



VUV*vision*

VUVISION

INTUITIVE CHROMATOGRAPHY SOFTWARE



VUV ANALYTICS



VUV VERIFIED

VUVision

Intuitive Chromatography Software Written by Chromatographers for Chromatographers

VUVision software simplifies GC analysis by providing an intuitive interface for analyte characterization by VUV spectroscopy. VUVision delivers straightforward workflows for acquiring and processing data, resulting in high automation confidence and low-risk of analytical error.

VUVision is the base software for system control, data acquisition, library searching, qualitative

analysis, calibration, and quantitative analysis by external or internal standard methods. It is intended for both manual post-processing and automated analysis driven by VUV Analyze™. This robust software solution delivers standard chromatographic capabilities and data analysis while providing spectral information that is unique to VUV spectroscopy.

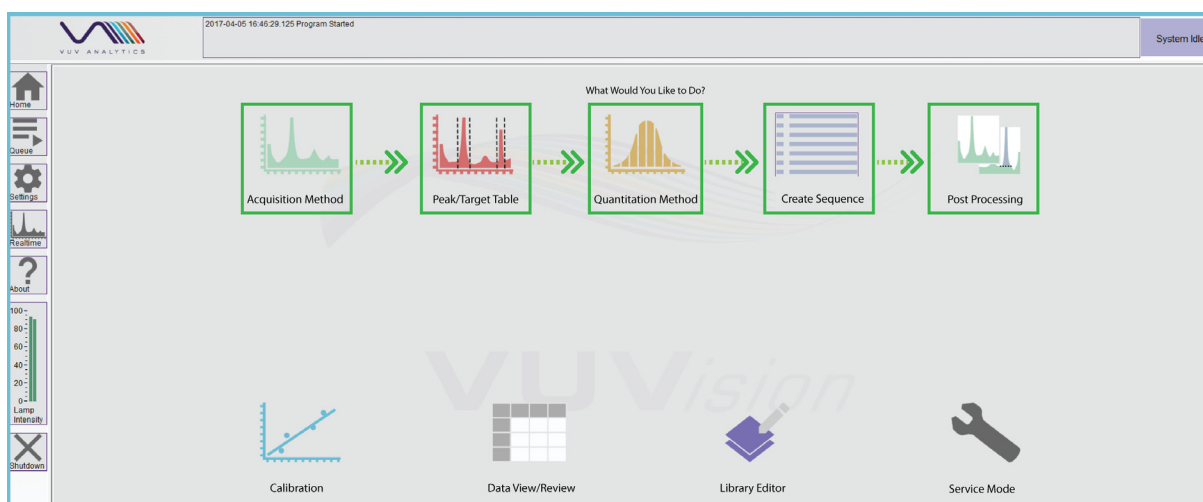


FIG. 1. Home Screen workflow: VUVision provides a straightforward workflow for processing and analyzing data.



Acquisition Method

VUVision's convenient Acquisition Method interface makes it easy to:

- > Load an Acquisition Method
- > Set up scan parameters and makeup gas pressure
- > Note key GC settings
- > Save Acquisition Method settings

