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NEW MEXICO
ENVIRONMENT DEPARTMENT

Surface Water Quality Bureau

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RON CURRY
Secretary
SARAH COTTRELL
Deputy Secretary

Certified Mail - Return Receipt Requested

August 11, 2010

Mr. Alex C. Brown, Town Manager
P.O. Box 1188
Silver City, New Mexico 88062

Re: Major-Municipal, SIC 4952, NPDES Compliance Evaluation, Silver City, Wastewater Treatment Plant, NM0020109, July 15, 2010

Dear Mr. Brown,

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 Recordkeeping and Reporting, Operations and Maintenance, and Effluent/Receiving Waters Observations. 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)
Allied Bank Tower
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) 827-2575 or daniel.valenta@state.nm.us.

Sincerely,

/S/ Daniel Valenta

Daniel Valenta
Environmental Scientist/Specialist
Surface Water Quality Bureau

Cc: Marcia Gail Bohling, EPA, Enforcement Section (6EN-AS) by e-mail
Samuel Tate, EPA (6SF) by e-mail
Carol Peters-Wagnon, EPA (6EN-WM) by e-mail
Diana McDonald, EPA (6EN-WM) by e-mail
Larry Giglio, EPA (6WQ-PP) by e-mail
Frank Fiore, NMED District III (Las Cruces) 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 <input type="text" value="N"/> 2 <input type="text" value="5"/> 3 <input type="text" value="N"/> <input type="text" value="M"/> <input type="text" value="0"/> <input type="text" value="0"/> <input type="text" value="2"/> <input type="text" value="0"/> <input type="text" value="1"/> <input type="text" value="0"/> <input type="text" value="9"/> 11 12 <input type="text" value="1"/> <input type="text" value="0"/> <input type="text" value="0"/> <input type="text" value="7"/> <input type="text" value="1"/> <input type="text" value="5"/> 17 18 <input type="text" value="C"/> 19 <input type="text" value="S"/> 20 <input type="text" value="1"/> | Remarks | | | | | |
| <input type="text" value="M"/> <input type="text" value="A"/> <input type="text" value="J"/> <input type="text" value="O"/> <input type="text" value="R"/> <input type="text" value="W"/> <input type="text" value="W"/> <input type="text" value="T"/> <input type="text" value="P"/> | | | | | | |
| Inspection Work Days | Facility Evaluation Rating | BI | QA | Reserved | | |
| 67 <input type="text"/> <input type="text"/> <input type="text"/> 69 | 70 <input type="text" value="2"/> | 71 <input type="text" value="N"/> | 72 <input type="text" value="N"/> | 73 <input type="text"/> | 74 <input type="text"/> | |
| 75 <input type="text"/> | | | | | | |
| 76 <input type="text"/> | | | | | | |
| 77 <input type="text"/> | | | | | | |
| 78 <input type="text"/> | | | | | | |
| 79 <input type="text"/> | | | | | | |
| 80 <input type="text"/> | | | | | | |

Section B: Facility Data

| | | |
|---|---|---|
| Name and Location of Facility Inspected (For industrial users discharging to POTW, also include POTW name and NPDES permit number) Silver City Wastewater Treatment Plant, 1660 Filaree Road, Silver City, New Mexico 88061, NM0020109 Grant County | Entry Time /Date 0910/July 15, 2010 | Permit Effective Date October 1, 2008 |
| | Exit Time/Date 1303/July 15, 2010 | Permit Expiration Date September 30, 2013 |
| Name(s) of On-Site Representative(s)/Title(s)/Phone and Fax Number(s) Shirley Smith/Facility Forman/575-388-4981 Charles Melaney/Assistant Engineer & Flood Plan Administrator/575-534-6368 Manny Orosco/ Lab Technician/575-388-4981 | Other Facility Data Latitude N 35° 38' 09.70" Longitude W 106° 04' 30.94" | |
| Name, Address of Responsible Official/Title/Phone and Fax Number Mr. Alex C. Brown, Box 1188, Silver City, New Mexico 88062/Town Manager/575-534-6358 | SIC 4952 | |
| 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)

