The earliest description of the process dates to the 10th century. In 1684, Great Britain granted the first formal extraction process patent. Extraction industries and innovations became widespread during the 19th century. The industry shrank in the mid-20th century following the discovery of large easily extractable oil reserves, high crude prices at the beginning of the 21st century have led to renewed interest, accompanied by the development and testing of newer technologies.

As of 2010, major long-standing extraction industries are operating in many places around the world. Its economic viability usually requires a lack of locally available crude oil. In the United States national security concerns have also played a role in its development.

The need for on-site analysis has become critical. The reasons are many and varied, some reasons of course are for environmental concerns. In other words, what is the material being extracted and does it contain any deleterious constituents. The most important, from a commercial standpoint, is the need to make sure that the operations are heading in the right direction, it is critical to monitor the elemental fingerprint to make sure that the exploration or producing company is working in the right deposit area.

Data will be presented that will show the X 5000 spectrometer ability to do this analysis accurately, reliably and on-site. One the materials of concern is barium sulfate, data will show that the X 5000 can determine grade quantity and quality of this compound. Additionally, it will show that can determine the presence or absence of other elements.