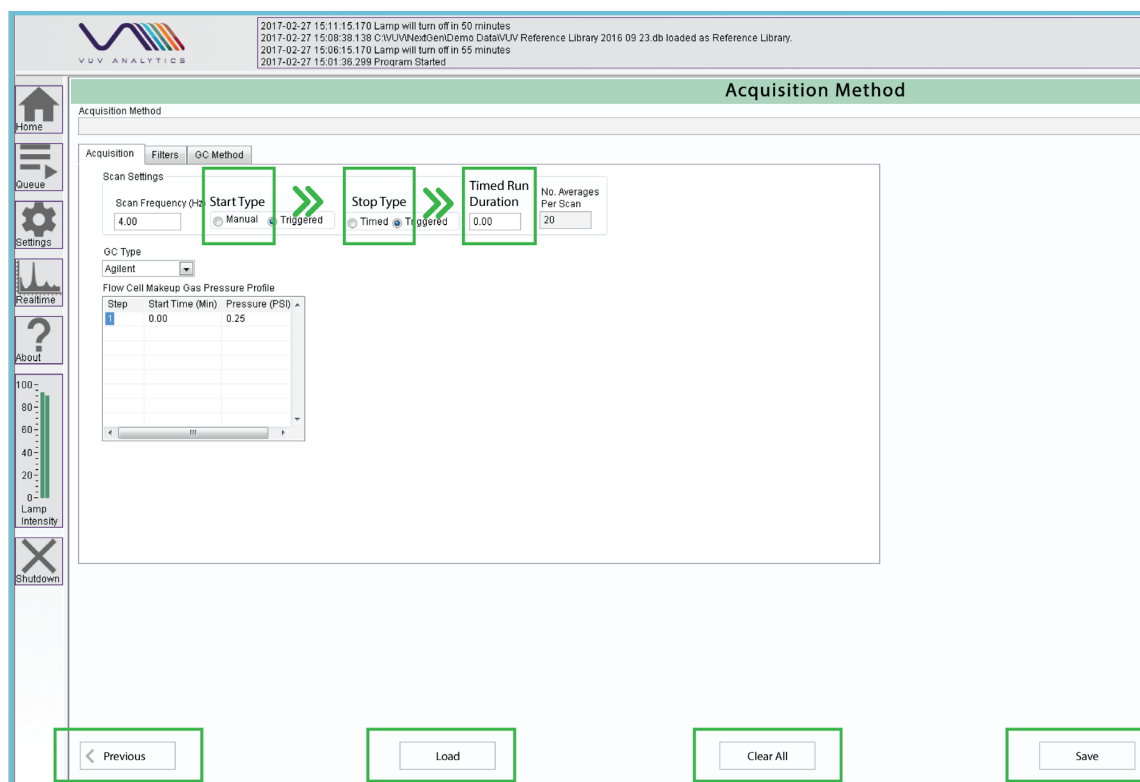


FIG. 2. Acquisition Method: VUVision features an intuitive acquisition method interface with very easy set up.

Spectral Filters

The full VUV absorbance spectrum is collected for every sample during data acquisition. The use of Spectral Filters during data review is a powerful tool for targeted analyte visualization. Useful default filter settings are part of each Acquisition Method. Customizable filter settings allow specification of filter name, wavelength range, and filter type (standard, additive, or subtractive). Custom filters can be applied pre- or post-data acquisition.

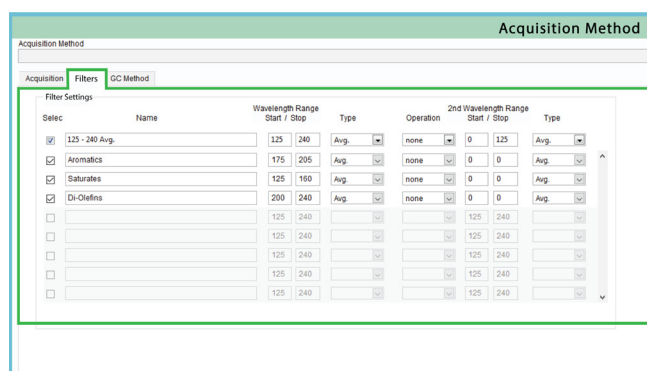


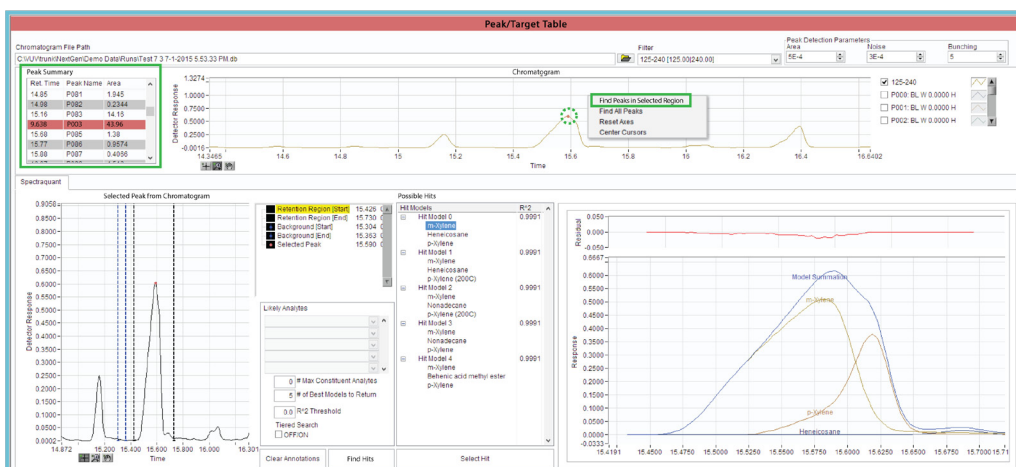
FIG. 3. Spectral Filter Set Up: Acquisition Method features a highly flexible spectral filter set up for targeted analyte visualization.

