

| Missing Proton | | | # of PYTHIA Events | # Correct Thrown | # Correct Final state | # Signal Combos for BDT | % Accepted (MC Cheat) | Background Combos for BDT | | | BDT Results | | |
|----------------|-------|-----|--------------------|------------------|-----------------------|-------------------------|-----------------------|---------------------------|--|--|-------------|-----------|-----------|
| Run # | Field | EM | | | | | | | | | Purity | | |
| | | | | | | | | | | | 0.99 | 0.90 | 0.70 |
| 9007 | 1200 | 1.1 | 10M | 146,300 | 130,500 | 16,433 | 12.6 | 10,236,560 | | | 0.517(05) | 0.904(03) | 0.980(01) |
| 9008 | 1200 | 5.5 | 10M | 145,654 | 129,923 | 14,155 | 10.9 | 10,857,780 | | | 0.520(05) | 0.879(03) | 0.975(01) |
| 9001 | 1350 | 1.1 | 10M | 145,677 | 129,944 | 13,949 | 10.7 | 6,853,104 | | | 0.538(05) | 0.926(03) | 0.985(01) |
| 9002 | 1350 | 5.5 | 8.5M | 127,619 | 113,836 | 10,825 | 9.5 | 7,690,420 | | | 0.558(06) | 0.900(04) | 0.979(01) |
| 9004 | 1500 | 1.1 | 10M | 146,300 | 130,500 | 13,609 | 10.4 | 8,232,752 | | | 0.533(06) | 0.893(03) | 0.981(01) |
| 9005 | 1500 | 5.5 | 10M | 145,654 | 129,923 | 12,116 | 9.3 | 8,849,176 | | | 0.518(06) | 0.878(04) | 0.973(02) |

| Missing Proton | | | # Correct Final state | Number of Signal combos passing BDT Cut at given purity | | |
|----------------|-------|-----|-----------------------|---|--------|--------|
| Run # | Field | EM | | 0.99 | 0.90 | 0.70 |
| 9007 | 1200 | 1.1 | 130,500 | 8,496 | 14,855 | 16,104 |
| 9008 | 1200 | 5.5 | 129,923 | 7,361 | 12,442 | 13,801 |
| 9001 | 1350 | 1.1 | 129,944 | 7,505 | 12,917 | 13,740 |
| 9002 | 1350 | 5.5 | 113,836 | 6,040 | 9,743 | 10,598 |
| 9004 | 1500 | 1.1 | 130,500 | 7,254 | 12,153 | 13,350 |
| 9005 | 1500 | 5.5 | 129,923 | 6,276 | 10,638 | 11,789 |

| Missing Proton | | | # Correct Thrown | Percentage of Signal combos passing BDT Cut at given purity | | |
|----------------|-------|-----|------------------|---|------|------|
| Run # | Field | EM | | 0.99 | 0.90 | 0.70 |
| 9007 | 1200 | 1.1 | 130,500 | 6.5 | 11.4 | 12.3 |
| 9008 | 1200 | 5.5 | 129,923 | 5.7 | 9.6 | 10.6 |
| 9001 | 1350 | 1.1 | 129,944 | 5.8 | 9.9 | 10.6 |
| 9002 | 1350 | 5.5 | 113,836 | 5.3 | 8.6 | 9.3 |
| 9004 | 1500 | 1.1 | 130,500 | 5.6 | 9.3 | 10.2 |
| 9005 | 1500 | 5.5 | 129,923 | 4.8 | 8.2 | 9.1 |