

**HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS
CORROSION CONTROL TEST STATION
FIELD DATA SURVEY FORM**

Location: 02+80 Date Surveyed: 07/06/2007
South of US Rt. 29 NB Ramp Surveyed by: AS/MJ
 T/S #: 3 Contract #: 44-3844
 T/S Type: CS Pipe Size: 30"
 Was the T/S located? YES / NO _____

TEST STATION CONDITION

| | |
|-----------------|---|
| Test Box: | Cover is corroded |
| Terminal Board: | Good |
| Wires: | Good |
| Other: | Located approximately 10ft. from the guardrail. Test station cover is corroded. |

SURVEY DATA

| Test Wire Size/Description | Color | P/Cu-CuSO ₄ (V) | | P/Zn (V) | | Anode (mA) |
|-------------------------------|-------|----------------------------|--------|----------|-------|---------------|
| | | "On" | "Off" | "On" | "Off" | |
| 1. #14 AWG | Black | | -0.512 | | | |
| 2. #14 AWG | Black | | -0.512 | | | |
| 3. #14 AWG | Black | | -0.720 | | | |
| 4. | | | | | | |
| 5. #12 AWG | White | | -0.996 | | | |
| 6. #14 AWG | Black | | -0.718 | | | |
| 7. #12 AWG | White | | -0.990 | | | |
| 8. | | | | | | |

P/Cu-CuSO₄ = Pipe to Copper-Copper Sulfate Reference Electrode

P/Zn = Pipe to Zinc Reference Electrode

"On" = Reading with Anode(s) connected

"Off" = Reading with Anode(s) disconnected

Anode = Current output Anode(s)

TESTING THE EFFECTIVENESS OF INSULATING JOINTS

| | | | |
|---------------------|-------------|-------------|-------------------|
| Groundbed: | _____ | | |
| Connected to (B/W): | _____ | | |
| | Current (A) | Voltage (V) | Resistance (ohms) |
| ON: | 0.04 | 1.300 | 21.25 |
| OFF: | 0.00 | 0.550 | |
| DELTA: | 0.04 | 0.850 | |

TESTING IR DROP

| | | | | | |
|-------------------------|-------|--------|---|----------------------|----------------------|
| IR Drop Calibrations | I (A) | E (mV) | $K = \frac{\Delta I \text{ (mA)}}{\Delta E \text{ (mV)}}$ | Between Terminals | Resistance (ohms) |
| INITIAL: | | | | | |
| FINAL: | | | | | |
| DELTA: | | | | | |
| | | | Direction: | | |

REPAIRS MADE

| | |
|---------------------------|--|
| Test Box: | _____ |
| Terminal Board: | _____ |
| Wires: | _____ |
| Other: | _____ |
| Comments/Recommendations: | Casing appears to be isolated from the pipe. |



Figure 65 – General area of Test Station 3844-3



Figure 66 - Test Station 3844-3 close-up