



AI-60 Lab Crude Analyzer

Rapid Crude Oil Assay

IT ALL STARTS WITH CRUDE OIL QUALITY!

The economics and margins of the entire refinery depend on crude oil cost and properties.

KNOW YOUR CRUDE OIL PROPERTIES AT ANY TIME!

Maximum efficiency of the production of high value distillates depends on crude oil properties and the flexibility of the crude distillation unit to handle any type of crude oil feed.

Aspect's AI-60 Lab Crude Analyzer provides at-line rapid crude oil assay.

AI-60 Crude Analyzer oil analysis includes:

- Specific Gravity (API)
- True Boiling Point (TBP) yields
- Pour points
- TAN
- Water
- Sulfur

BENEFITS

- Multi property analyses with one easy to use system.
- Reduces time consuming ASTM based laboratory tests.
- Allows for the verification of crude oil integrity throughout shipping and receiving.
- Allows control of crude feed to the CDU and correlation with distillate yields.

Using the AI-60 Lab Crude Analyzer, assay data can be obtained quickly, accurately, and economically.

Crude samples can have a wide range of properties:

- API Gravity (<9 to >50)
- Sulfur (0.2%-7%)
- Pour points (<-30 to > +90 deg F)

Sulfur and API Gravity alone cannot predict crude behavior during Processing. There are low API Gravity crudes with low wax content and vice versa.

For example:

- "Eocene" – 18.6 API, -20 F Pour Point
- "Dulang" - 39.0 API, 86 F Pour Point
- Crudes of the same name change in quality over time.

"Ras Garib": API in 1992 was 25.2, API in 1999 was 22.8. (Source Haverly Assay Data).

The AI-60 Lab Crude Analyzer provides at-line rapid crude oil assays and improves performance by eliminating data inaccuracies inherent in historical assay data.

Applicable Measurements and Accuracies

Parameter Description	Method Used	Reproducibility	Units
API	D4052	1	°c
Sulfur	D2622 - D4294	0.5	Weight %
TBP wt% 38°c	D2892	2.2	Weight %
TBP wt%105°c	D2892	2.2	Weight %
TBP wt% 165°c	D2892	2.2	Weight %
TBP wt% 365°c	D2892	2.2	Weight %
TBP wt% 565°c	D2892	2.2	Weight %

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