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DAVE MARTIN  
Secretary

BUTCH TONGATE  
Acting Deputy Secretary

**Certified Mail - Return Receipt Requested**

October 13, 2011

Debi Lee, Village Manager  
Village of Ruidoso  
313 Cree Meadows Drive  
Ruidoso, New Mexico 88345

**RE: Minor Non-Municipal, SIC 4941, NPDES Compliance Evaluation Inspection, Village of Ruidoso/  
Grindstone Dam, NM0030392, September 20, 2011**

Dear Ms. Lee,

Enclosed, please find a copy of the report for the referenced inspection that the New Mexico Environment Department (NMED) Surface Water Quality Bureau (SWQB) 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.

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 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  
Allied Bank Tower  
Region VI Enforcement Branch (6EN-WM)  
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

I appreciate the cooperation of your staff during the inspection. If you have any questions about this inspection report, please contact me at (505) 827-0418.

Sincerely,

/s/ Erin S. Trujillo  
Erin S. Trujillo  
Surface Water Quality Bureau

- cc: Marcia Gail Adams, USEPA (6EN-AS) by e-mail
- Samuel Tates, EPA (6EN-AS) by e-mail
- Carol Peters-Wagnon, USEPA (6EN-WM) by e-mail
- Diana McDonald, USEPA (6EN-WM) by e-mail
- Sonia Hall and Hannah Branning, USEPA (6EN-WC) by e-mail
- Larry Giglio, USEPA (6WQ-PP) by e-mail
- Mike Kessler, NMED District III Acting Manager 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   3   0   3   9   2   11   12   1   1   0   9   2   0   17   18   C   19   S   20   2					
Remarks					
D   A   M   R   A   W   W   A   T   E   R   T   R   E   A   T   M   E   N   T   /   R   E   U   S   E					
Inspection Work Days	Facility Evaluation Rating	BI	QA	Reserved	
67       69	70   3	71   N	72   N	73	74   75   M   I   N   O   R   80

#### 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
Village of Ruidoso, Grindstone Dam Raw Water Treatment and Reuse Facility, 500 Resort Drive, Ruidoso, New Mexico. Lincoln County.	1430 hours / 09/20/2011	July 1, 2006
Name(s) of On-Site Representative(s)/Title(s)/Phone and Fax Number(s)	Exit Time/Date	Permit Expiration Date
Gary Goss, Chief Water Production Operator, Village of Ruidoso / 575-551-1304 Carlos Salas, Contractor for Village of Ruidoso / 575-257-2386	1735 hours / 09/20/2011	June 30, 2011
Name, Address of Responsible Official/Title/Phone and Fax Number	Other Facility Data	
Debi Lee, Village Manager, Village of Ruidoso, 313 Cree Meadows Drive, Ruidoso, New Mexico 88345 / Village Manager / 575-258-4343 or 1-877-700-4343	Grindstone Facility Latitude N. 33.322°, Longitude W. -105.683°  SIC 4941	
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)

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

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

1. SEE ATTACHED CHECKLIST REPORT WITH FURTHER EXPLANATIONS.

Name(s) and Signature(s) of Inspector(s)	Agency/Office/Telephone/Fax	Date
Erin S. Trujillo /s/ Erin S. Trujillo	NMED/SWQB/505-827-0418	10/13/2011
Signature of Management QA Reviewer	Agency/Office/Phone and Fax Numbers	Date
Richard E. Powell /s/ Richard E. Powell	NMED/SWQB/505-827-2798	10/13/2011

**SECTION A - PERMIT VERIFICATION**

PERMIT SATISFACTORILY ADDRESSES OBSERVATIONS DETAILS:  S  M  U  NA (FURTHER EXPLANATION ATTACHED Yes)

- 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 **Grindstone Canyon = N, Reservoir = Y**  Y  N  NA
- 4. ALL DISCHARGES ARE PERMITTED. **Not documented.**  Y  N  NA

**SECTION B - RECORDKEEPING AND REPORTING EVALUATION**

RECORDS AND REPORTS MAINTAINED AS REQUIRED BY PERMIT. DETAILS:  S  M  U  NA (FURTHER EXPLANATION ATTACHED Yes)  
**Reviewed April 2009 – June 2011 DMRs submitted since previous CEI on May 13, 2009**

