White Labs Yeast Characteristics

Fermentation Trial Data: White Labs microbiologists used micro-fermentations techniques to test the company's yeast strains. Below is a sample of the extensive information that will follow on whitelabs.com. Graph #1 shows data from the White Labs Gas Chromatograph machine. Below the graphic is a key showing what the colors represent. Graphic #2 showcases fermentation characteristics and flavor panel comments.

Graphic #1:

WLP STRAIN	As-is Diacetyl	Total Diacetyl	As-is 2,3-Pentanedione	Total 2,3-Pentanedione	Ethanol	Acetaldehyde	Ethyl Acetate	Isoamyl Acetate	1-Propanol	Isoamyl Alcohol
WLP 001 California Ale	27.18ppb	78.12ppb	N/A	8.61ppb	4.825%ABV	14.005ppm	17.46ppm	N/A	37.23ppm	90.185ppm
WLP 099 Super High Gravity Ale	32.97ppb	56ppb	6.77ppb	14.23ppb	5.64%ABV	14.65ppm	37.45ppm	9.88ppm	39.14ppm	222.72ppm
WLP 400 Belgian Wit Ale	28.86ppb	82.41ppb	6.95ppb	25.16ppb	5.09%	10.82ppm	35.41ppm	5.66ppm	27.41ppm	157.36ppm
WLP 833 German Bock Ale	38.8ppb	92.7ppb	28.9ppb	70.74ppb	4.98%	25.31ppm	28.07ppm	2.86ppm	20.96ppm	148.75ppm

	Low Level	Med Level	High Level
Acetylaldehyde	Below 10ppb	10-25 ppm	Above 25ppm
Ethyl Acetate	Below 33ppm	33-50ppm	Above 50ppm
1-Propanol	Below 20ppm	20-40 ppm	Above 40ppm
Iso Amyl Alcohol	Below70ppm	70-120 ppm	Above 120 ppm
Diacetyl as -is	Below 20ppb	20-60ppb	Above 60
Daicetyl total	Below 50	50-100ppb	Above 100ppb

Graphic #2:

Strain	Final Gravity (P)	AT 50%*	Tasting Panel
001	2.8	40	Clean tasting, little yeast flavor, hop bitterness apparent
099	1.2	36	Sulphury, low phenol, may be lager-like
400	2.5	30	Phenolic, spicy, earthy, a little sulphur
833	2.5	48	Some spiciness, dry

* Hours it takes to get to 50 percent attenuation