Peak/Target Table

Peak / Target Table allows users to define regions or peaks of interest for analyte identification through matching with VUV library compounds.

The Peak / Target Table's library search feature makes it easy to quickly define possible hits for qualitative and quantitative analysis.

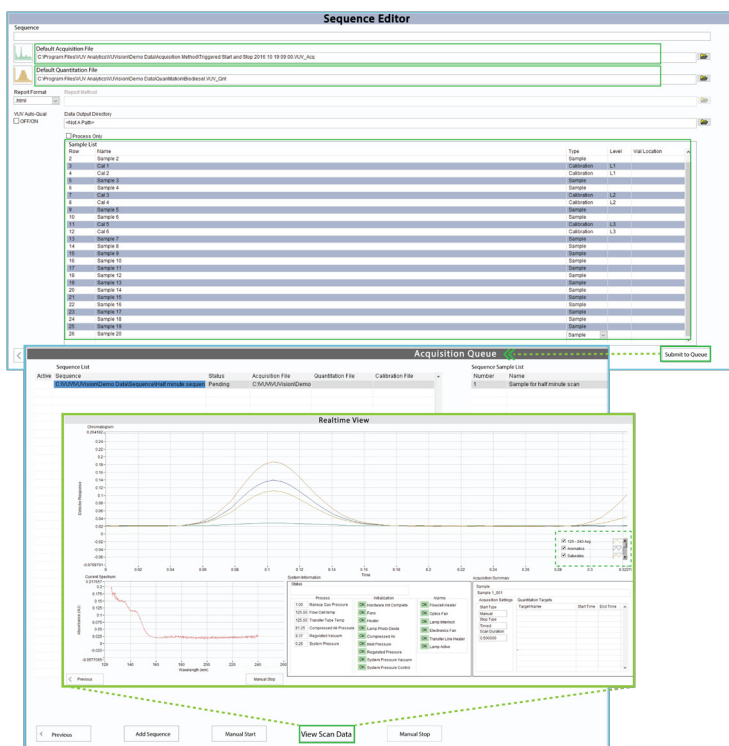
FIG. 4. Peak / Target Table: Peaks or regions of interest can be identified by the software and selected for analysis by choosing from the Peak Summary table, or by clicking on a chromatogram peak. Possible hits are fit with VUV library compounds and fitting statistics provided to guide Peak / Target table creation.



Sequence Editor

The Sequence Editor minimizes the number of steps required to set up a sample sequence. Choose your Acquisition File, Quantitation File, provide sample information, and then Submit the sequence to Queue. Samples can be specified as calibration, blank, QC sample, or sample. An unlimited number of samples and calibration levels can be added to a sequence.

FIG. 5. Sequence Editor: Straightforward sequence setup reduces the time to data with flexible sample and calibration parameters. Track the sequence progress through either the Acquisition Queue or Realtime View.



Post Processing

Post Processing makes data analysis easy by automatically identifying and quantitating compounds of interest based on Sequence, Peak / Target, and Calibration information. Sequences can be automatically reprocessed at any time

by applying new Peak / Target or Calibration files. A report is automatically generated that provides chromatographic, spectral, goodness of fit, calibration, and concentration information for all peaks in the region of interest.

