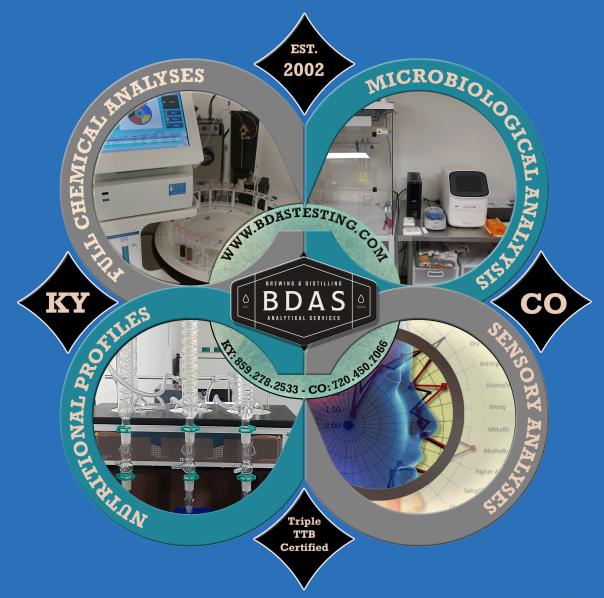
# *BDAS,LLC* 2022

# THIS IS A BDAS ANALYTICAL SERVICES CATALOG: Pricelist



Brewing and Distilling Analytical Services, LLC

BDAS, LLC is a triple TTB Certified Laboratory: Beer, Wine and Spirits

And recognized in many Countries for Export Certificates - See Details Within.

## THE 2022 CATALOGUE & PRICING

# CATALOGUE PRICE LIST

Catalogue codes: Additional charges, discounts & consulting 2 TESTS/PACKAGES: Comprehensive analytical packages 3-4 Nutritional test packages 5-6 Individual tests 7-8 GC - Gas chromatography 9 Microbiological test services 10 Water, metals & minerals 11 Malt & hops 12

# FULL CATALOG IS ON-LINE AT BDASTESTING.COM



This document (22-1.PrLst - 2022) is available for download: http://bdastesting.com

ITEM CODE	ADDITIONAL CHARGES/PACKAGE DISCOUNTS APPLIED TO TESTING & OR ADDITIONAL REPORTS	PRICE \$USD
F01	PRIORITY SERVICE FEES Rush services charges: 1.5 x's cost for 48 hours turnaround when possible. In house tests only. (See individual listing for pricing. IF NO PRICE IS LISTED, RUSH IS NOT OFFERED FOR THAT TEST.	1.5X
F02	DISTILLATION SERVICE FEE Samples to be distilled for analysis. Required for all samples above 12% ABV. Other samples, such as seltzers and cream based products, may be subject to distillation at BDAS's discretion. 1 x 500 mL container minimum	Stnd 40 Rush 60
F03	PRE-ANALYSIS SAMPLE PROCESSING FEE Samples requiring filtration or clarification prior to analysis.	Stnd 15 Rush 22.50
F04	SOLID SAMPLE PROCESSING FEE Solid samples requiring grinding and emulsification prior to analysis	Stnd 35 Rush 52.50
F05	ADDITIONAL REPORTS Extra reports or reports re-issued at a later date. Re-named samples - reports only reissued on samples tested in previous 6 months	Stnd 25 Rush 37.50
F06	CERTIFICATE OF ANALYSIS NOTARY DOCUMENTS Any special certificate document - prepared and notarized.	Stnd 25 Rush 37.50
F07	SAMPLE PURCHASE OR PICK UP FEES Purchase of samples, pickup fees, import fees, etc., as required for testing. May include hourly rates for transport or travel time.	
F08	RUSH SHIPPING/MAILING COSTS/OTHER DOCUMENT PROCESSING FEES Rush shipping or mailing of documents, return of samples, etc., as needed. May also include other processing or document preparation fees, etc.	
F09	SPECIFIC GRAVITY (SG) DETERMINATION FOR SERVING SIZE CONVERSION Some tests for nutritional items and certain other analytes will require a determination of the sample specific gravity for serving size conversion. The SG testing will automatically be added if needed.	Stnd 25 Rush 37.50
F10	LANGUAGE TRANSLATION FEES FOR REPORTS Requests for reports written in a non-English language may involve translation fees. Translation is done digitally and may have contextual grammatical issues.	Stnd 30 Rush N/A
F11	LATE FEES Late fees at current standard industry rates (specified on the invoice) apply to invoices not paid within the current NET 15 days payment terms.	
F13	REPORTS IN ALTERNATE FOMAT Report/data sent in Excel or other alternative format.	5

