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Global Lubricant Basestocks Three-Year Annual Service, 2006-2008

A comprehensive three-year annual service focused on the dynamic global lubricant basestocks industry

- Module 1: Kline PriceView Model
- Module 2: Kline Manufacturing CostView Model
- Module 3: Kline FutureView Global Basestock Supply-Demand Forecast Model



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The years 2005 and 2006 were tumultuous ones for both buyers and sellers of lubricant basestocks. There were significant changes on the global supply front that presented significant challenges, as well as escalating prices.

- Crude oil prices shattered the existing ceiling to cross the \$75/bbl mark, making a serious impact on the lubricant basestocks industry.
- For a period of time, VGO prices crept above the average price for a Group I 100 N lubricant basestock, leading refineries to make more fuels as opposed to lubricant basestocks.
- Natural disasters that hit the U.S. Gulf Coast refineries did not help matters any.
- At the same time, the lubricant basestock industry in Europe and Asia was negatively impacted by fires, explosions, and problems with catalyst and other hardware issues.
- Compounding these problems were both planned and emergency turnarounds that had to be conducted at certain refineries.
- Refinery closures and or shutdowns only exacerbated the shortness in supply, resulting in increased lubricant basestock prices globally.
- Rising lubricant additive prices also had an affect on the lubricants market.

The end result was tightness in supply across different API and viscosity grades, in addition to escalating prices.

But the critical question the industry faces today is: Is it sheer coincidence that these supply-related factors hit the industry all at the same time, or is an indication of the way things will be going forward?

In addition, there is still no consensus on whether the GTL basestock projects floated by SasolChevron, Shell, and ExxonMobil are still on track and on schedule, or if there has been a change of thinking, given newer cost schedules and market conditions.

Uncertainties also surround the future of all of the numerous lubricant basestock grassroots projects that have recently been announced. Which of these are for real, and which are just a lot of hot air?

On the demand side of the equation, the global lubricant basestock business is experiencing unprecedented change due to changes in finished lubricant specifications. In addition, globalization has had an impact on many leading lubricant-consuming countries. The recent run-up in crude oil prices also has lubricant formulators worried about the long-term impact on the habits of the driving public.

A greater focus on manufacturing costs, as well as advancements in technology and changing trade patterns, have brought these specific issues back to the forefront of the industry. And although change has taken place at a rapid rate, some industry observers believe that the most significant changes are yet to come, and that these changes could bring even more significant challenges.

This uncertainty has led to the growing interest and need in predicting basestock prices for the different API and viscosity grades in the future.

Against this backdrop, Kline & Company is pleased to introduce its **Global Lubricant Basestocks Three-Year Annual Service, 2006-2008**.





Tentative Outline for the Service

Module 1: Kline PriceView model

This module will include an interactive basestock price forecasting model that will allow subscribers to make changes to assumptions and run "what if" scenarios around:

- Crude oil and vacuum gas oil pricing
- Manufacturing costs and future supply-demand balances
- Current and future trade patterns

Module 2: Kline Manufacturing CostView Model

This module will include a rigorous, interactive basestock manufacturing cost model that will enable subscribers to run various scenarios based on changes made in assumptions regarding:

- Technologies employed (solvent extraction, isodewaxing, GTL, etc.)
- Changes in VGO and crude oil pricing
- Location of refinery
- Others

Module 3: Kline FutureView Global Basestock Supply-Demand Forecast Model

An update to Kline's Global Basestock Supply-Demand Deblend Model that considers:

- The impact of natural and other disasters on the global basestock supply
- Hurricanes, fires, explosions, planned and unplanned turnarounds

- The impact of all new basestock investments
 - Petronas, Malaysia
 - Pertamina, Indonesia
 - Formosa Plastics, Taiwan
 - BPCL, India
 - GSCaltex, S Korea
 - MRPL, India
 - Sinopec, China
 - Neste-BAPCO, Bahrain
 - Others
- The status of GTL basestock investments, including timing and cost schedules
 - SasolChevron, Qatar
 - Shell, Qatar
 - ExxonMobil, Qatar
- An update on basestock demand growth/decline
 - Asia
 - Europe
 - North America
 - South America
 - Africa and Middle East
 - Rest of the world
- Global supply-demand balance, 2006 to 2016
 - By API grade, viscosity grade, region

