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FOREST AND WILDLIFE RESEARCH CENTER

DEPARTMENT OF SUSTAINABLE BIOPRODUCTS

Eleventh Annual Evaluation of Phase II MSU/RTA Alternative Preservative Study

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This report covers the eleventh annual evaluation of the full-length crossties exposed as part of the MSU/RTA Phase II alternative preservative study. A visual evaluation of the exposed top surface was conducted for all ties at both exposure sites.

General Observations:

As noted in previous reports, Site 2 ties appeared to be a drier probably due to more direct sunlight exposure allowing for more checking. Formosan termite activity was increased again this year.

Ties at Site 1 were more moist/wet due to the increased shade and leaf litter at this site and thus more signs of decay were noted at this site.

General photographs documenting the condition of the sites can be seen below (Figures 1-4). The tie number denotes the position of exposure as recorded on the plot-maps and inspection forms. Copies of the inspection forms are included in the appendix.

Site 1 – Dorman Lake Research



Figure 1 - Site 1 (MSU Dorman Lake Test Site) at the time of inspection.



Figure 2 – Control ties showing signs of severe deterioration

Site 2 – Formosan Termite Research Facility



Figure 3- Site 2 (MSU Formosan Termite Research Facility) at the time of inspection.



Figure 4 – Previously cut Douglas Fir tie with decay fruiting bodies.

APPENDIX:

Plot Map RTA Phase II Ties (Dorman Lake Site 1)
 Position Row 1 runs West -East (Northern most row)

| | | | May-23 | | Decay | Termite | Decay | Termite | Comments |
|---------|----|-----------|------------|----|-------|---------|-------|----------------|----------|
| Koppers | 1 | T6 | WO-Bor-6# | x | x | x | x | cut 2016 | |
| | 2 | T6 | | x | x | x | x | cut 2019 | |
| | 3 | T6 | | x | x | x | x | cut 2022 | |
| | 4 | T6 | | 10 | 10 | | | | |
| | 5 | T6 | | 10 | 10 | | | | |
| | 6 | T6 | | 10 | 10 | | | CK/LP | |
| | 7 | T6 | | 10 | 10 | | | | |
| | 8 | T6 | | 10 | 10 | | | | |
| | 9 | T6 | | 10 | 10 | | | | |
| | 10 | T6 | | 10 | 10 | | | CK | |
| | 11 | T70 | RO-Bor-7# | x | x | x | x | cut 2016 | |
| | 12 | T70 | | x | x | x | x | cut 2019 | |
| | 13 | T70 | | x | x | x | x | cut 2022 | |
| | 14 | T70 | | 10 | 10 | | | | |
| | 15 | T70 | | 10 | 10 | | | loose plate/ck | |
| | 16 | T70 | | 10 | 10 | | | | |
| | 17 | T70 | | 10 | 10 | | | | |
| | 18 | T70 | | 10 | 10 | | | | |
| | 19 | T70 | | 10 | 10 | | | CK | |
| | 20 | T70 | | 10 | 10 | | | CK/LP | |
| | 21 | blank tag | Unt. RO | x | x | x | x | cut 2016 | |
| | 22 | blank tag | | x | x | x | x | cut 2019 | |
| | 23 | blank tag | | x | x | x | x | cut 2022 | |
| | 24 | blank tag | | 4 | 8 | | | LP | |
| | 25 | blank tag | | 4 | 8 | | | LP | |
| | 26 | blank tag | | 4 | 8 | | | LP | |
| | 27 | blank tag | | 6 | 9 | | | | |
| | 28 | blank tag | | 4 | 8 | | | LP | |
| | 29 | blank tag | | 4 | 9 | | | LP | |
| | 30 | blank tag | | 0 | 8 | 0 | 0 | Failed | |
| | 31 | T10 | RO-Creo-7# | x | x | x | x | cut 2016 | |
| | 32 | T10 | | x | x | x | x | cut 2019 | |
| | 33 | T10 | | x | x | x | x | cut 2022 | |
| | 34 | T10 | | 10 | 10 | | | CK | |
| | 35 | T10 | | 10 | 10 | | | CK | |
| | 36 | T10 | | 10 | 10 | | | CK | |
| | 37 | T10 | | 10 | 10 | | | | |
| | 38 | T10 | | 10 | 10 | | | | |
| | 39 | T10 | | 10 | 10 | | | split | |
| | 40 | T10 | | 10 | 10 | | | CK | |
| | 41 | T7 | WO-Bor-7# | x | x | x | x | cut 2016 | |
| | 42 | T7 | | x | x | x | x | cut 2019 | |
| | 43 | T7 | | x | x | x | x | cut 2022 | |
| | 44 | T7 | | 10 | 10 | | | CK | |
| | 45 | T7 | | 10 | 10 | | | CK | |
| | 46 | T7 | | 10 | 10 | | | CK | |
| | 47 | T7 | | 10 | 10 | | | CK | |
| | 48 | T7 | | 10 | 10 | | | | |
| | 49 | T7 | | 10 | 10 | | | | |
| | 50 | T7 | | 10 | 10 | | | CK/LP | |
| | 51 | T60 | RO-Bor-6# | x | x | x | x | cut 2016 | |
| | 52 | T60 | | x | x | x | x | cut 2019 | |
| | 53 | T60 | | x | x | x | x | cut 2022 | |

