ARKANSAS
ENERGY & ENVIRONMENT

November 2, 2022

Brenda Weldon, Mayor
City of Malvern
506 Overman **Street**
Malvern, AR 72104
Via email: mayor@malvernar.gov

RE: Malvern WWTF Inspection
AFIN: 30-00040 Permit No.: AR0034126

Dear Ms. Weldon:

On March 8th 2022, I performed a Compliance Evaluation Inspection of the above referenced facility in accordance with the provisions of the Federal Clean Water Act, the Arkansas Water and Air Pollution Control Act, and the regulations promulgated thereunder. A copy of the inspection report is enclosed for your records.

No violations were noted at the time of the inspection. Please refer to the inspection report for any comments.

If I can be of any assistance please contact me at blain.sanders@adeq.state.ar.us or (501) 682-0657.

Sincerely,

Blain Sanders
Inspector, Office of Water Quality
5301 Northshore Drive, North Little Rock, AR, 72118

ENVIRONMENTAL QUALITY

OFFICE OF WATER QUALITY INSPECTION REPORT

AFIN: **30-00040**	PERMIT #: **AR0034126**	DATE: **3/8/2022**
COUNTY: **30 Hot Spring**	PDS #: **123283**	MEDIA: **WN**
GPS LAT: **34.35532** LONG: **-92.847119** LOCATION: **General Area**		

FACILITY INFORMATION

NAME:
Malvern WWTF
LOCATION:
3672 Grigsby Ford Road
CITY:
Malvern

RESPONSIBLE OFFICIAL

NAME: / TITLE
Brenda Weldon / Mayor
COMPANY:
City of Malvern
MAILING ADDRESS:
506 Overman Street
CITY, STATE, ZIP:
Malvern AR 72104
PHONE & EXT: / FAX:
/
EMAIL:
mayor@malvernar.gov

CONTACTED DURING INSPECTION: **No**

INSPECTION INFORMATION

FACILITY TYPE: **1 - Municipal**	INSPECTOR ID#: **123247 S - State**
FACILITY EVALUATION RATING: **3 - Satisfactory**	INSPECTION TYPE: **Compliance Evaluation**

DATE(S): **3/8/2022** ENTRY TIME: **09:50** EXIT TIME: **11:20**

PERMIT EFFECTIVE DATE: **5/1/2021**
PERMIT EXPIRATION DATE: **4/30/2026**

FAYETTEVILLE SHALE RELATED: **N**

FAYETTEVILLE SHALE VIOLATIONS: **N**

INSPECTION PARTICIPANTS

NAME/TITLE/PHONE/FAX/EMAIL/ETC.:
Blain Sanders, DEQ Inspector, 501-682-0657
John Davis, Operator, City of Malvern
Devan Baugh, Operator, City of Malvern

AREA EVALUATIONS

(S=Satisfactory, M=Marginal, U=Unsatisfactory, N=Not Applicable/Evaluated)

S	PERMIT	**S**	FLOW MEASUREMENT	**N**	STORMWATER
S	RECORDS/REPORTS	**S**	LABORATORY	**N**	FACILITY SITE REVIEW
S	OPERATION & MAINTENANCE	**S**	EFFLUENT/RECEIVING WATER	**S**	SELF-MONITORING PROGRAM
S	SAMPLING	**S**	SLUDGE HANDLING/DISPOSAL	**N**	PRETREATMENT
N	OTHER:				

SUMMARY OF FINDINGS

No violations were noted at the time of the inspection.

