

# GLI Method Summary

## Gas Chromatography Analysis

Governing SOP: GC-100D  
Analyte: Residual Solvents

Range: ppm-%

|                                 |  |
|---------------------------------|--|
| <b>Instrument</b>               | Hewlett-Packard Model 5890 Gas Chromatograph   |
| <b>Analytical Column</b>        | ZB-1, 30m / 0.53 mm / 3 µm   |
| <b>Detection</b>                | Flame ionization (FID)   |
| <b>Preparation</b>              | Approximately 20 mg of sample was dissolved into 10 mL of Acetonitrile.  |
| <b>Sample Intro</b>             | Direct injection, HP 7673 Injector   |
| <b>Determination</b>            | Quantitation is generally performed by comparison to an external linear regression calibration curve. The instrument signal output is processed by HP ChemStation software.                        |
| <b>Quality Control Standard</b> | A reference standard, independent from the calibration standard, was analyzed under the same conditions of the sample. Blanks and calibration verifications are analyzed at appropriate intervals. |
| <b>Interferences</b>            | There are potential interferences from coeluting volatile compounds.   |
| <b>Calculations</b>             | External standard:<br>$wt / wt\% = \frac{(mg / mL \text{ analyte}) (final \text{ volume})}{mass \text{ of sample (mg)}} \times 100$  |

## References

*Operating Manual*, HP 6890 Series Gas Chromatograph Vol 1.3 Hewlett-Packard Co., 1996.

*Understanding ChemStation*, Hewlett-Packard Co., 1997.

*Operating Manual HP Automatic Liquid Sampler*, Hewlett-Packard Co., 1995.

*Reference Manual HP 5890 Series and HP5890 Series II Plus Gas Chromatograph*, Hewlett-Packard Co., 1993.

*Operating Manual HP 5890 Series and HP5890 Series II Plus Gas Chromatograph*, Hewlett-Packard Co., 1993.

*Operating Manual HP 7673 Automatic Sampler*, Hewlett-Packard Co., 1992.