| | | | | | | | | |
|--------------|-----|-----------|---------|----|----|---|---|----------|
| | 54 | T60 | | 10 | 10 | | | LP |
| | 55 | T60 | | 10 | 10 | | | |
| | 56 | T60 | | 10 | 10 | | | |
| | 57 | T60 | | 10 | 10 | | | LP |
| | 58 | T60 | | 10 | 10 | | | |
| | 59 | T60 | | 10 | 10 | | | LP |
| | 60 | T60 | | 10 | 10 | | | LP |
| Stella-Jones | 61 | RO-1 step | x | x | x | x | | cut 2016 |
| | 62 | RO-1 step | x | x | x | x | | cut 2019 |
| | 63 | RO-1 step | x | x | x | x | | cut 2022 |
| | 64 | RO-1 step | | 10 | 10 | | | |
| | 65 | RO-1 step | | 10 | 10 | | | |
| | 66 | RO-1 step | | 10 | 10 | | | |
| | 67 | RO-1 step | | 10 | 10 | | | |
| | 68 | RO-1 step | | 10 | 10 | | | |
| | 69 | RO-1 step | | 10 | 10 | | | |
| | 70 | RO-1 step | | 10 | 10 | | | |
| | 71 | WO-Creo | x | x | x | x | | cut 2016 |
| | 72 | WO-Creo | x | x | x | x | | cut 2019 |
| | 73 | WO-Creo | x | x | x | x | | cut 2022 |
| | 74 | WO-Creo | | 10 | 10 | | | |
| | 75 | WO-Creo | | 10 | 10 | | | |
| | 76 | WO-Creo | | 10 | 10 | | | |
| | 77 | WO-Creo | | 10 | 10 | | | |
| | 78 | WO-Creo | | 10 | 10 | | | CK |
| | 79 | WO-Creo | | 10 | 10 | | | |
| | 80 | WO-Creo | | 10 | 10 | | | CK |
| | 81 | WO-1 step | x | x | x | x | | cut 2016 |
| | 82 | WO-1 step | x | x | x | x | | cut 2019 |
| | 83 | WO-1 step | x | x | x | x | | cut 2022 |
| | 84 | WO-1 step | | 10 | 10 | | | |
| | 85 | WO-1 step | | 10 | 10 | | | |
| | 86 | WO-1 step | | 10 | 10 | | | CK |
| | 87 | WO-1 step | | 10 | 10 | | | LP |
| | 88 | WO-1 step | | 10 | 10 | | | |
| | 89 | WO-1 step | | 10 | 10 | | | |
| | 90 | WO-1 step | | 10 | 10 | | | |
| | 91 | WO-Unt | x | x | x | x | | cut 2016 |
| | 92 | WO-Unt | x | x | x | x | | cut 2019 |
| | 93 | WO-Unt | x | x | x | x | | cut 2022 |
| | 94 | WO-Unt | | 7 | 10 | | | CK |
| | 95 | WO-Unt | | 7 | 9 | | | LP |
| | 96 | WO-Unt | | 7 | 10 | | | |
| | 97 | WO-Unt | | 7 | 9 | | | |
| | 98 | WO-Unt | | 8 | 10 | | | CK |
| | 99 | WO-Unt | | 8 | 10 | | | FB |
| | 100 | WO-Unt | | 7 | 10 | | | FB |
| Lonza | 101 | 784 | DF-Unt. | x | x | x | x | cut 2016 |
| | 102 | 783 | | x | x | x | x | cut 2019 |
| | 103 | 782 | | x | x | x | x | cut 2022 |
| | 104 | 781 | | 6 | 9 | | | FB/CK/LP |
| | 105 | 789 | | 8 | 9 | | | LP |
| | 106 | 788 | | 6 | 9 | | | LP |
| | 107 | 787 | | 8 | 9 | | | LP |
| | 108 | 786 | | 7 | 9 | | | FB/LP |
| | 109 | 785 | | 7 | 9 | | | LP |
| | 110 | 790 | | 7 | 9 | | | LP |

