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RYAN FLYNN
Cabinet Secretary

BUTCH TONGATE
Deputy Secretary

Certified Mail - Return Receipt Requested

July 7, 2016

Mayor Linda Calhoun
Town of Red River
P.O. Box 1020
Red River, NM 87558

Re: Town of Red River WWTP, Minor, Individual Permit; SIC 4952; NPDES Compliance Evaluation Inspection; NM0024899; June 30, 2016

Dear Mayor Calhoun:

Enclosed please find a copy of the report and check list for the referenced inspection that the New Mexico Environment Department (NMED) conducted at your facility on behalf of the U.S. Environmental Protection Agency (USEPA). This inspection report will be sent to the USEPA in Dallas for their review. These inspections are used by USEPA to determine compliance with the National Pollutant Discharge Elimination System (NPDES) permitting program in accordance with requirements of the federal Clean Water Act.

Introduction, treatment scheme, and problems noted during this inspection are discussed in the "Further Explanations" section of the inspection report.

You are encouraged to review the inspection report, required to correct any problems noted during the inspection, and advised to modify your operational and/or administrative procedures, as appropriate. If you have comments on or concerns with the basis for the findings in the NMED inspection report, please contact us (see the address below) in writing within 30 days from the date of this letter. Further, you are encouraged to notify in writing both the USEPA and NMED regarding modifications and compliance schedules at the addresses below:

Gladys Gooden-Jackson
US Environmental Protection Agency, Region VI
Enforcement Branch (6EN-WM)
1445 Ross Avenue
Dallas, Texas 75202-2733

Bruce Yurdin
New Mexico Environment Department
Surface Water Quality Bureau
Point Source Regulation Section
P.O. Box 5469
Santa Fe, New Mexico 87502

If you have any questions about this inspection report, please contact Sarah Holcomb at 505-827-2798 or at sarah.holcomb@state.nm.us.

Sincerely,

/s/ Bruce Yurdin

Bruce J. Yurdin
Program Manager
Point Source Regulation Section
Surface Water Quality Bureau

cc: Carol Peters-Wagnon, USEPA (6EN-WM) by e-mail
Gladys Gooden-Jackson, USEPA (6EN-WM) by e-mail
Brent Larsen, USEPA (6WQ-PP) by e-mail
Raquel Douglas, USEPA (6EN-WC) by e- mail
NMED District 2, Bob Italiano by e-mail

EPA

Form Approved
OMB No. 2040-0003
Approval Expires 7-31-85

NPDES Compliance Inspection Report

Section A: National Data System Coding

1	Transaction Code	2	NPDES	11	yr/mo/day	17	Inspec. Type	18	Inspector	19	Fac Type	20
	N	5	NM0002489	12	160630		C		S		1	

Remarks: MINOR WWTP

67	Inspection Work Days	69	70	Facility Evaluation Rating	71	BI	72	QA	73	74	75	Reserved	80
			2			N		N					

Section B: Facility Data

Name and Location of Facility Inspected *(For industrial users discharging to POTW, also include POTW name and NPDES permit number)*	Entry Time /Date	Permit Effective Date
Red River WWTP (North side of Hwy 38 above Elephant Rock Campground) From Questa, approximately 12.2 miles. Taos County	0930 / 6-30-2016	10-1-2011
	Exit Time/Date 1220 / 6-30-2016	Permit Expiration Date 9-30-2016

Name(s) of On-Site Representative(s)/Title(s)/Phone and Fax Number(s)	Other Facility Data
Mr. Russell Church, Environmental Compliance Officer/Grants Administrator (575) 754-2277 Mr. Jimmy Baca, Operator Supervisor (575) 754-2277	SIC 4952
Name, Address of Responsible Official/Title/Phone and Fax Number Mayor Linda Calhoun (575) 754-2277 / (575) 754-2968 PO Box 1020, Red River, NM 87558	Contacted Yes [ ] No [*] N. -105° 26’ 45.6” W. 36° 42’ 39”

Section C: Areas Evaluated During Inspection

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

S	**Permit**	M	**Flow Measurement**	M	**Operations & Maintenance**	N	**CSO/SSO**
M	**Records/Reports**	M	**Self-Monitoring Program**	M	**Sludge Handling/Disposal**	N	**Pollution Prevention**
S	**Facility Site Review**	N	**Compliance Schedules**	N	**Pretreatment**	N	**Multimedia**
S	**Effluent/Receiving Waters**	M	**Laboratory**	N	**Storm Water**	N	**Other:**

Section D: Summary of Findings/Comments (Attach additional sheets if necessary)

1. **The inspector entered the facility at 0930 hours on June 30, 2016 and conducted an entrance interview with Mr. Jimmy Baca, Operator Supervisor, where she made introductions, presented her credentials and explained the purpose of the inspection. They were joined shortly after by Mr. Russell Church, Environmental Compliance Officer, who accompanied them on the rest of the inspection. An exit interview was conducted at approximately 1210 hours on June 30, 2016, with Mr. Church and Mr. Baca, where the inspector presented the preliminary findings of the inspection. A follow up phone call with results of records review was made to Mr. Russell Church on July 6, 2016.**
2. **Please see the report for further information.**

Name(s) and Signature(s) of Inspector(s)	Agency/Office/Telephone/Fax	Date
Sarah Holcomb ***/s/ Sarah Holcomb***	**505-827-2798**	**7-6-2016**
Signature of Management QA Reviewer	**Agency/Office/Phone and Fax Numbers**	**Date**
Bruce Yurdin ***/s/ Bruce Yurdin***	**505-827-2795**	**7-6-2016**

Red River WWTP	PERMIT NO. NM0024899

SECTION A - PERMIT VERIFICATION

PERMIT SATISFACTORILY ADDRESSES OBSERVATIONS ☒ S ☐ M ☐ U ☐ NA (*FURTHER EXPLANATION ATTACHED YES*)
DETAILS:

