



The Book

Posted by [Heading Out](#) on January 15, 2007 - 1:31am

Topic: [Supply/Production](#)

Well, for those of you who visit, this particular post is an occasionally updated catalog of some significant posts from the archives of The Oil Drum. To make it easier to move around I am putting it together in the same way as a book, in other words, with Chapters and Sub-Chapters. I suspect that, after a while, some of the Chapters will become large enough to be placed in separate posts of their own – but we are going to have to see how that goes.

For now I will be deleting, at intervals, comments that don't relate to the general intent of the site from this particular post. But if you have suggestions or comments on how it is going please post them. Obviously I will be visiting here a fair bit. That includes the organization, and how we are doing it.

I will be leaving most of the comments under the posts, since that is one of the benefits of the archive, though I will exercise the right to delete those that are a bit off topic.

This is not meant to be a wiki, or anything of that nature. But we have posts that are, in themselves of value, and by putting them together in a way that perhaps shows the inter-relation, and capturing input from some who, though wise in what we write about, don't post very often, hopefully this will be of value also.

The site will also change as I realize (or get told) what is not working, or how better to put it together, or as I realize where all the posts have been. For now, please excuse the mess. (After a little bit the URL's will disappear, but for now it helps me keep track – by the way – would leaving the dates on the posts help? – see 2.2.1) And if you wonder, I am starting with the first six months of our posts, from way back when)

Chapter 1. An Introduction (to be written later)

Chapter 2. Oil, and General Comments on Energy

2.1 The Units of Energy

2.1.1 Sources of energy by type

<http://www.theoil drum.com/classic/2005/08/where-our-energy-comes-from.html>

2.1.2 Annual data

<http://www.theoil drum.com/classic/2005/05/where-do-we-actually-get-our-o...>

2.2 Demand and its Destruction

2.2.1 Oil price riots in Bolivia (7/27/2005)

<http://www.theoil drum.com/classic/2005/07/does-china-read-econbrowser.html>

2.2.2 Energy problems in Nicaragua

<http://www.theoil Drum.com/classic/2005/08/times-change-will-attitudes.html>

2.2.3 Energy supply problems in Thailand

<http://www.theoil Drum.com/classic/2005/08/times-change-will-attitudes.html>

2.2.4 What is Jevons Paradox?

<http://www.theoil Drum.com/classic/2005/04/some-of-many-social-theories-g...>

2.2.5 Peak Oil Popularity

<http://www.theoil Drum.com/classic/2005/04/maybe-peak-oil-really-is-start...>

2.2.6 Per capita energy vs GDP

<http://www.theoil Drum.com/classic/2005/07/relationship-between-countrys-...>

2.2.7 Seasonal demands

<http://www.theoil Drum.com/classic/2005/08/comments-on-eia-supply-demand-...>

2.2.8 The crisis back in 1977

<http://www.theoil Drum.com/classic/2005/07/listening-to-experts.html>

2.2.9 Depletion heads to 8%

<http://www.theoil Drum.com/classic/2005/06/holy-crap8.html>

2.2.10 A little production history

<http://www.theoil Drum.com/classic/2005/07/more-thought-on-oil-economics...>

Chapter 3. Where Oil comes from, where we find it how we get it out and other technology issues