| | | | | | | | |
|-----|-----|-----------------|----|----|---|---|----------------|
| 111 | 684 | DF-DOT-ACZA | x | x | x | x | cut 2016 |
| 112 | 683 | | x | x | x | x | cut 2019 |
| 113 | 682 | | x | x | x | x | cut 2022 |
| 114 | 681 | | 10 | 10 | | | |
| 115 | 689 | | 10 | 10 | | | CK |
| 116 | 688 | | 10 | 10 | | | |
| 117 | 687 | | 10 | 10 | | | |
| 118 | 686 | | 10 | 10 | | | |
| 119 | 685 | | 10 | 10 | | | CK/LP |
| 120 | 690 | | 10 | 10 | | | |
| 121 | 581 | RO-DOT-ACZA-Oil | x | x | x | x | cut 2016 |
| 122 | 586 | | x | x | x | x | cut 2019 |
| 123 | 587 | | x | x | x | x | cut 2022 |
| 124 | 584 | | 10 | 10 | | | |
| 125 | 583 | | 10 | 10 | | | CK |
| 126 | 582 | | 10 | 10 | | | CK/LP |
| 127 | 585 | | 10 | 10 | | | CK |
| 128 | 590 | | 10 | 10 | | | CK |
| 129 | 589 | | 10 | 10 | | | CK/LP |
| 130 | 588 | | 10 | 10 | | | CK |
| 131 | 735 | RO-ACZA-Oil | x | x | x | x | cut 2016 |
| 132 | 734 | | x | x | x | x | cut 2019 |
| 133 | 732 | | x | x | x | x | cut 2022 |
| 134 | 733 | | 10 | 10 | | | CK |
| 135 | 731 | | 10 | 10 | | | CK |
| 136 | 775 | WO-ACZA-Oil | x | x | x | x | cut 2016 |
| 137 | 774 | | x | x | x | x | cut 2019 |
| 138 | 773 | | x | x | x | x | cut 2022 |
| 139 | 772 | | 10 | 10 | | | |
| 140 | 771 | | 10 | 10 | | | |
| 141 | 524 | WO-DOT-ACZA-Oil | x | x | x | x | cut 2016 |
| 142 | 523 | | x | x | x | x | cut 2019 |
| 143 | 522 | | x | x | x | x | cut 2022 |
| 144 | 521 | | 10 | 10 | | | loose plate/CK |
| 145 | 529 | | 10 | 10 | | | |
| 146 | 528 | | 10 | 10 | | | |
| 147 | 527 | | 10 | 10 | | | CK |
| 148 | 526 | | 10 | 10 | | | |
| 149 | 530 | | 10 | 10 | | | |
| 150 | 525 | | 10 | 10 | | | CK |
| 151 | 641 | RO-DOT-ACZA-Oil | x | x | x | x | cut 2016 |
| 152 | 646 | | x | x | x | x | cut 2019 |
| 153 | 642 | | x | x | x | x | cut 2022 |
| 154 | 643 | | 10 | 10 | | | CK |
| 155 | 644 | | 10 | 10 | | | CK |
| 156 | 645 | | 10 | 10 | | | CK |
| 157 | 647 | | 10 | 10 | | | CK/LP |
| 158 | 648 | | 10 | 10 | | | CK |
| 159 | 649 | | 10 | 10 | | | CK |
| 160 | 650 | | 10 | 10 | | | CK |
| 161 | 702 | RO-ACZA | x | x | x | x | cut 2016 |
| 162 | 703 | | x | x | x | x | cut 2019 |
| 163 | 704 | | x | x | x | x | cut 2022 |
| 164 | 705 | | 10 | 10 | | | |
| 165 | 709 | | 10 | 10 | | | CK |
| 166 | 708 | | 10 | 10 | | | |
| 167 | 707 | | 10 | 10 | | | CK |

