




JP3 Verax™ Applications & Primary Methods

Real time results, correlated to almost any primary test method

The JP3 Verax analyzer system produces rapid optical measurements that are correlated with primary ASTM or GPA test methods using chemometric models. Any Verax read point can measure any combination of the properties for a specified product listed below.

Each analytical standard in the table below contains individual precision (repeatability and reproducibility) specifications. The combination of application and analytical method used determines the final performance of the resulting models, which commonly equals published ASTM/GPA performance data where available.

Applications

Upstream	Midstream	Downstream
 <ul style="list-style-type: none"> Well pad separation units (gas and liquid) Vapor recovery units Compressor fuel gas Liquid and gas allocations Stabilizers Heater treaters Truck loading 	 <ul style="list-style-type: none"> Terminals (crude, NGLs, condensate) Blending (crude, NGLs, LPG) Truck offloading Stabilization (crude, condensate) Crude splitters Pipelines (products, interfaces) Gas plants and fractionation plants Gas pipelines 	 <ul style="list-style-type: none"> Pipelines (refined fuels, purity products) Refinery crude supply Crude blending Crude Distillation Unit Terminals (refined fuels, NGLs) Gasoline blending NGL & LPG blending

Product	Measurement	Standards
Crude / Condensate	Composition (C1-C30+)	GPA 2103
Crude / Condensate	Composition (C1-C15+)	GPA 2186
Crude / Condensate	Vapor Pressure (RVP, VPCR _x , TVP)	ASTM D6377
Crude / Condensate	API Gravity	ASTM D4052
Crude / Condensate	True Boiling Point	ASTM D2892, D5236
Crude / Condensate	Distillation Profile / SimDis	ASTM D86 / D7169
Crude / Condensate	Kinematic / Dynamic Viscosity	ASTM D445 / D7042
Natural Gas / VRU Gas	Composition (C1-C6+)	GPA 2261
Natural Gas / VRU Gas	Composition (C1-C9+)	GPA 2286
Natural Gas / VRU Gas	Relative Density	GPA 2261, 2286
Natural Gas / VRU Gas	BTU	GPA 2261, 2286
NGL Products	Composition (C1-C6+ & propylene)	ASTM D2163
NGL Products	Composition (C1-C7+)	ASTM D2177
NGL Products	Composition (C1-C15+)	ASTM D2186
NGL Products	Specific Gravity	ASTM D1657
NGL Products	Vapor Pressure (RVP, VPCR _x , TVP)	ASTM D1267, D2598*, D6897
NGL Products	Distillation Profile	ASTM D2887, D7344
Refined Fuels	Vapor Pressure (RVP, VPCR _x , TVP, DVPE)	ASTM D5191
Refined Fuels	API Gravity	ASTM D4052
Refined Fuels	Distillation Profile	ASTM D86
Gasoline	Vapor/Liquid Ratio (V/L)	ASTM D5188
Gasoline	RON/MON Octane Number	ASTM D2699 / D2700
Gasoline	Benzene Content (%)	ASTM D5580
Gasoline	Butane Content (%)	ASTM D2186
Diesel	Cetane Index	ASTM D4737
Diesel	Cetane Number	ASTM D613
Diesel	Cloud Point	ASTM D2500, D5773
Diesel	Flash Point	ASTM D93
Jet	Flash Point	ASTM D56
Jet	Freeze Point	ASTM D5972
Batch Product Transport	Automatic Interface Detection	JP3 Proprietary

*ASTM D2598 requires a compositional measurement on the same read point such as D2177, D2163, or D2186.