

ENERGY EXPERT: ISSUES IN FOCUS

A quarterly review of disputes and complex issues in the hydrocarbon production and processing industries.

Baker & O'Brien, Inc.

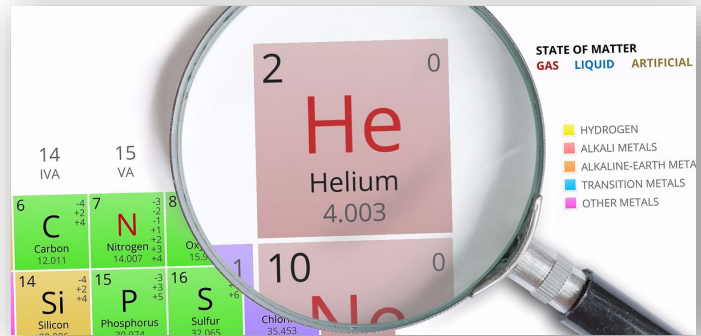
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Helium Pricing – Understanding Market Structure as U.S. Reserve Privatization Loomed Pre-arbitration Analysis, North America

By Kevin Waguespack

Helium is a colorless, odorless, non-toxic gas used in the cooling of superconducting magnets (e.g., magnetic resonance imaging [MRI] scanners), as a safe atmosphere for arc welding and in the manufacture of silicon wafers. Balloons and “funny voice” generation represent relatively small usage. Global helium resources are concentrated in just a handful of countries; in approximate terms, Algeria and Qatar 45%, U.S. 45%, rest of the world 10%. The supply chain of helium is fairly concentrated around a handful of suppliers and producers. Therefore, the major suppliers of refined helium, the large industrial gas companies, such as Linde/Praxair, Air Products, and Air Liquide, are limited in their supply options. Likewise, helium producers are limited in their selection of off-takers. Additionally, as contracts are confidential, market pricing has been relatively opaque.



Source: University of Oxford

Of the U. S. production, approximately half (representing about 21% of the global supply) is sourced from the Bureau of Land Management (BLM) reserve which, until 1996, was a federal program. The act of 1996 required the U.S. government to offer for sale nearly all of the crude helium in storage. In 2014, auctions commenced with the objective of completing the privatization of the reserve by 2021. In the first few years of the auctions, there were concerns as to whether the winning prices were representative of the market prices. Notwithstanding that concern, the BLM price became an accepted benchmark for helium pricing and indexing – even beyond U.S.-based deals. As privatization of the BLM reserve loomed, there was an increasing degree of concern about the proper basis for future helium contract prices. Baker & O'Brien was asked to evaluate the helium market structure, the BLM auction process, and winning bid results to assess if, and for how long, the BLM auction price might be a reasonable contracting basis.

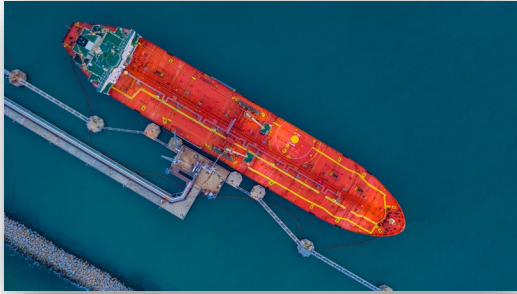
Initially, in the BLM auction process, only companies that were connected to the BLM system were eligible to bid. Although this restriction was subsequently relaxed, there was no practical way for non-refiners of crude helium to gain access to it. Additionally, even with an efficient auction, a bidder's valuation may exceed the market price if, by purchasing crude helium, it can gain a competitive or price advantage. Although there are many publications on the theory of auctions, in summary, an auction market without many independent buyers and sellers can suffer from volatility and unpredictability. Hence, it may not give consistently reliable results as to a “fair market value.” Consequently, we advised our client that it would not be unreasonable to request a reopening of pricing negotiations. Our detailed report was used as a basis for deciding on a commercial path forward.

Refinery Dock Allision – More than Just Property Damage Implications

Litigation, South and Central America

By Dan Finelt

In this matter, a refinery dock was damaged by a marine tanker just prior to the delivery of a crude oil shipment. Due to the extended time to carry out the dock repairs, the refinery had insufficient crude oil inventory with which to continue processing at minimum feed rate and,



therefore, had no alternative but to completely shut down. During this time, the refinery was forced to rely upon its existing product inventories to meet customer needs. This incident led to a business interruption claim submitted to the refinery's insurers.

Baker & O'Brien was requested to assess: (1) the lost

profits due to lower production; and (2) the costs associated with mitigating the loss at the refinery. In order to complete our assessment, we calculated the lost production of gasoline, distillate, and fuel oil produced at the refinery and their historical variable margins to arrive at the lost profit from operations. Typically, when calculating the lost volumes for reconciliation, the actual outcome is compared to the monthly operating plan ("but for" without the incident). Unfortunately, since this claim was presented many years after the incident, the monthly operating plans were no longer available. Therefore, this required an alternative approach to establish a reasonable basis for comparison, which relied upon earlier comparable historical refinery operating results.

Following the development of an expert report, the matter was settled.

Turnaround Incident Involving Multiple Contractors – Were Procedures Bypassed?

Litigation, North America

By J. David Morgan

In the refining industry scheduled maintenance shutdowns, also known as turnarounds (TA), are performed to enable safe and reliable operations for a three-to-five-year operating cycle or until the next TA. Capital projects and equipment modifications are also often performed during a TA.

A TA presents unique risks – e.g., confined space entry, energy isolation, hot work – that are not typical during routine operations. OSHA regulations and company work practices, such as performing job safety analyses and issuing safe work permits (SWPs), have been developed to address and minimize these risks. However, risks are compounded by the large number of contractors and operating company departments involved in these activities. Such was the case in the installation of two spool pieces on a process unit flare header when an injuring



over-pressure incident ejected a pipe plug, a contractor.

There were three primary companies associated with the incident: (1) the operating company that issued SWPs and prepared the equipment for work by isolating it and keeping under nitrogen pressure during the installation; (2) a specialty contractor that performed cold cuts to remove pipe sections and then, to enable a nitrogen purge during the work, installed plugs in the open ends of the flare header; and (3) a construction contractor that then welded on flanges and installed the spool pieces.

Baker & O'Brien was engaged to assess all of the activities by each company and determine the contributing factors to the incident. Our conclusions were submitted in an expert report.

Consulting Support for Complex Commercial Disputes

When faced with complex commercial disputes in the energy-related industries, clients often turn to Baker & O'Brien for its independent and objective support. For over 25 years, the firm's consultants have employed their engineering knowledge, industry experiences, and commercial acumen to provide assistance on a wide range of matters. Our project experience includes disputes involving operational incidents, standards of care, asset valuation, commercial supply terms, product quality, large engineering and construction projects, and intellectual property.

Our clients include many of the world's largest law firms, insurance providers, and operating companies. Law firms rely upon Baker & O'Brien to evaluate

technical and commercial aspects of a case and provide expert testimony. Our analyses, conclusions, and expert testimony have been heard by judges, juries, and arbitration panels around the world. On insurance matters, clients rely upon Baker & O'Brien's assistance for investigation of industrial accidents and quantification of resultant property damage and business interruption losses. We are also called upon to assist insurers in subrogation actions by evaluating causation theories and claims for damages.

We welcome the opportunity to discuss our qualifications in more detail as they relate to your specific area of interest.

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