

MAL-4B

*American Society of Brewing Chemists*  
**MALT CHECK SERVICE**

4/30/2015

| <i>Sub #</i> | <i>Moisture (%)</i> | <i>% Extract - Fine Ground (D.B.)</i> | <i>% Extract - Coarse Ground (D.B.)</i> | <i>% Fine - Coarse Difference</i> | <i>Conversion Time (min)</i> | <i>Clarity of Wort (visual)</i> | <i>Color of Wort, 1/2" cell (ASBC)</i> | <i>Diastatic Power, Salt Ext. (Deg.)</i> | <i>Alpha-amylase, Salt Ext.</i> | <i>Soluble Protein</i> | <i>Total Malt Protein</i> | <i>Soluble/Total Protein (D.B.)</i> |
|--------------|---------------------|---------------------------------------|-----------------------------------------|-----------------------------------|------------------------------|---------------------------------|----------------------------------------|------------------------------------------|---------------------------------|------------------------|---------------------------|-------------------------------------|
| B 25         | 4.2                 | 82.6                                  | 82.0                                    | 0.6                               |                              |                                 | 2.34                                   | 166                                      | 64.3                            | 4.97                   | 10.9                      | 45.5                                |
| B 30         | 4.3                 | 81.0                                  | * 79.2                                  | 0.8                               |                              |                                 | 2.14                                   | 145                                      | 67.3                            | 4.89                   | 11.6                      | 42.3                                |
| B 32         | 4.2                 | 81.9                                  | 81.0                                    | 0.9                               |                              |                                 | 2.11                                   | 156                                      | 66.4                            | 5.10                   | 11.4                      | 44.7                                |
| B 43         | 4.1                 | 82.7                                  | 81.7                                    | 1.0                               | 5                            | LIGHTLY HAZ                     | 2.17                                   | 150                                      | 59.7                            | 4.81                   | 11.0                      | 43.7                                |
| B 54         | 4.4                 | 82.7                                  | 81.7                                    | 1.0                               | 5                            | CLEAR                           | 1.99                                   | 151                                      | 65.5                            | 5.46                   | 11.8                      | 46.2                                |
| B 55         | 4.1                 | 81.9                                  | 81.4                                    | 0.6                               |                              |                                 | 2.28                                   | 153                                      | * 84.0                          | 5.60                   | 10.9                      | * 51.4                              |
| B 129        | 3.8                 | 82.1                                  | 81.2                                    | 0.9                               | 5                            | CLEAR                           | 2.02                                   | 151                                      | 67.5                            | 5.01                   | 11.3                      | 44.3                                |
| B 180        | 4.2                 | 82.2                                  | 81.2                                    | 1.0                               | 5                            | CLEAR                           | 2.09                                   | 128                                      | * 11.3                          | 5.28                   | 11.3                      | 46.8                                |
| B 189        | 4.0                 | 81.6                                  | 80.5                                    | 1.1                               | 5                            | CLEAR                           | 2.11                                   | 147                                      | 66.2                            | 5.21                   | 11.7                      | 44.5                                |
| <b>N</b>     | <b>9</b>            | <b>9</b>                              | <b>8</b>                                | <b>9</b>                          |                              |                                 | <b>9</b>                               | <b>9</b>                                 | <b>7</b>                        | <b>9</b>               | <b>9</b>                  | <b>8</b>                            |
| <b>Mean</b>  | <b>4.1</b>          | <b>82.1</b>                           | <b>81.3</b>                             | <b>0.9</b>                        |                              |                                 | <b>2.14</b>                            | <b>149.7</b>                             | <b>65.3</b>                     | <b>5.15</b>            | <b>11.3</b>               | <b>44.8</b>                         |
| <b>Min</b>   | <b>3.8</b>          | <b>81.0</b>                           | <b>80.5</b>                             | <b>0.6</b>                        |                              |                                 | <b>1.99</b>                            | <b>128</b>                               | <b>59.7</b>                     | <b>4.81</b>            | <b>10.9</b>               | <b>42.3</b>                         |
| <b>Max</b>   | <b>4.4</b>          | <b>82.7</b>                           | <b>82.0</b>                             | <b>1.1</b>                        |                              |                                 | <b>2.34</b>                            | <b>166</b>                               | <b>67.5</b>                     | <b>5.60</b>            | <b>11.8</b>               | <b>46.8</b>                         |
| <b>Std</b>   | <b>0.2</b>          | <b>0.6</b>                            | <b>0.5</b>                              | <b>0.2</b>                        |                              |                                 | <b>0.11</b>                            | <b>10.1</b>                              | <b>2.7</b>                      | <b>0.26</b>            | <b>0.3</b>                | <b>1.4</b>                          |

