



MICHIGAN DEPARTMENT OF ENVIRONMENTAL QUALITY

MONTHLY OPERATION REPORT - CLASS D WATER TREATMENT PLANT

Issued under authority of 1976 PA 399 and the Administrative Rules, as amended. Administrative Rule R 325.11512 says in part, "A supplier of water where treatment is employed shall prepare an operation report on a form provided by the department for each month of operation." Failure to submit this form is a violation of the Act and may subject the water supply to enforcement penalties.

Water Supply Information		
City of Morenci		004490
Supply Name		WSSN
Kipp Scott	D-3, S-3	Jul
Operator In Charge (OIC)	System Classification	Month
F-2, S-3	Lenawee	2020
Certification Level of OIC	County	Year

Distribution Chlorine Residual Monitoring (Sampling Conducted per DBPR Monitoring Plan)	
Number of chlorine residual measurements taken during the month:	64 - Various Distribution Sites
Number of chlorine residual measurements that exceeded 4 mg/L:	0
Monthly average "free" chlorine residual:	0.86

Comments
Plant tap (which is N/A) residuals are take at the first hydrant downstream from the iron removal water treatment plant (approximately 300' downstream of the IRP filters).

Certification	
Kipp Scott - OIC	
Name and Title of Authorized Agent	
Signature	8/5/2020
	Date Submitted

Send Completed Report To:	Staff and Contact Information	
Department of Environmental Quality (DEQ)		
Office of Drinking Water and Municipal Assistance	Taryn Simon, EQA	517-257-7465
301 East Louis Glick Highway	Caitlin Bates, District Engineer;	517-262-6795
Jackson, Michigan, 49201	Pat Brennan, District Sup'r;	517-581-2769
Or submit via email to	Fax;	517-780-7855
EGLE-DWEH-Jackson@michigan.gov	PEAS Hotline;	1-800-292-4706

Day of the month	Raw Pumpage in Million of Gallons per Day		Raw Pumpage Daily Total MGD	Raw Water To Iron Removal Plant MG	Raw Water To Iron Removal Plant MLbs	Comments
	Well 1	Well 2				
1	0.124	0.129	0.253	0.253	2.110	
2	0.180	0.091	0.271	0.271	2.260	
3	0.128	0.131	0.259	0.259	2.160	
4	0.180	0.086	0.266	0.266	2.218	
5	0.151	0.131	0.282	0.282	2.352	
6	0.178	0.104	0.282	0.282	2.352	
7	0.141	0.128	0.269	0.269	2.243	
8	0.183	0.114	0.297	0.297	2.477	
9	0.115	0.139	0.254	0.254	2.118	
10	0.109	0.126	0.235	0.235	1.960	
11	0.087	0.070	0.157	0.157	1.309	
12	0.103	0.078	0.181	0.181	1.510	
13	0.160	0.094	0.254	0.254	2.118	
14	0.124	0.133	0.257	0.257	2.143	
15	0.201	0.101	0.302	0.302	2.519	
16	0.095	0.073	0.168	0.168	1.401	
17	0.118	0.129	0.247	0.247	2.060	
18	0.166	0.092	0.258	0.258	2.152	
19	0.097	0.068	0.165	0.165	1.376	
20	0.171	0.091	0.262	0.262	2.185	
21	0.101	0.069	0.170	0.170	1.418	
22	0.111	0.121	0.232	0.232	1.935	
23	0.096	0.070	0.166	0.166	1.384	
24	0.163	0.085	0.248	0.248	2.068	
25	0.098	0.093	0.191	0.191	1.593	
26	0.122	0.106	0.228	0.228	1.902	
27	0.099	0.070	0.169	0.169	1.409	
28	0.158	0.084	0.242	0.242	2.018	
29	0.098	0.069	0.167	0.167	1.393	
30	0.123	0.119	0.242	0.242	2.018	
31	0.091	0.066	0.157	0.157	1.309	
Total	4.071	3.060	7.131	7.131	59.473	
Avg	0.131	0.099	0.230	0.230	1.918	
Max	0.201	0.139	0.340	0.340	2.836	
Min	0.087	0.066	0.153	0.153	1.276	