GENERAL COMMENTS

None

INSPECTOR'S SIGNATURE: Blain Sanders **Blain Sanders** DATE: **3/18/2022**

SUPERVISOR'S SIGNATURE: Brent L Walker **Brent L. Walker** DATE: **11/1/2022**

SECTION A: PERMIT VERIFICATION	
PERMIT SATISFACTORILY ADDRESSES OBSERVATIONS	☑S ☐M ☐U ☐NA ☐NE
DETAILS:	
1. CORRECT NAME AND MAILING ADDRESS OF PERMITTEE:	☑Y ☐N ☐NA ☐NE
2. NOTIFICATION GIVEN TO EPA/STATE OF NEW DIFFERENT OR INCREASED DISCHARGES:	☐Y ☐N ☑NA ☐NE
3. NUMBER AND LOCATION OF DISCHARGE POINTS AS DESCRIBED IN PERMIT:	☑Y ☐N ☐NA ☐NE
4. ALL DISCHARGES ARE PERMITTED:	☑Y ☐N ☐NA ☐NE
SECTION B: RECORDKEEPING AND REPORTING EVALUATION	
RECORDS AND REPORTS MAINTAINED AS REQUIRED BY PERMIT	☑S ☐M ☐U ☐NA ☐NE
DETAILS:	
1. ANALYTICAL RESULTS CONSISTENT WITH DATA REPORTED ON DMRS:	☑Y ☐N ☐NA ☐NE
2. SAMPLING AND ANALYSES DATA ADEQUATE AND INCLUDE:	☑S ☐M ☐U ☐NA ☐NE
a. DATES AND TIME(S) OF SAMPLING:	☑Y ☐N ☐NA ☐NE
b. EXACT LOCATION(S) OF SAMPLING:	☑Y ☐N ☐NA ☐NE
c. NAME OF INDIVIDUAL PERFORMING SAMPLING:	☑Y ☐N ☐NA ☐NE
d. ANALYTICAL METHODS AND TECHNIQUES:	☑Y ☐N ☐NA ☐NE
e. RESULTS OF CALIBRATIONS:	☑Y ☐N ☐NA ☐NE
f. RESULTS OF ANALYSES:	☑Y ☐N ☐NA ☐NE
g. DATES AND TIMES OF ANALYSES:	☑Y ☐N ☐NA ☐NE
h. NAME OF PERSON(S) PERFORMING ANALYSES:	☑Y ☐N ☐NA ☐NE
3. LABORATORY EQUIPMENT CALIBRATION AND MAINTENANCE RECORDS ADEQUATE:	☑S ☐M ☐U ☐NA ☐NE
4. PLANT RECORDS INCLUDE SCHEDULES, DATES OF EQUIPMENT MAINTENANCE AND REPAIR:	☑S ☐M ☐U ☐NA ☐NE
5. EFFLUENT LOADINGS CALCULATED USING DAILY EFFLUENT FLOW AND DAILY ANALYTICAL DATA:	☑Y ☐N ☐NA ☐NE
SECTION C: OPERATIONS AND MAINTENANCE	
TREATMENT FACILITY PROPERLY OPERATED AND MAINTAINED	☑S ☐M ☐U ☐NA ☐NE
DETAILS:	
1. TREATMENT UNITS PROPERLY OPERATED:	☑S ☐M ☐U ☐NA ☐NE
2. TREATMENT UNITS PROPERLY MAINTAINED:	☑S ☐M ☐U ☐NA ☐NE
3. STANDBY POWER OR OTHER EQUIVALENT PROVIDED:	☑S ☐M ☐U ☐NA ☐NE
4. ADEQUATE ALARM SYSTEM FOR POWER OR EQUIPMENT FAILURES AVAILABLE:	☑S ☐M ☐U ☐NA ☐NE
5. ALL NEEDED TREATMENT UNITS IN SERVICE:	☑S ☐M ☐U ☐NA ☐NE
6. ADEQUATE NUMBER OF QUALIFIED OPERATORS PROVIDED: **John Davis & Devan Baugh; Class III Municipal**	☑S ☐M ☐U ☐NA ☐NE
7. SPARE PARTS AND SUPPLIES INVENTORY MAINTAINED:	☑S ☐M ☐U ☐NA ☐NE
8. OPERATION AND MAINTENANCE MANUAL AVAILABLE:	☐Y ☐N ☐NA ☑NE
9. STANDARD OPERATING PROCEDURES AND SCHEDULES ESTABLISHED:	☑Y ☐N ☐NA ☐NE
10. PROCEDURES FOR EMERGENCY TREATMENT CONTROL ESTABLISHED:	☑Y ☐N ☐NA ☐NE
11. HAVE BYPASSES/OVERFLOWS OCCURRED AT THE PLANT OR IN THE COLLECTION SYSTEM IN THE LAST YEAR:	☐Y ☑N ☐NA ☐NE
12. IF SO, HAS THE REGULATORY AGENCY BEEN NOTIFIED:	☐Y ☐N ☑NA ☐NE
13. HAS CORRECTIVE ACTION BEEN TAKEN TO PREVENT ADDITIONAL BYPASSES/OVERFLOWS:	☐Y ☐N ☑NA ☐NE
14. HAVE ANY HYDRAULIC OVERLOADS OCCURRED AT THE TREATMENT PLANT:	☐Y ☑N ☐NA ☐NE
15. IF SO, DID PERMIT VIOLATIONS OCCUR AS A RESULT:	☐Y ☐N ☑NA ☐NE