| | | | | | | | |
|--------------------------------|---------------------------|--------------------------------|-------------------------|--------------------------------|--------------------------|--------------------------------|----------------------|
| <input type="text" value="S"/> | Permit | <input type="text" value="S"/> | Flow Measurement | <input type="text" value="U"/> | Operations & Maintenance | <input type="text" value="N"/> | CSO/SSO |
| <input type="text" value="U"/> | Records/Reports | <input type="text" value="S"/> | Self-Monitoring Program | <input type="text" value="S"/> | Sludge Handling/Disposal | <input type="text" value="N"/> | Pollution Prevention |
| <input type="text" value="U"/> | Facility Site Review | <input type="text" value="N"/> | Compliance Schedules | <input type="text" value="N"/> | Pretreatment | <input type="text" value="N"/> | Multimedia |
| <input type="text" value="U"/> | Effluent/Receiving Waters | <input type="text" value="S"/> | Laboratory | <input type="text" value="N"/> | Storm Water | <input type="text" value="N"/> | Other: |

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

1. SEE REPORT AND FURTHER EXPLANATIONS.

| | | |
|--|--|----------------------------|
| Name(s) and Signature(s) of Inspector(s) DANIEL VALENTA /s/ Daniel Valenta | Agency/Office/Telephone/Fax NMED/SWQB 505-827-2575 | Date 8/11/10 |
| Signature of Management QA Reviewer RICHARD E. POWELL /s/ Richard Powell | Agency/Office/Phone and Fax Numbers NMED/SWQB 505-827-0418 | Date 8/11/10 |

SECTION A - PERMIT VERIFICATION

PERMIT SATISFACTORILY ADDRESSES OBSERVATIONS S M U NA (FURTHER EXPLANATION ATTACHED NO.)
 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. **Analytical results not being reported correctly.** 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: **Open waste containers, waste scattered on ground around containers.**

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 N
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. **Some spare parts present, scattered throughout the facility.** 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

SECTION C - OPERATIONS AND MAINTENANCE (CONT'D)

9. HAVE BYPASSES/OVERFLOWS OCCURRED AT THE PLANT OR IN THE COLLECTION SYSTEM IN THE LAST YEAR?
 IF SO, HAS THE REGULATORY AGENCY BEEN NOTIFIED?
 HAS CORRECTIVE ACTION BEEN TAKEN TO PREVENT ADDITIONAL BYPASSES/OVERFLOWS?

Y N NA
 Y N NA
 Y N NA

10. HAVE ANY HYDRAULIC OVERLOADS OCCURRED AT THE TREATMENT PLANT?
 IF SO, DID PERMIT VIOLATIONS OCCUR AS A RESULT?

Y N NA
 Y N NA

SECTION D - SELF-MONITORING

PERMITTEE SELF-MONITORING MEETS PERMIT REQUIREMENTS.
 DETAILS:

S M U NA (FURTHER EXPLANATION ATTACHED No.)

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.
 DETAILS:

S M U NA (FURTHER EXPLANATION ATTACHED No.)

1. PRIMARY FLOW MEASUREMENT DEVICE PROPERLY INSTALLED AND MAINTAINED.

Y N NA

TYPE OF DEVICE **9" Parshall Flume or 6" Parshall Flume or pumped to Golf Course, Sonic Inline Flow Meter**

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. **A staff reading is recorded during sampling events.**
 RECORDS MAINTAINED OF CALIBRATION PROCEDURES.
 CALIBRATION CHECKS DONE TO ASSURE CONTINUED COMPLIANCE.

Y N NA
 Y N NA
 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. **Different size flumes-per flow**

Y N NA

SECTION F - LABORATORY

PERMITTEE LABORATORY PROCEDURES MEET PERMIT REQUIREMENTS.
 DETAILS:

S M U NA (FURTHER EXPLANATION ATTACHED No.)

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

Y N NA

**Compliance Evaluation Inspection
Silver City Wastewater Treatment Facility
NPDES Permit No. NM0020109
July 15, 2010**

Introduction

On July 15, 2010 a Compliance Evaluation Inspection (CEI) was conducted at the City of Silver City Wastewater Treatment Plant (WWTP) by Mr. Daniel Valenta of the State of New Mexico Environment Department (NMED). This facility is classified as a major municipal domestic discharger under the federal Clean Water Act (CWA), Section 402 National Pollutant Discharge Elimination System (NPDES) permit program and is assigned permit number NM0020109. The facility has a design capacity of 2.0 million gallons per day (MGD). The effluent from the treatment plant is discharged to receiving waters named San Vicente Arroyo, an intermittent tributary in the Mimbres River Basin. The San Vicente Arroyo intersects the Mimbres River approximately 31 miles downstream from the site.

