

February 5, 2016

Parnell Vann, Mayor
City of Magnolia - Big Creek WWTP
P.O. Box 666
Magnolia, AR 71753

RE: Big Creek WWTP Inspection (Columbia Co)
AFIN: 14-00059 NPDES Permit No.: AR0043613

Dear Mayor Vann:

On January 12, 2016, 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.


Please refer to the “Summary of Findings” section of the attached inspection report and provide a written response for each violation that was noted. This response should be mailed to the attention of the Water Division Inspection Branch at the address at the bottom of this letter or e-mailed to Water-Inspection-Report@adeq.state.ar.us. This response should contain documentation describing the course of action taken to correct each item noted. This corrective action should be completed as soon as possible, and the written response with all necessary documentation (i.e., photos) is due by **February 19, 2016**.

If I can be of any assistance, please contact me at youngm@adeq.state.ar.us or (501) 837-2073.

Sincerely,



Michael D. Young
District 8 Field Inspector
Water Division

 A R K A N S A S Department of Environmental Quality		WATER DIVISION INSPECTION REPORT							
		AFIN: 14-00059		PERMIT #: AR0043613		DATE: 1/12/2016			
		COUNTY: 14 Columbia			PDS #: 088931		MEDIA: WN		
		GPS LAT: 33.266603 LONG: -93.265103 LOCATION: Entrance							
FACILITY INFORMATION				INSPECTION INFORMATION					
NAME: Big Creek WWTP LOCATION: 72 Colombia Road 300 CITY: Magnolia, AR 71753				FACILITY TYPE: 1 - Municipal		INSPECTOR ID#: 101531 S - State			
				FACILITY EVALUATION RATING: 1 - Unsatisfactory		INSPECTION TYPE: Compliance Evaluation			
				DATE(S): 1/12/2016		ENTRY TIME: 09:00		EXIT TIME: 13:15	
								PERMIT EFFECTIVE DATE: 12/31/2010 PERMIT EXPIRATION DATE: 12/31/2015	
RESPONSIBLE OFFICIAL				FAYETTEVILLE SHALE RELATED: N FAYETTEVILLE SHALE VIOLATIONS: N INSPECTION PARTICIPANTS NAME/TITLE/PHONE/FAX/EMAIL/ETC.: Johnny Moore/Operator/870-234-2955 Russell Thomas/Superintendent/870-234-2955					
NAME / TITLE: Parnell Vann / Mayor COMPANY: City of Magnolia - Big Creek WWTP MAILING ADDRESS: P.O. Box 666 CITY, STATE, ZIP: Magnolia AR 71753 PHONE & EXT: / FAX: 870-234-1375 / EMAIL: parnellvan2010@yahoo.com									
CONTACTED DURING INSPECTION: No									
AREA EVALUATIONS (S=Satisfactory, M=Marginal, U=Unsatisfactory, N=Not Applicable/Evaluated)									
S	PERMIT	S	FLOW MEASUREMENT	N	STORMWATER				
S	RECORDS/REPORTS	S	LABORATORY	M	FACILITY SITE REVIEW				
M	OPERATION & MAINTENANCE	M	EFFLUENT/RECEIVING WATER	U	SELF-MONITORING PROGRAM				
S	SAMPLING	S	SLUDGE HANDLING/DISPOSAL	U	PRETREATMENT				
**	OTHER:								
SUMMARY OF FINDINGS									
<p>1.) The facility accepts filter backwash wastewater from Magnolia Municipal Water System (ARG640069). The facility never formally notified ADEQ of this addition to the facility. This is a violation of permit condition Part III. (D.) (1.). Filter backwash wastewater is not domestic waste and has the potential to significantly change the influent quality and has the likelihood to cause violations of effluent limitations (SEE GENERAL COMMENTS).</p> <p>2.) ADEQ was not notified that filter backwash wastewater from Magnolia Municipal Water System was being accepted by the treatment plant with no pretreatment. It is the duty of the permittee to notify the Department of any substantial change in the volume or character of pollutants being introduced into the treatment plant by a source. This is a violation of permit condition Part II. (8.) (C.) (SEE GENERAL COMMENTS).</p> <p>3.) The facility has a discharge that shall be limited and monitored by the permittee from a treatment system consisting of a design flow of 2.5 MGD. The facility has had multiple months in 2015 in which the discharge from Outfall 001 had a monthly average of greater than 5.0 MGD. This is a violation of permit condition Part IA. Flows greater than the facility design on a consistent basis will cause hydraulic overloads and the inability to adequately treat wastewater causing effluent violations such as those experienced by the facility (SEE GENERAL COMMENTS).</p> <p>4.) The facility has not taken all reasonable steps to minimize or prevent any discharge that has a reasonable likelihood of adversely affecting the environment of the water receiving the discharge. BOD and TSS loading effluent violations are consistently in excess of 300% of what is allowed to be discharged by the facility. This is a violation of permit condition Part III. (B.) (3.).</p>									

