



NEW MEXICO  
ENVIRONMENT DEPARTMENT



*Surface Water Quality Bureau*

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DAVE MARTIN  
Secretary

RAJ SOLOMON, P.E.  
Deputy Secretary

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Certified Mail - Return Receipt Requested

June 14, 2011

Mr. Albert Campos, Mayor  
City of Santa Rosa  
Post Office Box 429  
244 South 4<sup>th</sup> Street  
Santa Rosa, NM 88435

RE: Minor Municipal, SIC 4952, NPDES Compliance Evaluation Inspection, Santa Rosa Wastewater Treatment Plant (WWTP), NPDES Permit No. NM0024988, June 7, 2011

Dear Mayor Campos:

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. The main problems were found in the area of Records/Reports, Operations/Maintenance, Self-Monitoring, Flow Measurements and Receiving/Effluent. You are encouraged to review the inspection report, required to correct any problems noted during the inspection, and to modify your operational and/or administrative procedures, as appropriate. Further, you are encouraged to notify in writing, both the USEPA and NMED regarding modifications and compliance schedules at the addresses below:

Diana McDonald  
US Environmental Protection Agency, Region VI  
Enforcement Branch (6EN-WM)  
Suite 1200  
1445 Ross Avenue  
Dallas, Texas 75202-2733

Program Manager  
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 me at (505) 827-1041 or [sandra.gabaldon@state.nm.us](mailto:sandra.gabaldon@state.nm.us)

Sincerely,  
*/s/ Sandra Gabaldón*

Sandra Gabaldón  
Surface Water Quality Bureau

Cc: Marcia Gail Adams, EPA, Enforcement Section (6EN-AS) by e-mail  
Larry Giglio, EPA (6EN-P) by e-mail  
Carol Peters-Wagnon, EPA (6EN-WM) by e-mail  
Diana McDonald, EPA (6EN-WM) by e-mail  
Samual Tates, EPA, (6W-AS) by e-mail  
NMED District IV Manager (Roswell) by e-mail



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

### NPDES Compliance Inspection Report

#### Section A: National Data System Coding

Transaction Code			NPDES										yr/mo/day				Inspec. Type		Inspector		Fac Type								
1	N	2	5	3	N	M	0	0	2	4	9	8	8	11	12	1	1	0	6	0	7	17	18	C	19	S	20	1	
Remarks																													
M I N O R M U N I C I P A L																													
Inspection Work Days						Facility Evaluation Rating						BI		QA		Reserved													
67						70	3							71	N	72	N	73											80

#### Section B: Facility Data

Name and Location of Facility Inspected <i>(For industrial users discharging to POTW, also include POTW name and NPDES permit number)</i> SANTA ROSA WWTP – 1-40 East to Santa Rosa, right on NM 91, Turn Right at James Wallace Power Dam Park, Follow road to facility entrance.		Entry Time /Date 1030 hours / 06-07-2011	Permit Effective Date February 1, 2007
		Exit Time/Date 1230 hours / 06-07-2011	Permit Expiration Date January 31, 2011
Name(s) of On-Site Representative(s)/Title(s)/Phone and Fax Number(s) Mark Micelli, Wastewater Superintendent, (575) 799-8888 (cell)			Other Facility Data
Name, Address of Responsible Official/Title/Phone and Fax Number Mayor Albert Campos / (575) 472-3404 City of Santa Rosa PO Box 429 Santa Rosa, NM 88435			SIC 4952  N 34°55.559' W -104°40.937' (at outfall)
			Contacted Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> *

#### Section C: Areas Evaluated During Inspection

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

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

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

1. PLEASE SEE CHECKLIST AND FURTHER EXPLANATIONS

Name(s) and Signature(s) of Inspector(s) /s/ Sandra Gabaldon SANDRA GABALDON /s/ Sandra Gabaldon	Agency/Office/Telephone/Fax NMED/SWQB 505 827-1041/505-827-0160	Date June 14, 2011
Signature of Management QA Reviewer /s/ Richard Powell Richard Powell /s/ Richard Powell	Agency/Office/Phone and Fax Numbers 505-827-2798	Date June 14, 2011

Santa Rosa Wastewater Treatment Plant

PERMIT NO. NM0024988

SECTION A - PERMIT VERIFICATION – EPA CURRENTLY WORKING ON RENEWAL PERMIT FOR SANTA ROSA WWTP.

