11.37	575.63	11.32	576.69	11.16	575.85	11.1	575.91	11.05	575.96	10.87	576.14	10.95	576.06	10.74	576.27	10.68	576.33	10.82	576.19	10.78	576.23		
MW0005	3.43	583.70	3.46	583.67	3.37	583.76	10.34	576.29	9.11	578.02	12.12	575.01	11.76	575.37	11.19	575.94	11	576.13	10.39	576.74	10.53	576.60	10.47	576.66	10.39	576.74	10.31	576.82	10.26	576.87	10.12	577.01	10.15	576.98	9.99	577.14	9.96	577.17	9.93	577.20	9.9	577.23		
MW002R-R	-	-	3.5	583.88	3.36	584.02	10.86	577.09	8.92	578.36	11.46	575.77	12.85	576.05	12.54	576.37	12.39	576.52	11.88	577.04	11.99	576.93	11.88	577.04	11.69	577.24	11.72	577.21	11.65	577.28	11.49	577.44	11.59	577.34	11.42	577.51	11.4	577.53	11.34	577.59	11.33	577.60		
MW003M	4.29	583.60	4.21	583.68	4.21	583.68	10.82	577.03	10.07	577.79	12.00	575.85	11.86	575.99	11.48	576.37	11.34	576.51	10.89	576.96	10.92	576.93	10.85	577.00	10.79	577.06	10.69	577.16	10.65	577.20	10.51	577.34	10.59	577.26	10.43	577.43	10.39	577.47	10.32	577.54	10.3	577.56		
MW031S	nm	-	1.80	583.79	1.85	583.74	8.52	577.06	6.99	578.60	9.24	576.34	10.7	576.56	9.48	577.78	9.32	577.94	9.19	578.07	9.48	577.78	9.42	577.84	9.42	577.84	9.07	578.19	8.4	578.87	8.98	578.28	8.62	578.65	8.18	579.09	8.35	578.92	9.09	578.74	8.78	577.48		
MW11S	-	-	2.85	583.68	2.71	583.82	10.24	576.27	8.46	578.06	11.28	575.23	12.46	575.72	12.08	576.10	11.88	576.30	11.36	576.82	11.32	576.86	11.32	576.86	11.32	576.86	11.32	576.86	11.32	576.86	11.32	576.86	11.32	576.86	11.32	576.86	11.32	576.86	11.32	576.86	11.32	576.86	11.32	576.86
MW113M	-	-	3.5	582.98	3.52	582.86	7.61	578.67	6.9	579.58	8.57	577.80	10.1	578.04	9.97	578.17	10.88	577.26	9.21	578.94	9.26	578.89	9.25	578.80	9.19	578.96	9.14	579.01	8.14	579.01	8.06	579.09	9.12	579.03	9.01	579.14	8.99	579.16	8.96	579.19	8.98	579.17		
MW115P	1.76	583.75	1.70	583.81	1.68	583.83	7.34	578.16	6.00	579.50	8.98	576.52	10.67	576.56	10.36	576.83	10.31	576.88	9.74	577.45	9.83	577.36	9.86	577.33	9.76	577.43	9.72	577.47	9.71	577.48	9.53	577.68	9.56	577.63	9.37	577.82	9.43	577.76	9.36	577.83	9.34	577.85		
MW115S	nm	-	1.52	583.65	1.43	583.74	8.81	576.35	7.06	578.11	9.65	575.51	11.04	575.77	10.75	576.06	10.61	576.20	9.96	576.85	10.18	576.63	10.17	576.64	10.03	576.78	10	576.81	9.96	576.85	9.77	577.04	9.87	576.94	9.65	577.16	9.65	577.16	9.64	577.17	9.61	577.20		
MW116P	1.58	584.77	2.63	583.71	2.57	583.77	4.09	582.25	5.34	580.99	6.40	579.93	8.5	579.47	8.72	579.25	8.83	579.14	8.92	579.15	8.86	579.11	8.9	579.07	8.84	579.13	8.89	579.08	8.94	579.03	8.77	579.09	8.96	579.01	8.92	579.05	9.07	579.16	9.11	578.86				
MW116S	2.63	583.70	2.63	583.70	2.55	583.76	10.40	576.98	8.13	578.16	10.76	575.51	12.12	575.83	11.82	576.13	11.64	576.31	11.09	576.86	11.13	576.82	11.08	576.87	10.97	576.98	10.96	576.99	10.9	577.05	10.72	577.23	10.83	577.12	10.62	577.33	10.6	577.35	10.59	577.36	10.58	577.37		
