

APPENDIX 5

Photo Library



Three dry wells.



Viewing down into dry well, shows valve, reducer, pump attached to white discharge header on right side of photo.



Photo shows suction gate valve in back and pump MP5 in foreground. Small diameter white pipe is the system drainage piping. The large white pipe on the left side of the photo is the discharge header. Inspection plate is located on the left side of the pump below the discharge header.



Inspection plate on the side of pump MP5.



Suction gate valve and reducer - white pipe is designed to drain wastewater located between the discharge side of the suction gate valve and the discharge header.



Rotork valve actuator and manual wheel located on top of valve stem guide assembly.



Right side of photo shows suction gate valve, reducer, MP5 pump and white discharge header at bottom of dry well. MP5 pump motor has been removed for servicing. Small diameter white pipe is designed to drain the system when the suction gate valve has been closed. This pipe was prone to continual plugging and was ineffective, as a result the maintenance crew resorted to using the pump inspection plate.



Commercial diver preparing to enter the east suction header.



Removal of the valve bonnet - photo shows location of valve plate and attached valve stem.



Top view of valve plate and valve stem. Valve had been blocked by the diver to prevent the altering of the location of the valve plate during the dismantling of the valve. The valve could not be removed without partial disassembly.



Valve bonnet being removed from dry well.



Viewing into the lower portion of suction gate valve.



Photo shows valve guide in place on the lower portion of the valve body.



Photo shows valve guide missing from valve body.



Valve stem attached to valve plate.



Valve stem attached to valve plate and connecting pins in place.



Rotork Actuator and valve position gauge.



Valve plate and guide channel of side of valve.



Interior view of valve bonnet showing location of where valve guide bar is missing from.



Opposite side of valve bonnet with valve guide bar in place.



Valve body showing upper valve guide from bonnet now located in lower portion of valve body.



Valve guide bar in place on opposite side of valve body of suction gate valve.



Lower portion of suction gate valve showing valve guide bar in place on right side of photo and missing on the left side of the photo. Guide bar would be located in the dovetail shaped channel.



Close up view of valve position gauge on Rotork.



Photo shows Rotork actuator - manual crank wheel would be attached to right side of the unit.



Close up view of valve bonnet showing channel where guide bar would be located.



Photo of lower valve body - guide bar from the bonnet is shown located in the lower portion of the valve body.



Photo of lower portion of suction gate valve body.



Guide channel on valve plate.



Top of photo shows a piece of metal missing from the pump impeller.



Lower photo of pump impeller - photo shows no damage to impeller.