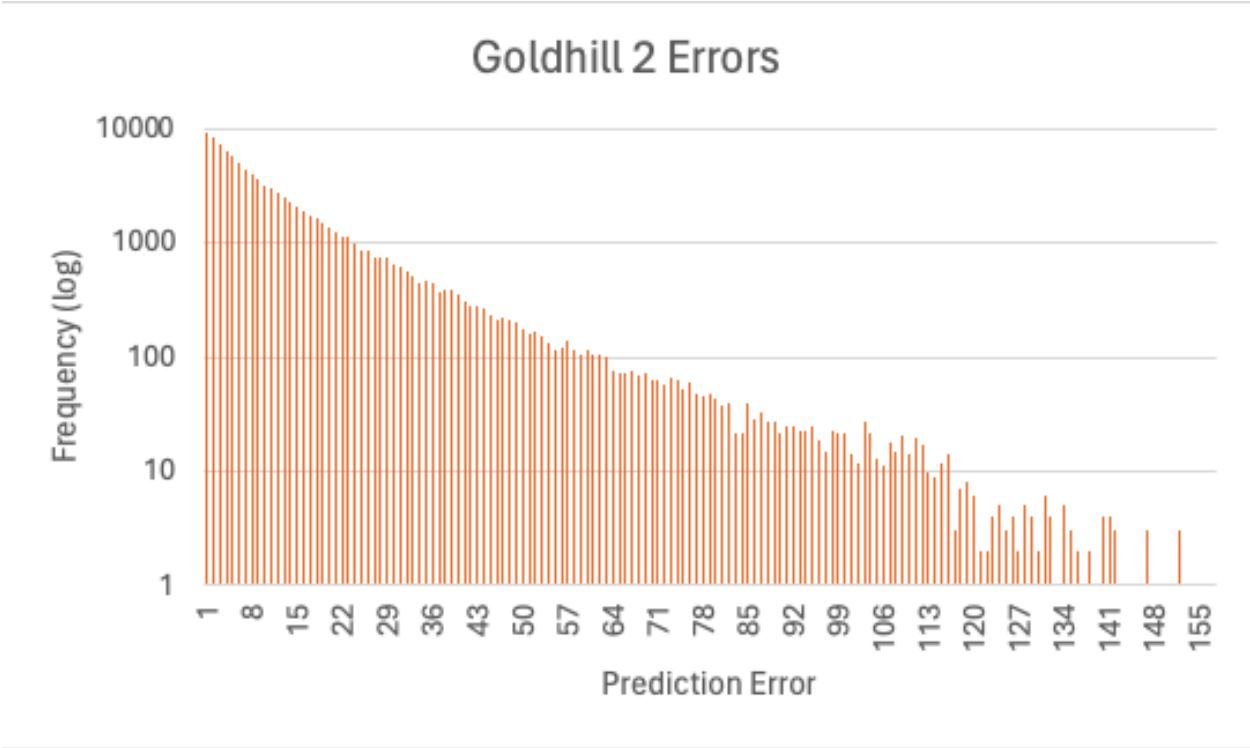
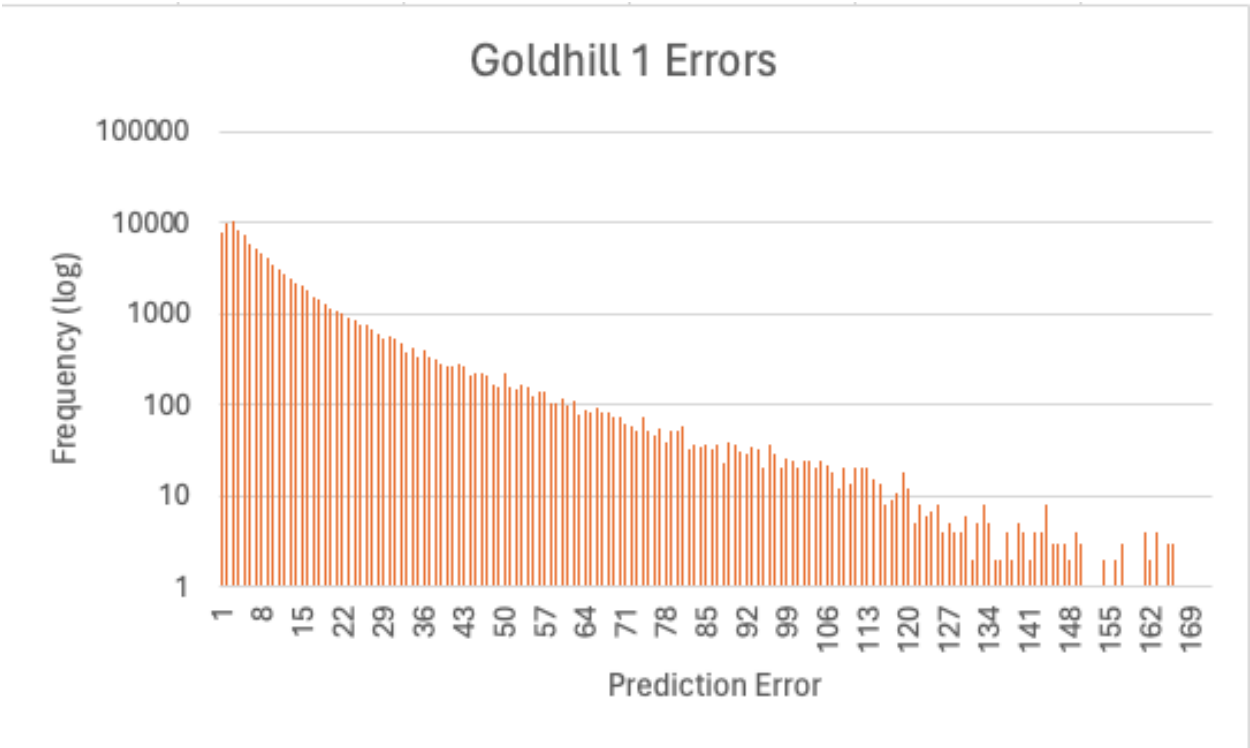
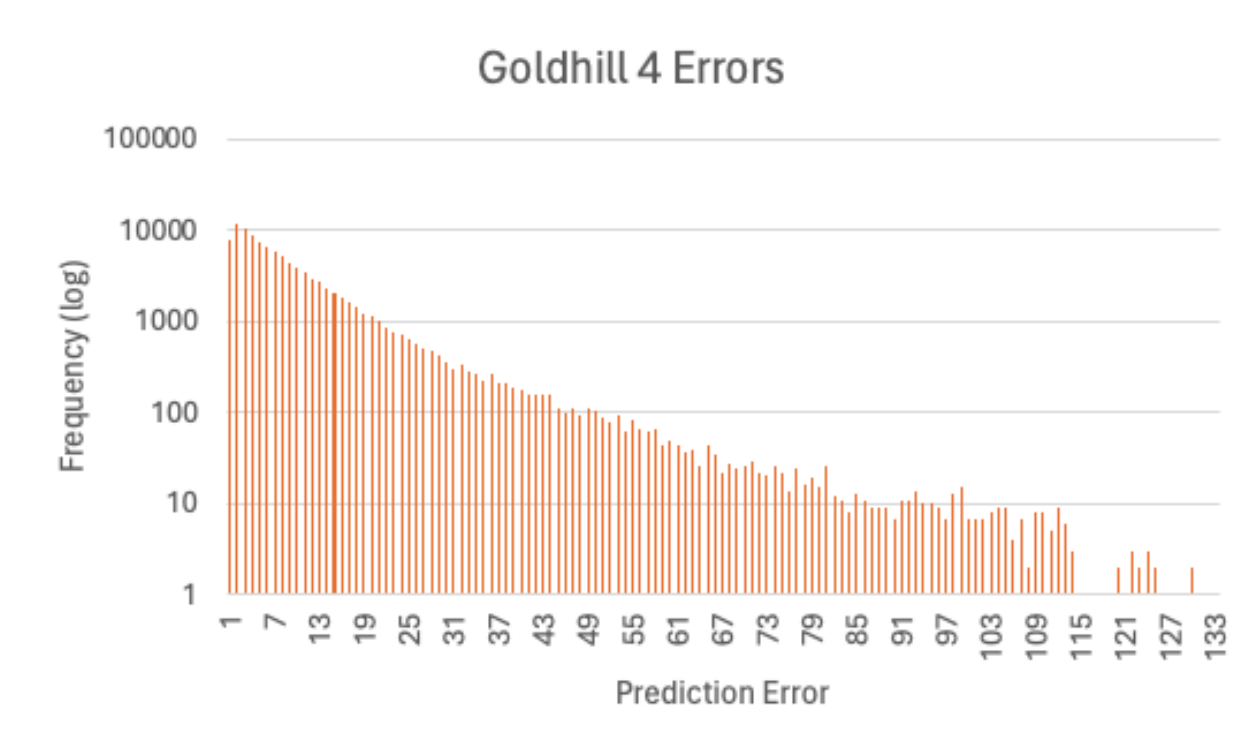
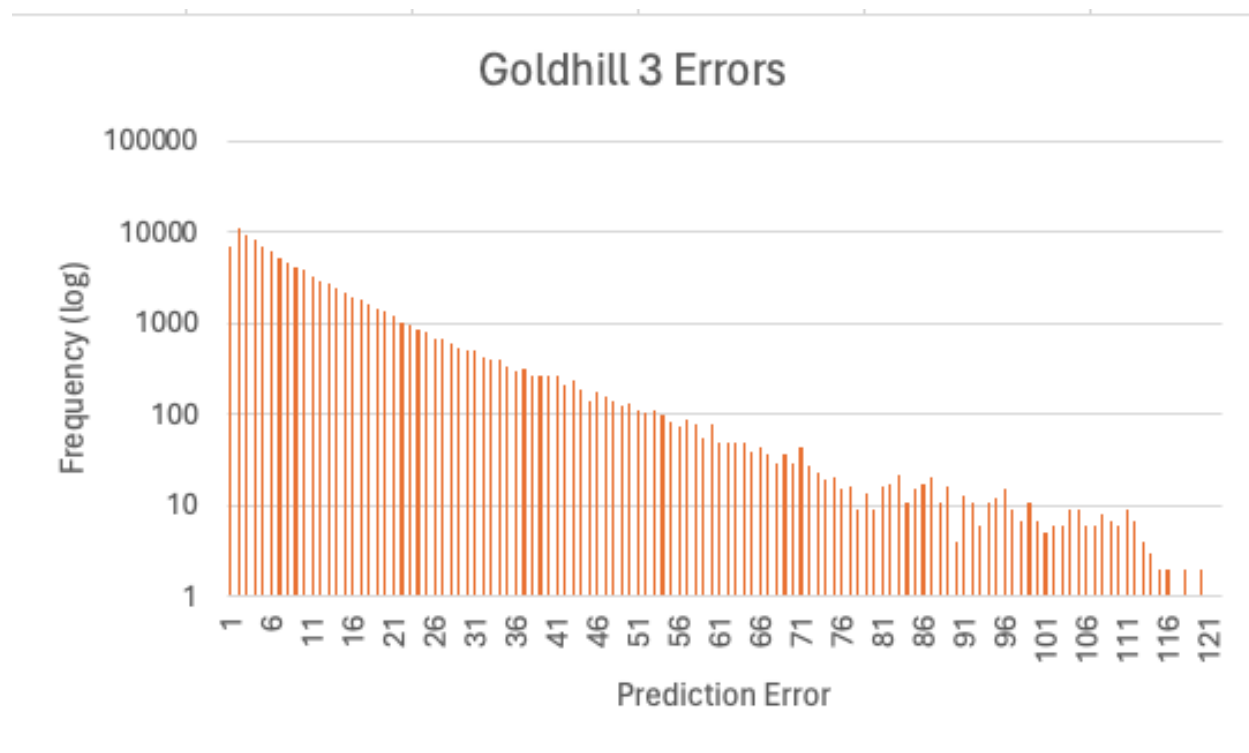
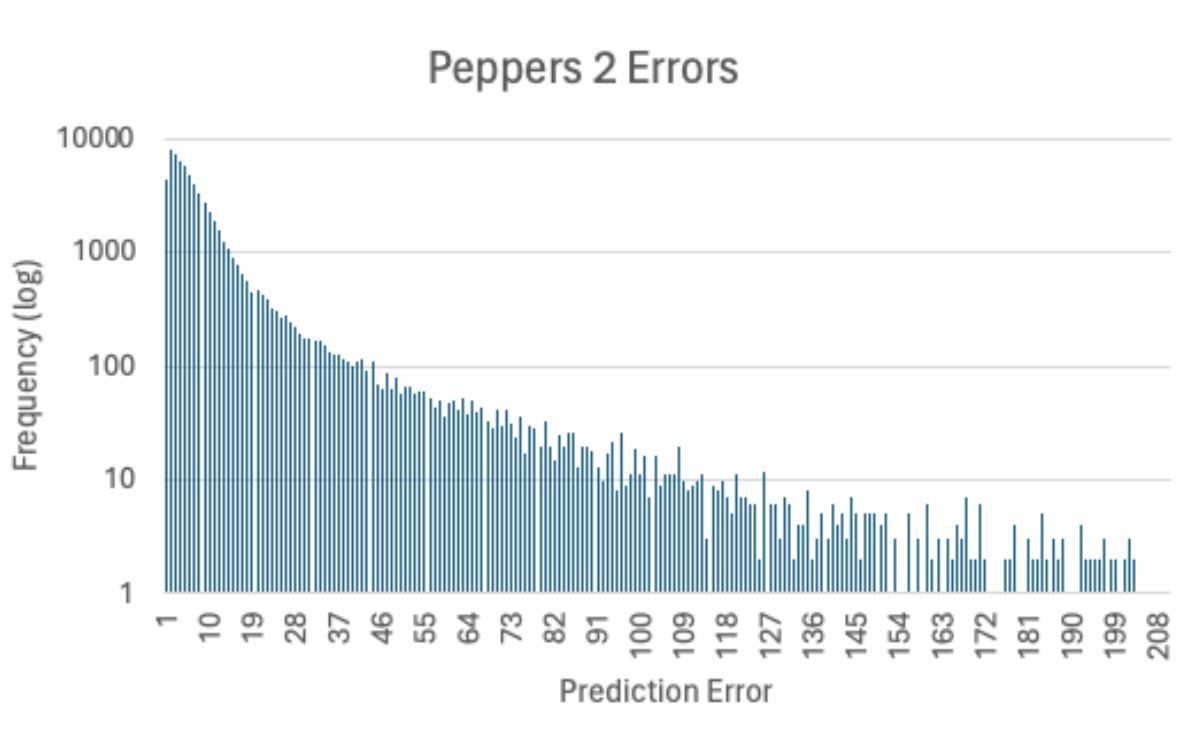
