## **Water Adjustment Summary**

## Hover cursor over cells w/ red corner marks to display helpful information

Pale Ale Profile	Calcium (ppm)	Magnesium (ppm)	Sodium (ppm)	Sulfate (ppm)	Chloride (ppm)	Bicarbonate (ppm)
Existing Water Profile	0	0	0	0	0	0
Mashing Water Profile	167	20	25	276	56	29
Recommended Ranges	40 to 150	0 to 30	0 to 150	0 to 350	0 to 100	as needed

Mash Parameters			
Batch Volume (gallons)	12.0	Hardness (ppm as CaCO3)	499
Estimated Mash pH	5.31	Alkalinity (ppm as CaCO3)	24

	Total Mash Water Vol (gal)	8.0	Total Sparge Water Vol (gal)	4.0		
Additions	Mash Dilution Vol (gal)	0.0				
	Mash Water Additi	ons	Sparge Water Additions			
Minerals	(grams)		(grams)			
Gypsum (CaSO4 x 2H2O)	10.8	10.8		5.4		
Calcium Chloride (CaCl2)	2.6	2.6 1.3				
Epsom Salt (MgSO4 x 7H2O)	6.0	6.0		3.0		
Magnesium Chloride (MgCl2)	0.0	0.0		0.0		
Canning Salt (NaCl)	0.0	0.0		0.0		
Baking Soda (NaHCO3)	2.8	2.8		Not Recommended		
Chalk (CaCO3)	4.0	4.0		d		
Pickling Lime (Ca(OH)2)	0.0	0.0		d		
Acids						
Phosphoric 10.00 %	88.0	(ml)				
Phosphoric 10.00 %			0.0	(ml)		

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Total Volume

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Bru'n Water v. 1.21

If the sheet does not show comments or red corner marks, select the REVIEW tab in the Excel program menu and click the SHOW ALL COMMENT!

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= Tap Volume + Dilution Volume

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S button twice.

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