

# STATEMENT OF QUALIFICATIONS



**Dallas** Houston

# **COMPANY OVERVIEW**



# Who We Are

For the past 50 years, we have established a reputation as a trusted advisor to clients in the global energy industry

We provide technical, commercial and strategic consulting services to worldwide clients in the crude oil, midstream, refining, refined products, and biofuels industries.

### Sectors

- Crude Oil
- Refining
- Midstream
- Biofuels

# Services

- Market Analysis
- Strategic Studies
- Transaction Due Diligence
- M&A Support
- Industry Studies
- Feasibility Analysis
- Fuels Compliance
- Regulatory Support
- Research Products\*

### Clients

- Integrated Oil Majors
- E&P Companies
- Downstream Refiners
- Midstream Firms
- Investment Banks
- Private Equity Firms
- Biofuels Producers
- Service Companies
- Industry Associations
- Energy Trading Firms
- Government Agencies
- Law Firms

\* Global Crude & Refined Products Outlook; Worldwide Refinery Construction Outlook



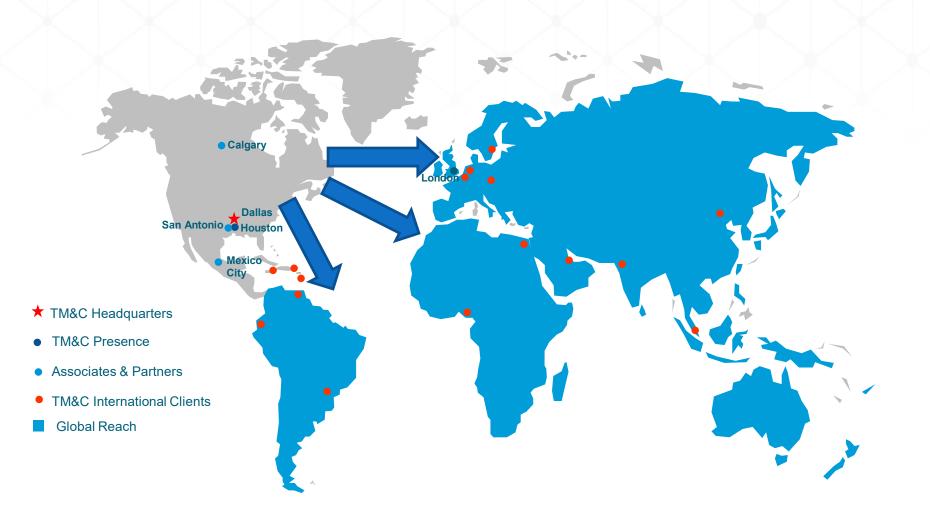
www.turnermason.com

# **OUR UNIQUE VALUE PROPOSITION**

- ✓ We are a trusted advisor to an international client base
- ✓ We bring unique combination of technical, commercial, and strategic consulting capabilities to address client needs
- We possess deep domain expertise in the petroleum and regulatory fuels markets
- ✓ We have developed extensive datasets and energy research capacity over our decades of industry analysis
- ✓ We have a diverse and experienced team; our size allows us to be nimble, agile and responsive to market trends and opportunities



# NORTH AMERICAN PRESENCE WITH GLOBAL COVERAGE





# **OUR CLIENTS SPAN THE ENERGY SECTOR**













Independent Refiners













**Upstream** Companies











NOC. Government, **NGO** 















Investment **Banks** 











Morgan Stanley

Midstream Companies















# **CORE COMPETENCIES**

# **CONSULTING OFFERINGS**



#### **Market Analysis:**

- Supply/Demand/Price Forecasts
- · Balances/Trade Flow Analysis
- Analyze market drivers
- Assess regulatory environment



#### **Fuels Compliance:**

- Gasoline Attestations
- Fuel Compliance registration/reporting
- · Compliance reviews of blending/terminal operations
- Laboratory Compliance Reviews



#### **Refinery Strategic Studies:**

- · Asset Competitive Positioning
- · Opinion of Value Assessments
- Assessment of Strategic Capex, Crude Acquisition Plans, etc.