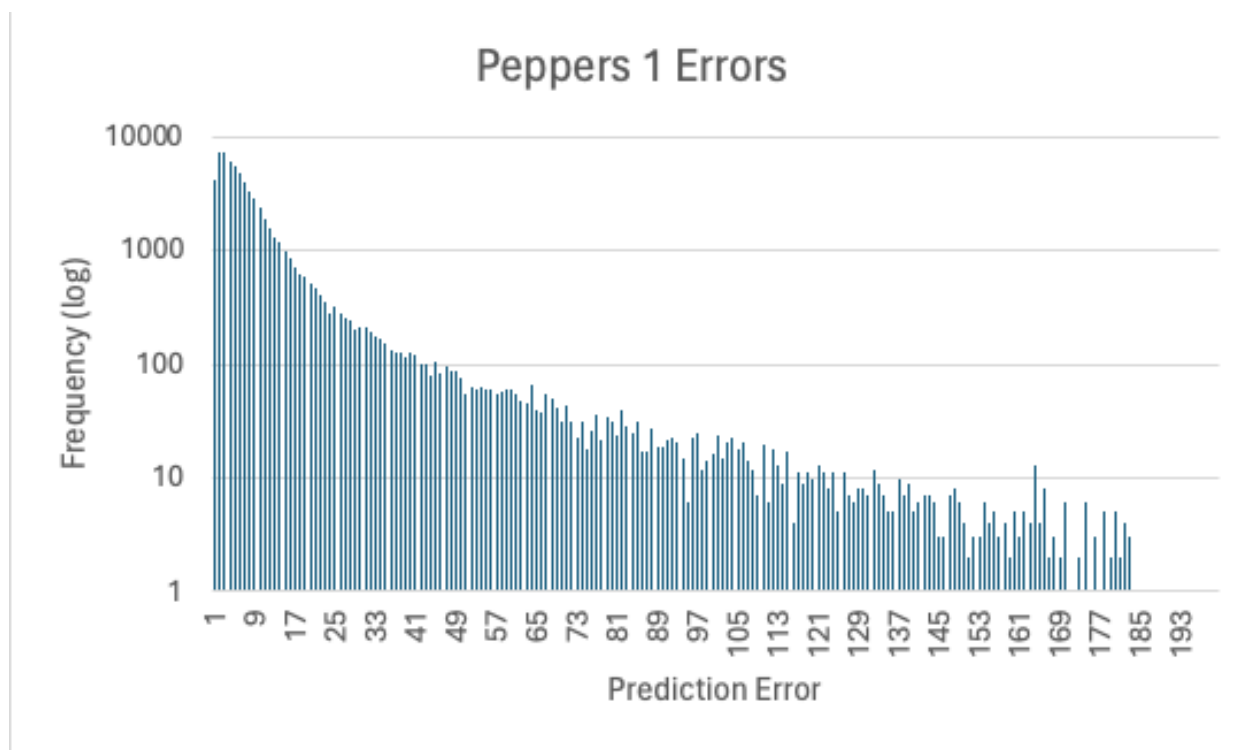


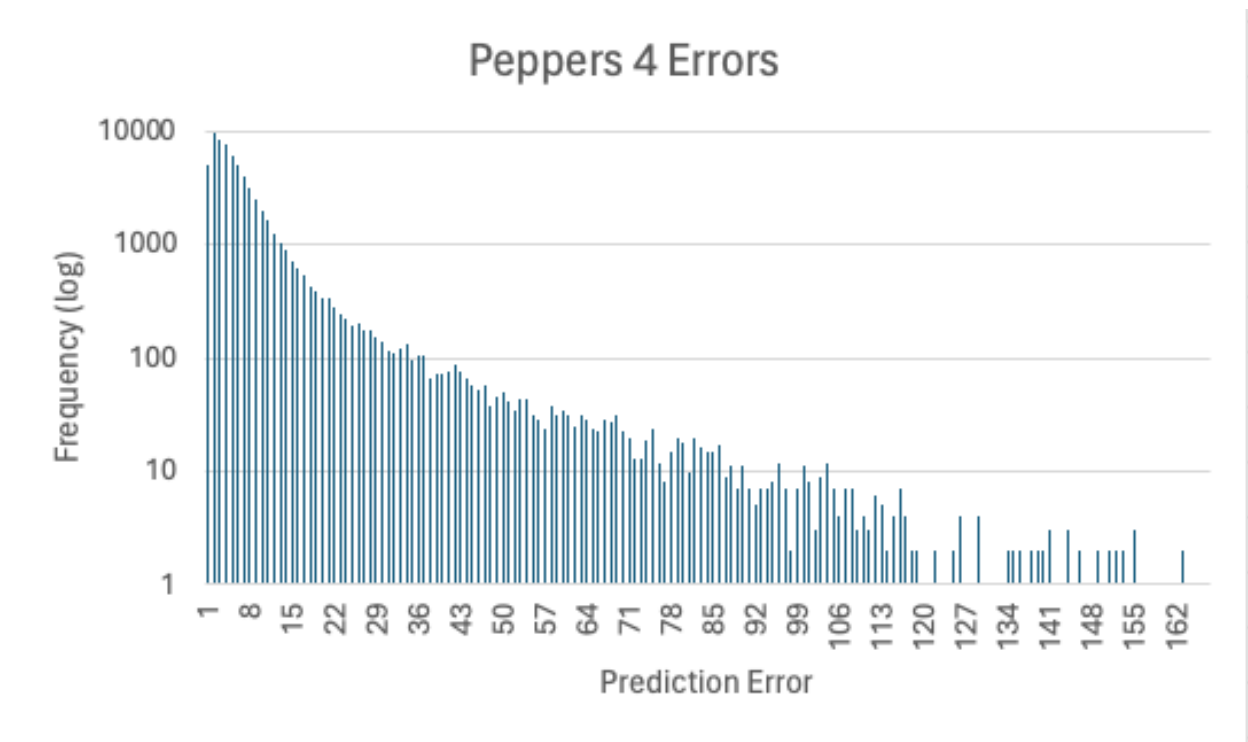
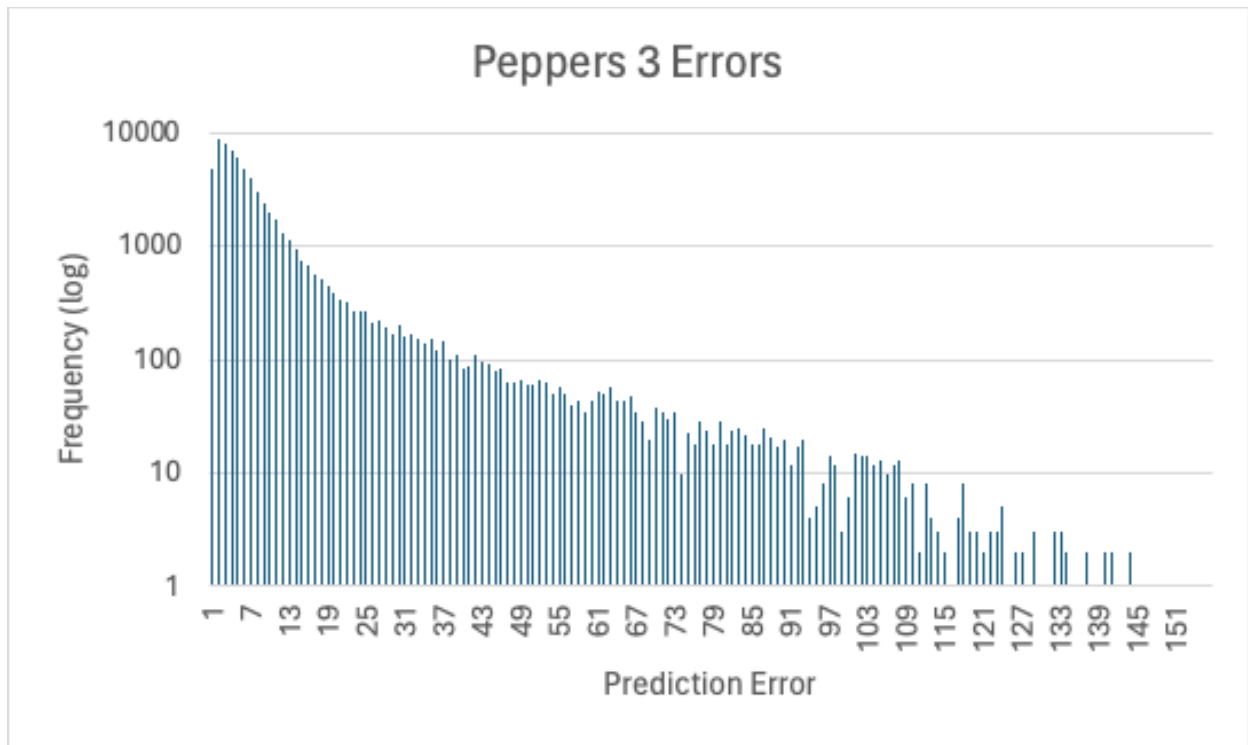
Goldhill Prediction Error Histograms:





## Pepper Prediction Error Histograms:





The shape of all these graphs is similar in which they all start with a high frequency, and gradually decrease.

Data	APE Average	APE Std.	Encoding Time (s)	Decoding Time (s)
Goldhill 1	11.64	16.29	0.01	0.01
Goldhill 2	12.63	15.7	0.01	0.01
Goldhill 3	10.1	12.23	0.01	0.02
Goldhill 4	9.02	11.45	0.01	0.02
Peppers 1	10.41	17.94	0.01	0.02
Peppers 2	9.59	16.91	0.01	0.02
Peppers 3	8.38	13.64	0.01	0.01
Peppers 4	7.35	12.17	0.01	0.02

Which prediction rule is most suitable for each image?

When looking at the data, prediction rule 4 has the lowest absolute prediction error (APE) average and standard deviation (Std.) for both images. There is not much difference in the encoding/decoding times as they are all very fast. Therefore, since CALIC has the lowest APE, it is the most optimal prediction rule for compression.