MW119D	nm	-	0.00	585.28	0.00	585.28	0.00	585.28	1.08	584.20	0.00	585.28	2.64	584.31	3.59	583.36	4.17	582.78	4.35	582.60	4.8	582.15	4.96	581.99	5.04	581.91	5.16	581.79	5.4	581.55	5.56	581.39	5.65	581.30	5.74	581.21	5.87	581.08	6.11	580.84	6.21	580.74		
EW-3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-		
EW-10	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-		
EW-11	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-		
EW-13	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-		
EW-14	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-		
MW034M	2.15	582.80	2.18	582.77	2.05	582.90	5.49	579.46	5.8	579.15	7.04	577.98	9.35	577.87	9.87	576.75	10.04	576.58	10.33	576.29	10.68	575.94	9.32	577.30	9.17	577.46	9.3	577.32	9.41	577.21	9.44	577.18	9.62	577.00	10.74	576.88	10.91	575.71	11.03	575.59	11.05	575.57		
MW034S	2.00	582.83	2.05	582.78	1.81	583.02	5.43	579.39	5.87	578.95	7.07	577.75	9.41	577.08	9.8	576.69	9.94	576.55	10.25	576.24	10.57	575.92	9.41	577.08	9.23	577.26	9.26	577.23	9.55	576.94	9.56	576.93	9.71	576.78	10.65	575.84	10.86	575.63	10.97	575.52	10.99	575.50		
MW035	3.27	582.00	2.89	582.39	2.94	582.34	5.07	580.17	5.13	580.11	6.99	582.3	9.37	577.49	10.38	576.67	10.44	576.82	10.46	582.32	10.42	582.3	10.6	582.32	10.38	576.46	10.91	576.92	11.23	575.66	11.38	575.44	11.18	575.65	11	575.83	10.87	575.96	10.84	575.96				
MW038M	2.33	582.64	2.36	582.61	2.23	582.74	4.25	580.72	4.5	579.99	7	577.96	9.73	577.13	8.23	576.73	8.56	576.40	9.07	575.89	8.43	576.53	8.22	576.74	8.63	576.33	8.96	576.00	9.03	575.93	9.16	575.86	9.03	575.93	9.16	575.86	9.03	575.93	9.16	575.86	9.03	575.93	9.16	575.86
MW038M	-	-	2.69	583.34	3.12	582.46	5.31	580.72	5.31	580.72	7.41	578.62	10.11	577.53	11.09	576.60	11.43	576.26	11.88	575.81	12.41	575.28	11.53	576.16	11.26	576.43	12.06	575.63	12.44	575.25	12.53	575.16	12.64	575.05	12.66	575.05	12.66	575.05	12.66	575.05	12.66	575.05	12.66	575.05
MW038S	-	-	3.69	582.34	3.73	582.30	5.67	580.36	5.32	580.71	7.55	578.48	10.35	577.36	11.36	576.34	11.72	575.98	12.12	575.58	12.69	575.01	11.64	576.16	11.36	576.34	12.3	575.40	12.7	575.00	12.77	574.93	12.87	574.83	12.19	575.51	11.61	576.09	11.33	576.37	11.26	576.44		
MW1200	-	-	4.40	581.37	4.69	581.03	4.55	581.17	4.78	580.94	4.60	581.12	6.31	581.07	6.41	580.97	6.19	581.19	6.3	581.08	6.35	581.03	6.58	580.80	6.45	580.93	6.37	581.01	6.43	580.95	6.29	581.09	6.44	580.94	6.35	581.03	6.39	580.99	6.23	581.15	6.46	581.02		
MW120M	2.53	583.01	2.56	582.98	2.44	583.10	3.90	581.62	4.44	581.07	5.48	580.01	8.09	579.05	8.66	578.47	9.04	578.09	9.26	577.86	9.66	577.46	9.34	577.78	9.23	577.89	9.3	577.82	9.															