SECTION D: SAMPLING	
PERMITTEE SAMPLING MEETS PERMIT REQUIREMENTS	☑S ☐M ☐U ☐NA ☐NE
DETAILS:	
1. SAMPLES TAKEN AT SITE(S) SPECIFIED IN PERMIT: **Outfall 001**	☑Y ☐N ☐NA ☐NE
2. LOCATIONS ADEQUATE FOR REPRESENTATIVE SAMPLES:	☑Y ☐N ☐NA ☐NE
3. FLOW PROPORTIONED SAMPLES OBTAINED WHEN REQUIRED BY PERMIT:	☐Y ☐N ☑NA ☐NE
4. SAMPLING AND ANALYSES COMPLETED ON PARAMETERS SPECIFIED IN PERMIT:	☑Y ☐N ☐NA ☐NE
5. SAMPLING AND ANALYSES PERFORMED AT FREQUENCY SPECIFIED IN PERMIT:	☑Y ☐N ☐NA ☐NE
6. SAMPLE COLLECTION PROCEDURES ADEQUATE:	☑Y ☐N ☐NA ☐NE
a. SAMPLES REFRIGERATED DURING COMPOSITING:	☑Y ☐N ☐NA ☐NE
b. PROPER PRESERVATION TECHNIQUES USED:	☑Y ☐N ☐NA ☐NE
c. CONTAINERS AND SAMPLE HOLDING TIMES CONFORM TO 40 CFR 136:	☑Y ☐N ☐NA ☐NE
7. IF MONITORING IS PERFORMED MORE OFTEN THAN REQUIRED ARE RESULTS REPORTED ON THE DMR:	☐Y ☐N ☑NA ☐NE

SECTION E: FLOW MEASUREMENT	
PERMITTEE FLOW MEASUREMENT MEETS PERMIT REQUIREMENTS	☑S ☐M ☐U ☐NA ☐NE
DETAILS:	
1. PRIMARY FLOW MEASUREMENT DEVICE PROPERLY INSTALLED AND MAINTAINED:__ TYPE OF DEVICE: **18" Parshall flume**	☑Y ☐N ☐NA ☐NE
2. FLOW MEASURED AT EACH OUTFALL AS REQUIRED:	☑Y ☐N ☐NA ☐NE
3. SECONDARY INSTRUMENTS (TOTALIZERS, RECORDERS, ETC.) PROPERLY OPERATED AND MAINTAINED:	☑Y ☐N ☐NA ☐NE
4. CALIBRATION FREQUENCY ADEQUATE: **Annual**	☑Y ☐N ☐NA ☐NE
5. RECORDS MAINTAINED OF CALIBRATION PROCEDURES:	☑Y ☐N ☐NA ☐NE
6. CALIBRATION CHECKS DONE TO ASSURE CONTINUED COMPLIANCE:	☑Y ☐N ☐NA ☐NE
7. FLOW ENTERING DEVICE WELL DISTRIBUTED ACROSS THE CHANNEL AND FREE OF TURBULENCE:	☑Y ☐N ☐NA ☐NE
8. FLOW MEASUREMENT EQUIPMENT ADEQUATE TO HANDLE EXPECTED RANGE OF FLOW RATES:	☑Y ☐N ☐NA ☐NE
9. HEAD MEASURED AT PROPER LOCATION:	☑Y ☐N ☐NA ☐NE

SECTION F: LABORATORY	
PERMITTEE LABORATORY PROCEDURES MEET PERMIT REQUIREMENTS	☑S ☐M ☐U ☐NA ☐NE
DETAILS:	
1. EPA APPROVED ANALYTICAL PROCEDURES USED (40 CFR 136.3 FOR LIQUIDS, 503.8(B) FOR SLUDGES) :	☑Y ☐N ☐NA ☐NE
2. IF ALTERNATIVE ANALYTICAL PROCEDURES ARE USED, PROPER APPROVAL HAS BEEN OBTAINED:	☐Y ☐N ☑NA ☐NE
3. SATISFACTORY CALIBRATION AND MAINTENANCE OF INSTRUMENTS AND EQUIPMENT:	☑Y ☐N ☐NA ☐NE
4. QUALITY CONTROL PROCEDURES ADEQUATE:	☑Y ☐N ☐NA ☐NE
5. DUPLICATE SAMPLES ARE ANALYZED ≥10% OF THE TIME:	☑Y ☐N ☐NA ☐NE
6. SPIKED SAMPLES ARE ANALYZED ≥10% OF THE TIME:	☑Y ☐N ☐NA ☐NE
7. COMMERCIAL LABORATORY USED:	☑Y ☐N ☐NA ☐NE
a. LAB NAME: **American Interplex**	
b. LAB ADDRESS: **8600 Kanis Road Little Rock, AR 72204**	
c. PARAMETERS PERFORMED: **Total Phosphorus, Nitrate + Nitrite as N**	
8. BIOMONITORING PROCEDURES ADEQUATE:	☑Y ☐N ☐NA ☐NE
a. PROPER ORGANISMS USED: ***Pimephales promelas* & *Ceriodaphnia dubia***	☑Y ☐N ☐NA ☐NE
b. PROPER DILUTION SERIES FOLLOWED: **5%, 7%, 9%, 12%, 16%**	☑Y ☐N ☐NA ☐NE
c. PROPER TEST METHODS AND DURATION:	☑Y ☐N ☐NA ☐NE
d. RETESTS AND/OR TRE PERFORMED AS REQUIRED:	☑Y ☐N ☐NA ☐NE