ITEM CODE	PROJECTS AND CONSULTING
CF cos Also	CONSULTING nsulting charges start at \$150/hour and include travel and accommodation ts etc., when applicable off-site work is involved. Contact us for full details. o see page 19. Extended phone conversations where we add value beyond t result explanations are also considered under consulting arrangements.
PF fees Spe	PROJECT CONTRACTS ecial projects agreed to by both parties will incur project-specific charges. Basic project s start at \$100/hour for set up and research work (See also retainer fees, RF below). ecific materials required will be purchased and billed for as will time spent collecting or ivery of samples etc. Contact us for full details. See also pages 19 and 20.
	LEGAL RETAINER AND EXTENDED PROJECT DEPOSITS ensive projects and certain legal cases will incur retainer fees dependent upon estimated total project or case research and reporting costs.

TEST ITEM	<b>COMPREHENSIVE PACKAGES</b> & BASIC/LEGAL NOTARIZED ALCOHOL REPORTS	PRICE \$USD
CP01	ALCOHOL BASIC Alcohol % by Volume at 20 °C and 60 °F, Alcohol by Weight, and SG. Note: Any sample that is over 12% ABV will be subjected to distillation and additional fees (see F02). 1 x 12 oz. container	Stnd 35 Rush 52.50
CP02	ALCOHOL-LEGAL CONTENT Notarized report of alcohol content - Alcohol % by Volume at 20 °C and 60 °F, Alcohol by Weight, and SG. Note: Any sample that is over 12% ABV will be subjected to distillation and additional fees (see F02). 1 x 12 oz. container	Stnd 50 Rush 82.50
CP03	BREWER'S SPECIFICATIONS (BEER) Alcohol % By Volume and Weight, SG, Extracts, Calories, IBUs, Color and pH. 2 x 12 oz. containers	Stnd 80 Rush 120
CP04	NON-BEER SAMPLE BREWER'S SPECIFICATIONS Alcohol % By Volume and Weight, SG, Extracts, Calories, Total Acidity, Color (@430 nm unless otherwise requested), and pH. 2 x 12 oz. containers	Stnd 80 Rush 120
CP05	$\begin{array}{l} \label{eq:BEER COMPREHENSIVE CHEMICAL PROFILE} \\ \mbox{Alcohol \% By Volume and Weight, SG, Attenuation, Calories, Bittering Units, Color, Dissolved CO_2 (without air), Free Amino Nitrogen (FAN), Original and Final Extract, pH, Haze, Sediment analysis, Total Acidity and Total Sulfur Dioxide.} \\ \mbox{4 x 12 oz. containers} \end{array}$	Stnd 250 Rush 375
CP06	BEER COMPREHENSIVE CHEMICAL & SENSORY PROFILE Combines the CP05 chemical package with one full sensory panel evaluation - see CP11. 6 x 12 oz. containers	Stnd 370 Rush 555
CP07	WORT COMPREHENSIVE CHEMICAL ANALYSIS Ash, Bittering Units, Calcium, Color, FAN, SG, Original Extract, pH, Protein, Starch Content (Quantitative), Total Acidity and Iron, Magnesium and Zinc. SG is tested to see that fermentation is not underway before other tests com- mence. SHIP FROZEN! 1 Liter (or 2 x 500 mL) container	Stnd 300 Rush N/A
CP08	WINE COMPREHENSIVE CHEMICAL PROFILE Alcohol By Volume and Weight, Ash, pH, Sulfur Dioxide (Free, Fixed, and Total), Acidity (Volatile and Total), and Residual Extract. 1 x 750 mL container	Stnd 175 Rush 262.50
CP09	DISTILLED SPIRITS COMPREHENSIVE CHEMICAL PROFILE Alcohol By Volume and Weight, Acidity (Volatile and Total), Haze, Higher Alcohols and Esters via GC, pH, and Residual Extracts/Total Solids. 1 x 750 mL container	Stnd 305 Rush 457.50
	CONTINUED	
FOR SPECIFIC CERTIFI	CATES FOR EXPORT PURPOSES IT IS SOMETIMES NECESSARY TO BUILD SPECIAL PACKAGES. PLEASE SEEK THE PACKAGE TH.	AT BEST MEETS YOUR