1. CORRECT NAME AND MAILING ADDRESS OF PERMITTEE	☒ Y ☐ N ☐ NA
2. NOTIFICATION GIVEN TO EPA/STATE OF NEW DIFFERENT OR INCREASED DISCHARGES	☐ Y ☐ N ☒ NA
3. NUMBER AND LOCATION OF DISCHARGE POINTS AS DESCRIBED IN PERMIT	☒ Y ☐ N ☐ NA
4. ALL DISCHARGES ARE PERMITTED	☒ Y ☐ N ☐ NA

SECTION B - RECORDKEEPING AND REPORTING EVALUATION

RECORDS AND REPORTS MAINTAINED AS REQUIRED BY PERMIT. ☐ S ☒ M ☐ U ☐ NA (*FURTHER EXPLANATION ATTACHED YES*)
DETAILS:

1. ANALYTICAL RESULTS CONSISTENT WITH DATA REPORTED ON DMRs.	☐ Y ☒ N ☐ NA
2. SAMPLING AND ANALYSES DATA ADEQUATE AND INCLUDE.	☒ S ☐ M ☐ U ☐ NA
a) DATES, TIME(S) AND LOCATION(S) OF SAMPLING	☒ Y ☐ N ☐ NA
b) NAME OF INDIVIDUAL PERFORMING SAMPLING	☒ Y ☐ N ☐ NA
c) ANALYTICAL METHODS AND TECHNIQUES.	☒ Y ☐ N ☐ NA
d) RESULTS OF ANALYSES AND CALIBRATIONS.	☒ Y ☐ N ☐ NA
e) DATES AND TIMES OF ANALYSES.	☒ Y ☐ N ☐ NA
f) NAME OF PERSON(S) PERFORMING ANALYSES.	☒ Y ☐ N ☐ NA
3. LABORATORY EQUIPMENT CALIBRATION AND MAINTENANCE RECORDS ADEQUATE.	☒ S ☐ M ☐ U ☐ NA
4. PLANT RECORDS INCLUDE SCHEDULES, DATES OF EQUIPMENT MAINTENANCE AND REPAIR.	☒ S ☐ M ☐ U ☐ NA
5. EFFLUENT LOADINGS CALCULATED USING DAILY EFFLUENT FLOW AND DAILY ANALYTICAL DATA.	☒ Y ☐ N ☐ NA

SECTION C - OPERATIONS AND MAINTENANCE

TREATMENT FACILITY PROPERLY OPERATED AND MAINTAINED. ☐ S ☒ M ☐ U ☐ NA (*FURTHER EXPLANATION ATTACHED YES*)
DETAILS:

1. TREATMENT UNITS PROPERLY OPERATED.	☐ S ☒ M ☐ U ☐ NA
2. TREATMENT UNITS PROPERLY MAINTAINED.	☐ S ☒ M ☐ U ☐ NA
3. STANDBY POWER OR OTHER EQUIVALENT PROVIDED.	☒ S ☐ M ☐ U ☐ NA
4. ADEQUATE ALARM SYSTEM FOR POWER OR EQUIPMENT FAILURES AVAILABLE.	☒ S ☐ M ☐ U ☐ NA
5. ALL NEEDED TREATMENT UNITS IN SERVICE	☐ S ☒ M ☐ U ☐ NA
6. ADEQUATE NUMBER OF QUALIFIED OPERATORS PROVIDED.	☒ S ☐ M ☐ U ☐ NA
7. SPARE PARTS AND SUPPLIES INVENTORY MAINTAINED.	☐ S ☒ M ☐ U ☐ NA
8. OPERATION AND MAINTENANCE MANUAL AVAILABLE.	☒ Y ☐ N ☐ NA
STANDARD OPERATING PROCEDURES AND SCHEDULES ESTABLISHED.	☐ Y ☒ N ☐ NA
PROCEDURES FOR EMERGENCY TREATMENT CONTROL ESTABLISHED.	☐ Y ☒ N ☐ NA

Red River WWTP	PERMIT NO. NM0024899

SECTION C - OPERATIONS AND MAINTENANCE (CONT'D)

9. HAVE BYPASSES/OVERFLOWS OCCURRED AT THE PLANT OR IN THE COLLECTION SYSTEM IN THE LAST YEAR?	☐ Y ☒ N ☐ NA
IF SO, HAS THE REGULATORY AGENCY BEEN NOTIFIED?	☐ Y ☐ N ☒ NA
HAS CORRECTIVE ACTION BEEN TAKEN TO PREVENT ADDITIONAL BYPASSES/OVERFLOWS?	☐ Y ☐ N ☒ NA
10.HAVE ANY HYDRAULIC OVERLOADS OCCURRED AT THE TREATMENT PLANT?	☐ Y ☒ N ☐ NA
IF SO, DID PERMIT VIOLATIONS OCCUR AS A RESULT?	☐ Y ☐ N ☒ NA

SECTION D - SELF-MONITORING

PERMITTEE SELF-MONITORING MEETS PERMIT REQUIREMENTS. ☐ S ☒ M ☐ U ☐ NA *(FURTHER EXPLANATION ATTACHED YES).*
DETAILS:

1. SAMPLES TAKEN AT SITE(S) SPECIFIED IN PERMIT.	☒ Y ☐ N ☐ NA
2. LOCATIONS ADEQUATE FOR REPRESENTATIVE SAMPLES.	☒ Y ☐ N ☐ NA
3. FLOW PROPORTIONED SAMPLES OBTAINED WHEN REQUIRED BY PERMIT.	☒ Y ☐ N ☐ NA
4. SAMPLING AND ANALYSES COMPLETED ON PARAMETERS SPECIFIED IN PERMIT.	☒ Y ☐ N ☐ NA
5. SAMPLING AND ANALYSES PERFORMED AT FREQUENCY SPECIFIED IN PERMIT.	☒ Y ☐ N ☐ NA
6. SAMPLE COLLECTION PROCEDURES ADEQUATE	☒ Y ☐ N ☐ NA
a) SAMPLES REFRIGERATED DURING COMPOSITING.	☒ Y ☐ N ☐ NA
b) PROPER PRESERVATION TECHNIQUES USED.	☒ Y ☐ N ☐ NA
c) CONTAINERS AND SAMPLE HOLDING TIMES CONFORM TO 40 CFR 136.3.	☒ Y ☐ N ☐ NA
7. IF MONITORING AND ANALYSES ARE PERFORMED MORE OFTEN THAN REQUIRED BY PERMIT, ARE THE RESULTS REPORTED IN PERMITTEE'S SELF-MONITORING REPORT?	☐ Y ☒ N ☐ NA