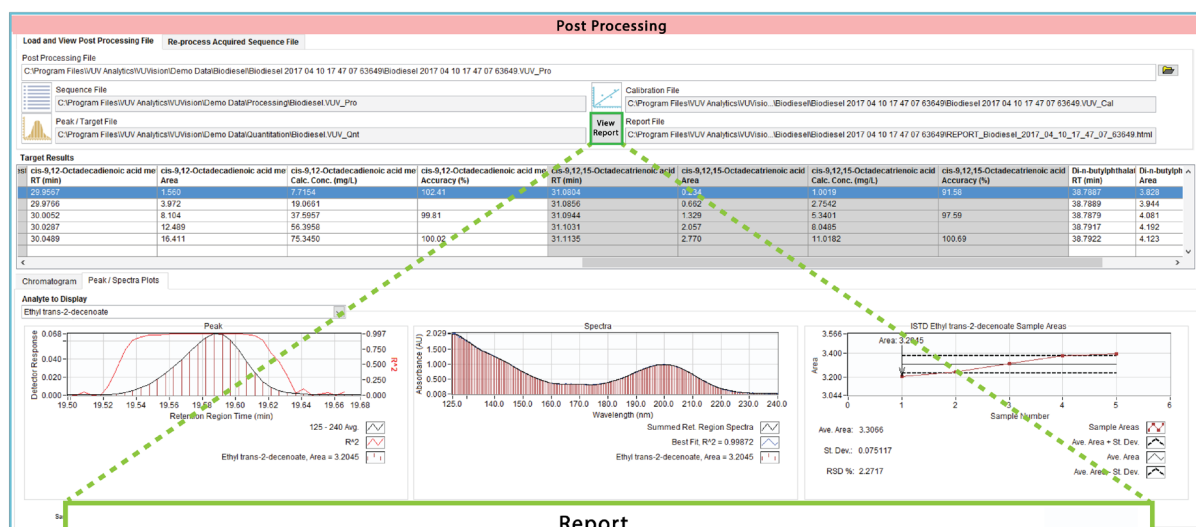


FIG. 6. Post Processing: Comprehensive Post Processing interface includes chromatographic, spectral, goodness of fit, calibration, and concentration information. Samples can be reprocessed at any time with different peak / target and calibration information.

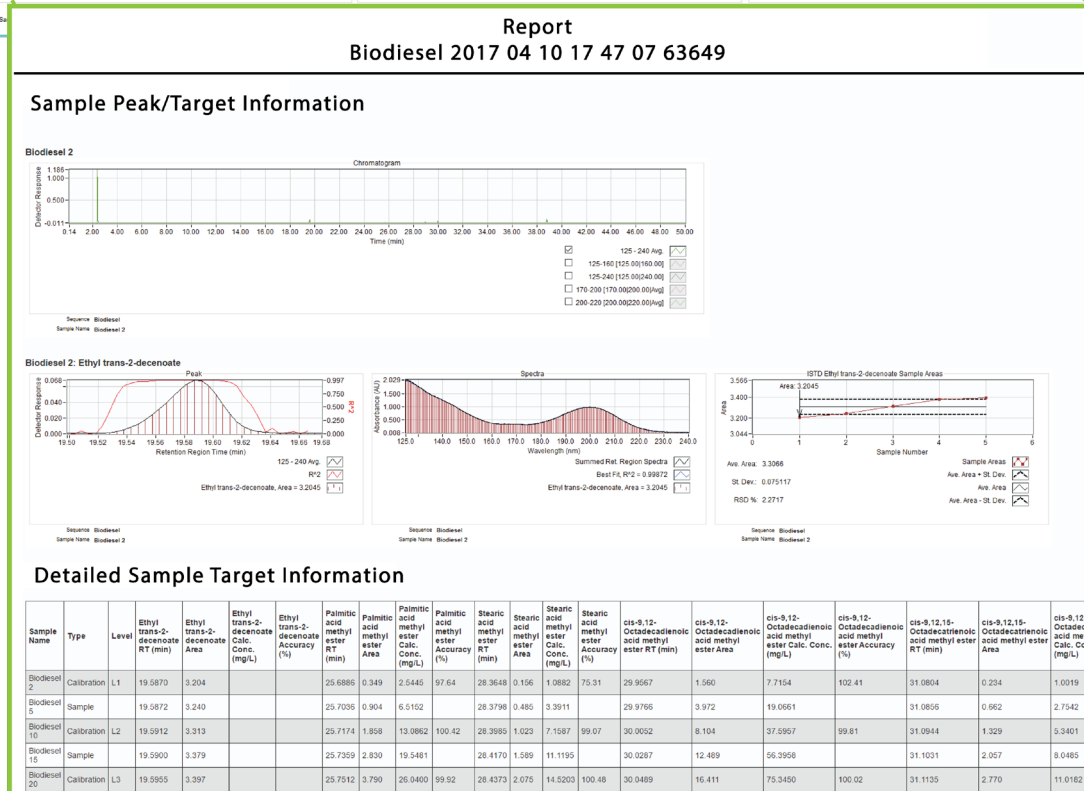


FIG. 7. Post Processing Report: Post Processing uses Sequence, Peak / Target, and Calibration information to generate an automatic report.