- 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 **pH = Y; Times for Total Copper 6 hr Composite Not Recorded**  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)  
**pH Treatment Facility and Settling Basin. No automatic process control testing to determine if treatment units needed. No bypass/overflow to Grindstone Canyon Reservoir documented. See further explanations for bypass/overflows.**

- 1. TREATMENT UNITS PROPERLY OPERATED. **Not operated**  S  M  U  NA
- 2. TREATMENT UNITS PROPERLY MAINTAINED. **Not maintained**  S  M  U  NA
- 3. STANDBY POWER OR OTHER EQUIVALENT PROVIDED. **No standby power for pump back system.**  S  M  U  NA
- 4. ADEQUATE ALARM SYSTEM FOR POWER OR EQUIPMENT FAILURES AVAILABLE. **pH treatment units not in service/not operated**  S  M  U  NA
- 5. ALL NEEDED TREATMENT UNITS IN SERVICE **pH treatment units not in service/not operated.**  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

**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: **Monitoring for discharges to Grindstone Canyon Reservoir. See further explanations for reviewed record keeping.**

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. **Total Copper 6-Hr Composite**  Y  N  NA
- b) PROPER PRESERVATION TECHNIQUES USED. **Total Copper**  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: **Flow measurement is needed to calculate total copper monthly average loading.**

1. PRIMARY FLOW MEASUREMENT DEVICE PROPERLY INSTALLED AND MAINTAINED.  Y  N  NA  
 TYPE OF DEVICE **Inline 6" Water Specialties Model ML-04 Totalized 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. **Factory Calibration**  Y  N  NA  
 RECORDS MAINTAINED OF CALIBRATION PROCEDURES. **No calibration**  Y  N  NA  
 CALIBRATION CHECKS DONE TO ASSURE CONTINUED COMPLIANCE. **No calibration**  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: **Contract laboratory was not inspected. pH monitored on site.**

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 **pH**  Y  N  NA
3. SATISFACTORY CALIBRATION AND MAINTENANCE OF INSTRUMENTS AND EQUIPMENT. **pH**  S  M  U  NA
4. QUALITY CONTROL PROCEDURES ADEQUATE. **Methods, but no site specific written QC procedures.**  S  M  U  NA
5. DUPLICATE SAMPLES ARE ANALYZED. **pH 100** % OF THE TIME.  Y  N  NA
6. SPIKED SAMPLES ARE ANALYZED. **pH Buffers 100** % OF THE TIME.  Y  N  NA
7. COMMERCIAL LABORATORY USED.  Y  N  NA

LAB NAME **1) Hall Environmental Analysis Laboratory** **2) Anatek Labs, Inc.**  
 LAB ADDRESS **4901 Hawkins NE, Albuquerque, NM 87109, 505-345-3975** **1282 Alturas Dr, Moscow, ID 83843, 208-883-2839**  
 PARAMETERS PERFORMED **Total Copper**

**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
<b>001</b>	<b>No discharge</b>						

RECEIVING WATER OBSERVATIONS: **No floating solids or foam observed on water's surface at concrete settling basin above the reservoir.**

**SECTION H - SLUDGE DISPOSAL**

SLUDGE DISPOSAL MEETS PERMIT REQUIREMENTS.  S  M  U  NA (FURTHER EXPLANATION ATTACHED **No**).

DETAILS: **Grindstone Dam Raw Water and Treatment Facility does not generate domestic sewage sludge.**

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: **NA** (e.g., FOREST, AGRICULTURAL, PUBLIC CONTACT SITE)

**SECTION I - SAMPLING INSPECTION PROCEDURES** (FURTHER EXPLANATION ATTACHED **No**).

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

**Village of Ruidoso - Grindstone Dam  
NPDES Permit No. NM0030392  
Compliance Evaluation Inspection  
September 20, 2011**

**Further Explanations**

**Introduction**

On September 20, 2011, Erin Trujillo of the New Mexico Environment Department (NMED), Surface Water Quality Bureau (SWQB) conducted a Compliance Evaluation Inspection (CEI) at the Village of Ruidoso, Grindstone Dam Raw Water Treatment and Reuse Facility, 500 Resort Drive, Ruidoso in Lincoln County, New Mexico.