\* Not Included in Mean

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| Sub #       | Growth of Acrospires |            |             |             |             | Screen Assortment |             |            |            | FAN<br>(ppm) | Absolute<br>Viscosity | Turbidity<br>(NTU) | Beta Glucan<br>wort (mg/L) |
|-------------|----------------------|------------|-------------|-------------|-------------|-------------------|-------------|------------|------------|--------------|-----------------------|--------------------|----------------------------|
|             | 0-1/4                | 1/4-1/2    | 1/2-3/4     | 3/4-1       | Overgrown   | On 7/64"          | On 6/64"    | On 5/64"   | Thru 5/64" |              |                       |                    |                            |
| B 25        | 4                    | 4          | 12          | 68          | 12          | 75.4              | 19.5        | 4.2        | 1.0        | 205.0        | 1.49                  | 10.0               | 96                         |
| B 30        | 0                    | 4          | 0           | 90          | 6           | 73.6              | 19.5        | 6.1        | 0.8        | 197.0        | 1.48                  | 4.2                | 78                         |
| B 32        |                      |            |             |             |             | 70.2              | 23.3        | 6.1        | 0.1        | 190.0        |                       | 5.8                | 83                         |
| B 43        | 1                    | 3          | 7           | 88          | 1           | 76.6              | 18.3        | 4.5        | 0.6        | 199.0        | 1.49                  | 7.2                | 81                         |
| B 54        |                      |            |             |             |             |                   |             |            |            | 211.0        | 1.48                  | 4.4                | 88                         |
| B 55        |                      |            |             |             |             |                   |             |            |            | 195.0        | 1.48                  | * 54.5             |                            |
| B 129       | 1                    | 3          | 3           | 85          | 8           | 73.1              | 20.8        | 5.2        | 0.9        | 209.0        | 1.48                  | 6.3                | 87                         |
| B 180       |                      |            |             |             |             |                   |             |            |            | 212.0        | * 1.46                | 5.2                | 76                         |
| B 189       |                      |            |             |             |             |                   |             |            |            | 195.0        | 1.49                  | 5.0                | 91                         |
| <b>N</b>    | <b>4</b>             | <b>4</b>   | <b>4</b>    | <b>4</b>    | <b>4</b>    | <b>5</b>          | <b>5</b>    | <b>5</b>   | <b>5</b>   | <b>9</b>     | <b>7</b>              | <b>8</b>           | <b>8</b>                   |
| <b>Mean</b> | <b>1.5</b>           | <b>3.5</b> | <b>5.5</b>  | <b>82.8</b> | <b>6.8</b>  | <b>73.8</b>       | <b>20.3</b> | <b>5.2</b> | <b>0.7</b> | <b>201.4</b> | <b>1.48</b>           | <b>6.0</b>         | <b>85.0</b>                |
| <b>Min</b>  | <b>0.0</b>           | <b>3.0</b> | <b>0.0</b>  | <b>68.0</b> | <b>1.0</b>  | <b>70.2</b>       | <b>18.3</b> | <b>4.2</b> | <b>0.1</b> | <b>190.0</b> | <b>1.48</b>           | <b>4.2</b>         | <b>76.0</b>                |
| <b>Max</b>  | <b>4.0</b>           | <b>4.0</b> | <b>12.0</b> | <b>90.0</b> | <b>12.0</b> | <b>76.6</b>       | <b>23.3</b> | <b>6.1</b> | <b>1.0</b> | <b>212.0</b> | <b>1.49</b>           | <b>10.0</b>        | <b>96.0</b>                |
| <b>Std</b>  | <b>1.7</b>           | <b>0.6</b> | <b>5.2</b>  | <b>10.0</b> | <b>4.6</b>  | <b>2.4</b>        | <b>1.9</b>  | <b>0.9</b> | <b>0.4</b> | <b>8.0</b>   | <b>0.01</b>           | <b>1.9</b>         | <b>6.8</b>                 |

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