PERMIT SATISFACTORILY ADDRESSES OBSERVATIONS DETAILS:  S  M  U  NA (FURTHER EXPLANATION ATTACHED NO)

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. DETAILS: See further explanations  S  M  U  NA (FURTHER EXPLANATION ATTACHED YES)

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. DETAILS:  S  M  U  NA (FURTHER EXPLANATION ATTACHED YES)

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

Santa Rosa Wastewater Treatment Plant

PERMIT NO. NM0024988

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 NO).  
 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.  Y  N  NA  
 TYPE OF DEVICE 9" Parshall Flume

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 NO)  
 DETAILS:

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

**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. FOR ALL PARAMETERS EXCEPT pH AND CHLORINE  Y  N  NA
- 6. SPIKED SAMPLES ARE ANALYZED. 0 % OF THE TIME.  Y  N  NA
- 7. COMMERCIAL LABORATORY USED.  Y  N  NA

LAB NAME TUCUMCARI WWTP AMERICAN INTERPLEX LABORATORIES  
 LAB ADDRESS Post Office Box 1188 8600 Kanis Road  
 PARAMETERS PERFORMED BOD, TSS, E. coli----- 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	NO	NO	NO	NO	NO	CLEAR	ALGAL GROWTH BELOW OUTFALL

RECEIVING WATER OBSERVATIONS

**SECTION H - SLUDGE DISPOSAL**

SLUDGE DISPOSAL MEETS PERMIT REQUIREMENTS.  S  M  U  NA (FURTHER EXPLANATION ATTACHED NO).  
 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: agricultural (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

Santa Rosa Wastewater Treatment Plant  
Compliance Evaluation Inspection  
NPDES Permit No. NM 0024988  
June 7, 2011

**Introduction**

A compliance evaluation inspection (CEI) was conducted at the Santa Rosa Wastewater Treatment Plant (WWTP) on June 7, 2011 by Sandra Gabaldón and Sarah Holcomb of the New Mexico Environment Department (NMED), Surface Water Quality Bureau (SWQB). The inspection was conducted by NMED for the U.S. Environmental Protection Agency (USEPA), Region 6, under the National Pollutant Discharge Elimination System (NPDES) permit program. The enclosed inspection report is based on verbal information provided by the permittee's representative, Mr. Mark Micelli, observations made by the NMED inspectors, and a review of records maintained by the permittee and/or NMED. Findings of the inspection are detailed on the attached EPA form 3560-3 and in the narrative further explanations section of the report.

The Santa Rosa WWTP is classified as a minor municipal discharger with a design flow of 0.454 million gallons a day (MGD) and is assigned NPDES permit number NM0024988. The discharge from the WWTP enters the El Rito Creek, in segment number 20.6.4.212, in the Pecos River Basin. The designated uses for this segment include: irrigation, coldwater aquatic life, livestock watering, wildlife habitat and primary contact.

Mss. Gabaldón and Holcomb arrived at the facility and contacted Mr. Micelli. Mr. Mark Micelli met with the inspectors at the facility at 1030 hours on June 7, 2011. Ms. Gabaldón presented her credentials and explained the purpose of the inspection. Ms. Gabaldón requested an exit conference with Mayor Campos; however, Mayor Campos was unavailable this day. An exit conference was held with Mr. Micelli on this date to discuss preliminary findings of this inspection.

**Treatment Scheme**

This facility is currently under construction for a new activated sludge plant, which is 80% complete at this time. The operator stated that no money has been put into the failing treatment plant at this time because the new plant will go on line later this year. The new plant will consist of clarifiers, aeration basins, and uv disinfection.

Influent enters the treatment train through a 9" Parshall flume and proceeds through an automatic bar screen. Influent is then sent to the east synthetic lined lagoon. There are three surface aerators, one of which has been out of service for several months. From the east lagoon, flow travels by gravity to a single polishing pond. From the polishing pond, the flow proceeds to the serpentine chlorine contact chamber before exiting the facility through a 9" Parshall flume which then enters a 10" encased pipe that delivers the effluent to El Rito Creek.

Santa Rosa Wastewater Treatment Plant  
Compliance Evaluation Inspection  
NPDES Permit No. NM 0024988  
June 7, 2011

**Further Explanations**

**Section B – Recordkeeping and Reporting Evaluation: Overall rating of “Marginal”**

The permit requires in Part II.C.1.d:

- d. This permit does not establish requirements to automatically increase the WET testing frequency after a test failure, or to begin a toxicity reduction evaluation (TRE) in the event of multiple test failures. However, upon failure of any WET Test, the permittee must report the test results to USEPA and NMED, Surface Water Quality Bureau, in writing, within 5 business days of notification of the test failure. USEPA and NMED will review the test results and determine the appropriate action necessary, if any.*

**Findings for Section B – Recordkeeping and Reporting:**

The permittee failed a WET test in January, 2011, and failed to notify USEPA or NMED of this failure. The operator stated that he was unaware of these reporting requirements and will report any further failures.

Total Residual Chlorine (TRC) reported as 0.019 mg/L on DMRs. The benchsheets report TRC as <0.019 mg/L. The permittee should report results as <0.019 mg/L.

On the Discharge Monitoring Report (DMR), the permittee is reporting “frequency of analysis” as “weekly”, rather than placing the number of samples taken that month. Permittee should have reported 03/30, which is three/month.

The contract laboratory (Tucumcari WWTP) provides only one chain-of-custody (COC) record attached to the E.coli sample sheet. There is no indication that this COC is for all samples taken to the contract laboratory. The primary objective of the COC is to create an accurate written record that can be used to trace the possession and handling of the sample from the moment of its collection through its analysis.

Discharge Monitoring Reports (DMRs) from February 2011 and April 2009 were reviewed to verify calculations and DMR reporting. See calculations below for results.

**DMR Check for February 2011**

Parameter	30-day Average Loading		7-Day Average Loading		30-day Ave Concentration		7-day Ave Concentration	
	DMR	Check	DMR	Check	DMR	Check	DMR	Check
BOD	205	204.45✓	244	243.46✓	61	61.13✓	73	73.1✓
TSS	179	176.65✓	205	205.44✓	54	53.5✓	63	63✓
E. coli	See				79 cfu/100 mL (30d Avg)		1600 cfu/100 mL (Daily Max)	
pH	6.5 Min✓		6.7 Max✓					
Total Residual Chlorine	0.019 INST MAX	Permittee should be reporting < 0.019 ug/L as reported on benchsheets.						

✓ = In agreement with reported values on DMR. (Rounding of significant figures noted)

**BOD CALCULATION – FEBRUARY 2011:**

Sample Date:	Daily Flow (MGD)	BOD (mg/l)	Calculated Daily Load
02/03/2011	.396	36.5	(.396) (36.5) (8.34) = 120.55 lbs/d
02/09/2011	.406	71.9	(.406) (71.9) (8.34) = 243.46 lbs/d
02/16/2011	.410	63.0	(.410) (63.0) (8.34) = 215.42 lbs/d
02/23/2011	.391	73.1	(.391) (73.1) (8.34) = 238.37 lbs/d
<b>Calculated Monthly Loading Average:</b>	(120.55 lbs/d + 243.46 lbs/d + 215.42 lbs/d + 238.37 lbs/d) / 4 = 204.45 lbs/d		
<b>Reported on DMR</b>	<b>205 lbs/d</b>		

**TSS CALCULATION – FEBRUARY 2011**

Sample Date:	Daily Flow (MGD)	TSS (mg/l)	Calculated Daily Load
02/02/2011	.379	51.0	(.379) (51.0) (8.34) = 161.20 lbs/d
02/09/2011	.406	60.0	(.406) (60.0) (8.34) = 203.16 lbs/d
02/16/2011	.410	40.0	(.410) (40.0) (8.34) = 136.78 lbs/d
02/23/2011	.391	63.0	(.391) (63.0) (8.34) = 205.44 lbs/d
<b>Calculated Monthly Loading Average:</b>	(161.20 lbs/d + 203.16 lbs/d + 136.78 lbs/d + 205.44 lbs/d) / 4 = 176.65 lbs/d		
<b>Reported on DMR</b>	<b>179 lbs/day</b>		

**E. COLI CALCULATION – FEBRUARY 2011**

Sample Date:	E. coli cfu/100 mL
02/09/2011	*4
*Only one benchsheet provided, unable to verify DMR calculations of daily max of 1600 cfu/100 mL or 79 cfu/100 which were reported on the February DMR.	
<b>7 D Average Geomean</b>	
<b>30-D Geomean</b>	

**DMR Check for April 2009**

Parameter	30-day Average Loading		7-Day Average Loading		30-day Ave Concentration		7-day Ave Concentration	
	DMR	Check	DMR	Check	DMR	Check	DMR	Check
BOD	103	103.66✓	N/A		40	40.25✓	47	47.3✓
TSS	103	91.08	N/A		40	33.17	59	59✓
E. coli					20 cfu/100 mL (30d Avg)	19.05	23cfu/100 mL (Daily Max)	22.90✓
pH	7.0 Min ✓	7.1 Max✓						
Total Residual Chlorine	0.019 INST MAX	Permittee should be reporting < 0.019 ug/L as reported on benchsheets.						

**BOD CALCULATION – APRIL 2009**

Sample Date:	Daily Flow (MGD)	BOD (mg/l)	Calculated Daily Load
04/01/2009	.326	47.3	(.326)(47.3)(8.34) = 128.60 lbs/d
04/08/2009	.295	38.4	(.295)(38.4)(8.34) = 94.48 lbs/d
04/15/2009	.300	33.1	(.300)(33.1)(8.34) = 82.82 lbs/d
04/22/2009	.309	42.2	(.309)(42.2)(8.34) = 108.75 lbs/d
<b>Calculated Monthly Loading Average:</b>	(128.60 lbs/d + 94.48 lbs/d + 82.82 lbs/d + 108.75) / 4 = 103.66 lbs/d		
<b>Reported on DMR</b>	<b>103 lbs/d</b>		

**TSS CALCULATION – APRIL 2009**

Sample Date:	Daily Flow (MGD)	TSS (mg/l)	Calculated Daily Load
04/01/2009	.326	59	(.326)(59)(8.34) = 160.41 lbs/d
04/08/2009	.295	45	(.295)(45)(8.34) = 110.71 lbs/d
04/15/2009	.300	32	(.300)(32)(8.34) = 80.06 lbs/d
04/22/2009	.309	32	(.309)(32)(8.34) = 82.47 lbs/d
04/29/2009	.293	31	(.293)(31)(8.34) = 75.75 lbs/d
<b>Calculated Monthly Loading Average:</b>	(160.41 lbs/d + 110.71 lbs/d + 80.06 lbs/d + 82.47 lbs/d + 75.75) / 5 = 91.08 lbs/d		
<b>Reported on DMR</b>	<b>103 lbs/d</b>		

**E. COLI CALCULATION – APRIL 2009**

Sample Date:	E. coli cfu/100 mL
04/01/2009	14 per 100 mL
04/08/2009	23 per 100 mL
04/22/2009	23 per 100 mL
<b>7 D Average Geomean</b>	<b>Log 23 = 1.36 antilog of 1.36 = 22.90 Geomean</b>
<b>30-D Geomean</b>	<b>(Log 14 = 1.14+ Log 23 = 1.36+ Log 23 = 1.36 / 3) = 1.29 antilog of 1.29 = 19.05 30-D Geomean</b>

✓ = In agreement with reported values on DMR. (Rounding of significant figures noted)

### **Section C – Operations and Maintenance: Overall rating of “Unsatisfactory”**

Permit requirements, Part III. B. 3: Proper Operation and Maintenance

*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 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. This provision requires the operation of operation is necessary to achieve compliance with the conditions of this permit.*

#### **Findings** for Operations and Maintenance:

The permittee is in the process of changing its procedural operations from a lagoon system to an activated aeration system. Because of this, there are many issues with operation and maintenance. The permittee has only the East lagoon for primary treatment which seems to be ineffective (DMR exceedances for TSS and BOD).

During this inspection, the inspector requested the operator to grab samples for Total Residual Chlorine (TRC) and pH. When the operator did the analysis for the TRC, the results were incredibly high at 1.62 mg/L (1620 ug/L), well above the limit.

Two surface aerators are functional at this time. The third aerator has been off line since December 2010. The operator stated there are no plans to fix the failing equipment, as all money has been put into building the new plant.

### **Section E – Flow Measurements: Overall rating of “Marginal”**

The permit requires in Part III. C. 6: Flow Measurement

*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.*

The operator had no calibration records available from an outside representative. EPA recommends that calibration of all flow measurement devices performed annually.

**NMED/SWQB**  
**Official Photograph Log**  
**Photo # 1**

Photographer: Sarah Holcomb	Date: 06/07/2011	Time: 11:09
City/County: Santa Rosa / Guadalupe		State: New Mexico
Location: Santa Rosa Wastewater Treatment Plant		
Subject: East Lagoon with two surface aerators. Third aerator non-functional.		



**NMED/SWQB**  
**Official Photograph Log**  
**Photo #2**

Photographer: Sarah Holcomb	Date: 06/07/2011	Time: 11:26
City/County: Santa Rosa / Guadalupe		State: New Mexico
Location: Santa Rosa Wastewater Treatment Plant		
Subject: Chlorine Contact Chamber – noticeable scum and green color.		



**NMED/SWQB**  
**Official Photograph Log**  
**Photo #3**

Photographer: Sarah Holcomb	Date: 06/07/2011	Time: 11:45 / 11:50
City/County: Santa Rosa / Guadalupe		State: New Mexico
Location: Santa Rosa Wastewater Treatment Plant		
Subject: Chlorine Meter Reading (left) Chlorine Sample (right).		