Calibration

The Calibration module provides intuitive set up of an external calibration using existing acquisition runs and a peak table file. Apply the Peak Table to acquisition run files, add the calibration target

concentrations, and click the “Calibrate” button to generate a calibration report. Sample options include calibration levels, polynomial fit, zero-point calibration, and concentration units.

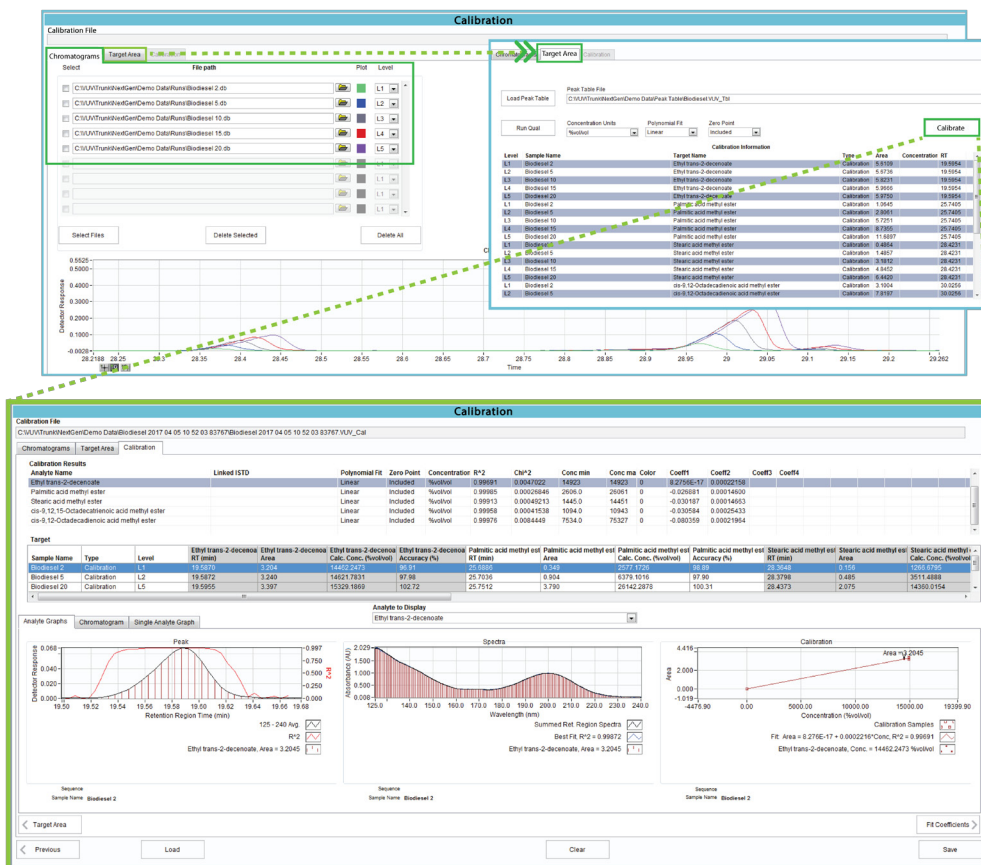


FIG. 8. Calibration Set Up and Report:
The Calibration module provides intuitive set up, and displays internal or external calibration results with complete reporting.

Library Editor

Library Editor allows compound searching, viewing absorbance spectra and related compound information, comparing multiple spectral profiles, and adding user-generated compound spectra to the library.



FIG. 9. Library Editor: Library Editor provides an easy interface to compare compound spectra, add new analytes of interest, and review relevant compound information.

Data View / Review

Data View / Review performs qualitative analysis of either currently running acquisitions or previously acquired runs. It is especially useful in analyzing unknown samples using the VUV Auto Qual feature,

which provides best fit identification based on VUV library compound matching. Specific peaks or areas of interest can be highlighted for compound identification through VUV cursors when spectral library fitting.