FOR SPECIFIC CERTIFICATES FOR EXPORT PURPOSES IT IS SOMETIMES NECESSARY TO BUILD SPECIAL PACKAGES. PLEASE SEEK THE PACKAGE THAT BEST MEETS YOUR NEEDS & CONTACT US TO ADDRESS THE MISSING ITEMS FROM YOUR LIST. SEE ALSO PAGE 9 FOR ANEXO CERTIFICATES

TEST ITEM	<b>COMPREHENSIVE PACKAGES</b> & BASIC/LEGAL NOTARIZED ALCOHOL REPORTS	PRICE \$USD
CP10	PRODUCT STABILITY TESTING Alcohol % Volume and Weight, SG, Attenuation, Calories, Total plate counts, CO2, pH, Color and Haze. (All analyses can be completed at the Denver location; if you ship to Lexington, we will have to send out to Denver for TPC– additional shipping charges may be applied) $4 \ge 12$ oz. containers	Stnd 275 Rush 412.50
CP11	TASTE PANEL EVALUATION Single evaluations and multi-time/date evaluations offered. A full 40 attribute descriptive sensory profiling with radar (spider), bar chart profiles, and sen- sory summary. Additional dates for same product aging (e.g., 30, 60, 120 days) offered at a discounted rate. $2 \ge 12$ oz. containers per evaluation date	Stnd 160(1st) 130/ subsequent date tests
C12	TRIANGLE TASTE TESTS For this and other forced-choice sensory tests please call for specifics. 6 oz. containers for each sample & the control per evaluation	220 per comparison