Topical Offerings

Full-study subscribers will receive an assessment of **two** of the following topics:

- Emerging basestock opportunities in the automotive factory-fill market
 - Quantified opportunities for suppliers by API grade and viscosity grade in the factory fill business globally

- Emerging basestock opportunities in the synthetic and synthetic-blend segments
 - Quantified opportunities for suppliers of Group III, III+, and IV globally
 - Understanding and future prediction of key formulary approaches
- Emerging basestock opportunities in the burgeoning Chinese lubricant market
 - With projected growth rates exceeding 10%, will there be enough base oils in China to meet the demand?
 - Where will they come from?
 - What type will be needed?
 - What will Russia's impact (if any) be on base oil supply?
- Emerging basestock opportunities in Eastern Europe
 - From both a demand and supply perspective
- Opportunities in the global white oils market
 - Current size, growth, pricing, competition, environmental regulatory changes affecting consumption, growth regions, growing end-use segments, others
- Opportunities in the naphthenic base oils market
 - Current size, growth, pricing, competition, environmental regulatory changes affecting consumption, growth regions, growing end-use segments, others
- Other topics based on charter subscriber feedback

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Core Service Offering

A full-service subscription to this three-year annual service includes complete access to the three Excel database modules. This offering will provide subscribers with the ability to run scenarios on these three vital "unknowns." It will include Kline's unbiased, forward-thinking assessment of what the business will look like in the future on a global basis.

In addition, these models will provide subscribers with:

- An objective examination of where the basestocks business is today and where it is going
- A clear understanding of supply and demand drivers
- An unbiased assessment of future supply and demand for specialty basestocks
 - Low saturates, high VI Group I
 - High saturates, high VI Group II
 - Group II+ basestocks
 - Group III basestocks
 - Group III+ GTL
 - Group IV - PAO
 - Naphthenic basestocks
- A critical evaluation of the premium that specialty basestocks could garner
- Insights into projected plant closings, expansions, and grassroots investments for GTL and non-GTL facilities
- Manufacturing costs based on different scenarios, including an objective assessment of the future role of GTL conversion in basestocks manufacturing
- A rigorous, interactive pricing model that considers all of the above outputs and others, including crude oil, VGO, diesel, and gasoline fuel pricing

Topical Offering

In addition to the core service offering, full-service subscribers can choose two additional topics from the list provided in the Tentative Outline for the Service. These topics will be summarized in a PowerPoint deliverable. For each year of the service, two new additional topics can be selected.

Scope

Global Lubricant Basestocks Three-Year Annual Service, 2006-2008 focuses specifically on paraffinic and naphthenic basestocks used in commercial automotive, consumer automotive, and industrial lubricant and functional fluid applications. The base year for the supply and demand data is 2006 for Year One, 2007 for Year Two, and 2008 for Year Three. Each year of the three-year service will include an updated ten-year forecast to 2016, 2017, and 2018, respectively.

The geographic scope includes North and South America, Eastern and Western Europe, Africa and the Middle East, the Asia-Pacific, and a Rest of the World category.

Methodology

As the leading global consultancy covering lubricants and functional fluids, Kline & Company has developed an analysis approach based heavily on primary research (field and telephone interviews). This approach has a proven track record as the most effective and reliable in analyzing the lubricants business, as well as in identifying business opportunities.



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This service leverages our contacts in the industry to capture insights and information available from a wide range of industry experts and opinion leaders.

Although primary research by far is the leading source of information and insights provided in this service, our analysis was supplemented by secondary research. This secondary research included a review of suppliers' product literature and price lists; a search of recent trade and technical literature; and an analysis of statistical data from the government, industry, and trade associations and agencies.

In addition, we accessed information available through Kline & Company's global basestock analysis **Global Business Opportunities in the Lubricant Basestocks Industry, 2004-2020** and **GTL Specialties: High-Value Threat or Opportunity?, Volume I: Basestocks and Volume II: Waxes**, as well as other multiclient studies from the Petroleum & Energy practice.

