Laherrère, ASPO France

Forecasting oil production needs to estimate the ultimate reserves.

Ultimate is estimated by extrapolating cumulative discoveries.

Remaining reserves at end year = cumulative discoveries minus cumulative production.

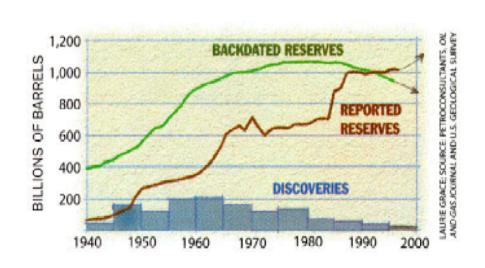
Backdating is reporting to day 2P field reserves estimate at discovery year.

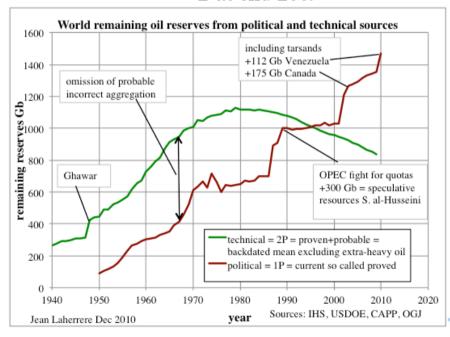
The discrepancy between backdated (green) and current (brown) reserves explains why economists do not believe in peak oil. Current reported reserves have been rising since 1950.

World Backdated and Current Reported Reserves

-1- Scientific American 1998

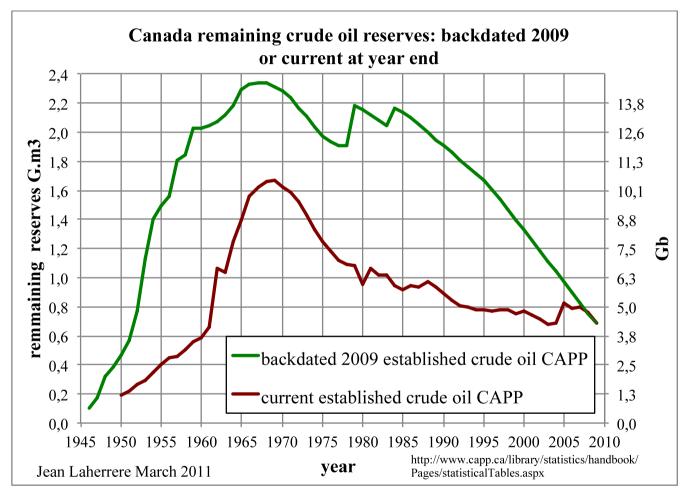
-2-at end 2009





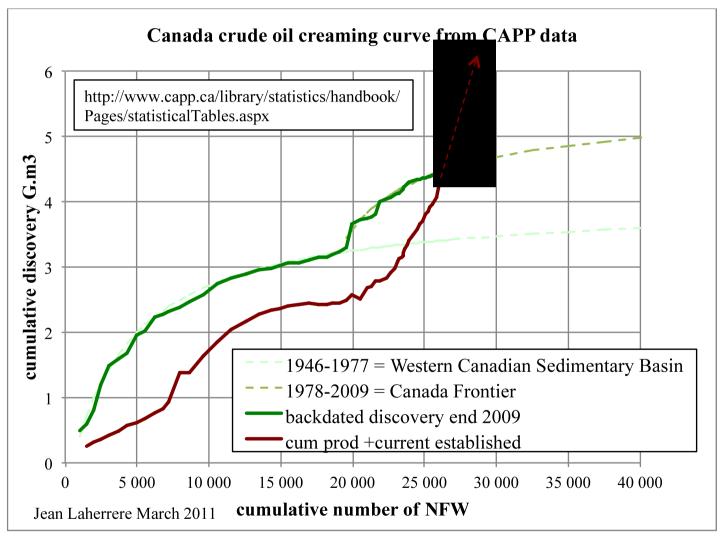
Fortunately the Canadian Association of Petroleum Producers (CAPP) does publish properly backdated information, as well as current established (proven and probable) reserves, every year in their Handbook.

-3-Canada Backdated & Current Established crude oil Reserves from CAPP



The cumulative production plus established reserves is plotted versus the cumulative number of New Field Wildcat (= creaming curve). It is easy to model the backdated plot with two cycles towards an ultimate of 32 Gb, when the current plot trends towards the sky!

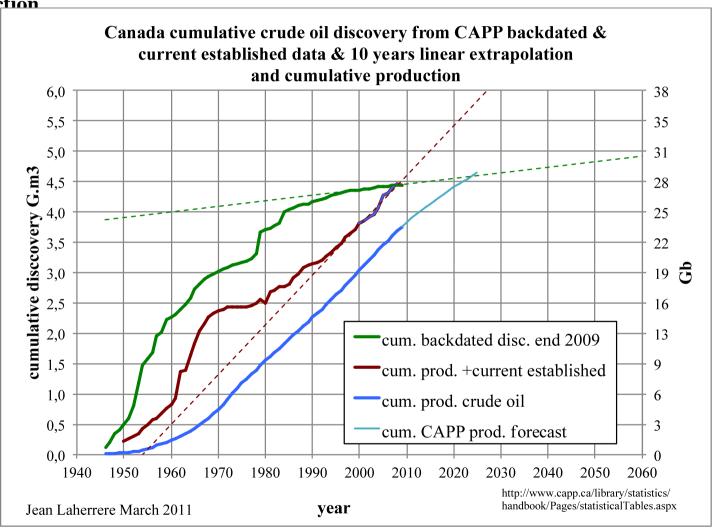
-4-Canada crude oil "Creaming Curve" from CAPP



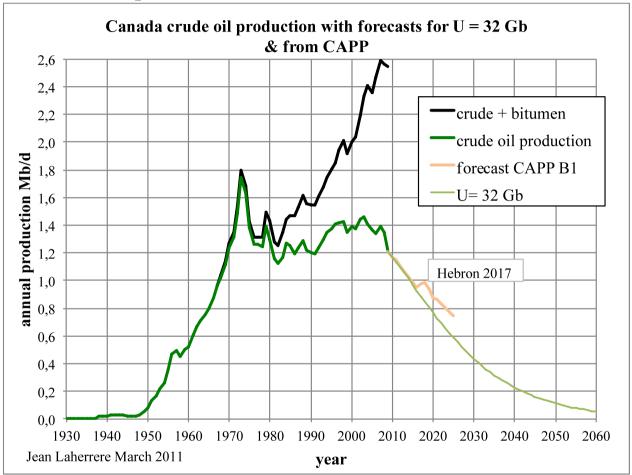
The cumulative discovery versus time can be extrapolated easily with backdated data towards 32 Gb, when current is again going to unrealistic ultimate. The cumulative production (blue) and CAPP forecast confirm the 32 Gb ultimate

-5-Canada's cumulative discovery with 10-year linear extrapolation and cumulative





Crude oil annual production is extrapolated with 32 Gb ultimate. Bitumen is also plotted -6-Canada crude oil annual production 1930-2060 & CAPP forecast 2005-2025



- Canada, thanks to the CAPP, provides the best example of continuous and homogeneous reserves data reporting, and shows, without any doubt, that using backdated reserves is the best approach for extrapolation to estimate the ultimate reserves.
- Let us try to convince other countries to follow the example of Canada.