SECTION E - FLOW MEASUREMENT

PERMITTEE FLOW MEASUREMENT MEETS PERMIT REQUIREMENTS. ☐ S ☒ M ☐ U ☐ NA *(FURTHER EXPLANATION ATTACHED (YES)*
DETAILS:

1. PRIMARY FLOW MEASUREMENT DEVICE PROPERLY INSTALLED AND MAINTAINED. TYPE OF DEVICE 9-inch Parshall flume	☐ Y ☒ N ☐ NA
2. FLOW MEASURED AT EACH OUTFALL AS REQUIRED.	☐ Y ☒ N ☐ NA
3. SECONDARY INSTRUMENTS (TOTALIZERS, RECORDERS, ETC.) PROPERLY OPERATED AND MAINTAINED.	☒ Y ☐ N ☐ NA
4. CALIBRATION FREQUENCY ADEQUATE.	☒ Y ☐ N ☐ NA
RECORDS MAINTAINED OF CALIBRATION PROCEDURES.	☒ Y ☐ N ☐ NA
CALIBRATION CHECKS DONE TO ASSURE CONTINUED COMPLIANCE.	☒ Y ☐ N ☐ NA
5. FLOW ENTERING DEVICE WELL DISTRIBUTED ACROSS THE CHANNEL AND FREE OF TURBULENCE.	☐ Y ☒ N ☐ NA
6. HEAD MEASURED AT PROPER LOCATION.	☐ Y ☒ N ☐ NA
7. FLOW MEASUREMENT EQUIPMENT ADEQUATE TO HANDLE EXPECTED RANGE OF FLOW RATES.	☒ Y ☐ N ☐ NA

SECTION F – LABORATORY

PERMITTEE LABORATORY PROCEDURES MEET PERMIT REQUIREMENTS. ☐ S ☒ M ☐ U ☐ NA *(FURTHER EXPLANATION ATTACHED YES)*
DETAILS:

1. EPA APPROVED ANALYTICAL PROCEDURES USED *(40 CFR 136.3 FOR LIQUIDS, 503.8(b) FOR SLUDGES)*	☒ Y ☐ N ☐ NA

Red River WWTP	PERMIT NO: NM0024899

SECTION F - LABORATORY (CONT'D)

2. IF ALTERNATIVE ANALYTICAL PROCEDURES ARE USED, PROPER APPROVAL HAS BEEN OBTAINED ☐ Y ☐ N ☒ NA

3. SATISFACTORY CALIBRATION AND MAINTENANCE OF INSTRUMENTS AND EQUIPMENT. ☒ S ☐ M ☐ U ☐ NA

4. QUALITY CONTROL PROCEDURES ADEQUATE. ☐ S ☐ M ☒ U ☐ NA

5. DUPLICATE SAMPLES ARE ANALYZED. 10 % OF THE TIME. ☒ Y ☐ N ☐ NA

6. SPIKED SAMPLES ARE ANALYZED. 100 % OF THE TIME. (For Aluminum analyses conducted by Hall.) ☒ Y ☐ N ☐ NA

7. COMMERCIAL LABORATORY USED. ☐ Y ☐ N ☐ NA

LAB NAME Hall Environmental Analysis Laboratory Bio-Aquatic Testing

LAB ADDRESS 4901 Hawkins NE, Albuquerque, NM 87109 2501 Mayes Rd #100, Carrollton, TX 75006

PARAMETERS PERFORMED Aluminum WET

SECTION G - EFFLUENT/RECEIVING WATERS OBSERVATIONS. ☒ S ☐ M ☐ U ☐ NA *(FURTHER EXPLANATION ATTACHED NO).*

OUTFALL NO.	OIL SHEEN	GREASE	TURBIDITY	VISIBLE FOAM	FLOAT SOL.	COLOR	OTHER
001	None	None	None	None	None	Clear	

RECEIVING WATER OBSERVATIONS

SECTION H - SLUDGE DISPOSAL

SLUDGE DISPOSAL MEETS PERMIT REQUIREMENTS. ☐ S ☒ M ☐ U ☐ NA *(FURTHER EXPLANATION ATTACHED YES).*
DETAILS:

1. SLUDGE MANAGEMENT ADEQUATE TO MAINTAIN EFFLUENT QUALITY. ☒ S ☐ M ☐ U ☐ NA

2. SLUDGE RECORDS MAINTAINED AS REQUIRED BY 40 CFR 503. ☒ S ☐ M ☐ U ☐ NA

3. FOR LAND APPLIED SLUDGE, TYPE OF LAND APPLIED TO: N/A (e.g., FOREST, AGRICULTURAL, PUBLIC CONTACT SITE)

SECTION I - SAMPLING INSPECTION PROCEDURES *(FURTHER EXPLANATION ATTACHED _____).*

1. SAMPLES OBTAINED THIS INSPECTION. ☐ Y ☐ N ☒ NA

2. TYPE OF SAMPLE OBTAINED

GRAB _____ COMPOSITE SAMPLE ___ METHOD _____ FREQUENCY

3. SAMPLES PRESERVED. ☐ Y ☐ N ☐ NA

4. FLOW PROPORTIONED SAMPLES OBTAINED. ☐ Y ☐ N ☐ NA

5. SAMPLE OBTAINED FROM FACILITY'S SAMPLING DEVICE. ☐ Y ☐ N ☐ NA

6. SAMPLE REPRESENTATIVE OF VOLUME AND MATURE OF DISCHARGE. ☐ Y ☐ N ☐ NA

7. SAMPLE SPLIT WITH PERMITTEE. ☐ Y ☐ N ☐ NA

8. CHAIN-OF-CUSTODY PROCEDURES EMPLOYED. ☐ Y ☐ N ☐ NA

9. SAMPLES COLLECTED IN ACCORDANCE WITH PERMIT. ☐ Y ☐ N ☐ NA

Compliance Evaluation Inspection
Red River Wastewater Treatment Plant
Permit #: NM0024899
June 30, 2016

Introduction

On June 30, 2016 a Compliance Evaluation Inspection (CEI) was conducted at the Town of Red River Wastewater Treatment Plant (WWTP) NM0024899 by Sarah Holcomb of the State of New Mexico Environment Department (NMED), Surface Water Quality Bureau (SWQB).

