

"We are running out of fossil fuels?"

Based on <http://www.gasresources.net/Introduction.htm> by J F Kenney

Well, seems like the idea that our petroleum deposits are the ancient remnants of rotting tree stumps doesn't stand up well to known physics. There's a "small" problem related to a violation of the 2nd Law of Thermodynamic when you try to convert primordial biological muck into crude oil. Here's the short story, below. I won't burden you with the longer one. Regards, Jim Peden

Actually, the idea that oil is a 'fossil fuel' began in the year 1757 when the great Russian scholar Mikhailo V. Lomonosov enunciated the hypothesis that oil might originate from biological detritus. The scientists who first rejected Lomonosov's hypothesis, at the beginning of the nineteenth century, were the famous German naturalist and geologist Alexander von Humboldt and the French chemist and thermodynamicist Louis Joseph Gay-Lussac, who together enunciated the proposition that oil is a primordial material erupted from great depth, and is unconnected with any biological matter near the surface of the Earth.

With the nascent development of chemistry during the nineteenth century, and following particularly the enunciation of the second law of thermodynamics by Clausius in 1850, Lomonosov's biological hypothesis came inevitably under attack. In fact, the formation of oil from biological detritus would violate the Second Law of Thermodynamics.

The great French chemist Marcellin Berthelot particularly scorned the hypothesis of a biological origin for petroleum. Berthelot first carried out experiments involving, among others, a series of what are now referred to as Kolbe reactions and demonstrated the generation of petroleum by dissolving steel in strong acid. He produced the suite of n-alkanes and made it plain that such were generated in total absence of any "biological" molecule or process. Berthelot's investigations were later extended and refined by other scientists, including Biasson and Sokolov, all of whom observed similar phenomena and likewise concluded that petroleum was unconnected to biological matter.

During the last quarter of the nineteenth century, the great Russian chemist Dmitri Mendeleev also examined and rejected Lomonosov's hypothesis of a biological origin for petroleum. In contrast to Berthelot who had made no suggestion as to where or how petroleum might have come, Mendeleev stated clearly that petroleum is a primordial material which has erupted from great depth. With extraordinary perception, Mendeleev hypothesized the existence of geological structures which he called "deep faults," and correctly identified such as the locus of weakness in the crust of the Earth via which petroleum would travel from the depths. After he made that hypothesis, Mendeleev was abusively criticized by the geologists of his time, for the notion of deep faults was then unknown. Today, of course, an understanding of plate tectonics would be unimaginable without recognition of deep faults.

The impetus for development of modern petroleum science came shortly after the end of World War II, and was impelled by recognition by the government of the (then) U.S.S.R. of the crucial necessity of petroleum in modern warfare. In 1947, the U.S.S.R. had (as its petroleum "experts" then estimated) very limited petroleum reserves, of which the largest were the oil fields in the region of the Abseron peninsula, near the Caspian city Baku in the present country of Azerbaijan. At that time, the oil fields near Baku were considered to be "depleting" and "nearing exhaustion." During World War II, the Soviets had occupied the two northern provinces of Iran; in 1946, the British government had forced them out. By 1947, the Soviets realized that the American, British, and French were not going to allow them to operate in the Middle East, nor in the petroleum producing areas of Africa, nor Indonesia, nor Burma, nor Malaysia, nor anywhere in the far east, nor in Latin America.

The government of the Soviet Union recognized then that new petroleum reserves would have to be discovered and developed within the U.S.S.R. and initiated a "Manhattan Project" type program, which was given the highest priority to study every aspect of petroleum, to determine its origins and how petroleum reserves are generated, and to ascertain what might be the most effective strategies for petroleum exploration. At that time, Russia benefited from the excellent educational system which had been introduced after the 1917 revolution. The Russian petroleum community had then almost two generations of highly educated, scientifically competent men and women, ready to take up the problem of petroleum origins. Modern Russian petroleum science followed within five years.

In 1951, the modern Russian-Ukrainian theory of deep, abiotic petroleum origins was first enunciated by Nikolai A. Kudryavtsev at the All-Union petroleum geology congress. Kudryavtsev analyzed the hypothesis of a biological origin of petroleum, and pointed out the failures of the claims then commonly put forth to support that hypothesis. Kudryavtsev was soon joined by numerous other Russian and Ukrainian geologists, among the first of whom were P. N. Kropotkin, K. A. Shakhvarstova, G. N. Dolenko, V. F. Linetskii, V. B. Porfir'yev, and K. A. Anikiev.

During the first decade of its existence, the modern theory of petroleum origins was the subject of great contention and controversy. Between the years 1951 and 1965, with the leadership of Kudryavtsev and Porfir'yev, increasing numbers of geologists published articles demonstrating the failures and inconsistencies inherent in the old "biogenic origin" hypothesis. With the passing of the first decade of the modern theory, the failure of the previous, eighteenth century hypothesis of an origin of petroleum from biological detritus in the near-surface sediments had been thoroughly demonstrated, the hypothesis of Lomonosov discredited, and the modern theory firmly established.

An important point to be recognized is that the modern Russian-Ukrainian theory of abiotic petroleum origins was, initially, a geologists' theory. Kudryavtsev, Kropotkin, Dolenko, Porfir'yev and the developers of the modern theory of petroleum were all geologists. Their arguments were necessarily those of geologists, developed from many observations, and much data, organized into a pattern, and argued by persuasion.

By contrast, the practice of mainstream, predictive modern science, particularly physics and chemistry, involves a minimum of observation or data, and applies only a minimum of physical law, inevitably expressed with formal mathematics, and argues by compulsion. Such predictive proof of the geologists' assertions for the modern Russian-Ukrainian theory of deep, abiotic petroleum origins had to wait almost a half century, for such required the development not only of modern quantum statistical mechanics but also that of the techniques of many-body theory and the application of statistical geometry to the analysis of dense fluids, designated scaled particle theory.

..... and you thought that carbon dioxide causes global warming, which causes climate change, so that any extra heat or extra cold can all be blamed on the extra 110ppmv of carbon dioxide that has been added to the atmosphere by bad humanity, industrialising and burning fossil fuels, thus eliminating poverty and disease in the developed world. (Psst: 110ppmv is 1 extra molecule of CO₂ per 9,090 molecules of air – did you know?)

Of course trees and plants have not been able to absorb all this extra carbon dioxide because bad humanity has also been chopping down trees and replacing it with plantations. Plantations do not absorb as much carbon dioxide as trees and the oceans have also stopped absorbing it, the phytoplankton apparently can not possibly cope with the increase, or maybe the oceans have become too acid? So all in all, the atmospheric level has risen to the current 385ppmv, absolutely frightening Unless we all stop driving cars, stop using electricity from coal-fired power stations and stop burning gas for our cooking, the whole world be 3°C hotter than usual in the next 100 years and considering that we live in a world where temperatures range every day between minus 60°C and plus 60°C there is no way we could possibly cope with such a drastic increase.

Yes, and elephants can fly, the earth is flat and the Government knows best

GET A LIFE, ENJOY IT AND STOP PANICKING OVER NOTHING. DISOWN ENVIRONMENTALISTS.