Name of Supply

WSSN

Iron Removal Plant

Day of the month	Water in Millions of Gallons				Head Loss Thru Filter ft/psi	Oxidant/Chlorine		Plant Tap/Hydrant Chlorine Residual		IRP Filter Chlorine Residual		Plant Tap Analysis	
	Raw Water To Plant	Filter Backwash To WWTP	Total Water To System	Total Million Pounds		Cl ₂ Applied Pounds	Cl ₂ Applied mg/L	Free	Total	Free	Total	Iron as Fe mg/L	Manganese as Mn mg/L
1	0.253	0.020	0.233	2.110		9.0	4.27						
2	0.271		0.271	2.260		10.0	4.42						
3	0.259		0.259	2.160		10.0	4.63						
4	0.266		0.266	2.218		10.0	4.51						
5	0.282		0.282	2.352		10.0	4.25						
6	0.282		0.282	2.352		10.0	4.25						
7	0.269		0.269	2.243		11.0	4.90						
8	0.297	0.020	0.277	2.477		10.0	4.04						
9	0.254		0.254	2.118		10.0	4.72						
10	0.235		0.235	1.960		11.0	5.61						
11	0.157		0.157	1.309		8.0	6.11						
12	0.181		0.181	1.510		6.0	3.97						
13	0.254		0.254	2.118		10.0	4.72						
14	0.257		0.257	2.143		11.0	5.13						
15	0.302	0.020	0.282	2.519		12.5	4.96						
16	0.168		0.168	1.401		4.0	2.85						
17	0.247		0.247	2.060		11.0	5.34						
18	0.258		0.258	2.152		11.0	5.11						
19	0.165		0.165	1.376		7.0	5.09						
20	0.262		0.262	2.185		11.5	5.26						
21	0.170		0.170	1.418		7.7	5.43						
22	0.232	0.020	0.212	1.935		9.3	4.81						
23	0.166		0.166	1.384		5.7	4.12						
24	0.248		0.248	2.068		8.1	3.92						
25	0.191		0.191	1.593		6.9	4.33						
26	0.228		0.228	1.902		8.2	4.31						
27	0.169		0.169	1.409		6.5	4.61						
28	0.242		0.242	2.018		9.7	4.81						
29	0.167	0.020	0.147	1.393		6.0	4.31						
30	0.242		0.242	2.018		10.2	5.05						
31	0.157		0.157	1.309		5.8	4.43						
Total	7.131	0.100	7.031	59.473		277.1	144.29						
Avg	0.230	0.020	0.227	1.918		8.9	4.65						
Max	0.302	0.020	0.282	2.519		12.5	6.11						
Min	0.157	0.020	0.147	1.309		4.0	2.85						

Iron Removal

Name of Supply

WSSN

Day of Month	Conductivity		Temperature		Total - Hardness mg/L		Total - Alkalinity mg/L		Chloride mg/l		Calcium mg/l		Iron mg/l		Manganese mg/L		Sulfate mg/l		pH Analysis		Phosphate mg/l	
	Raw Sample Tap	Plant Tap	Raw Temp°C	Tap Temp°C	Raw Sample Tap	Plant Tap	Raw Sample Tap	Plant Tap	Raw Sample Tap	Plant Tap	Raw Sample Tap	Plant Tap	Raw Sample Tap	Plant Tap	Raw Sample Tap	Plant Tap	Raw Sample Tap	Plant Tap	Raw Sample Tap	Plant Tap	Raw Sample Tap	Plant Tap
1		658.6		17.2		262		274		70		88.6					72		7.48			
2																						
3																						
4																						
5																						
6																						
7																						
8																						
9																						
10																						
11																						
12																						
13																						
14																						
15		665		19.5		236		268		32.0		76.0					17.0		7.58			
16																						
17																						
18																						
19																						
20																						
21																						
22																						
23																						
24																						
25																						
26																						
27																						
28																						
29		678		20.5		264		272		64.0		67.0					73.1		7.6			
30																						
31																						
Total:																						
Average:		667.2		19.1		254.0		271.3		55.3		77.2					54.0		7.55			
Maximum:		678.0		20.5		264.0		274.0		70.0		88.6					73.1		7.60			
Minimum:		658.6		17.2		236.0		268.0		32.0		67.0					17.0		7.48			
Comments:																						

Day of the month	Treated Water Metered		Oxidant / Chlorine		Chlorine Residual mg/L						Comments	
	Million Gallons	Million lbs	Avail 99.8% Cl ₂ Gas in lbs	Cl ₂ Applied mg/L	Distribution (DPW)		Distribution System		Distribution System Location	Applied IRP Filters		
					Free	Total	Free	Total		Free		Total
1	0.253	2.110	9.0	4.27	0.79	0.88			597 W. Chestnut	0.21	0.24	
2	0.271	2.260	10.0	4.42	0.69	0.79			597 W. Chestnut	0.13	0.22	
3	0.259	2.160	10.0	4.63	0.83	0.89			597 W. Chestnut	0.20	0.24	
4	0.266	2.218	10.0	4.51	0.76	0.86			597 W. Chestnut	0.19	0.23	
5	0.282	2.352	10.0	4.25	0.84	1.02			597 W. Chestnut	0.20	0.52	
6	0.282	2.352	10.0	4.25	1.03	1.18			597 W. Chestnut	0.24	0.32	
7	0.269	2.243	11.0	4.90	0.98	1.18			597 W. Chestnut	0.24	0.28	
8	0.297	2.477	10.0	4.04	1.03	1.21			597 W. Chestnut	0.24	0.30	
9	0.254	2.118	10.0	4.72	0.95	0.97			597 W. Chestnut	0.20	0.29	
10	0.235	1.960	11.0	5.61	0.74	0.97			597 W. Chestnut	0.16	0.24	
11	0.157	1.309	8.0	6.11	0.02	0.03			597 W. Chestnut	0.01	0.01	
12	0.181	1.510	6.0	3.97	1.39	1.42			597 W. Chestnut	0.28	0.36	
13	0.254	2.118	10.0	4.72	0.65	0.71			597 W. Chestnut	0.12	0.17	
14	0.257	2.143	11.0	5.13	1.08	1.19			597 W. Chestnut	0.16	0.23	
15	0.302	2.519	12.5	4.96	1.79	1.88			597 W. Chestnut	0.20	0.42	
16	0.168	1.401	4.0	2.85	0.95	1.08			597 W. Chestnut	0.26	0.29	
17	0.247	2.060	11.0	5.34	0.85	1.05			597 W. Chestnut	0.23	0.54	
18	0.258	2.152	11.0	5.11	1.16	1.34			597 W. Chestnut	0.27	0.35	
19	0.165	1.376	7.0	5.09	1.00	1.49			597 W. Chestnut	0.41	0.56	
20	0.262	2.185	11.5	5.26	1.10	1.36			597 W. Chestnut	0.36	0.40	
21	0.170	1.418	7.7	5.43	1.52	1.78			597 W. Chestnut	0.31	0.38	
22	0.232	1.935	9.3	4.81	1.04	1.55			597 W. Chestnut	0.09	0.28	
23	0.166	1.384	5.7	4.12	0.28	0.34			597 W. Chestnut	0.11	0.16	
24	0.248	2.068	8.1	3.92	0.29	0.38			597 W. Chestnut	0.00	0.10	
25	0.191	1.593	6.9	4.33	0.42	0.49			597 W. Chestnut	0.01	0.20	
26	0.228	1.902	8.2	4.31	0.75	0.95			597 W. Chestnut	0.15	0.56	
27	0.169	1.409	6.5	4.61	0.90	1.18			597 W. Chestnut	0.12	0.42	
28	0.242	2.018	9.7	4.81	0.83	0.96			597 W. Chestnut	0.08	0.28	
29	0.167	1.393	6.0	4.31	0.81	0.99			597 W. Chestnut	0.19	0.33	
30	0.242	2.018	10.2	5.05	0.66	0.77			597 W. Chestnut	0.10	0.25	
31	0.157	1.309	5.8	4.43	0.58	0.66			597 W. Chestnut	0.49	0.55	
Total	7.131	59.473	277.1			31.6				6.0	9.7	
Avg	0.230	1.918	8.9	4.66	0.86	1.02				0.19	0.31	
Max	0.340	2.519	12.5	6.11	1.79	1.88				0.49	0.56	
Min	0.153	1.309	4.0	2.85	0.02	0.03				0.00	0.01	

City of Morenci

004490

Jul 2020

Name of Supply

WSSN

Month

Year

2	Routine samples required	0	Repeat samples taken	43963.00	Cl ₂ residuals from routine & repeat		
4	Routine samples taken	0	Repeat samples total colifor		Average	0.88	0.95
0	Routine samples positive	P/A	Analytical Method		Maximum	0.90	0.97
				Minumum	0.85	0.92	

Distribution System - Routine Samples			Chlorine Residual (mg/L)	
Count	Sample Location	Date Collected	Free	Total
1	597 West Chestnut Street	07/01/20	0.90	0.97
2	118 Orchard Street	07/01/20	0.85	0.92
3	485 West Main - Well #1 - Raw	07/01/20	N/A	N/A
4	485 West Main - Well #2 - Raw	07/01/20	N/A	N/A
5				
6				
7				
8				
9				
10				
11				
12				
13				
14				
15				
16				
17				
19				

Distribution System - Repeat Samples-Contact District if > one Positive			Chlorine Residual (mg/L)	
Count	Sample Location	Date Collected	Free	Total
1				
2				
3				
4				
5				
6				
7				
8				
9				

Other: Triggered Source Water Samples, entry point (plant tap) ...			Chlorine Residual (mg/L)	
Count	Sample Location	Date Collected	Free	Total
1				
2				
3				
4				
5				
6				
7				
8				
9				