The inspection was conducted by NMED for the US Environmental Protection Agency (USEPA), Region VI, under the NPDES permit program, in accordance with the federal Clean Water Act. These inspections are conducted on behalf of the USEPA and are used by EPA to evaluate compliance with the NPDES permit program. This inspection report is based on information supplied by the Town of Red River representatives (the permittee), observations made by the NMED inspector, and reports and records kept by the permittee and/or NMED.

The Town of Red River Wastewater Treatment Plant is classified as a minor municipal discharge with a design flow of 0.9 MGD. The discharge for the WWTP enters the Red River in Water Quality Segment 20.6.4.122 NMAC through a perforated pipe in the bed of the Red River. The Designated Uses for this segment of the river are: Coldwater aquatic life, fish culture, irrigation, livestock watering, wildlife habitat and primary contact.

Inspection Details

The inspector arrived at the Town of Red River Wastewater Treatment Plant (WWTP) at 0930 hours and met with Mr. Jimmy Baca, Plant Operations Supervisor. An entrance interview was conducted where the inspector presented credentials and explained the purpose of the inspection. The inspector left the site at 1220 hours after conducting an exit interview with Mr. Baca and Mr. Russell Church, Environmental Compliance Officer.

Treatment Scheme

Wastewater is transported through the collection system by gravity with the aid of one lift station from the Town of Red River to the entrance works of the wastewater treatment plant. At the entrance works, a bar screen and a grit removal system provides primary treatment to the raw sewage. The grit cyclone is on a timer, set to engage the auger to carry the grit to a dipsy-dumpster for disposal. Grit debris is bagged and allowed to dewater before being taken to the Taos Landfill for final disposal. Following the grit removal system, the flow enters a fine mesh screen filter system with 1/10 inch opening in the drums for liquid to pass. Material is scraped from the drums and disposed of along with the removed grit. Following the solids removal, the influent is dosed with a (caustic soda) to raise the pH of the effluent. The permit requires an effluent pH of 6.6 to 8.8 s.u.

The wastewater enters a three-way splitter box, which distributes the flow to the three trains of Rotating Biological Contactors (RBCs). Depending on the volume, one to three of the RBC trains are operating at any given time. Each train consists of two low density RBCs for BOD removal and two high density RBCs for ammonia removal. At the time of this inspection, two of the RBC trains were in operation. Solids that build up in the bottom of RBC basins are occasionally removed by hand. Spare parts are difficult to locate because these treatment units are obsolete. The WWTP was built in 1983, and replacement parts have to be custom made. The bearings on the RBC receive heavy wear and require frequent lubrication. There have been occasional failures in the bearings.

Following the RBCs the water passes through a nine inch Parshall flume with a staff gage. Back up flow is measured with an ISCO ultrasonic flow meter. This flow meter is set up to the refrigerated auto sampler at the outfall so that flow proportioned samples may be taken as required by the NPDES permit. After the flow measurement devices, the partially treated water enters the two parallel final clarifiers. Sludge is pulled off the scum pit and scraper tank hoppers continuously in these units. The scraper tanks have redwood baffles and bar scrapers in them to move solids to a sludge tank.

Flow then combines and passes through three parallel ultra-violet (UV) disinfection units. The bulbs are hand wiped clean weekly. The banks of UV light bulbs are cleaned with the product ATOX.

After UV disinfection, the flow passes over a step aerator where dissolved oxygen and pH probes are located. From the step aerator the effluent is discharged to the Red River via a diffused pipe in the bottom of the river. Grab samples are collected by hand after the UV disinfection on the top of the aeration ladder. Flow weighted composite samples are collected by the ISCO auto sampler in the same location.

The WWTP is located within a multilevel building to protect it from extreme cold during the winter months. A chemical storage room is located within the plant building where bulk alum was stored in the past, and where caustic soda is currently being stored. All the storage tanks are surrounded by an 8 inch raised cement dike for containment. The drains in the floor and spill drains are plumbed back to the head of the WWTP to be mixed with the raw influent.

The facility has a 175 kW natural gas powered generator for back up. The unit is exercised every two weeks for 15 minutes. The WWTP alarm system is a series of monitors and a call out system that will notify operators by phone of any treatment unit failures.

Sludge Handling

Solids are wasted from the secondary clarifiers and pumped up hill to the drying beds. The outdoors, seven lined cells are located east of the main treatment works building on a steeply tiered part of the mountain. Sludge enters the drying beds (sometimes referred to as sludge lagoons) via forced main from the treatment plant. The decant water is returned to the head of the treatment plant by gravity flow lines. The sludge detention time is approximately three years.

Following the long drying process, solids are removed to a stockpile area near the plant and mixed with wood chips for compost. It is given to local residents for use on gardens as well as in the local park. No records are kept of the final disposal of the solids. The most recent solids removal action occurred approximately 1.5 years prior to this inspection, and the sludge was composted at that time.

Further Explanations

Note: The sections are arranged according to the format of USEPA Form 3560-3 and checklist, attached, rather than being ranked in order of importance.

Section A – Permit Verification Evaluation – Overall Rating of Satisfactory

The permit states in Part I.A.1:

EFFLUENT CHARACTERISTICS		*DISCHARGE LIMITATIONS*						*MONITORING REQUIREMENTS*	
		Lbs/day, unless noted			*Mg/L, unless noted (1*)*				
POLLUTANT	*STORET Code*	*30-d Average*	*Daily max*	*7-day average*	*30-day avg*	*DAILY MAX*	*7-DAY AVG*	*MEASUREMENT FREQUENCY*	*SAMPLE TYPE*
Aluminum, Total	*01105*	*0.305*	*Report*	*N/A*	*87 ug/L*	*87 ug/L*	*N/A*	*Once/quarter*	*24-Hour Composite*

Findings for Permit Verification:

The permit for this facility is set to expire on September 30, 2016. Permittee representatives indicated that the permit reapplication materials have been submitted to EPA 180 days prior to the expiration date, as required.