The facility is classified as a minor industrial discharger under the federal Clean Water Act, Section 402, of the National Pollutant Discharge Elimination System (NPDES) permit program. It is assigned NPDES permit number NM0030392 which authorizes discharge from outfall 001 to Grindstone Canyon Reservoir in Segment 20.6.4.209 *State of New Mexico Standards for Interstate and Intrastate Surface Waters, New Mexico Administrative Code (NMAC)* in the Pecos River Basin. This segment includes the designated uses of domestic water supply, high quality coldwater aquatic life (HQCWAL), irrigation, livestock watering, wildlife habitat, public water supply and primary contact. The Surface Water Quality Bureau 2010-2012 State of New Mexico CWA §303(d)/§305(b) Integrated List & Report states, *"This reservoir should be reclassified into its own WQS segment because fish culture and HQCWAL are not existing uses."*

The NMED performs a certain number of CEIs each year for the U.S. Environmental Protection Agency (USEPA), Region VI. The purpose of this inspection is to provide the USEPA with information to evaluate the Permittee's compliance with the NPDES permit. This inspection report is based on information provided by the Permittee's representatives, observations made by the NMED inspectors, and records and reports kept by the Permittee and/or NMED.

On the day of this inspection, the inspector made introductions, explained the purpose of the inspection, and presented credentials to Gary Goss, Chief Water Production Operator, Village of Ruidoso at approximately 1430 hours off site at the Village of Ruidoso Alto Crest WTP. Files were reviewed at the offices of the Grindstone Dam WTP. A tour of the Grindstone Dam Raw Water Treatment and Reuse Facility and exit interview to discuss preliminary findings was conducted with Carlos Salas, a contractor hired by Village of Ruidoso. The inspector left the Grindstone Dam WTP at approximately 1735 hours on the day of this inspection. Additional information was obtained from Mr. Salas after the inspection on September 21, 2011 and prior to writing this report on October 12, 2011.

**Treatment Scheme Background**

Grindstone Dam built in the mid 1980s impounds water from Grindstone Canyon. Also, water is diverted from the Rio Ruidoso for the purpose of providing a raw water supply for the municipal Grindstone Water Treatment Plant No. 4. Copper sulfate is used for algae control in the reservoir, typically beginning March through October on an as needed basis. The dam is a roller compacted concrete structure (RCC) and these types of designs tend to leak and produce seepage on the downstream side. Previous inspection reports state that seepage from this particular structure had elevated pH ranging from 9.0 to 11.0 standard units (su).

The facility initially installed a water collection gallery (also referred to as the pumpback system) at the toe of the dam to collect dam seepage water. A portion of the seepage was then pumped from the gallery into a chemical treatment building for pH adjustment prior to discharge back into Grindstone Reservoir.

In December 2003, the facility installed a second water collection gallery approximately 0.3 miles below the dam in Grindstone Canyon. USEPA's statement of basis/fact sheet prepared January 28, 2006 states, *"The water collection gallery was relocated approximately 1000 ft. downstream of the original location next to the dam to ensure that as much of the infiltration underneath the dam was collected."* Based on information from the Permittee's on-site representative during this inspection, locating the water collection gallery downstream also allowed pH levels in the dam seepage to reduce. The Permittee's on-site representative was not aware of any recent testing of the dam seepage before flowing into Grindstone Canyon.

The second gallery is equipped with a standpipe that allows overflows into Grindstone Canyon downstream of the gallery. A portion of the seepage is collected, pumped back to through the chemical treatment building and returned back to Grindstone Canyon Reservoir. The chemical treatment building is still located between the dam and drinking water treatment plant. Automatic process control testing of the pH before discharging back into Grindstone Canyon Reservoir and treatment is no longer being conducted. Previous inspection reports state that when needed, acid was typically added during the winter months when the pH of the seepage tended to increase. pH probes and equipment used to adjust the pH still exist in the treatment building. Treatment would consist of an acid feed metering pump system to deliver sulfuric acid solution directly into a wastewater pipeline equipped with a static in-line mixer before the flow was discharged back into Grindstone Canyon Reservoir. Flow still enters a concrete vault located next to the treatment building. A portion of the effluent can be diverted from the vault into a plastic tube that daylights on the opposite side of the treatment building. Samples for compliance monitoring are collected from this sampling port.

From the vault, flow is pumped uphill into a large concrete settling basin located on the northeast side of the reservoir just above the dam. Sulfuric acid combining with calcium carbonate produces precipitates. Water overflowing the settling basin discharges into the reservoir at outfall 001.

