

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

Location: Cedar Ave. and Donald Ave. Date Surveyed: 06/14/2007  
 T/S #: 09 Surveyed by: AS/MJ  
 T/S Type: IJ Contract #: 24-3811  
 Pipe Size: 8"  
 Was the T/S located? YES / NO YES

**TEST STATION CONDITION**

|                 |             |
|-----------------|-------------|
| Test Box:       | <u>Good</u> |
| Terminal Board: | <u>Good</u> |
| Wires:          | <u>Good</u> |
| Other:          |             |

**SURVEY DATA**

| Test Wire Size/Description | Color  | P/Cu-CuSO <sub>4</sub> (V) |        | P/Zn (V) |        | Anode (mA) |
|----------------------------|--------|----------------------------|--------|----------|--------|------------|
|                            |        | "On"                       | "Off"  | "On"     | "Off"  |            |
| 1. #10 AWG                 | Yellow |                            | -0.014 |          |        |            |
| 2.                         |        |                            |        |          |        |            |
| 3. #10 AWG                 | Blue   |                            | -0.908 |          | -0.885 |            |
| 4.                         |        |                            |        |          |        |            |
| 5. #10 AWG                 | White  |                            | -0.586 |          | -0.561 |            |
| 6. #10 AWG                 | Blue   |                            | -0.910 |          | -0.880 |            |
| 7. #10 AWG                 | White  |                            | -0.587 |          | -0.560 |            |
| 8.                         |        |                            |        |          |        |            |

P/Cu-CuSO<sub>4</sub> = 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:                 | 1.41        | 0.640       | 0.22              |
| OFF:                | 0.00        | 0.330       |                   |
| DELTA:              | 1.41        | 0.310       |                   |

**TESTING IR DROP**

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

**REPAIRS MADE**

|                           |                                  |
|---------------------------|----------------------------------|
| Test Box:                 |                                  |
| Terminal Board:           |                                  |
| Wires:                    |                                  |
| Other:                    |                                  |
| Comments/Recommendations: | <u>IJ test indicates failure</u> |



Figure 200 - Location of Test Station 3811-9



Figure 201 - Test Station 3811-9 close-up