#### **Regulatory Support:**

- · Audits of regulatory compliance status
- Negotiations with state/federal authorities on compliance issues
- Representation on environmental liabilities during M&A



#### **M&A / Transaction Due Diligence:**

- Buy/Sell Side Consultation
- Data Room Preparation
- · Acquisition Screening Studies
- Asset Valuations



#### **Industry Studies:**

- Assessment of proposed regulations and policy changes
- Economic Impact Assessments
- Development of refinery industry simulation/LP models



#### **Crude / Feedstock Valuation:**

- Assessment and valuation of global crude/feedstock streams
- · Evaluation of crude acquisition strategies
- · Crude slate optimization studies



#### Feasibility Studies / Independent Engineer(IE) Services:

- · Feasibility studies for major capital investment projects
- IE services for debt financing in large downstream or midstream projects
- Project Management services EPC selection, post audits



#### Asset / Fair Market Assessment:

- · Fair market value opinion of assets
- Assessment of prospective projects
- Evaluation of Asset repurposing



#### **Litigation Support:**

- Expert analysis/consultation in legal proceedings
- Preparation of affidavits
- Expert witness/testimony engagements



# **EXEMPLARY ENGAGEMENTS**



**Upstream Producers** 

- Engagements with producers to evaluate refiner to process their crude streams
- Assessment of LTO crude streams from the Permian and Eagle Ford Basins
- Supply/demand assessment and forecast of Uinta Basin crudes



Downstream Refiners

- Identified strategic initiatives to deal with IMO 2020 bunker fuel spec regulations
- Advised clients on assessing and enhancing refinery competitive positioning
- Asset and FMV assessments of large US & European refining companies



Midstream Companies

- Conducted independent value assessment of large terminal & pipeline network
- Conducted due diligence assessments for LA Basin gathering system assets
- Feasibility study of a large condensate splitter project



Renewable Fuel Producers

- Advised a biofuel producer on range of processing schemes for co-processing
- Assisted international biodiesel producers with registration and compliance with U.S. RFS program
- Advised in a dispute with the EPA on terminal blending compliance



# **EXEMPLARY ENGAGEMENTS CONT'D**



# Investment Banks

- Advised on a large USGC refinery acquisition and evaluated feasibility of upgrading existing units
- Prepared a detailed data book and advised investment bank in evaluating prospects for sale of refining system
- Conducted technical due diligence assessment on behalf of prospective buyer and investment banker of an integrated refining system



# **Industry Trade Associations**

- Performed numerous studies for industry trade groups on economic and supply impacts of industry regulations
- Assessed impact of Jones Act policy on flexibility of product supply distribution, cost, and product flows
- Analysis of the U.S. industry's investment requirement and costs to process increasing volumes of LTO



# National Oil Companies

- Prepared global supply/demand balances for heavy crude and forecast of key light-heavy differentials
- Prepared independent views of product supply/demand balances and prices forecasts
  - Developed process conceptual design and economic evaluation of a major refinery expansion project



Law Firms

- Engaged as expert witnesses for firms representing refiners and tax authorities in numerous property tax disputes
- Engaged by outside counsel for a large U.S. refiner to evaluate market impact of a shutdown of its system
- Engaged by outside counsel to prepare an independent estimate of damages in a crude supply agreement default



# **INDUSTRY OUTLOOK PRODUCTS**

### **Crude & Refined Products Outlook**

- Global crude supply outlook from major producing regions
- Price forecasts for 24 marker crudes in base subscription
- Supply/demand balances for refined products covering North America, Europe and Asia
- Forecasts of regional product prices and analysis of key price drivers
- Assessments of refinery expansions/additions and other relevant industry developments, including changes in product specs



# **Worldwide Refinery Construction Outlook**

- Global overview of announced refinery investment projects by region
- Probability index assessment for completion of each project
- Assessment and ranking of probable projects
- Detailed project parameters such as costs, impacts on crude slate and product yields, and estimated completion date





# **INDUSTRY OUTLOOK PRODUCTS**

### **Global Downstream Market Outlook**

- Global Product Supply & Demand Balances
- Forecasts of Crude Throughput & Refinery Utilization
- Refinery Capacity Changes and impact on future Supply
- Forecasts of Regional Crude and Product prices and analysis of key Price drivers
- Benchmark Refining Margins for USGC, NYH, NWE, Med, Singapore and Mid-East Gulf



# **Global Heavy Crude Oil Outlook**

- Global Crude Production Forecast by Grade
- Annual Refinery Capacity Changes by Grade
- Global Supply/Demand Balances by Grade
- Crude Price Differential Forecast
- Key Sensitivities to Base Case Forecast





# **INDUSTRY OUTLOOK PRODUCTS**

### Renewable Fuels Market Outlook

- Federal & State Low Carbon Fuels Programs
- Regulatory Tax Credits & Incentives
- Assessment of RD and SAF Projects
- RD and SAF Supply/Demand Balances
- Feedstock Market Assessment
- Feedstock Pricing & RD Margin Outlook





# RECENT RENEWABLE FUELS ENGAGEMENTS

# **EXAMPLE PROJECTS - RENEWABLE FUELS**

- US Gulf Coast Refiner Brownfield Renewable Fuels Facility Due Diligence
- Equity/Strategic Partner Investor Greenfield RD/SAF Project Market Study & Due Diligence
- Debt Finance Lender Grassroots RD Due Diligence Assessment
- US Midwest Refiner Grassroots RD Project Evaluation
- US Midstream Infrastructure Company RD Market Study