TEST ITEM	NUTRITIONAL TEST PACKAGES & INDIVIDUAL SPECIALIZED NUTRITIONAL TESTS [INCLUDES FDA NUTRITIONAL MANDATE TESTS]	PRICE \$USD
N00	Alcohol By Volume and Weight, Real and Original Extracts, Real and Apparent Degrees of Fermentation/attenuation and ash corrected calories. Ash correction is the determination of total inorganic (minerals; does not contribute to calories) content via evaporation and combustion. $2 \times 12$ oz. containers	Stnd 105 Rush 157.50
N01	NUTRITIONAL LABEL PACKAGE Alcohol By Volume and Weight, Ash, Calories, Original and Final Extract, Protein, and Total Carbohydrates. *Alcohol, extract, protein, and ash data are needed to accurately calculate calories and carbohydrates. 2 x 12 oz. containers	Stnd 170 Rush N/A
N02	NUTRITIONAL LABEL PACKAGE WITH SODIUM Alcohol By Volume and Weight, Ash, Calories, Original and Final Extract, Protein, Total Carbohydrates, and Sodium. 2 x 12 oz. containers	Stnd 205 Rush N/A
N03	NUTRITIONAL LABEL PACKAGE WITH HPLC SUGARS Alcohol By Volume and Weight, Ash, Calories, Original and Final Extract, Protein, Total Carbohydrates, and Total Sugars (grams/serving; reported as individual simple-sugars and sum (total) of sugars; via HPLC). 2 x 12 oz. containers	Stnd 260 Rush N/A
N04	NUTRITIONAL LABEL PACKAGE WITH SODIUM & HPLC SUGARS Alcohol By Volume and Weight, Ash, Calories, Original and Final Extract, Protein, and Total Carbohydrates, plus Sodium and Total Sugars (grams/ serving; reported as individual simple-sugars and sum (total) of sugars; via HPLC). 2 x 12 oz. containers	Stnd 300 Rush N/A
N05	NUTRITIONAL LABEL PACKAGE WITH SODIUM, HPLC SUGARS & FATS Alcohol By Volume and Weight, Ash, Calories, Original and Final Extract, Protein, Total Carbohydrates, Sodium, Total Sugars (grams/serving; reported as individual simple-sugars and sum (total) of sugars; via HPLC), and Total Fats. 3 x 12 oz. containers	Stnd 315 Rush N/A
N06 FDA PROGRAM FOR BREWERS	COMPLETE NUTRITIONAL LABEL PACKAGE [FDA NUTRITIONAL MANDATE] Alcohol By Volume and Weight, Ash, Calories, Original and Final Extract, Protein, Total Carbohydrates, Sodium, Total Sugars (grams/serving; reported as individual simple-sugars and sum (total) of sugars; via HPLC), Total Fat, and Total Fiber. NOTE: A fatty acids profile can be added on at a reduced price of \$210.00. See N12 for stand-alone fatty acids profile cost. MUST REQUEST BOTH N06 & N12 FOR FDA MANDATED TESTING. $4 \ge 12 \text{ oz. containers}$	Stnd 510 Rush N/A
N07	FERMENTATION PROFILE Alcohol By Volume and Weight, Real and Original Extracts, Real and Apparent Degrees of Fermentation and Approximate Calories (not ash corrected). 1 x 12 oz. containers	Stnd 55 Rush 82.50

TEST ITEM	TEST ITEM NUTRITIONAL TEST PACKAGES & INDIVIDUAL SPECIALIZED NUTRITIONAL TESTS [INCLUDES FDA NUTRITIONAL MANDATE TESTS]		PRICE \$USD
N08	ASH Total Inorganic (mineral) content via evaporation and combu	1 <b>stion.</b> 1 x 12 oz. container	Stnd 55 Rush 82.50
N09	PROTEIN Total Protein by Kjeldahl digestion.	1 x 12 oz. container	Stnd 55 Rush N/A
N10	HPLC SUGARS – SIMPLE SUGARS PROFILE Simple Sugars Profile: Glucose, Fructose, Sucrose, Maltose, Applicable fees (F09) may apply if grams/serving is require gravity is not included in other testing.		Stnd 140 Rush 210
N10 (allulose)	HPLC SUGARS – ALLULOSE ADD-ON HPLC-RI analysis of allulose (add on to N10 ONLY).	1 x 12 oz. container	Stnd 30 Rush 45
N10 (erythritol)	HPLC SUGARS – ERYTHRITOL ADD-ON HPLC-RI analysis of erythritol (add on to N10 ONLY).	1 x 12 oz. container	Stnd 30 Rush 45
N11	TOTAL FATS (VIA ACID HYDROLYSIS) Total Fats analysis via acid hydrolysis.	1 x 12 oz. container	Stnd 55 Rush N/A
N12	FAT/LIPID PROFILE Total, Saturated, Unsaturated and Trans-fat, plus a Lipid profi (FAME). Mandatory for nutritional labeling on all samples co than 0.5 g/serving total fats. Fat must be tested via acid hydr a fatty acid profile can be completed. If only N12 is requeste automatically added.	ontaining more olysis before	Stnd 235 Rush N/A
N13	TOTAL FIBER Total dietary fiber via enzymatic and gravimetric method.	1 x 12 oz. container	Stnd 55 Rush N/A
N14	SUGAR ALCOHOLS Testing for sugar alcohols (sorbitol, xylitol, and mannitol). * N10 (erythritol) listing*	For erythritol, see 1 x 12 oz. container	Stnd 330 Rush N/A
N15	VITAMINS Several vitamins can be tested for, but each vitamin is speci Denote on the service request form which vitamin you are r A, Vitamin C, and Vitamin D3 are the most requested; please other vitamin pricing.	equesting. Vitamin	Stnd - VIT A- \$150 VIT C- \$135 VIT D3 -\$310 Rush-N/A