3.1 How oil gets there

3.2 Getting the oil out

3.2.1 Oil and water pressure

<http://www.theoil Drum.com/classic/2005/04/oil-and-water-pressure-problem...>

3.2.2 Tech talk – the drill

<http://www.theoil Drum.com/classic/2005/07/something-new-something-old.html>

3.2.3 Tech talk – drilling mud

<http://www.theoil Drum.com/classic/2005/07/heres-mud-in-your-eye.html>

3.2.4 Tech talk – the drilling rig

<http://www.theoil Drum.com/classic/2005/07/kelly-isnt-always-irishman.html>

3.2.5 Tech talk – casing the well

<http://www.theoil Drum.com/classic/2005/08/running-casing-is-not-race.html>

3.2.6 Horizontal wells, longest well drill time and CO2 sequestration

<http://www.theoil Drum.com/classic/2005/07/some-technical-information-sli...>

3.2.7 horizontal well production

<http://www.theoil Drum.com/classic/2005/05/other-side-of-peak-oil-depleti...>

3.2.8 Maximum reservoir contact wells

<http://www.theoil Drum.com/classic/2005/06/dark-and-stormy-friday-night-e...>

3.2.9 Hydrofracing rock initial

<http://www.theoil Drum.com/classic/2005/07/blowing-winds-and-cracking-roc...>

3.2.10 Tech talk – reservoir pressures

<http://www.theoil Drum.com/classic/2005/08/pressure-surely-not-in-oil-bus...>

3.2.11 More thoughts on technology by J

<http://www.theoil Drum.com/classic/2005/08/oil-prices-also-affect-oil-cos...>

3.2.12 Stripper wells

<http://www.theoil Drum.com/classic/2005/07/fast-solar-cars-and-slow-oil.html>

3.2.13 Rigs and production per well

<http://www.theoil Drum.com/classic/2005/05/just-facts-maam-or-checking-oi...>

3.2.14 Well completions, porosity acidizing and perforating (08/20.2005)

<http://www.theoil Drum.com/story/2005/8/20/215843/764>

3.2.15 Permeability and flow to a well - sandstone (08/27/05)

<http://www.theoil drum.com/story/2005/8/27/221058/500>

3.2.16 Flow from carbonate rocks (09/03/2005)

<http://www.theoil drum.com/story/2005/9/3/15036/59751>

3.2.17 Spacing between wells (09/10/2005)

(I have currently been locked out of access to this story - which I wrote)