| | | | | | | | | |
|-----|-----|----------------|---|----|----|---|---|----------|
| 168 | 706 | | | 10 | 10 | | | |
| 169 | 710 | | | 10 | 10 | | | CK |
| 170 | 701 | | | 10 | 10 | | | |
| 171 | 747 | WO-ACZA | x | | x | x | x | cut 2016 |
| 172 | 746 | | x | | x | x | x | cut 2019 |
| 173 | 742 | | x | | x | x | x | cut 2022 |
| 174 | 741 | | | 10 | 10 | | | CK |
| 175 | 744 | | | 10 | 10 | | | LP |
| 176 | 749 | | | 10 | 10 | | | |
| 177 | 748 | | | 10 | 10 | | | CK/LP |
| 178 | 743 | | | 10 | 10 | | | |
| 179 | 745 | | | 10 | 10 | | | LP |
| 180 | 750 | | | 10 | 10 | | | LP |
| 181 | 803 | DF-P2 | x | | x | x | x | cut 2016 |
| 182 | 802 | | x | | x | x | x | cut 2019 |
| 183 | 806 | | x | | x | x | x | cut 2022 |
| 184 | 808 | | | 10 | 10 | | | |
| 185 | 807 | | | 10 | 10 | | | CK |
| 186 | 805 | | | 10 | 10 | | | CK/LP |
| 187 | 804 | | | 10 | 10 | | | CK |
| 188 | 810 | | | 10 | 10 | | | |
| 189 | 809 | | | 10 | 10 | | | |
| 190 | 801 | | | 10 | 10 | | | CK |
| 191 | 544 | WO-ACZA-ET | x | | x | x | x | cut 2016 |
| 192 | 543 | | x | | x | x | x | cut 2019 |
| 193 | 542 | | x | | x | x | x | cut 2022 |
| 194 | 541 | | | 10 | 10 | | | |
| 195 | 549 | | | 10 | 10 | | | LP |
| 196 | 548 | | | 10 | 10 | | | CK |
| 197 | 547 | | | 10 | 10 | | | CK |
| 198 | 546 | | | 10 | 10 | | | CK/LP |
| 199 | 545 | | | 10 | 10 | | | CK/LP |
| 200 | 550 | | | 10 | 10 | | | CK |
| 201 | 664 | DF-ACZA-DOT-ET | x | | x | x | x | cut 2016 |
| 202 | 663 | | x | | x | x | x | cut 2019 |
| 203 | 662 | | x | | x | x | x | cut 2022 |
| 204 | 661 | | | 10 | 10 | | | CK |
| 205 | 669 | | | 10 | 10 | | | CK |
| 206 | 668 | | | 10 | 10 | | | CK |
| 207 | 667 | | | 10 | 10 | | | |
| 208 | 666 | | | 10 | 10 | | | |
| 209 | 665 | | | 10 | 10 | | | CK |
| 210 | 670 | | | 10 | 10 | | | |
| 211 | 627 | RO-ACZA-ET | x | | x | x | x | cut 2016 |
| 212 | 628 | | x | | x | x | x | cut 2019 |
| 213 | 629 | | x | | x | x | x | cut 2022 |
| 214 | 630 | | | 10 | 10 | | | |
| 215 | 622 | | | 10 | 10 | | | CK |
| 216 | 623 | | | 10 | 10 | | | CK |
| 217 | 624 | | | 10 | 10 | | | CK |
| 218 | 625 | | | 10 | 10 | | | CK |
| 219 | 626 | | | 10 | 10 | | | |
| 220 | 621 | | | 10 | 10 | | | split |
| 221 | 502 | WO-ACZA-DOT | x | | x | x | x | cut 2016 |
| 222 | 503 | | x | | x | x | x | cut 2019 |
| 223 | 504 | | x | | x | x | x | cut 2022 |
| 224 | 505 | | | 10 | 10 | | | CK/LP |

| | | | | | | | | |
|-----|-----|----------------|---|----|----|---|---|----------|
| 225 | 507 | | | 10 | 10 | | | |
| 226 | 508 | | | 10 | 10 | | | LP |
| 227 | 509 | | | 10 | 10 | | | CK |
| 228 | 510 | | | 10 | 10 | | | CK |
| 229 | 501 | | | 10 | 10 | | | CK/LP |
| 230 | 506 | | | 10 | 10 | | | CK/LP |
| 231 | 564 | WO-DOT-ACZA-ET | x | | x | x | x | cut 2016 |
| 232 | 563 | | x | | x | x | x | cut 2019 |
| 233 | 562 | | x | | x | x | x | cut 2022 |
| 234 | 561 | | | 10 | 10 | | | CK/IS |

Position Row 2 runs West -East (Southern most row)

| | | | | Decay | Termite | Decay | Termite | Comments |
|-----|-----|----------------|---|-------|---------|-------|---------|----------|
| 235 | 569 | | | 10 | 10 | | | |
| 236 | 568 | | | 10 | 10 | | | CK/LP |
| 237 | 567 | | | 10 | 10 | | | LP |
| 238 | 566 | | | 10 | 10 | | | LP |
| 239 | 565 | | | 10 | 10 | | | CK |
| 240 | 570 | | | 10 | 10 | | | CK/LP |
| 241 | 604 | RO-DOT-ACZA-ET | x | | x | x | x | cut 2016 |
| 242 | 603 | | x | | x | x | x | cut 2019 |
| 243 | 602 | | x | | x | x | x | cut 2022 |
| 244 | 601 | | | 10 | 10 | | | CK/LP |
| 245 | 609 | | | 10 | 10 | | | LP |
| 246 | 608 | | | 10 | 10 | | | CK/LP |
| 247 | 607 | | | 10 | 10 | | | |
| 248 | 606 | | | 10 | 10 | | | CK |
| 249 | 605 | | | 10 | 10 | | | |
| 250 | 610 | | | 10 | 10 | | | CK/LP |