# **EXAMPLE PROJECTS - RENEWABLE FUELS**

- ➤ US Midwest Refiner RD Economic Model Review
- US Rockies Refiner Refinery Conversion Due Diligence
- ➤ US Gulf Coast Refiner RD Market Assessment
- US East Coast Refiner Feedstock Market Evaluation



# **EXAMPLES OF CONSULTING ENGAGEMENTS**

# **CORE COMPETENCIES**

Independent Engineer (IE) Services

- Critique Selection of EPC
- Development of Large Capital Project Spending Plans
- Feasibility Analysis of Projects
- Commercial Assessment to Support Financing
- Independent Assessment of Strategic Plans
- Assessment of Refinery Competitive Positioning
- Independent Opinion of Asset or Fair Market Value
- Studies to Retrofit or Reconfigure Existing Refineries

**Strategic Studies** 

Market Analysis

- Global Crude Trade Flow Analysis
- Market Assessment of Crude Streams
- Refined Products Supply/Demand Balances
- Forecasts of Regional, National and International Crude and Product Prices/Margins



### **EXAMPLE PROJECTS - INDEPENDENT ENGINEER SERVICES**

- Motiva Port Arthur Refinery Expansion
- PDVSA Refinery JV Initiatives to Capture Markets for Orinoco Crudes
  - Merey Sweeney JV (Phillips/P66)
  - Hovensa JV (Hess)
  - Chalmette JV (ExxonMobil)
- Egyptian Refining Company Greenfield Refinery Construction
- Saudi Aramco Optimization of Kingdom Product Distribution Network
- Orion Large Refinery Expansion Project
- Deutsche Bank Refinery Revamp Project
- ArcLight Capital Partners St. Croix Refinery & Terminal Restart



# **EXAMPLE PROJECTS - MARKET ANALYSIS**

- U.S. Midwest Refiner PADD II Product Demand Outlook
- LyondellBasell Venezuela Heavy Crude Valuation
- Reliance Industries Global Heavy Crude Supply/Demand Outlook
- BP Exploration Evaluation of Crudes from the Caspian Sea
- Encana Salt Lake City Refining Market Assessment



# **EXAMPLE PROJECTS - MARKET ANALYSIS**

- Field Upgrading Market Assessment for DSU Economics
- Zenith Energy PADDII Canadian Crude Assessment
- Husky Energy PADD II Product Supply/Demand Study
- WBI Energy Market Analysis for Prospective Diesel Refinery near Minot, ND
- ConocoPhillips North American Crude Supply/Demand Study



# **CORE COMPETENCIES**

M&A Support

- Buy/Sell Side Consultation to Lenders/Investment Banks
- Screening Studies on Acquisition Candidates
- Refinery and Midstream Asset Appraisal
- Participation in All Phases of Venture Development

Transaction Due Diligence

- Technical, Operational and Commercial Due Diligence
- Data Room Preparation/Validation
- Refinery and Midstream Asset Appraisal
- Assessment of Prospective Buyers

Asset/Fair Market
Assessment

- Fair Market Value Opinion of Assets
- Assessment of Prospective Projects
- Evaluation of Asset Repurposing
- Independent Reviews and Feasibility Studies



# **EXAMPLE PROJECTS - M & A SUPPORT**

- CITGO Sale of Asphalt Refineries
- PDVSA Acquisition of U.S. Refining Interests
- Blackstone Group Refinery Acquisition
- Trust Company of the West Acquisition of TransAmerican Refining Corp.



# **EXAMPLE PROJECTS - M & A SUPPORT**

- Vitol Sale of North Atlantic Refining Limited (NARL)
- LyondellBasell Sale of Houston Refinery
- Cenovus Energy Evaluation of Potential Refinery Acquisition Targets
- Hellman & Friedman Acquisition of Petroleum Terminal Assets



# **EXAMPLE PROJECTS - TRANSACTION DUE DILIGENCE**

- Trinidad Petroleum Holdings Limited Pointe-a-Pierre Due Diligence & Refinery Sale
- Riverstone USOR Sale by Riverstone
- HOVENSA St. Croix Refinery Restart
- Gunvor Pasadena Refining System Due Diligence
- PMI Holdings Chalmette Refinery Due Diligence
- Energy Capital Partners Total's Port Arthur Refinery Logistics Assets Due Diligence
- Global Partners Crude Transload Facility Evaluation