## **Section A - Permit Verification – Overall Rating of “M = Marginal”**

### **Federal Clean Water Act and Regulation Requirements**

Section 301 of the Federal Clean Water Act states:

*Except as in compliance with this section and sections 302, 306, 307, 318, 402 and 404 of this Act, the discharge of any pollutant by any person shall be unlawful.*

40 CFR 122.1(b) states, *"The NPDES program requires permits for the discharge of "pollutants" from any "point source" into "waters of the United States."* The terms "pollutant", "point source" and "waters of the United States" are defined at §122.2.

### **Permit Requirements** for Permit Verification

Part III.A.4 (Standard Conditions, Duty to Reapply) of the permit states:

*If the permittee wishes to continue an activity regulated by this permit after the expiration date of this permit, the permittee must apply for and obtain a new permit. The application shall be submitted at least 180 days before the expiration date of this permit. The Director may grant permission to submit an application less than 180 days in advance but no later than the permit expiration date. Continuation of expiring permits shall be governed by regulations promulgated at 40 CFR Part 122.6 and any subsequent amendments.*

Part III.D.9 (Standard Conditions, Other Information) of the permit states:

*Where the permittee becomes aware that it failed to submit any relevant facts in a permit application, or submitted incorrect information in a permit application or in any report to the Director, it shall promptly submit such facts or information.*

**Findings** for Permit Verification

Some seepage from Grindstone Dam that is not returned to Grindstone Canyon Reservoir is allowed to flow to unclassified Grindstone Canyon, thence to Carrizo Creek (approximately 3,000 feet below the dam), thence to the Rio Ruidoso. Both Carrizo Creek and Rio Ruidoso are in Segment 20.6.4.209 NMAC. The Permittee provided seepage flow measurement data released past the 2<sup>nd</sup> collection gallery and pump back system to Grindstone Canyon to USEPA in Pumpback System Reports in 2009 with Discharge Monitoring Reports (DMRs). However, an application to discharge pollutants into Grindstone Canyon or to discharge pollutants below the second gallery was not submitted. There are no new, different or increased discharges since last the CEI on May 13, 2009. However, NMED SWQB files still do not contain documentation that an application or permit to discharge pollutants to Grindstone Canyon was not or is not required.

An application to renew the permit to discharge to Grindstone Canyon Reservoir was not submitted 180 days before the expiration date of this permit. Based on information from USEPA, a renewal application was first received on June 6, 2011. The permit expired on June 30, 2011. NMED SWQB files do not contain documentation that an extension was requested 180 days in advance of the permit expiration date.

**Section B - Recordkeeping and Reporting Evaluation – Overall Rating of “M = Marginal”; and Section F - Laboratory – Overall Rating of “M = Marginal”**

**Permit Requirements** for Recordkeeping and Reporting

Part III.C.4 (Standard Conditions, Record Contents) of the permit states:

- Records of monitoring information shall include:*
- a. The date, exact place, and time of sampling or measurements;*
  - b. The individual(s) who performed the sampling or measurements;*
  - c. The date(s) and time(s) analyses were performed;*
  - d. The individual(s) who performed the analyses;*
  - e. The analytical techniques or methods used; and*
  - f. The results of such analyses.*

Part III.D.4 (Standard Conditions, Discharge Monitoring Reports and Other Reports) of the permit states:

*Monitoring results must be reported on Discharge Monitoring Report (DMR) Form EPA No. 3320-1 in accordance with the “General Instructions” provided on the form. The permittee shall submit the original DMR signed and certified as required by Part III.D.11 and all other reports required by Part III.D to the EPA at the address below. Duplicate copies of DMRs and all other reports shall be submitted to the appropriate State agency(ies)...*

Part III.D.11 (Standard Conditions, Signatory Requirements) of the permit states:

*All applications, reports, or information submitted to the Director shall be signed and certified. a. ALL PERMIT APPLICATIONS shall be signed as follows:...(3) FOR A MUNICIPALITY, STATE, FEDERAL, OR OTHER PUBLIC AGENCY - by either a principal executive officer or ranking elected official. b. ALL REPORTS required by the permit and other information requested by the Director*

*shall be signed by a person described above or by a duly authorized representative of that person. A person is a duly authorized representative only if: (1) The authorization is made in writing by a person described above; (2) The authorization specifies either an individual or a position having responsibility for the overall operation of the regulated facility or activity, such as the position of plant manager, operator of a well or a well field, superintendent, or position of equivalent responsibility, or an individual or position having overall responsibility for environmental matters for the company. A duly authorized representative may thus be either a named individual or an individual occupying a named position; and, (3) The written authorization is submitted to the Director.*