CK=check
 FB=fruiting body
 LP=loose plate

Plot Map RTA Phase II Ties (McNeill Site 2)

Position Row 1 runs East - West (Southern most row)

Mar-23

| | | | Decay | Termite | Decay | Termite | Comments |
|--------------|----|-----------|-------|---------|-------|---------|-----------------------------|
| Stella Jones | 1 | WO-Creo | 10 | 10 | | | check/bowed/LP |
| | 2 | WO-Creo | x | x | x | x | cut 2016 |
| | 3 | WO-Creo | x | x | x | x | cut 2019 |
| | 4 | WO-Creo | x | x | x | x | cut 2022 |
| | 5 | WO-Creo | 10 | 10 | | | check |
| | 6 | WO-Creo | 10 | 10 | | | check |
| | 7 | WO-Creo | 10 | 10 | | | check |
| | 8 | WO-Creo | 10 | 10 | | | check/FST |
| | 9 | WO-Creo | 10 | 10 | | | split |
| | 10 | WO-Creo | 10 | 10 | | | split |
| | 11 | 1-Step-RO | x | x | x | x | cut 2016 |
| | 12 | 1-Step-RO | x | x | x | x | cut 2019 |
| | 13 | 1-Step-RO | x | x | x | x | cut 2022 |
| | 14 | 1-Step-RO | 10 | 10 | | | check |
| | 15 | 1-Step-RO | 10 | 10 | | | check |
| | 16 | 1-Step-RO | 10 | 10 | | | check |
| | 17 | 1-Step-RO | 9.5 | 10 | | | defect top South end/DK top |
| | 18 | 1-Step-RO | 10 | 10 | | | check/IS |
| | 19 | 1-Step-RO | 10 | 10 | | | check |
| | 20 | 1-Step-RO | 10 | 10 | | | check |
| | 21 | 1-Step-WO | x | x | x | x | cut 2016 |
| | 22 | 1-Step-WO | x | x | x | x | cut 2019 |
| | 23 | 1-Step-WO | x | x | x | x | cut 2022 |
| | 24 | 1-Step-WO | 10 | 10 | | | check |
| | 25 | 1-Step-WO | 10 | 10 | | | check |
| | 26 | 1-Step-WO | 10 | 10 | | | check |
| | 27 | 1-Step-WO | 10 | 10 | | | |
| | 28 | 1-Step-WO | 10 | 10 | | | check |
| | 29 | 1-Step-WO | 10 | 10 | | | check |
| | 30 | 1-Step-WO | 10 | 10 | | | |
| | 31 | Unt. - WO | x | x | x | x | cut 2016 |
| | 32 | Unt. - WO | x | x | x | x | cut 2019 |
| | 33 | Unt. - WO | x | x | x | x | cut 2022 |
| | 34 | Unt. - WO | 6 | 9.5 | | | DK top S end/retics |
| | 35 | Unt. - WO | 0 | 0 | 0 | 0 | check |
| | 36 | Unt. - WO | 7 | 10 | | | check |
| | 37 | Unt. - WO | 0 | 0 | 0 | 0 | Failed |
| | 38 | Unt. - WO | 0 | 0 | 0 | 0 | |
| | 39 | Unt. - WO | 4 | 9.5 | | | DK top S end/FB |
| | 40 | Unt. - WO | 8 | 9 | | | FB/beetle dmg/FST |