TEST ITEM	INDIVIDUAL ANALYTE TESTS	PRICE \$USD
T01	BITTERNESS IBU's - spectrophotometric via iso-octane extraction 1 x 12 oz. container	Stnd 45 Rush 67.50
T02	BENZENE Benzene testing 1 x 12 oz. container	Stnd 130 Rush N/A
T03	ENZYMATIC TESTS [SUGARS, ACIDS, ALCOHOL etc.] These tests can only be added on when part of additional testing here at BDAS, LLC. A minimum of five samples is usually required to cover cost. 1 x 12 oz. container	Stnd \$85 each / \$425 min Rush N/A
T04	$\label{eq:color} \begin{array}{c} \text{COLOR} \\ \text{Spectrophotometric}-\text{Beer at } A_{_{430}} \text{ Spirits at } A_{_{525}} \text{ Std. Ref Method units. If a dif-} \\ \text{ferent absorbance value is needed, please denote on the request form.} \\ 1 \ge 12 \text{ oz. container} \end{array}$	Stnd 25 Rush 37.50
T05	$\label{eq:DISSOLVEDCO2} DISSOLVEDCO2 \\ \mbox{Volumes of Dissolved CO2} (Zahm and Nagel) \\ $1 $ x 12 $ oz. $ container $ container$ $ container$ $ container $ container $ co$	Stnd 50 Rush 75
T06	$\begin{array}{l} \mbox{DISSOLVED CO}_2, \mbox{AIR AND HEADSPACE} \\ \mbox{Volumes of Dissolved CO2 with Air and Headspace determination [Content of CO2 by weight also possible – required for some cider regulations]} \\ \mbox{$2 $ x 12 oz. container} \end{array}$	Stnd 85 Rush 127.50
T07	FILL VOLUME CONFIRMATION Bottles or Cans [Density and sample container weights determined for assessments.] 2 x 12 oz. container	Stnd 55 Rush 82.50
T08	FAN (OR YAN) Free Amino/Yeast Assimilable Nitrogen (ninhydrin-spectrophotometric). l x 100 mL container	Stnd 50 Rush 75
Т09	CAFFEINE Measure of caffeine determined with HPLC. 1 x 100 mL container	Stnd 165 Rush N/A
Т10	GLUTEN QUANTITATIVE Quantitative test of gluten via Ridascreen Gliadin ELISA test, reported as ppm (parts per million). 1 x 12 oz. container	Stnd 125 Rush N/A
T11	HAZE TESTING Sample Haze/clarity determination (NTU's or EBC units). 1 x 12 oz. container	Stnd 30 Rush 45
T12	ETHYL CARBAMATE Ethyl carbamate testing for spirit samples. 1 x 100 mL container	Stnd 275 Rush N/A
T13	pH Standard reference method (SRM) - pH meter. 1 x 12 oz. container	Stnd 10 Rush 15