3.2.18 Directional drilling - Part 1 (09/17/2005)

<http://www.theoil drum.com/story/2005/9/18/05118/0497>

3.2.19 Directional drilling - Part 2 (09/25/2005)

<http://www.theoil drum.com/story/2005/9/25/18419/9524>

3.2.20 Types of offshore rigs (10/02/2005)

<http://www.theoil drum.com/story/2005/10/2/152310/160#more>

3.2.21 Coalbed methane (10/15/2005)

<http://www.theoil drum.com/story/2005/10/15/233731/96>

3.2.22 Workover rigs (10/22/2005)

<http://www.theoil drum.com/story/2005/10/23/0258/2560>

3.2.23 Hydrofracing a well (11/05/2005)

<http://www.theoil drum.com/story/2005/11/5/15543/1122>

3.2.24 Well logging or tracking the geology over a reservoir (11/20/2005)

<http://www.theoil drum.com/story/2005/11/20/19209/485>

3.2.25 Finding the field - seismic surveying (12/03/2005)

<http://www.theoil drum.com/story/2005/12/3/175150/201>

3.2.26 Finding the field - gravimetric surveys (12/10/2005)

<http://www.theoil drum.com/story/2005/12/10/23397/605>

3.3 Oilfield Depletion and production issues

3.3.1 The story of Yibal

<http://www.theoil drum.com/classic/2005/04/example-to-explain-worry.html>

3.3.2 Flow restrictions on well production

<http://www.theoil drum.com/classic/2005/04/why-oil-pumps-cant-pump-harder...>

3.3.3 Math on production increases

<http://www.theoil drum.com/classic/2005/04/some-easy-math-on-oil-producti...>

3.4 Other Technology issues

3.4.1 Background

<http://www.theoil drum.com/classic/2005/05/technology-will-solve-problem-...>

3.4.2 The beer and sponge analogy

<http://www.theoil drum.com/classic/2005/06/its-reader-participation-day-h...>

3.4.3 Time needed for innovation

<http://www.theoil drum.com/classic/2005/04/one-month-pregnancy.html>

Chapter 4 Who has the Oil and who wants it

4.0 Introduction

4.0.1. Top oil producers in the world

<http://www.theoil drum.com/classic/2005/07/it-could-be-close-run-year-for...>

4.1 Saudi Arabia

4.1.1 Types of crude

<http://www.theoil drum.com/classic/2005/04/hysteria-doesnt-help.html>

4.1.2 Counting Manifa and its problems

<http://www.theoil drum.com/classic/2005/04/oil-question-for-saudi-arabia....>

4.1.3 Current Saudi production

<http://www.theoil drum.com/classic/2005/04/more-background-current-saudi...>

4.1.4 Initial Saudi plans for expansion

<http://www.theoil drum.com/classic/2005/04/saudi-aramco-expansion-plans.html>

4.1.5 Math on production increases

<http://www.theoil drum.com/classic/2005/04/some-easy-math-on-oil-producti...>

4.1.6 Harradh smart well

<http://www.theoil drum.com/classic/2005/04/this-is-picture-from-matt-simm...>

4.1.7 Questions on Saudi production rates

<http://www.theoil drum.com/classic/2005/04/more-questions-than-answers.html>

4.1.8 New well discovery

<http://www.theoil drum.com/classic/2005/05/how-much-did-you-drive-your-fi...>

4.1.9 early projections on increase

<http://www.theoil drum.com/classic/2005/05/some-concerns-on-saudi-product...>

4.1.10 Abqaiq a picture of depletion

<http://www.theoil drum.com/classic/2005/06/picture-of-depletion.html>

4.1.11 Saudi Fields and production plans

http://www.theoil drum.com/classic/2005_06_01_theoil drum_archive.html

4.1.12 Finding two new fields yet concern

<http://www.theoil drum.com/classic/2005/06/some-evidence-for-concern.html>

4.1.13 The Saudi Empty Quarter

<http://www.theoil drum.com/classic/2005/06/why-is-it-called-empty-quarter...>

4.1.14 Colombian production and Saudi investment

<http://www.theoil drum.com/classic/2005/06/keeping-home-fires-burning.html>

4.1.15 Developments take time and refineries

<http://www.theoil drum.com/classic/2005/06/not-having-worlds-enough-and-t...>

4.1.16 Updated Saudi production plans

<http://www.theoil drum.com/classic/2005/08/updating-saudi-oil-production-...>

4.1.17 Updated Saudi plans part 2

<http://www.theoil drum.com/classic/2005/08/more-on-saudi-fields-and-rigs....>

4.1.18 new OPEC R&D Center

<http://www.theoil drum.com/classic/2005/08/rd-at-opec.html>

4.1.19 Twilight in the Desert review

<http://www.theoil drum.com/classic/2005/06/twilight-in-desert.html>

4.2 Russia

4.2.1 Moscow blackout

<http://www.theoil drum.com/classic/2005/05/some-concerns-on-saudi-product...>

4.2.2 first look at Russian production

<http://www.theoil drum.com/classic/2005/06/russian-production-is-worth-cl...>

4.2.3 Sakhalin Island delayed

<http://www.theoil drum.com/classic/2005/07/crystal-ball-is-murky-today.html>

4.2.4 Russian production is seasonal

<http://www.theoil drum.com/classic/2005/07/but-russias-is-even-colder.html>

4.3 United States

4.3.1 More info on US supplies

<http://www.theoil drum.com/classic/2005/06/where-us-crude-oil-imports-hav...>

4.3.2 Pre-katrina numbers

<http://www.theoil drum.com/classic/2005/08/non-opec-falling-short-of-numb...>

4.3.3 First worries

<http://www.theoil drum.com/classic/2005/05/if-all-goes-well-or-is-it-thar-...>

4.3.4 Pre-Katrina Hurricane damage 2004

<http://www.theoil drum.com/classic/2005/06/hurricane-damage-revisited.html>

4.3.5 A pre-season estimate of hurricane damage

<http://www.theoil drum.com/classic/2005/06/in-support-of-alaskan-tourism...>

4.3.6 The first storm arrives

<http://www.theoil drum.com/classic/2005/07/not-if-but-when-on-80-oil.html>

4.3.7 Thoughts pre-Dennis arrival

<http://www.theoil drum.com/classic/2005/07/random-commentary-on-storms-an...>

4.3.8 The threat of Dennis

<http://www.theoil drum.com/classic/2005/07/threat-from-hurricanes.html>

4.3.9 Oil demand pre-Dennis

<http://www.theoil drum.com/classic/2005/07/no-drop-in-oil-demand-yet.html>

4.3.10 Thunder Horse damaged by Dennis

<http://www.theoil drum.com/classic/2005/07/blowing-winds-and-cracking-roc...>

4.3.11 Katrina damage

<http://www.theoil drum.com/classic/2005/08/refinery-pipeline-and-rig-dama...>

4.3.12 Katrina market impact

<http://www.theoil drum.com/classic/2005/08/market-assessments.html>

4.3.13 Monday Katrina assessments

<http://www.theoil drum.com/classic/2005/08/some-preliminary-assessments.html>

4.4 China

4.4.1 Buying into Canada

<http://www.theoil drum.com/classic/2005/04/chinese-success-in-canada.html>

4.4.2 Iraq, China and investment in Canada

<http://www.theoil drum.com/classic/2005/06/balance-scale-is-swinging-nega...>

4.4.3 The Cnooc/Unocal debate

<http://www.theoil drum.com/classic/2005/06/free-markets-v-national-securi...>

4.4.4 The CNOOC vote

<http://www.theoil drum.com/classic/2005/07/us-congress-opposes-chinese-bi...>

4.4.5 Chinese drillers in Colorado

<http://www.theoil drum.com/classic/2005/07/another-shot-across-bowencana-...>

4.4.6 Chinese SPR delayed

<http://www.theoil drum.com/classic/2005/07/slightly-different-view-of-chi...>

4.4.7 Chinese demand and concerns

<http://www.theoil drum.com/classic/2005/07/picking-up-on-chinese-approach...>

4.4.8 Chinese demand update

<http://www.theoil drum.com/classic/2005/07/does-china-read-econbrowser.html>

4.4.9 China's new refineries

<http://www.theoil drum.com/classic/2005/07/simple-but-discouraging-arithm...>

4.4.10 Chinese drilling performance

<http://www.theoil drum.com/classic/2005/07/hirsch-report-and-some-drillin...>

4.4.11 Chinese weather problems

<http://www.theoil drum.com/classic/2005/08/chinese-puzzle.html>

4.4.12 Weather problems alleviate

<http://www.theoil drum.com/classic/2005/08/paying-for-gas.html>

4.5 Iran

4.5.1 Depletion rates

<http://www.theoil drum.com/classic/2005/05/seriously-maybe-they-do-need-e...>

4.5.2 Iranian field production data

<http://www.theoil drum.com/classic/2005/07/sand-castles-by-sea.html>

4.6 Mexico

4.7 Japan

4.8 Colombia

4.8.1 Colombian production and Saudi investment

<http://www.theoil drum.com/classic/2005/06/keeping-home-fires-burning.html>

4.8 India

4.8.1 Indian consumption levels

<http://www.theoil drum.com/classic/2005/07/does-china-read-econbrowser.html>

4.8.2 Indian oil price subsidies

<http://www.theoil drum.com/classic/2005/07/it-could-be-close-run-year-for...>

4.9 Iraq

4.9.1 Iraq, China and investment in Canada