Lonza

| | | | | | | | |
|----|-----|----------------|-----|----|---|---|------------------|
| 41 | 572 | WO-DOT-ACZA-ET | x | x | x | x | cut 2016 |
| 42 | 573 | | x | x | x | x | cut 2019 |
| 43 | 574 | | x | x | x | x | cut 2022 |
| 44 | 575 | | 10 | 10 | | | check/LP |
| 45 | 576 | | 10 | 10 | | | check/LP |
| 46 | 577 | | 10 | 10 | | | LP |
| 47 | 578 | | 10 | 10 | | | LP |
| 48 | 579 | | 9 | 10 | | | check/LP |
| 49 | 580 | | 10 | 10 | | | check/LP |
| 50 | 571 | | 10 | 10 | | | LP |
| 51 | 611 | RO-DOT-ACZA-ET | x | x | x | x | cut 2016 |
| 52 | 612 | | x | x | x | x | cut 2019 |
| 53 | 613 | | x | x | x | x | cut 2022 |
| 54 | 614 | | 9.5 | 10 | | | check/LP/Edge DK |
| 55 | 615 | | 10 | 10 | | | check/LP |
| 56 | 617 | | 10 | 10 | | | check/LP |
| 57 | 618 | | 10 | 10 | | | check/LP |
| 58 | 619 | | 10 | 10 | | | LP |
| 59 | 620 | | 10 | 10 | | | check/LP |
| 60 | 616 | | 10 | 10 | | | LP |
| 61 | 675 | DF-DOT-ACZA-ET | x | x | x | x | cut 2016 |
| 62 | 674 | | x | x | x | x | cut 2019 |
| 63 | 673 | | x | x | x | x | cut 2022 |
| 64 | 672 | | 10 | 10 | | | split |
| 65 | 671 | | 10 | 10 | | | check/LP |
| 66 | 679 | | 10 | 10 | | | split |
| 67 | 678 | | 10 | 10 | | | |
| 68 | 677 | | 10 | 10 | | | LP |
| 69 | 676 | | 10 | 10 | | | check/LP |
| 70 | 680 | | 10 | 10 | | | check/LP |
| 71 | 555 | WO-ACZA-ET | x | x | x | x | cut 2016 |
| 72 | 554 | | x | x | x | x | cut 2019 |
| 73 | 553 | | x | x | x | x | cut 2022 |
| 74 | 552 | | 10 | 10 | | | split |
| 75 | 551 | | 10 | 10 | | | LP |
| 76 | 560 | | 10 | 10 | | | LP |
| 77 | 559 | | 10 | 10 | | | check/LP |
| 78 | 558 | | 9.5 | 10 | | | check |
| 79 | 557 | | 10 | 10 | | | LP |
| 80 | 556 | | 10 | 10 | | | LP |

| | | | | | | | |
|-----|-----|-------------|----|----|---|---|----------------------------------|
| 81 | 640 | RO-ACZA-ET | x | x | x | x | cut 2016 |
| 82 | 639 | | x | x | x | x | cut 2019 |
| 83 | 638 | | x | x | x | x | cut 2022 |
| 84 | 637 | | 10 | 10 | | | LP |
| 85 | 636 | | 10 | 10 | | | LP |
| 86 | 635 | | 10 | 10 | | | check/LP/S-end plate off |
| 87 | 634 | | 10 | 10 | | | check/LP |
| 88 | 633 | | 10 | 10 | | | check/LP |
| 89 | 632 | | 10 | 10 | | | check/LP/S-end plate loose |
| 90 | 631 | | 10 | 10 | | | |
| 91 | 695 | DF-DOT-ACZA | x | x | x | x | cut 2016 |
| 92 | 694 | | x | x | x | x | cut 2019 |
| 93 | 693 | | x | x | x | x | cut 2022 |
| 94 | 692 | | 10 | 10 | | | end plate corroded/check |
| 95 | 691 | | 10 | 10 | | | end plate corroded |
| 96 | 699 | | 10 | 10 | | | end plate corroded/check |
| 97 | 698 | | 10 | 10 | | | end plate corroded/check/LP |
| 98 | 697 | | 10 | 10 | | | end plate corroded/check/LP |
| 99 | 696 | | 10 | 10 | | | end plate corroded |
| 100 | 700 | | 10 | 10 | | | end plate corroded |
| 101 | 795 | DF-Unt. | x | x | x | x | cut 2016 |
| 102 | 794 | | x | x | x | x | cut 2019 |
| 103 | 793 | | x | x | x | x | cut 2022 |
| 104 | 792 | | 0 | 0 | 0 | 0 | Failed |
| 105 | 791 | | 0 | 0 | 0 | 0 | Failed |
| 106 | 800 | | 6 | 9 | | | FB/IS/LP |
| 107 | 799 | | 8 | 9 | | | check/IS/LP |
| 108 | 798 | | 9 | 10 | | | FB/check/IS/LP |
| 109 | 797 | | 8 | 10 | | | check/IS/LP |
| 110 | 796 | | 6 | 9 | | | check/LP |
| 111 | 755 | WO-ACZA | x | x | x | x | cut 2016 |
| 112 | 754 | | x | x | x | x | cut 2019 |
| 113 | 753 | | x | x | x | x | cut 2022 |
| 114 | 752 | | 10 | 10 | | | end plate corroded/check/LP |
| 115 | 751 | | 10 | 10 | | | end plate corroded |
| 116 | 760 | | 10 | 10 | | | Knot/burl under plate area N end |
| 117 | 759 | | 10 | 10 | | | end plate corroded |
| 118 | 758 | | 10 | 10 | | | check/end plat corroded |
| 119 | 757 | | 10 | 10 | | | check/end plat corroded |
| 120 | 756 | | 10 | 10 | | | end plate corroded |