TEST ITEM	INDIVIDUAL ANALYTE TESTS	PRICE \$USD
T14	POLYPHENOLS Total (colorimetric - spectrophotometric). 1 x 12 oz. container	Stnd 45 Rush 67.50
T15	TRUE AND APPARENT PROOF Direct reading vs. distillation value (measured via Rudolph densitometer) and total solids via distillation residuals. 1 x 750 mL container	Stnd 100 Rush 150
T16	OBSCURATION Obscuration value via dry down and ABV direct reading (via Rudolph densitometer). Sample must contain less than 600 mg/100 mL of solids and be 80-100 proof to use this method. See T15 if outside of this range. 1 x 750 mL container	Stnd 100 Rush 150
T17	FOAM STABILITY Foam Stability (foam sigma in seconds reported). $2 \ge 12$ oz. container	Stnd 50 Rush 75
T18	SPECTROSCOPIC FINGERPRINTING OF SAMPLE UV-visible scan - 220 to 1000 nanometers. 1 x 50 mL container	Stnd 30 Rush 60
T19	SORBIC ACID - HPLC Sorbic acid via HPLC. 1 x 12 oz. container	Stnd 110 Rush N/A
T20	SULFUR DIOXIDE (SO $_2$ - SULFITES) TOTAL Pararosaniline - spectrophotometric. Typically used for beer and malt-based samples. 1 x 12 oz. container	Stnd 85 Rush 127.50
T22	$\label{eq:sulfites} \begin{array}{l} \text{SULFUR DIOXIDE (SO}_2\text{-}\text{SULFITES)} \ (\text{TOTAL, BOUND, \& FREE}) \\ \text{Aeration/Oxidation Method. Typically used for wines, some seltzers, wine} \\ \text{based RTD beverages, or any beverage with added sulfites.} \\ & 1 \ge 12 \text{ oz. container} \end{array}$	Stnd 85 Rush 127.50
T24	$\label{eq:titratable} \begin{array}{l} \mbox{TITRATABLE ACIDITY} \\ \mbox{Expressed as lactic in beer, tartaric in wine, acetic in spirits & citric in selt-zers, unless otherwise requested.} \\ \mbox{$1$ x 12 oz. container} \end{array}$	Stnd 40 Rush 60
T25	VOLATILE ACIDITY Expressed as acetic, unless otherwise specified. 1 x 12 oz. container	Stnd 85 Rush 127.50
T26	DMS/FULL SULFIDE PROFILE (SPIRITS) Detection of Dimethyl Sulfide and other sulfur compounds (hydrogen sulfide, carbon disulfide, methyl mercaptan, ethyl mercaptan, dimethyl disulfide, diethyl sulfide, methyl thioacetate, diethyl disulfide, and ethyl thioacetate). 1 x 12 oz. container	Stnd 220 Rush N/A
T27	DMS/FULL SULFIDE PROFILE (NON-SPIRIT SAMPLES; BEER/CIDER/SELTZER/FMB) Detection of Dimethyl Sulfide and other sulfur compounds (hydrogen sulfide, carbon disulfide, methyl mercaptan, ethyl mercaptan, dimethyl disulfide, diethyl sulfide, methyl thioacetate, diethyl disulfide, and ethyl thioacetate). $1 \ge 12$ oz. container	Stnd 165 Rush N/A
T28	BREWER'S SIMPLE ACIDS AND DEXTRIN PROFILE Dextrin profile through HPLC. Glucose, maltose, maltotriose, maltotetraose, glycerol, lactic acid, and acetic acid. 1 x 12 oz. container	Stnd 135 Rush N/A
T29	COMPLETE ACIDS Includes acetic, glucuronic, gluconic, malic, lactic, citric, succinic, and tartaric acid. 1 x 12 oz. container	Stnd 165 Rush N/A