The current permit requires monitoring for Total Aluminum, which is based on an old water quality standard that was applicable in 2011, when this permit was first issued. The new approved water quality standards are located at: http://www.nmcpr.state.nm.us/nmac/parts/title20/20.006.0004.pdf. NMED recently completed a triennial review and the new standards are in the approval process. New standards should be incorporated into the new permit and a new RP analysis conducted for Aluminum.

Section B – Recordkeeping and Reporting Evaluation – Overall Rating of Marginal

The permit states in Part III.C.5.a:

Monitoring must be done according to test procedures approved under 40 CFR Part 136, unless other test procedures have been specified in this permit or by the Regional Administrator.

The NPDES Reporting Requirements Handbook (www.epa.gov/region6/6en/w/dmrman.pdf) states:

(pg. 2) *It is extremely important that the data reported on the DMR be accurate, timely and legible to ensure the facility's compliance status is correctly reflected. The reported data will be compared with the current limits contained in the permit or any enforcement order to determine facility compliance.*

(pg. 7) Sometimes it will be necessary for the facility to submit a revised or corrected DMR either because the Agency has requested it or the facility has discovered an error. Some reasons for submitting a revision/correction are:

5. Loading measurements not correctly calculated.

When a revised DMR is submitted, it must:

4. Revised data should be highlighted or otherwise clearly indicated.

Findings for Recordkeeping and Reporting:

The inspector requested copies of the bench sheets for all parameters for the months of June and July of 2015. Review was conducted upon arrival back in Santa Fe.

Lab work on E. coli using the IDEXX method appeared to be conducted correctly.

TSS calculations shown on the bench sheets for 6-9-15 and 6-23-15 showed errors that the inspector corrected as shown in Attachment 1. Loading was under-calculated on 6-9-15 and over-calculated on 6-23-15. The corrected calculations did not result

in permit exceedances for either concentration or loading values.

While reviewing the bench sheets for BOD, the inspector noted a number of quality control issues that should have resulted in tests being ruled as invalid, and if possible, a retest should have been conducted. This invalid data was reported on the DMRs. Additionally, if the tests had been invalidated as required, there would not have been enough tests required to meet the permit required frequency of three BOD tests per month for both June and July.

Corrected DMRs must be submitted for TSS and BOD for these two months. Raw data and corrected calculations are included with this report as Attachment A. Quality control issues are discussed further in Section F.

Section C – Operations and Maintenance Evaluation – Overall Rating of Marginal

The permit states in Part III.B.3:

The permittee shall at all times properly operate and maintain all facilities and systems of treatment and control (and related appurtenances) which are installed or used by the permittee as efficiently as possible and in a manner which will minimize upsets and discharges of excessive pollutants and will achieve compliance with the conditions of this permit. Proper operation and maintenance also includes adequate laboratory controls and appropriate quality assurance procedures.

Findings for Operations and Maintenance:

The second bank of rotating biological contactors (RBCs) was down at the time of this inspection. Three cassettes were missing from the bank as well. The facility's operation and maintenance manual states that each bank of RBCs is capable of handling approximately 0.3 mgd flow, and the facility's current influent flow at the time of this inspection was approximately 0.689 mgd, with two banks of RBCs online. Because RBCs take a while to generate the appropriate biomass to be able to adequately treat wastewater, some consideration should be given to fluctuations in influent flow/plant capacity. Red River is a small town that experiences high fluctuations in flow due to incoming populations during the summer and holidays. The facility should consider developing SOPs that detail the amount of time it takes to bring an RBC online in order to have it available during high flow/high demand periods. It may take several weeks to bring the new train completely online with enough biological media to effectively treat the wastewater. Over the past two years, there have been exceedances of the lower pH limit, and one daily maximum limit for E. coli.

Previous inspection reports have detailed that the RBCs in use at this facility are out of date (original to the plant, which was constructed in 1983), and thus spare parts are not able to be obtained when there is a breakdown. In the past, the facility has obtained replacement parts from other plants that have upgraded to newer technology. During this inspection, Mr. Church indicated that the Town has completed a preliminary engineering review (PER) as of July 2014, and as part of that review intends to replace the current RBCs with a newer RBC technology. The PER indicates that the new media will have a higher surface area. The existing Type 1 media, which is discontinued, will be replaced with Type 2 media, which consists of individual wedge shaped sheets of high molecular polyethylene. According to permittee representatives, this media would be easier to change out if there are issues that require repair. The Town just passed a general obligation bond which can be used for water or wastewater repairs. Permittee representatives indicated that the company "RBC Services" will be doing the work and replacement of the RBCs may occur in phases in order to avoid interrupting treatment capability.

Permittee representatives informed the inspector that a CDBG grant has been obtained, which will allow the Town to work on some inflow/infiltration issues by lining manholes. Work should proceed once the bid has been granted, most likely sometime in the fall of 2016. Additionally, permittee representatives indicated that there are plans to investigate the outfall from the facility. Currently, the perforated pipe is installed in the bed of the Red River. The past two years there have been overflow events at the manhole just a few feet upstream of the perforated pipe. Permittee representatives suspect that the perforated pipe has become blocked with sediment and must be cleaned out. In the meantime, public works staff is checking the outfall area daily to assess for leaks or overflows.

The facility does not keep a written record of spare parts and supplies. It is recommended that records are kept in the event of personnel turnover or other needs that may arise at the plant.