| | | | | | | | | |
|-------------------------------------|-----|-------------|-----------------|----|----|---|-------------------------------------|--------------|
| 121 | 712 | RO-ACZA | x | x | x | x | cut 2016 | |
| 122 | 713 | | x | x | x | x | cut 2019 | |
| 123 | 714 | | x | x | x | x | cut 2022 | |
| 124 | 715 | | 10 | 10 | | | end plate corroded | |
| 125 | 717 | | 10 | 10 | | | end plate corroded/check | |
| 126 | 718 | | 10 | 10 | | | end plate corroded/check | |
| 127 | 719 | | 10 | 10 | | | end plate corroded/LP | |
| 128 | 720 | | 10 | 10 | | | end plate corroded & loose/check/LP | |
| 129 | 716 | | 10 | 10 | | | end plate corroded/LP | |
| 130 | 711 | | 10 | 10 | | | end plate corroded & loose/check/LP | |
| 131 | 511 | WO-ACZA-DOT | x | x | x | x | cut 2016 | |
| 132 | 512 | | x | x | x | x | cut 2019 | |
| 133 | 513 | | x | x | x | x | cut 2022 | |
| 134 | 514 | | 10 | 10 | | | end plate corroded/check/LP | |
| 135 | 515 | | 10 | 10 | | | end plate corroded/check | |
| 136 | 516 | | 10 | 10 | | | end plate corroded | |
| 137 | 517 | | 10 | 10 | | | end plate corroded | |
| 138 | 518 | | 10 | 10 | | | end plate corroded | |
| 139 | 519 | | 10 | 10 | | | end plate corroded | |
| 140 | 520 | | 10 | 10 | | | end plate corroded/check | |
| Row 2 runs East - West (middle row) | | | | | | | | |
| Lonza | 141 | 595 | RO-DOT-ACZA-Oil | x | x | x | x | cut 2016 |
| | 142 | 594 | | x | x | x | x | cut 2019 |
| | 143 | 593 | | x | x | x | x | cut 2022 |
| | 144 | 592 | | 10 | 10 | | | check/LP |
| | 145 | 600 | | 10 | 10 | | | check/LP |
| | 146 | 599 | | 10 | 10 | | | check/LP |
| | 147 | 598 | | 10 | 10 | | | check |
| | 148 | 597 | | 10 | 10 | | | check/LP |
| | 149 | 596 | | 10 | 10 | | | check/LP |
| | 150 | 591 | | 10 | 10 | | | check/LP |
| | 151 | 740 | RO-ACZA-Oil | x | x | x | x | cut 2016 |
| | 152 | 739 | | x | x | x | x | cut 2019 |
| | 153 | 738 | | x | x | x | x | cut 2022 |
| | 154 | 737 | | 10 | 10 | | | severe check |
| | 155 | 736 | | 10 | 10 | | | check/LP |
| | 156 | 779 | WO-ACZA-Oil | x | x | x | x | cut 2016 |
| | 157 | 780 | | x | x | x | x | cut 2019 |
| | 158 | 777 | | x | x | x | x | cut 2022 |
| | 159 | 778 | | 10 | 10 | | | LP |
| | 160 | 776 | | 10 | 10 | | | |

| | | | | | | | | |
|---------|-----|-----|-----------------|----|----|---|---|--------------------------------|
| | 161 | 655 | RO-DOT-ACZA-Oil | x | x | x | x | cut 2016 |
| | 162 | 654 | | x | x | x | x | cut 2019 |
| | 163 | 653 | | x | x | x | x | cut 2022 |
| | 164 | 652 | | 10 | 10 | | | split/LP |
| | 165 | 660 | | 10 | 10 | | | check |
| | 166 | 659 | | 10 | 10 | | | check |
| | 167 | 658 | | 10 | 10 | | | split/LP |
| | 168 | 657 | | 10 | 10 | | | split |
| | 169 | 651 | | 10 | 10 | | | check |
| | 170 | 656 | | 10 | 10 | | | check |
| | 171 | 531 | WO-DOT-ACZA-Oil | x | x | x | x | cut 2016 |
| | 172 | 532 | | x | x | x | x | cut 2019 |
| | 173 | 533 | | x | x | x | x | cut 2022 |
| | 174 | 534 | | 10 | 10 | | | check/LP |
| | 175 | 536 | | 10 | 10 | | | |
| | 176 | 537 | | 10 | 10 | | | check |
| | 177 | 538 | | 10 | 10 | | | check/LP |
| | 178 | 539 | | 10 | 10 | | | sever check - holding water/LP |
| | 179 | 540 | | 10 | 10 | | | |
| | 180 | 535 | | 10 | 10 | | | sever check - holding water/LP |
| | 181 | 820 | DF-P2 | x | x | x | x | cut 2016 |
| | 182 | 817 | | x | x | x | x | cut 2019 |
| | 183 | 819 | | x | x | x | x | cut 2022 |
| | 184 | 811 | | 10 | 10 | | | bleeding/check |
| | 185 | 815 | | 10 | 10 | | | check |
| | 186 | 816 | | 10 | 10 | | | |
| | 187 | 814 | | 10 | 10 | | | bleeding |
| | 188 | 813 | | 10 | 10 | | | |
| | 189 | 818 | | 10 | 10 | | | check |
| | 190 | 812 | | 10 | 10 | | | |
| Koppers | 191 | T6 | WO-Bor-6# | x | x | x | x | cut 2016 |
| | 192 | T6 | | x | x | x | x | cut 2019 |
| | 193 | T6 | | x | x | x | x | cut 2022 |
| | 194 | T6 | | 10 | 10 | | | split |
| | 195 | T6 | | 10 | 10 | | | LP |
| | 196 | T6 | | 10 | 10 | | | |
| | 197 | T6 | | 10 | 10 | | | check |
| | 198 | T6 | | 10 | 10 | | | LP |
| | 199 | T6 | | 10 | 10 | | | check |
| | 200 | T6 | | 10 | 10 | | | check/LP |