**Permit Requirements** for Laboratory

Part III.C.5.c (Standard Conditions, Monitoring Procedures) of the permit states:

*An adequate analytical quality control program, including the analyses of sufficient standards, spikes and duplicate samples to insure the accuracy of all required analytical results shall be maintained by the permittee or designated commercial laboratory.*

Part III.B.3.a (Standard Conditions, Proper Operation and Maintenance) of the permit states:

*... Proper operation and maintenance also includes adequate laboratory controls and appropriate quality assurance procedures.*

**Findings** for Recordkeeping and Reporting, and Laboratory

It was not verified from records reviewed that the monthly average flow reported on the May 2011 DMR was correct. Reviewed handwritten pump back meter readings on May 2011 logs were not legible for 5/12/2011. The electronic spreadsheet entry on 5/12/2011 was 31254.

It was not verified from records reviewed that Total Copper composite samples met the requirements of the permit. The time of each effluent portion and flow measurement data was not recorded on information provided for this inspection.

Additional Notes/Comments: Part I.A Footnote 5 for Total Copper monitoring requirements states, "See Part III.22.e." Part III.22.e of the permit states, "6-HOUR COMPOSITE SAMPLE consists of six effluent portions collected no closer together than one hour (with the first portion collected no earlier than 10:00 a.m.) and composited according to flow."

Chain of custody forms indicate that the samples were 6-hr composites. But, collection times for each effluent portion were not recorded on the reviewed May 2011 chain of custody form and only one time (0800) was recorded on the reviewed June 2011 chain of custody form. Flow meter reading times during composite sample collection times were also not recorded on handwritten logs. Totalized flow meter reading times are important in this permit to verify that the correct daily flow was used in loading calculations.

The Permittee should consider requesting USEPA to clarify composite and time restrictions (municipal terms) conditions used in the permit.

Analytical results and record keeping was not consistent with data reported on DMRSs (see Summary in Table 1). Total Copper reporting on the June 2011 DMRs submitted to EPA Region 6 was incorrect. Permittee representative stated in an email dated October 12, 2011 that corrected DMRs will be submitted. Also, record keeping for August 2010 indicated that the max pH was 8.1, not 8.0 reported on the DMR. The number of exceedances (e.g., "0" for no exceedances or excursions) were not always completed on DMRs according to instructions on USEPA's form.

A copy of a written authorization from the current village manager to USEPA identifying a duly authorized representative (named individual or position, in this case Randall Camp, Public Works Director, Village of Ruidoso) was not contained in NMED SWQB's files.

Part I.C of the permit states, "*The permittee is required to submit regular quarterly reports as described above postmarked no later than the 28<sup>th</sup> day of the month following each reporting period.*" Second (2<sup>nd</sup>) Quarter 2011 DMRs were not postmarked by July 28, 2011. Following this inspection, 2<sup>nd</sup> Quarter 2011 DMRs were submitted to NMED. Permittee on-site representatives were reminded to send DMRs to NMED SWQB offices in Santa Fe. The following is the correct address:

Program Manager  
Surface Water Quality Bureau, N2050  
New Mexico Environment Department  
P.O. Box 5469  
Santa Fe, New Mexico, 87502

There were no written site-specific quality control procedures (e.g., field duplicates, sample container type, composite sample instructions). Actual sample container type (e.g., polyethylene; fluoropolymer or glass) was not recorded on reviewed May 2011 chain of custody form.

### **Section C - Operations and Maintenance – Overall Rating of “M = Marginal”**

#### **Permit Requirements** for Operations and Maintenance

Part III.B.3.a (Standard Conditions, Proper Operation and Maintenance) of the permit states:

*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... This provision requires the operation of backup or auxiliary facilities or similar systems which are installed by a permittee only when the operation is necessary to achieve compliance with the conditions of this permit.*

#### **Findings** for Operation and Maintenance

There was no written standard operating procedures (SOP) for the pH treatment or clean out maintenance schedules for the settling basin above Grindstone Canyon Reservoir. There were no written procedures for emergency treatment control (e.g., standby power or alarm procedures).