Well ID	April 24, 2017		May 10, 2017		June 6, 2017		June 15, 2017		June 16, 2017		July 6, 2017		August 1, 2017		August 4, 2017		August 15, 2017		August 23, 2017		August 25, 2017		August 29, 2017		September 1, 2017		September 5, 2017		September 11, 2017		September 14, 2017		September 25, 2017		October 2, 2017		October 4, 2017		October 9, 2017							
	DTW	Corrected Groundwater Elevation (for equivalent fresh water)	DTW	Corrected Groundwater Elevation (for equivalent fresh water)	DTW	Corrected Groundwater Elevation (for equivalent fresh water)	DTW	Corrected Groundwater Elevation (for equivalent fresh water)	DTW	Corrected Groundwater Elevation (for equivalent fresh water)	DTW	Corrected Groundwater Elevation (for equivalent fresh water)	DTW	Corrected Groundwater Elevation (for equivalent fresh water)	DTW	Corrected Groundwater Elevation (for equivalent fresh water)	DTW	Corrected Groundwater Elevation (for equivalent fresh water)	DTW	Corrected Groundwater Elevation (for equivalent fresh water)	DTW	Corrected Groundwater Elevation (for equivalent fresh water)	DTW	Corrected Groundwater Elevation (for equivalent fresh water)	DTW	Corrected Groundwater Elevation (for equivalent fresh water)	DTW	Corrected Groundwater Elevation (for equivalent fresh water)	DTW	Corrected Groundwater Elevation (for equivalent fresh water)	DTW	Corrected Groundwater Elevation (for equivalent fresh water)	DTW	Corrected Groundwater Elevation (for equivalent fresh water)	DTW	Corrected Groundwater Elevation (for equivalent fresh water)	DTW	Corrected Groundwater Elevation (for equivalent fresh water)	DTW	Corrected Groundwater Elevation (for equivalent fresh water)	DTW	Corrected Groundwater Elevation (for equivalent fresh water)				
MW001M	5.48	581.53	5.26	581.75	4.79	582.38	4.28	582.90	4.23	583.95	3.88	583.30	3.54	583.64	3.40	583.78	3.70	583.45	3.81	583.37	4.01	583.17	3.73	583.45	6.61	578.56	6.32	580.85	4.46	582.71	4.25	582.93	7.89	579.28	8.82	578.35	-	578.35	8.99	578.18	8.1	579.07				
MW001S	5.59	581.54	5.35	581.78	4.86	582.40	4.38	582.88	4.31	583.95	3.95	583.31	3.60	583.66	3.44	583.82	3.74	583.52	3.87	583.39	4.07	583.19	3.80	583.46	7.61	579.65	7.32	581.76	4.50	582.76	8.34	582.92	6.75	580.51	7.76	579.01	-	579.01	7.93	578.84	6.97	580.29				
MW002R-R	7.23	581.78	7	582.02	8.07	582.70	7.56	583.22	7.53	583.25	7.16	583.63	6.81	583.99	6.66	584.14	6.97	583.83	7.08	583.71	7.28	583.58	7.00	583.79	10.58	580.15	8.31	582.46	7.70	582.95	9.66	581.08	10.70	580.02	10.57	580.16	10.92	579.80	9.94	580.80						