| | | | | | | | |
|-----|-----------|------------|----|----|---|---|----------------------|
| 201 | T7 | WO-Bor-7# | x | x | x | x | cut 2016 |
| 202 | T7 | | x | x | x | x | cut 2019 |
| 203 | T7 | | x | x | x | x | cut 2022 |
| 204 | T7 | | 10 | 10 | | | check |
| 205 | T7 | | 10 | 10 | | | check/LP |
| 206 | T7 | | 10 | 10 | | | LP |
| 207 | T7 | | 10 | 10 | | | Hvy check |
| 208 | T7 | | 10 | 10 | | | check |
| 209 | T7 | | 10 | 10 | | | |
| 210 | T7 | | 10 | 10 | | | severe check/bad tie |
| 211 | T70 | RO-Bor-7# | x | x | x | x | cut 2016 |
| 212 | T70 | | x | x | x | x | cut 2019 |
| 213 | T70 | | x | x | x | x | cut 2022 |
| 214 | T70 | | 10 | 10 | | | check |
| 215 | T70 | | 10 | 10 | | | check |
| 216 | T70 | | 10 | 10 | | | bleeding |
| 217 | T70 | | 10 | 10 | | | check |
| 218 | T70 | | 10 | 10 | | | check |
| 219 | T70 | | 10 | 10 | | | |
| 220 | T70 | | 10 | 10 | | | check |
| 221 | T60 | RO-Bor-6# | x | x | x | x | cut 2016 |
| 222 | T60 | | x | x | x | x | cut 2019 |
| 223 | T60 | | x | x | x | x | cut 2022 |
| 224 | T60 | | 10 | 10 | | | bleeding/CK |
| 225 | T60 | | 10 | 10 | | | check |
| 226 | T60 | | 10 | 10 | | | check |
| 227 | T60 | | 10 | 10 | | | LP |
| 228 | T60 | | 10 | 10 | | | check |
| 229 | T60 | | 10 | 10 | | | bleeding |
| 230 | T60 | | 10 | 10 | | | bleeding |
| 231 | T10 | RO-Creo-7# | x | x | x | x | cut 2016 |
| 232 | T10 | | x | x | x | x | cut 2019 |
| 233 | T10 | | x | x | x | x | cut 2022 |
| 234 | T10 | | 10 | 10 | | | HVY check |
| 235 | T10 | | 10 | 10 | | | check |
| 236 | T10 | | 10 | 10 | | | check |
| 237 | T10 | | 10 | 10 | | | check/LP |
| 238 | T10 | | 10 | 10 | | | check/LP |
| 239 | T10 | | 10 | 10 | | | check/LP |
| 240 | T10 | | 10 | 10 | | | check/LP |
| 241 | blank tag | Unt. RO | x | x | x | x | cut 2016 |
| 242 | blank tag | | x | x | x | x | cut 2019 |
| 243 | blank tag | | 0 | 0 | 0 | 0 | Failed |
| 244 | blank tag | | 0 | 0 | 0 | 0 | Failed |
| 245 | blank tag | | 0 | 0 | 0 | 0 | Failed |
| 246 | blank tag | | x | x | x | x | cut 2022 |
| 247 | blank tag | | 0 | 0 | 0 | 0 | Failed |
| 248 | blank tag | | 0 | 0 | 0 | 0 | Failed |
| 249 | blank tag | | 0 | 0 | 0 | 0 | Failed |
| 250 | blank tag | | 0 | 0 | 0 | 0 | Failed |

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Applicable Standards:
None: