




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.

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

<b>Distribution Chlorine Residual Monitoring</b> (Sampling Conducted per DBPR Monitoring Plan)	
Number of chlorine residual measurements taken during the month:	31 - Various Distribution Sites
Number of chlorine residual measurements that exceeded 4 mg/L:	0
Monthly average "free" chlorine residual:	0.93

<b>Comments</b>
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).

<b>Certification</b>	
Kipp Scott - OIC	
Name and Title of Authorized Agent	
	1/6/2021
Signature	Date Submitted

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

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	0.090	0.089	0.179	0.179	1.493	
2	0.096	0.100	0.196	0.196	1.635	
3	0.096	0.086	0.182	0.182	1.518	
4	0.096	0.087	0.183	0.183	1.526	
5	0.101	0.085	0.186	0.186	1.551	
6	0.132	0.093	0.225	0.225	1.877	
7	0.102	0.088	0.190	0.190	1.585	
8	0.178	0.112	0.290	0.290	2.419	
9	0.099	0.102	0.201	0.201	1.676	
10	0.095	0.087	0.182	0.182	1.518	
11	0.094	0.085	0.179	0.179	1.493	
12	0.095	0.084	0.179	0.179	1.493	
13	0.098	0.084	0.182	0.182	1.518	
14	0.096	0.084	0.180	0.180	1.501	
15	0.097	0.085	0.182	0.182	1.518	
16	0.125	0.087	0.212	0.212	1.768	
17	0.099	0.086	0.185	0.185	1.543	
18	0.098	0.085	0.183	0.183	1.526	
19	0.104	0.086	0.190	0.190	1.585	
20	0.103	0.087	0.190	0.190	1.585	
21	0.099	0.086	0.185	0.185	1.543	
22	0.102	0.088	0.190	0.190	1.585	
23	0.150	0.062	0.212	0.212	1.768	
24	0.101	0.107	0.208	0.208	1.735	
25	0.124	0.127	0.251	0.251	2.093	
26	0.075	0.021	0.096	0.096	0.801	
27	0.101	0.091	0.192	0.192	1.601	
28	0.118	0.154	0.272	0.272	2.268	
29	0.090	0.084	0.174	0.174	1.451	
30	0.112	0.086	0.198	0.198	1.651	
31	0.105	0.087	0.192	0.192	1.601	
Total	3.271	2.775	6.046	6.046	50.424	
Avg	0.106	0.090	0.195	0.195	1.627	
Max	0.178	0.154	0.332	0.332	2.769	
Min	0.075	0.021	0.096	0.096	0.801	

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 <sub>2</sub> Applied Pounds	Cl <sub>2</sub> Applied mg/L	Free	Total	Free	Total	Iron as Fe mg/L	Manganese as Mn mg/L
1	0.179		0.179	1.493		5.2	3.48			0.10	0.17		
2	0.196	0.020	0.176	1.635		5.8	3.55	1.00	1.08	0.04	0.30	0.26	
3	0.182		0.182	1.518		5.3	3.49			0.05	0.32		
4	0.183		0.183	1.526		5.3	3.47			0.09	0.35		
5	0.186		0.186	1.551		5.4	3.48			0.19	0.34		
6	0.225	0.020	0.205	1.877		6.3	3.36			0.21	0.33		
7	0.190		0.190	1.585		5.4	3.41			0.04	0.32		
8	0.290		0.290	2.419		9.9	4.09			0.02	0.04		
9	0.201	0.020	0.181	1.676		7.1	4.24	1.06	1.15	0.03	0.53	0.20	
10	0.182		0.182	1.518		6.1	4.02			0.13	0.43		
11	0.179		0.179	1.493		6.2	4.15			0.07	0.24		
12	0.179		0.179	1.493		6.2	4.15			0.23	0.30		
13	0.182		0.182	1.518		6.5	4.28			0.33	0.59		
14	0.180		0.180	1.501		5.4	3.60			0.22	0.30		
15	0.182		0.182	1.518		6.1	4.02			0.08	0.43		
16	0.212	0.020	0.192	1.768		7.0	3.96	0.75	0.86	0.11	0.20	0.19	
17	0.185		0.185	1.543		6.5	4.21			0.00	0.21		
18	0.183		0.183	1.526		6.4	4.19			0.09	0.42		
19	0.190		0.190	1.585		6.3	3.98			0.11	0.38		
20	0.190		0.190	1.585		6.5	4.10			0.33	0.41		
21	0.185		0.185	1.543		6.3	4.08			0.11	0.32		
22	0.190		0.190	1.585		6.5	4.10			0.15	0.37		
23	0.212	0.020	0.192	1.768		8.9	5.03	0.84	0.98	0.08	0.16	0.22	
24	0.208		0.208	1.735		7.4	4.27			0.40	0.64		
25	0.251		0.251	2.093		8.0	3.82			0.56	0.65		
26	0.096		0.096	0.801		2.8	3.50			0.21	0.50		
27	0.192		0.192	1.601		6.2	3.87			0.11	0.64		
28	0.272		0.272	2.268		9.4	4.14			0.07	0.20		
29	0.174		0.174	1.451		5.8	4.00			0.11	0.55		
30	0.198	0.020	0.178	1.651		6.6	4.00	0.74	0.88	0.11	0.27	0.44	
31	0.192		0.192	1.601		6.3	3.93			0.02	0.33		
Total	6.046	0.120	5.926	50.424		199.1	121.98	4.39	4.95	4.4	11.2	1.31	
Avg	0.195	0.020	0.191	1.627		6.4	3.93	0.88	0.99	0.14	0.36	0.26	
Max	0.290	0.020	0.290	2.419		9.9	5.03	1.06	1.15	0.56	0.65	0.44	
Min	0.096	0.020	0.096	0.801		2.8	3.36	0.74	0.86	0.00	0.04	0.19	

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																						
2		663		14.2		284		290		40.6		72.5	0.88	0.26				23.5		7.54		
3																						
4																						
5																						
6																						
7																						
8																						
9		649		12.4		282.0		283.0				68.1	0.70	0.20						7.57		
10																						
11																						
12																						
13																						
14																						
15																						
16		659		12.8		276		273		50.5		69.7	0.70	0.19				25.7		7.58		
17																						
18																						
19																						
20																						
21																						
22																						
23		655		12.1		272.0		272				77.0	0.74	0.22						7.53		
24																						
25																						
26																						
27																						
28																						
29																						
30		658		13.4		286		280		37.1		72.9		0.43				20.6		7.64		
31																						
Total:																						
Average:		656.8		13.0		280.0		279.6		42.7		72.0						23.3		7.57		
Maximum:		663.0		14.2		286.0		290.0		50.5		77.0						25.7		7.64		
Minimum:		649.0		12.1		272.0		272.0		37.1		68.1						20.6		7.53		
Comments:																						