The NMED performs a certain number of CEI's for the U.S. Environmental Protection Agency (USEPA) each year. The purpose of this inspection is to provide USEPA with information to evaluate the permittee's compliance with the NPDES permit. This report is based on review of files maintained by the permittee and NMED, on-site observation by NMED personnel, and verbal information provided by the permittee's representative. Finding of the inspection are detailed on the attached EPA form 3560-3 and in the narrative Further Explanations section of the report.

The inspector arrived at the Silver City WWTP at 0910, met with Wastewater Operator Manny Orosco, made introductions, presented his credentials, and discussed the purpose of the inspection. After touring the WWTP the inspector reviewed records at the WWTP office. An exit interview was held with Manny Orosco at the WWTP office at approximately 1303. Shirley Smith, Plant Foreman was notified but unable to attend.

Treatment Scheme

Raw sewage arrives by gravity flow at the WWTP entrance works via two separate lines, one from Silver City proper and one from Maude Canyon (east of town). This facility also accepts septage at a dump station located at the south end of the plant. Septage is accepted on a limited basis and the plant also accepts grease trap waste and uses a drying bed for evaporation before sending the grease to the landfill.

Influent enters the plant at the primary lift station (influent pump station). The pump station has two screw pumps, one for influent, and one for return activated sludge (RAS) from the secondary clarifiers. All of the influent is directed to a primary automatic bar screen and grit chamber, then to a secondary bar screen chamber located adjacent to the entrance works. At the primary grit chamber, wastewater is lifted to a 12-inch Parshall flume and a sonic secondary measurement device where the influent flow is recorded. The plant has a call alarm system to notify the plant staff of high flow, low flow, and electrical problems at the plant.

Compliance Evaluation Inspection
Silver City Wastewater Treatment Facility
NPDES Permit No. NM0020109
July 15, 2010

Flow from the secondary grit chamber is directed through a splitter box where effluent is divided evenly between two primary clarifiers that operate in parallel. Sludge is collected by rotating scrapers and directed to a sump located in the center of the clarifiers. The collected sludge is then pumped to the aerobic digesters. Sludge can only be pumped to the digesters from the primary clarifiers. To remove sludge from the final clarifiers, it has to go back to the primary, settle with influent flowing through and then pumped to digesters. The facility is hoping to gain greater process control by removing sludge directly from the final clarifiers. Flow continues to another splitter box prior to entering the anoxic basin component consisting of 2-bioselectors, and 4-anoxic basins. A bypass channel with side gates is operated to select which basins are used. The anoxic basins were designed for denitrification, to improve effluent quality. Recirculation speed can be adjusted to balance ammonia and nitrate in the secondary effluent.

Wastewater flows from the primary clarifiers to the aeration basins that have four mechanical brush aerators. From the aerobic basin, flow enters a splitter box and is divided before entering two secondary/final clarifiers. Activated sludge that settles in these units is periodically pumped back as Returned Activated Sludge (RAS) or when piping is completed, to be pumped out of the process to the sludge digesters. From the secondary clarifiers, flows are combined then routed to an Ultra Violet (UV) disinfection system that contains two UV drums. The treated effluent flows into the unused chlorine contact chamber. This chamber is now just being used as an equalization basin as effluent is released through the various paths that can be opened. This area is open to the sunlight, blowing leaves, and any other contaminate that may fall into this area. On the day of the inspection the water was a pale green with what appeared to be a layer of floating grease, (see photo 1).

Solids Management

Sludge is batch wasted from the bottom of the primary clarifiers, anoxic basins, and aerobic basin to a newly constructed aerobic sludge digester. From the digester, sludge is drained to one of fourteen drying beds. Sludge in the beds is manually aerated to facilitate the drying process and increase the solids content prior to final disposal. Liquid from the drying beds is decanted and returned to the entrance works. The dried sludge is stored on site and then shipped to the Las Cruces landfill for final disposal.