SECTION G: EFFLUENT/RECEIVING WATERS OBSERVATIONS

BASED ON VISUAL OBSERVATIONS ONLY — ☑S ☐M ☐U ☐NA ☐NE

DETAILS:

OUTFALL #:	OIL SHEEN	GREASE	TURBIDITY	VISIBLE FOAM	FLOATING SOLIDS	COLOR	OTHER
001	None	None	None	None	None	Clear	--

SECTION H: SLUDGE DISPOSAL

SLUDGE DISPOSAL MEETS PERMIT REQUIREMENTS — ☑S ☐M ☐U ☐NA ☐NE

DETAILS:

1. SLUDGE MANAGEMENT ADEQUATE TO MAINTAIN EFFLUENT QUALITY: ☑S ☐M ☐U ☐NA ☐NE
2. SLUDGE RECORDS MAINTAINED AS REQUIRED BY 40 CFR 503: ☐S ☐M ☐U ☐NA ☑NE
3. FOR LAND APPLIED SLUDGE, TYPE OF LAND APPLIED TO: (E.G., FOREST, AGRICULTURAL, PUBLIC CONTACT SITE):

SECTION I: SAMPLING INSPECTION PROCEDURES

SAMPLE RESULTS WITHIN PERMIT REQUIREMENTS — ☐S ☐M ☐U ☑NA ☐NE

DETAILS:

1. SAMPLES OBTAINED THIS INSPECTION: ☐Y ☐N ☑NA ☐NE
2. TYPE OF SAMPLE: ☐GRAB:__ ☐COMPOSITE:__ METHOD:__ FREQUENCY:
3. SAMPLES PRESERVED: ☐Y ☐N ☑NA ☐NE
4. FLOW PROPORTIONED SAMPLES OBTAINED: ☐Y ☐N ☑NA ☐NE
5. SAMPLE OBTAINED FROM FACILITY'S SAMPLING DEVICE: ☐Y ☐N ☑NA ☐NE
6. SAMPLE REPRESENTATIVE OF VOLUME AND NATURE OF DISCHARGE: ☐Y ☐N ☑NA ☐NE
7. SAMPLE SPLIT WITH PERMITTEE: ☐Y ☐N ☑NA ☐NE
8. CHAIN-OF-CUSTODY PROCEDURES EMPLOYED: ☐Y ☐N ☑NA ☐NE
9. SAMPLES COLLECTED IN ACCORDANCE WITH PERMIT: ☐Y ☐N ☑NA ☐NE

SECTION J: STORM WATER POLLUTION PREVENTION PLAN

STORM WATER MANAGEMENT MEETS PERMIT REQUIREMENTS — ☐S ☐M ☐U ☐NA ☑NE

DETAILS:

1. SWPPP UPDATED AS NEEDED:__ DATE OF LAST UPDATE: ☐Y ☐N ☐NA ☑NE
2. SITE MAP INCLUDING ALL DISCHARGES AND SURFACE WATERS: ☐Y ☐N ☐NA ☑NE
3. POLLUTION PREVENTION TEAM IDENTIFIED: ☐Y ☐N ☐NA ☑NE
4. POLLUTION PREVENTION TEAM PROPERLY TRAINED: ☐Y ☐N ☐NA ☑NE
5. LIST OF POTENTIAL POLLUTANT SOURCES: ☐Y ☐N ☐NA ☑NE
6. LIST OF POTENTIAL SOURCES AND PAST SPILLS AND LEAKS: ☐Y ☐N ☐NA ☑NE
7. ALL NON-STORM WATER DISCHARGES ARE AUTHORIZED: ☐Y ☐N ☐NA ☑NE
8. LIST OF STRUCTURAL BMPS: ☐Y ☐N ☐NA ☑NE
9. LIST OF NON-STRUCTURAL BMPS: ☐Y ☐N ☐NA ☑NE
10. BMPS PROPERLY OPERATED AND MAINTAINED: ☐Y ☐N ☐NA ☑NE
11. INSPECTIONS CONDUCTED AS REQUIRED: ☐Y ☐N ☐NA ☑NE

