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- Specification for the Front Sight Hole Depth is 0.110" +/- .005
- Specification for the Rear Sight Hole Depth is 0.14" +/- .010\}

## Results:

The following table summarizes the initial measurements for each of the four sight screw holes. As measured by E-town all four holes were measured on the shallow side. The worst case being the front hole for the front sight which had a mean value .004" below the lower specification of .105". This measurement is extremely sensitive to both the type of gage used, the probe tip size and shape, and the method. Any difference between the gage that Mayfield uses and the gage E-town used could easily account for the differences noted.

## Sight Screw Hole Depths

| Front Sight                  |        |                      | Rear Sight                    |                            |        |  |
|------------------------------|--------|----------------------|-------------------------------|----------------------------|--------|--|
| (Specification: .110" +/005) |        |                      |                               | (Specification: .14" +/01) |        |  |
|                              | Front  | Rear                 | vegge<br>ka                   | Front                      | Rear   |  |
|                              | Hole 🔬 | Hole                 |                               | Hole                       | Hole   |  |
| Avg. (10)                    | 0.101  | ຶ0.1035 <sup>™</sup> | 400000000                     | 0.128                      | 0.129  |  |
| Std. Dev.                    | 0.0016 | 0.0021               | 79366935<br>6003666           | 0.0028                     | 0.0031 |  |
| +3 Sigma                     | 0.106  | 0.110                | 1965-9995<br>2005-995         | 0.136                      | 0.139  |  |
| - 3 Sigma                    | 0.096  | 3.097                | 2000000<br>5000000<br>5000000 | 0.120                      | 0.120  |  |

The results from this measurement were not known until the writing of this report. Since guns for all three phases of testing had been returned to Mayfield this measurement could not be rechecked on the original guns. Three new sighted guns were received for another test in early June. All three guns were measured for sight hole depth, this time ensuring that a sharp probe tip was used and that the measurement was taken in the center of the hole. All measurements were within drawing specification.

Results from these measurements are tabulated below. Mayfield was contacted and asked to check this operation for conformance to specification. They were to verify during the next run of sighted M/710 product. It was learned that Mayfield now uses an end mill to generate the sight holes as opposed to a standard pointed drill. This results in a flat bottom hole which chromates the potential to dimple barrel id's during the thread tapping operation. This change is allowed by the drawing as long as hole depth and thread depth specifications are met.

M3 01 Trial & Pilot Test Remington M/710 Centerfire Rifle w/Iron Sights;

R & D Technical Center Project No. 241095; TLW0395, TLW0405, TLW 0505

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