

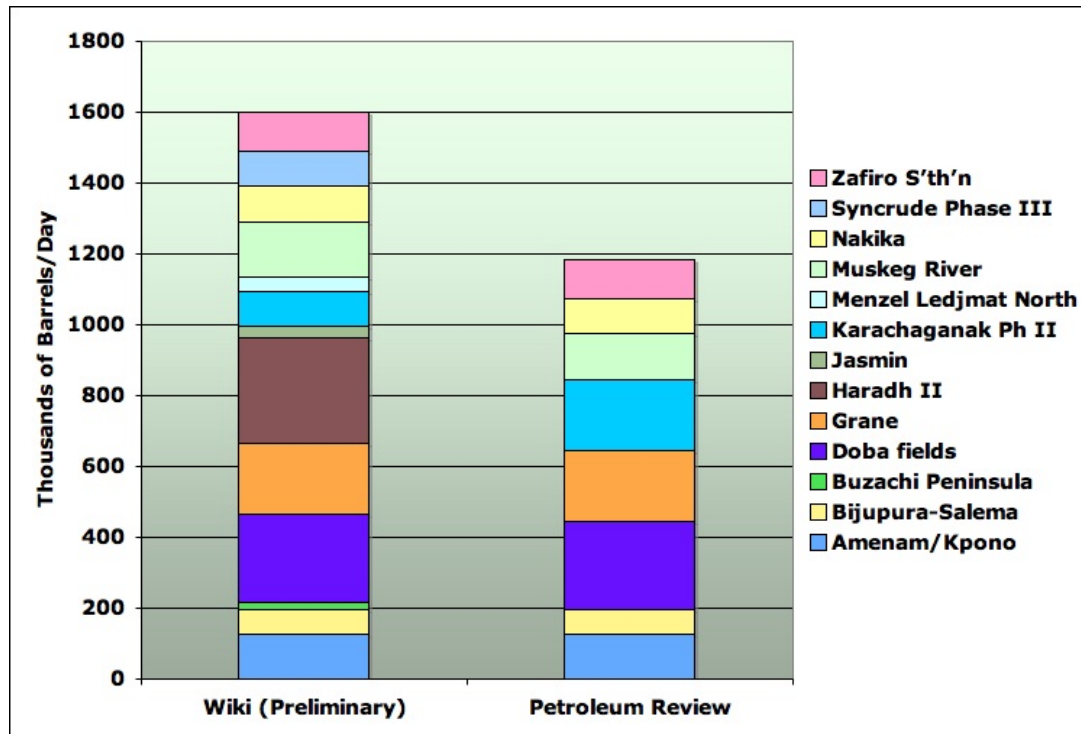


Help us List Megaprojects

Posted by [Stuart Staniford](#) on November 26, 2007 - 11:00am

Topic: [Supply/Production](#)

Tags: [decline rate](#), [megaprojects](#), [original](#), [peak oil](#), [wiki](#), [wikipedia](#) [[list all tags](#)]



New liquids capacity with first oil in 2003 as estimated from Petroleum Review MegaProject report in [Jan 2004](#), and estimate from Wikipedia table as of November 25th, 2007.

Last week, both [Khebab's piece](#) and [mine](#) looked at apparent acceleration in base production decline rates. This occurs when you combine the increasing new capacity totaled by Petroleum Review's megaproject reports against plateaued production. Although we began our analyses separately, we came to roughly the same conclusion.

However, what is **not** clear is what this means. In particular, it's not at all clear that we can make the leap from seeing base production declines accelerate to assuming that actual petrophysical declines are accelerating. There are a number of confounding factors that potentially complicate life - changes in the amount of spare capacity in the system, restoration of Soviet production capacity that had decayed, effects from the slow ramp-up of some new capacity projects, to mention just a few.

However, a number of people suggested to us in email that an additional confounding factor is that the megaproject lists we were relying on had enough issues that one should hesitate to draw conclusions from them. Although the jury is still out on this question, there does seem to be some

evidence for the idea. It would be understandable - maintaining a megaproject list is a mammoth task for any one person in their spare time.

As a result, Khebab and I decided last week to start an open megaprojects list. We're doing this in the form of a Wikipedia page, since

- The Wikipedia already has collaborative editing facilities, allowing anyone motivated to help fix and extend the list
- it makes the list broadly accessible, since it's of potentially general and lasting importance
- it helps us move in the direction of improving Wikipedia coverage of peak oil (by enlarging the corpus of TODers that know how to work on Wiki pages something Ransu [urged last week](#)).