Day of the month	Treated Water		Oxidant / Chlorine		Chlorine Residual mg/L						Comments	
	Metered		Avail 99.8% Cl <sub>2</sub> Gas in lbs	Cl <sub>2</sub> Applied mg/L	Distribution (DPW)		Distribution System		Distribution System Location	Applied IRP Filters		
	Million Gallons	Million lbs			Free	Total	Free	Total		Free		Total
1	0.179	1.493	5.2	3.48	0.62	0.83			597 W. Chestnut	0.10	0.17	
2	0.196	1.635	5.8	3.55	0.64	0.83			597 W. Chestnut	0.04	0.30	
3	0.182	1.518	5.3	3.49	0.52	0.72			597 W. Chestnut	0.05	0.32	
4	0.183	1.526	5.3	3.47	0.66	0.84			597 W. Chestnut	0.09	0.35	
5	0.186	1.551	5.4	3.48	0.67	0.78			597 W. Chestnut	0.19	0.34	
6	0.225	1.877	6.3	3.36	0.56	0.79			597 W. Chestnut	0.21	0.33	
7	0.190	1.585	5.4	3.41	0.58	0.74			597 W. Chestnut	0.04	0.32	
8	0.290	2.419	9.9	4.09	0.54	0.74			597 W. Chestnut	0.02	0.04	
9	0.201	1.676	7.1	4.24	1.14	1.39			597 W. Chestnut	0.03	0.53	
10	0.182	1.518	6.1	4.02	1.02	1.39			597 W. Chestnut	0.13	0.43	
11	0.179	1.493	6.2	4.15	1.07	1.29			597 W. Chestnut	0.07	0.24	
12	0.179	1.493	6.2	4.15	1.23	1.38			597 W. Chestnut	0.23	0.30	
13	0.182	1.518	6.5	4.28	1.10	1.22			597 W. Chestnut	0.33	0.59	
14	0.180	1.501	5.4	3.60	1.20	1.49			597 W. Chestnut	0.22	0.30	
15	0.182	1.518	6.1	4.02	1.22	1.50			597 W. Chestnut	0.08	0.43	
16	0.212	1.768	7.0	3.96	1.01	1.25			597 W. Chestnut	0.11	0.20	
17	0.185	1.543	6.5	4.21	1.02	1.28			597 W. Chestnut	0.00	0.21	
18	0.183	1.526	6.4	4.19	1.04	1.31			597 W. Chestnut	0.09	0.42	
19	0.190	1.585	6.3	3.98	1.09	1.36			597 W. Chestnut	0.11	0.38	
20	0.190	1.585	6.5	4.10	0.87	1.04			597 W. Chestnut	0.33	0.41	
21	0.185	1.543	6.3	4.08	1.08	1.34			597 W. Chestnut	0.11	0.32	
22	0.190	1.585	6.5	4.10	1.00	1.27			597 W. Chestnut	0.15	0.37	
23	0.212	1.768	8.9	5.03	1.01	1.28			597 W. Chestnut	0.08	0.16	
24	0.208	1.735	7.4	4.27	0.77	1.06			597 W. Chestnut	0.40	0.64	
25	0.251	2.093	8.0	3.82	0.95	1.02			597 W. Chestnut	0.56	0.65	
26	0.096	0.801	2.8	3.50	1.08	1.34			597 W. Chestnut	0.21	0.50	
27	0.192	1.601	6.2	3.87	1.03	1.29			597 W. Chestnut	0.11	0.64	
28	0.272	2.268	9.4	4.14	0.97	1.18			597 W. Chestnut	0.07	0.20	
29	0.174	1.451	5.8	4.00	1.02	1.29			597 W. Chestnut	0.11	0.55	
30	0.198	1.651	6.6	4.00	1.14	1.37			597 W. Chestnut	0.11	0.27	
31	0.192	1.601	6.3	3.93	1.03	1.29			597 W. Chestnut	0.02	0.33	
Total	6.046	50.424	199.1			35.9				4.4	11.2	
Avg	0.195	1.627	6.4	3.95	0.93	1.16				0.14	0.36	
Max	0.332	2.419	9.9	5.03	1.23	1.50				0.56	0.65	
Min	0.096	0.801	2.8	3.36	0.52	0.72				0.00	0.04	

City of Morenci

004490

Dec 2020

Name of Supply

WSSN

Month

Year

2	Routine samples required	0	Repeat samples taken	43963.00	Cl <sub>2</sub> residuals from routine & repeat		
4	Routine samples taken	0	Repeat samples total colifor		Average	0.70	0.81
0	Routine samples positive	P/A	Analytical Method		Maximum	0.96	1.06
				Minumum	0.44	0.55	

Distribution System - Routine Samples			Chlorine Residual (mg/L)	
Count	Sample Location	Date Collected	Free	Total
1	597 West Chestnut Street	12/02/20	0.44	0.55
2	118 Orchard Street	12/02/20	0.96	1.06
3	485 West Main - Well #1 - Raw	12/02/20	N/A	N/A
4	485 West Main - Well #2 - Raw	12/02/20	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				