- 5.) The facility is using Magnesium Hydroxide solution from a dosing machine that is administered directly after grit screening and prior to entering the oxidation ditch (see Photo 5). There is no record of a 180-day notice to the Department of the planned physical alteration and addition to the plant. This is a violation of permit condition Part III. (D.) (1.) (EE GENERAL COMMENTS).
- 6.) There was foam of persistent nature in the manmade conveyance directly downstream of Outfall 001 (see Photos 1-4). This is a violation of permit condition Part IA (SEE GENERAL COMMENTS).
- 7.) Best Management Practices (BMPs) are not being utilized around the Magnesium Hydroxide tank to prevent spills and leaks (see Photo 5). This is a violation of permit condition Part II. (6.)
- 8.) The equalization basin has sludge in the southeast corner that is becoming vegetated and indicates that sludge depth may be excessive. This is a violation of permit condition Part III. (1.) (A.). The facility utilizes a 25-acre equalization basin that has never had the sludge measured or dredged (SEE GENERAL COMMENTS).
- 9.) Reporting of monitoring results on DMRs is being competed incorrectly. This is a violation of permit condition Part III. (C.) (5.). The facility is reporting the wrong number of excursions on their monthly DMRs. According to ADEQ's instructions for completing DMRs:
- "The column labeled NO. EX. indicates the number of times the maximum, minimum or 7-day average limit of a parameter is exceeded during a reporting period. This column is not used to indicate violations of the monthly average limits. Thus, the number of times an analysis shows an amount in excess of maximum, minimum or 7-day average limit in your permit it should be counted toward the number you indicate in the column NO. EX. If no maximum, minimum or 7-day average limit were exceeded, then place a zero in that column, even if an average limit is exceeded. (Note, in reporting pH both lows and highs must be counted. Also, a noncompliance report will be required even if only an average limit is exceeded.)"

GENERAL COMMENTS

Big Creek WWTP received a Consent Administrative Order (CAO) on December 15, 2015 for effluent violations and Sanitary Sewer Overflows (SSO). The inspection on January 12, 2016 identified several compliance issues that may be attributing to inadequate treatment and effluent violations. Big Creek WWTP is a once/week sample frequency for most of the parameters in Part IA of the permit. The frequency of violations for once/week sampling warrants a more detailed account of the effluent quality. It is a recommendation from the inspector that ADEQ increase the sampling frequency to collect additional effluent quality information prior to the renewal of the facility's permit. The frequency of water being discharged that is not meeting effluent limitations and the effect on the receiving stream is much greater than the information that is provided through once/week sampling.

Effluent Violations/Water Treatment Plant Filter Backwash:

The facility has had seventy (70) effluent violations from August 2012 to November 2015. In 2015, there were an excessive amount of effluent violations for BOD, Ammonia Nitrogen, and TSS. The facility has made an effort to identify what is causing the effluent violations and stated that the only practice they are unsure of causing issues in the WWTP is accepting the filter backwash wastewater from the Magnolia Municipal Water System (ARG640069). The facility did not inform ADEQ of the acceptance of filter backwash wastewater. The filter backwash wastewater is not domestic waste and the water treatment plant is permitted by ADEQ; therefore, meeting the 301 and 306 sections of the CWA. The potential for pollution and impaired influent quality is increased by accepting the filter backwash wastewater and may affect the activated sludge plant by causing slug loads of organics and other materials from the water treatment process. The drinking water source for the water treatment plant is Lake Columbia, which is a shallow manmade reservoir. The facility needs to assess the impact of accepting the filter backwash wastewater and decide if the system is capable of treating the waste properly. There are indications that the filter backwash wastewater may have toxic properties on the microorganisms in the oxidation ditch. The facility has the capability to run microtox scans and has information of a Priority Pollutant Scan (PPS) completed on the influent coming from the water treatment plant.

Flow:



The facility has a flow design of 2.5 MGD. During the inspection, the facility was discharging 3.5 MGD. An examination of flow records and DMRs indicate that this facility routinely discharges water that can be in excess of 300% of what the design flow is (some months average 6 MGD). The surplus of water that is coming into the WWTP may have an impact on treatment process by affecting the detention time in the oxidation ditch and not allowing for the microorganisms to adequately process the waste. The facility needs to assess the conditions that are causing the consistent increases in flow. The most recent permit renewal received by the Department listed the highest monthly average flow for the last two (2) years as 3.463 MGD. The DMR for April 2015 documented an average monthly flow of 3.959 MGD. I did not examine all the DMRs at the facility for 2015, but the spot check indicates that the facility submitted the wrong information for the highest average flow in the past two (2) years.

Foam:

Big Creek WWTP is using the addition of Magnesium Hydroxide slurry following grit removal to adjust the pH of the influent prior to entering the oxidation ditch. The addition of this chemical additive to the treatment process was not properly notified to the Department per condition Part III. (D.) (1.). The use of this chemical additive may also be causing persistent foam in the receiving ditch of Outfall 001. The facility needs to take steps to identify the cause of the foam and eliminate the persistent foam in the receiving waters after receiving approval from the Department to use the chemical additive.

Sludge Depth in Equalization Basin:

During the inspection, I observed that the 25-acre stabilization basin has sludge exposed in the southeast corner and there is vegetation developing on a large area. Sludge depth has not been measured and sludge has never been removed from the equalization basin according to the plant superintendent. The plant is experiencing excessive flows as well as numerous effluent violations. It is necessary that the facility take all preventative actions to eliminate effluent violations, and the equalization basin may not be functioning appropriately if sludge depth is excessive.

INSPECTOR'S SIGNATURE:  Michael Young	DATE: 1/15/2016
SUPERVISOR'S SIGNATURE:  Kerri McCabe	DATE: 2/4/2016

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

SECTION D: SAMPLING	
PERMITTEE SAMPLING MEETS PERMIT REQUIREMENTS	<input checked="" type="checkbox"/> S <input type="checkbox"/> M <input type="checkbox"/> U <input type="checkbox"/> NA <input type="checkbox"/> NE
DETAILS:	
1. SAMPLES TAKEN AT SITE(S) SPECIFIED IN PERMIT:	<input checked="" type="checkbox"/> Y <input type="checkbox"/> N <input type="checkbox"/> NA <input type="checkbox"/> NE
2. LOCATIONS ADEQUATE FOR REPRESENTATIVE SAMPLES:	<input checked="" type="checkbox"/> Y <input type="checkbox"/> N <input type="checkbox"/> NA <input type="checkbox"/> NE
3. FLOW PROPORTIONED SAMPLES OBTAINED WHEN REQUIRED BY PERMIT:	<input checked="" type="checkbox"/> Y <input type="checkbox"/> N <input type="checkbox"/> NA <input type="checkbox"/> NE
4. SAMPLING AND ANALYSES COMPLETED ON PARAMETERS SPECIFIED IN PERMIT:	<input checked="" type="checkbox"/> Y <input type="checkbox"/> N <input type="checkbox"/> NA <input type="checkbox"/> NE
5. SAMPLING AND ANALYSES PERFORMED AT FREQUENCY SPECIFIED IN PERMIT:	<input checked="" type="checkbox"/> Y <input type="checkbox"/> N <input type="checkbox"/> NA <input type="checkbox"/> NE
6. SAMPLE COLLECTION PROCEDURES ADEQUATE:	<input checked="" type="checkbox"/> Y <input type="checkbox"/> N <input type="checkbox"/> NA <input type="checkbox"/> NE
a. SAMPLES REFRIGERATED DURING COMPOSITING:	<input checked="" type="checkbox"/> Y <input type="checkbox"/> N <input type="checkbox"/> NA <input type="checkbox"/> NE
b. PROPER PRESERVATION TECHNIQUES USED:	<input checked="" type="checkbox"/> Y <input type="checkbox"/> N <input type="checkbox"/> NA <input type="checkbox"/> NE
c. CONTAINERS AND SAMPLE HOLDING TIMES CONFORM TO 40 CFR 136:	<input checked="" type="checkbox"/> Y <input type="checkbox"/> N <input type="checkbox"/> NA <input type="checkbox"/> NE
7. IF MONITORING IS PERFORMED MORE OFTEN THAN REQUIRED ARE RESULTS REPORTED ON THE DMR:	<input type="checkbox"/> Y <input type="checkbox"/> N <input checked="" type="checkbox"/> NA <input type="checkbox"/> NE
SECTION E: FLOW MEASUREMENT	
PERMITTEE FLOW MEASUREMENT MEETS PERMIT REQUIREMENTS	<input checked="" type="checkbox"/> S <input type="checkbox"/> M <input type="checkbox"/> U <input type="checkbox"/> NA <input type="checkbox"/> NE
DETAILS:	
1. PRIMARY FLOW MEASUREMENT DEVICE PROPERLY INSTALLED AND MAINTAINED: __ TYPE OF DEVICE: <u>18" Parshall flume</u>	<input checked="" type="checkbox"/> Y <input type="checkbox"/> N <input type="checkbox"/> NA <input type="checkbox"/> NE
2. FLOW MEASURED AT EACH OUTFALL AS REQUIRED:	<input checked="" type="checkbox"/> Y <input type="checkbox"/> N <input type="checkbox"/> NA <input type="checkbox"/> NE
3. SECONDARY INSTRUMENTS (TOTALIZERS, RECORDERS, ETC.) PROPERLY OPERATED AND MAINTAINED: <u>Totalizer</u>	<input checked="" type="checkbox"/> Y <input type="checkbox"/> N <input type="checkbox"/> NA <input type="checkbox"/> NE
4. CALIBRATION FREQUENCY ADEQUATE:	<input checked="" type="checkbox"/> Y <input type="checkbox"/> N <input type="checkbox"/> NA <input type="checkbox"/> NE
5. RECORDS MAINTAINED OF CALIBRATION PROCEDURES:	<input checked="" type="checkbox"/> Y <input type="checkbox"/> N <input type="checkbox"/> NA <input type="checkbox"/> NE
6. CALIBRATION CHECKS DONE TO ASSURE CONTINUED COMPLIANCE:	<input checked="" type="checkbox"/> Y <input type="checkbox"/> N <input type="checkbox"/> NA <input type="checkbox"/> NE
7. FLOW ENTERING DEVICE WELL DISTRIBUTED ACROSS THE CHANNEL AND FREE OF TURBULENCE:	<input checked="" type="checkbox"/> Y <input type="checkbox"/> N <input type="checkbox"/> NA <input type="checkbox"/> NE
8. FLOW MEASUREMENT EQUIPMENT ADEQUATE TO HANDLE EXPECTED RANGE OF FLOW RATES:	<input checked="" type="checkbox"/> Y <input type="checkbox"/> N <input type="checkbox"/> NA <input type="checkbox"/> NE
9. HEAD MEASURED AT PROPER LOCATION:	<input checked="" type="checkbox"/> Y <input type="checkbox"/> N <input type="checkbox"/> NA <input type="checkbox"/> NE
SECTION F: LABORATORY	
PERMITTEE LABORATORY PROCEDURES MEET PERMIT REQUIREMENTS	<input checked="" type="checkbox"/> S <input type="checkbox"/> M <input type="checkbox"/> U <input type="checkbox"/> NA <input type="checkbox"/> NE
DETAILS:	
1. EPA APPROVED ANALYTICAL PROCEDURES USED (40 CFR 136.3 FOR LIQUIDS, 503.8(B) FOR SLUDGES) :	<input checked="" type="checkbox"/> Y <input type="checkbox"/> N <input type="checkbox"/> NA <input type="checkbox"/> NE
2. IF ALTERNATIVE ANALYTICAL PROCEDURES ARE USED, PROPER APPROVAL HAS BEEN OBTAINED:	<input checked="" type="checkbox"/> Y <input type="checkbox"/> N <input type="checkbox"/> NA <input type="checkbox"/> NE
3. SATISFACTORY CALIBRATION AND MAINTENANCE OF INSTRUMENTS AND EQUIPMENT:	<input checked="" type="checkbox"/> Y <input type="checkbox"/> N <input type="checkbox"/> NA <input type="checkbox"/> NE
4. QUALITY CONTROL PROCEDURES ADEQUATE:	<input checked="" type="checkbox"/> Y <input type="checkbox"/> N <input type="checkbox"/> NA <input type="checkbox"/> NE
5. DUPLICATE SAMPLES ARE ANALYZED $\geq 10\%$ OF THE TIME:	<input checked="" type="checkbox"/> Y <input type="checkbox"/> N <input type="checkbox"/> NA <input type="checkbox"/> NE
6. SPIKED SAMPLES ARE ANALYZED $\geq 10\%$ OF THE TIME:	<input checked="" type="checkbox"/> Y <input type="checkbox"/> N <input type="checkbox"/> NA <input type="checkbox"/> NE
7. COMMERCIAL LABORATORY USED: <u>Yes</u>	<input checked="" type="checkbox"/> Y <input type="checkbox"/> N <input type="checkbox"/> NA <input type="checkbox"/> NE
a. LAB NAME: <u>Ana-Lab/Bio-Analytical</u>	
b. LAB ADDRESS: <u>P.O. Box 9000 Kilgore, TX 75663/ 3240 Spurgin Road Doyline, LA 71023</u>	
c. PARAMETERS PERFORMED: <u>All/Biomonitoring</u>	
8. BIOMONITORING PROCEDURES ADEQUATE:	<input checked="" type="checkbox"/> Y <input type="checkbox"/> N <input type="checkbox"/> NA <input type="checkbox"/> NE
a. PROPER ORGANISMS USED:	<input checked="" type="checkbox"/> Y <input type="checkbox"/> N <input type="checkbox"/> NA <input type="checkbox"/> NE
b. PROPER DILUTION SERIES FOLLOWED:	<input checked="" type="checkbox"/> Y <input type="checkbox"/> N <input type="checkbox"/> NA <input type="checkbox"/> NE
c. PROPER TEST METHODS AND DURATION:	<input checked="" type="checkbox"/> Y <input type="checkbox"/> N <input type="checkbox"/> NA <input type="checkbox"/> NE
d. RETESTS AND/OR TRE PERFORMED AS REQUIRED:	<input checked="" type="checkbox"/> Y <input type="checkbox"/> N <input type="checkbox"/> NA <input type="checkbox"/> NE

SECTION G: EFFLUENT/RECEIVING WATERS OBSERVATIONS							
BASED ON VISUAL OBSERVATIONS ONLY						<input type="checkbox"/> S <input checked="" type="checkbox"/> M <input type="checkbox"/> U <input type="checkbox"/> NA <input type="checkbox"/> NE	
DETAILS: <u>Persistent and visible foam at Outfall 001 and in Big Creek (receiving stream)</u>							
OUTFALL #:	OIL SHEEN	GREASE	TURBIDITY	VISIBLE FOAM	FLOATING SOLIDS	COLOR	OTHER
001	N	N	N	Y	N	Colorless	--
SECTION H: SLUDGE DISPOSAL							
SLUDGE DISPOSAL MEETS PERMIT REQUIREMENTS						<input checked="" type="checkbox"/> S <input type="checkbox"/> M <input type="checkbox"/> U <input type="checkbox"/> NA <input type="checkbox"/> NE	
DETAILS: <u>Thermoflyte drier after fan belt dewaterers sludge. Final product given to Magnolia residents for soil amendments.</u>							
1. SLUDGE MANAGEMENT ADEQUATE TO MAINTAIN EFFLUENT QUALITY:						<input checked="" type="checkbox"/> S <input type="checkbox"/> M <input type="checkbox"/> U <input type="checkbox"/> NA <input type="checkbox"/> NE	
2. SLUDGE RECORDS MAINTAINED AS REQUIRED BY 40 CFR 503:						<input checked="" type="checkbox"/> S <input type="checkbox"/> M <input type="checkbox"/> U <input type="checkbox"/> NA <input type="checkbox"/> 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						<input type="checkbox"/> S <input type="checkbox"/> M <input type="checkbox"/> U <input checked="" type="checkbox"/> NA <input type="checkbox"/> NE	
DETAILS:							
1. SAMPLES OBTAINED THIS INSPECTION:						<input type="checkbox"/> Y <input type="checkbox"/> N <input checked="" type="checkbox"/> NA <input type="checkbox"/> NE	
2. TYPE OF SAMPLE: <input type="checkbox"/> GRAB:___ <input type="checkbox"/> COMPOSITE:___ METHOD:___ FREQUENCY:___							
3. SAMPLES PRESERVED:						<input type="checkbox"/> Y <input type="checkbox"/> N <input checked="" type="checkbox"/> NA <input type="checkbox"/> NE	
4. FLOW PROPORTIONED SAMPLES OBTAINED:						<input type="checkbox"/> Y <input type="checkbox"/> N <input checked="" type="checkbox"/> NA <input type="checkbox"/> NE	
5. SAMPLE OBTAINED FROM FACILITY'S SAMPLING DEVICE:						<input type="checkbox"/> Y <input type="checkbox"/> N <input checked="" type="checkbox"/> NA <input type="checkbox"/> NE	
6. SAMPLE REPRESENTATIVE OF VOLUME AND NATURE OF DISCHARGE:						<input type="checkbox"/> Y <input type="checkbox"/> N <input checked="" type="checkbox"/> NA <input type="checkbox"/> NE	
7. SAMPLE SPLIT WITH PERMITTEE:						<input type="checkbox"/> Y <input type="checkbox"/> N <input checked="" type="checkbox"/> NA <input type="checkbox"/> NE	
8. CHAIN-OF-CUSTODY PROCEDURES EMPLOYED:						<input type="checkbox"/> Y <input type="checkbox"/> N <input checked="" type="checkbox"/> NA <input type="checkbox"/> NE	
9. SAMPLES COLLECTED IN ACCORDANCE WITH PERMIT:						<input type="checkbox"/> Y <input type="checkbox"/> N <input checked="" type="checkbox"/> NA <input type="checkbox"/> NE	
SECTION J: STORM WATER POLLUTION PREVENTION PLAN							
STORM WATER MANAGEMENT MEETS PERMIT REQUIREMENTS						<input type="checkbox"/> S <input type="checkbox"/> M <input type="checkbox"/> U <input type="checkbox"/> NA <input checked="" type="checkbox"/> NE	
DETAILS:							
1. SWPPP UPDATED AS NEEDED:___ DATE OF LAST UPDATE:___						<input type="checkbox"/> Y <input type="checkbox"/> N <input type="checkbox"/> NA <input checked="" type="checkbox"/> NE	
2. SITE MAP INCLUDING ALL DISCHARGES AND SURFACE WATERS:						<input type="checkbox"/> Y <input type="checkbox"/> N <input type="checkbox"/> NA <input checked="" type="checkbox"/> NE	
3. POLLUTION PREVENTION TEAM IDENTIFIED:						<input type="checkbox"/> Y <input type="checkbox"/> N <input type="checkbox"/> NA <input checked="" type="checkbox"/> NE	
4. POLLUTION PREVENTION TEAM PROPERLY TRAINED:						<input type="checkbox"/> Y <input type="checkbox"/> N <input type="checkbox"/> NA <input checked="" type="checkbox"/> NE	
5. LIST OF POTENTIAL POLLUTANT SOURCES:						<input type="checkbox"/> Y <input type="checkbox"/> N <input type="checkbox"/> NA <input checked="" type="checkbox"/> NE	
6. LIST OF POTENTIAL SOURCES AND PAST SPILLS AND LEAKS:						<input type="checkbox"/> Y <input type="checkbox"/> N <input type="checkbox"/> NA <input checked="" type="checkbox"/> NE	
7. ALL NON-STORM WATER DISCHARGES ARE AUTHORIZED:						<input type="checkbox"/> Y <input type="checkbox"/> N <input type="checkbox"/> NA <input checked="" type="checkbox"/> NE	
8. LIST OF STRUCTURAL BMPS:						<input type="checkbox"/> Y <input type="checkbox"/> N <input type="checkbox"/> NA <input checked="" type="checkbox"/> NE	
9. LIST OF NON-STRUCTURAL BMPS:						<input type="checkbox"/> Y <input type="checkbox"/> N <input type="checkbox"/> NA <input checked="" type="checkbox"/> NE	
10. BMPS PROPERLY OPERATED AND MAINTAINED:						<input type="checkbox"/> Y <input type="checkbox"/> N <input type="checkbox"/> NA <input checked="" type="checkbox"/> NE	
11. INSPECTIONS CONDUCTED AS REQUIRED:						<input type="checkbox"/> Y <input type="checkbox"/> N <input type="checkbox"/> NA <input checked="" type="checkbox"/> NE	

FLOW CALCULATION SHEET

Date:	1-12-2016	Time:	12:18	
Head in Inches:		Feet:	0.93	
Type & Size of Primary Flow Measurement Device: 18" Parshall Flume				
Name & Model of Secondary Flow Measurement Device: Siemens HydroRanger 200				
Date of last Calibration of Secondary Flow Device: 4/15/15				
Recorded Flow at Date & Time Listed Above: 2415 GPM (Facility Flow Meter)				
Calculated Flow at Date & Time Listed Above: 2409 GPM				
(Flow is calculated using flow charts in: <u>ISCO Open Channel Flow Measurement Handbook-5th Edition</u>)				
% Error =	Recorded Value	-	Calculated Value	X 100
	Calculated Value			
% Error =	2415	-	2409	X 100
	2409			
% Error =	6		X 100	
	2409			
% Error =	0.002		X 100	
% Error =	0.2	%		
Comments:	<u>Totalizer is very accurate. During the inspection, the plant was discharging 3.5 MGD. This flow is 1 MGD higher than the design of the treatment plant as according to the facility permit.</u>			

DMR Calculation Check

Reporting Period:	From	<u>2015</u>	<u>11</u>	<u>01</u>	To	<u>2015</u>	<u>11</u>	<u>30</u>
		Year	Month	Day		Year	Month	Day

Parameter Checked: BOD

	Loading Mass	Concentration	
	Mo. Avg. - lbs/day	Mo. Avg. - mg/l	Monthly 7-day Avg. - mg/l
Reported Value:	<u>337.34</u>	<u>22.80</u>	<u>17.85</u>
Calculated Value:	<u>337.24</u>	<u>22.80</u>	<u>17.85</u>
Permit Value:	<u>209</u>	<u>10</u>	<u>15</u>

If calculated value does not equal reported value, explain:

Equal.

Water Division Photographic Evidence Sheet


Location:	Big Creek WWTP		
Photographer:	Michael Young	Date:	01/12/2016
Witness:	Russell Thomas	Time:	12:29
		Photo #:	1
Description:	Persistent foam in manmade conveyance that discharges to Big Creek from Outfall 001.		



Photographer:	Michael Young	Date:	01/12/2016
Witness:	Russell Thomas	Time:	12:29
		Photo #:	2
Description:	Persistent foam in manmade conveyance that discharges to Big Creek from Outfall 001.		



Water Division Photographic Evidence Sheet			
Location:	Big Creek WWTP		
Photographer:	Michael Young	Date:	01/12/2016
Time:	12:32	Witness:	Russell Thomas
Photo #:	3	Description:	Circled is foam that was discharged from Outfall 001 downstream (~100 feet).



Photographer:	Michael Young	Date:	01/12/2016
Time:	12:32	Witness:	Russell Thomas
Photo #:	4	Description:	Circled is foam that was discharged from Outfall 001 downstream (~80 feet).



Water Division Photographic Evidence Sheet

Location:	Big Creek WWTP		
Photographer:	Michael Young	Date:	01/12/2016
Time:	12:03	Witness:	Russell Thomas; Johnny Moore
Photo #:	3	Description:	Tank and dosing pump for magnesium hydroxide. Note spills around tank.



From: [Wastewater System Magnolia](#)
To: [Water-Inspection-Report](#)
Subject: NPDES No. AR0043613 AFIN No. 14-00059 City of Magnolia Big- Creek WWTP
Date: Wednesday, February 17, 2016 7:13:57 AM
Attachments: [Responselettermichealyoung2016.docx](#)

Dear Sir,

Attached you find the City of Magnolia - Big Creek WWTP response to the inspections findings. If you have any problems with the attachments or have any questions, feel free in contacting me at 870-904-1694.

Thank you,

Russell Thomas
City of Magnolia- Big Creek WWTP
NPDES No. AR0043613
AFIN # 14-00059

CITY OF MAGNOLIA
WASTEWATER SYSTEM
P.O. BOX 666
MAGNOLIA, ARKANSAS 71754-066
(870) 234-2955
mwws@sbcglobal.net
NPDES PERMIT No.- AR0043613 AFIN No.- 14-00059

RESPONSE TO SUMMARY OF FINDINGS

FROM ADEQ COMPLIANCE EVALUATION INSPECTION ON JANUARY 12, 2016

February 16, 2016

1.& 2.

On February 16, 2016 Mayor Parnell Vann, Robert Baxley(Magnolia Water) and myself met to discuss corrective measures to take concerning the Sludge from the Water treatment plant. We will have a better response after meeting with Andy Franks with A.L. engineering on February 18, 2016. *Note: The prior superintendent made the agreement to accept sludge from the water treatment plant sometime before 2003, I do not know if ADEQ was ever notified.*

3. This will be addressed with A.L. Franks when he forms a CAP for the proposed CAO.

4. We will do everything possible to correct this situation.

5. The Magnesium Hydroxide has been discontinued and we are waiting for the chemical company to remove their equipment. There is no magnesium Hydroxide on site. *Note: In 1988 the Department of Pollution & Control approved the plant design for chemical pumping to the Oxidation ditch. See exhibit 1-A & 1-B.*

6. We feel confident that the foam was magnesium hydroxide residue.

7. Again the Magnesium Hydroxide has been discontinued and area has been cleaned up.



CITY OF MAGNOLIA
WASTEWATER SYSTEM
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MAGNOLIA, ARKANSAS 71754-066
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NPDES PERMIT No.- AR0043613 AFIN No.- 14-00059

8. This was addressed in the meeting with the Mayor on February 16, 2016. I am to find out from ADEQ what procedures must be followed to clean the southeast corner of the equalization pond. This also will be addressed with A.L. Franks Engineering.

9. The reporting of excursions will be reported correctly from now on.

If you have any questions, feel free in calling me at 870-904-1694.

Thank you,

Russell W. Thomas

City of Magnolia – Big Creek WWTP

CITY OF MAGNOLIA
WASTEWATER SYSTEM
P.O. BOX 666
MAGNOLIA, ARKANSAS 71754-066
(870) 234-2955
mwws@sbcglobal.net

NPDES PERMIT No.- AR0043613

AFIN No.- 14-00059

NOTE: All MH Lids to be 2 inches above finished grade

Operations Building

Maintenance & Control Building

CHLORINE & AERATION CHAMBER

FINAL CLARIFIER No. 2

BAR SCREEN & GRIT REMOVAL UNIT

OXIDATION DITCH

FINAL CLARIFIER No. 1

PLANT LIFT STATION

502 Line Rework 8-29-10 Broke Pipe In Pit

Exhibit 1-B

Manhole	Elevation	Grade	Distance	Elevation
M1 5	196.3N 647.2B	0.40	139.25	253.05
M1 6	10.0N 647.2B	0.40	186.30	253.80
SD6				255.38 IN
SD8				253.80 IN

NOTE: All MH Lids to be 2 inches above finished grade.

PLANT PIPING PLAN

[illegible]

PLANT SEWER NOTES						
MH	COORDINATES	SLOPE %	LENGTH FT.	PIPE	INVERT ELEVATION	T/LID ELEVATION
Plant Lift Station					245.71 IN	259.00
MH 1	125.0N 233.0E	0.40	72.00		246.00	260.17
				TD6 SD6 SD6	247.90 IN 246.17 IN 247.90 IN	
MH 2	177.2N 233.0E	3.83	52.20		248.00	259.92
				SD6	250.00 IN	
MH 3	210.0N 325.0E	3.85	97.67		251.76	260.20
				SD6 SD4	253.76 IN 253.76 IN	
MH 4	200.0N 508.0E	0.40	183.27		252.49	261.00
				SD6	254.50 IN	
MH 5	196.3N 647.2E	0.40	139.25		253.05	260.67
MH 6	10.0N 647.2E	0.40	186.30		253.80	260.67
				SD6 SD8	255.38 IN 253.80 IN	