**Compliance Evaluation Inspection
Silver City Wastewater Treatment Facility
NPDES Permit No. NM0020109
July 15, 2010**

Further Explanations

Section B-Recordkeeping & Reporting Evaluation-Overall Rating of “Unsatisfactory”

Permit Requirements – for Recordkeeping and Reporting Evaluation

Part I.A. of permit #NM0020109 lists 30 Day Average and 7 Day Average effluent limitations for both mass (pounds /day) and concentration (mg/l) at outfall 001 for biochemical oxygen demand (BOD5), total suspended solids (TSS). Part I.A also lists 30 Day Average and 7 Day Average limitations for concentration at outfall 001 for E-coli bacteria.

$$\text{Total mass (lbs/day)} = \text{flow (million gallons/day (MGD))} \times 8.34 \times \text{concentration (mg/l)}$$

A review of analytical results for June 2009 was conducted after the inspection using records maintained by the permittee for outfall 001. The permit limits are set based on the facilities 2.0 MGD Design Flow. Discharging to the Golf Course diverts at times a majority of the treated effluent thus the permitted discharge limitations are quite large compared to what is discharged. No permit limits were exceeded during the reviewed time period by not calculating the loading correctly. **However these errors should be corrected by resubmitting adjusted DMR’s.**

Reviewing reported DMR data there appears to be anomalies in the reporting of monthly flow data. Daily Maximum values in many cases are lower than 7-Day averages and 30-Day averages, see attached spreadsheet.

DMR Calculations Review

Reporting Period: From June 1, 2009 to: June 30, 2009

Parameters Checked: Outfall 001, BOD5, TSS, E-coli, Q

| | Quantity – BOD5 | | Mass – BOD5 | |
|-------------------------|--------------------------------|-------------------------------|-----------------------------------|----------------------------------|
| | <i>30 Day Average mg/l</i> | <i>7-Day Average mg/l</i> | <i>30-Day Average lbs/day</i> | <i>7-Day Average lbs/day</i> |
| Reported Value | 9.3 | 15.7 | 3.5 | 5.6 |
| Calculated Value | 9.46 | 15.5 | 14.36 | 26.10 |
| Permit Limit | 30 | 45 | 500 | 750 |

**Compliance Evaluation Inspection
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BOD5 30-Day Average mg/l

$$14.9 \text{ mg/l} + 15.54 \text{ mg/l} + 4.30 \text{ mg/l} + 3.12 \text{ mg/l} = 37.86/4 = 9.46 \text{ mg/l}$$

BOD5 30 Day Average lbs/day

June 3 – (0.21 MGD) (14.90 mg/l) (8.34 lbs/gal) = 26.10 lbs/day
 June 10– (0.15 MGD) (15.54 mg/l) (8.34 lbs/gal) = 19.44 lbs/day
 June 17– (0.15 MGD) (4.300 mg/l) (8.34 lbs/gal) = 5.38 lbs/day
 June 24 – (0.25 MGD) (3.120 mg/l) (8.34 lbs/gal) = 6.51 lbs/day

BOD5 30-Day Average lbs/day

$$26.10 \text{ lbs/day} + 19.44 \text{ lbs/day} + 5.38 \text{ lbs/day} + 6.51 \text{ lbs/day} = 57.43/4 = 14.36 \text{ lbs/day}$$

| | Quantity – TSS | | Mass – TSS | |
|-------------------------|--------------------------------|-------------------------------|-----------------------------------|----------------------------------|
| | <i>30 Day Average mg/l</i> | <i>7-Day Average mg/l</i> | <i>30-Day Average lbs/day</i> | <i>7-Day Average lbs/day</i> |
| Reported Value | 3.10 | 3.50 | 1.80 | 1.30 |
| Calculated Value | 3.25 | 3.50 | 4.98 | 6.50 |
| Permit Limit | 30 | 45 | 500 | 750 |

TSS 30-Day Average mg/l

$$3.50 \text{ mg/l} + 2.75 \text{ mg/l} + 3.50 \text{ mg/l} + 3.25 \text{ mg/l} = 13.0/4 = 3.25 \text{ mg/l}$$

TSS 30 Day Average lbs/day

June 3 – (0.20 MGD) (3.50 mg/l) (8.34 lbs/gal) = 5.83 lbs/day
 June 10– (0.14 MGD) (2.75 mg/l) (8.34 lbs/gal) = 3.21 lbs/day
 June 17– (0.15 MGD) (3.50 mg/l) (8.34 lbs/gal) = 4.37 lbs/day
 June 24 – (0.24 MGD) (3.25 mg/l) (8.34 lbs/gal) = 6.50 lbs/day

TSS 30-Day Average lbs/day

$$5.83 \text{ lbs/day} + 3.21 \text{ lbs/day} + 4.37 \text{ lbs/day} + 6.50 \text{ lbs/day} = 19.91/4 = 4.98 \text{ lbs/day}$$

**Compliance Evaluation Inspection
Silver City Wastewater Treatment Facility
NPDES Permit No. NM0020109
July 15, 2010**

| | E-coli Daily Max | |
|-------------------------|-------------------------|-------------------|
| | <i>Daily Max</i> | <i>30 Day Ave</i> |
| Reported Value | 15.0 | 10.30 |
| Calculated Value | 21.0 | 9.03 |
| Permit Limit | 410 | 126 |

| | | | |
|-------------------|--------------------|---------------------|---------------------|
| June 1 - 21.0 cfu | June 8 - 7.02 cfu | June 15 - 10.80 cfu | June 22 - 6.48 cfu |
| June 3 - 2.70 cfu | June 10 - 9.20 cfu | June 17 - 4.86 cfu | June 24 - 14.05 cfu |
| June 5 - 8.65 cfu | June 12 - 9.72 cfu | June 19 - 12.40 cfu | June 26 - 16.2 cfu |

Geometric Means = 9.03 cfu

E-coli values have not been reported correctly due to using an arithmetic average not the geometric average for the 30 day average. An average of values was used for the Daily Maximum. **This is a repeat finding of the 08/2006 inspection.**

| Discharge Values | | | |
|-------------------------|--------------------------------------|--------------------------|---------------------------|
| | | <i>Daily Max MGD</i> | <i>30 Day Ave MGD</i> |
| | June Reported Value | 0.21 | 0.36 |
| | Calculated Value | 0.36 | 0.22 |
| | July Reported Value | 0.38 | 1.21 |
| | Calculated Value | 1.21 | 0.36 |
| | August Reported Value | 0.44 | 0.99 |
| | Calculated Value | 0.99 | 0.43 |

It appears by reviewing the June, July, and August 2010 reported discharge measurements that the facility is reporting the Monthly Daily Maximum as the 30 Day Average and the 30 Day Average as the Monthly Maximum.

Silver City NM0020109

| Date | BOD 30-Day Ave 500 lbs/day | BOD 7-Day Ave 750 lbs/day | BOD 30 Day Ave 30 mg/l | BOD 7 Day Ave 45 mg/l | pH | pH | TSS 30-Ave 500 lbs/day | TSS 30-Day Ave 750 lbs/day | TSS 30 Day Ave 30 mg/l | TSS 7 Day Ave 45 mg/l | TSS 30 Day Ave MGD | Q 7 Day Ave MGD | Q Daily Max MGD | TRC Inst Max 11 ug/l | E coli 30-Day Ave 128 cfu/ml | E-Coli Daily Max 410 cfu/ml | Mg 30 Day Ave 0.009 mg/l | MG Daily Max 0.013 mg/l |
|---------|----------------------------------|---------------------------------|------------------------------|-----------------------------|-----|-----|------------------------------|----------------------------------|------------------------------|-----------------------------|--------------------------|-----------------------|-----------------------|----------------------------|------------------------------------|-----------------------------------|--------------------------------|-------------------------------|
| 4/1/10 | 4.5 | 6.9 | 1.4 | 11.4 | 7.4 | 7.7 | 4.3 | 8.1 | 1.9 | 13.4 | 1.43 | 0.47 | 0.42 | 0.00 | 81.50 | 91.80 | | |
| 3/1/10 | 21.5 | 33.0 | 11.0 | 15.3 | 7.2 | 7.7 | 21.1 | 39.3 | 10.6 | 18.5 | 1.39 | 0.96 | 0.97 | 0.00 | 86.00 | 105.40 | 0.00 | 0.00 |
| 2/1/10 | 5.2 | 9.4 | 2.9 | 3.9 | 7.5 | 7.6 | 12.9 | 23.6 | 7.4 | 10.7 | 1.59 | 1.15 | 1.17 | 0.00 | 92.60 | 147.50 | | |
| 1/1/10 | 15.4 | 24.7 | 3.2 | 14.1 | 7.5 | 7.8 | 7.3 | 11.3 | 1.7 | 5.8 | 1.62 | 1.00 | 1.00 | 0.00 | 39.50 | 65.20 | | |
| 12/1/09 | 9.7 | 19.0 | 4.9 | 9.4 | 7.5 | 7.7 | 10.4 | 14.3 | 5.5 | 8.0 | 1.15 | 0.95 | 0.94 | 0.00 | 21.50 | 54.10 | 0.00 | 0.00 |
| 11/1/09 | 5.4 | 13.2 | 3.7 | 8.9 | 7.4 | 7.7 | 7.7 | 14.3 | 5.2 | 7.7 | 1.07 | 0.72 | 0.72 | 0.00 | 4.90 | 8.30 | | |
| 10/1/09 | 5.1 | 7.3 | 6.1 | 9.9 | 7.5 | 7.7 | 3.4 | 8.6 | 3.0 | 4.2 | 1.14 | 0.55 | 0.57 | 0.00 | 9.40 | 17.10 | | |
| 9/1/09 | 5.4 | 12.8 | 5.8 | 12.6 | 7.6 | 7.8 | 2.6 | 3.4 | 2.7 | 3.1 | 0.86 | 0.60 | 0.63 | 0.00 | 6.80 | 9.20 | 0.00 | 0.00 |
| 8/1/09 | 4.2 | 9.5 | 4.2 | 9.1 | 7.7 | 7.9 | 2.9 | 5.2 | 2.8 | 3.8 | 0.99 | 0.42 | 0.44 | 0.00 | 12.50 | 17.70 | | |
| 7/1/09 | 5.4 | 9.2 | 10.6 | 17.0 | 7.7 | 7.9 | Missing | Missing | 3.2 | 3.8 | 1.21 | 0.37 | 0.38 | 0.00 | 12.90 | 14.90 | | 0.00 |
| 6/1/09 | 3.5 | 5.6 | 9.3 | 15.7 | 7.7 | 7.9 | 1.3 | 1.8 | 3.1 | 3.5 | 0.36 | 0.22 | 0.21 | 0.00 | 10.30 | 15.00 | 0.00 | 0.00 |
| 5/1/09 | 3.0 | 5.9 | 5.4 | 7.7 | 7.4 | 7.7 | 1.3 | 1.5 | 2.8 | 3.5 | 0.39 | 0.23 | 0.22 | 0.00 | 21.80 | 43.20 | | |
| 4/1/09 | 3.7 | 6.2 | 4.2 | 6.5 | 7.4 | 7.7 | 3.8 | 8.2 | 4.3 | 8.5 | 0.63 | 0.44 | 0.44 | 0.00 | 21.50 | 12.80 | | |
| 3/1/09 | 6.1 | 8.7 | 5.9 | 8.0 | 7.5 | 7.6 | 3.1 | 3.7 | 3.2 | 3.7 | 0.60 | 1.05 | 0.61 | 0.00 | 31.70 | 75.20 | 0.00 | 0.00 |
| 2/1/09 | 18.7 | 26.9 | 10.5 | 14.5 | 7.4 | 7.6 | 10.5 | 17.6 | 5.8 | 9.5 | 0.86 | 1.13 | 0.84 | 0.00 | 25.90 | 53.20 | | |
| 1/1/09 | 13.4 | 25.3 | 8.8 | 12.4 | 7.4 | 7.7 | 11.5 | 26.6 | 7.8 | 13.9 | 1.13 | 0.91 | 0.92 | 0.00 | 37.60 | 59.50 | | |
| 12/1/08 | 9.7 | 21.4 | 4.7 | 2.1 | 7.4 | 7.7 | 6.5 | 13.1 | 3.4 | 5.0 | 0.90 | 1.31 | 0.90 | 0.00 | 47.30 | 117.00 | 0.00 | 0.00 |
| 11/1/08 | 11.0 | 30.2 | 6.7 | 10.5 | 7.5 | 7.7 | 8.8 | 16.7 | 6.0 | 10.0 | 0.78 | 1.30 | 0.82 | 0.00 | 17.80 | 39.90 | | |
| 10/1/08 | 5.4 | 10.5 | 4.6 | 8.1 | 7.4 | 7.6 | 6.6 | 15.4 | 5.0 | 11.0 | 0.50 | 0.49 | 1.09 | 0.00 | 49.50 | 185.70 | | |
| 9/1/08 | 11.9 | 23.1 | 1.9 | 2.2 | 7.0 | 7.7 | 23.0 | 40.4 | 3.8 | 5.8 | 1.00 | 1.47 | | 0.00 | 12.20 | 30.20 | 0.00 | 0.00 |

**Compliance Evaluation Inspection
Silver City Wastewater Treatment Facility
NPDES Permit No. NM0020109
July 15, 2010**

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

1. The Permit Requirements on Page 3 of Part III, B, 6: REMOVED SUBSTANCES *Unless otherwise authorized, solids, sewage sludges, filter backwash, or other pollutants removed in the course of treatment or wastewater control shall be disposed of in a manner such as to prevent any pollutant from such materials from entering navigable waters.*

Three large dumpsters and several smaller containers were on site, no containers had lids. Birds and other animals are free to enter the containers and drag waste material out, (see photo 1 & 2). Facility personnel have to constantly clean these areas. Due to residential houses within a block of the facility vector control issues may present a human health issue. Rain events, as occurred on the day of the inspection, present the issue of stormwater entering these open containers and waste being mobilized to flow off site. Solid waste from the headwork’s screen should be kept on a contained surface such as a cement bermed pad and in a closed container.

Section G – Effluent/Receiving water observations: Overall rating of “Unsatisfactory”

1. Per Part I, A,1, FLOATING SOLIDS, VISIBLE FOAM AND/OR OILS, *“There shall be no discharge of floating solids or visible foam in other than trace amounts. There shall be no discharge of visible films of oil, globules of oil, grease or solids in or on the water, or coatings on stream banks.”*

After final treatment by the UV disinfection system the effluent flows through the unused chlorine contact chamber (see photo 3). It is unknown if the visible material on the surface in the discharge water passed through the treatment process or was introduced after final treatment and then discharge to a Golf Course or Outfall 001.

NMED/SWQB

Official Photograph

Photo #1

| | | |
|---|-----------------|------------|
| Photographer: Daniel Valenta | Date: 6/15/2010 | Time: 1510 |
| City/County: Silver City/Grant County | | |
| Location: Silver City WWTP, facing northwest, north side of facility at 1660 East Filaree Road, Silver City, New Mexico 88061. | | |
| Subject: Waste from headwork's at WWTP. Waste containers with no lids to keep out rainwater, debris blows out and animals drag waste out. Note house a top of hill. | | |



NMED/SWQB

Official Photograph Log

Photo # 2

| | | |
|---|-----------------|------------|
| Photographer: Daniel Valenta | Date: 7/15/2010 | Time: 1524 |
| City/County: Silver City/Grant County | | |
| Location: Silver City WWTP, facing east, septic discharge station at 1660 East Filaree Road, Silver City, New Mexico 88061. | | |
| Subject: Septic discharge station headwork's area. Waste from the location is placed in uncovered container, rain approaching site. | | |



NMED/SWQB

Official Photograph

Log Photo # 3

| | | |
|--|-----------------|------------|
| Photographer: Daniel Valenta | Date: 7/15/2010 | Time: 1021 |
| City/County: Silver City/Grant County | | |
| Location: Silver City WWTP, facing north, north side of chlorine contact chamber at 1660 East Filaree Road, Silver City, New Mexico 88061 | | |
| Subject: Treated effluent before it is released to the Golf Course or outfall 001, water flows through unused chlorine contact chamber before discharging. | | |