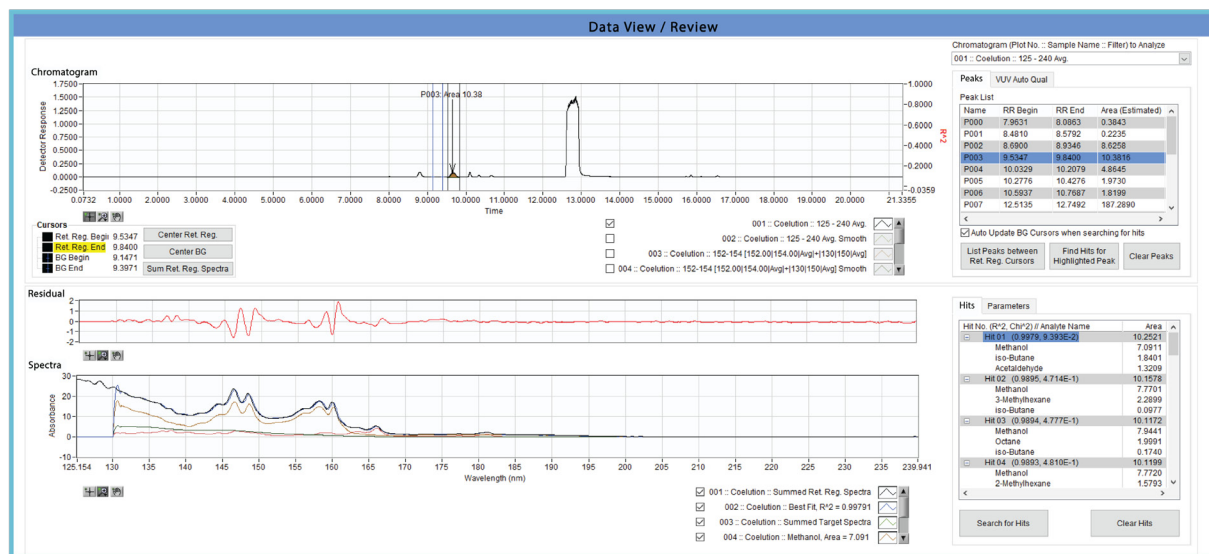


FIG. 10. Data View / Review: Regions of interest can be selected and analyte spectra fit with VUV library compounds.

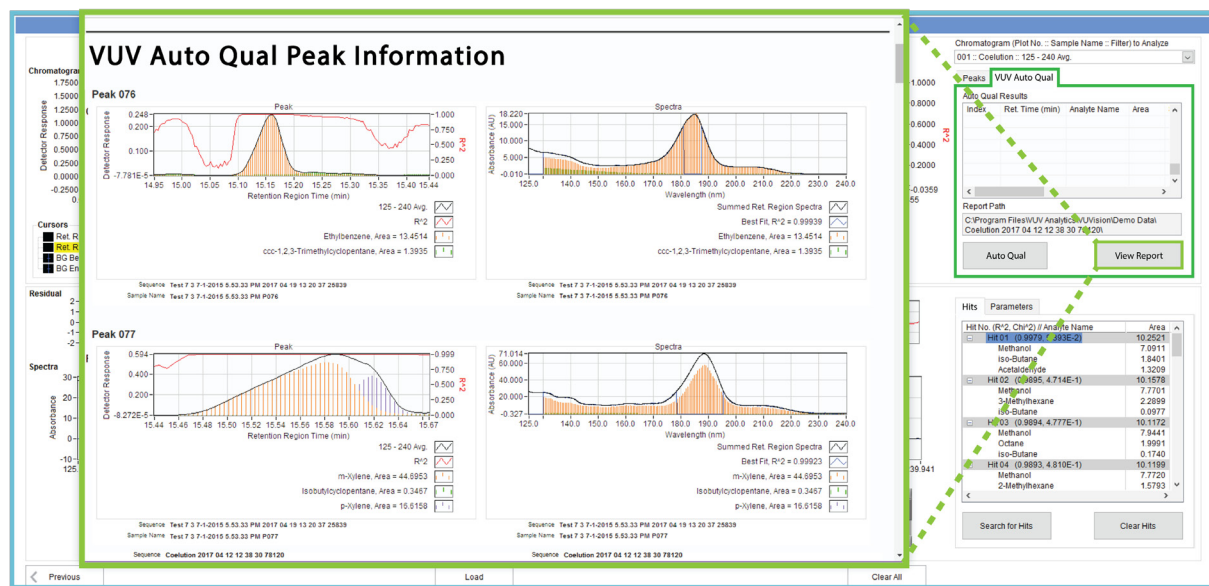


FIG. 11. Auto Qual Report: Auto Qual provides best guess compound identification of unknowns using VUV library compound fitting. A report is generated detailing the chromatographic, spectral, and closest compound match for each peak detected.



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