

RECLAMATION

Managing Water in the West

TR-2013-07

Travel to Davis Dam

for continued routine maintenance and data
log download of turbulence test system for quagga control
research project 7169.

Date(s) of Travel: May 21, 2013



U.S. Department of the Interior
Bureau of Reclamation
Technical Service Center
Hydraulic Investigations and Laboratory Services Group
Denver, Colorado

BUREAU OF RECLAMATION
Technical Service Center
Denver, Colorado

TRAVEL REPORT

Code: 86-68460

Date: June 5, 2013

To: Manager, Hydraulic Investigations and Laboratory Services Group
From: Josh Mortensen, Hydraulic Engineer

Subject: Travel to Davis Dam for continued routine maintenance and data log download of turbulence test system for quagga control research project 7169.

1. Travel period: 21 May 2013
2. Places or offices visited: Davis Dam
3. Purpose of trip: Perform routine maintenance to the turbulence test system and download logged data (pump pressures and test pipe flow) for analysis and verification of system operation.
4. Synopsis of trip: Josh arrived at Davis Dam the morning of Tuesday May 21st. Josh shut down the turbulence test system (including flow to the treatment bio-cooler) while Davis electricians performed electrical circuit and GFI testing on the circuit used by the test system. Oil was changed in all the pumps and the entire test system was checked for leaks. The propeller flow meter was installed on pumps 4 and 5 (the only two pumps without pressure sensors to estimate flow rate) to verify flow to the jet nozzles. Low flow readings on pump 4 indicated that the pump's small bypass valve (used to control pump flow) was open which significantly reduced flow to two of the jet nozzles. Pump vibrations may have opened the valve over time and it is unknown how long pump 4 has been operating under this low flow condition. The affects this will have on the turbulence mussel control system are unknown. After closing the valve it was secured into position with electrical tape which brought flow (and nozzle velocity) back up to expected levels.

Pressure and test pipe flow data logged since 4/23/13 was downloaded and analyzed. This data showed that operation of the pumps and test pipe flow has been constant since the last site visit on 4/23/13. After checking the system and analyzing the data logs Josh left the site about 5 pm.

5. Conclusions: Routine maintenance was performed on the pressure pumps. Data logs were downloaded and analyzed which indicate that the operation of the test system has been constant since the last site visit about one month ago.

cc: Leonard Willett (LCD-8200), Vince Lammers (LCD-D11)
Sherri Pucherelli (86-68220), Joe Kubitschek (86-68460), Miguel Rocha (86-69000)

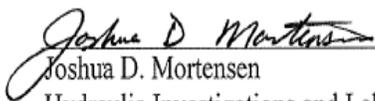
SIGNATURES AND SURNAMES FOR:

Travel to: Davis Dam, Bullhead City, AZ

Dates of Travel: 21 May 2013

Names and Codes of Travelers: Josh Mortensen, 86-68460

Travelers:


Joshua D. Mortensen
Hydraulic Investigations and Laboratory Services Group

6/3/13
Date

Peer Review by:


Bryan J. Heiner
Hydraulic Investigations and Laboratory Services Group

6/3/13
Date

Noted and Dated by:


Robert F. Einhellig, Manager
Hydraulic Investigations and Laboratory Services Group

6/3/13
Date