**Classifier model settings**

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| Classifier Model Version | Structure Type | No. of training images | Grayscale data augmentation | Validation Accuracy (%)\* | Full test set MSE (%)\*\* |
| 24 | RR1 | 1486 | No | 99.10 | 4.18 |
| 28 | RR2 | 1616 | No | 98.04 | 2.33 |
| 35 | SM1, SM2, SM3 | 1739 | Yes | 98.28 | 4.12 |

\*Validation accuracy was from 10% of the training images set aside. \*\*Full test set was separate from the training images and included images from all structure types (folders “breaking\_waves\_lab\_all\_test” and “non\_breaking\_waves\_lab\_all\_test”).

The full test set included 21 wave peel regions with 10 from sand mounds and 11 from rock reefs, and 33 non wave peel regions with 19 from sand mounds and 14 from rock reefs. The validation accuracy and full test set MSE metrics were useful to choose which classifier model versions were worth evaluating through the WPT algorithm. 35 models in total were trained and only 3 were chosen for evaluating through the WPT algorithm. Through observation of the WPT algorithm working using the debug\_flag set to “True”, each of the 3 models was paired with the structure type tests it worked optimally for.

Full details of the classifier model version parameters are in the file “WPT\_CNN\_lab\_best\_results.xlsx”.