As noted in past inspection reports, the sludge drying beds are cracked and leaking. The sludge lagoons are located on Forest Service property. Permittee representatives indicated that they will be installing groundwater monitoring wells in the near

future. This methodology of sludge treatment is not effective for this microclimate. During the winter, the beds freeze and it is not possible to treat the solids effectively, and during the summer, the lagoons are open and exposed to monsoon rains. It takes a long period of time to sufficiently dry out the solids in order to remove them from the drying beds. At the time of this inspection, permittee representatives indicated that the most recent solids removal effort occurred a year and a half ago, and the material was disposed by composting with wood chips and giving the compost away. Permittee representatives also indicated that work has progressed with the Forest Service and an agreement has been made based on the Small Tract Act. This land acquisition by the Town will allow the facility to evaluate plans to put in more effective sludge treatment options, such as a belt press – if all goes as planned, the Town would own land from where the sludge beds/lagoons are currently located all the way down to the highway.

Section E – Flow Measurement Evaluation – Overall Rating of Marginal

The permit states in Part III.C.6:

Appropriate flow measurement devices and methods consistent with accepted scientific practices shall be selected and used to ensure the accuracy and reliability of measurements of the volume of monitored discharges. The devices shall be installed, calibrated and maintained to insure that the accuracy of the measurements is consistent with the accepted capability of that type of device. Devices selected shall be capable of measuring flows with a maximum deviation of less than 10% from true discharge rates throughout the range of expected discharge volumes.

Findings for Flow Measurement:

The flow measurement device is located prior to final clarification and disinfection. As noted in previous inspection reports, this is an issue due to the difference in volume as the suspended solids are settled out. The facility may be over reporting as a result. With plant upgrades being considered in the near future, the Town should evaluate whether relocating flow measurement can also be done at this time.

Section F – Laboratory Evaluation – Overall Rating of Marginal

Standard Methods, 21st edition, 5210 B states:

3: Use reagent grade or better for all chemicals and use distilled or equivalent water, preferably sterilized, for making all solutions.

3.h: Glucose-glutamic acid solution: …Prepare fresh immediately before use unless solution is maintained in a sterile condition. Store all glucose-glutamic acid mixtures at 4°C or lower. Commercial preparations may be used but concentrations may vary.

4.c: Selection and storage of source water for BOD sample dilution: Obtain water from suitable source – distilled, tap or receiving water. Make sure the water is free of heavy metals, specifically copper, and toxic substances, such as chlorine, that can interfere with BOD measurements. Protect source water quality by using clean glassware, tubing and bottles. Deionized water often contains sufficient amounts of organics and microorganisms to cause failure of the dilution water quality control check. Source water may be stored before use as long as the prepared dilution water meet quality control criteria in the dilution water blank. Such storage may improve the quality of some source waters but may allow biological growth to cause deterioration in others. Storage of prepared dilution water for more than 24 h after adding nutrients, minerals, and buffer is not recommended unless dilution water blanks consistently meet water quality control limits. Discard stored source water if the filution water blank shows more than 0.20 mg/L DO depletion in 5 d.

6.a: Minimum residual DO and minimum DO depletion: Only bottles, including seed controls, giving a minimum DO depletion of 2.0 mg/L and a residual DO of at least 1.0 mg/L after 5 d of incubation are considered to produce valid data, because at least 2.0 mg/L oxygen uptake L is required to give a meaningful measure of oxygen uptake and at least 1.0 mg/L must remain throughout the test to ensure that insufficient DO does not affect the rate of oxidation of waste constituents.

6.b: Glucose-glutamic acid check: …The resulting average BOD for the three bottles, after correction for dilution and seeding, must fall into the range of 198 ± 30.5 mg/L. If the average value falls outside this range, evaluate the cause and make appropriate corrections. Consistently high values can indicate the use of too much seed suspension, contaminated dilution water, or the occurrence of nitrification; consistently low values can indicate poor seed quality or quantity or the presence of a toxic material.

6.c: Dilution water quality check: …The DO uptake in 5 d must not be more than 0.20 mg/L and preferably not more than

0.10 mg/L, before making seed corrections. If the dilution water blank exceeds 0.20 mg/L, discard all data for tests using this dilution water or clearly identify such samples in data records.

Findings for Laboratory:
There were numerous quality control issues noted in the BOD bench sheets reviewed for the months of June and July 2015. Those issues are noted below, and recalculations of the BOD concentration and loading values are included with this report as Attachment A:

- 6-9-15: The Glucose-Glutamic Acid (GGA) values were out of range – average value between three bottles was 157.67 mg/L (below the lower limit of 167.5 mg/L). This appears to have been corrected in the next test. The calculations performed on the effluent BOD bottles were incorrect and resulted in under-reporting of the concentration value.
- 6-16-15: The dilution water depletions were at 0.77 and 0.73 mg/L, well above the limit of 0.2 mg/L. This should have resulted in invalidation of the test and a retest should have been conducted. Also, calculations were not done correctly on the effluent bottles and resulted in under-reporting of the concentration and loading values.
- 6-23-15: The dilution water issues were fixed from the previous test. DO appeared very low to start (around 6.1 mg/L). Also, calculations were not done correctly on the effluent BOD bottles and resulted in under-reporting concentration and loading values.
- 7-1-15: Dilution water DO increased in one bottle.
- 7-7-15: Dilution water values were 0.41 and 0.42 mg/L, above the limit of 0.2 mg/L. There was not a minimum 1 mg/L DO in three of the four effluent bottles. This test should have been invalidated and a retest conducted.
- 7-14-15: No effluent BOD bottles contained a minimum value of 1.0 mg/L. This test should have been ruled invalid and not used for reporting purposes. It appears that the data was reported on the DMR.
- 7-21-15: The dilution water blanks had a major increase in DO values of 3.24 and 1.99 mg/L. Three of the four BOD bottles did not contain 1.0 mg/L residual and should not have been included in the calculation. This test should have been invalidated and a retest conducted.
- 7-23-15: The dilution water blanks showed a depletion of 1.2 and 1.13 mg/L, above the limit of 0.2 mg/L. The GGA bottle average value was at 241.67 mg/L, above the upper limit of 228.5 mg/L. None of the effluent BOD bottles had a residual DO value of 1.0 mg/L, and the test should have been invalidated and a retest conducted.

The inspector requests that the following parameters are evaluated (with respect to BOD):

- Is the effluent sample brought to 20 ± 1° C prior to starting the test?
- Is the sample evaluated for chlorine prior to beginning analysis?
- Is the use of Polyseed appropriate, and is there another source of seed that can be evaluated for use in this test?