<http://www.theoil drum.com/classic/2005/06/balance-scale-is-swinging-nega...>

4.9.2 Production and pipelines – 1

<http://www.theoil drum.com/classic/2005/08/dateline-iraq-part-1-oil-produ...>

4.10 Libya

4.10.1 The hope or the hype?

<http://www.theoil drum.com/classic/2005/06/libya-new-great-hope-hah.html>

4.11 The North Sea, Norway and the United Kingdom

4.11.1 Gas prices

<http://www.theoil drum.com/classic/2005/04/critical-price-of-oil.html>

4.11.2 Intimations of a problem

<http://www.theoil drum.com/classic/2005/05/i-wish-we-could-be-this-optimi...>

4.11.3 The DTI report and some concerns

<http://www.theoil drum.com/classic/2005/06/back-to-drawing-board-in-uk.html>

4.11.4 The British carbon bank concept

<http://www.theoil drum.com/classic/2005/07/discussion-of-idea-of-carbon-t...>

4.11.5 North Sea Depletion numbers

<http://www.theoil drum.com/classic/2005/07/british-oil-production-falls-1...>

4.11.6 First concerns for winter gas supply

<http://www.theoil drum.com/classic/2005/07/englands-weather-is-not-as-war...>

4.11.7 Problems with the earlier energy crisis

<http://www.theoil drum.com/classic/2005/08/times-change-will-attitudes.html>

4.12 Venezuela

4.12.1 Production data

<http://www.theoil drum.com/classic/2005/05/historic-oil-production-from-v...>

Chapter 5. Moving the Oil

5.1 Pipelines

5.2 Tankers

5.2.1 Tanker rates and the Chinese SPR

<http://www.theoil drum.com/classic/2005/06/tankers-carry-oil-and-story.html>

Chapter 6. Enhanced Oil Recovery and Unconventional Oil

6.1 Water flooding

6.2 Natural Gas and Nitrogen Injection

6.3 Carbon Dioxide injection (including sequestration)

6.3.1 Carbon Dioxide EOR 1

<http://www.theoil drum.com/classic/2005/05/there-is-some-good-news.html>

6.3.2 Carbon Dioxide EOR 2

<http://www.theoil drum.com/classic/2005/05/cleaning-up-after-elephants-or...>

6.3.3 Depletion and EOR by J

<http://www.theoil drum.com/classic/2005/08/depletion-and-advanced-extract...>

6.4 Microbial EOR

6.4.1 Microbial enhanced oil recovery

<http://www.theoil drum.com/classic/2005/07/microbial-enhanced-oil-recover...>

6.5 Tar and Heavy Oil Sands

6.5.1 Increase in oil sand production

<http://www.theoil drum.com/classic/2005/07/not-as-good-as-it-sounds.html>

6.5.2 Oil sand costs

<http://www.theoil drum.com/classic/2005/08/still-think-oil-sands-are-answ...>

6.6 Oil Shale

Chapter 7 Alternate and Renewable Liquid Fuels

7.1 Ethanol

7.2 Alternate biofuels

7.2.1 Using palm oil

<http://www.theoil drum.com/classic/2005/07/does-china-read-econbrowser.html>

7.2.2 Optimism from Brazil

<http://www.theoil drum.com/classic/2005/05/some-good-news-from-brazil.html>

7.3 Hydrogen

7.3.1 Icelandic plan

<http://www.theoil drum.com/classic/2005/05/timetable-for-hydrogen.html>

Chapter 8. Natural Gas – who has it, how much, and how to distribute it

8.1 United States

8.2 Russia

8.3 Qatar

8.4 Iran

8.5 Turkmenistan

8.6 Kazakhstan

8.7 Pipelines

Chapter 9. Natural Gas – alternate sources, NGL and LNG

9.1.1 Coalbed methane (10/15/2005)

<http://www.theoil drum.com/story/2005/10/15/233731/96>

Chapter 10. Coal

10.1.1 Death of the British Coal Industry

<http://www.theoil drum.com/classic/2005/04/lesson-for-texas.html>

10.1.2 Room and Pillar mining(Jan 15,2006)

<http://www.theoil drum.com/story/2006/1/15/05035/7522>

10.1.3 Longwall Mining of coal (01/22/2006)

<http://www.theoil drum.com/story/2006/1/22/23527/4087>

10.1.4 Surface Mining of coal (01/29/2006)

<http://www.theoil drum.com/story/2006/1/29/15118/5245>

10.1.5 Cleaning coal (02/27/2005)

<http://www.theoil drum.com/story/2006/2/26/23365/4439>

Chapter 11 Nuclear Energy

Chapter 12 Solar Power

Chapter 13 Wind, Hydro and Geothermal

13.1.1 Wind and the Environment

<http://www.theoil drum.com/classic/2005/04/wind-and-great-great-great-gre...>

13.1.2 Wind over Washington

<http://www.theoil drum.com/classic/2005/04/wind-above-washington.html>

13.1.3 Opposing wind energy

<http://www.theoil drum.com/classic/2005/08/guess-who-opposes-cape-wind.html>