MW002S-R	7.2	581.52	7.43	582.39	7.93	582.89	7.41	582.91	7.01	583.31	6.68	583.64	6.55	583.77	6.84	583.48	6.95	583.37	7.16	583.16	6.88	583.44	10.46	579.86	8.26	582.06	7.59	582.73	7.37	582.95	9.62	580.70	10.26	580.06	10.85	579.47	9.82	580.50								
MW0031M	6.3	581.58	6.1	581.78	5.59	582.46	5.14	582.91	5.10	582.95	4.74	583.31	4.40	583.65	4.21	583.84	4.46	583.59	4.99	583.46	4.79	583.26	4.52	583.53	7.33	580.70	5.29	582.76	5.36	582.69	4.97	583.08	6.11	581.93	7.84	580.19	7.05	580.99	7.73	580.30	6.53	581.51				
MW0031S	5.78	581.49	5.54	581.73	6.27	582.63	5.77	583.13	5.80	583.10	5.58	583.32	5.26	583.64	4.95	583.95	5.20	583.70	5.31	583.59	5.55	583.35	5.29	583.61	8.11	580.79	6.15	582.75	6.19	582.71	5.90	583.00	7.72	581.18	8.62	580.28	8.62	580.28	9.5	579.40	7.64	581.26				
MW115S	6.59	581.60	6.37	581.82	7.89	582.40	7.37	582.92	7.35	582.94	6.96	583.33	6.63	583.66	6.47	583.82	6.81	583.48	6.90	583.39	7.12	583.17	6.82	583.47	10.78	579.51	8.65	581.64	7.51	582.78	7.32	582.97	9.90	580.39	10.52	579.77	10.5	579.79	10.91	579.38	10.03	580.26				
MW113M	6.27	581.88	6.11	582.04	7.68	582.62	7.29	583.01	7.30	583.00	7.08	583.22	6.97	583.33	6.75	583.55	7.00	583.30	7.18	583.12	7.28	583.02	7.11	583.19	10.65	580.65	7.80	582.50	7.64	582.66	7.49	582.81	8.90	581.40	9.41	580.89	9.89	580.41	10.11	580.19	9.15	581.15				
MW115P	5.19	582.01	5.05	582.15	6.39	582.71	5.95	583.15	5.94	583.16	5.71	583.39	5.44	583.66	5.29	583.81	5.53	583.57	5.62	583.48	5.78	583.32	5.58	583.52	8.20	580.89	6.29	582.81	6.16	582.94	5.97	583.13	7.02	582.08	7.98	581.11	7.7	581.39	7.96	581.13	8.5	580.59				
MW116P	6.4	581.58	6.55	581.43	7.64	582.28	7.23	582.70	7.20	582.73	6.73	583.10	6.37	583.56	6.29	583.64	6.39	583.54	6.43	583.50	6.55	583.38	6.42	583.51	7.14	582.79	6.99	582.94	7.13	582.80	6.96	582.97	7.58	582.35	8.13	581.79	8.1	581.82	8.63	581.29	8.25	581.67				
MW116S	6.39	581.58	6.18	581.79	7.48	582.44	6.97	582.95	6.93	583.00	6.56	583.37	6.22	583.71	6.03	583.90	6.35	583.58	6.48	583.45	6.67	583.26	6.38	583.55	10.26	579.65	8.50	581.42	7.14	582.78	6.90	583.03	9.63	580.28	10.48	579.43	10.33	579.58	10.64	579.27	9.74	580.17				
MW119D	9.37	577.58	45.67	541.28	27.83	560.91	23.79	564.95	23.45	565.29	17.44	571.30	12.88	575.86	12.52	576.22	11.35	577.39	10.69	578.05	10.56	578.18	10.28	578.46	10.27	578.67	9.87	578.87	9.59	579.15	9.45	579.29	9.6	579.68	8.96	579.78	8.89	579.85	8.54	580.20	8.72	580.02				
EW-3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-				
EW-10	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-				
EW-11	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-				