# **EXAMPLE PROJECTS - TRANSACTION DUE DILIGENCE**

- Zenith Energy LA Basin Refinery Assessment
- Bernhard Capital Partners Hazelwood Energy Hub Crude Storage Project
- Mill Road Capital Cushing Project Due Diligence
- Highgate Power LLC Lake Charles Asphalt Refinery Restart Due Diligence
- Inergy Midstream Bakken Field Assets Acquisition Due Diligence



### **EXAMPLE PROJECTS - ASSET/FAIR MARKET ASSESSMENT**

- CITGO Petroleum Terminal & Pipeline Interest Valuation
- Zenith Energy Barge & Rail Terminal Valuation
- Zenith Energy Rotterdam Terminal Acquisition
- Private Equity Group Independent Assessment of Major New Crude Storage Venture



### **EXAMPLE PROJECTS - ASSET/FAIR MARKET ASSESSMENT**

- International Integrated Major Downstream Fair Market Value Assessment
- Buckeye Partners Bahamas Crude Processing Options
- World Point Terminals Terminal Assets Fair Market Valuation
- Hess Corporation HOVENSA Refinery Valuation



# **EXAMPLE PROJECTS - FEASIBILITY ASSESSMENTS**

- Saudi Aramco Feasibility Study for Refined Product Distribution System
- USTDA/NNPC Warri Premium Gasoline and Aviation Fuel Feasibility Study
- U.S. Gulf Coast Refiner Refinery Feasibility Study
- Caribbean Refiner Refinery Retrofit Project
- Integrated Oil Refiner Refinery Feasibility Study
- Midstream Investors Condensate Splitter Feasibility Study
- Ecuador Energy Ministry Economic and Technical Feasibility of the La Libertad Refinery



# **EXAMPLE PROJECTS – INDUSTRY STUDIES**

- Energy Information Agency (EIA) Impact of Increased LTO on U.S. Refining
- American Petroleum Institute Various Studies
- Industry Studies for:
  - American Fuel & Petrochemical Manufacturers (AFPM)
  - Western States Petroleum Association (WSPA)
  - National Petroleum Council (NPC)
  - Reformulated Gasoline Survey Association (RFGSA)
- U.S. Tight Oil Producer Investment Requirements for LTO Processing
- Integrated Oil Company North America Crude Supply/Demand Study
- Multi-Client Industry Outlook Various Studies



# **CORE COMPETENCIES**

Regulatory Support

Fuels Compliance

Litigation Support

- Independent Audits of Regulatory Compliance Status
- Representation on Environmental Liabilities during M & A
- Staff Training in Compliance Regulations
- Negotiations with State/Fed Authorities on Compliance Issues
- Industry Specialists for Gasoline Attestations
- Assistance with Fuel Compliance Registration and Reporting
- Laboratory Compliance Reviews
- Compliance Reviews of Company Staffing and Procedures, Including Refining, Importing, Blending and Terminal Operations
- Expert Analysis/Consultation in Legal Proceedings
- Testimony and Preparation of Reports and Affidavits
- Expert Witness/testimony Engagements
- Business Interruptions/Property Tax Disputes/Bankruptcy Proceedings/Patent Litigation/Government Hearings/ International Arbitrations



# EXAMPLE PROJECTS - REGULATORY SUPPORT

- Biodiesel Trade Association Refiner Co-processing Options
- International Biodiesel Producers U.S. Federal Renewable Program Registration
- U.S. Renewable Diesel Producer Acquisition Due Diligence
- U.S. Refiner Refinery Lab Audits
- Industry Association Study on Renewable Diesel Production
- Various Clients Fuel Regulations Presentation and Training
- Electrawinds EPA Third-party Engineering Review and Registration



# **EXAMPLE PROJECTS – FUELS COMPLIANCE**

- Various Refiners, Blenders, Producers Gasoline Attestations
- U.S. East Coast Fuel Importer EPA Dispute Resolution
- Various Clients Fuel Compliance Oversight
- Natural Gasoline Blender Terminal Blending Compliance
- U.S. Gulf Coast Refiner Anti-dumping Emissions
- Various Clients Fuel Compliance Reporting



# **EXAMPLE PROJECTS – LITIGATION SUPPORT**

- U.S. Crude Oil Producer Crude Pricing Dispute
- U.S. Internal Revenue Service Refinery Tax Dispute
- U.S. Midstream Operator Condensate Splitter Design Flaw
- Large Integrated U.S. Refiner Crude Supply Dispute



# **EXAMPLE PROJECTS – LITIGATION SUPPORT**

- U.S. Gulf Coast Refiner IRS Audit
- Refinery Technology Licensor Technology Licensing Dispute
- Buy-Side Client Refinery Transaction Arbitration Claim
- Township of Greenwich Property Tax Dispute