The lab technician was not present onsite during this inspection and the on-site operators had trouble producing requested records, such as quality control documentation.

Section H – Sludge Management Evaluation – Overall Rating of Marginal

40 CFR Part 503, Subpart A, General Provisions states:

(y) Store or storage of sewage sludge is the placement of sewage sludge on land on which the sewage sludge remains for two years or less. This does not include the placement of sewage sludge on land for treatment.

Findings for Sludge Management:

As noted in previous inspection reports, the composted sewage sludge at this site has been on site for more than the allowable two year period. In anticipation of land acquisition, as mentioned in Section C, the facility is strongly encouraged to evaluate new sludge treatment methodologies that will result in faster final disposition/use of the sludge and/or compost. In the meantime, if the facility cannot find a way to give away this material, it must be disposed of offsite. The permittee representatives indicated that the Taos landfill was recently permitted to accept sludge. Permittee representatives indicated that there will be a watershed restoration project occurring along the Red River in town, and plans to utilize as much compost during that project as possible.

Appendix A:
DMR Raw Data & Calculation Checks:

E. coli Results from June 2015

Sample Date	Sample Time	Result	Replicate
6-9-15	1030	73.3	81.3
6-16-15	1025	53.8	20.3
6-23-15	1035	52.1	93.2

Calculation Check:
30 Day Average: log73.3 + log81.3 + log53.8 + log20.3 + log52.1 + log93.2 = 10.4997/6 = 1.7499 antilog = 56.23 cfu/100 mls (reported 59 cfu/100 mls)
Daily Max: 93.2 cfu/100 mls (Reported 77.3 cfu/100 mls)

E. coli Results from July 2015

Sample Date	Sample Time	Result	Replicate
7-1-15	1045	1046.2	1203.3
7-7-15	1030	60.2	77.6
7-14-15	1039	275.5	172.2
7-15-15	1053	980.4	648.8
7-16-15	1055	410.6	186.0
7-21-15	1110	69.7	55.6
7-24-15	1120	488.4	461.1
7-28-15	0940	40.4	32.7

Calculation Check:
30 Day Average: log 1046.2 + log 1203.3 + log60.2 + log 77.6 + log 275.5 + log 172.2 + log 980.4 + log 648.8 + log 410.6 + log 186 + log 69.7 + log 55.6 + log 488.4 + log 461.1 + log 40.4 + log 32.7 = 37.19/16 = 2.324 antilog = 211.05 cfu/100 mls (Reported 80 cfu/100 mls)
Daily Max: 1203.3 cfu/100 mls (reported 261.08 cfu/100 mls)

BOD Results from June 2015

Sample Date	Sample Time	Result	RRWWTP Calc Value	Comments	Loading Value
6-9-15	1000 to 1600	7.03	5.29	GGAs low; flow 0.989	57.99 (reported 43.63)
6-16-15	1000 to 1600	(test should have been invalidated)	6.12	Dilution water out of range, seed > 1; flow 0.891	Invalid (reported 45.48)
6-23-15	1000 to 1600	6.48	4.85	DO low to begin; flow 0.819	44.26 (reported 33.13)

Calculation Check:
30 Day Average concentration: 7.03 + 8.2 + 6.48 = 21.71 / 3 = 7.24 mg/L (reported 5.4 mg/L)
7 Day Average concentration: 8.2 mg/L (reported 6.1 mg/L)
30 Day Average loading: 57.99 + 60.93 + 44.26 = 163.18 / 3 = 54.39 lbs/day (reported 45.48 lbs/day)

7 Day Average loading: 60.93 lbs/day (reported 40.7 lbs/day)

BOD Results from July 2015

Sample Date	Sample Time	Result	RRWWTP Calc Value	Comments	Loading Value
7-1-15	1000 to 1600	5.69	5.69	One dilution water out of range; flow 0.813	38.58 (reported 38.58)
7-7-15	1000 to 1600	Invalid	10.71	Dilution water out of range; flow 0.811	Invalid (reported 72.44)
7-14-15	1000 to 1600	Invalid	10.70	All effluent bottles > 1 mg/L DO	Invalid (reported 66.04)
7-21-15	1000 to 1600	Invalid	9.89	Dilution water added ≥ 2.0 mg/L DO; seed value low (out of range); flow 0.681	Invalid (reported 56.17)
7-23-15	1000 to 1600	Invalid	9.83	Dilution water out of range, seed out of range, GGAs out of range, no effluent bottle >1.0 mg/L DO	Invalid (reported 54.44)

Calculation Check:
30 Day Average concentration: 5.69 mg/L (reported 9.3 mg/L) Only one test had valid data. Did not meet required three tests/month.
7 Day Average concentration: 5.69 mg/L (reported 10.7 mg/L)
30 Day Average loading: 38.58 lbs/day (reported 58.1 lbs/day) Only one test had valid data. Did not meet required three tests/month.
7 Day Average loading: 38.58 lbs/day (reported 72.44 lbs/day)

TSS Results from June 2015

Sample Date	Sample Time	Result (mg/L)	RRWWTP Calc Value (mg/L)	Comments	Loading Value (lbs/day)
6-9-15	1000 to 1600	11.44	7.67	Flow 0.989	94.36 (reported 63.24)
6-16-15	1000 to 1600	11.11	11.11	Flow 0.891	82.55 (reported 82.57)
6-23-15	1000 to 1600	17.61	18.33	Flow 0.819	120.28 (reported 125.23)

Calculation Check:
30 Day Average concentration: 11.44 + 11.11 + 17.61 = 40.16 / 3 = 13.39 mg/L (reported 12.4 mg/L)
7 Day Average concentration: 17.61 mg/L (reported 18.3 mg/L)
30 Day Average loading: 94.36 + 82.55 + 120.28 = 297.19 / 3 = 99.06 lbs/day (reported 90.3 lbs/day)
7 Day Average loading: 120.28 lbs/day (reported 125.23 lbs/day)

TSS Results from July 2015

Sample Date	Sample Time	Result (mg/L)	RRWWTP Calc Value (mg/L)	Comments	Loading Value (lbs/day)
7-1-15	1000 to 1600	16.83	16.83	Flow 0.813	114.11 (Reported 114.11)
7-7-15	1000 to 1600	19.44	19.44	Flow 0.811	131.48 (reported 131.49)
7-14-15	1000 to 1600	19.94	19.94	Flow 0.74	123.06 (reported 123.06)
7-21-15	1000 to 1600	17.28	17.28	Flow 0.681	98.14 (reported 98.14)

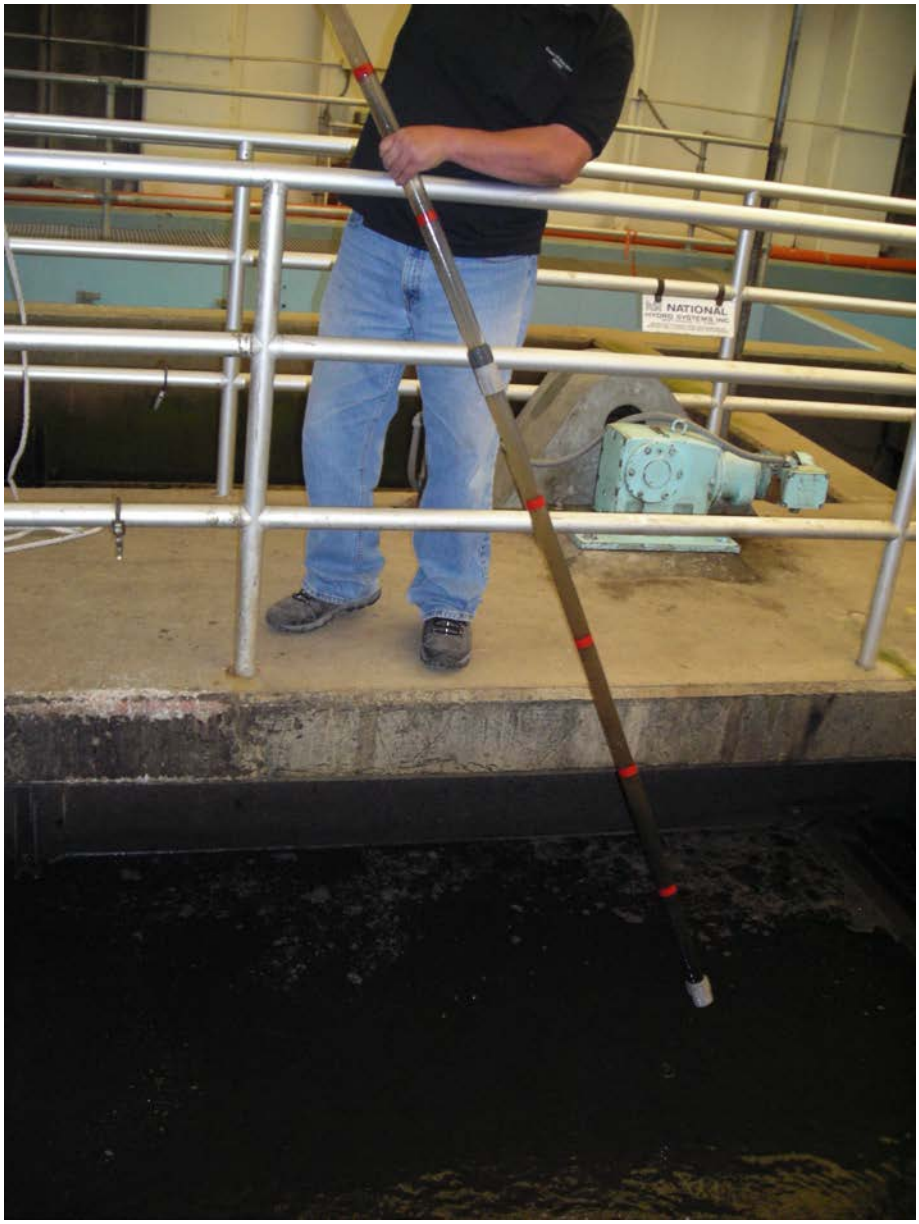
Calculation Checks:
30 Day Average concentration: 16.83 + 19.44 + 19.94 + 17.28 = 73.49 / 4 = 18.37 mg/L (reported 18.4 mg/L)
7 Day Average concentration: 19.94 mg/L (reported 19.94 mg/L)
30 Day Average loading: 114.11 + 131.48 + 123.06 + 98.14 = 466.79 / 4 = 116.70 lbs/day (reported 116.7 lbs/day)
7 Day Average loading: 131.48 lbs/day (reported 131.49 lbs/day)

NMED/SWQB
Official Photograph Log
Photo # 1

Photographer: Sarah Holcomb	Date: 6-30-2016	Time: 0945 hours
City/County: Near Red River, Taos County		
Location: Red River Waste Water Treatment Plant		
Subject: RBC train #2 – note the missing cassettes (one at the end on the left side of the photo and the other toward the right side of the photo.)		

NMED/SWQB
Official Photograph Log
Photo # 2

Photographer: Sarah Holcomb	Date: 6-30-2016	Time: 0951 hours
City/County: Near Red River, Taos County		
Location: Red River Waste Water Treatment Plant		
Subject: Sludge judge taken from the scum pit prior to the rectangular clarifiers. There was about 2 feet of sludge in the 11 ft basin.		



NMED/SWQB
Official Photograph Log
Photo # 3

Photographer: Sarah Holcomb	Date: 6-30-2016	Time: 1043 hours
City/County: Near Red River, Taos County		
Location: Red River Waste Water Treatment Plant		
Subject: Sludge lagoons. There was a heavy rain the day before the inspection.		

NMED/SWQB
Official Photograph Log
Photo # 4

Photographer: Sarah Holcomb	Date: 6-30-2016	Time: 1155 hours
City/County: Near Red River, Taos County		
Location: Red River Waste Water Treatment Plant		
Subject: Outfall 001. The excavated area on the far side of the Red River is the effluent cleanout.