Chapter 14 Other Alternative Energy

14.1.1 Vertical farming

<http://www.theoil drum.com/classic/2005/06/vertical-farming.html>

14.1.2 National Geographic on Alternate Energy

<http://www.theoil drum.com/classic/2005/07/national-geographic-on-alterna...>

Chapter 15. What You can do to help yourself/the Nation to save energy

15.1.1 Yankee first post

<http://www.theoil drum.com/classic/2005/06/making-community-better-a-guest...>

15.1.2 Oil and the Food Chain

<http://www.theoil drum.com/classic/2005/06/our-oil-laden-food-chain.html>

15.1.3 Balogh's light bulb and other ideas

<http://www.theoil drum.com/classic/2005/06/solving-peak-oil-is-about-over...>

15.1.4 A helpful list

<http://www.theoil drum.com/classic/2005/06/make-your-list-and-check-it-tw...>

15.1.5 How Cuba coped

http://www.theoil drum.com/classic/2005/06/sustainability-of-cuba_29.html

15.1.6 Using paper or plastic bags

<http://www.theoil drum.com/classic/2005/07/paper-or-plastic.html>

Appendix 1. Projections on production

Appendix 2. Government and Other Reports . Movies, Speeches and Books

A.2.1 The Hirsch Report

A.2.1.1 Hirsch Report 1

<http://www.theoil drum.com/classic/2005/05/leadership-can-help.html>

A.2.1.2 Hirsch report 2 (also Demand Destruction)

<http://www.theoil drum.com/classic/2005/05/peak-oil-lexicon.html>

A.2.1.3 Hirsch Report 3

<http://www.theoil drum.com/classic/2005/05/we-go-into-crisis-with-car-fle...>

A.2.1.4 The Hirsch report revisited

<http://www.theoil drum.com/classic/2005/08/discussing-prices-and-demand.html>

A.2.2 CERA etc

A.2.2.1 CERA and condensate

<http://www.theoil drum.com/classic/2005/07/did-anything-change.html>

A.2.2.2 The CERA Report

<http://www.theoil drum.com/classic/2005/08/more-thoughts-on-cera-report.html>

A.2.2.3 Dr Yergin's predictions then and now

<http://www.theoil drum.com/classic/2005/08/are-pipes-calling.html>

A.2.2.4 CERA vs ODAC

<http://www.theoil drum.com/classic/2005/08/major-oil-projects-revisited-o...>

A.2.3 Others

A.2.3.1 Ford Foundation Report (old)

http://www.theoil drum.com/classic/2005/04/looking-backward-and-forward_2...

A.2.3.2 Presidential Energy Address

<http://www.theoil drum.com/classic/2005/04/us-petroleum-consumption.html>

A.2.3.3 Energy and the Presidential Press Conference

<http://www.theoil drum.com/classic/2005/04/alternate-approach-to-gas-prob...>

A.2.3.4 The Oil Storm (Fox)

<http://www.theoil drum.com/classic/2005/06/oil-storm-good-and-bad-news.html>

A.2.3.5 Twilight in the Desert review

<http://www.theoil drum.com/classic/2005/06/twilight-in-desert.html>

A.2.3.6 The Deal review

<http://www.theoil drum.com/classic/2005/06/impressions-of-deal.html>

A.2.3.7 The Energy Bill

<http://www.theoil drum.com/classic/2005/06/highlights-of-energy-billor-so...>

A.2.12 Oil Jihad and Destiny – a review

<http://www.theoil drum.com/classic/2005/08/oil-jihad-destiny-some-comment...>

The CNN production supply pictures

<http://www.theoil drum.com/classic/2005/08/pictures-are-sometimes-worth-m...>

Appendix 3. Manpower and Supply Issues

A.3.1 Manpower issues

A. 3.1.1 Petroleum engineering shortage

<http://www.theoil drum.com/classic/2005/04/supply-needs-more-than-just-oi...>

A.3.1.2 Future predictions on government response

<http://www.theoil drum.com/classic/2005/04/future-challenges.html>

A.3.1.3 A diminishing resource

<http://www.theoil drum.com/classic/2005/05/another-diminishing-resource.html>

A.3.1.4 Some student salaries

<http://www.theoil drum.com/classic/2005/05/as-resources-fail.html>

A.3.1.5 Department closure in Australia

<http://www.theoil drum.com/classic/2005/06/as-technology-itself-gets-more...>

A.3.1.6 Technical departments in colleges

<http://www.theildrum.com/classic/2005/08/discussing-prices-and-demand.html>

Appendix 4. Global Warming Issues

A.4.1 Gulf Stream

A.4.1.1 First notice

<http://www.theildrum.com/classic/2005/05/living-in-interesting-times.html>



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