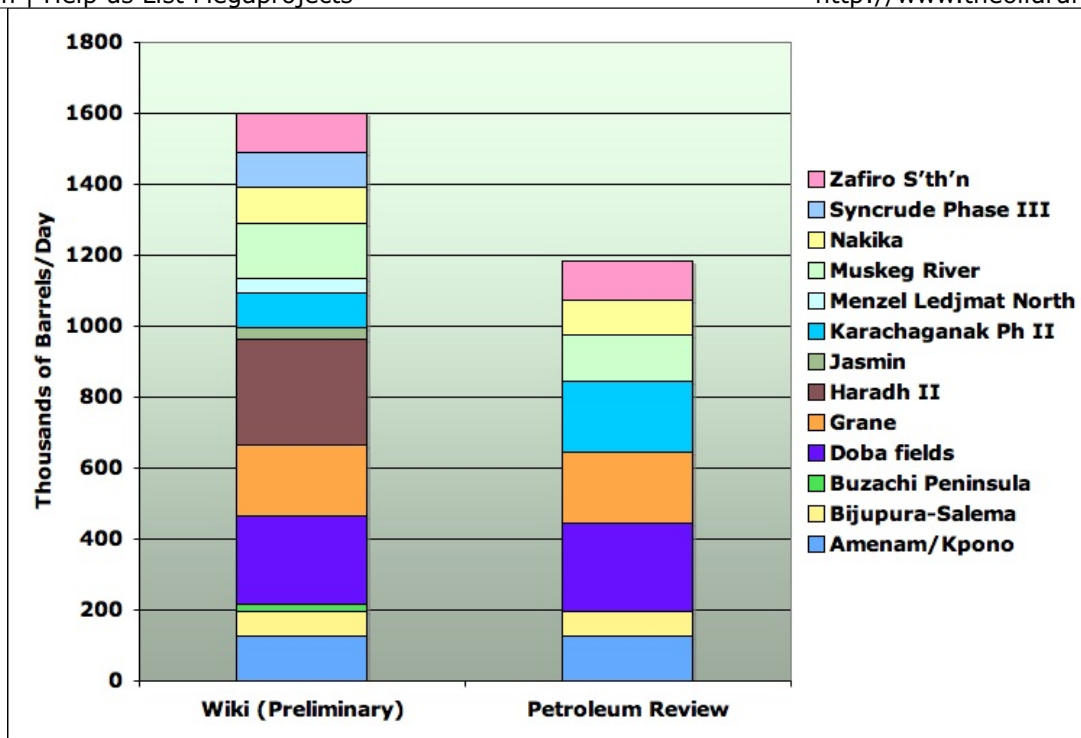
You can see our effort so far [over at the Wikipedia](#). Be warned that the page is presently in active construction; it's incomplete, inconsistent, and changing very frequently. In particular, at the time of writing, we are ranked #88 for most actively edited Wikipedia pages at [wikirage](#). We started from a combination of Rembrandt Koppelaar's list which he kindly shared, the Skrebowski lists in Petroleum Review, and a spreadsheet of projects I was working on in 2005. (Before I gave up on megaproject analysis in disgust at lack of a decent approach to decline rate modeling, I had trawled through a lot of oil company reports and press releases). We're also receiving sterling help from Ace, and a few other passers-by that happened to notice our efforts.

However, we could use some more help, and part of my hope in writing this post is to get some additional volunteers to get the work to go faster. If you are

- Familiar enough with oil industry terms to be able to read press releases and annual reports,
- Computer literate enough to figure out a simple markup language, and
- Have enough spare time to be hanging out at the Oil Drum all the time, and would like the Truth to be Known

then you are a particularly good candidate for volunteering to help the effort. I'm hoping that because of TOD's broad geographic reach, there are folks who are in touch with projects in particular regions, or in particular companies, and can share their knowledge with us in order to make a more perfect list.

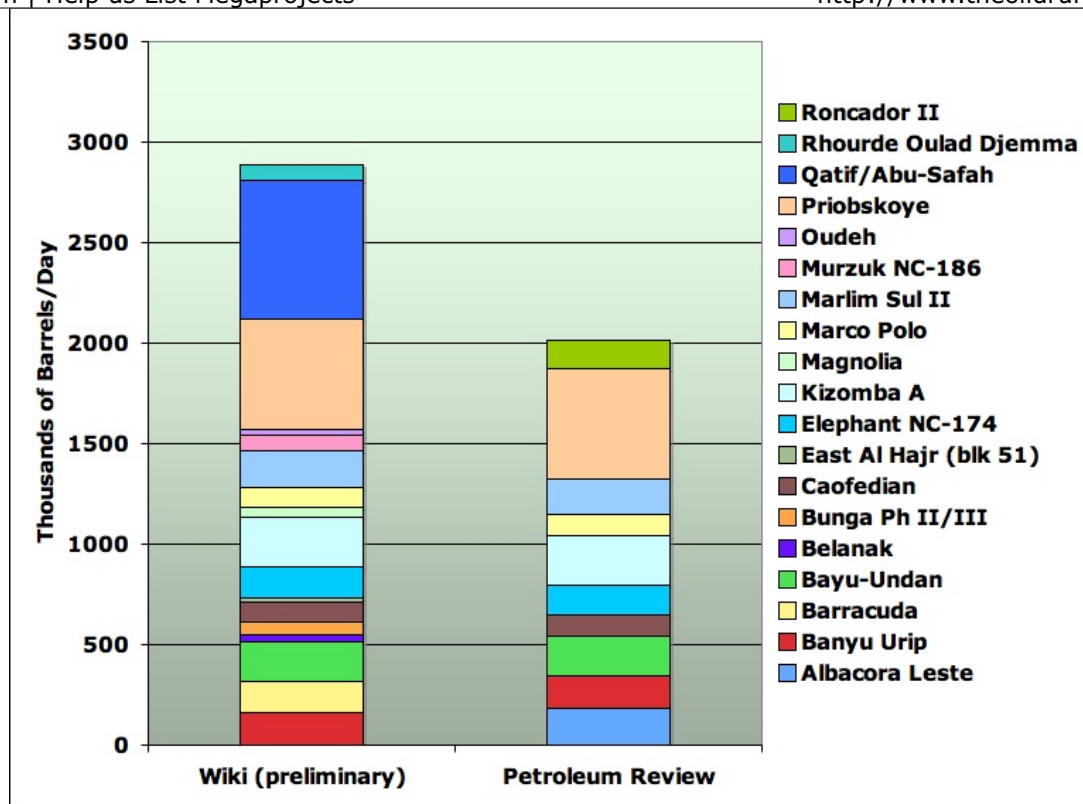
I'll give a tiny tutorial below, but first I want to post a couple of quick graphs, and some examples of issues I've found with the existing lists. So far, I've mainly been working on the years 2003 and 2004. I do not claim that these are perfect yet, but they are much better than they were. Here's a graph that compares the preliminary 2003 Wikipedia projects to the 2004 Petroleum Review Megaproject report.



New oil liquids capacity with first oil in 2003 as estimated from Petroleum Review MegaProject report in [Jan 2004](#), and estimate from Wikipedia table as of November 24th, 2007.

The biggest issue found so far is that the Haradh II project, which seems to be the largest project of the year, was not listed. This project was known about in the industry, and used western contractors extensively, with Snamprogetti as prime contractor on the GOSP (eg see [the EIA discussion here](#), this [doc](#), and the [Saudi Aramco Year in Review for 2003](#), which lists the GOSP as completed in July, with startup in September.)

Here's the (even more preliminary) situation in 2004:



New oil liquids capacity with first oil in 2004 as estimated from Petroleum Review MegaProject report in [Jan 2004](#), and estimate from Wikipedia table as of November 25th, 2007.

Again, the single largest issue was that the Qatif/Abu'Safah project in Saudi Arabia was not recorded for that year. Admittedly the facility was inaugurated on December 26th, 2004, so it only just sneaked under the wire into 2004, but Petroleum Review doesn't list it in 2005 either - it's a "prospective project" in the 2004 report, and then disappears.

Other issues are more understandable in a report from Jan 2004 - the Petrobras Albacora Leste and Roncador II projects turned out to be delayed out of 2004, but the Barracuda field came in ahead of schedule and managed first oil in 2004. Hindsight is 20-20.

Overall it appears that the Petroleum Review totals for these two years are probably understated by a significant margin. Thus, the absolute value of the base decline rate may have been higher than we thought. So far, the overall rising trend in capacity is intact, implying the accelerating trend in declines might be intact also. However, further work is required to confirm that reliably.

Which is where, hopefully, a few of you come in. If you see issues or errors in the graphs above, or the lists at the Wiki page, here's what you do. Above and to the right of each table in the page is a little [Edit] link:

[edit]

Country	Project Name	Year startup	Operator	Area	Type	Grade	2P resvs	GOR	Peak Year	Peak	Discovery	Capital Inv.	Notes
OPEC													
Algeria	Menzel Ledjmat North	2003								40			[4]
Nigeria	Amenam/Kpono	2003	Total							125			
Saudi Arabia	Haradh II	2003	Saudi Aramco							300			[5]
Non-OPEC													
Angola	Jasmin	2003	Total				0.170			30			
Brazil	Bijupura-Salema	2003	Shell				0.170			70			
Canada	Athabasca (Muskeg River)	2003	Shell	LAND	Synthetic crude		1.65		2004	155			[6][7][8]
Canada	Syncrude Phase III	2003	Syncrude	LAND	Synthetic crude				2006	100			[9] [10]
Chad	Doba fields	2003	ExxonMobil	LAND			1.0			250			
Eq. Guinea	Zafiro S'th'n	2003	ExxonMobil				0.150			110			
Kazakhstan	Buzachi Peninsula	2003	Nelson				0.168			20			
Kazakhstan	Karachaganak Ph II	2003	Eni/BG		Cond/Crude		8.4			100	1979	\$5.5b	[11][12] [13][14]
Norway	Grane	2003	ExxonMobil							200			
USA	Nakika	2003	Shell				0.300			100			