FLOW CALCULATION SHEET

Date: **3/8/2022** Time: **09:57**

Head in Inches: **9.12”** Feet: **.76’**

Type & Size of Primary Flow Measurement Device: **18” Parshall Flume**

Name & Model of Secondary Flow Measurement Device: **Unknown**

Date of last Calibration of Secondary Flow Device: **Annually**

Recorded Flow at Date & Time Listed Above: **2.571 MGD** (Facility Flow Meter)

Calculated Flow at Date & Time Listed Above: **2.543 MGD**

(Flow is calculated using flow charts in: ISCO Open Channel Flow Measurement Handbook-5th Edition)

$$\% \text{ Error} = \frac{\text{Recorded Value} - \text{Calculated Value}}{\text{Calculated Value}} \times 100$$

$$\% \text{ Error} = \frac{2.571 - 2.543}{2.543} \times 100$$

$$\% \text{ Error} = \frac{0.028}{2.543} \times 100$$

$$\% \text{ Error} = 0.011 \times 100$$

% Error = **1.1** %

Comments:

DMR Calculation Check

Reporting Period:	**From**	**2021** (Year)	**10** (Month)	**1** (Day)	**To**	**2021** (Year)	**10** (Month)	**31** (Day)

Parameter Checked: **TSS**

	Loading	**Concentration**	
	Mass	**Monthly**	
	Mo. Avg. - lbs/day	**Mo. Avg. - mg/l**	**7-day Avg. - mg/l**
Reported Value:	**144.3**	**10.2**	**12.3**
Calculated Value:	**157.5**	**10.2**	**12.3**
Permit Value:	**4,434.5**	**90.0**	**135.0**

If calculated value does not equal reported value, explain:

DMR Calculation Check

Reporting Period:	**From**	**2021** (Year)	**10** (Month)	**1** (Day)	**To**	**2021** (Year)	**10** (Month)	**31** (Day)

Parameter Checked: **CBOD**

	Loading	**Concentration**	
	Mass	**Monthly**	
	Mo. Avg. - lbs/day	**Mo. Avg. - mg/l**	**7-day Avg. - mg/l**
Reported Value:	**69.0**	**4.8**	**6.1**
Calculated Value:	**70.6**	**4.8**	**6.1**
Permit Value:	**1,231.8**	**25.0**	**38.0**

If calculated value does not equal reported value, explain:

Office of Water Quality Photographic Evidence Sheet					
Location:	**Malvern WWTF**				
Photographer:	**Blain Sanders**	Date:	**March 8, 2022**	Time:	**10:25**
Witness:				Photo #:	**1**
Description:	**View of the first of two partial mixed aerated lagoon.**				

Photographer:	**Blain Sanders**	Date:	**March 8, 2022**	Time:	**10:25**
Witness:				Photo #:	**2**
Description:	**View of the first of two partial mixed aerated lagoons; levees in good condition.**				

Office of Water Quality Photographic Evidence Sheet					
Location:	**Malvern WWTF**				
Photographer:	**Blain Sanders**	Date:	**March 8, 2022**	Time:	**10:10**
Witness:				Photo #:	**3**
Description:	**View of the second partial mixed aerated lagoon; blowers and diffusers working properly.**				

Photographer:	**Blain Sanders**	Date:	**March 8, 2022**	Time:	**10:10**
Witness:				Photo #:	**4**
Description:	**Additional view of the second partial mixed aerated lagoon.**				

Office of Water Quality Photographic Evidence Sheet					
Location:	**Malvern WWTF**				
Photographer:	**Blain Sanders**	Date:	**March 8, 2022**	Time:	**09:56**
Witness:				Photo #:	**5**
Description:	**18” Parshall flume.**				

Photographer:	**Blain Sanders**	Date:	**March 8, 2022**	Time:	**09:56**
Witness:				Photo #:	**6**
Description:	**Cascade aeration.**				

Office of Water Quality Photographic Evidence Sheet					
Location:	**Malvern WWTF**				
Photographer:	**Blain Sanders**	Date:	**March 8, 2022**	Time:	**09:56**
Witness:				Photo #:	**7**
Description:	**Chlorine contact chamber.**				

Photographer:	**Blain Sanders**	Date:	**March 8, 2022**	Time:	**10:15**
Witness:				Photo #:	**8**
Description:	**View of the effluent composite sampler.**				

Figure 1: Google Earth image of the City of Malvern wastewater treatment facility.