TEST ITEM	<b>GC - GAS CHROMATOGRAPHY</b>	PRICE \$USD
GC01	INDIVIDUAL ANALYTE Any one currently tested analyte from GC2 [Higher alcohols and esters]. $1 \ge 100$ mL container	Stnd 85 Rush 127.50
GC02	HIGHER ALCOHOLS AND ESTERS "The "TTB-series": Acetaldehyde, Ethyl Acetate, Methanol, n-Propanol, Isobutanol, 1-Butanol, Active and Isoamyl Alcohols ("Fusel oils"), Furfural. Beer and samples over 10 Plato (Brix) extract require distillation. See F02 for applicable fees. 1 x 100 mL (spirits) or 1 x 500 mL (beer, cider, seltzer, RTD)	Stnd 140 Rush 210
GC03	DIACETYL (VDK'S) Vicinal Diketones [2,3-butanedione (DIACETYL) and 2,3-pentanedione] Total values reported. Call with any questions. 1 x 12 oz. container	Stnd 110 Rush 165
GC04	ALCOHOLS/ESTERS/DIACETYL Combination of GC02 and GC03. Special combined package pricing ONLY AVAILABLE FOR BEER SAMPLES. 2 x 12 oz. container	Stnd 220 Rush 330
GC05	NEW ANALYTE/METHOD DEVELOPMENT For analytes not listed, please contact BDAS via email or phone. CONTACT US	CONTACT US
GC06	GC PROJECT BDAS, LLC collaborates with an affiliate, who performs GC-Mass Spectroscopy. Data/report provided is semi-quantitative and <b>will require a "control" and</b> <b>"test" sample.</b> 1 x 12 oz. container (2 SAMPLES MINIMUM)	Stnd 500 Rush N/A *2 SAMPLE MIN*
GC07	DIACETYL IN SPIRITS Diacetly in spirits.	Stnd 240 Rush N/A

TEST ITEM	MICROBIOLOGY	PRICE \$USD
MC01	TOTAL PLATE COUNT Total Plate Counts on 5 media (aerobic and anaerobic). General descriptors of cell morphology included.	Stnd 150 Rush 225
MC02	FAME ANALYSIS Fatty acid methyl ester profile analysis for Yeast Strain Identification. *Isolated colonies only. If isolated colonies are not provided, an MC01 will need to be performed.*	Stnd 220 Rush N/A
MC03	PCR ID Species identification via DNA sequencing. *Isolated colonies only. If isolated colonies are not provided, an MC01 will need to be performed.* Isolated colonies only	Stnd 190 Rush N/A
MC05	BEER SPOILAGE BACTERIA SCREEN Real Time PCR detection of Lactic Acid Bacteria (Lactobacillus and Pediococcus), Anaerobic Spoilage Bacteria (Megasphaera and Pectinatus), and Saccharomyces cerevisiae var. diastaticus 1 x 12 oz. container	Stnd 90 Rush 135
MC06	BEER SPOILAGE YEAST SCREEN Real Time PCR detection and differentiation yeasts commonly isolated from beer, including Saccharomyces*, Brettanomyces, Pichia, Candida, Rhodotorula, Hanseniaspora, Klyveromyces, and Debaromyces species. Full listing available upon request. *S. c. var. diastaticus detected and identified individually. 1 x 12 oz. container	Stnd 135 Rush 202.50
MC07	SACCHAROMYCES CEREVISIAE VAR. DIASTATICUS ID Real Time PCR detection and differentiation bacteria commonly isolated from beer, including Lactobacillus, Pediococcus, Megasphaera, Pectinatus, and Enterobacter species. Bacteria identified as single species or small groups. Also detects the yeasts S. c. var. diastaticus and Pichia anomala. Full listing available upon request. 1 x 12 oz. container	Stnd 135 Rush 202.50