EW-13	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-				
EW-14	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-				
MW004M	7.71	578.91	7.42	579.20	8.52	579.73	10.01	578.24	10.40	577.85	7.90	580.35	7.54	580.71	7.41	580.81	7.40	580.85	7.37	580.89	7.37	580.85	7.37	580.85	7.37	580.85	7.37	580.85	7.37	580.85	7.37	580.85	7.37	580.85	7.37	580.85	7.37	580.85	7.37	580.85	7.37	580.85	7.37	580.85	7.37	580.85
MW004S	7.73	578.78	7.47	579.07	8.65	579.57	8.25	579.97	8.34	579.88	8.00	580.22	7.61	580.62	7.52	580.71	7.47	580.76	7.46	580.77	7.55	580.68	7.34	580.89	9.68	578.54	8.70	579.52	7.79	580.43	7.69	580.54	7.88	580.34	9.47	578.75	9.76	578.46	9.96	578.26	9.6	578.62				
MW006M	8.36	578.52	8.06	578.82	9.31	579.34	9.09	579.56	9.05	579.60	8.69	579.97	8.36	580.30	8.23	580.43	8.23	580.43	8.18	580.49	8.21	580.46	8.02	580.65	9.16	579.49	8.50	580.16	8.59	580.07	8.39	580.27	8.69	579.97	9.11	579.54	9.37	579.46	9.61	579.03	9.35	579.29				
MW006S	6.11	578.85	5.79	579.18	6.59	579.69	6.35	579.93	6.32	579.96	7.95	580.33	7.56	580.72	7.50	580.78	7.44	580.84	7.39	580.89	7.46	580.82	7.31	580.97	8.32	579.96	7.78	580.50	7.79	580.49	7.66	580.62	7.94	580.34	8.42	579.86	8.56	579.72	8.8	579.48	8.59	579.69				
MW008M	8.64	579.05	8.3	579.39	9.37	579.72	9.74	579.95	9.70	579.99	9.58	580.74	9.25	580.74	9.25	580.80	9.25	580.84	9.25	580.80	9.25	580.80	9.25	580.80	9.25	580.80	9.25	580.80	9.25	580.80	9.25	580.80	9.25	580.80	9.25	580.80	9.25	580.80	9.25	580.80	9.25	580.80	9.25	580.80		
MW008S	8.61	579.10	8.27	579.44	7.94	579.77	7.68	580.03	7.63	580.08	7.22	580.49	6.91	580.80	6.85	580.85	6.80	580.91	6.78	580.93	6.85	580.86	6.72	580.99	8.04	579.67	7.40	580.31	7.20	580.51	7.13	580.58	7.39	580.32	8.09	589.30	-	-	-	-	-	-	-			
MW120M	6.44	580.94	6.5	580.88	7.92	580.91	7.32	581.52	7.40	581.44	7.27	581.57	7.30	581.54	6.74	582.10	7.17	581.67	7.20	581.34	7.16	581.68	7.20	581.64	7.35	581.49	7.30	581.54	7.54	581.30	7.49	581.35	7.45	581.39	7.80	581.03	7.5	581.34	7.77	581.06	7.37	581.47				
MW120M	8.26	578.88	8.1	579.04	9.38	579.62	9.00	580.01	9.00	580.01	8.70	580.26	8.36	580.66	8.20	580.82	8.22	580.82	8.22	580.84	8.26	580.74	8.07	580.95	9.03	579.97	8.49	580.52	8.48	580.53	8.38	580.44	8.60	580.41	9.11	579.89	9.19	579.81	9.43	579.57	9.23	579.77				
MW120S	7.72	578.96	7.66	579.02	8.96	579.64	8.52	580.08	8.55	580.05	8.32	580.28	7.94	580.66	7.69	580.91	7.78	580.82	7.85	580.75	7.96	580.64	7.67	580.93	8.14	580.46	7.97	580.63	8.05	580.55	7.96	580.64	8.19	580.41	8.58	580.02	8.4	580.20	8.61	579.99	8.61	579.99				
EW-2																																														