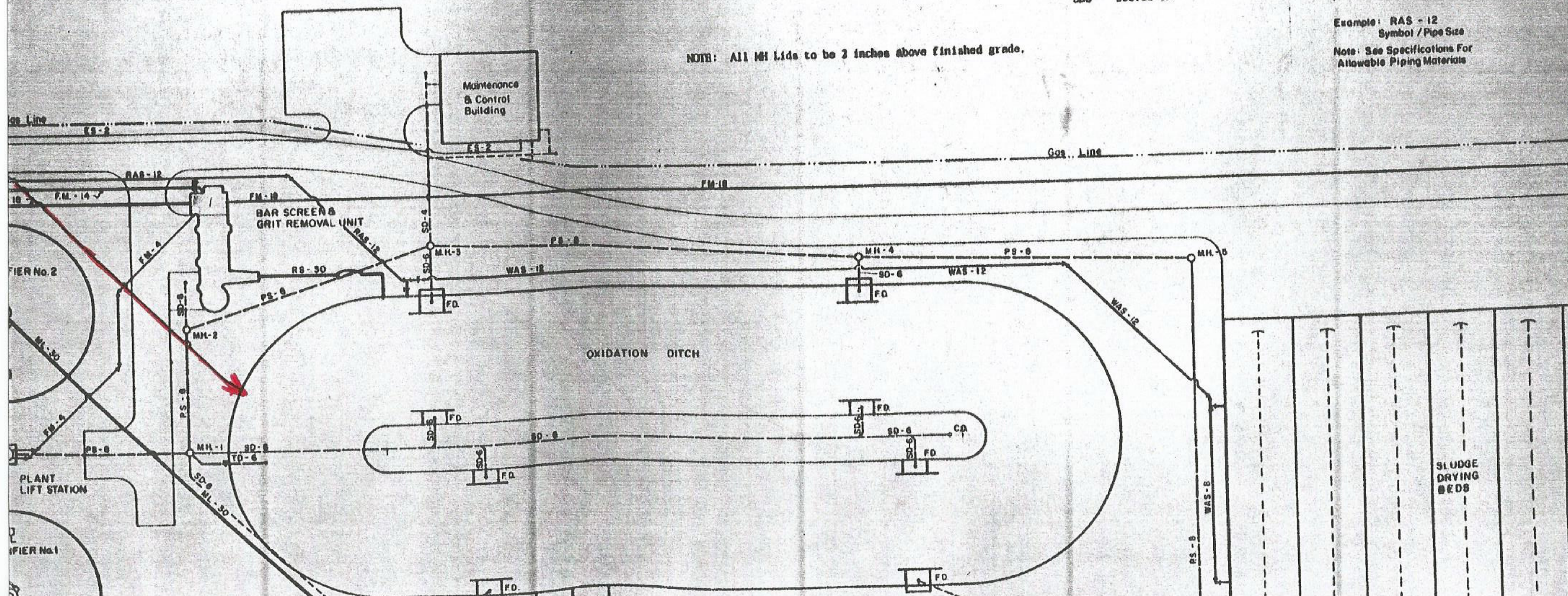
PIPING LEGEND

SYMBOL	DESCRIPTION
CE	Chlorinated Effluent
CLS	Chlorine Solution
FM	Force Main
ML	Mixed Liquor
OF	Overflow
PS	Plant Sewer
RS	Raw Sewage
RAS	Return Activated Sludge
SD	Sanitary Drains
SE	Secondary Effluent
SS	Secondary Scum
TD	Tank Drain
WAS	Waste Activated Sludge
ES	Effluent Sample
NPW	Non-Potable Water
CA	Compressed Air
SDS	Sulphur Dioxide Solution
CSS	Caustic Soda Solution
V	Valve
F	Sludge Drying Bed Filtrate

Example: RAS - 12
Symbol / Pipe Size

Note: See Specifications For Allowable Piping Materials

NOTE: All MH Lids to be 2 inches above finished grade.





March 15, 2016

Parnell Vann, Mayor
City of Magnolia - Big Creek WWTP
P.O. Box 666
Magnolia, AR 71753

RE: Response to Inspection (Columbia Co)
AFIN: 14-00059 **NPDES Permit No.: AR0043613**

Dear Mayor Vann:

I have reviewed the response pertaining to my January 12, 2016 inspection of the Big Creek WWTP. The information provided sufficiently addresses the violations referenced in my inspection report. At this time, the Department has no further comment concerning this particular inspection. Acceptance of this response by the Department does not preclude any future enforcement action deemed necessary at this site or any other site.

Additionally, be advised that the 1988 approval of the plant design, which indicates chemical dosing, does not preclude you from informing ADEQ Water Division Permits Branch from obtaining permission to change or alter plant design. Prior to using a chemical additive, you must inform ADEQ Water Division Permits Branch and obtain approval for that individual chemical additive (i.e., caustic, flocculent, algaecide, etc.).

If we need further information concerning these matters, we will contact you. Thank you for your attention to this matter. Should you have any questions, feel free to contact me at (501) 837-2073 or you may e-mail me at youngm@adeq.state.ar.us.

Sincerely,

A handwritten signature in black ink, appearing to read "Michael D. Young", written in a cursive style.

Michael D. Young
District 8 Field Inspector
Water Division