TEST ITEM	WATER & METALS/MINERALS PACKAGES & INDIVIDUAL TESTS	PRICE \$USD
WATER		
W01	COMPREHENSIVE WATER ANALYSIS Alkalinity, Calcium, Chloride, Conductivity, Fluoride, Iron, Hardness, Magnesium, Manganese, Nitrate, pH, Sodium, Sulfate and Total Dissolved Solids. Discussion of profiles available as to suitability for your process. $2 \ge 1 \le $ containers	Stnd 130 Rush N/A
METALS & N	IINERALS	
MM01	BASIC METALS/ MINERALS Calcium, Iron, Magnesium and Zinc. 1 x 100 mL container	Stnd 110 Rush N/A
MM02	METALS FOR NUTRITNAL LABELS Calcium, Iron, and Potassium. 1 x 100 mL container	Stnd 85 Rush N/A
MM03	HEAVY METALS PACKAGE Arsenic, Cadmium, Lead, & Mercury 1 x 100 mL container	Stnd 110 Rush N/A
MM04	COMPLETE METALS AND MINERALS PACKAGE FOR WATER AND WORT NUTRITION: Calcium, Chloride, Copper, Iron, Magnesium, Manganese, Phosphorus, Potassium, Sodium, Sulfate and Zinc. 1 x 100 mL container	Stnd 220 Rush N/A
MM05	SINGLE METAL OR MINERAL (TOTAL) Single metal/mineral. Please denote on request form which metal/mineral is needed. $$1 $ x 100 $ mL$ container$	Stnd 55 Rush N/A
MM06	$\label{eq:Pick YOUR OWN PACKAGE} Pick YOUR OWN PACKAGE Choose and 4 standard metals/minerals. Please denote on the request form which metals/minerals are needed. $$1 x 100 mL container$$	Stnd 125 Rush N/A

#### MALT & OTHER CEREAL GRAINS BREWERS AND DISTILLERS

MALT		
M01	SIMPLE MALT ANALYSIS Moisture, Extract and Color. 1Kg	Stnd 80 Rush N/A
M02	$\begin{tabular}{lllllllllllllllllllllllllllllllllll$	Stnd 150 Rush N/A
M03	$\label{eq:main_matrix} \begin{array}{l} \text{MALT FULL COMPREHENSIVE} \\ \text{Moisture, Assortment, Friability, Fine Extract, Coarse Extract, F/C Difference,} \\ \beta \text{-glucan, FAN, Soluble Protein, S/T, DP, $\alpha$-amylase, Color, Filtration time,} \\ \text{Clarity, pH and viscosity.} \\ \hline \\ \begin{array}{l} \mathbb{I} \mathbb{K} g \end{array}$	Stnd 200 Rush N/A
M04	ENZYMES ONLY Diastatic Power and $\alpha$ -amylase.	Stnd 80 Rush N/A
M05	FRIABILITY ONLY Leading indicator of malt quality. 250 g	Stnd 30 Rush N/A

# BDAS, LLC can coordinate as it often does with many existing clients the testing on the malt test items noted above.

#### However we have arrangements with Hartwick College in NY to get this work done.

This lab is an unbiased malt and other grain/cereal testing facility with the highest credentials and capabilities. If you prefer we recommend you contact Hartwick directly. Sample test requests have to be prepaid. Call us first for details if you prefer.



TEST ITEM	HOPS - WHOLE CONE OR PELLETS BREWERS	PRICE \$USD
HOPS		
H01	HOP ACID PROFILE Hop Acid Profile: Alpha Acids (Humulone, Cohumulone, Adhumulone), Beta Acids, Moisture. 50 g	Stnd 75 Rush N/A
H02	HOP OIL PROFILE Hop Oil Profile: Alpha humulene, Alpha pinene, Beta Caryophyllene, Beta pi- nene, Beta-Myrcene, Citronellol, Farnesene, Geraniol, Limonene, and Linalool 200 g	Stnd 180 Rush N/A
Н03	HOP OIL PROFILE Total Hop Oil Content 200 g	Stnd 110 Rush N/A

### PRICE LIST ONLY VERSION

The Brewing and Distilling Analytical Services, LLC. Sample Services Request Form can be Emailed to you or may be downloaded from the website.

SAMPLE SERVICES FORM: http://www.bdastesting.com

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ANALYTICAL SERVICES

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