Process control monitoring instruments and treatment units exist, but are not operated, maintained (tested or exercised), or in service. Since there is no longer any automatic process control testing, it is not known or documented if treatment was needed or if a bypass of needed treatment units occurred.

As previously discussed the permit authorizes discharges to Grindstone Canyon Reservoir, not overflows to Grindstone Canyon; therefore, the intent of the permit regarding bypasses/overflows into Grindstone Canyon was not determined during this CEI. It is noted that since there is no current acid treatment, the compliance monitoring for the effluent to Grindstone Canyon Reservoir would be representative of the flow into Grindstone Canyon below the 2<sup>nd</sup> collection gallery/pump back system. There has been no reported exceedance or excursion of pH effluent limits at the required grab sample monitoring frequency of once per week. The last reported excursion of the pH effluent limit was in May of 2008—6.3 su which is lower than the minimum limit.

**Section E - Flow Measurement – Overall Rating of “M = Marginal”**

**Permit Requirements** for Flow Measurement

Part III, Section C.5.b of the permit states:

*The permittee shall calibrate and perform maintenance procedures on all monitoring and analytical instruments at intervals frequent enough to insure accuracy of measurements and shall maintain appropriate records of such activities.*

Part III, Section C.6 of the permit states:

*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

Totalizing flow meters have factory calibrations (Village of Ruidoso letter dated 07/13/2009). Based on information from the Permittee's on-site representative, replacement meters have not been swapped/returned to the manufacture for calibration. No other calibration check to compare flow meter readings with actual discharge rates at the outfall have been conducted. Flow measurement accuracy is important because this information is used in Total Copper loading calculations.

**Table 1: Summary of Effluent Monitoring reported since the last inspection and Additional Data Provided on October 12, 2011 for June 2011**

Date	pH	pH	Cu	Cu	Cu	Q	Q
Frequency	1/wk	1/wk	1/mo	1/mo	1/mo	Cont	Totalizing Meter
	min	max	Monthly Ave	Monthly Ave	Daily Max	Monthly Ave	Daily Max
Limit	6.60	8.80	0.2570	0.0245	0.0370	Report	Report
Units	su	su	lbs/day	mg/L	mg/L	MGD	MGD
Jun-11	7.8	8.1	0.0016*	0.0031*	0.0031*	0.056	0.112
May-11	7.6	8.3	0	0	0	0.062	0.123
Apr-11	7.7	7.8	0	0	0	0.062	0.123
Mar-11	7.7	7.9	0	0	0	0.012	0.024
Feb-11	7.5	8.6	0	0	0	0.028	0.060
Jan-11	7.5	8.5	0	0	0	0.057	0.079
Dec-10	7.5	8.4	0	0	0	0.072	0.098
Nov-10	7.1	8.4	0	0	0	0.066	0.129
Oct-10	7.6	8.2	0	0	0	0.066	0.810
Sep-10	7.5	8.0	0.0029	0.0060	0.0060	0.069	0.173
Aug-10	7.2	8.1*	0	0	0	0.069	0.096
Jul-10	7.3	8.2	0	0	0	0.090	0.169
Jun-10	7.1	7.6	0	0	0	0.075	0.104
May-10	7.4	7.7	0	0	0	0.087	0.109
Apr-10	7.2	7.7	0	0	0	0.108	0.141
Mar-10	7.0	7.4	0.004	0.0039	0.0039	0.160	0.198
Feb-10	6.8	7.2	0.0293	0.0120	0.0120	0.229	0.293
Jan-10	6.9	7.1	0.030	0.0150	0.0150	0.225	0.306
Dec-09	7.0	7.6	0.0073	0.0072	0.0072	0.169	0.210
Nov-09	7.0	7.8	0	0	0	0.151	0.191
Oct-09	7.1	7.5	0.0143	0.0120	0.0120	0.152	0.236
Sep-09	7.1	7.6	0.003	0.0031	0.0031	0.145	0.249
Aug-09	7.4	7.6	0.015	0.012	0.012	0.156	0.217
Jul-09	7.3	7.6	0.0140	0.0085	0.0085	0.177	0.234
Jun-09	7.2	7.7	0	0	0	0.150	0.232
May-09	7.2	7.6	0	0	0	0.137	0.255
Apr-09	7.5	7.9	0	0	0	0.181	0.394

\*As previously discussed, analytical results and record keeping was not consistent with data reported on DMRSs