If you click on that you get an edit window into the table content. I've scrolled down to the section on Norway's Grane field, currently underresearched:

Editing Oil Megaprojects (section)

From Wikipedia, the free encyclopedia

```

}}</ref> <ref>{{cite news
|url= http://www.kpo.kz/
|title=Karachaganak Petroleum Operating Page, Accessed Nov 24th, 2007.
}}</ref> <ref>{{cite news
|url=http://www.kpo.kz/cgi-bin/index.cgi/13?d=51
|title=PRESIDENT OF KAZAKHSTAN STARTS FIRST OIL FOR EXPORT FROM NEW PRODUCTION FACILITIES IN KARACHAGANAK, KPO Press Release, 8/1/2003}}
</ref>
|-----
|[[Norway]]
|Grane
|2003
|[[ExxonMobil]]

|200

|-----
|[[USA]]
|Nabors

```

Content that violates any **copyright** will be deleted. Encyclopedic content must be **verifiable**. You agree to license your contributions under the **GFDL**.

Edit summary (Briefly describe the changes you have made).

☐ This is a minor edit ([what's this?](#)) ☒ Watch this page
 [Cancel](#) | [Editing help](#) (opens in new window)

A quick Google search finds [this article](#), which adds the information that the crude is heavy. So let's add the new content:

Editing Oil Megaprojects (section)

From Wikipedia, the free encyclopedia



```

<ref>{{cite news
|url=http://www.kpo.kz/cgi-bin/index.cgi/13?id=51
|title=PRESIDENT OF KAZAKHSTAN STARTS FIRST OIL FOR EXPORT FROM NEW PRODUCTION FACILITIES IN KARACHAGANAK, KPO Press Release, 8/1/2003}}
</ref>
-----
[[Norway]]
Grane
2003
[[ExxonMobil]]

[[Petroleum|Crude]]
Heavy (19 API)

200

<ref>{{cite
|url=http://www.heavyoilinfo.com/blog-posts/hart-e-p-article-on-norway-s-heavy-oil-grane-field
|title=Hart E&P article on Norway's heavy oil Grane Field, Accessed, 11/25/2007}}
</ref>
-----
[[USA]]

```

Content that violates any **copyright** will be deleted. Encyclopedic content must be **verifiable**. You agree to license your contributions under the **GFDL**.

Edit summary (Briefly describe the changes you have made):

/* 2003 */

☐ This is a minor edit ([what's this?](#)) ☒ Watch this page [Editing help](#) (opens in new window)

Now save the page, and the new content shows up:

2003

[\[edit\]](#)

Country	Project Name	Year startup	Operator	Area	Type	Grade	2P resvs	GOR	Peak Year	Peak	Discovery	Capital Inv.	Notes
OPEC													
Algeria	Menzel Ledjmat North	2003								40			[4]
Nigeria	Amenam/Kpono	2003	Total							125			
Saudi Arabia	Haradh II	2003	Saudi Aramco							300			[5]
Non-OPEC													
Angola	Jasmin	2003	Total				0.170			30			
Brazil	Bijupura-Salema	2003	Shell				0.170			70			
Canada	Athabasca (Muskeg River)	2003	Shell	LAND	Synthetic crude		1.65		2004	155			[6][7][8]
Canada	Syncrude Phase III	2003	Syncrude	LAND	Synthetic crude				2006	100			[9][10]
Chad	Doba fields	2003	ExxonMobil	LAND			1.0			250			
Eq. Guinea	Zafiro S'th'n	2003	ExxonMobil				0.150			110			
Kazakhstan	Buzachi Peninsula	2003	Nelson				0.168			20			
Kazakhstan	Karachaganak Ph II	2003	Eni/BG		Cond/Crude		8.4			100	1979	\$5.5b	[11][12][13][14]
Norway	Grane	2003	ExxonMobil		Crude	Heavy (19 API)				200			[15]
USA	Nakika	2003	Shell				0.300			100			

Hopefully, that gives you a little flavor. For more information on editing the Wikipedia's markup, see the [Wikipedia Cheatsheet](#), and the [Tutorial](#). I am a total beginner myself, but figured out enough to be somewhat productive in about 15 minutes, and keep learning more.



This work is licensed under a [Creative Commons Attribution-Share Alike 3.0 United States License](#).