

Base Oils II - Product Quality and Global Profitability 9AM EST/8AM CST/1PM GMT

Module 1	
8.00	Welcome and course introduction
8.10	 Refresher: Base Oils I Terminology & Technology Crude and base oil naming conventions Technology, key properties, and where they're controlled API Groups: the detailed definitions
8.40	 Volatility Requirements - Industry Game Changer The technical details of viscosity index (VI) Volatility: another base oil property to understand VI – Volatility – Viscosity relationships
9:40	Break
10:00	 Viscosity & Engine Oils: an overview Viscosity measurement under different conditions Putting it together: SAE J-300 Engine Oils Why engine oils matter to all other base oil sectors
10:45	Summary and conclusions
11-00	End of day one



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Module 2

8:00	Global Variations in Base Oil Quality
	 Major supplier comparisons: Group I, II, III qualities
	 Quality differences within the same groups
	 GTL and PAO: quality nirvana (for some applications)
8· <i>4</i> 5	Rase Oil Pricing Mechanisms

8:45 Base Oil Pricing Mechanisms

- Mechanisms what sets base oil price?
- Price ceilings: buyers (finished lubricants; process oils)
- Price floors: sellers (base oil refiners & marketers)

9:30 **Break**

9:45 Base Oil Refinery Profitability

- Profit basics: revenue less expenses
- Fuels versus lubes: who pays for what?
- By-products from base oil plants
- Exercise: Group I vs Group II vs Group III profitability

10:15 Discussion: Findings of profitability exercise

10:45 End of day two



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8:00 **Base Oil Forecasting Methodology** · Current global supply and demand • Factors to consider when doing a base oil forecast • Example: A simplified 2025 base oil forecast 9:00 **Group Discussion & Opinions** Will Group I cease to exist? Global recovery timing post-COVID Example: A simplified 2025 base oil forecast 9:30 **Break** 9:50 Trends & Ideas: Survival of the Fittest Unintended consequences from hydroprocessing

- More supply from re-refined oils and bio-lubricants?
- New survival schemes required

10:30 **Summary and course conclusion**

10:45 End of the course

Module 3