Project Team

All of the models were constructed by a team that will include members of Kline's Petroleum & Energy Practice, led by Geeta S. Agashe, as well as Kline's Econometrics Practice, headed by Dr. Noel Lim.

Subscription Terms and Privileges

Global Lubricant Basestocks Three-Year Annual Service, 2006-2008 is available only by subscription. In order to maximize the value and usefulness of this study, the following privileges and services will be made available:

- **One day of consultation time** with members of the project team, to be used at the client's discretion within six months of report receipt. These meetings are typically utilized as company-specific work sessions to help each subscriber obtain maximum value from the program and Kline's expertise.
- **Unlimited online access** to all project deliverables via klineonline.com.
- A **discount** from the standard subscription price for those companies subscribing to the report before it is completed.

Details regarding subscription options and rates are described in the attached subscription agreement. To subscribe now, please complete the subscription agreement and forward it to our offices. For more details on the program, please contact us at any of our locations listed on the back cover.



Credentials

Kline & Company is an international business consulting firm offering a broad range of services to the oil, gas, petrochemical, and related chemical-based industries.

Established in 1959 as a specialist in the chemicals field, Kline has evolved over the past four decades to provide consulting services and syndicated market research reports across the entire value chain. We help management solve practical problems in marketing strategies, acquisition and divestiture programs, and the appraisal of new technology. Kline provides clients with facts, forecasts, and recommended solutions to business problems, based solidly on the realities of the market as well as modern strategic principles.

Through our Petroleum & Energy Practice, Kline has attained a leadership position in providing consulting services to the lubricant, basestock, and lubricant and fuel additive markets. Our firm has developed in-depth expertise in these areas by tracking and analyzing the U.S. and international markets for these and other petroleum-related products for more than 30 years.

Over the past three decades, Kline has established itself as an authoritative source for market research in fuels and lubricant components and finished products. A list of representative reports Kline has published recently and those currently under consideration is provided below:

- Opportunities in Lubricants North America continuing industry analysis
- Competitive Intelligence for the Global Lubricants Industry, 2006-2016 - Year Five
- LubesNet Global Lubricant Database annual service, 2006-2016
- Global Opportunities and Threats in the Petroleum Wax Business, 2006-2020
- Global Synthetic Lubricants, 2007-2017
- Business Opportunities In The Emerging Lubricant Markets of South Asia, the Middle East, and Northern Africa, 2005-2015
- The Global Business Outlook for Bright Stocks, 2005-2015
- Business Opportunities in the Chinese Lubricants Market, 2004-2009
- GTL Specialties: High-Value Threat or Opportunity? Volume I: Basestocks
- GTL Specialties: High-Value Threat or Opportunity? Volume II: Waxes
- Global Business Opportunities in the Lubricant Basestocks Industry, 2004-2020
- Business Opportunities in Metalworking Fluids Asia-Pacific 2006
- Global Business Opportunities in Metalworking Fluids, 2001-2003: North America, Asia-Pacific, and Europe
- Lubricant Basestocks 1999-2004: The Americas
- Business Opportunities in the Latin American Lubricants Market 2000
- Lubricant Additives North America, 2002-2007
- Lubricant Additives 1998
- Synthetic Lubricants and Functional Fluids, 1999-2004
- Global Opportunities in Fuel Additives, 1999-2004
- Metalworking Fluids Asia-Pacific 1997
- The Changing Face of the Lube Oil Basestock Business 1996
- Metalworking Fluids Europe 1995, 2001
- Lubricant and Fuel Additives 1994, 1990
- Metalworking Fluids USA 1994, 1998

Subscription Agreement

Please enter our subscription to your comprehensive study *GLOBAL LUBRICANT BASESTOCKS THREE-YEAR ANNUAL SERVICE, 2006-2008*. The standard subscription includes online access to the report contents via KlineOnline.com and one day of consultation time to be used within six months of publication of the report.

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Volume	Standard price
FULL-SERVICE PROGRAM: Three years-a	\$150,000
FULL-SERVICE PROGRAM: Year One only-a	57,500
Module 1	21,000
Module 2	21,000
Module 3	21,000
Subtotal	
7% sales tax (NJ only)	
TOTAL	
a- Full-Service Program includes all three modules and two topical reports.	
NOTE: All prices in U.S. funds.	



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